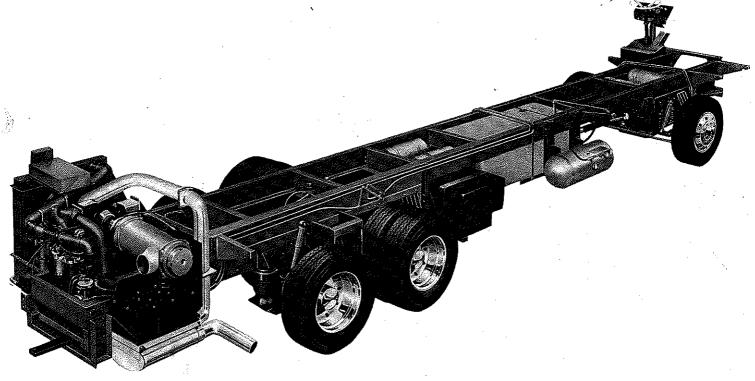
# 1987 Wanderlodge Pusher Chassis Parts Catalog

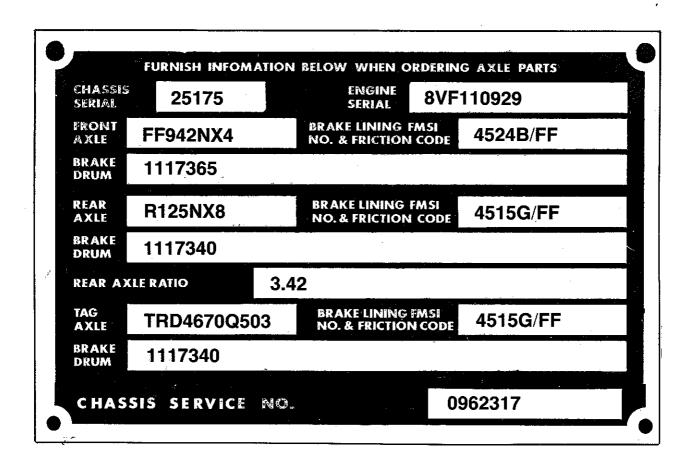




Fort Valley, Georgia
Brantford, Ontario Buena Vista, Virginia
Mt. Pleasant, Iowa

Chassis No. \_\_\_\_\_ Body No. \_\_\_\_







 $\sigma_{\rm max}$ 

## Introduction

Thank you for the confidence you have shown in our company by purchasing a Blue Bird Wanderlodge. This catalog is designed to assist you in ordering service replacement parts for your Blue Bird. It contains illustrations with parts information for most parts and accessories.

If at any time you should need assistance. Please don't hesitate to contact your Blue Bird Distributor or the Service Parts Department in Fort Valley, Georgia, U.S.A.

#### **Ordering Parts**

You can order your service parts from your Blue Bird Distributor or directly from Blue Bird Body Company, Fort Valley, Georgia. When placing an order give the quantity, Blue Bird part number and a brief description. If for some reason you have been unable to find the part number, advise the quantity and a complete parts description, along with the body number for which the parts are required. The body number of your Blue Bird may be found on the Data Plate which is inside the engine compartment. A picture of the Data Plate appears on the inside front cover of this catalog.

When ordering parts for a major wreck, it is a good idea to include photographs with your order. This will help to fill your order correctly.

#### **Receiving Parts from Carrier**

Certain steps should be taken when receiving an order to insure it's completeness and to evaluate the condition of the parts received.

- 1. Check the number of pieces actually received against the number of pieces shown on the bill of lading.
- 2. Visually check the external condition of the boxes, crates, etc. Any discrepancies should be noted on the bill of lading. Have the driver initial each notation on your copy and his copy of the bill of lading.
- 3. Any concealed damage not discovered until after the carrier has left should be reported immediately to the carrier.
- Claims for shortages or damages should be filed with the carrier immediately.
- 5. If incorrect parts are received, notify the Service Parts Department from whom you purchased the parts. They will advise disposition of the parts. Do not return parts without prior authorization.

## **Shipment of Material**

All parts will be shipped the most economical way, unless otherwise specified.

#### **Company Policy**

Although it is impractical to include all parts in this catalog for all options offered, we believe those included will meet the great majority of your needs. It is our earnest desire at Blue Bird to give you the fastest and most accurate service possible. Please help us by studying this catalog and ordering by the correct part number.

#### A Word of Caution

Blue Bird uses new parts and components in the manufacture of its' coaches. We strongly recommend that you use only new parts and components for replacement purposes. Blue Bird or its' vendor can not be responsible for failures due to the use of used or rebuilt parts.

#### **Payment**

All parts orders are shipped on a C.O.D. basis unless other arrangements have been made with your Blue Bird Distributor or Blue Bird Body Company. This is customary in the automotive field.

#### **Important**

The illustrations and drawings used in this parts catalog are to be used for parts identification purposes only, not as a guide for assembly, disassembly, maintenance or service.

#### **Chassis Service Number**

A chassis service number (CSN) is assigned to the **chassis** of each Blue Bird Wanderlodge. This number is used to identify the sequence in which a chassis is set up in production.

Example: CSN 0958560 is set up immediately before CSN 0958561.

This will assist you in identifying the first unit (beginning CSN) or last unit (ending CSN) on which a part was installed.

The CSN can be found attached to the axle record plate which is inside the engine compartment. A picture of the axle record plate appears on the inside front cover of this catalog.

## TABLE OF CONTENTS

DESCRIPTION	PAGE
FRONT AXLE	6
REAR BRAKES, DRIVE AXLE	
FRONTREAR.	
BRAKE TREADLE VALVE	
DUAL AIR BRAKE SYSTEM MODEL 3502 (36') (ENDING W/CSN 0962627)	22
MODEL 3502 (36') (BEGINNING W/CSN 0962628)	
0962627)	
MODEL 3706 (38') & MODEL 3903 (40') BEGINNING W/CSN 0962628)	34
COOLING SYSTEM, ENGINE AND TRANSMISSION	
6V92TA8V92TA	
DRIVELINE	
ENGINE TRIM	46
6V92TA	48
8V92TA	
EXHAUST SYSTEM	50
MODEL 3502, 3706, 3903	52
OPT. 6007, 6008-01	
FUEL LINES	
BATTERIES AND BATTERY CABLES	
ELECTRICAL COMMON PARTS	
BUMPERS	
INSTRUMENTS	61
LEFT HAND, OVERHEAD	
PANEL ASSY., DASH, LOWER.	
PANEL ASSY., DASH, UPPER	
PANEL, DASH, RH, UPPER	
PANEL, DASH, OVERHEAD AUXILIARY, RH	. –
CRUISE CONTROL, FINAL ASSEMBLY	
STEERING INSTALLATION	
HFB 64, STEERING GEAR ASSY	
SUSPENSION	
FRONT AXLE	84
DRIVE AXLE	
TAG AXLE	88
AIR LEVELING SYSTEM, (OPT. 5640-01)	
HYDRAULIC SYSTEM, 6V92 & 8V92	92
RETARDER CONTROLS	96
REMOTE CONTROL 6V92TA	
ELECTRONIC TRANSMISSION, 8V92TA	100

## TABLE OF CONTENTS

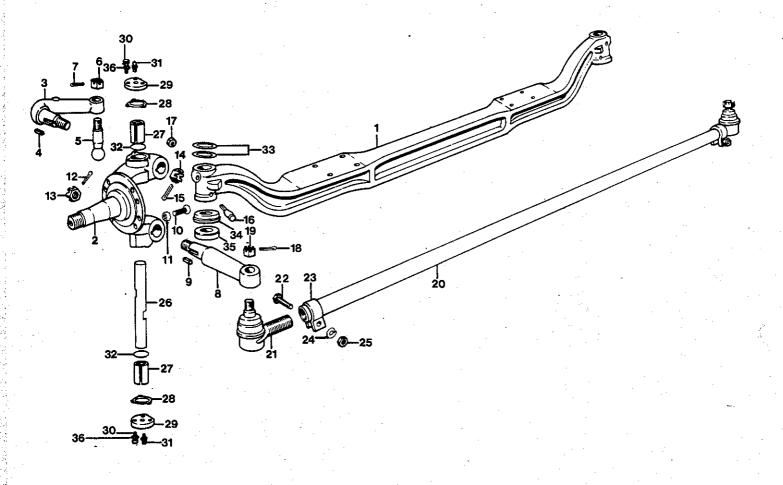
DESCRIPTION	PAGE
AIR THROTTLE CONTROL  VALVE	104 106
HOLDING TANK	
BODY MODEL 3502BODY MODEL 3706, 3903	
BULK OIL FILL (1 OF 2)	114

## **ABBREVIATIONS**

AC .	AIR CONDITIONING
ADJ.	ADJUSTING
AR	AS REQUIRED
ASSY.	ASSEMBLY
BB	BLUE BIRD
BLK	BLACK
BRKT.	BRACKET
COMP.	COMPRESSOR
CONT.	CONTINUED
CTR.	CENTER
CU.	CUBIC
CYL.	CYLINDER
DEG.	DEGREE
DIA.	DIAMETER
DIFF.	DIFFERENTIAL
DRI'S	DRIVER'S
ENG.	ENGINE
EXH.	EXHAUST
FPT	FEMALE PIPE THREAD
FRT.	FRONT
FWD	FORWARD
GM	GENERAL MOTORS
GR.	GRADE
HDND	HARDENED
I.D.	INSIDE DIAMETER
INCL.	INCLUDED
LH	LEFT HAND
MAT'L	MATERIAL
MPT	MALE PIPE THREAD
MTG	MOUNTING
NI	NOT ILLUSTRATED
O.D.	OUTSIDE DIAMETER
ΟZ	OUNCE
PLTD.	PLATED
POS.	POSITION
PT	PIPE THREAD
RD.	ROUND
RH	RIGHT HAND
SM	SMALL
STD.	STANDARD
SUSP.	SUSPENSION
TRANS.	TRANSMISSION

## FRONT AXLE ROCKWELL FF-942-NX-4





## FRONT AXLE ROCKWELL FF-942-NX-4

NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1	2599264	AXLE CENTER	3100-G-6091	
2	2137040	STEERING KNUCKLE ASSY, LH	A19-3111-Y-2599	
NI	2137057	STEERING KNUCKLE ASSY. RH	A16-3111-R-2358	
3		STEERING ARM	, 3133-Z-5720	
4		KEY, STEERING ARM	16-X-202	
5		BALL, STEERING ARM, 1 3/4"	2110-Y-103	
6		NUT, STEERING ARM BALL	. N-214-1	
7	2594398	PIN. COTTER	K-2412	
8		ARM, CROSSTUBE	·	
	2600260		3133-K-999	
	2600161	RH	3133-J-998	
9 .	2135218	KEY, CROSSTUBE ARM	16-X-202	2 2
10		SCREW, STOP	26-X-219	2
11		LOCKNUT	N-48-1 '	2
12		PIN, COTTER	K-2616	2
13		NUT, CROSSTUBE ARM	14-X-27	2
14		NUT, STEERING ARM	13-X-159	
15	2135267	PIN, COTTER, STEERING ARM	K-2618	
16		KEY, DRAW		
•		SHORT (UPPER)	7-X-112	2
	2622371	LONG (LOWER)	7-X-111	2
17		NUT, DRAW KEY	1227-Z-780	4
18		PIN, COTTER	K-2412	2
19		NUT, TIE ROD END	N-214-1	2
20	2596153	CROSSTUBE & CLAMP ASSY.	A-3102-N-3472	
21		END ASSY., CROSSTUBE		
		LH (SHOWN)	A-3144-N-456	
	2597250	RH	A-3144-P-458	
22	2597698	BOLT, CROSSTUBE CLAMP	S-11022-C	2
23	;	CLAMP, CROSSTUBE	2257-Q-17	2
24	2595601	LOCKWASHER, CROSSTUBE CLAMP	WA-110	2 2 2 2 2
25	2596393	NUT, CROSSTUBE CLAMP	N-710-C	2
26		PIN, KNUCKLE	3101-W-179	2
27		BUSHING, KNUCKLE PIN	1225-W-985	2
28	t I	GASKET	2208-Q-823	4
29	ł	CAP STEERING KNUCKLE	2297-C-2681	4
	;	CAPSCREW	S-259-1	12
31 32		FITTING, GREASE SEAL ASSY., OIL	1199-N-1860 A-1205-X-1428	4 4
J 6	433435U   	DUNG MOSI., VIII	W-1503-W-1450	**
			·	<u>;</u>

## FRONT AXLE ROCKWELL FF-942-NX-4

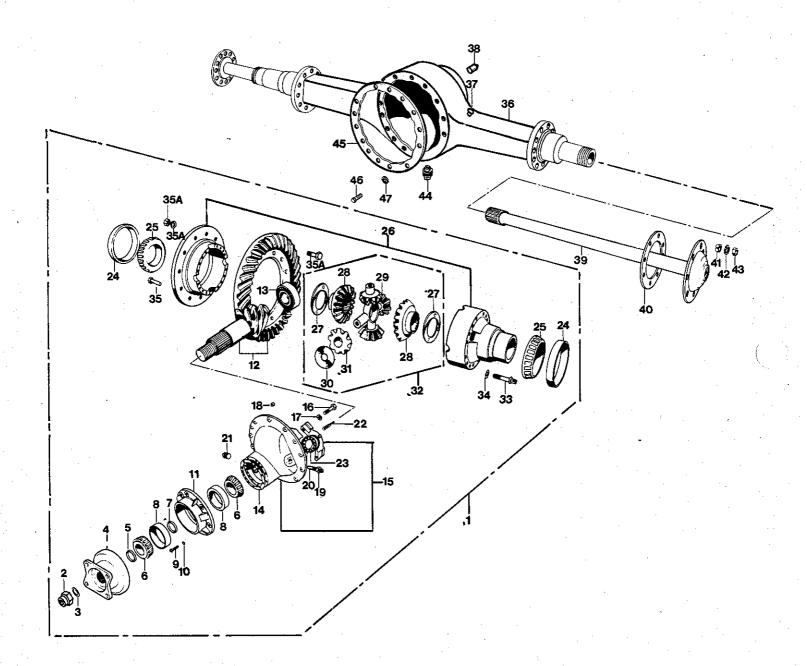
KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
33	2603538 2603231	SHIM, STEERING KNUCKLE SPACING .005" .010"	2203-L-3002 2203-K-3001	AR AR
34 35 36	2703288 2595502 2600419	SEAL & GASKET ASSY., LOWER THRUST BEARING & GASKET ASSY. WASHER	A-1205-B-1432 T-182 1229-E-1669	2 2 12
NI	2137305	REPAIR KIT, KNUCKLE PIN (INCLUDES ITEMS 16,26,27 28,29,30,32,33,34,35)	KIT 1307	
		·		



DR. 6/14/83 BY JET 8002362.

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## ROCKWELL STANDARD REAR AXLES R-125-NX-3 (6V92TA), R-125-NX-8 (8V92TA)



## ROCKWELL STANDARD REAR AXLES R-125-NX-3 (6V92TA), R-125-NX-8 (8V92TA)

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
NI*	2137156	KIT, DIFF. CARRIER OVERHAUL	QR100-1314	
1		CARRIER ASSY, DIFFERENTIAL, COMPLETE		
-	2135812	R-125-NX-3, 3.55:1 (6V92TA)	B48-3200-N-1314 B48-3200-N-1314 B59-3200-N-1314	
2		NUT, YOKE INPUT WASHER, YOKE INPUT	1227-R-902 1229-T-1736	
4	2139848 2139855		3260-Q-121 3260-L-116	
6 7 8	2135051 2135895 2624427	SEAL ASSY., PINION OIL BEARING, PINION, FWD. & REAR SPACER KIT, PINION BEARING CUP, PINION BEARING CAPSCREW, FWD. BEARING CAGE	A-1205-Y-1897 72212-C KIT 545 72487 S-2812-1	2 2 8
10 11	2600211 2135044	WASHER, FWD. BEARING CAGE CAGE ASSY, PINION (INCLUDES ITEM #8)	1229-C-1511 A-3226-Z-806	8
12		GEAR & PINION, MATCHED SET 3.42:1 3.55:1	A-39424-1 A-37326-1	
13	2599611	BEARING, PINION, REAR	1228-F-552	
14	2135077	SHIM, PINION CAGE .003 THICK .005 THICK .010 THICK	2203-C-8115 2203-D-8116 2203-E-8117	
15 16 17 18 19 20 21	2135028 2135036 2603017 2599728 2121861 2121853 2596898 2596807	CAPSCREW, DIFF. BEARING CAP WASHER, DIFF. BEARING CAP DOWEL, DIFF. BEARING CAP NUT, THRUST SCREW LOCK SCREW, THRUST, DRIVE GEAR PLUG, OIL FILL & INSPECTION	A2-3200-N-1314 S-21238-1 1229-V-1556 1246-D-342 13X-41 15X-1025 P-212 1199-R-2176	4 4 4
	2370007	* NOTE: THIS KIT CONTAINS ALL PARTS NECESSARY TO PERFORM BASIC DIFFERENTIAL CARRIER OVERHAU		~

## ROCKWELL STANDARD REAR AXLES R-125-NX-3 (6V92TA), R-125-NX-8 (8V92TA)

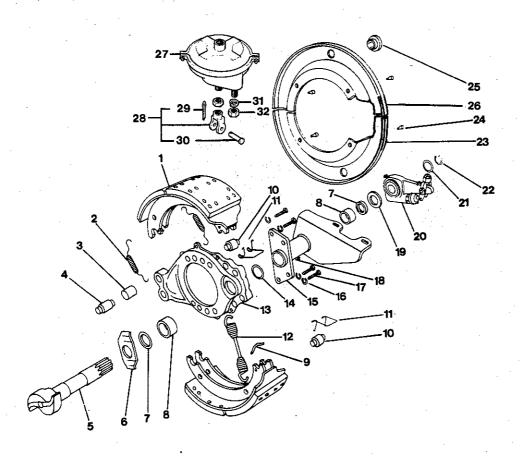
KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
23		ADJUSTING RING, DIFF. BEARING	2214-Z-208	2
24	2135143	CUP, DIFFERENTIAL BEARING	JM-716610	2
25		CONE, DIFFERENTIAL BEARING	JM-716649	2
26		CASE ASSY., DIFFERENTIAL	A19-3235-C-1173	_
27		WASHER, THRUST DIFF. SIDE GEAR	1229-T-1034	2
28		GEAR, DIFF. SIDE	2234-C-783	2
29		SPIDER, DIFF.	3278-S-305 1229-R-1032	
30		WASHER, DIFFERENTIAL PINION GEAR, DIFFERENTIAL PINION	2233-U-151	4
31		KIT, DIFFERENTIAL	KIT 326	4
32	2137412		S-2826A-1	16
33 34		WASHER, DIFFERENTIAL CASE	1229-C-1511	16
35	2597292		RV-71013	12
35A		BOLT KIT, CASE TO GEAR	KIT 570	
36	2135796		C1-3121-R-798	
37		BREATHER ASSY., AXLE HOUSING	A-1199-P-1394	
38		PLUG ASSY., HEAT INDICATOR	P-28	
39		SHAFT, AXLE, LH & RH	3202-P-8362	
40		GASKET, AXLE SHAFT	2208-X-440	
41		DOWEL, AXLE SHAFT STUD	13885	16
42		LOCKWASHER, AXLE SHAFT STUD	1229-X-518	16
43		NUT, AXLE SHAFT STUD	N-110-1	16
44	2121887	PLUG, AXLE HOUSING DRAIN	1250-E-473	,
L '		(MAGNETIC)	FIX MONT 3 07276	
45		GASKET, SILASTIC (3 OZ. TUBE)	EATON 107276 S-21014-1	14
46 47	2602712	BOLT, CARRIER TO HOUSING WASHER, CARRIER TO HOUSING	1229-U-1503	14
* /	2602/12	WASHER, CARRIER TO HOODING	1223 0 1300	
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**REQUIRED** IS ONE UNLESS **OTHERWISE** SPECIFIED. 0840P



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## FRONT BRAKES

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1	2121598	BRAKE SHOE & LINING ASSY., 5"	A17-3222-E-1383	4
NI		BRAKE SHOE ONLY, 5"	A-3222-E-1383	4
NI		KIT, BRAKE LINING (1 PER AXLE)	D39A-4524-A	-
NI		RIVET, BRAKE LINING	10-9	64
2		SPRING, BRAKE SHOE RETAINING	2258-Q-615	4
3		BUSHING, ANCHOR PIN	1225-B-496	2
4		ANCHOR PIN. BRAKE SHOE	1259-N-274	2
5		CAMSHAFT, FRONT BRAKE		
	2121606	LH '	2210-R-5374	
	2121614	RH ·	2210-Q-5373	
6	2121622	WASHER, CAMHEAD, (FLAT)	1229-N-2250	2
7	2121689	SEAL, CAMSHAFT	A-1205-V-1556	4
8		BUSHING, CAMSHAFT SPIDER & BRKT.	1225-N-378	4
9		PIN, BRAKE SHOE RETURN SPRING	1218-G-85	4
10		ROLLER, BRAKE SHOE	1779-R-18	4
111		RETAINER, SHOE ROLLER	3105-B-210	4
12		RETURN SPRING, BRAKE SHOE	2258-U-619	2
				_
13		SPIDER, BRAKE		
	2136935		A-3211-H-4428	
	2157923	RH	A-3211-J-4430	
14	2644235	GASKET, CHAMBER BRKT.	1779-J-1024	2
15		BRACKET, CAMSHAFT & CHAMBER		
		· LH	B21-3299-K-2013	
	2157931	RH	B21-3299-L-2014	
16		WASHER, BRKT. CAPSCREW	WA-18	8
17	2594109	CAPSCREW, CHAMBER BRKT.	S-2812	8
18	2027431	FITTING, GREASE	1199-N-1860	2
19	2121663	WASHER, CAMSHAFT (THICK)	1229-5-2697	2
20		SLACK ADJUSTER ASSY.		
	1032499	RH	A2-3275-A-599	
	1032481	LH	A2-3275-U-593	
21	2121671	WASHER SPACING (STANDARD)	1229-G-2971	6
22	2121697		1229-D-2942	2
23	<b>-</b> /	NOT APPLICABLE		
24		NOT APPLICABLE		
25	[ ]	NOT APPLICABLE	·	
26		NOT APPLICABLE		
27	1099183		162895	
28	2137685		A-1245-E-395	
29		NOT AVAILABLE SEPARATELY		
		·		
L	L		<u> </u> ·	

## FRONT BRAKES

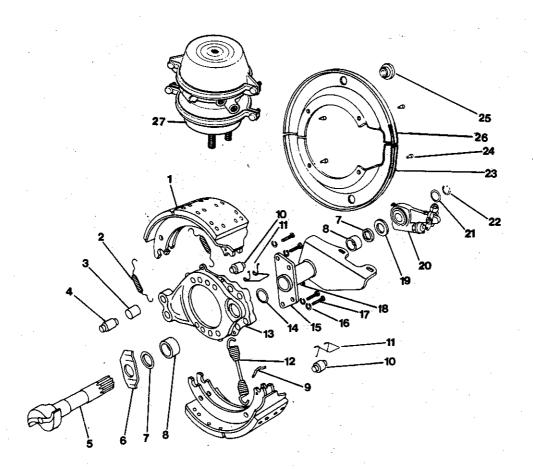
KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
30 31 32	2595601 2001501	NOT AVAILABLE SEPARATELY LOCKWASHER, BRAKE CHAMBER NUT, BRAKE CHAMBER STUD	WA-110	
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REAR BRAKES DRIVE AXLE\* DR. BY 2.58558

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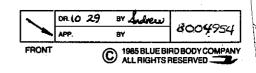
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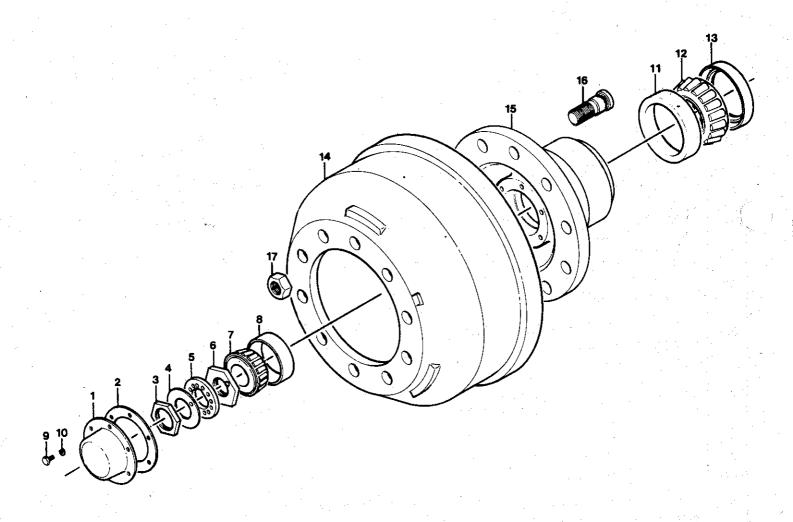


## REAR BRAKES DRIVE AXLE\*

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
ı	2121705	BRAKE SHOE & LINING ASSY., 7"	,	4
NI	2120905	BRAKE SHOE ONLY, 7"	A-3222-S-1293	4
NI	2118008	KIT, BRAKE LINING, 7"(1 PER AXLE)	D39A~4515-E	
NI	2135978	RIVET. BRAKE LINING	10-9	64
2	2120863	SPRING BRAKE SHOE RETAINING	2258-Q-615	4
3	2120889	BUSHING, ANCHOR PIN	1225-B-496	2
4	2120871	BUSHING, ANCHOR PIN ANCHOR PIN, BRAKE SHOE	1259-N-274	2
5		CAMSHAFT, BRAKE		
	2121739	LH	2210-A-5331	ļ ·
	2121747	RH	2210-B-5332	
6	2121622	WASHER, CAMHEAD, (FLAT) SEAL, CAMSHAFT	1229-N-2250	2
7	2121689	SEAL, CAMSHAFT	A-1205-V-1556	4
	2597706	BUSHING, CAMSHAFT SPIDER & BRKT.	1225-N-378	•
_		PIN, BRAKE SHOE RETURN SPRING	1218-G-85	
			1779-R-18	4
11	2121655	ROLLER, BRAKE SHOE RETAINER, SHOE ROLLER RETURN SPRING, BRAKE SHOE SPIDER, BRAKE	3105-B-210	4
12	2638716	RETURN SPRING BRAKE SHOE	2258-U-619	2
13	2137081	SPIDER BRAKE	A-3211-P-3448	
	2644235	GASKET, CHAMBER BRACKET	1779-J-1024	2
15		BRACKET, CAMSHAFT & CHAMBER LH & RH	A1-3299-M-1547	-
16	2595809	WASHER, BRACKET CAPSCREW	WA-18	8
17	2594109	CAPSCREW, CHAMBER BRKT.	S-2812	8
18	2027431	FITTING, GREASE	1199-N-1860	2
19	2121663	WASHER, CAMSHAFT, (THICK)	1229-S-2697	2
20		SLACK ADJUSTER ASSY.		·
	1144930	LH	A2-3275-C-601-S	
	1144948	RH	A2-3275-W-595-S	
21	2121671	WASHER, SPACING	1229-G-2971	6
22	2121697	LOCKRING, CAMSHAFT	1229-D-2942	2
23		N/A		
24		N/A		
25		N/A		
26		N/A		
27		AIR CHAMBER ASSY., 30" ANCHORLOK		
	0754960	LH 3502 (35' COACH)	·	
	0754952	RH 3502 (35' COACH)		
	1143908	LH 3706, 3903 (38', 40' COACH)		
	1143890	RH 3706, 3903 (38', 40' COACH)		
		* FOR TAG AXLE BRAKES PLEASE SEE TAG AXLE EXPLOSION		
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WHEEL END COMPONENTS, FRONT





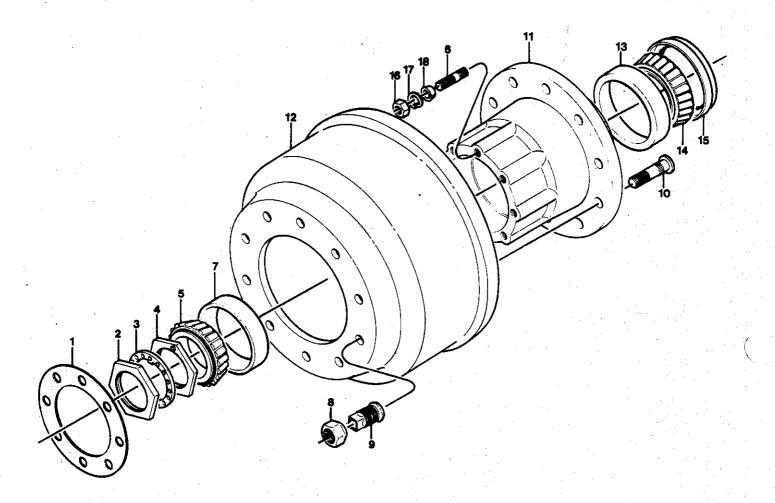
KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1	0998534		340~4095	
NI	2139582	SIGHT, GLASS, HUB		
2		GASKET, FRONT HUB CAP	330-3009	
3		JAM NUT, OUTER WHEEL BEARING	1227-B-106	
4	2600617	LOCK, OUTER WHEEL BEARING	1229-F-474	
5	2600815	LOCKING, OUTER WHEEL BEARING NUT	1229-G-475	
6			1227-U-541	
7 8		BEARING ASSY., OUTER CUP, OUTER BEARING	3782 3720	
9		CAPSCREW, HUB CAP	3720	6
10		LOCKWASHER, HUB CAP CAPSCREW		6
11		CUP, INNER BEARING	HM-212011	"
12		BEARING ASSY., INNER	HM-212011	
13			111-212045	
14				
15	1147016	HUB & CUP ASSY., STD.	1521F-N	
16		STUDS, LUG	·	
	1074475	LH	UF-835L	5 5
	1074467	RH	UF-835R	5
. <b>17</b>		NUT, LUG		
	1034784		1199-M-117	5 5
1	1034776	RH	1199-N-118	5
NI		HUB COVER, CHROME		_
NI	0992925	NUT COVER. CHROME		5
		QUANTITIES ARE PER WHEEL		
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WHEEL END COMPONENTS, REAR DRIVE AXLE\*

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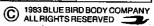
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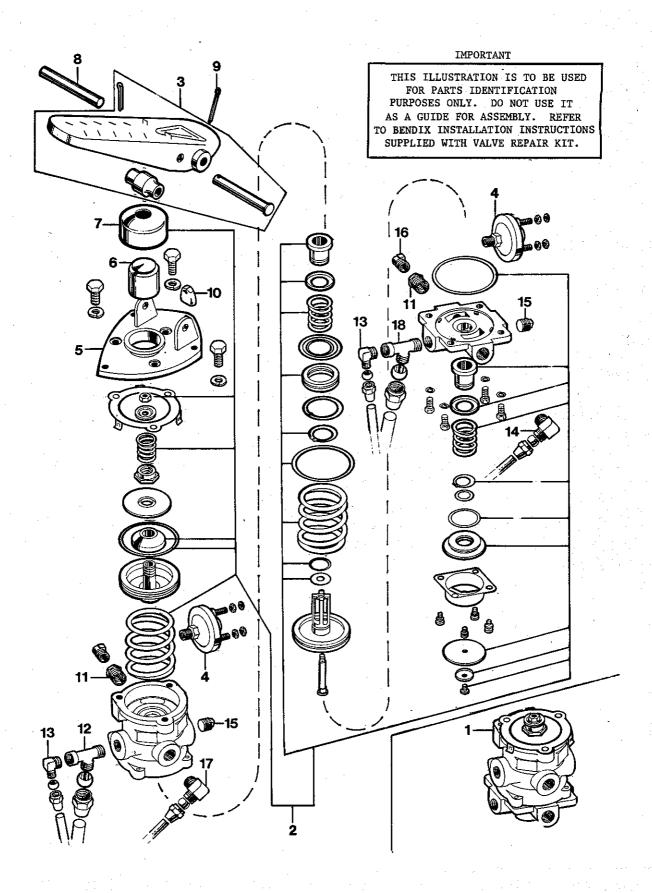
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## WHEEL END COMPONENTS, REAR DRIVE AXLE\*

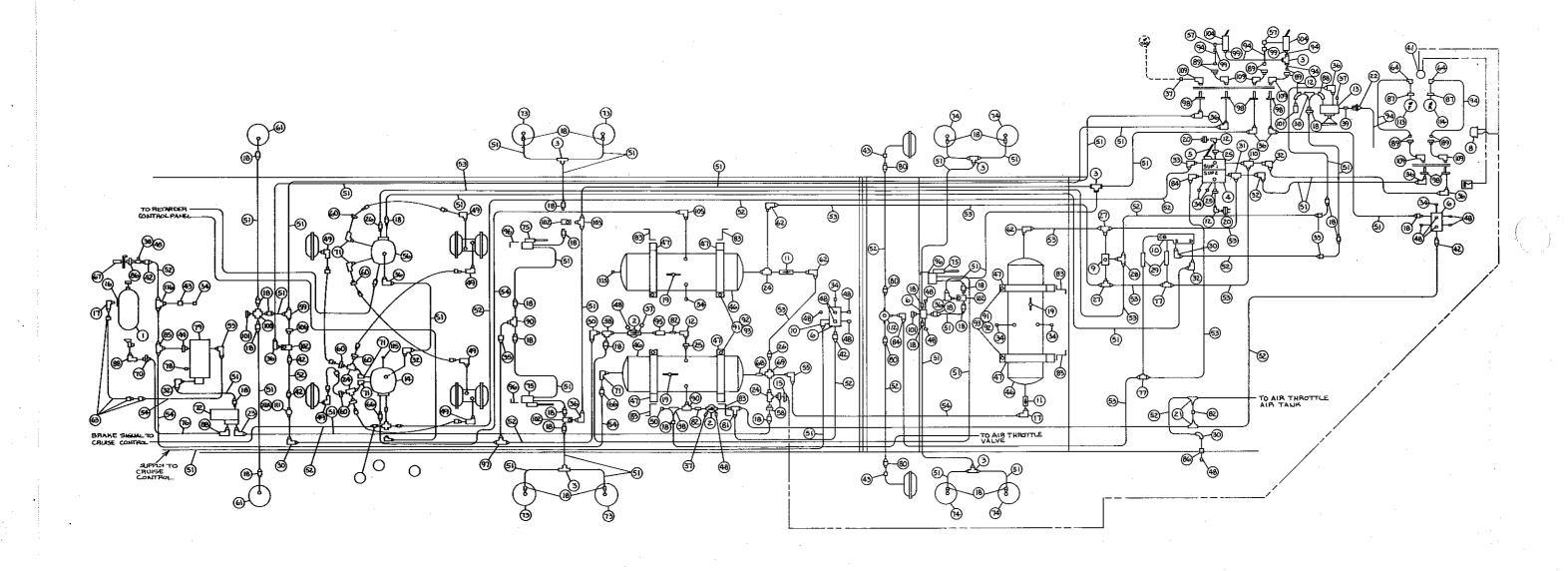
KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1 2 3 4	2647238 2599215	GASKET, AXLE FLANGE NUT, WHEEL BEARING, OUTER WASHER, LOCK, WHEEL BEARING NUT NUT, WHEEL BEARING, INNER WHEEL BEARING (OUTER)	2208-X-440 1227-R-330 1229-U-1009 1227-W-517	
6 7	2138584	STUD, AXLE SHAFT DRIVE CUP, OUTER WHEEL BEARING	161832 572	8
8	1034784 1034776	·	1199-M-117 1199-N-118	5
9	1084813 1084805	NUT, WHEEL STUD, INNER LH RH	•	5
10	1034750 1034768	- <del>-</del>	195L 195R	5 .
11 12 13 14 15 16 17 18 NI NI	1117340 2621779 0929042 0929067 0929000 2001220 0929091 0992933 2127108	OIL SEAL, WHEEL BEARING (INNER)	16227-N 592-A 594-A 47697-S	8 8 8
		* FOR TAG AXLE WHEEL END COMPONENTS PLEASE SEE TAG AXLE EXPLOSION  NOTE: QUANTITIES ARE PER WHEEL		





## BRAKE TREADLE VALVE

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
	0654533	VALVE ASSY., BRAKE TREADLE	
	2643237	REPAIR KIT, TREADLE VALVE	1
	1133347	TREADLE, DUAL BRAKE VALVE, RUBBER COVERED	
1	1	COVER, RUBBER, DUAL BRAKE VALVE TREADLE	İ
	0998740	SWITCH, STOP LIGHT	2
		PLATE, MOUNTING	
		PLUNGER, BRAKE VALVE	
	0654475	BOOT, BRAKE VALVE	
		PIN, BRAKE VALVE FULCRUM	ĺ
		PIN, ROLL, BRAKE VALVE FULCRUM BOTTOM, STOP	
	2027134	BUSHING, 1/4 X 3/8 PIPE	
		TEE, 1/4 FEMALE PIPE X 3/8 MALE PIPE X 1/2 TUBE	
		ELBOW, 1/4 MALE PIPE X 1/4 TUBE	
	l	ELBOW, 3/8 MALE PIPE X 3/8 TUBE	
		PLUG, 3/8 PIPE	
	2027233	ELBOW, 90 DEGREE STREET, 1/4 PIPE	
	2023307	ELBOW, 3/8 MALE PIPE X 1/2 TUBE	İ
	0654319	TEE, 1/4 FPT X 3/8 MPT X 1/2 TUBE	
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## DUAL AIR BRAKE ASSY., AND AIR SUSPENSION 36', 6V92TA ENDING W/CSN 0962627

NO.	PART NO.	DESCRIPTION	QTY REQ'D
1		AIR COMPRESSOR, 12 CFM (SUPPLIED W/ENGINE)	
2		VALVE, PRESSURE PROTECTION, 65 PSI	2
3		TEE, 64 X 4 1/4	6
4		VALVE DUAL BRAKE, E6	
5	1133347	TREADLE ASSY., W/RUBBER COVER	
NI	0654517	PIN, DUAL BRAKE VALVE FULCRUM	
NI	0654509	PIN, ROLL, DUAL BRAKE VALVE, FULCRUM	-
NI		BUTTON STOP DUAL BRAKE, TREADLE	
NI		PLUNGER DUAL BRAKE VALVE	
		BOOT DUAL BRAKE VALVE	-
	0654459	CAPSCREW, HEX HEAD, 5/16-18 NC, 7/8 LONG	3
NI		WASHER, LOCK, HEAVY DUTY 5/16"	3
NI		MOUNTING, DUAL BRAKE VALVE	
6		MANIFOLD	3
8 9	2006187		1
		VALVE, DOUBLE CHECK, 3/8 PIPE	
11		VALVE, SPRING BRAKE SR-1	İ
12		VALVE, SINGLE CHECK 1/2 PIPE	2
13		ELBOW, 3400 X 4 1/4 STREET	4
		VALVE, PP-1 CONTROL 30 PSI	
15		VALVE, SERVICE BRAKE RELAY R-12 W/LH SUPPLY INDICATOR, LOW PRESSURE, 66 PSI	
16	•	FITTING, DISCHARGE	
17		ELBOW, 49 X 10 1/2 MPT X 5/8 TUBE FLARE	_
18	2023224	CONNECTOR, 1/4 MPT X 1/4 TUBE	2
		COCK, DRAIN, RESERVOIR	33
20	0998740	SWITCH	3 2
21	0756817	TEE, 1/4 FEM PIPE X 3/8 TUBE X 3/8 TUBE BW	2
22		CONNECTOR, 1/8 MPT X 1/4 TUBE	2
23	2026979	ELBOW, 400 X 4 1/8 MPT X 1/4 IF	
		TEE, STREET 1/2 PIPE, 3750 X 8	4
		BUSHING, PIPE 3/8 X 1/4 3220 X 6 X 4	3
26	2023380	CONNECTOR, 1/2 MPT X 1/2 TUBE	2
27	0556878	TEE, 3/8 M PIPE X 1/2 TUBE X 1/2 TUBE	2
28	0654335	TEE, W/8 MP X 1/2 TUBE X 3/8 TUBE, BW	
29	2009330	NIPPLE, PIPE, 1/4 X 2	2
30	2023190	ELBOW, 1/4 MPT X 3/8 TUBE	4
31	0654319	TEE, 1/4 FP X 3/8 MPT X 1/2 TUBE	-
32	2023935	ELBOW, 1/4 MPT X 1/4 TUBE	6
33	2023265	ELBOW, 3/8 MPT X 3/8 TUBE	
34	2009595	PLUG, PIPE 3/8	8
35	2023257	CONNECTOR, 1/4 FPT X 3/8T	3
36	2023786	ELBOW, 1/8 MPT X 1/4 TUBE	11
37	2027118	PLUG, 3151 X 2 1/8" PIPE	4
38	0654277	TEE, STREET, 1/4 PIPE, 3750 X 4	4
39	0654970	INSERT, HYTRON TUBING, 1/4 O.D., .040 WALL	

# DUAL AIR BRAKE ASSY., AND AIR SUSPENSION 36', 6V92TA ENDING W/CSN 0962627

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D	
	0559047	TEE, MALE BRANCH, 1/4 PIPE 3600 X 4	2	: :
	0969873 0882795	BOLT HEX, 3/8-16 X 6 LONG NC CAD. PLATED WASHER, LOCK 3/8 CAD. PLATED	6	
	2001451	NUT, HEX NC CAD. PLATED 3/8 16	6	
	0654962	TUBING, HYTRON, 1/4 O.D.	15'8"	
	0962183	FILTER, AIR, RIDEWELL SUSPENSION		
	0961649 0949370	BRACKET, MOUNTING LEVEL VALVES ADAPTER, BULKHEAD 1/8 PIPE X 1 1/2 LONG		
	2227346	11752-1 FITTING, BARB	6	
		CROSS, 1/4 FEMALE PIPE, 3950 X 4		
101	0982918	INDICATOR, LOW PRESSURE, LP-3 30 PSI	13	
102	0982280 0982272	VALVE, RELAY PILOT CONTROL	4	
	2227338	TEE, 1/8 MPT X 1/4 TUBE X 1/4 TUBE, BW VALVE, AIR	2	
	2023422	ELBOW, 3/8 MPT X 5/8 TUBE		
	2008050	BUSHING, BRASS ELBOW, 3400 X 2, 1/8 STREET		
	2027225	ELBOW, 3400 X 2, 1/8 STREET TEE, 1/4 FPT X 3/8 MPT X 1/2 TUBE	6	
	1160407	VALVE, PRESSURE REDUCING, RV-1, 30 PSI		
	1160464	VALVE, QUICK RELEASE		
	1137272	BRACKET, MOUNTING, AIR DRYER, 212 WB		
	0756783 3810389	BRACKET, RELAY VALVE, MOUNTING, REAR AXLE GAUGE, AIR PRESSURE, FRONT/REAR		
113	3010307	(SUPPLIED W/INST. PANEL)		
114	r I	SEE ITEM 113		
	0663427 1205806	PLUG, 1/2 SQUARE HEAD PIPE TEE, 3/8 MPT X 3/8 TUBE X 3/8 TUBE	2	
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# DUAL AIR BRAKE ASSY., AND AIR SUSPENSION 36', 6V92TA BEGINNING W/CSN 0962628

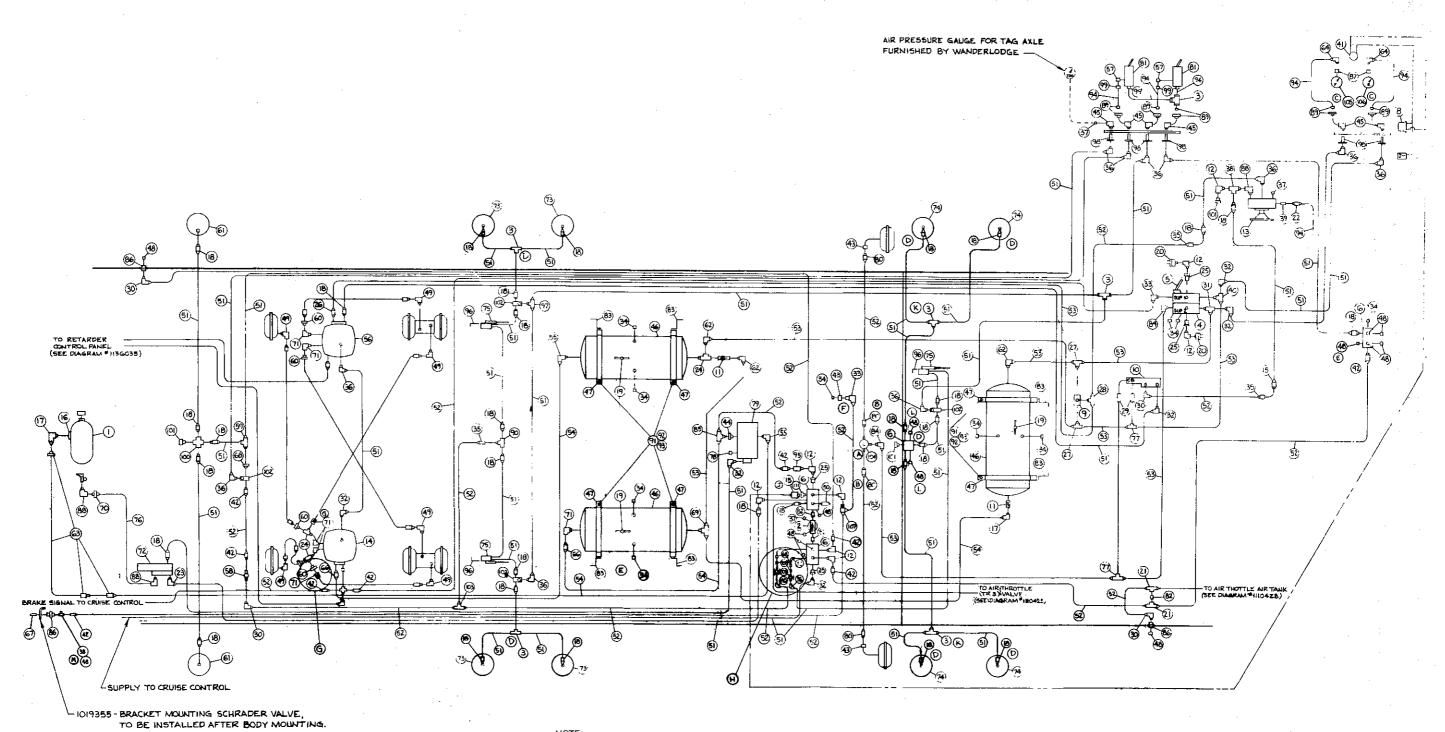
KEY NO.	PART NO.	DESCRIPTION		QTY REQ'D
$+_1$		AIR COMPRESSOR, 12 CFM (SUPPLIED W/ENGINE)		F =
	0522508	VALVE, PRESSURE PROTECTION, 65 PSI		2%
	2008381			6
	0654533			
	1133347			6
		PIN, DUAL BRAKE VALVE FULCRUM	[	1
		PIN, ROLL, DUAL BRAKE VALVE, FULCRUM	- 1	1.70
		BUTTON STOP DUAL BRAKE, TREADLE	- 1	
		PLUNGER DUAL BRAKE VALVE		
		BOOT DUAL BRAKE VALVE		Management of the same
		CAPSCREW, HEX HEAD, 5/16-18 NC, 7/8 LONG		3
		WASHER, LOCK, HEAVY DUTY 5/16"		3 }
	0654467			-
6	2023083	FITTING MANIFOLD		3
7	1205806	TEE, 3/8 MPT X 3/8 TUBE X 3/8 TUBE BUZZER VALVE, DOUBLE CHECK, 3/8 PIPE VALVE, SPRING BRAKE SR-1		3
8	2006187	BUZZER		3
9	0654434	VALVE DOUBLE CHECK 3/8 PIPE		9
10	0654426	VALVE. SPRING BRAKE SR-1		1.0
111	0654418	VALVE, SINGLE CHECK 1/2 PIPE	"	2
12	2027233	ELBOW, 4 1/4 STREET		4
		VALVE, PP-1 CONTROL 30 PSI		<b>王</b> . 分。 字
14	1261718	VALVE, SERVICE BRAKE RELAY R-12 W/LH SUPPLY		
15	1145853	INDICATOR, LOW PRESSURE, 66 PSI		
16	2023091	FITTING DISCHARGE		10.3
17	2025031	FITTING, DISCHARGE ELBOW, 1/2 MPF X 5/8 TUBE FLARE		2 👌
18	2023224	CONNECTOR, 1/4 3MPT X 1/4 TUBE		33
		COCK, DRAIN, RESERVOIR		3
	0998740			
		TEE, 1/4 FEM PIPE X 3/8 TUBE X 3/8 TUBE BW		2 2
22	2023570	CONNECTOR, 1/8 MPT X 1/4 TUBE	*,	
23	2025570	ELBOW, 1/8 MPT X 1/4 IF	ŀ	
24	0654350	TEE, STREET 1/2 PIPE, 3750 X 8		4 -
25	2027134	BUSHING, PIPE 3/8 X 1/4 3220 X 6 X 4		3
26	2023380	CONNECTOR, 1/2 MPT X 1/2 TUBE		2 ]
27	0556878	TEE, 3/8 M PIPE X 1/2 TUBE X 1/2 TUBE	. 1	2
28	0991661			2
1	2009330	NIPPLE, PIPE, 1/4 X 2	4	2
30	2023190			2 4
31	0654319	TEE, 1/4 FP X 3/8 MPT X 1/2 TUBE		4.3
32	2023935	ELBOW, 1/4 MPT X 1/4 TUBE	**	-112
33	2023935	ELBOW, 1/4 MPY X 1/4 TUBE ELBOW, 3/8 MPT X 3/8 TUBE		6
34	2023265	PLUG, PIPE 3/8		•
35	2009395	CONNECTOR, 1/4 FPT X 3/8T	į	8 3 10
36	2023257	ELBOW, 1/8 MPT X 1/4 TUBE		ა <u>ქ</u>
37				4
38	2027118	PLUG, 2 1/8" PIPE TEE, STREET, 1/4 PIPE		4
•	0654277	THE THE THE THE THE THE THE THE THE THE		4
39	0654970	INSERT, HYTRON TUBING, 1/4 O.D.		4
40	0663427	PLUG, 1/2 SQUARE HEAD PIPE		98
				1.34
Ĺ			ľ	

# DUAL AIR BRAKE ASSY., AND AIR SUSPENSION 36', 6V92TA BEGINNING W/CSN 0962628

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
41	2006807	LIGHT, PILOT, 17/32", RED LENS	
	2023182	CONNECTOR, 1/4 MPT X 3/8 TUBE	4
43		COUPLING, ANCHOR	3
44		PIPE, BUSHING 1/2 X 3/4	,
45		GAUGE, AIR PRESSURE, DUAL FRONT/REAR	ļ .
	0991513	RESERVOIR, 9 1/2 X 27 - 1760 CU. IN.	3
47	0850586	BRACKET MOUNTING, 9 1/2" AIR RESERVOIR	12
48	2023513	PLUG, PIPE 1/4"	17.
49		ELBOW, 3400 X 6 3/8 STREET	6
50	0839019	VALVE, SAFETY, 1/4 MALE PIPE	
51	2008431	TUBING, COPPER 1/4	
52	2027381	TUBING, COPPER, 1/4, TYPE L WATER TUBE	
53		TUBING, COPPER, 1/2 COPPER, 3/8, TYPE L WATER TUBE	
		TUBE 5/8, COPPER, TUBING, 1/2 TYPE L WATER	
55		ELBOW, 1/2 MALE PIPE X 5/8 TUBE	2
		ELBOW, 3400 X 2, 1/8 STREET	6
	1	FITTING	2
		BUSHING, PIPE 1/2 X 1/4 3220 X 8 X 4	2
5 <b>9</b>	2023539	BUSHING, PIPE, 1/2 MPT X 3/8 FPT	2
		VALVE, PRESSURE REDUCING, RV-1, 30 PSI	ľ
61	0990671	At a second of the second of t	2
62	2023349	ELBOW, 1/2 MPT X 1/2 TUBE	3
63	0810630	HOSE ASSY., AIR COMP. DISCH. 24" LONG	
64	2008241	ELBOW, MALE 1/4 TUBE X 1/8 PIPE 49 X 4	2
65		GAUGE, AIR PRESSURE, (SEE ITEM 45)	·
66	2023356	CONNECTOR, 1/2 MPT X 5/8 TUBE	2
67	0818609	VALVE, SCHRADER, 1/4" MPT	
68	2023992	NIPPLE, 1/2 CLOSE PIPE	
69	0871756	CROSS, 1/2 PIPE	
70	1119700	ADAPTER, SWIVEL, MALE PIPE	
71		ELBOW, 90 DEGREE STREET	5
72		GOVERNOR, AIR COMPRESSOR, 100-120 PSI	
73	0961250	AIR SPRING RIDEWELL REAR SUSP.	4
74	1263581	AIR SPRING RIDEWELL FRONT SUSP.	4
75	0871376	HEIGHT, CONTROL VALVE	· ·
76	0870303	HOSE ASSY.	!
77	2023505	TEE, 1/2 TUBE X 1/2 TUBE PLUG, PIPE 1/2 AIR DRYER	2
78	0417550	TEE, 1/2 TUBE X 1/2 TUBE PLUG, PIPE 1/2 AIR DRYER	
79	0801373	AIR DRYER	
80	2023240	CONNECTOR, 3/8 MPT X 3/8 TUBE	4
81	10754846	TEE	<b>1</b>
82	2027183	NIPPLE, 4 1/4 CLOSE	4
83	0558080	NIPPLE, 4 1/4 CLOSE SPACER AIR RESERVOIR BRACKET ELBOW, 1/2 TUBE TEE, MPT X 3/8 TUBE COUPLING, ANCHOR COUPLING, PIPE 3300 X 2	- 6
84	2023307	ELBOW, 1/2 TUBE	2
85	2023927	TEE, MPT X 3/8 TUBE	
86	2023232	COUPLING, ANCHOR	2
87			2
88	0605188	ELBOW, REDUCING STREET, 1/4 X 1/8 PIPE	3
89	0949388		5

# DUAL AIR BRAKE ASSY., AND AIR SUSPENSION 36', 6V92TA BEGINNING W/CSN 0962628

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
91 92 93 94 95 96 97 98 99 100 101 103		BOLT HEX, 3/8-16 X 6 LONG NC CAD. PLATED WASHER, LOCK 3/8 CAD. PLATED NUT, HEX NC CAD. PLATED 3/8 16 TUBING, HYTRON, 1/4 O.D. FILTER, AIR, RIDEWELL SUSPENSION BRACKET, MOUNTING LEVEL VALVES WL R/RIDEWELL VALVE, QUICK RELEASE ADAPTER, BULKHEAD 1/8 PIPE X 1 1/2 LONG 11752-1 FITTING, BARB	2 6 6 6 15'8" 3 6 4 2 2
106 107 108 109 110	2023422 2008050 0948919 0770909 0991646 0991653 1220011 1137272	BUSHING, BRASS, 2 1/8 X 1/4 TEE, 1/4 FPT X 3/8 MPT X 1/2 TUBE HOSE ASSY., 7/16 I.D. X 23" LONG HOSE ASSY., BRAKE, REAR SERVICE HOSE ASSY., 7/16 I.D. X 36" LONG TUBING, PLASTIC 1/4 O.D. BRACKET, MOUNTING, AIR DRYER, 212 WB	2 2 2 2
	- Landaus Woods and Control of Co		



NOTE:

FOR DIAGRAM, DUAL AIR BRAKE ASSY, 2 OF 4, 370G AND 3903 WLPP, SEE DRAWING NO. 115687G

FOR DIAGRAM, DUAL AIR BRAKE ASSY, 3 OF 4, 370G AND 3903 WLPP, SEE DRAWING NO. 1156884

FOR DIAGRAM, DUAL AIR BRAKE ASSY, 4 OF 4, SUB-ASSYS, 3706 AND 3903 WLPP, SEE DRAWING NO. 1

# DUAL AIR BRAKES 38' & 40', 6V92TA & 8V92TA ENDING W/CSN 0962627

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1		AIR COMPRESSOR, 12 CFM (SUPPLIED W/ENGINE)	
	0522508	VALVE, PRESSURE PROTECTION, 65 PSI	
	2008381	TEE, 64 X 4 1/4	6
3 4	0654533	VALVE, DUAL BRAKE, E6	1
5	1133347	TREADLE ASSY., W/RUBBER COVER	
NI	0654517	PIN, DUAL BRAKE VALVE FULCRUM	
NI	0654509	PIN, ROLL, DUAL BRAKE VALVE, FULCRUM	
NI	0654491	BUTTON, STOP, DUAL BRAKE, TREADLE	-
NI	0654483	PLUNGER, DUAL BRAKE VALVE	1
NI	0654475	BOOT, DUAL BRAKE VALVE	1 .
NI	0654459	CAPSCREW, HEX HEAD, 5/16-18 NC X 7/8 LONG	3
NI		WASHER, LOCK, HEAVY DUTY 5/16"	3
NI	0654467	PLATE, MOUNTING, DUAL BRAKE VALVE	1
6		FITTING, MANIFOLD	4
8	2006187		
9		VALVE, DOUBLE CHECK, 3/8 PIPE	
10		VALVE, SPRING BRAKE SR-1	
11		VALVE, SINGLE CHECK, 1/2 PIPE	2
12		ELBOW, 3400 X 4, 1/4 STREET	9
13		VALVE, PP-1, 30 PSI	
14	1066679	VALVE, SERVICE BRAKE, RELAY, R-12, W/LH SUPPLY	
15		INDICATOR, LOW PRESSURE, 66 PSI	ĺ
16		FITTING, DISCHARGE	
17		ELBOW, 49 X 10, 1/2 MPT X 5/8 TUBE FLARE	2
18		CONNECTOR, 1/4 MPT X 1/4 TUBE	32
19		COCK, DRAIN, RESERVOIR	3
20	0998740		2
21	0756817		
22		CONNECTOR, 1/8 MPT X 1/4 TUBE	
23		ELBOW, 400 X 4, 1/8 MPT X 1/4 IF	
24		TEE, STREET, 1/2 PIPE, 3750 X 8	3 4
25		BUSHING, PIPE, 3/8 X 1/4, 3220 X 6 X 4	4
26	1 1	CONNECTOR, 1/2 MPT X 1/2 TUBE	
27	0556878		2
28		TEE, 3/8 MP X 1/2 TUBE X 3/8 TUBE	
29		NIPPLE, PIPE, 1/4 X 2	2
30	1 1	ELBOW, 1/4 MPT X 3/8 TUBE	4
31		TEE 1/4 FP X 3/8 MP X 1/2 TUBE	l _
32		ELBOW, 1/4 MPT X 1/4 TUBE	7
33	1 3	ELBOW, 3/8 MPT X 3/8 PIPE	2
34		PLUG, PIPE, 3/8	10
35	1 3	CONNECTOR, 1/4 MPT X 3/8 TUBE	3
36	2023786	ELBOW, 1/8 MPT X 1/4 TUBE	12
37	2027118	PLUG, 1/8" PIPE	3 2
38	0654277		4
39	1	INSERT, HYTRON TUBING, 1/4 O.D., .040 WALL	
40	0948919		
41	2006807	LIGHT, PILOT, 17/32", RED LENS	
			1

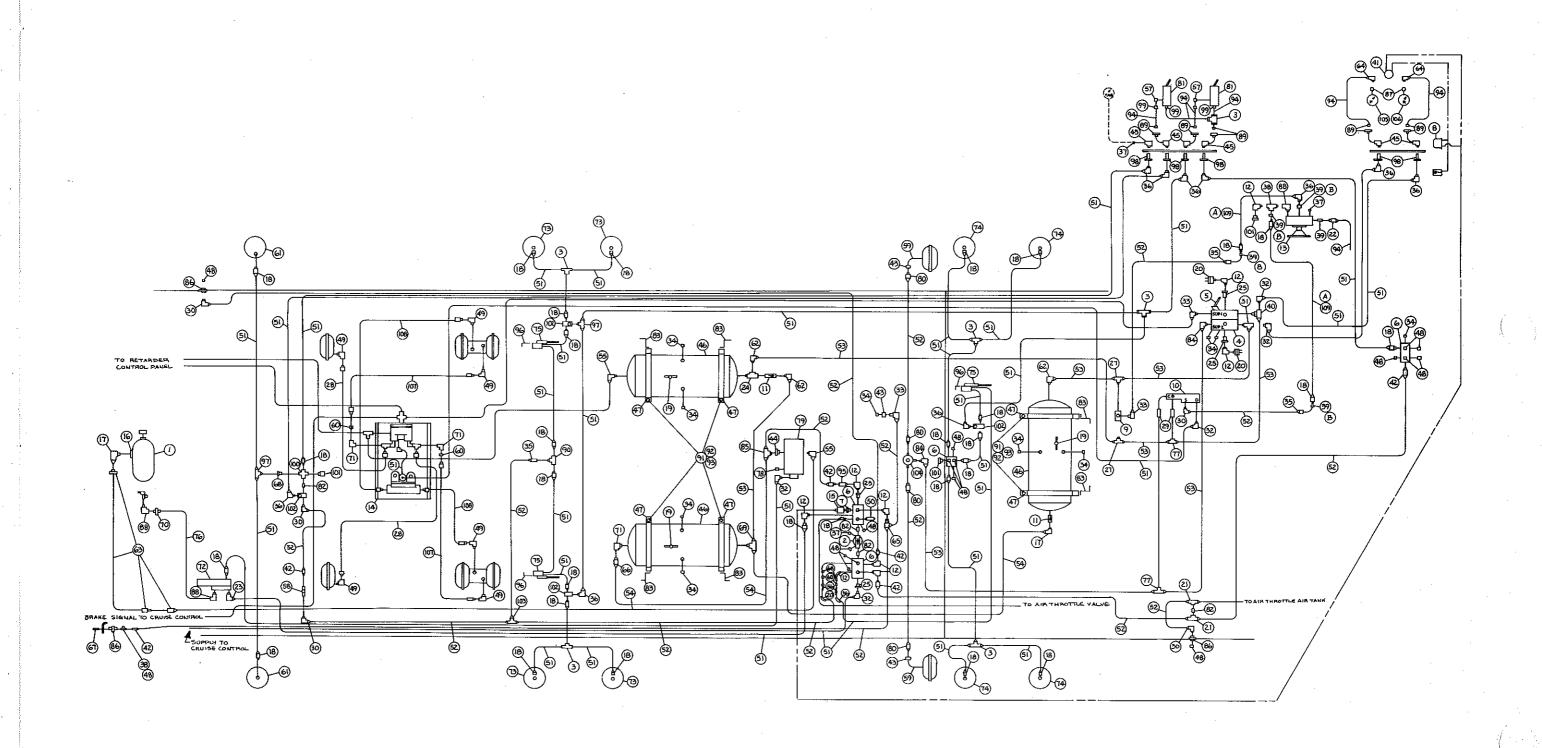
#### DUAL AIR BRAKES 38' & 40', 6V92TA & 8V92TA ENDING W/CSN 0962627

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
		CONNECTOR, 1/4 MPT X 3/8 TUBE	9
43		COUPLING, ANCHOR	3
		PIPE, BUSHING, 1/2 X 3/4	
45		ELBOW, 3400 X 2, 1/8 STREET	6
		RESERVOIR, 9 1/2 X 27 - 1760 CU. IN.	3
47		BRACKET, MOUNTING, 9 1/2", AIR RESERVOIR	1.2
48		PLUG, PIPE 1/4"	14
49		ELBOW, 3400 X 6, 3/8 STREET	6
		VALVE, SAFETY, 1/4 MALE PIPE	İ
51		TUBING, COPPER 1/4	
		TUBING, 3/8 COPPER, 1/4, TYPE L WATER TUBE	
		TUBING, 1/2 COPPER, 3/8, TYPE L WATER TUBE	1:
		TUBE, 5/8, COPPER TUBING, 1/2 TYPE L WATER	
		ELBOW, 1/2 MALE PIPE X 5/8 TUBE	2
		VALVE, SPRING BRAKE, RELAY, R-14	
	2227353	·	2
		VALVE, PRESSURE, REDUCING, RV-1, 50 PSI	
		TEE, 1/8 MPT X 1/4 TUBE X 1/4 TUBE	
		BUSHING, PIPE 1/2 MPT X 3/8 FPT	4
		AIR SPRING, RIDEWELL TAG SUSPENSION	
		ELBOW, 1/2 MPT X 1/2 TUBE	3
		HOSE ASSY., AIR COMPRESSOR, 24" LONG IE	_
<b>64</b>		ELBOW, MALE, 1/4 TUBE X 1/8 PIPE, 49 X 4	2
66	i i	CONNECTOR, 1/2 MPT X 5/8 TUBE	2
67		VALVE, SCHRADER, 1/4" MPT	_
68		BUSHING, BRASS, 1/8 FPT X 1/4 MPT	5
69	1	TEE, 1/2 MPT X 1/2 TUBE X 5/8 TUBE, B.C. BRAKE	
70	1	ADAPTER, SWIVEL, MALE PIPE	ļ. <b>"</b>
71	2008274	ELBOW, 90 DEGREE STREET	7
72		GOVERNOR, AIR COMPRESSOR, 100 - 120 PSI	
		AIR SPRING, RIDEWELL REAR SUSPENSION	
		AIR SPRING, RIDEWELL FRONT SUSPENSION	•
75		VALVE, HEIGHT CONTROL	
76	0870303	HOSE ASSY.	
77	2023505	TEE, 1/4 FPT X 1/2 TUBE X 1/2 TUBE	2
78	1	PLUG, PIPE, 1/2	
79		AIR DRYER, MODEL AD-2	١ .
80		CONNECTOR, 3/8 MPT X 3/8 TUBE	4
81		VALVE, AIR	2
82	2027183	NIPPLE, 3326 X 4, 1/4 CLOSE	3
83		SPACER, AIR RESERVOIR, BRACKET	6
84	2023307	ELBOW, 3/8 MPT X 1/2 TUBE	2
85	2023927	TEE, 1/2 MPT X 3/8 TUBE X 5/8 TUBE	
86		COUPLING, ANCHOR	3 2
87		COUPLING, PIPE, 3300 X 2	
88		ELBOW, REDUCING STREET, 1/4 X 1/8 PIPE	3 5
89		COUPLING, KWIK CONNECT, 1/4 TUBE X 1/8 PIPE	) 5
90	0559047	TEE, MALE BRANCH, 1/4 PIPE, 3600 X 4	

# DUAL AIR BRAKES 38' & 40', 6V92TA & 8V92TA ENDING W/CSN 0962627

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
91	0969873	BOLT, HEX, 3/8-16 X 6 LONG, NC, CAD. PLTD.	
92	0882795	WASHER, LOCK, 3/8, CAD. PLTD.	6
93	2001451	NUT, HEX, NC, CAD. COATED, 3/8-16	6
94	0654962	TUBING, STRATOFLEX, BLACK, 1/4 O.D.	15'8"
95	0962183	FILTER, AIR, RIDEWELL SUSPENSION	
	0961649	BRACKET, MOUNTING, LEVEL VALVES, EL W/RIDEWELL	
	0982272	TEE, 1/8 MPT X 1/4 TUBE X 1/4 TUBE	6
	0949370	ADAPTER, 1/8 PIPE X 1-1/2 LONG	4
	2227346	FITTING, BARB	=
		CROSS, 1/4 FEMALE PIPE, 3950 X 4	3
	0982918	INDICATOR, LOW PRESSURE, LP-3, 30 PSI	4
	0982280	VALVE, RELAY PILOT CONTROL, WM 147-P	1
	0654541	TEE, 3/8 TUBE X 3/8 TUBE X 3/8 TUBE	
E	1160464	VALVE, QUICK RELEASE BRACKET, MOUNTING, AIR DRYER, 212 WB	1
1	1137272	BRACKET, MOUNTING, AIR DRIER, 212 WB BRACKET, MOUNTING, R-12 & R-14, RELAY VALVE, 10 1/8	
	1149178	BRACKET, MOUNTING, R-12 & R-14, REBAT VALUE, BRACKET, RELAY VALVE, MOUNTING, REAR AXLE	1
	0756783	GAUGE, AIR PRESSURE, FRONT/REAR	
102	3810389	(SUPPLIED W/INSTRUMENT PANEL)	
206		SEE ITEM 105	
106	1	TEE, 1/4 MALE PIPE X 3/8 TUBE X 3/8 TUBE	
	0754846	NIPPLE 1/8 CLOSE TYPE	2
	I	VALVE CHECK, 1/8 PIPE	2
I .	·	ELBOW, 1/8 MPT X 3/8 TUBE	1
	0654301 2027209	ELBOW, 1/4, STREET, 45 DEG.	İ
1 7 7 7	2027209	Bubon, 171, bitter, 11	1
			1
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DUAL AIR BRAKE ASSY. 38' & 40' BEGINNING W/CSN 0962628



#### DUAL AIR BRAKE ASSY. 38' & 40' BEGINNING W/CSN 0962628

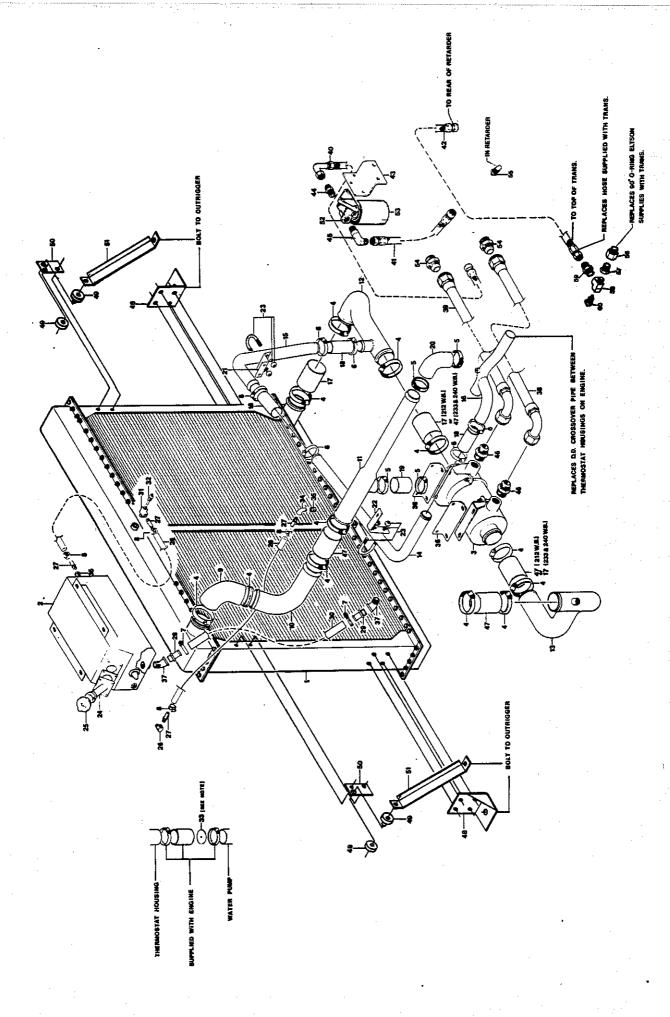
KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1		AIR COMPRESSOR. 12 CFM (SUPPLIED W/ENGINE)	
2		VALVE, PRESSURE PROTECTION, 65 PSI	2
3		TEE, 64 X 4 1/4	6
4	0654533	VALVE DUAL BRAKE, E6	
5		TREADLE ASSY., W/RUBBER COVER	
NI		PIN, DUAL BRAKE VALVE FULCRUM	
NI -		PIN, ROLL, DUAL BRAKE VALVE, FULCRUM	1
NI		BUTTON STOP DUAL BRAKE, TREADLE	
NI		PLUNGER DUAL BRAKE VALVE	
NI		BOOT DUAL BRAKE VALVE	_ ,
NI		CAPSCREW, HEX HEAD, 5/16-18 NC, 7/8 LONG	3
NI		WASHER, LOCK, HEAVY DUTY 5/16"	3
NI	1 1	PLATE, MOUNTING, DUAL BRAKE VALVE	
6		FITTING, MANIFOLD	4
7		TEE, 3/8 MPT X 3/8 TUBE X 3/8 TUBE	
8		BUZZER, ESSEX 44310-0	
9	0654434	VALVE, DOUBLE CHECK, 3/8 PIPE	
	0654426	VALVE, SPRING BRAKE SR-1	
11		VALVE, SINGLE CHECK 1/2 PIPE	2
12	2027233	ELBOW, 4 1/4 STREET  VALVE, PP-1 CONTROL 30 PSI  VALVE ASSY SPRING & SERVICE BRAKE RELAY	9
13	0900266	VALVE, PP-1 CONTROL 30 PS1	
14	1201/10	ANDAR Apple, practed a practed parter application	
		INDICATOR, LOW PRESSURE, 66 PSI	
16	2023091	FITTING, DISCHARGE	
		ELBOW, 49 X 10, 1/2 MPT X 5/8 TUBE FLARE	2
18		CONNECTOR, 1/4 MPT X 1/4 TUBE	29
19		COCK, DRAIN, RESERVOIR	3 2
20	B I	SWITCH, STOP LIGHT	2
21	0756817	TEE, 1/4 FEM PIPE X 3/8 TUBE X 3/8 TUBE BW	
22	2023570	CONNECTOR, 1/8 MPT X 1/4 TUBE	
23	2026979	ELBOW, 1/8 MPT X 1/4 IF TEE, STREET 1/2 PIPE, 3750 X 8	
24	0654350	BUSHING, PIPE 3/8 X 1/4 3220 X 6 X 4	4
25	1	• · · · · · · · · · · · · · · · · · · ·	-
26 27	0654301 0556878		2
28	0991661		2
29	2009330		2
30		ELBOW, 1/4 MPT X 3/8 TUBE	5
31	0654319		
32		ELBOW, 1/4 MPT X 1/4 TUBE	6
33	2023265	1	3
34	2009595		10
35	2023257	l	3
36	2023786	l	11
37	2027118	1	3
38	0654277	I	2
39	0654970	· · · ·	5
40	0948919	l	
1		·	

#### DUAL AIR BRAKE ASSY. 38' & 40' BEGINNING W/CSN 0962628

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
41		LIGHT, PILOT, 17/32", RED LENS	
42		CONNECTOR, 1/4 MPT X 3/8 TUBE	6
43		COUPLING, ANCHOR	3
44		PIPE, BUSHING 1/2 X 3/4	
45		ELBOW, 1/8 STREET	6
46	0991513	RESERVOIR, 9 1/2 X 27 - 1760	3
47	0850586	BRACKET MOUNTING. 9 1/2" AIR RESERVOIR	12
48		PLUG, PIPE 1/4"	16
49	2027241	ELBOW, 3400 X 6 3/8 STREET	6
50		VALVE, SAFETY, 1/4 MALE PIPE	
		TUBING, COPPER 1/4	
52	2027381	TUBING, COPPER, 1/4, TYPE L WATER TUBE	1
53	2027399	TUBING, COPPER, 1/2 COPPER, 3/8, TYPE L WATER TUBE	-
		TUBE 5/8, COPPER, TUBING, 1/2 TYPE L WATER	
		ELBOW, 1/2 MALE PIPE X 5/8 TUBE	1 2
		VALVE, CHECK, 1/8 PIPE	2 2
	2227353		2
58	1160415	VALVE, PRESSURE, REDUCING, RV-1, 50 PSI	
59	10770909 I	HOSE ASSY 7/16 I.D.X 23" LONG	2
60	1120195	NIPPLE, 1/8 CLOSE, TYPE	2 6
61	0990671	AIR SPRING RIDEWELL TAG SUSPENSION	2
62	2023349	ELBOW, 1/2 MPT X 1/2 TUBE	<u>3</u>
63	0810630	"HOSE ASSY., AIR COMP. DISCH. 24" LONG	
64		ELBOW, MALE 1/4 TUBE X 1/8 PIPE 49 X 4	1 2
65	0754846	TEE, 1/4 MALE PIPE X 3/8 TUBE X 3/8 TUBE	-
66	2023356	CONNECTOR, 1/2 MPT X 5/8 TUBE	2
67	0818609	VALVE, SCHRADER, 1/4" MPT	
68	2008050	BUSHING, BRASS, 1/8 FPT X 1/4 MPT	5
69	2023901	TEE, 1/2 MPT X 1/2 TUBE X 5/8 TUBE	
70	1119700	ADAPTER, SWIVEL, MALE PIPE	1
71		ELBOW, 90 DEGREE STREET	5
72	0908160	GOVERNOR, AIR COMPRESSOR, 100-120 PSI	
73		AIR SPRING RIDEWELL REAR SUSP.	4
		AIR SPRING RIDEWELL FRONT SUSP.	4
75	0871376	HEIGHT, CONTROL VALVE	3
76	0870303	HOSE ASSY.	
77	2023505	TEE, 1/4 FPT X 1/2 TUBE X 1/2 TUBE	1 2
78		PLUG, PIPE 1/2	-
79		AIR DRYER	
80	2023240	CONNECTOR, 3/8 MPT X 3/8 TUBE	4
81		VALVE, AIR	2
82		NIPPLE, 4 1/4 CLOSE	4
83		SPACER AIR RESERVOIR BRACKET	6
84		ELBOW, 3/8 MPT X 1/2 TUBE	2
85		TEE, 1/2 MPT X 3/8 TUBE X 5/8 TUBE	
86		COUPLING, ANCHOR	3
87		COUPLING, PIPE 3300 X 2	3 2 3
88		ELBOW, REDUCING STREET, 1/4 X 1/8 PIPE	3
89		COUPLING, KWIK, CONNECT 1/4 TUBE X 1/8 PIPE	5
	1		

#### DUAL AIR BRAKE ASSY. 38' & 40' BEGINNING W/CSN 0962628

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
96 97 98 99 100 101 102 103 104 NI	0654962 0962183 0961649 0982272 0949370 2227346 0559054 0982918 0982280 0654541 1160464 1137272	TEE, MALE BRANCH, 1/4 PIPE BOLT HEX, 3/8-16 X 6 LONG NC CAD. PLATED WASHER, LOCK 3/8 CAD. PLATED NUT, HEX NC CAD. PLATED 3/8-16 TUBING, HYTRON, 1/4 O.D. FILTER, AIR, RIDEWELL SUSPENSION BRACKET, MOUNTING LEVEL VALVES TEE, 1/8 MPT X 1/4 TUBE X 1/4 TUBE ADAPTER, 1/8 PIPE X 1 1/2 LONG FITTING, BARB CROSS, 1/4 FEMALE PIPE INDICATOR, LOW PRESSURE, LP-3 30 PSI VALVE, RELAY PILOT CONTROL TEE, 1/8 MPT X 1/4 TUBE X 1/4 TUBE VALVE, QUICK RELEASE BRACKET, MOUNTING, AIR DRYER, 212 WB BRACKET, MOUNTING, R-12 & R-14, RELAY VALVE. 10 1/8	6 6 15'8" 3 6 4
105 106 107 108	3810389 0991646 0991653	GAUGE, AIR PRESSURE, FRONT/REAR (SUPPLIED W/INST. PANEL) SEE ITEM 105 HOSE ASSY., BRAKE, REAR SERVICE HOSE ASSY., 7/16 I.D. X 36" LONG TUBING, PLASTIC, 1/4 O.D.	2 2



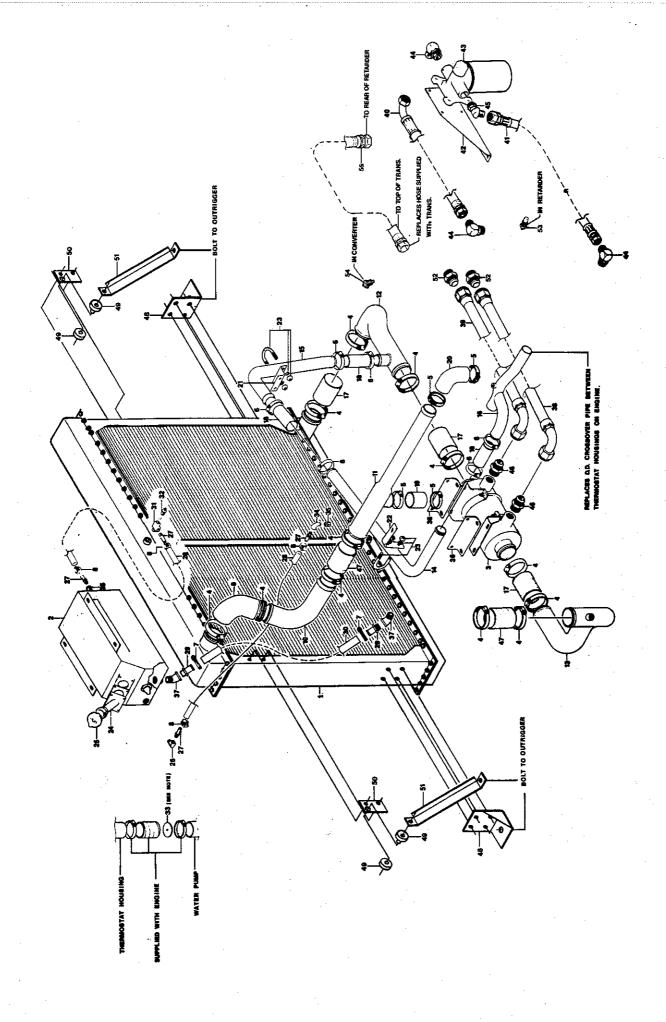
#### COOLING SYSTEM 6V92T

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1		RADIATOR	
	1	233 & 240" W.B.	
	1201292	212" W.B.	
2	1215755	TANK ASSY., DEAERATION	
		SIGHT, GLASS	
		COOLER, TRANSMISSION	
		CLAMP, HOSE, LINED, 3"	12
		CLAMP, HOSE, LINED, 2 1/2"	4
		CLAMP, HOSE, 2"	2
		CLAMP, HOSE, 1"	4
		CLAMP, HOSE, 5/8"	• 🚡
9	1135045	ELBOW, 90 DEG., 3" I.D. X 5 X 6 1/2 ELBOW, 3" O.D., 90 DEG.	
10 11	1158617		
12		CONNECTOR ASSY., RADIATOR TO OIL COOLER	
		233 & 240" W.B.	
	1170026	212" W.B.	
13	1170034	CONNECTOR ASSY., OIL COOLER TO ENGINE	
14		TUBE, UPPER, WATER BY-PASS	
	1158088	233 & 240" W.B.	
	1170042	212" W.B.	1
15	1158096	TUBE, LOWER, WATER BY-PASS	<u> </u>
16	1158070		
		TYPER PROTESTOR CITION 28 I D	3
17*		HOSE, RADIATOR, SILICON, 3" I.D. 233" TO 240" W.B.	3
		233" 10 240" W.B. 212" W.B.	
	0920011	212" W.B.	
18	0870378		3
19		HOSE, RADIATOR, 2 1/4"	
20		ELBOW, SILICON, 90 DEG., 2 1/4	
21	1158104	BRACKET, MOUNTING, TUBE, WATER BY-PASS, FRONT	
22		BRACKET, MOUNTING, TUBE, WATER BY-PASS, REAR	2
23	1	CLAMP, U-BOLT, 1 3/4 DIA.	"
24	1140417		
25	0522052	ELBOW, 1/4 STREET, PT	
26 27	0660118	=	4
28	2027688		2
29	0315200		2
30	1143866		
31	0654277		
32	0965509		
		NOTE* SOLD BY FEET	

#### COOLING SYSTEM 6V92T

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
33		PLATE, ORIFICE, WATER BY-PASS	
34		ELBOW, STREET, 1/4, 90 DEG.	
35	2009033	BUSHING, PIPE, 1/4 X 3/8	2
36		ANGLE ASSY., MOUNTING, TRANSMISSION OIL COOLER	
		233 & 240" WB	
	1155571	212" W.B.	
		ELBOW, STREET, 3/4, 45 DEG.	
		HOSE ASSY., OIL COOLER	
		HOSE ASSY., OIL COOLER	
		HOSE ASSY.	
		HOSE ASSY.	
		HOSE ASSY.	
		BRACKET ASSY., MOUNTING OIL FILTER	
44 45	10009008	CONNECTOR, TRANSMISSION COOLING ELBOW, 90 DEG., 3/4 TUBE	
		CONNECTOR, PIPE, 37 DEG. FLARE	
40	1120552	CONNECTOR, FIFE, 37 DEG. FLARE	2
47*		HOSE, RADIATOR, SILICON, 3" I.D.	
		233 & 240" W.B.	4
	0920611	212" W.B.	2
48	1168798	BRACKET ASSY., MOUNTING, RADIATOR	2
	1106822	ISOLATOR, 3/8 NEOPRENE	2
		PLATE, MOUNTING, STABILIZER, RADIATOR	2
		ANGLE, STABILIZER, RADIATOR	. 2
52		BASE, FILTER, OIL, EXTERNAL, AUTO TRANSMISSION	
53		FILTER, OIL, EXTERNAL, AUTO TRANSMISSION	
		CONNECTOR, O-RING	2
55		SENDER, OIL TEMP. TRANS. W/RETARDER	
56	0800664	ADAPTER, 1 1/16-12 STRAIGHT THREAD X 3/4 C3269 X	
		12 X 12	
57 58		BUSHING 1/2 X 3/4 PIPE TEE, STREET, 1/2 PIPE	
59		ADAPTER, 1/2 MPT X 3/4 HOSE	
60		SENDER, TEMPERATURE 1/2 PIPE	
NI		SHROUD ASSY., RADIATOR, 8V92TA, (233 & 240 WB)	
NI		SHROUD ASSY., RADIATOR, 6V92T, (212 WB)	
NI	1135086	SHIELED, ELBOW, WATER CONNECTION	
		NOTE: COID BY PERT	
٠		NOTE* SOLD BY FEET	
	<u> </u>		r .





# COOLING, RADIATOR AND TRANSMISSION 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	1169093	RADIATOR	
2	1215755	TANK ASSY., DEAERATION	
NI	1146877	SIGHT, GLASS	
3	1125103	COOLER, TRANSMISSION	
4	1106871	CLAMP, HOSE, LINED, 3"	12
5	0964940	CLAMP, HOSE, LINED, 2 1/2"	4
	1167709	CLAMP, HOSE, LINES 2"	6
7	0870345	CLAMP, HOSE, 1"	2
8	0871582	CLAMP, HOSE, 5/8"	4
9	1135045	ELBOW, 90 DEG., 3" ID X 5 X 6 1/2	
10	1135037	ELBOW, 3" OD., 90 DEG., TRANSMISSION COOLER	
11	1158617	CONNECTOR, RADIATOR, UPPER	
		CONNECTOR ASSY., RADIATOR TO OIL COOLER	
13	1155563	CONNECTOR ASSY., OIL COOLER TO ENGINE	1
		TUBE, UPPER, WATER BY-PASS	
15		TUBE, LOWER, WATER BY-PASS	
16		TUBE ASSY., WATER BY-PASS	
	1	HOSE, RADIATOR, SILICON 3" ID	3
		HOSE, UPPER, RADIATOR, 1 3/4 ID., SILICON	3
		HOSE, RADIATOR, 2 1/4" (2 1/2" LONG)	
		ELBOW, SILICON, 90 DEG., 2 1/4	
		BRACKET, MOUNTING, TUBE, WATER BY-PASS, FRONT	
	1158682		
	1	CLAMP, U-BOLT, 1 3/4 DIA.	2
	1140417		
	0522052	CAP, RADIATOR, PRESSURE, 7 PSI	1
26		ELBOW, 1/4 STREET, PT	1
27	1	INSERT, BARBED STRAIGHT	4
	2027688	HOSE, 1/2 I.D. X .92 O.D., MED. HIGH PRESSURE	2
		ADAPTER, HEATER, 3/4 PIPE X 1 HOSE	-
		HOSE, HEATER, 1" I.D. SILICON (18" LONG)	
		TEE, STREET, 1/4 PIPE	
32	00542/7	SENDER, OIL COOLANT LEVEL	
		PLATE, ORIFICE, WATER BY-PASS	
33		ELBOW, STREET, 1/4, 90 DEG.	•
34	2009249	BUSHING, PIPE, 1/4 X 3/8	
35		ANGLE, MOUNTING, TRANSMISSION OIL COOLER	2
36			2 2
37	2009272		"
38		HOSE ASSY., OIL COOLER	
39		HOSE ASSY., OIL COOLER	
40	lt .	HOSE ASSY., 1" WIRE BRAID	
41	1124882	HOSE ASSY., 1" WIRE BRAID	
42		BRACKET, MOUNTING, TRANSMISSION FLUID FILTER	1
43	1	FILTER ASSY., FLUID, TRANSMISSION	1
NI	3831302		_
44		ADAPTER, 37 DEG. STEEL FLARE	3
45		ADAPTER, 45 DEG., ADJ. ELBOW	
46	1128552		2
47	0920611	HOSE, RADIATOR, SILICON, 3" I.D.	2

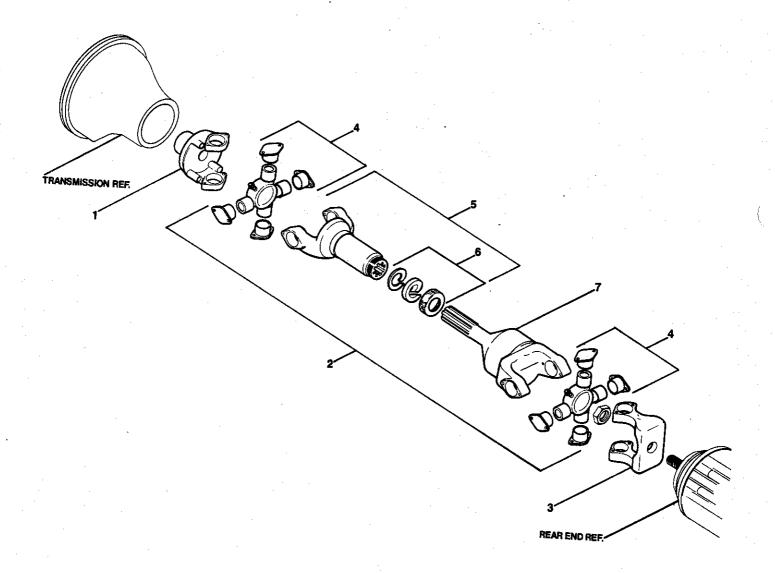
# COOLING. RADIATOR AND TRANSMISSION 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
4	1168798 1106822 1168814 1168822 1248145 1246156 1197920 1078781 1252097	BRACKET ASSY., MOUNTING, RADIATOR ISOLATOR, 3/8 NEOPRENE PLATE, MOUNTING, STABILIZER, RADIATOR ANGLE, STABILIZER, RADIATOR CONNECTOR, O-RING SHROUD ASSY., RADIATOR, 8V92TA SENDER, OIL TEMP. SENDER, TEMP., 1/2 PIPE HOSE ASSY., CONV.	2 4 2 2 2
	·		



DRIVELINE 6V92TA & 8V92TA OR. 7/28/828V(PM)
APP. SV 8000663

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#### DRIVELINE 6V92TA & 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	1132067 1149202	END YOKE 6V92 8V92	
2	1239904 1239912	DRIVESHAFT 212 W.B., 6V92 233 W.B., 6V92 240 W.B., 6V92- 233 W.B., 8V92 240 W.B., 8V92	
3	2139848 2139855	YOKE, AXLE END 6V92 8V92	·
4	1121565 1160803	KIT, CROSS BEARING 6V92 8V92	
5	1121573 1160811	SLEEVE, SLIP YOKE, (INCLUDES ITEM 6) 6V92 8V92	
6 NI NI 7	1160829 0992610 2027431	1	
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#### ENGINE TRIM 6V92TA

NO.	PART NO.	DESCRIPTION	QTY REQ'D
		AIR INTAKE PARTS	
	0920132	ELBOW, RUBBER, 90 DEGREE	2
	0993782	TUBE ASSY., INLET, AIR	-
	0993808	HOSE, HUMP, RUBBER, 7" TO 5 1/2"	Ī
	1022102	INDICATOR, SERVICE, AIR CLEANER	
	1070721	AIR CLEANER ASSY., DONALDSON	1 .
	1107416	CLAMP, MOUNTING, AIR CLEANER	2
	1145846	CHANNEL, AIR CLEANER SUPPORT	2 2
	3734191	ELEMENT, AIR CLEANER	_
		ENGINE MOUNTING PARTS	
		BRACKET ASSY., FRONT ENGINE MOUNTING, RH	
		BRACKET ASSY., FRONT ENGINE MOUNTING, LH	
	0920991	INSULATOR, ENG. MOUNTING	4
		WASHER, FRONT ENGINE MOUNTING	2
		CROSSMEMBER ASSY., REAR ENGINE MOUNT	
		CROSSMEMBER ASSY., FRONT ENGINE MOUNTING BRACKET	
	1205616	BRACKET ASSY., FRONT ENGINE MOUNTING TO FRAME	2
	0000555	TRANSMISSION INSTALLATION PARTS	
		INSULATOR, TRANS MOUNTING	2
		BRACKET ASSY., MOUNTING TRANS/SUPPORT	.   2
	0992628	TUBE ASSY., TRANSMISSION DIPSTICK	
		SUPPORT ASSY., TRANS TAIL	
		BRACKET ASSY., MOUNTING, TRANS SUPPORT	2
	1153113	DIPSTICK ASSY., TRANSMISSION	
	0893453	FREON COMPRESSOR & INSTALLATION PARTS COMPRESSOR, FREON YORK	
	0921775	KIT, ADAPTER, FREON COMPRESSOR	
		BELT, MATCHED SET OF 2, 38 3/4 X 1/2	1
	1	CLUTCH ASSY., FREON COMPRESSOR	
		ALTERNATOR & ASSOCIATED PARTS	
	1111483	PULLEY, ALTERNATOR 2.76 DIA.	
		ALTERNATOR, MOTOROLA	
	0992388	BELT, ALTERNATOR, (MATCHED SET OF 2)	
		AIR COMPRESSOR ASSOCIATED PARTS	
	0810630	HOSE ASSY., AIR COMPRESSOR DISCHARGE 24" LONG	1
	0908160	GOVERNOR, AIR COMPRESSOR	
		STARTER MOTOR & ASSOCIATED PARTS	
	0809103	SWITCH, MAGNETIC STARTER	2
		GASKET, STARTER, MOTOR	
	1204528	STARTER, MOTOR 12V, LEECE NEVILLE	
	1031806	HEATER, ENGINE BLOCK, 110 VOLT, 1500 WATT	

#### ENGINE TRIM 6V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
	1078773 1078781 1078799 0910216 0910224 1197920	SENDERS SENDER, ENGINE OIL PRESSURE SENDER, WATER TEMP 1/2 PIPE SENDER, WATER TEMP 1/8 PIPE SENDER, TACHOMETER TANG, DRIVE, TACH SENDER, OIL TEMP TRANS. W/RETARDER	
	0998542 3831310	FILTERS  FILTER, ENGINE OIL  FILTER, FUEL, SECONDARY  FILTER, AIR CLEANER  FILTER, TRANS., INTERNAL  FILTER, TRANS., EXTERNAL  FILTER, RACOR, 1000 FG  FILTER, HYD. FAN SYSTEM  FILTER, P/S RESERVOIR	3

#### ENGINE TRIM 8V92TA

KEY NO.	O. DESCRIPTION	QTY REQ'D
	AIR INTAKE PARTS	
08225		
09201		,
09697	· -	3
09937	· · · · · · · · · · · · · · · · · · ·	
09938		
09938		3
10221		
10707		1-2031
11074	• • • • • • • • • • • • • • • • • • • •	2
11458		2
37341	element, AIR CLEANER	
	ENGINE MOUNTING DADES	
1,000	ENGINE MOUNTING PARTS	
10803	•	4
11689		•
11689		2
11689		2
11689	· · · · · · · · · · · · · · · · · · ·	
11690		_
11690	•	2
11700	5 WASHER, SNUBBING, FRONT ENGINE MOU	NT 2
	TRANSMISSION INSTALLATION PARTS	
09837		2
09839		ORT 2
11309	The state of the s	
11620		
11695		
12266		
	FREON COMPRESSOR & INSTALLATION PA	RTS
08934	COMPRESSOR, FREON	
09217	5 KIT, ADAPTER, FREON COMPRESSOR	
09219		/2
10137	CLUTCH ASSY., FREON COMPRESSOR	•
	ALTERNATOR & ASSOCIATED PARTS	
11114		1
11422	=	1
	STARTER MOTOR & ASSOCIATED PARTS	·
08091		2
12045	66 STARTER MOTOR, 12V	·
10318	HEATER, ENGINE BLOCK, 110 VOLT, 15	OO WATT

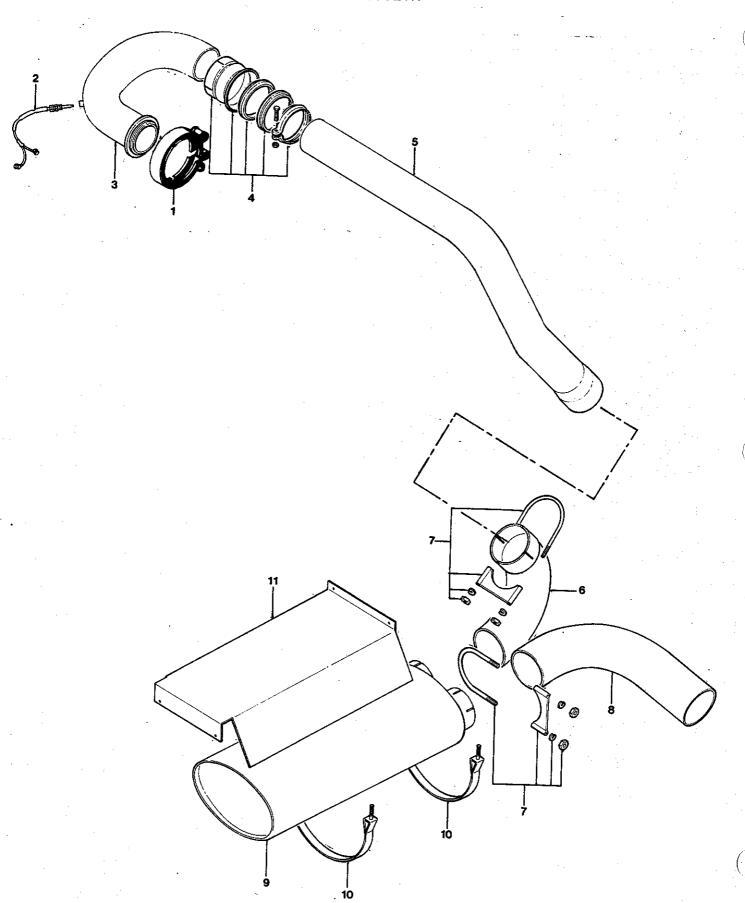
#### ENGINE TRIM 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
	1078781 1078799 0910216	SENDER, WATER TEMP 1/2 PIPE SENDER, WATER TEMP 1/8 PIPE SENDER, TACHOMETER TANG, DRIVE, TACH	
		<u>BELTS</u>	
	0992388 0921908	BELT SET, ALTERNATOR BELT SET, AIR CONDITIONER	1 PR. 1 PR.
		<u>FILTERS</u>	
	3734175 3734191 2159499 3831302 3831310 2122026	FILTER, ENGINE OIL FILTER, FUEL, SECONDARY FILTER, AIR CLEANER FILTER, TRANS., INTERNAL FILTER, TRANS., EXTERNAL FILTER, RACOR, 1000 FG FILTER, HYD. FAN SYSTEM	
	2138246	FILTER, P/S RESERVOIR	3
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		,	
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EXHAUST SYSTEM 6V92TA & 8V92TA DR. 8/1/85 BY J E.T. 8004384

APP. 8-5-85 BY CCN 8004384

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# EXHAUST SYSTEM 6V92TA & 8V92TA

PART NO.	DESCRIPTION	QTY REQ'D
1086156 1168988 0921601 2138493 1161900 1161918 1250299 1168921 1169556 1097906	THERMOCOUPLE, 4 TO 6 EXH.  PIPE ASSY., EXHAUST, TURBO  COUPLING, EXPANDO-FLEX JOINTS  GASKET ONLY, TURBO EXHAUST  EXHAUST PIPE  ELBOW, EXHAUST, 6"  CLAMP, EXHAUST PIPE, 6"  TAILPIPE  MUFFLER, 6" IN & OUT  STRAP ASSY., MUFFLER SUPPORT	
0993915 1097864 1097906 1098060 1098094 1098102	CLAMP, EXHAUST PIPE, 5" PIPE ASSY., EXHAUST, TURBO STRAP ASSY., MUFFLER SUPPORT MUFFLER, STEMCO PIPE, EXHAUST ELBOW PIPE, EXHAUST & TAIL	2 2 5 2
	1086156 1168988 0921601 2138493 1161900 1161918 1250299 1168921 1169556 1097906 1170851 0921601 0961052 0993915 1097864 1097906 1098060 1098094 1098102	CLAMP, 5" TURBO THERMOCOUPLE, 4 TO 6 EXH. PIPE ASSY., EXHAUST, TURBO COUPLING, EXPANDO-FLEX JOINTS GASKET ONLY, TURBO EXHAUST L161900 L161918 LEBOW, EXHAUST, 6" CLAMP, EXHAUST PIPE, 6" CLAMP, EXHAUST PIPE, 6" TAILPIPE MUFFLER, 6" IN & OUT STRAP ASSY., MUFFLER SUPPORT SHIELD, HEAT, MUFFLER  MODEL 3502 6V92TA  COUPLING, EXPANDO, FLEX JOINT BRACKET, EXHAUST PIPE HANGER CLAMP, EXHAUST PIPE HANGER CLAMP, EXHAUST PIPE, 5" PIPE ASSY., EXHAUST, TURBO STRAP ASSY., MUFFLER SUPPORT SHIELD, HEAT, MUFFLER SUPPORT CLAMP, EXHAUST PIPE, 5" PIPE ASSY., EXHAUST, TURBO STRAP ASSY., MUFFLER SUPPORT MUFFLER, STEMCO PIPE, EXHAUST ELBOW PIPE, EXHAUST ELBOW PIPE, EXHAUST & TAIL

**QUANTITY REQUIRED** IS ONE. **UNLESS OTHERWISE** SPECIFIED. 0840P 53

# EXHAUST SYSTEM OPT. 6007 & 6008-01

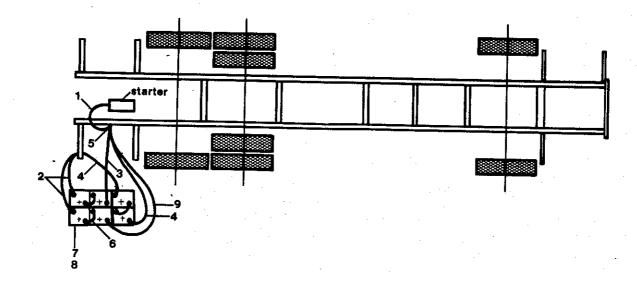
KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
	0993899	OPTION 6007, HITCO INSULATION BLANKET 6V92TAB	2
	1152222 1152230 1152248 1152255	BLANKET, PIPE COVER, RH BLANKET, PIPE COVER, LH BLANKET, TEE COVER, HITCO BLANKET, TURBO COVER BLANKET, MANIFOLD COVER, RH	
	1152271 1152289	BLANKET, MANIFOLD COVER, LH BLANKET, 6" BLANKET, 12" BLANKET, 24" BLANKET, 90 DEG. ELBOW	3 2 4
		OPTION 6008-01, HITCO INSULATION BLANKET 8V92THB	
	1152222 1152230 1156033 1156041	BLANKET, PIPE COVER, RH BLANKET, PIPE COVER, LH BLANKET, TEE COVER BLANKET, TURBO BLANKET, MANIFOLD, RH, HITCO	
	1166792 1234319	BLANKET, MANIFOLD, LH, HITCO BLANKET, 5 DIA. BLANKET, 6 DIA. BLANKET, FLAT WRAP BLANKET, ELBOW, TRANSITION	
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FUEL LINES 6V92TA 8V92TA

#### FUEL LINES 6V92TA, 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	2026706	ELBOW, 1/2 MPT X 5/8 TUBE FLARE	2
2	2027092	NUT, 5/8 FLARE	2
3	0993188	ADAPTER, O-RING TO NPTF 10 1/2	2
4		COUPLING, ANCHOR, 1/2 NPT	
5		CONNECTOR, 1/2 MPT X 5/8 TUBE FLARE	4
6		HOSE END. 45 FLARE SWIVEL, 5/8 TUBE X 1/2 ID HOSE	4
7	1	BRACKET, MOUNTING, RACOR FUEL FILTER	
8	0654350	TEE, STREET, 1/2 PIPE	
9		ADAPTER, 1/2 FPT TO 3/8 MPT	
i		BUSHING, PIPE, 1/2 X 4	
11		ELBOW, MALE, INVERTED FLARE, 1/4 TUBE X 1/8	
12		NUT, 1/4 INVERTED FLARE	
13		ELBOW, 90 DEG. MALE, 1/2 TUBE X 3/8 PIPE	2
14		NUT, 1/2 FLARE CONNECTOR, 3/8 MPT X 1/2 TUBE FLARE	
15		COUPLING, 3/8 MF1 X 1/2 TOBE FLARE COUPLING, 3/8 X 3/8 PIPE	
16	1002898	COUPLING, 5/6 A 5/6 FIFE	
17		TANK ASSY., 300 GAL.	
l l	3830510	3502	
	3830494	• • • • • • • • • • • • • • • • • •	
	3030474		
18	2027407	TUBE, 5/8 COPPER TUBING, 1/2 TYPE L WATER	
19		TUBING, 1/2 COPPER, 3/8 TYPE L WATER TUBE	
20		BUSHING, PIPE, 3/8 X 1/4	
21		HOSE ASSY., STRATOFLEX	
22	0928853	CONNECTOR, MALE, 1/4 MPT, 3/8 TUBE, 45 FLARE	
23	2026953	UNION, 3/8 INVERTED FLARE	
24	0853234	CLAMP, CLOSED TYPE, 1 1/8	
25		HOSE 1/2 ID WIRE BRAID MED. PRESS 211 HOSE	43
26		FILTER, FUEL/WATER SEPARATOR	
NI		ELEMENT, WATER SEPARATOR	
27		BRACKET, MOUNTING, FUEL FILTER	
28		TUBING, COPPER, 1/4	· .
29	2005718		
30	1153634	ELBOW, MALE, 3/8 MPT X 3/8 TUBE FLARE	,
31	1154905	NUT, 3/8 FLARE	
32	2027381		
33	l .	VENT, FUEL TANK ELBOW, 1/2 STREET, 45	
35	2027217 1130327		
NI	3751351		
36	3,21321	SEE ITEM 17	
37	1165752	·	
38	2008274	· · · · · · · · · · · · · · · · · · ·	
39	2008050		
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WLPP- GM 8V-92T, GM 6V-92T

#### BATTERIES AND BATTERY CABLES

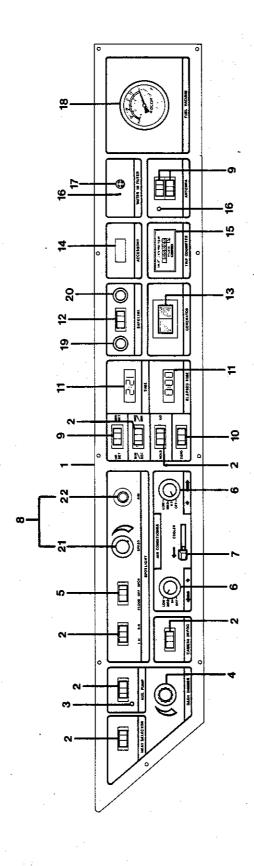
KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
3 4 5 6 7 8	0997536 1288984 1142470 1171735 0553131 0359109 0621342 1141092 1171727 2260156	STRAP, BATTERY GROUND CABLE ASSY., BATTERY, 14" CABLE ASSY., BATTERY, 30" TERMINAL, BATTERY CABLE JUNCTION CABLE ASSY., BATTERY BATTERY, ESB EE-IV ANGLE, BATTERY CLAMPING CABLE ASSY., BATTERY, 21"	3 6
NI	3742038 3742046	TERMINAL. BATTERY JUMPER POSITIVE NEGATIVE	
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# ELECTRICAL COMMON PARTS 6V92TA & 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
	0521781	6V92TA RELAY, HORN	
	0870261 0985689 1025899 1124544 1124676	SWITCH, TRANS, NEUTRAL BREAKER, CIRCUIT, 25 AMP RELAY, RACOR FUEL FILTER VALVE, SOLENOID, NORMALLY OPEN, ALLENAIR SWITCH, HEADLINING, DIMMER	
	1210970 1249382 1267632	TERMINAL BLOCK, ELECTRICAL, 13 STUD SWITCH, IGNITION HARNESS, WIRING, CHASSIS	
		8V92TA	
	0521781 0864660 0870261 0985689 1025899 1124544 1124676 1170869 1210970	RELAY, HORN BREAKER, CIRCUIT, 6AMP SWITCH, TRANS, NEUTRAL BREAKER, CIRCUIT, 25 AMP RELAY, RACOR FUEL FILTER VALVE, SOLENOID, NORMALLY OPEN, ALLENAIR SWITCH, HEADLIGHT, DIMMER BREAKER, CIRCUIT, BAMP TERMINAL BLOCK, ELECTRICAL, 13 STUD	2
	1249382 1267632	SWITCH, IGNITION HARNESS, WIRING, CHASSIS	
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#### **BUMPERS**

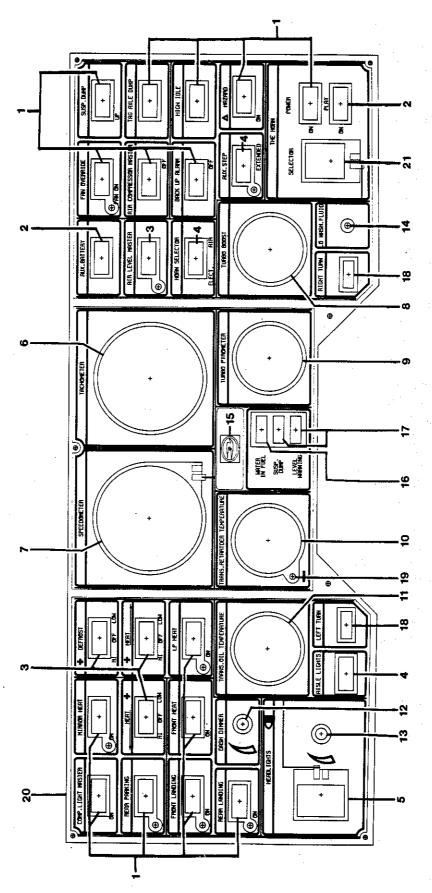
PARTNO.	DESCRIPTION	QTY REQ'D
3839859 3839867 3839842 3847985	BUMPER, FRONT PLATED, RH BUMPER, FRONT, PLATED, LH BUMPER, FRONT, PLATED, CENTER BUMPER, REAR	
	3839859 3839867 3839842	3839859 3839842 3847985  BUMPER, FRONT PLATED, RH BUMPER, FRONT, PLATED, LH BUMPER, FRONT, PLATED, CENTER BUMPER, REAR



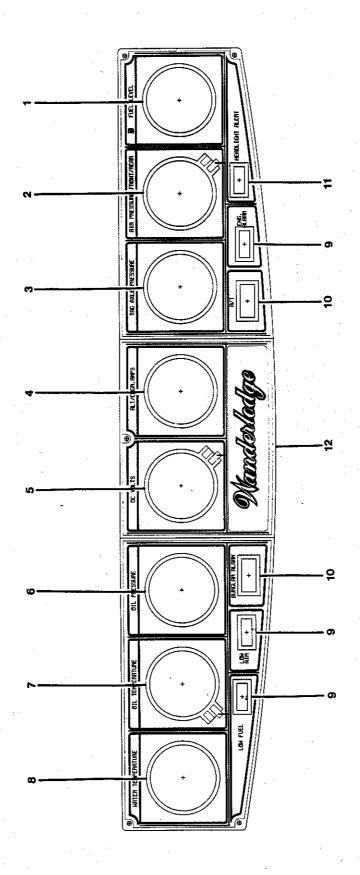
# INSTRUMENTS LEFT HAND, OVERHEAD

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 2	3760964 2268522	DECAL ONLY SWITCH, ON/OFF	
3	2271484 3826914	LIGHT . BLUE RED	
4 NI 5 6 NI 7 NI 8 9 10 11 12 13 NI 14 15	2273928 2268548 3756095 3758521 3767613 3767621 3756012 2268563 2268555 2272383 2268530 3805306	SWITCH, ON/OFF/ON SWITCH, AC KNOB, AC THERMOSTAT KNOB, THERMOSTAT SWITCH ASSY. SWITCH, MOMENTARY ON/ON SWITCH, MOMENTARY ON CLOCK SWITCH, ON/ON SWITCH, GENERATOR BEZEL, GENERATOR SWITCH BLANK	
16 17 18	2249480		, '
19 20 21 22	2130045	BULB, RED, POWER WATCH METER SWITCH, SPEED CONTROL, SPOTLIGHT SWITCH, ROTATING, SPOTLIGHT	

**QUANTITY REQUIRED** IS ONE **UNLESS OTHERWISE** SPECIFIED. 0840P

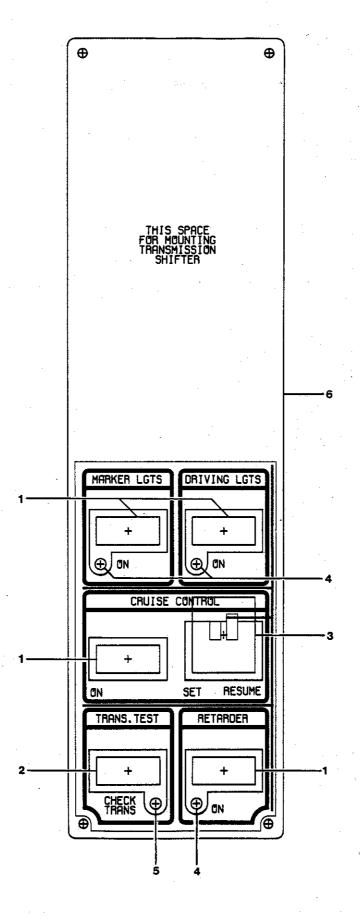


KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
3 4 5 6 NI NI 7 8 9 10		SWITCH SWITCH, MOM ON SWITCH, ON-OFF-ON SWITCH, CHICAGO, ON-ON SWITCH, HEADLIGHT TACHOMETER SENDER, TACHOMETER TANG, DRIVE SPEEDOMETER, TELEFLEX GAUGE, TURBO BOOST GAUGE, PYROMETER GAUGE, TRANS, OIL TEMP, 360 DEGREE SENDER, TRANS, OIL TEMP. GAUGE, TRANS, RETARDER, (OIL TEMP)	15 2 4 3
12 13 14 15 16 17 18 19 20 21	3761632 3851920 3851904 3843877 2271815	RHEOSTAT RHEOSTAT LIGHT ASSY., P, BLUE LIGHT, INDICATOR, HIGH BEAM, DASH LIGHT, INDICATOR, AMBER	9 2 2



KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2 3 4 5 6 NI 7	0804393 3810389 3834702 3847381 3746120 3795481 1078773 3768496 1078823	GAUGE, AIR PRESSURE, DUAL, FRONT REAR GAUGE, AIR PRESSURE, 0-160 PSI GAUGE, AMPERE, 0-300 ADC, GAUGE, VOLTMETER GAUGE, OIL PRESSURE, ELECTRIC Teleflek SENDER, ENGINE OIL PRESSURE — Lept. 1340777 GAUGE, ENGINE OIL TEMP.	
NI	1078781 1078799	SENDER. WATER TEMP. 1/2 PIPE 1/8 PIPE	
10	2271807 2268522 2271823 3852001	LIGHT, PILOT, RED SWITCH, CHICAGO, DASH LIGHT, INDICATOR, BLUE PANEL ASSY., DASH, UPPER	3 2
	·		

**QUANTITY REQUIRED** IS ONE **UNLESS OTHERWISE** SPECIFIED. 0840P



#### PANEL ASSY., SHIFTER

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 2 3 4 5 6 NI	2268522 2268530 2268563 3851904 3851912 3852019 1232081	SWITCH, CHICAGO DASH SWITCH, CHICAGO DASH, ON-ON SWITCH, CHICAGO DASH LIGHT ASSY., P. BLUE LIGHT ASSY., P. RED PANEL ASSY., SHIFTER SHIFT, SELECTOR	3
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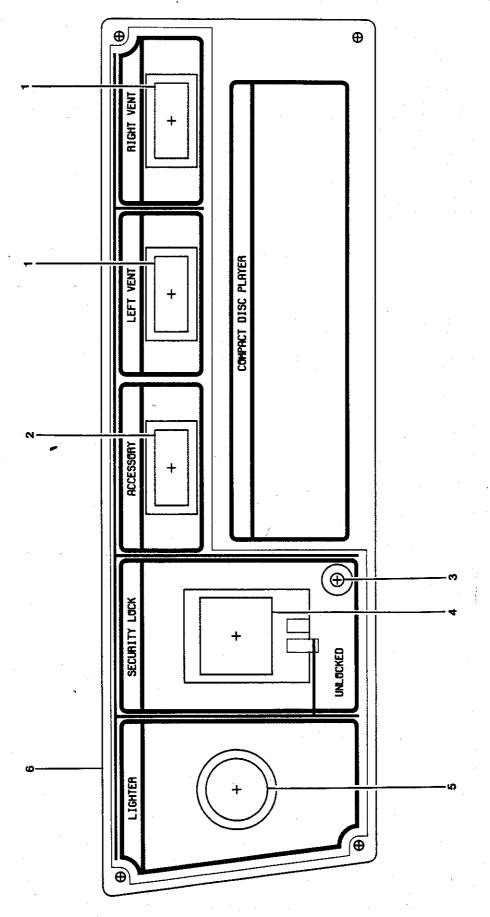
**QUANTITY** 

REQUIRED 0840P IS ONE

UNLESS

**OTHERWISE** 

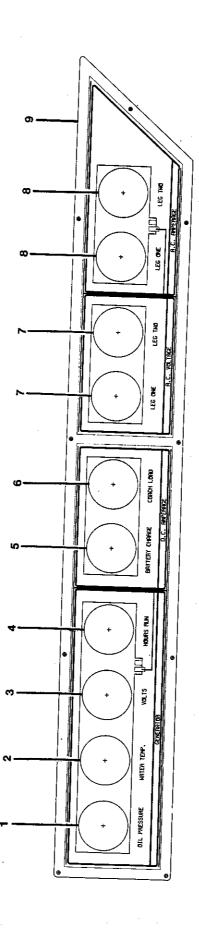
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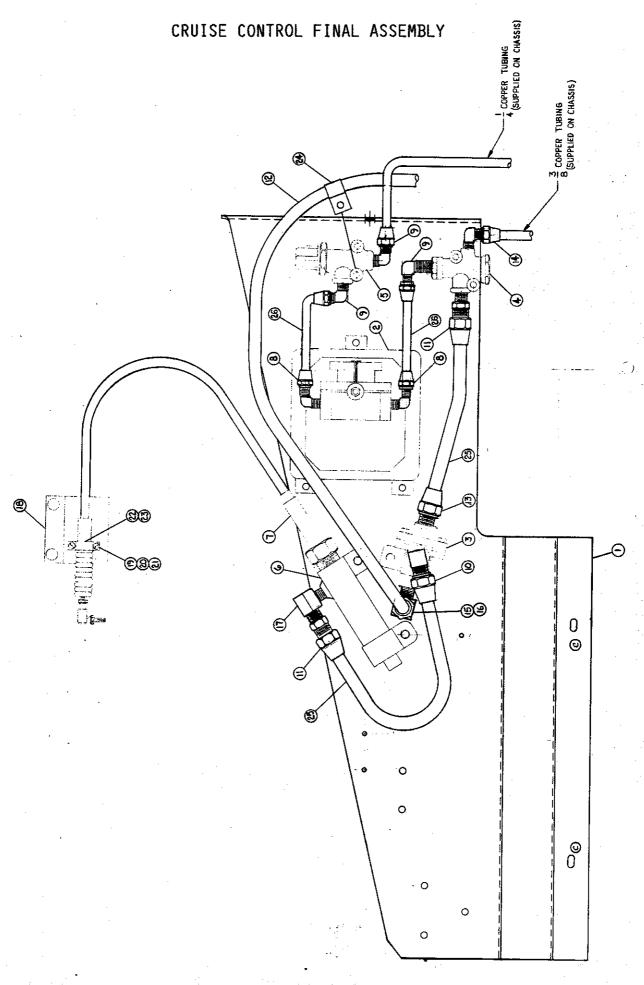
KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2 3 4 5	2268522 2274165 3851904 2268530 2018406 3841053	SWITCH, CHICAGO DASH SWITCH, BLANK, CHICAGO LIGHT ASSY., P. BLUE SWITCH, CHICAGO, DASH, ON-ON LIGHTER, CIGARETTE PANEL, ASSY., DASH, RH UPPER	2
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PANEL, DASH, OVERHEAD AUXILIARY, RH





KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
NI 2 NI 3 4 5 6 7	3795481 3811254 1078823 3811221 3746120 3746112 3847357 3847381 3847373 3847365 3841038	GAUGE, OIL PRESSURE, ELECTRIC SENDER, OIL PRESSURE GAUGE, WATER TEMP, D/SCALE, GAS ENGINE A-C SENDER, WATER TEMP. GAUGE, VOLTMETER GAUGE, HOURMETER GAUGE, AMPERE, 150-0-150 ADC GAUGE, AMPERE, 3-300 ADC GAUGE, VOLT, 60-140 VAC GAUGE, AMPERE, 0-50 AAC PANEL ASSY., DASH, OVERHEAD AUXILIARY, RH	
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### CRUISE CONTROL FINAL ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	1091438 0654434 1087444 1087436 1087428 1091461 2023786 2023935 2023307 2023372 0870311 2027241 2027241 2027233 1089929 2001162 2001253 2000743 1091446 0620120 1170083 1197177 1197185 0654970 1092337 0977132 2001329 2001170	PLATE, MOUNTING, CRUISE CONTROL MODULE, CRUISE CONTROL, BENDIX VALVE, DOUBLE CHECK, 3/8 PIPE VALVE, INVERSION, CRUISE CONTROL CALVE, PRESSURE REDUCING, CRUISE CONTROL CCLINDER, AIR, CRUISE CONTROL CABLE, THROTTLE, CRUISE CONTROL ELBOW, 1/8 MPT X 1/4 TUBE ELBOW, 1/8 MPT X 1/4 TUBE ELBOW, 3/8 MPT X 1/2 TUBE CONNECTOR, 1/4 MPT X 1/2 TUBE HOSE ASSY. CONNECTOR, 3/8 MPT X 1/2 TUBE ELBOW, 3/8 STREET BUSHING, PIPE, 3/8 X 1/4 ELBOW, 1/4 STREET BRACKET, MOUNTING, THROTTLE CRUISE CONTROL CABLE WASHER, LOCK, 3/16 NUT, HEX, 8-32 SCREW, MACHINE, PH, RD, HD., 8-32 X 3/4 CP CLAMP, ACCELERATOR CABLE, CRUISE CONTROL SHIM, CABLE CLAMP CLAMP, CLOSED TYPE TUBING, NYLON, GRAY, 1/2 O.D. INSERT, NYLON TUBING, 1/2 O.D. INSERT, HYTRON TUBING, 1/4 O.D., .040 WALL BOLT, 1/2-20 X 2, HEX, PHOS & OIL BOLT, HEX, BC, CAD PLTD., 1/4 WASHER, LOCK, 1/4, PHOS & OIL BOLT, HEX, S/16-18 X 7/8, PHOS & OIL NUT, HEX, 5/16-18 X 7/8, PHOS & OIL NUT, HEX, 5/16-18 X 7/8, PHOS & OIL NUT, HEX, 5/16-18 X 7/8, PHOS & OIL NUT, HEX, 5/16-18 X 7/8, PHOS & OIL NUT, HEX, 5/16-18 X 7/8, PHOS & OIL NUT, HEX, 5/16-18 X 7/8, PHOS & OIL NUT, HEX, 5/16-18 X 7/8, PHOS & OIL	22 2 4 4 3 7 7 3 3 3 3

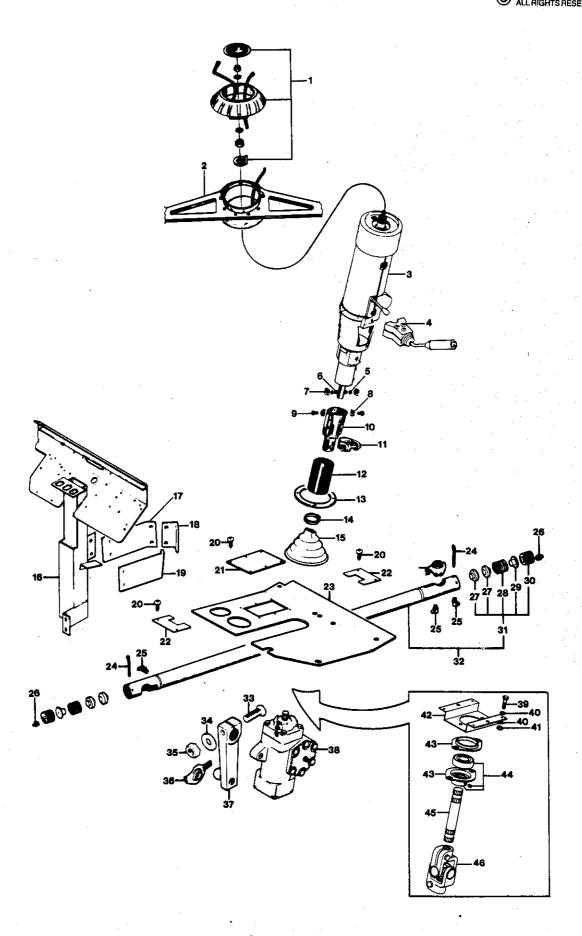
### STEERING INSTALLATION

DR. 4-2-86 BY SHC

APP. 8/27/85 BY SAF

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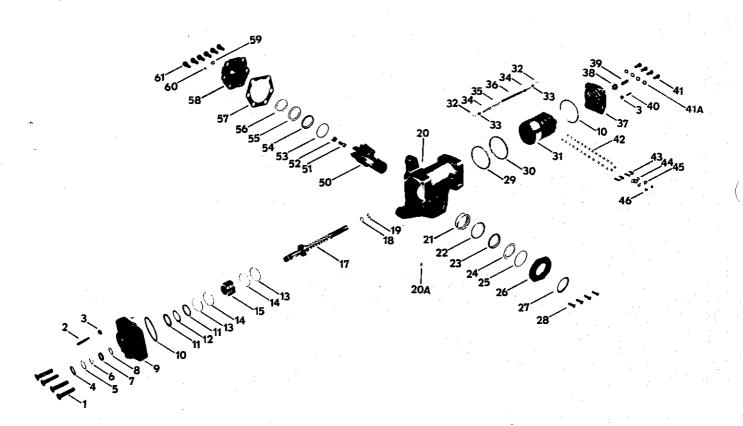
#### STEERING INSTALLATION

NI 2 3* 4 5	3841350 3841327 1247618 1287606 1254986	KNOB, LOCKING, TILT & TELESCOPING STEERING COLUMN STOP, LOCK, TILT & TELESCOPING STEERING COLUMN RFD STEERING WHEEL ASSY. COLUMN ASSY., TILT & TELESCOPING, DOUGLAS A933A *(SEE TABLE OF CONTENTS FOR COMPONENT PARTS)	
2 3* 4 5 6	3841327 1247618 1287606 1254986	RFD STEERING WHEEL ASSY. COLUMN ASSY., TILT & TELESCOPING, DOUGLAS A933A	
3* 4 5 6	1247618 1287606 1254986	COLUMN ASSY., TILT & TELESCOPING, DOUGLAS A933A	
4 5 6	1287606 1254986		
5 6	1254986		
6		SWITCH ASSY., TURN SIGNAL, SELF CANCELING	1 _
		WASHER, WHEELSHAFT, WAVE	2
		PIN, STEERING SHAFT, LOWER	1 _
		BUTTON, WHEEL SHAFT SLIDE	2
		WASHER, TONGUED COUPLING SHELL	2 2
		CAPSCREW, COUPLING SHELL	2
		COUPLING SHELL, STEERING SHELL	
11	1255041	CLAMP ASSY., STEERING CLAMP SHELL	
		RUBBER SHIELD, STEERING SHAFT, LOWER	
		RETAINER, GEAR SHIFT LEVER BOOT	
		CLAMP, STEERING COLUMN BOOT, 2.37, OETIKER NO. 605	
		BOOT, RUBBER GEAR SHIFT & STEERING COLUMN	
16	1270685	POST, FINAL ASSY., INSTRUMENT PANEL	
17	1256015	BRACKET, MTG., TILT & TELESCOPE STEERING COLUMN, RH	
18	1256049	ANGLE, MTG., TILT & TELESCOPE STEERING COLUMN	
19		BRACKET, MTG., TILT & TELESCOPE STEERING COLUMN, LH	
20	2000511	SCREW, SM PH OVAL HD 10 X 1/2	10
21	1037688	PLATE, SERVICE ACCESS. TOEBOARD POWER STEERING	_
22		PLATE, SERVICE ACCESS. TOEBOARD	2
23		TOEBOARD, W/ACCESS HOLE	_
24		COTTER PIN 3/16 X 3	2
25	2027472	FITTING, 1/8 MPT 90 DEG. GREASE	3
26		FITTING, 1/8 MPT STRAIGHT GREASE	2
27		BALL SEAT, DRAG ROD	4
28	2596617		2
29	2627107	SPRING SEAT	2
30	2596518	PLUG, ADJUSTING 1 3/4 DRAG ROD	2
31		KIT, REPAIR, DRAG ROD ASSY.	
32	1258359	DRAG ROD ASSY., POWER STEERING, HFB-64, PAINTED	
33	0870873	BOLT, HEX 3/4-10 X 4, GD. 8	
34	0870915	WASHER, 3/4 PLAIN	
35	0933879	NUT, HEX, 3/4-10 GD. 8, PREV. TORQUE	
36	0990184	DUST COVER, DRAG ROD STEERING	2
37	1258300	ARM, PITTMAN, 8 1/2, ISP-564, PAINTED	1
38	1161330	GEAR, POWER STEERING, HFB-64	
39	1	BOLT, HEX HD, 1/4 X 20 X 1, GD. 5, CAD. PLTD.	4
40		WASHER, FLAT, 1/4	8 4
41	1039262	NUT, HEX, LOCK, 1/4-20	4.
42		BRACKET, MTG., BEARING ASSY., STEERING	2
43	1105410		4
44	1105030		
45	T I	SHAFT, SPLINED	'
46	1253665	JOINT, UNIVERSAL, STEERING	

HFB 64, STEERING GEAR ASSY.

DR.	BY	0 44.54
APP.	BY	2158509

C 1985 BLUE BIRD BODY COMPANY



KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
NI	2120848	SEAL KIT, HFB 64 STEERING GEAR	HFB 640001	
NI	1161330	GEAR ASSY., POWER STEERING		
1	2120996	BOLT, 1/2-13 TORX HEAD	020251	4
2	2121044	ADJUSTING SCREW	021336	
3	2121051	NUT	025121	
3A	2121077	NUT, 5/16-24	025124	
4	2121184	SEAL	032579	
5		RETAINING RING	401314	·
6		BACKUP WASHER	028445	
7	2121176	SEAL ASSY.	032577-Al	
9		VALVE HOUSING ASSY.	HFB-646013-A1	2
10	2121226	U-KING	032616	2 2
11	2121085	THRUST WASHER	028430	4
12	2597235	THRUST BEARING SEAL RING	032570	2
13	2121150		032570	2
14	5121108	NOT SERVICED SEPARATELY, SEE	0323/1	
12		ITEM 17	· ·	
17	2121374	WORM AND VALVE ASSY.	HFB-523001-J1	
18	1		032552	2
19	2121133	O-RING SEAL RING HOUSING ASSY	032536	2
20	2138329	HOUSING ASSY.		
21	2121267	ROLLER BEARING	071018	
22		RETAINING RING	401309	
23		SEAL RING ASSY.	032634-A1	
24		WASHER	028433	
25		O-RING	032586	
26	2121325		402368-A1	1
27	2121200		032591	
28	2121366		G-9429710	4
29	2705184	SEAL RING	032590	
30	2121218	O-RING	032615	
. 31	2121424	RACK AND BALL ASSY.	HFB-647002-J1	
32	2121309	RETAINING RING	401379	2
33	2121341		415442	2
34	2121234		040124	2
35	2121242		040125	
36	2121291		401375	
37	2121333		402376	
38	2121069		025122 021333	
39	2121036		021333	
40	2121010		020252	4
41	2121002		020232	4
41A			216191-X1	-
42	2121275	NOT SERVICED SEPARATELY, SEE ITEM 46A	210171-11	
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KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
44		NOT SERVICED SEPARATELY, SEE		
45		ITEM 46A NOT SERVICED SEPARATELY, SEE ITEM 46A		
46		NOT SERVICED SEPARATELY, SEE ITEM 46A		
46A	2121283	CAP, GUIDE AND STRAP KIT INCLUDES ITEMS 43, 44, 45, 46	400122-X1	
50	2121788	SHAFT ASSY.	HFB-644100-A1	
51 52 53	2596633	ADJUSTING SCREW RETAINER RETAINING RING	021200 062005 401445	
54 55 56	2138303	SEAL RING ASSY. WASHER	028435 028434	
57 58	2121408	GASKET, SIDE COVER SIDE COVER ASSY.	HFB-649000 HFB-645002-J1	
59 60 61		JAM NUT, HEX 1/2-20 VENT PLUG SCREW, 5/8-18	G-9419666 036141 G-223734	6
01	2121020		G-223/34	
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QUANTITY

**REQUIRED** 

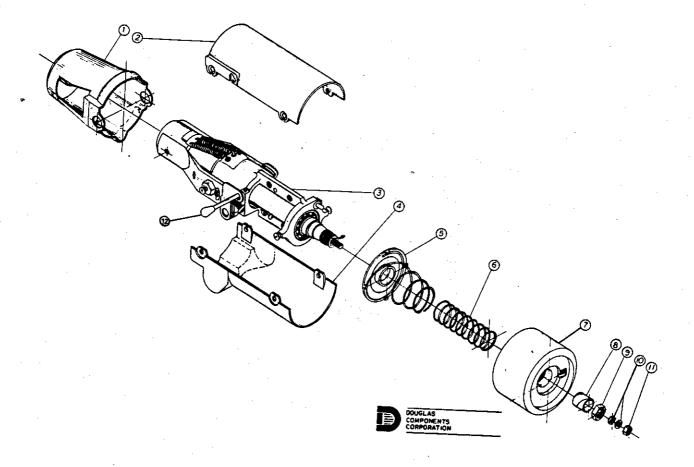
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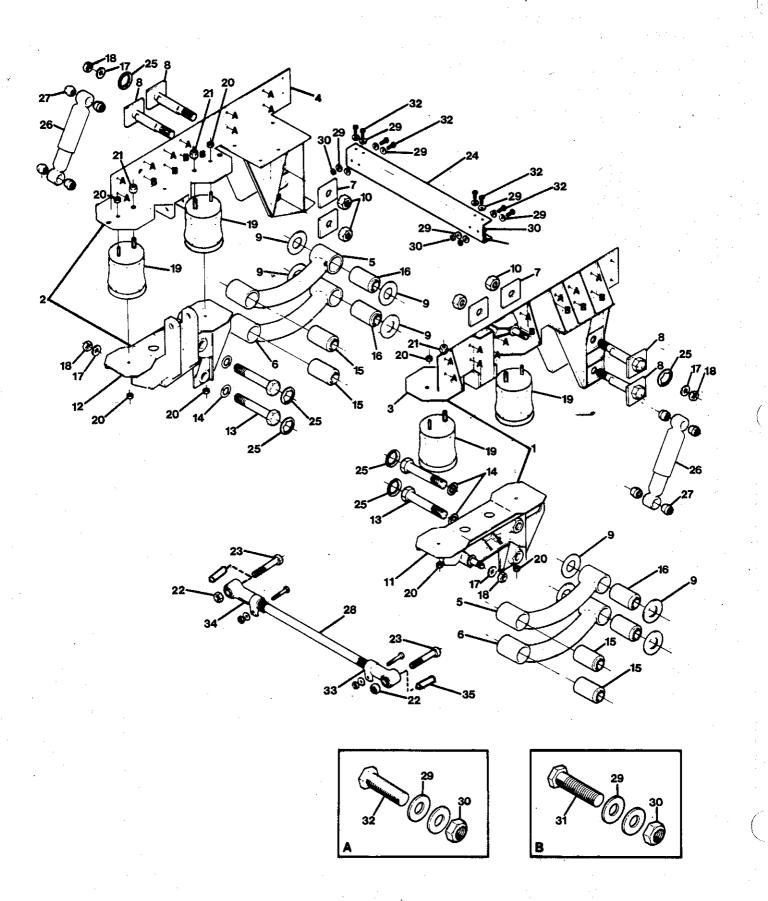
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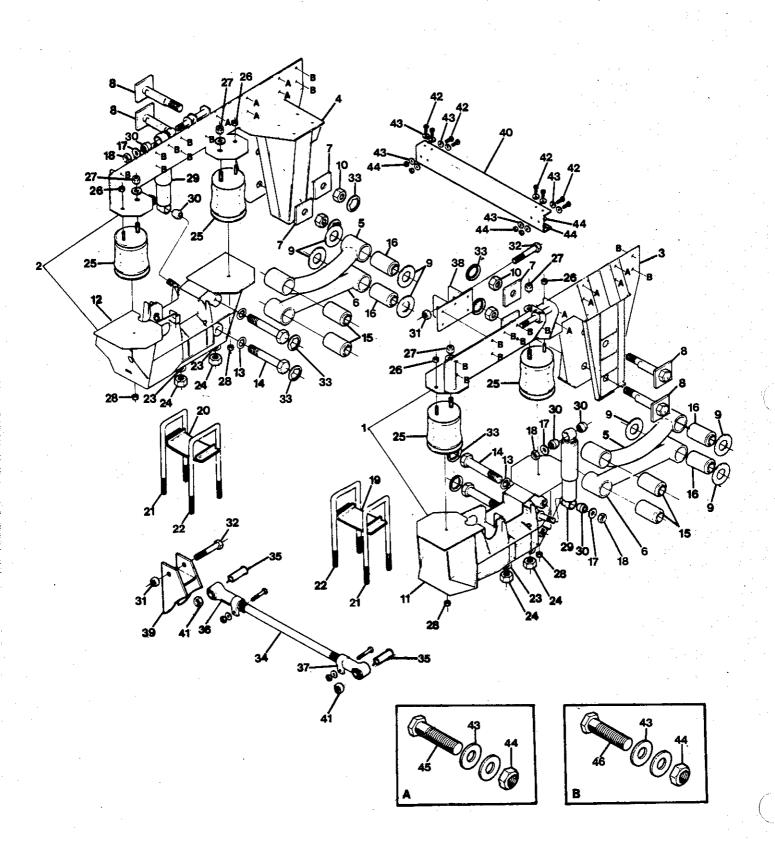
### COLUMN ASSY., TILT & TELESCOPING

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1 2 3 4 5 6 7 8 9 10 11 12		COVER COVER-UPPER MODEL 909 STEERING COLUMN COVER-LOWER HOUSING & PLATE ASSY. SPRING COVER ASSY. PROTECTOR (DISCARD) NUT LOCKWASHER NUT KNOB-LOCKING ROD	47369 47371D 4733A 4737D 47372 47376 47577A 47383 47386 43472B 47384	
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### FRONT SUSPENSION

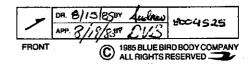
(EY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1	1245752	HANGER & BEAM ASSY., RH		
2	1245760	HANGER & BEAM ASSY., LH		
	1141258	HANGER RAIL ASSY., RH	309-6413C-200	
	1141266	HANGER RAIL ASSY., LH		
	1026368		506-4035B-000	
6	0961821	TORQUE BEAM ASSY., LOWER	505-4035B-000	_
7	0961839	CLAMPING PLATE ASSY.	740-1494B-000	4
В	0961847	CLAMPING PLATE ASSY. BOLT ASSY., ECCENTRIC WASHER, BEARING SLEEVE	500-1458B-000	4
9	1243807	WASHER, BEARING SLEEVE	116-0519B-903	8 4
10	1077221	NUT, HEX, LOCKING, 1 1/4"-7 CADMIUM	115-56488-105	4
11	1216852	BEAM ASSY., LOWER, RH BEAM ASSY., LOWER, LH	425-6415D-200	
	1216860	BEAM ASSY., LOWER, LH BOLT, HEX HEAD, 1 1/2"-6 X 7" LONG	425-6414D-100	
13	0961409			4 4
L4	0961417	DISCUSAGE TOPOLIE DERM COUT DIDDED	111 22200 000	
15 16	09013/3	BUSHING, TORQUE BEAM, SOFT RUBBER	111-33288-000	- A
10 17	0907201	MACUED 2" O D GUOCK STIID	116-1677R-100	- <del>1</del>
18	1105782	NUT HEY LOCKING 1"-8	115-5939R-102	4
10	1263581	ATP SPRING FRONT	100-358-89920	Δ
20	0961458	NUT HEX LOCKING 1/2"-13	115-0555B-102	8
21	0985549	NUT. HEX. LOCKING, 3/4"-16	115-4700B-102	4
22	1085489	NUT. HEX. NYLON INSERT. 1"-8	115-1678B-105	2
23	1085380	BUSHING, TORQUE BEAM, SOFT RUBBER BUSHING, TORQUE BEAM, HARD RUBBER WASHER, 2" O.D., SHOCK STUD NUT, HEX, LOCKING, 1"-8 AIR SPRING, FRONT NUT, HEX, LOCKING, 1/2"-13 NUT, HEX, LOCKING, 3/4"-16 NUT, HEX, NYLON INSERT, 1"-8 BOLT, HEX, GD. 8, 1"-8 X 6" CHANNEL, CROSSBRACE WASHER, ANTI-TURN SHOCK ABSORBER, KONI (BUSHINGS INC.) BUSHING, SHOCK ABSORBER	113-5711B-108	2
24	1026400	CHANNEL, CROSSBRACE	817-4754B-301	
25	0961375	WASHER, ANTI-TURN	900-3092B-3014	
26	1235233	SHOCK ABSORBER, KONI (BUSHINGS INC.)	1004163 a olde	2/
27	0614982	BUSHING, SHOCK ABSORBER	1007167 06 0000	- 04C Thi
28	1245935	SWAY BAR ASSY.		
29	0850776			
		NUT, HEX LOCKING 1/2-13 GD. 8	·	
	0803239	BOLT, HEX 1/2-13 X 1 1/2 GD. 8	·	
32		BOLT, HEX 1/2-13 X 1 3/4 GD. 8		
33		END ASSY., SWAY BAR, RH		
34	2122216			
35	2159879		·	
II	0871376			
NI	1028786			
ΙI	0961607	BRACKET, MOUNTING, LEVELING VALVE	·	
		·		
	l i			

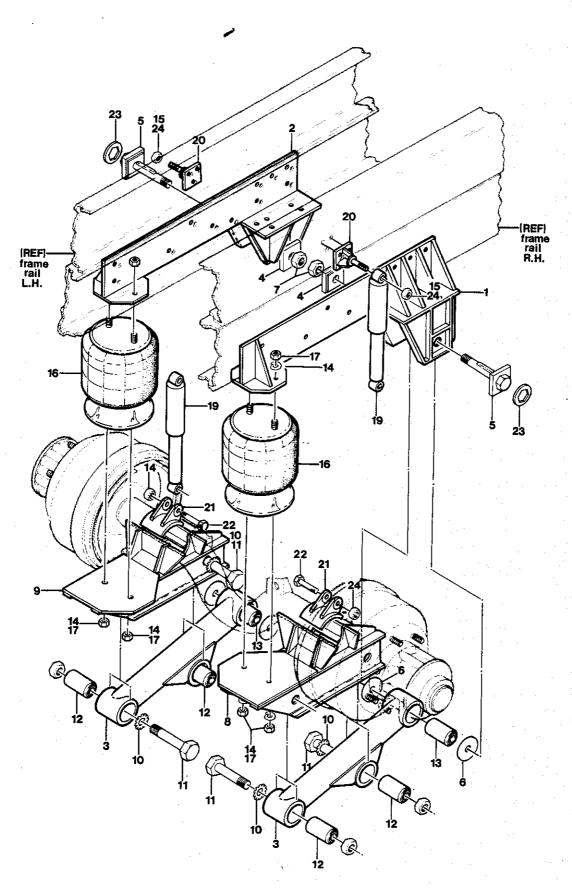


# SUSPENSION SYSTEM DRIVE AXLE

	PART NO.	DESCRIPTION  HANGER & BEAM ASSY., RH HANGER & BEAM ASSY., LH HANGER RAIL ASSY., RH HANGER RAIL ASSY., LH TORQUE BEAM ASSY., LPPER TORQUE BEAM ASSY., LOWER CLAMPING PLATE ASSY BOLT ASSY., ECCENTRIC WASHER, BEARING SLEEVE NUT, HEX, LOCKING, 1 1/4"-7 BEAM ASSY., RH BEAM ASSY., RH WASHER, LOCK, INT. TOOTH 1 1/2" BOLT, HEX HEAD, 1 1/2"-6 X 7" BUSHING, TOROUE BEAM, SOFT RUBBER	VENDOR PART NO.	QTY REQ'D
1	1280007	HANGER & BEAM ASSY., RH		
2	1280015	HANGER & BEAM ASSY., LH		
3	0990085	HANGER RAIL ASSY., RH	310-6165C-100	
4	0976969	HANGER RAIL ASSY., LH	310-6165C-200	
5	1026368	TORQUE BEAM ASSY., UPPER	506-4035B-000	
6	0961821	TORQUE BEAM ASSY., LOWER	505-4033B-000	
7	0961839	CLAMPING PLATE ASSY	740-1494B-000	4
8	0961847	BOLT ASSY., ECCENTRIC	500-1458B-000	4
9 -	1243807	WASHER, BEARING SLEEVE	116-0519B-903	8
10	1077221	NUT, HEX, LOCKING, 1 1/4"-7	115-5648B-105	4
11	1089010	BEAM ASSY., RH	426-5763D-200	
12	1089028	BEAM ASSY., LH	426-5762D-100	
13	0961417	WASHER, LOCK, INT. TOOTH 1 1/2"	116-0673B-000	4
14	0961409	BOLT, HEX HEAD, 1 1/2"-6 X 7"	113-0670B-105	4
15				4
16	0961581	BUSHING, TORQUE BEAM, HARD RUBBER	111-0512B-000	4
17	2021939	WASHER, 2" O.D., SHOCK STUD	116-1677B-100	4
18	1105782	NUT, HEX, LOCKING, 1"-8 NYLON INSERT	115-5939B-102	4
19	1279959	SPACER PLATE ASSY., RH SPACER PLATE ASSY., LH U-BOLT, 7/8"-14 X 14"	465-5703B-200	
20	1279967	SPACER PLATE ASSY., LH	465-5702B-100	
21	0961201	U-BOLT, 7/8"-14 X 14"	117-3532B-308	2
22	1087352	U-BOLT. 7/8"-14 X 14 1/2" X 5 1/8"	117-3532B-327	2
23	0961235	WASHER, FLAT, 7/8"	116-0868B-100	8
24	1095892	WASHER, FLAT, 7/8" NUT, HEX HI-NUT, 7/8"-14, GD. 5	115-5876B-000	8
25	0961250	AIR SPRING	100-358-9039C 115-0555B-102 115-4700B-102 115-1384B-102 125-4025B-000	4
26	0961458	NUT, HEX, LOCKING, 1/2"-13	115-0555B-102	4
27	0985549	NUT, HEX, LOCKING, 3/4"-16, GD. 5	115-4700B-102	4
28	0961276	NUT, HEX, LOCKING, 3/4"-10	115-1384B-102	4
29	0961284	NUT, HEX, LOCKING, 3/4"-10 SHOCK ABSORBER BUSHING, SHOCK ABSORBER NUT, 1"-8, HEX, NYLON INSERT BOLT, 1"-8 X 6", HEX, GD. 8 WASHER, ANTI-TURN	125-4025B-000	2
30	0614982	BUSHING, SHOCK ABSORBER	110-2608B-000	8
31	1085489	NUT, 1"-8, HEX, NYLON INSERT	115-1678B-105	2 2
32	1085380	BOLT, 1"-8 X 6", HEX, GD. 8	113-5711B-108	2
33	0961375	WASHER, ANTI-TURN	900-3092B-000	4
34	1245935	SWAY BAR ASSI.	203-1204D-300	
35	2159879	BUSHING ONLY, SWAY BAR END	S-5880-B	2
36	2122216			
37	2122208			1
38	1087360		353-5704B-000	
39	1089036		462-5764B-000	
40	1105758		817-6105C-301	1
NI	1101062		900-4565B-100	
42	0803239			
43	0850776			
44	0850800	l		
45	0803205	l		
46	0803148			1 2
NI	0871376			2 2
NI	1028778			4
NI	0961607	BRACKET, MOUNTING, LEVELING VALVE		

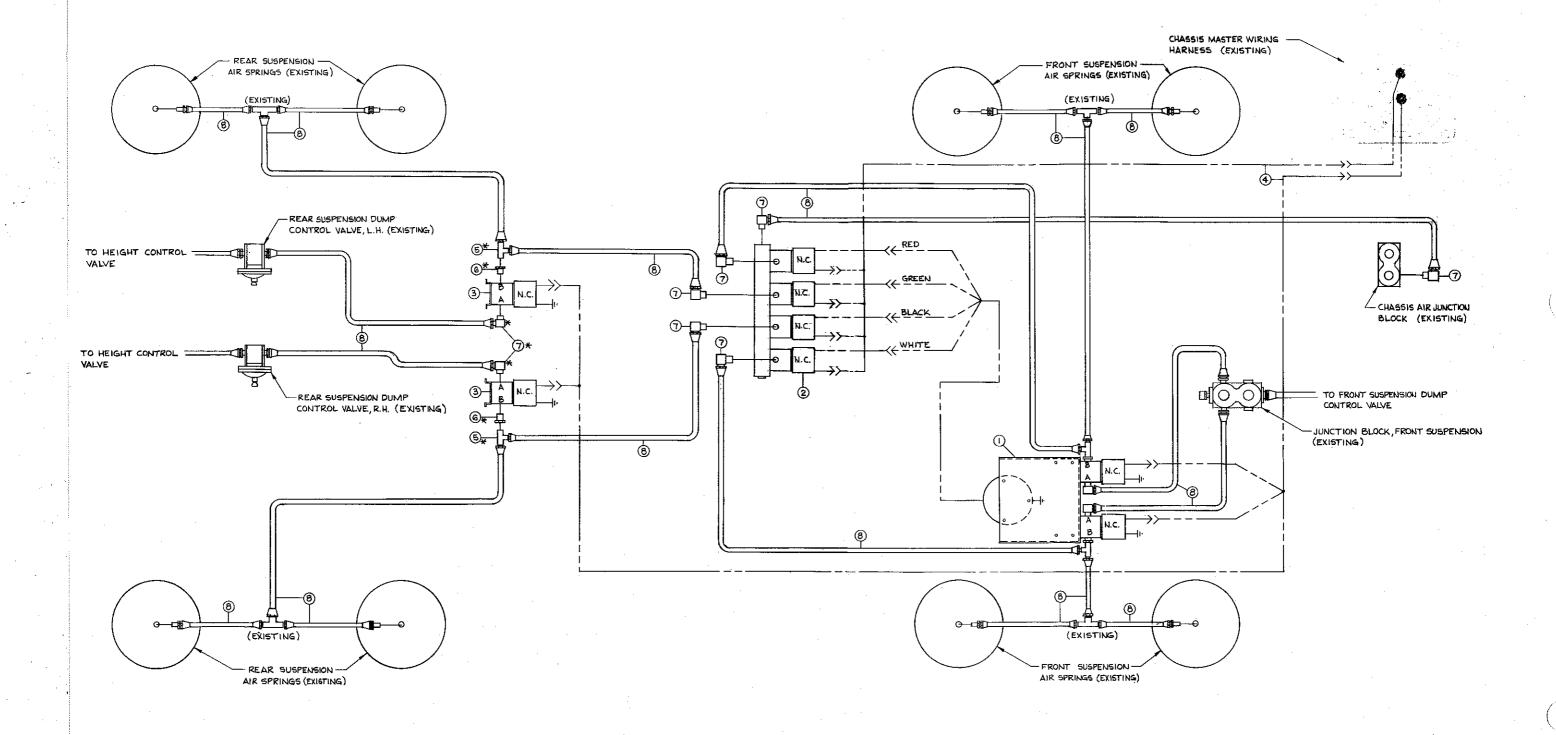
### SUSPENSION SYSTEM TAG AXLE





# SUSPENSION SYSTEM TAG AXLE

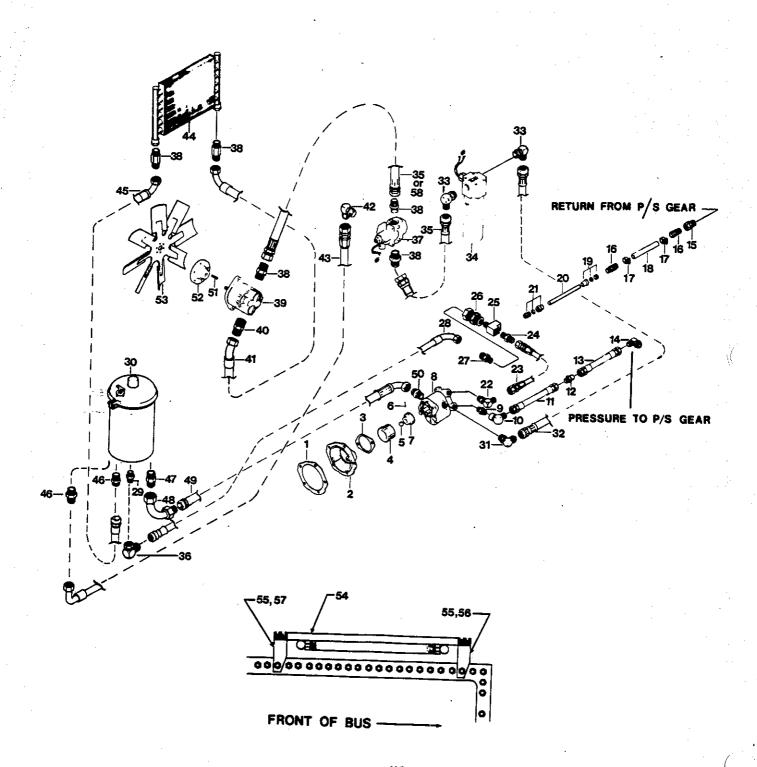
KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 22 23 24	0990572 0990630 0990580 0990598 0990606 0990614 1077221 0990622 0990648 0961417 0961573 0961581 0990655 0990663 0990671 0985549 0990705 1206515 0990721 0963322 0961375 0933879	BOLT ASSY., ECCENTRIC WASHER, BEARING SLEEVE NUT, HEX, LOCKING, 1 1/4"-7 BEAM ASSY., RH BEAM ASSY., LH WASHER, INT. TOOTH, LOCK, 1 1/2" BOLT, HEX HEAD, 1 1/2"-6 X 7" BUSHING, TORQUE BEAM, SOFT RUBBER BUSHING, TORQUE BEAM, HARD RUBBER WASHER, LOCK, 1/2" WASHER, FLAT, 3/4" AIR SPRING NUT, HEX, 1/2"-20 NUT, HEX, 1/2"-20 NUT, HEX, LOCKING 3/4"-16, GD. 5 SHOCK ABSORBER BRACKET, SHOCK, UPPER BRACKET, SHOCK MOUNT, AXLE BOLT, HEX, 3/4"-10 X 3 1/2", GD. 8	303-4815C-200 303-4814C-100 507-3464B-100 501-0696B-000 500-0699B-000 116-0519B-302 115-5648B-105 401-4627D-200 401-4626D-100 116-0673B-000 113-0670B-105 111-3328B-000 111-0512B-000 116-0556B-100 116-0576B-100 100-358-9073C 115-4093B-102 125-0789B-000 350-4816B-001 467-4817B-000 114-3077B-105 900-3092B-000 115-0605B-102	2 2 4 2 4 2 6 2 2 6 2 2 2 2 2 4 2



# AIR LEVELING SYSTEM OPT. 5640-01

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
NI 2 3 4 5 6	1255918 1255405 1255397 1255389 1256189 0982272 2008050 2023935 2008431	VALVE ASSY., SOLENOID, NORMALLY CLOSED, 2 WAY	2 2 2 8 50'
i.			
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# NOTE: SEE APPROPRIATE MASTER WIRING DIAGRAM.



NOTE: ALL HOSES MUST BE CLEANED AND CAPPED

## HYDRAULIC SYSTEM 6V92TA & 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
		GASKET, ADAPTER	
	0991836	ADAPTER, POWER STEERING PUMP	
3		GASKET, HYD. PUMP	
NI	1 1	DISC Drive, POWER STEERING PUMP COUPLING, ACCESSORY DRIVE	ļ
4		RETAINER, SPROCKET, HYDRAULIC PUMP	
-		PIN, ROLL	
	1072966	GEAR, HYDRAULIC PUMP	
		PUMP, 1.94	
NI		SEAL KIT, HYDRAULIC PUMP	
		CONNECTOR, SAE 37 DEG. FLARE	
10	1198811	ELBOW, 90 DEG. FEMALE, SAE 37 DEG. FLARE	
11	1165059	HOSE ASSY., PRESSURE, 1/2 I.D.	
	1200344	UNION, MALE, 37 DEG. FLARE	
13		HOSE ASSY., PRESSURE	
-	1165075	233" W.B.	
		240" W.B.	
	1165018	212" W.B.	
		en en en en en en en e <u>l en en en en en en en en en en en en en </u>	
14	1166107	ELBOW, 90 DEG., SAE 37 DEG. FLARE	
15	0876649	ADAPTER, SWIVEL UNION	
16	0413146	INSERT, BARBED 5/8 1.D. HOSE A 5/8 FIFE	2 2
	1025857	CLAMP, HOSE SIZE 8, LINED	72
18		HOSE, RETURN, POWER STEERING	'-
19	1204395	CONNECTOR, 5/8 TUBE TO 3/8 FPT	Ì
20	1	TUBE, 5/8 COPPER TUBING	
20	2027407		275"
	2027407		343."
	2027407	240" W.B.	364"
	202,10,		
21	2023356	CONNECTOR, 1/2 MPT X 5/8 TUBE	
22	1169226	ADAPTER, 90 ADJUSTABLE ELBOW, 5/8 O-RING X 5/8 HOSE	
23	1169234	HOSE ASSY., 1/2 I.D.	
24		ADAPTER, 1/2 MPT X 5/8 HOSE, 37 DEG. FLARE	
25	0654350	TEE, STREET	
26	1153600	COUPLING, ANCHOR	
27	1169200	ADAPTER, 1/2 MPT X 3/4 HOSE	
	į.		
28		HOSE ASSY., 5/8" I.D.	
	1169242		
	1239052	212" W.B. ONLY	
•	0000000	CONNECTOR, TRAN COOLING	
29	0809608		
30 NI	1223957	ELEMENT, HYD. RESERVOIR	3
	2139459		
14 1 6	2139439	marmer a creenest amount and	

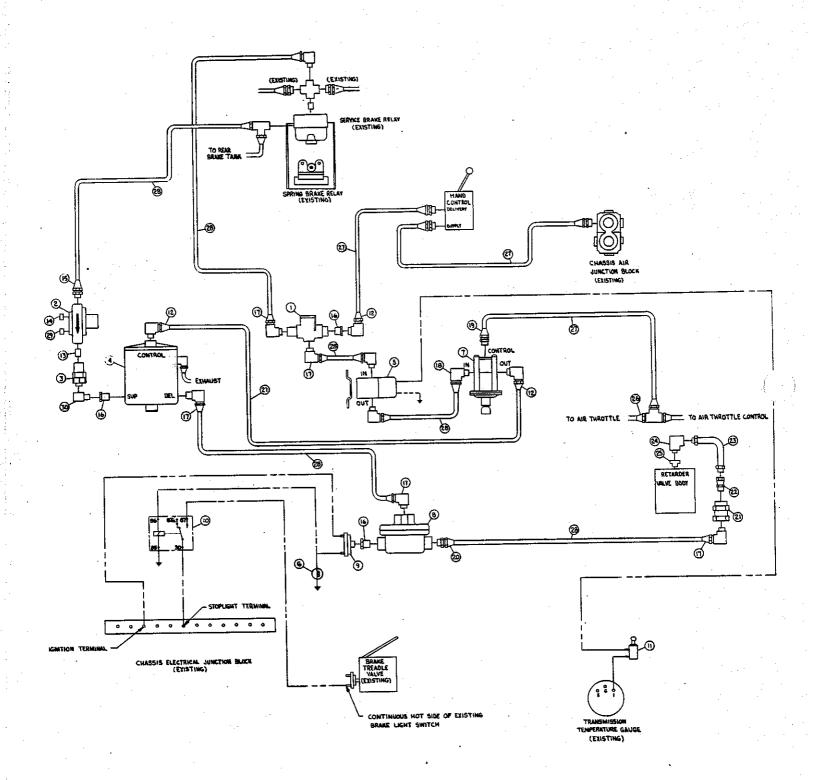
# HYDRAULIC SYSTEM 6V92TA & 8V92TA

NO.	PART NO.	DESCRIPTION	QTY REQ'D
	2139442	WING NUT, ELEMENT RETAINING	
	2139434	SPRING, ELEMENT RETAINING	i
		DIPSTICK, HYD. RESERVOIR	
		BRACKET, MOUNTING, RESERVOIR	
		CLAMP, BAND, RESERVOIR COVER	
		O-RING, RESERVOIR COVER	-
NI	2138824	COVER ASSY., HYD. RESERVOIR	
		(INCLUDED ITEMS WITH @)	
		ADAPTER, 37 DEG	]
	1270180	HOSE ASSY., 3/4 FEMALE SWIVEL TO 1" FEMALE SWIVEL	İ
		ADAPTER, 37 DEG. STEEL FLARE	2
34	1219260	FILTER ASSY., HYDRAULIC FAN WITH ELECTRICAL INDICATOR	
NI	2122026	ELEMENT, HIGH PRESSURE FILTER	
NI	2137024	O-RING, BOWL, HIGH PRESSURE FILTER	
35	1271717	HOSE ASSY., 1" H/P (233" & 240" W.B.)	
35A	1271717	HOSE ASSY., 1" H/P (212" W.B.)	2
	1056118	ADAPTER, 90 DEG., SWIVEL ELBOW	
		VALVE ASSY., RELIEF, WEBSTER	
NI	2136687	SEAL KIT, RELIEF VALVE	er e
38	1042878	ADAPTER, IMPERIAL EASTMAN	5
39	1260918	MOTOR, FAN, HYD., WEBSTER	_
NI	2123099	SEAL KIT, HYDRAULIC MOTOR	
40	1073022	ADAPTER, 37 DEG. STEEL FLARE	
41	1271733	HOSE ASSY.	
42	1209949	ADAPTER ASSY., ELBOW HYDRAULIC	
43	1216126	HOSE ASSY., 42" LONG	
44	1263474	COOLER, HAYDEN, 18 X 24 WITH O-RINGS	
45		HOSE ASSY.	
		233" & 240" W.B.	
	1216209	212" W.B.	
		ADAPTER, 37 DEG. STEEL FLARE	2
		CONNECTOR, PIPE, 37 DEG. FLARE	
48		ADAPTER, 1 1/4 CURVED, 37 DEG.	
		HOSE ASSY., OIL COOLER	
50	1248145	CONNECTOR, O-RING	
51.		KEY, HUB, HYDRAULIC MOTOR, 3/16	
52		HUB, FAN, HYDRAULIC	(
53		FAN ASSY., 38"	• /
54	1101344	CHANNEL ASSY., MOUNTING OIL COOLER	
55		BRACKET ASSY., MOUNTING HYD. OIL COOLER, UPPER	
	1163385	8V92	
	1197938	6V92	
	1 1	BRACKET, MOUNTING, OIL COOLER, LOWER, FRONT, 8V92T	
57	1216480	BRACKET, MOUNTING, OIL COOLER, LOWER, REAR, 8V92T	

### HYDRAULIC SYSTEM 6V92TA & 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
58 NI NI NI NI NI	1270156 1206127 1212133 0870907 1157056 1143973 1148998	HOSE ASSY., 1" H/P (233 & 240 W.B.) KIT, TRANS., COOLER MOUNT NUT, 5/8-18, NYLOK, GD. 8, CAD. PLTD. WASHER, FLAT, 5/8 HARDENED DECAL, OIL, HYDRAULIC FAN DRIVE SYSTEM PLUG, PIPE, 1" SWITCH, TEMPERATURE CONTROL, 195 DEG.	2
	1088707	Fan, Vent	
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#### RETARDER CONTROLS



#### RETARDER CONTROLS

KEY NO.	PARTNO.	DESCRIPTION	I	ΩTΥ EQ'D
1 2	0654434 0522508	VALVE, DOUBLE CHECK., 3/8 PIPE VALVE, PRESSURE PROTECTION, 65 PSI		
	0962183	FILTER, AIR, RIDEWELL SUSPENSION		
		VALVE ASSY., SOLENOID, N.C.	1.	
	1051911	LIGHT, PILOT, 5/8, RED, W/FORCE RING		
		VALVE, RELAY, PILOT CONTROL		
8		VALVE QUICK RELEASE		
9		SWITCH, STOP LIGHT, WILLIAMS		
		SOLENOID, BOSCH		
		SWITCH, TOGGLE, DPDT, ON OFF,		_
12		ELBOW, 1/4 MPT X 1/4 TUBE		3
		NIPPLE, 1/4 CLOSE		
14		PLUG, PIPE, 1/4 HEX		
		CONNECTOR, 1/4 MPT X 3/8 TUBE		2
		BUSHING, PIPE, 3/8 X 1/4		3 5
17		ELBOW, 3/8 MPT X 3/8 TUBE		5
18		ELBOW, 1/4 MPT X 3/8 TUBE CONNECTOR, 1/8 MPT X 1/4 TUBE		
19		CONNECTOR, 3/8 MPT X 3/8 TUBE		•
20 21		COUPLING, ANCHOR		
22 22		ADAPTER, HOSE		
23		HOSE ASSY.		
24		ELBOW, 3400 X 6, 3/8 STREET		
25		ADAPTER, 3/8 FPT X 1/4 MPT		
26		TEE, 64 X 4, 1/4		
27	2008431	TUBING, COPPER, 1/4		
28		TUBING, 3/8 COPPER, 1/4 TYPE L, WATER TUBE		
NI		BRACKET, MOUNTING, RETARDER CONTROLS		
29		PLUG, PIPE, 1/8 HEX		
30	2027233	ELBOW, 1/4 STREET		
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REMOTE CONTROL

GM 6V92TA

DR. 6-19-858Y LAD

APP8-19-858Y C CN 8004533

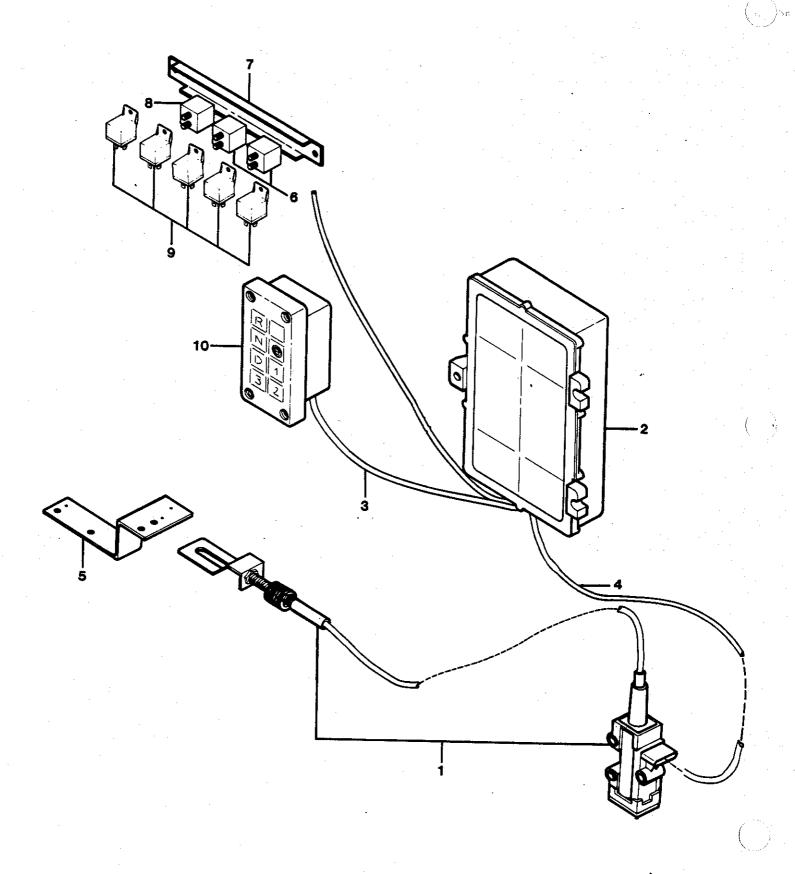
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#### REMOTE CONTROL 6V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 NI 2 3 4 5 6		TOWER ASSY., TRANSMISSION CONTROL SWITCH, TRANS. NEUTRAL SAFETY TRUNNION, TRANS. CONTROL CABLE LEVER SELECTOR TRANSMISSION WASHER, LOCK, 3/16 NUT PIN, COTTER BRACKET, TRANS. CONTROL MOUNTING	~ 2 2
8	1126820 1126812 1206507	CABLE, TRANSMISSION SHIFT  CABLE LENGTH  428"  3502  478"  3903  457"  3706	
1			

# ELECTRONIC TRANSMISSION 8V92TA

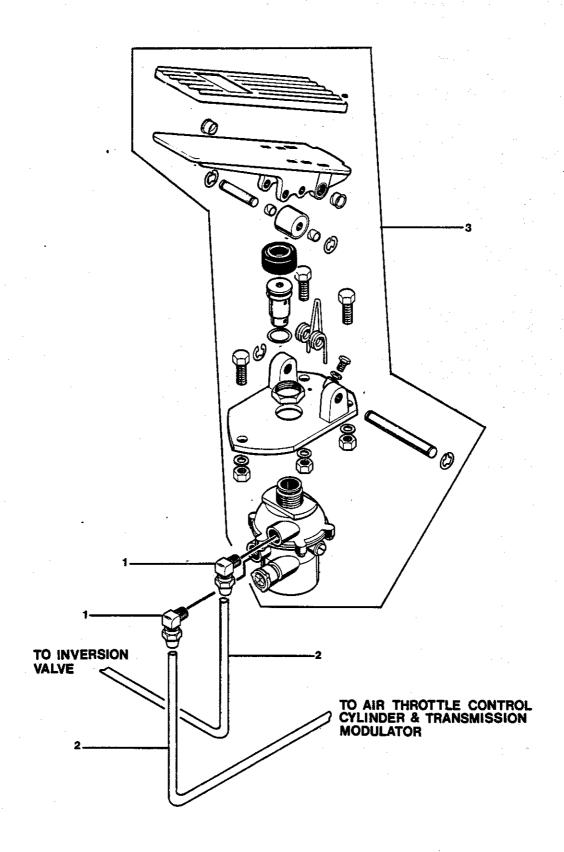




## ELECTRONIC TRANSMISSION 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	1169127	SENSOR, THROTTLE	
2	1169135 1263870	CONTROL UNIT, ELECTRONIC TRANSMISSION (ENDING W/CSN 0962778) (BEGINNING W/CSN 0962779)	
3	1238930 1263888	HARNESS, WIRING, CAB (ENDING W/CSN 0962778) (BEGINNING W/CSN 0962779)	
4	1169150 1263896	HARNESS, WIRING, CHASSIS (ENDING W/CSN 0962778) (BEGINNING W/CSN 0962779)	
	0864660 0984385 1170869	BRACKET ASSY., SPRING RETURN, ACCELERATOR BREAKER, CIRCUIT, 6 AMP BRACKET, CIRCUIT BREAKER, 7 CIRCUIT BREAKER, CIRCUIT, 8 AMP SOLENOID, BOSCH SHIFT SELECTOR, TRANSMISSION	2 2 6

### AIR THROTTLE CONTROL VALVE 6V92TA & 8V92TA



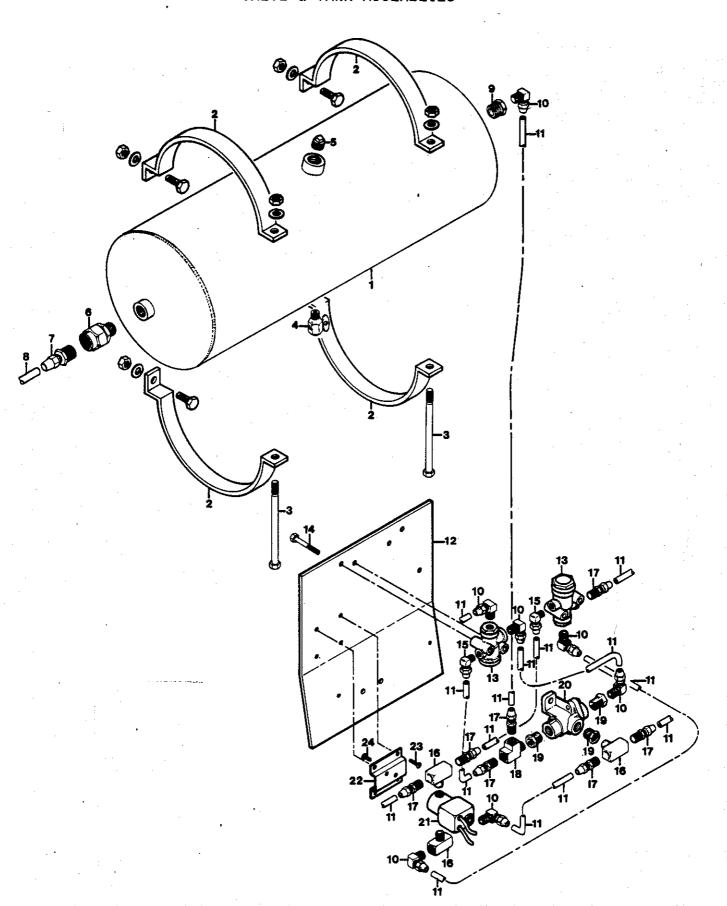
### AIR THROTTLE CONTROL VALVE 6V92TA & 8V92TA

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
	2023935 2008431 0998161 2129583 2157915 2138741	ELBOW, 1/4 MPT X 1/4 TUBE TUBING, COPPER, 1/4 VALVE, AIR THROTTLE CONTROL REPAIR KIT, THROTTLE CONTROL VALVE SPRING ASSY., THROTTLE VALVE AIR VALVE ONLY, AIR THROTTLE	16
i.			***
950			

089-12-858 DBM 8004665

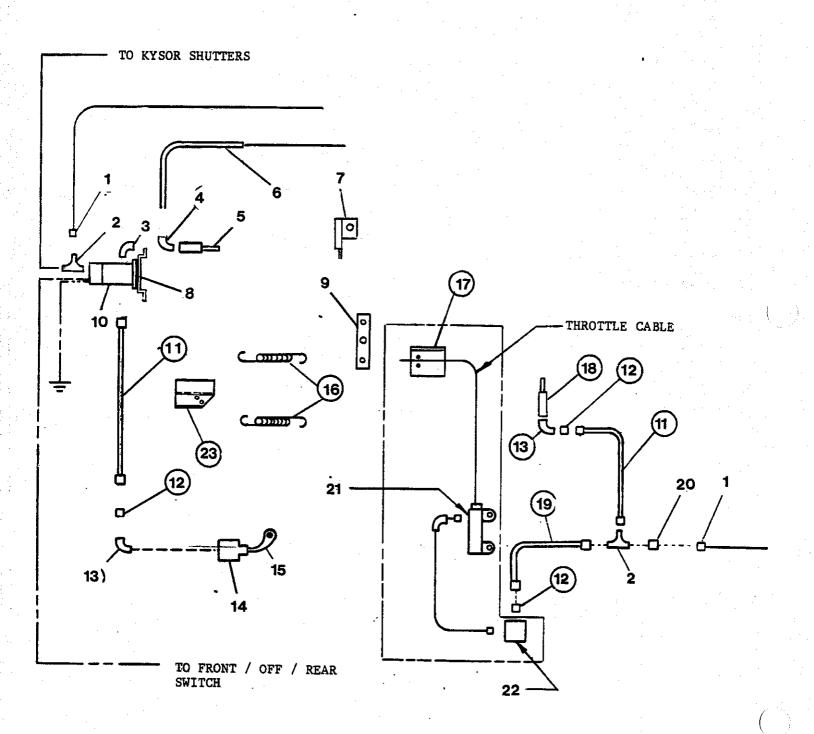
AIR THROTTLE CONTROL - 6V92TA, 8V92TA VALVE & TANK ASSEMBLIES

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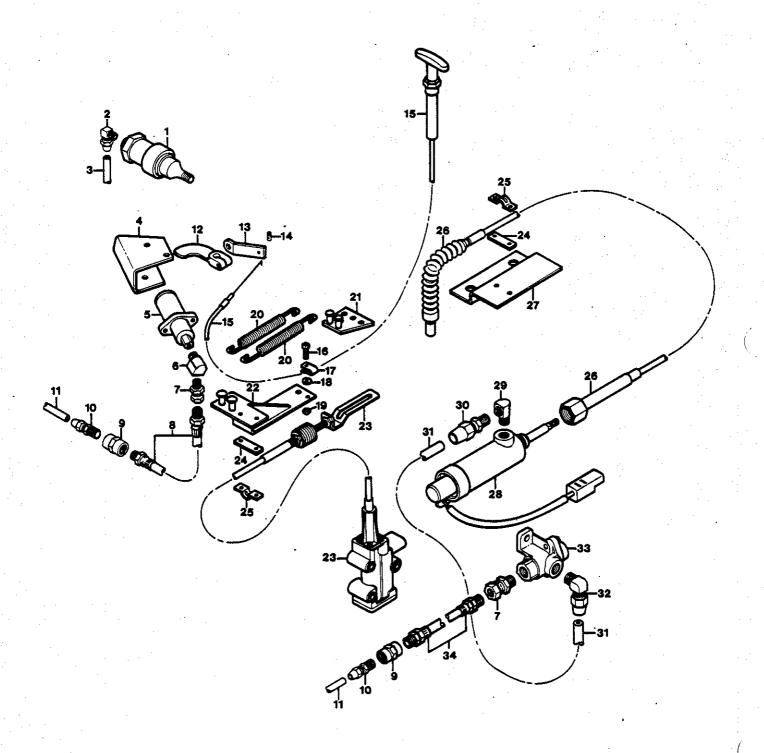
# AIR THROTTLE CONTROL - 6V92TA, 8V92TA VALVE & TANK ASSEMBLIES

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2 3 4	0850578 0969873	RESERVOIR, 8 X 26 BRACKET, MOUNTING, AIR RESERVOIR, 8" BOLT, HEX, 3/8-16 X 6 LONG COCK, RESERVOIR DRAIN	2 2
5 6 7 8 9	0654558 2027381	PLUG, PIPE, 3/8 VALVE, SINGLE CHECK, 1/2 PIPE CONNECTOR, 1/2 MALE PIPE X 3/8 TUBE TUBING, 3/8 COPPER, 1/4 TYPE L, WATER TYPE BUSHING, PIPE 1/2 X 1/4	
10 11 12 13	2023935 2008431 1110444 1102920		7 2 4
15 16 17 18	0559047 2023224 0654277	ELBOW, 1/8 MPT X 1/4 TUBE TEE, MALE BRANCH, 1/4 PIPE CONNECTOR, 1/4 MPT X 1/4 TUBE TEE, STREET, 1/4 PIPE	2 3 7
		BUSHING, PIPE, 3/8 X 1/4 VALVE, DOUBLE CHECK, 3/8 PIPE  VALVE ASSY., SOLENOID  GM 8V92TA	3
22 23 24	2000776	GM 6V92TA  BRACKET, MOUNTING, SOLENOID VALVE ALLENAIR SCREW, PH RD, 10-32 X 3/4 SCREW, NO. 10-32 X 3/8 PAN HEAD PHILLIPS PLTD	4 2



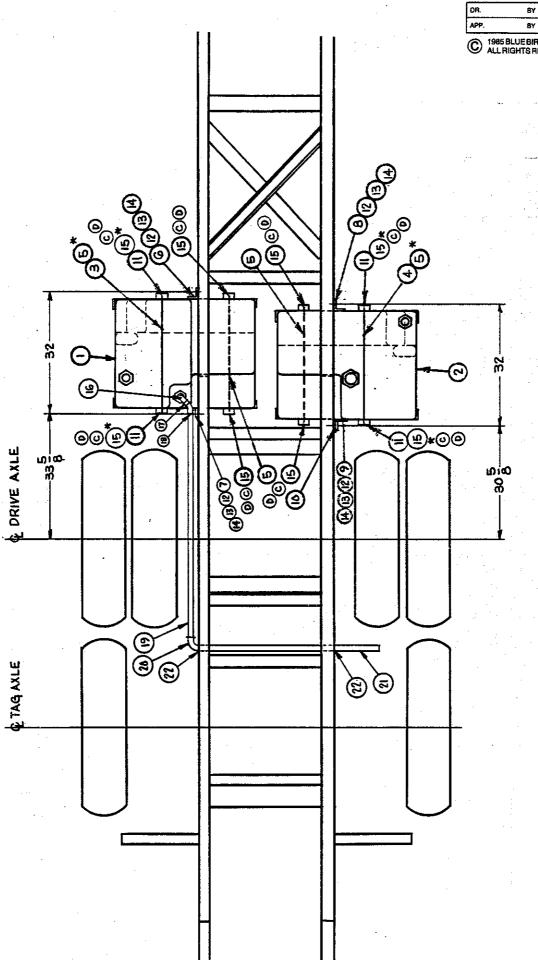
# AIR THROTTLE CONTROL 6V92TA ENGINE PARTS

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D		
2 3 4 5 6 7 8 9	0654277 2027233 2023786 2005700 1223791 1124569 1089861 1124544	TEE, STREET, 1/4 PIPE ELBOW, 3400 X 4 1/4 STREET ELBOW, 269AB-4-2, 1/8 MPT X 1/4 TUBE FAST IDLER CYLINDER (SUPPLIED WITH ENGINE) LOOM, ASPHALTUM WIRE, 1/4" LEVER, ENGINE CUT OFF BRACKET, MOUNTING, SOLENOID VALVE EXTENSION, THROTTLE LEVER VALVE, SOLENOID			
12 13 14 15 16 17 18 19 20 21 22	1119700 0605188 0920058 0993741 0939231 1089929 0986364 0870303 2027175 1087428	HOSE ASSY., P/S 45" LONG ADAPTER, SWIVEL, MALE PIPE ELBOW, REDUCING STREET 1/4 X 1/8 PIPE CYLINDER ASSY., AIR SHUTDOWN LEVER, ENGINE STOP SPRING, ACCELERATOR RETURN BRACKET, MOUNTING, THROTTLE CRUISE CONTROL MODULATOR, TRANS AIR THROTTLE CONTROL HOSE ASSY. COUPLING, 3300 X 4 1/4 PIPE CYLINDER, CRUISE CONTROL VALVE, DOUBLE CHECK SHIELD, VALVE, AIR SHUT-DOWN			
	:				



# AIR THROTTLE CONTROL - 8V92TA ENGINE PARTS

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1		FAST IDLE CYLINDER (SUPPLIED WITH ENGINE)	
2		ELBOW, 1/8 MPT X 1/4 TUBE	1.5.
3	2005700	LOOM, ASPHALTUM WIRE, 1/4" BRACKET, MOUNTING, ENGINE SHUTDOWN, KYSOR CYL.	12'
5		CYLINDER, AIR SHUTDOWN	
6		ELBOW, REDUCING, STREET, 1/4 X 1/8 PIPE	
7		ADAPTER, SWIVEL, MALE PIPE	2
8		HOSE ASSY.	-
9	2027175	COUPLING, 4 1/4 PIPE	. 2
10	2023224	CONNECTOR, 1/4 MPT X 1/4 TUBE	2
11	2008431	TUBING, COPPER, 1/4	
12		LEVER, ENGINE STOP	
		EXTENSION, LEVER, MANUAL STOP	
14	2025955	STOP, 1/4 WIRE CONE	
15		CABLE ASSY., PULL TO STOP	
12	1143916	479" (3903)	
	1169085		
	110,000	155 (5766)	
16		SCREW, MACHINE, 8-32 X 3/4	
17	2025948	THROTTLE CABLE CONTROL CLAMP	
18	F I	WASHER, LOCK, 3/16	
19		NUT, HEX, 8-32	
20		SPRING, ACCELERATOR RETURN	2
21		EXTENSION ASSY., THROTTLE, LEVER	
22		BRACKET ASSY., SPRING, RETURN, ACCELERATOR SLIP JOINT ASSY., THROTTLE SENSOR	1
23 24	0620120		2
25	1	CLAMP, CABLE	2
26		CABLE, THROTTLE CRUISE CONTROL	"
27		BRACKET, MOUNTING, THROTTLE, CRUISE CONTROL CABLE	
28		CYLINDER, AIR, CRUISE CONTROL	
29	2027233	ELBOW, 4 1/4 STREET	
30	2023372	CONNECTOR, 1/4 X 1/2 TUBE	
31	1197177	TUBING, PLASTIC, 1/2 O.D. GRAY	
32	2023307	ELBOW, 3/8 MPT X 1/2 TUBE	
33	0654434	VALVE, DOUBLE CHECK, 3/8 PIPE	
34	0870303	HOSE ASSY.	
[			
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1.			
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APP. 8Y

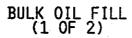
1 185 BLUE BIRD BODY COMPANY
ALL RIGHTS RESERVED

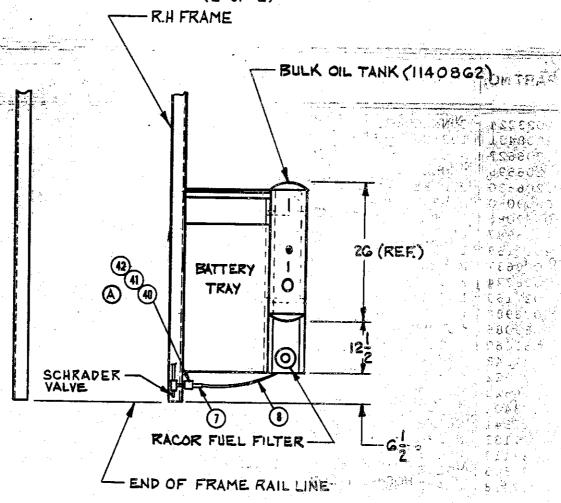
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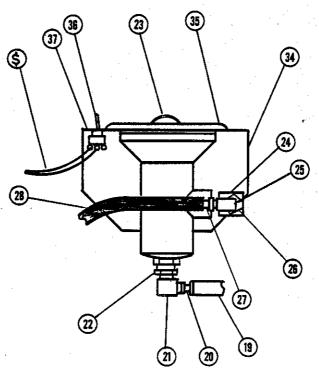
KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2 3 4 5* 6 7 8	1140607 1140623 1140649 1021690 1061621 1021708 1021724 1016583 2001451 2000339 2001220 2001493 2001485 3738903 2017333 2017333 2017333 2250793 2017333	TANK ASSY., WASTE HOLDING, GRAY  TANK ASSY., WASTE HOLDING, SOLID  STRAP ASSY., HOLDING TANK, GRAY  STRAP ASSY., HOLDING TANK, SOLID  STRAP ASSY., RETAINER, HOLDING TANK  BRACKET ASSY., HOLDING TANK, LEFT FRONT  BRACKET ASSY., HOLDING TANK, LEFT REAR  BRACKET ASSY., HOLDING TANK, RIGHT FRONT  BRACKET ASSY., HOLDING TANK, RIGHT REAR  SPACER, HOLDING TANK BRACKET, REAR BATH  NUT, HEX NC CAD COATED 3/8 - 16  CAPSCREW, HEX HEAD 5/8 X 11 1 /1/2  WASHER, LOCK 5/8  NUT, HEX, 5/8 - 11  NUT, HEX, 5/8 - 11  NUT, HEX, 1/2 - 20NC  ELBOW, STREET, PVC 1 1/2 X 90 DEG.  PIPE, PLASTIC 1 1/2 X 20 FEET  ELBOW, PVC 1 1/2 X 45 DEG.  PIPE, PLASTIC 1 1/2 X 20 FEET  ELBOW, PVC 1 1/2 X 90 DEG.  PIPE, PLASTIC 1 1/2 X 20 FEET  MOLDING, PROTECTIVE 1/2" MATERIAL	8 11 11 16 4" 61" 48"
		NOTE: HIDDEN UNDER TANK (NOT SHOWN)  NOTE: EACH END OF HOLDING TANK STRAP REQUIRED DOUBLE NUTS.	

HOLDING TANK 3706 & 3903

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 234567891121314516171892021223242562728	1165471 1278738 1278753 1165489 1216167 1212968 1216159 1212950 1166040 1166057 1166045 2001451 2001485 2001493 0882803 1016583 2017333 1018407 1162619 1200351 1230218 1213008 2001477 2000321 2001212 1215516	TANK ASSY., WASTE HOLDING, SOLID	l .
33 34 35	2017499 2017333 2250793	ELBOW, PVC 1 1/2 X 45 DEG. PIPE, PLASTIC 1 1/2 X 20 FEET ELBOW, PVC 1 1/2 X 90 DEG.	48"



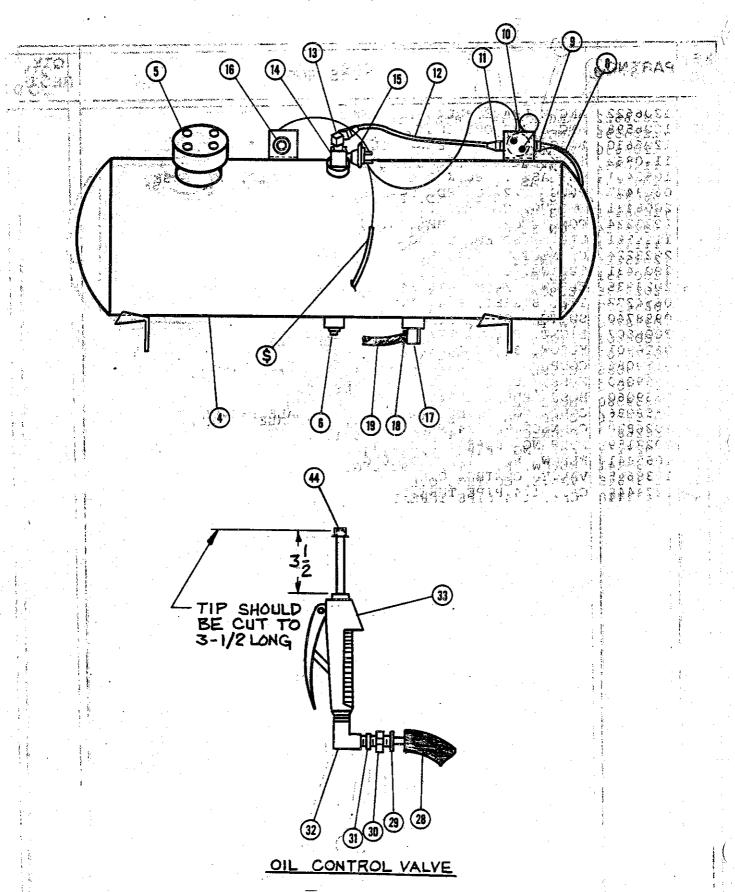




OIL FLOW METER & MOUNTING BRACKET

# BULK OIL FILL (1 OF 2)

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
NI 19 20 21 22 24 25 26 27 28 35 36 37 NI 40	2008431 1206622 1206598 1206630 0659060 0659086 2026987 2027159 1038637 2008274 2027159 2026987 0659086 0659060 1031343 2027522 0416628 1073402 2021541 2027183 2027118	CONNECTOR, 1/4" MPT X 1/4 TUBE TUBING, COPPER, 1/4 ANGLE BRACE BULK OIL TANK FRONT ANGLE SUPPORT BULK OIL TANK FRONT BRACKET ASSY., BULK OIL TANK SUPPORT HOSE, RUBBER, 3/8 ID., PUSH ON COUPLING, INVERTED FLARE, 3/8 MALE SWIVEL ELBOW, 1/4 MPT X 3/8 I.F. BUSHING, PIPE 1/2 X 1/4 METER. OIL FLOW ELBOW, 90 DEG. STREET BUSHING, PIPE 1/2 X 1/4 ELBOW, 1/4 MPT X 3/8 I.F. COUPLING, INVERTED FLARE, 3/8 MALE SWIVEL HOSE, RUBBER, 3/8 I.D., PUSH ON BRACKET, OIL METER, BULK FILL, ENGINE CLAMP, L6, 3/8", ONE HOLE STEEL SWITCH, TOGGLE, DP DT, ON OFF FACEPLATE, SWITCH, TOGGLE, ON-OFF CLAMP, INSULATED HOSE NIPPLE, 1/4, CLOSE PLUG, PIPE, 1/8	2
- 42 NI		VALVE, PRESSURE PROTECTION CLAMP, HOSE, NYLON	3



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KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
NI NI NI 4 5 6 8 9 10 11 12 13 14 15 16 17 18 19 28 29 30	1140862 1053461 0663427 2008431 2023224 1124551 2023224	TEE, STREET, 1/4 PIPE SWITCH, STOP LIGHT LIGHT, PILOT, 17/32 DIA., RED LENS ELBOW, 3/8 TUBE X 3/8 MALE PIPE COUPLING, INVERTED FLARE, 3/8 MALE SWIVEL HOSE, RUBBER, 3/8 ID., PUSH ON HOSE, RUBBER, 3/8 I.D., PUSH ON COUPLING, INVERTED FLARE, 3/8 MALE SWIVEL	
31 32 33 44	2027159 1055441		

ONE UNLESS OTHERWISE **QUANTITY** REQUIRED IS SPECIFIED. 0841P

OUTLINE OF COMPONENT LOCATION

AND FUNCTION FOR THE

1987 FORWARD CONTROL AND RUSHER

1988 W. B.

MECHANICS WORKSHOP

NOVEMBER 2-5, 1987

OUTLINE OF COMPONENT LOCATION
AND FUNCTION FOR THE 1987 FORWARD CONTROL AND RUSHER
1988 W. B.
MECHANICS WORKSHOP

NOVEMBER 2-5, 1987

AIR SOLENOID VALVE, AIR VENT: located in the left hand access; there are two valves that operate the right and left fresh air vent.

AIR SOLENOID VALVE, SUSPENSION DUMP: located in the left hand access; this valve dumps or raises the suspension.

AIR SOLENOID VALVE, DRIVING LIGHTS: located in the left hand access; this operates the drop down driving lights.

AIR SOLENOID VALVE, SEAT CONTROL: on 1987 models, these are located in the left hand access; on 1988 modesl, these are located on the seat bases; these valves control the side slides.

C.B. MODULE: located behind copilot kick panel.

CIRCUIT BREAKER, 105A: located in the left hand access.

E.L. INVERTERS, DASH: lower dash E.L.'s are located under lower dash; upper dash E.L.'s are located to the left of the overhead load center.

HORN MODULE: located behind copilot kick panel.

MIST CONTROL MODULE: on 1987 models, the module is located under the lower dash; on 1988 models, the module is located on the lower dash.

PMMI SIGNAL SWITCH RELAY BOX: located in left hand access; the relay box completes the circuit for the headlights, turn signals, brakes and cornering lights.

REARVIEW MONITOR DC TO DC CONVERTER: mounted to the left or left hand overhead access panel; this converter is used to supply correct voltage to the monitor chassis and to the camera even if coach voltage is low.

T.V. RF AMP/SPLITTER: located behind panel where antenna/cable switch and T.V. antenna rotation control are located.

TRANSMISSION MODULE: located behind panel under shift tower.

WASHER, LOW FLUID MODULE: located under lower dash panel.

# COMPONENT LOCATION FOR 1987 PUSHER

AIR SOLENOID VALVE, AIR VENT: located in left hand access; there are two valves that operate the right and left fresh air vent.

AIR SOLENOID VALVE, DRIVING LIGHTS: located in the left hand access; this valve operates the drop-down driving lights.

AIR SOLENOID VALVES, SEAT CONTROLS: located in the left hand access; these valves control the side slide.

AIR SOLENOID VALVE, SUSPENIONS DUMP/TAG DUMP: located in the left hand access; this valve dumps or raises the suspension.

C.B. MODULE: located behind drawers under dash mounted on floor/(early 1987) mounted at top.

CIRCUIT BREAKERS, 105A: mounted in front of steering column (early 87); in left hand access (late 87).

E.L. INVERTERS: E.L.'s for lower dashes are located under the lower dash; for the overhead dash, they are located in the right or left overhead access.

HORN MODULE: located behind the copilot kick panel.

MIST CONTROL MODULE: located behind drawers at the dash area on wall.

PMMI SIGNAL SWITCH RELAY BOX: mounted above top drawer at dash.

REARVIEW DC TO DC CONVERTER: mounted to the left of the left hand overhead access panel.

T.V. RF AMP/SPLITTER: located behind panel where antenna/cable switch and T.V. antenna rotation control are located.

TRANSMISSION MODULE: located behind drawers under dash on wall.

WASHER, LOW FLUID MODULE: mounted behind drawers under dash on wall.

# COMPONENT LOCATION FOR 1988 PUSHER 102"

AIR VALVES, AIR VENTS: located in the front lower load center.

AIR VALVES, DRIVING LIGHTS: located in the front lower load center.

AIR VALVES, SEAT CONTROL: located on the seat base.

AIR VALVES, SUSPENSION DUMP/TAG DUMP: located in the front lower load center.

BALLAST, FLUORESCENT: located behind mirror panel at end of sofa, under front dinette seat; bedroom behind light valance.

C.B. MODULE: mounted to the right of the accelerator.

CIRCUIT BREAKERS: mounted in the front access on left hand side

DDEC MODULE: located in left hand rear load center, behind 110V load center.

E.L. INVERTERS: lower dashes - located lower front load center; overhead dashes - left hand overhead access.

HORN MODULE: located behind copilot kick panel.

MIST CONTROL MODULE: located on lower dash panel.

PMMI SIGNAL SWITCH RELAY BOX: located in generator blower compartment.

REARVIEW DC TO DC CONVERTER: located behind rearview monitor picture tube in compartment.

SUSPENSION DUMP LIGHT DELAY MODULE: located in front lower load center.

T.V. RF AMP/SPLITTER: located in front overhead load center.

TRANSMISSION MODULE: mounted in the generator blower compartment.

WASHER, LOW FLUID MODULE: located in the front lower load center.

# STEREO PRIVACY RELAYS AND AMP LOCATIONS

# 1987 FORWARD CONTROL PREMIUM AND STANDARD

PRIVACY RELAYS, LIVING ROOM (FRONT): located behind front left hand overhead cabinet wire cover or front end panel.

PRIVACY RELAYS, LIVING ROOM (REAR): located behind front right hand overhead cabinet end panel.

PRIVACY RELAYS, LIVING ROOM (SUB-WOOFER): located on top of power amps.

POWER AMPS: located behind left hand overhead access panel.

# 1988 FORWARD CONTROL PREMIUM

PRIVACY RELAYS: located on top of the power amp located in the left hand overhead access.

POWER AMP: located in the left hand overhead access.

# 1988 FORWARD CONTROL STANDARD

PRIVACY RELAYS: mounted in left hand access panel.

POWER AMP: mounted behind radio.

# STEREO PRIVACY RELAYS AND AMP LOCATIONS

# 1987 PUSHER PREMIUM AND STANDARD

PRIVACY RELAY, LIVING ROOM (FRONT): located behind front left hand wire cover.

PRIVACY RELAY, LIVINGROOM (REAR): located behind front right hand overhead cabinet wire cover.

PRIVACY RELAY, LIVING ROOM (SUB-WOOFER): located on top of power amps.

POWER AMPS: located in left hand overhead cabinet behind front end panel.

# 1988 PUSHER 102"

PRIVACY RELAYS: located behind drawers at dash mounted on wall.

POWER AMPS: located behind drawers at dash mounted on wall.

OUTLINE OF BOSCH RELAY LOCATION

AND FUNCTION FOR THE

1987 FORWARD CONTROL AND PUSHER

MECHANICS WORKSHOP

NOVEMBER 2-5, 1987

# BOSCH RELAY LOCATION AND FUNCTION FOR 1987 PUSHER AND FORWARD CONTROL

ALTERNATOR EXCITER WIRE RELAY: location on 1987 pusher is battery charger compartment; not used on forward control; completes circuit for alternator to get a true voltage reading direct from batteries. Relay is not used on coaches that have a self excited alternator.

BACK-UP LIGHT RELAY: location on all is left rear load center; completes circuit for rear halogen back-up lights.

CHASSIS A/C SWITCH RELAYS: location on all is front overhead load center; completes circuit for condensor fan relay and compressor clutch relay (compressor clutch on FC).

CHASSIS A/C COMPRESSOR CLUTCH RELAY: on 87 pusher location is battery charger compartment; not used on FC; completes circuit for compressor clutch.

# CHASSIS HEAT SYSTEM RELAYS

LIVING ROOM CHASSIS HEAT RELAY: location on all is left hand front load center.

DINETTE CHASSIS HEAT RELAY: location on all is right front load center.

BATHROOM CHASSIS HEAT RELAY: location on pusher is right hand front load center; location on forward control side bath is left hand front load center; location on forward control rear bath is right hand rear load center.

BEDROOM CHASSIS HEATER RELAY: location on pusher is left hand rear load center; location on forward control side bath is right hand rear load center.

Completes the circuit to chassis heater switches.

LIVING ROOM T-STAT RELAY: location on pusher is left hand front load center; location on forward control side bath and rear bath is right hand front load center.

DINETTE T-STAT RELAY: location on pusher and forward control rear bath is right hand front load center; location on forward control side bath is left hand front load center.

BATHROOM T-STAT RELAY: location on pusher is right hand front load center; location on forward control side bath is left hand front load center; location on forward control rear bath is right hand rear load center.

November 2-5, 1987

# CHASSIS HEAT SYSTEM RELAYS CONT.

BEDROOM T-STAT RELAY: location on pusher is left hand rear load center; location on forward control side bath is right hand rear load center.

Completes the circuit for the thermostats to activate the chassis heater relays.

SWITCHING RELAYS: location on all is right hand front load center; activates the thermostat relays and summer/winter relay when winter switch is turned on.

SUMMER/WINTER RELAY: location on pusher is left hand rear load center; location on forward control rear bath is left hand rear load center; location on forward control side bath is right hand rear load center; completes circuit for summer/winter solenoid valves.

CRUISE CONTROL RELAY: location on all is cruise control mounting plate; supplies CC module with 12V from a non-ignition source so there will be no low voltage problems.

DIRECTIONAL LIGHT RELAYS: location on all is front overhead load center; completes circuit for rear direction lights and trailer plug connections.

DRIVING LIGHT SUSPENSION DUMP RELAY: location on pusher is behind drawers under dash; location on forward control is under dash panels; prevents driving lights from coming down when the suspension is dumped.

FAN LIGHT RELAY: location on pusher is behind drawers under dash; location on forward control is under dash panels; activates fan light when either override switch is turned on or temperature switch activates fan. Some 1987's have this relay and some do not. Those that don't, the light only comes on when override switch is turned on.

FRONT LANDING LIGHT RELAY: location on all is left hand rear load center; completes circuit for front landing lights.

GENERATOR CHARGING CIRCUIT RELAY: location on pusher is generator blower compartment; location on forward control is under coach behind stepwell; completes circuit for generator battery charge.

HEADLIGHT WARNING RELAY: location on all is front overhead load center; completes circuit to headlight warning light and buzzer when ignition is turned off.

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Page Three Outline for Bosch Relay

HEADLIGHT RELAYS: location on pusher is in generator blower compartment; completes circuit for headlights.

HEADLIGHT WARNING SECURITY LIGHT RELAY: location on all is front overhead load center; breaks circuit to headlight warning light and buzzer when security lights are turned on.

IGNITION BREAKER RELAYS: location on all is front overhead and lower front load centers; energize ignition circuit breakers when ignition switch is turned on.

INVERTER RELAY: location on all is front overhead load center; complete circuit to activate inverter.

# LP HEAT SYSTEM

LIVING ROOM LP HEATER RELAY: location on pusher and forward control side bath is left hand front load center; location on forward control rear bath is right hand front load center.

DINETTE LP HEATER RELAY: location on pusher is right hand front load center; location on forward control side bath and rear bath is left hand front load center.

BATHROOM DUCT BOOSTER RELAY: location on pusher is right hand front load center; location on forward control side bath is left hand front load center; location on forward control rear bath is right hand rear load center.

BEDROOM LP HEATER RELAY: location on pusher and forward control side bath is left hand rear load center; location on forward control rear bath is right hand rear load center.

Completes circuit for thermostat to activate LP heater.

REAR LANDING LIGHT RELAY: location on all is left hand front load center; completes circuit for rear landing lights.

RETARDER BRAKE LIGHT RELAY: location on all is left hand front compartment by the body terminal block; completes circuit for brake lights when retarder hand control is used.

STEP RELAYS: location on pusher is lower front load center; location on forward control side bath and rear bath is right front load center; (1) & (2) control in/out function on step; (3) controls (1) & (2) relay when step switch is activated; (4) extends step when air pressure drops below 60 PSI.

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STEREO RELAYS: location on all - the two (2) relays for front speakers are in the left hand front OHC behind wire cover; the two (2) relays for rear speakers are in the right hand front overhead cabinet behind the front end panel; the two (2) relays for sub woofers are in the left hand overhead cabinet behind the front end panel; breaks circuit to each speaker when privacy switch is activated.

TRANSMISSION RELAYS: these relays are activated by ATEC transmission module; location is the lower front load center in front of the driver's left foot; there are six (6) relays.

HIGH IDLE RELAY: breaks circuit to high idle solenoid valve when transmission not in neutral.

TRANSMISSION CHECK LIGHT RELAY: completes circuit for transmission check light.

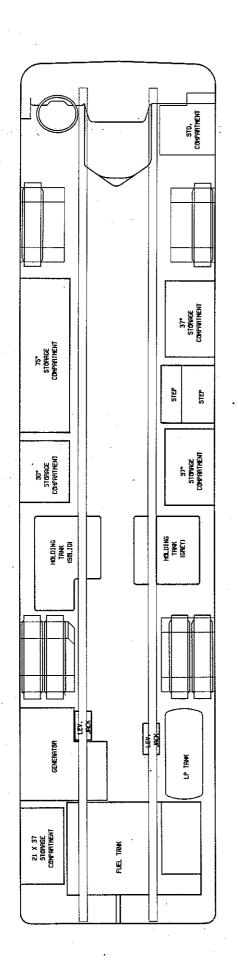
TRANSMISSION CHECK GROUND RELAY: if transmission check light comes on, press test switch to activate relay and check light will flash trouble code.

REVERSE RELAY: completes circuit for back-up lights, rear parking lights and back-up alarm.

NEUTRAL SAFTEY RELAY: breaks starting circuit unless transmission is in neutral.

TRANSMISSION ON RELAY: completes circuit for transmission moduel to get 12V directly from master switch. This relay is ignition activated.

WIPER RELAYS: location on pusher is behind the drawers under the dash mounted on the wall; location on forward control is mounted under dash panels; two (2) relays activate left hand and right hand wipers on low speed; two (2) relays activate left hand and right hand wipers on high speed; mist control relay activates mist control module; these five (5) relays are activated by control switch on turn signal arm.



Side Bath Under Floor Layout WLFC #3845351

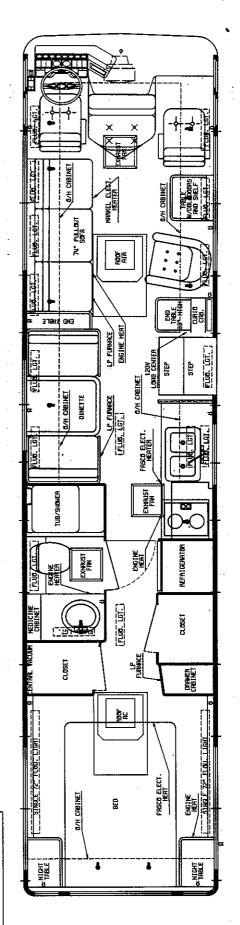
- 12V/TV OUTLET

- 120V OUTLET

- BULLET LIGHT

- FLUG. LIGHT - 12V GUTLET

**Model 3411** 



# 35' Forward Control

**Model 3411** Side Bath Island Bed

WLFC #3845161

## 1987 WL FORWARD CONTROL TRANSMISSION SPECIFICATIONS

TRANSMISSION - TYPE ZF Automatic (5 HP 500) NO. SPEEDS 5 Forward - 1 Rewerve RATIOS - FIRST 3.43 SECOND 2.01 THIRD 1.42 **FOURTH** Direct 0.83 FIFTH-**REVERSE** 4.84 LUBRICANT CAPACITY 47 Quarts (Including Oil Cooler) **BELLHOUSE SIZE** SAE #1 END YOKE 1710 Spicer

## PERFORMANCE CHART

	3208 TA (AAAC))
0 - 60	46 Sec.
1/4 Mile	28 Sec.
Speed Up 6% Grade	35 MPH
% Grade @ 55 MPH	2.9%
Top Speed Level or Down	82 MPH

1407E

## TURNING RADIUS

BODY MODEL	WHEELBASE	*CURB RADIUS	**WALL RADIUS
31 '	177 IN.	30.0 FT.	34.0 FT
33'	192 IN.	31.5 FT	36.0 FT
35'	210 IN.	34.0 FT	38.5 FT

<sup>\*</sup> Curb radius is the distance from the drive axle center line to the outside edge of the front tire.

NOTE: Turning radii is with Standard 11R22.5 tires.

# SPEED CHART - MILES PER HOUR WANDERLODGE FORWARD CONTROL

Engine Governed Speed	Cat 3208 TA (AAAC) 2800 RPM	
Transmission Transmission Calibration Rear Axle Ratio	ZF 5 HP 500 2800 RPM 5.29	
Tires	11-22.5	12-22.5
Transmission Ratio		
First 3.43	18.4 MPH	18.9 MPH
Second 2.01	31.3 MPH	323 MPH
Third 1.42	44.4 MPH	45.6 MPH
Fourth 1.00	63.0 MPH	64.8 MPH
Fifth .83	75.9 MPH	78.1 MPH

1407E

<sup>\*\*</sup> Wall radius is the distance from the drive axle center to the edge of the front bumper.

## 1987 WANDERLODGE FORWARD CONTROL ENGINE SPECIFICATIONS

MAKE

**TYPE** 

NUMBER OF CYLINDERS BORE (Inches) STROKE (Inches)

DISPLACEMENT (Cubic Inches)

COMPRESSION RATIO GROSS BHP @ RPM

PEAK TORQUE (1b-ft) @ RPM

TORQUE RISE

MAX.. GOV. RPM - LOAD

NO LOAD

GOVERNOR - TYPE PISTON MATERIAL

CRANKCASE CAPACITY - DRY

(QUARTS) REFILL

COOLING SYSTEM - CAP. (QTS.)

FAN

WATER PUMP CAP. @ ENG. RPM

ALTERNATOR - CAPACITY

**POLARITY** 

OIL FILTER - TYPE AIR CLEANER - TYPE EXHAUST SYSTEM Caterpillar (Group 3) 3208TA (AAAC)

4 Cycle Diesel Valve-In-Head

Turbo-Charged Aftercooled

8 - 90 Degree Vee

4.5 In.

5.0 In.

636 Cu. In.

16.5 to 1

300 @ 2800

750 Lb.-Ft. @ 1400 RPM .

33% 2800 3020

Hydra-Mechanical

Aluminum Alloy

20.0

16.0 (18.0 with filter change)

61

25" Dia. - 8 Blade With Air Clutch

90 GPM @ 2800

12 Volt - 160 Amp Motorola

Negative Ground

Full Flow - Two Disposable

Farr-Dry Type (ECO II)

Single 5" O.D. With One Muffler

# 1987 WANDERLODGE FORWARD CONTROL CHASSIS STANDARD EQUIPMENT

**ACCELERATOR** 

The accelerator pedal controls the speed of the coach by opening and closing the engine fuel flow line. This pedal also controls the transmission low-gear, kick-down mechanism which provides rapid acceleration from slow speeds.

**ALTERNATOR** 

A Motorola 12 volt DC, 160 amp externally excited alternator.

AIR COMPRESSOR

12.0 CFM Capacity @ 1250 RPM

**AIR RESERVE** 

Three tanks — <u>Two</u> with 1760 Cubic Inch Capacity Each and <u>One</u> Tank with 1240 Cubic Inch Capacity. Total Capacity 4760 Cubic Inches.

**AXLES** 

13,200 lb. Front (With Stemco Oil Seals and Caps); 23,000 lb. Rear, Single Speed 5.29 Ratio

BATTERY

Four 6 Volt, 220 Amp @ 20 Hour Rate.

BRAKES, EMERGENCY

Anchorlok 30" Spring Brake System with Treadle Valve. Separate Dash Mounted Valve Provided for Parking

BRAKES, SERVICE

The coach is equipped with a dual service air brake system which includes two independent systems for the front and rear service brake. The front system includes a 24" brake chamber with 16-1/2 x 5 brake shoes and the rear system includes a 30" brake chamber with 16-1/2 x 7 brake shoes for a total of 754 square inches of lining area. A Bendix air dryer is included with the air brake system. Each brake chamber has an automatic slack adjuster to compensate for brake shoe wear.

CRUISE CONTROL

Bendix Cruise Control (Includes High Idle)

DRIVE LINE

Spicer 1610 Series with Protective Guard Around Shaft

**ELECTRICAL SYSTEM** 

12 volt

**ENGINE** 

Caterpillar 3208 TA (AAAC)

**EXHAUST SYSTEM** 

16 Gauge Aluminized Steel with Heavy Duty In-Line Muffler

**FILTER** 

Racor Fuel Filter Water Separator and Preheater

FRAME

One-Piece Channel 9 5/8" High with 3" Flanges made of 1/4", 50,000 PSI Steel, Section Modulus - 10.1 In<sup>3</sup>.

FUEL PUMP

Remote located auxiliary electric fuel pump

FUEL TANK

230 Gallon Capacity 35' Side Bath 235 Gallon Capacity 31'- 33' Side Bath 225 Gallon Capacity - 35' Rear Bath

GROSS VEHICLE WEIGHT RATING

34,000 lbs.

HORN

Electrical Dual/Air Dual With Selector Switch

OIL FILL & CHECK

Located behind logo panel on front of coach

SHOCK ABSORBERS FRONT AND REAR

Direct Acting, Double Action Piston Type Front Shock Absorber (Koni); Rear Shock Absorber (Gabriel)

STEERING GEAR

Ross Model HFB-64 with 20.4 to 1 Ratio with Integral Power Steering and Douglas Model 909 Tilt & Telescoping Column

SUSPENSION

Ridewell Air Suspension System

TIRES

Tubeless 11-22.5 16-Ply Rating Michelin Steel Cord Radial with XZA Thread, Single Front, Dual Rear

TRANSMISSION

ZF Model 5 HP 500 Ecomat with Integral Retarder

WHEELS

10 Stud Disc., Single Front, Dual Rear - Polished Aluminum 22.5 x 8.25 Rims

# 1987 STANDARD EQUIPMENT SPECIFICATIONS WANDERLODGE FORWARD CONTROL BODY AND INTERIOR

#### AIR CONDITIONER COVER

31, 33, 35 35RB A styled ABS chassis A/C condensor cover. Package includes an A/C condensor repositioned 8" rearward of the coach leading edge for better air flow. Includes rubber insulation of A/C condensor for lower interior noise.

#### AIR CONDITIONERS

Chassis 31, 33, 35 35RB

One air conditioner, chassis engine driven, 18,000 BTU. Controls are located on the overhead switch panel for temperature control and dual three speed blowers. Four adjustable outlets are located over the top of the windshield.

Electric 31, 33, 35 35 RB Two 13,500 BTU Dometic roof air conditioners located in living room bedroom. The 12 volt master ON/OFF switches are mounted above and to the left of the driver's seat. Fan and thermostat controls are located on the roof air conditioners. Each air conditioner is equipped with a 1000 watt heat strip.

AIR, AUXILIARY OUTLET 31, 33, 35 35RB

Auxiliary air outlet from the chassis accessory air tank including an air hose and a gauge, located in the left mid-mount compartment with proper identification decal.

#### BATHROOM

## Bath Colors 31, 33, 35 RB

5 color combinations available.

- 1. Shower Stall laminated fiberglass (see color option for colors)
- Vanity Almond color Corian top with solid color cultered marble bowl (see color option for color) with single lever polished brass faucet
- 3. Formica (see color option for color)
- Ceramic Tile Floor (see color option for color) not available on 35 RB

# Bath Colors

5 color combinations available.

- 1. Shower Stall (see color option for color) Gelcoat
- Vanity Almond color Corian top with self rimming enamelled cast iron lavatory (see color option for color) with single lever polished brass faucet
- 3. formica (see color option for color)
- 4. Ceramic Tile Floor (see color option for color)

#### Bath Accessories

- A. One polished brass soap dish mounted in shower stall
- B. Recessed polished brass toilet tissue holder with lid
- C. Single knob <u>polished brass</u> control shower valve with hot/cold pressure equalizer spool
- D. Towel ring polished brass
- E. Three towel bars polished brass (35 RB only)
- F. Two towel bars polished brass (31,33, 35)
- G. Robe hook polished brass
- H. Fold down door stop on bathroom door (35 RB only)
- Door stop on the right hand closet door (35 RB only)
- Ceramic combination, toothbrush, toothpaste, glass, and soap holder (see color option for color)

## BATTERIES 31, 33, 35 35RB

Four 6-volt 220 Amp, deep cycle batteries. Four batteries located in the left front compartment on a slide-out tray. All 4 batteries are wired in series/parallel to produce 440 AMPS of 12 volt power. These batteries supply power for the coach and engine cranking.

## BATTERY CHARGER 31, 33, 35 35RB

Two 75-ampere battery chargers/converters automatically operate whenever a source of 120 volts AC is supplied to the coach circuits. These chargers also charge the generator battery whenever there is a source of 120 volts A.C., via an in-circuit battery isolator. Battery chargers are located in the left side mid-mount storage compartment.

## BATTERY HEATER 31, 33, 35 RB

120 V. battery heater for all four chassis batteries. Lighted switch located in the front of sofa base.

#### BEDS 31, 33, 35 RB

Twin beds with innerspring mattresses and two foam rubber pillows. Forward bed boards are fastened to frames with countersunk screws and finishing washers. Rear bed boards are installed loose for easy access to hot water heater, water pump, and underseat heater. Sides of bed frames are carpeted.

35

Island bed with innerspring mattress and two foam rubber pillows. Forward bed boards are fastened to frames with countersunk screws and finishing washers. Rear bed boards are installed loose for easy access to hot water heater, water pump, water purifier, water tank, air accumulator, and chassis heater. Sides of bed frame are carpeted.

### BEDSPREAD 31, 33, 35 RB

Two quilted removable covers with separate matching pillow covers.

35

One quilted removable cover with separate matching pillow covers.

#### BUMPERS 31, 33, 35 35RB

Standard FC bumpers are painted the color of the lower accent paint.

## BURGLAR ALARM 31, 33, 35 35RB

An intruder alarm system which protects windows and entry door. Windows are activated by a magnetic proximity switch. Entry door uses a door jamb switch. System may be set from outside the coach by a key-switch adjacent to the entry door or from inside the coach with a master burglar alarm switch located on front instrument panel.

## CB/PA UNIT 31, 33, 35 35RB

Forty-channel, CB receiver/transmitter handset unit mounted on right side of dash. This unit includes individual speakers and headphone jack above the driver and co-pilot and an outside mounted weatherproof PA speaker.

## CARPET 31, 33, 35 35RB

Dense pile, mini-shag with high density 1/2 inch foam padding in aisle on 5/8" plywood subfloor. Carpet covers the following additional areas with no padding underneath:

- 1. All exposed gussets
- 2. All wheelhousings
- 3. Sofa base
- 4. Driver's floor boards & RH kick panel
- 5. Closet floors to top of gusset
- 6. Vertical portion of stepwell and top step plates
- 7. Floor of all compartments
- 8. Steering column base cover
- 9. Sides of dinette bases
- 10. Sides of bed frames
- 11. Toe space under night stand
- 12. Extra carpet in compartment under dinette seat for steps
- 13. Hood and hood ledge

## Protective Cover

Removable two-piece vinyl cover protects carpet in aisle. Carpet, upholstery and vinyl cleaner is also included.

#### CEILING PANELS 31, 33, 35 35RB

Ceiling panels are made of White padded vinyl, heat sealed on 2" centers to 1/8" Masonite and held to ceiling with color matched vinyl retainers.

#### CIRCUIT BREAKER PANEL, AC

Controls all receptacles, hot water heaters, bath heat, battery chargers, etc.

31, 33,

The circuit breaker panel is located in the hall closet.

35 RB

The circuit breaker panel is located on the rear wall in the bathroom.

35

Circuit breaker panel is located on rear wall of end table at the entrance door.

## CRUISE CONTROL, BENDIX 31, 33, 35 35RB

A driver controlled, automatic speed control which is air operated and designed for use by heavy duty highway vehicles. Controls (on/off, set/resume) are mounted on the dash in easy reach of the driver. Cruise control also serves as a chassis engine "high idle" provided the transmission is in neutral and spring brake valve is in park position.

# DASH (INSTRUMENT PANEL, UPPER)

Electroluminescent dash panel consists of controls, gauges and indicators used to monitor and control the engine, generator and coach systems.

## A/T Switch

Activates anti-theft circuits so engine cannot be started while circuit is activated.

## Air Pressure Front/Rear Gauge

Monitors the air pressure in the front and rear air reserve tanks for the service brakes and parking brake.

## Alt./Chgr. Amps Gauge

Indicates total charging current in Amperes. With the engine running total alternator output is shown. When parked with a source of 120 Volt AC (outside power or generator), the gauge will show total output of the battery chargers.

## Burglar Alarm Switch

Activates coach burglar alarm system from inside the coach. (See BURGLAR ALARM.)

## <u>D.C. Vol</u>t <u>Gauge</u>

Expanded-scale voltmeter graduated from 10 to 16 volts shows condition of battery charge when ignition is ON.

### Engine Alarm Indicator

Indicator lights and buzzer sounds to alert driver when associated engine monitors detect an abnormal operating condition such as engine low oil pressure, engine radiator low fluid, engine overheat.

# DASH (INSTRUMENT PANEL, UPPER)

Engine Hour

Meter

Indicates total hours of engine operation.

Engine Oil

Pressure Gauge

Indicates the pressure of the oil, not the amount of oil in the

engine reservoir.

Engine Oil

Temperature

<u>Gauge</u>

Indicates the temperature of the engine oil by degrees Fahrenheit.

**Engine Water** 

Temp. Gauge

Shows engine coolant temperatures from 100 to 260 degrees Fahrenheit.

Fuel Level Gauge

Indicates amount of diesel fuel remaining in fuel tank

Headlight Alert Indicator

Indicator light and buzzer sounds to alert driver when the ignition switch is turned off and the headlight switch is on.

Low Air Warning Light

and Buzzer

Warning indicator is lit whenever system air pressure is below 60 psi; a buzzer, located behind the panel, also sounds for low-pressure conditions.

Low Fuel Light

This light comes on when the fuel in the tank is below the 1/4 full mark.

DASH (INSTRUMENT PANEL, LOWER)

Electroluminescent dash panel consists of controls, gauges and indicators used to monitor and control the engine, generator and coach systems.

Air Level

Master Switch

This switch operates the air leveling system with option 5640.

Air Compressor Master Switch

This switch operates the auxiliary air compressor with option 5812.

<u>Aisle Light</u>

Switch

This switch allows the on-off operation of the aisle light.

<u>Auxiliary Battery</u>

Switch

This momentary switch connects the generator and engine batteries in parallel to provide a greater current source for hard-starting situations.

# DASH (INSTRUMENT PANEL, LOWER)

Auxiliary Step

Switch & Indicator

This indicator is to alert the driver that the entry step is extended before driving away.

Back-Up Alarm

<u>Switch</u>

This switch turns the back-up alarm buzzer off.

Comp. Light

Master Switch

ON-OFF switch controls operation of all exterior compartment lights.

<u>Dash Dimmer</u>

<u>Switch</u>

Adjust intensity of electroluminescent panel markings. This switch controls upper, lower, shifter, RH upper, and RH lower dash panels.

Defrost Switch

The DEFROST HI-LOW switch controls operation of the dual speed blower motor that directs defroster air to the windshield.

Elec./Air Horn Selector Switch

This switch allows selection of air or electrical horns to be blown by horn button in center of steering wheel.

Fan Override Switch and Indicator Light

The switch operates the engine cooling fan. The indicator light shows when fan is operating.

Heat Switches

Front

The FRONT HEAT ON-OFF switch operates solenoid valve to provide heat to front heater core. The adjacent HEAT HI-LOW switches control blower air speed to the right and left sides.

LP Heat Switch Master switch for LPG heaters throughout the coach.

Hazard Switch

This switch controls the on-off operation of the emergency flashing warning lights.

<u>Headlights</u>

Switch.

Press small switch marked "P" for Parking Lights and press larger switch marked with light emblem for headlights.

<u>Hi-Beam</u>

<u>Indicator</u>

Lights when dimmer switch, located on the steering column, is pressed for high beam operation and headlight switch is on.

# DASH (INSTRUMENT PANEL, LOWER)

High Idle

This switch, when in the on position, increases the engine idle speed.

Horn Switches

These switches control the power, play, and tune selector for the

musical horn.

<u>Landing Light</u>

Switch (Front)

Controls on-off operation of front landing lights.

Landing Light Switch (Rear)

Controls on-off operation of rear landing lights.

<u>Leveling</u>

Warning Light

This light indicates that all of the leveling jacks are not in their

retractable position.

<u>Low Washer</u> Fluid Light

t Indicates when windshield washer fluid is low.

Mirror Heat

<u>Switch</u>

Controls on-off operation of the thermostatically controlled heater

in the right and left outside rearview mirrors.

Rear Axle Temperature

Gauge

Indicates the temperature of the oil in the rear axle by degrees

Fahrenheit.

Rear Parking Lights Switch

Controls ON-OFF operation of rear parking lights. Gear selector must

be in "reverse" position for lights to operate. (See LIGHTS

[EXTERIOR].)

Speedometer/ Odometer

Indicates speed and accumulated mileage (Teleflex) Solid State

Electronic Model

Suspension Dump Light This light indicates that the suspension system has to be pressurized

before coach is driven.

Suspension Dump Switch

This switch allows the air suspension system to be depressurized or

pressurized.

Tachometer

Indicates actual diesel engine RPM (revolutions per minute) X 100 on

a 0 to 4,000 RPM scale.

# DASH (INSTRUMENT PANEL, LOWER)

Transmission Oil
Temperature and
Indicator

Indicates the temperature of the transmission oil by degrees Fahrenheit. Indicator light will come on when temperature is too hot.

Turbo Boost Gauge

Indicates the amount of turbo pressure into the air chamber.

Turbo Pyrometer Gauge

Measures the temperature and degree Fahrenheit of exhaust out of turbo.

Turn Signal Indicators

The left or right green turn signal lights blink in conjunction with the outside directional lights when the turn signal lever is set to the corresponding position. (See LIGHTS [EXTERIOR].)

<u>Water In Fuel</u> Light This light indicates when there is an excessive amount of water in the bottom of the fuel tank.

DASH (INSTRUMENT PANEL, SHIFTER)

Electroluminescent dash panel consists of controls, gauges and indicators used to monitor and control the engine, generator and coach systems.

Cruise Control

A driver controlled, automatic speed control which is air operated and designed for use by heavy duty highway vehicles. Controls (on/off, set/resume) are mounted on the dash in easy reach of the driver.

<u>Driving Lights</u> Switch

Controls front driving lights. (See LIGHTS [EXTERIOR].)

Marker Lights Switch

Operate this control to turn on the clearance lamps located on the top, sides and ends of the coach. (See LIGHTS [EXTERIOR].)

Power/Economy Switch

Changes the shift point of the transmission versus the engine revolutions.

Retarder Switch

This switch provides power to transmission retarder/brake system. The adjacent indicator lights when retarder is operational.

Transmission Selector

A lighted transmission pushbutton shift selector.

# DASH (INSTRUMENT PANEL, RH LOWER)

Electroluminescent dash panel consists of controls, gauges and indicators used to monitor and control the engine, generator and coach systems.

#### Ignition Switch

A four-position, standard type key switch. In OFF position (center), ignition and accessory positions are disabled and the key can be inserted or removed. In ON position (right) the battery is connected to the ignition circuits and the key can be advanced to START to start the engine. ACCESSORY position (left) allows operation of accessories without activating the ignition circuits. A parallel ignition switch and front/rear selector switch is located in engine compartment.

# Wandersound (Stereo)

Sony AM-FM Tuner/Cassette with 11-band graphic equalizer, six 6-1/2" coaxial Pyle-driver speakers, one 8" dual coil subwoofer, and 120 Watts RMS of power. The Sony Tuner/Cassette has auto reverse, auto-music sensor and Dolby B and C noise reduction. The equalizer has 11 slide controls and selectable subwoofer crossover. The speakers are located four in the living room and two in the bedroom. The subwoofer is in the living room. A privacy switch is located on the overhead panel above the driver's head. The privacy switch turns the living room speakers off. Headphone jacks are located next to the privacy switch, over the copilot's head, and in the bedroom. There is a volume control in the bedroom controlling the volume of the bedroom speakers.

# DASH (INSTRUMENT PANEL, RH UPPER)

Electroluminescent dash panel consists of controls, gauges and indicators used to monitor and control the engine, generator and coach systems.

#### Accessory

This blank position may be used for the installation of an additional switch.

# <u>Cigarette</u> Lighter

Depress to heat the element, which pops up when hot.

# Compact Disc Player

This is available with the premium sound system option 5644.

# Security Lock

Switch

Dual switches to lock and unlock the deadbolt lock on entrance door. Switches located on dash and on bedroom control panel.

# Vent Switch

(Left)

This switch controls the LH cowl-mounted fresh air vent for pilot.

# Vent Switch

(Right)

This switch controls the RH cowl-mounted fresh air vent for copilot.

DASH (INSTRUMENT PANEL, LH OVERHEAD DASH PANEL)

Electroluminescent dash panel consists of controls, gauges and indicators used to monitor and control the engine, generator and coach systems.

<u>Accessory</u>

This blank position may be used for the installation of an additional switch.

### <u>Air Conditioner</u> Controls - Chassis

<u>Temperature</u> <u>Selector</u>

Thermostat setting controls temperature by cycling compressor.

Right Fan Switch

Controls three-speed blower for right front area of coach.

<u>Left Fan</u> <u>Switch</u>

Controls three-speed blower for left front area of coach.

Antenna Up/Down
Switch and

Indicator Light

Switches operate the raising or lowering of the TV antenna. Indicator light indicates when antenna is in up position. The safeline buzzer and/or light will be activated when the antenna is in the up position and the ignition key turned on.

Auxiliary Pump Switch

Controls the auxiliary water pump (under left rear corner of coach) that circulates water through the heat exchanger domestic hot water heater and underseat heaters.

Camera Defog Switch

Controls the operation of the fan in compartment for closed circuit  $\mathsf{TV}$  (CCTV) camera.

Dash Dimmer Switch

Adjust intensity of electroluminescent panel markings. This switch controls RH and LH upper auxiliary dash panels.

Digital Clock/ Elapsed Timer

The digital clock and elapsed time digital readout is located on the dash. The ELAPSED TIME display will show elapsed time in terms of hours and minutes, or in minutes and seconds, depending on the position of the HRS./MIN.-MIN./SEC. switch.

Generator Start/Stop Switch

Controls the starting and stopping of the generator. There are also three additional locations for this switch.

DASH (INSTRUMENT PANEL, LH OVERHEAD DASH PANEL)

Heat Selector

Switch

Operates solenoid valves in engine coolant line to divert coolant flow through water heater and/or chassis heaters.

Racor Fuel Vacuum Gauge

Indicates when Racor fuel filter element needs changing.

Spotlight Controls

Spotlight

Aim Control

Controls horizontal and vertical beam position.

Spotlight

Speed Control Adjust speed of aim control.

Spot-Off-

Flood Switch

Selects type of beam desired and controls ON-OFF operation.

Safeline Alarm

A shoreline disconnect alarm. An audible and/or visual alarm activated when the shoreline is left connected to the coach or the TV antenna is raised at the same time that the ignition switch is turned Alarm warns the driver not to drive before disconnecting shoreline hookup or lowering the TV antenna.

Trip Odometer

This allows the reset of the odometer.

Water In Filter

The light and buzzer indicates when there is an excessive amount of

water in the Racor fuel filter.

DASH (INSTRUMENT PANEL, RH OVERHEAD DASH PANEL)

Electroluminescent dash panel consists of controls, gauges and indicators used to monitor and control the engine, generator and coach systems.

A.C. Voltage

Leg One

Voltmeter monitors Leg One of 120 Volt alternating current circuits.

Leg Two

Voltmeter monitors Leg Two of 120 Volt alternating current circuits.

DASH (INSTRUMENT PANEL, RH OVERHEAD DASH PANEL)

### D.C. Amperage

**Battery Charge** 

Gauge Ammeter shows net current flow to or from batteries.

Coach Load

Gauge Ammeter shows complete 12V. coach load including refrigerator and

inverter (with inverter option).

#### **Generator Gauges**

Hour Meter

<u>Gauge</u> Indicates total hours of generator operation.

0il Pressure

Gauge Shows the oil pressure, not amount of oil in the generator engine

reservoir.

<u>Voltmeter</u>

Gauge Expanded-scale Voltmeter, with scale graduation from 10 to 16 Volts.

shows the condition of the generator battery.

Water Temperature

Gauge Shows generator engine coolant temperature from 100 to 260 degrees

Fahrenheit.

DECALS 31, 33, 35 35RB

<u>Antifreeze</u>

Decal Located on the windshield.

Axle and Chassis

Service Decal Located on the changeover compartment door.

Battery Heater

Decal Located on the battery heater switch, which is mounted to the left

side of the sofa behind the pilot seat.

Bath Cleaning

Decals Located on bathroom lavatory.

Block Heater

<u>Decal</u> Located on the switch cover on the co-pilot kick panel.

Body Identifica-

Service Decal

Service Decal Located on the changeover compartment door.

<u>"Cap Must Be</u>

Securely Locked Decal

Located above the septic tank drain cap.

Cooking Appliances

<u>Decal</u>

Located on side wall over range.

Customer's Name

<u>Plate</u>

Installation by Sales upon delivery. Plate is mounted with brass

brads in the location that the customer chooses.

<u>Diesel Decal</u>

Rear

One "diesel" decal is centered above the tag light bracket over the

diesel fill door.

"Do Not Store"

Decal

Located on LP gas furnaces.

<u>Electronic</u>

Master Decal

Located in the overhead cabinet nearest the bath wall.

Exit Decal

The exit decals are located on the interior of the coach, on the left

hand living room and the bedroom windows.

50 AMP

Supply Decal

Located on the wall of the utility compartment, near the 50 AMP

receptacle, and on the exterior of the utility compartment door.

Generator In/Out

Decal

Located inside the changeover compartment on 31', 33' and 35' RB

models. Located in the LH rear luggage compartment on the 35' SB

Model.

Jumper Decal

Located on the inside of the battery compartment door.

LPG 8% Fill Decal

Located on the LPG tank.

LP Gas Decal

Located in the LP gas tank.

Logo,

Blue Bird

A self-adhesive blue bird is located on the left hand and right hand

living room windows in the accent paint belt line.

Lug Nut Decal

The lug nut decal is located on the inside of the changeover

compartment door.

Protective Covering

Decal

Located on the windshield.

Radiator Decal

Located on the inside of the radiator fill door.

Recreational Vehicle Industry Association

<u>Identification</u>

The RVIA decal is centered between the door bell and the entrance door grab handle.

T.V. Antenna Fuse Decal

Located inside the overhead cabinet, forward of the entry door.

"<u>These Seats</u> Not Intended"

Decal

Located on seats that do not have seat belts.

30 Ampere Supply Decals

Located on the side wall of the utility compartment, near the 30 AMP receptacles.

Trailer Plug Decal

Located on the exterior of the coach above plug.

Tire Inflation

<u>Decal</u>

The tire inflation decal is located on the inside of the changeover compartment door.

<u>Vehicle</u> Identification

Number

The V.I.N. decal is located on the corner post at the bottom left side of the windshield.

Warning Gas

Odor Decal

Located on the back side of the kitchen cabinet door.

"Warning Pilot Light" Decal

Located inside the LP compartment and gas filler.

"Warning Potable

Water Only" Decal

Located adjacent to commercial water hookup in water utility compartment.

<u>Water Heater</u>

<u>Decal</u>

31, 33, 35

Located on the switch cover mounted to the side of the bed.

35RB

Located on the switch cover mounted on the 3/4 closet in the bathroom.

DINETTE 31, 33, 35 35RB

Four place bench type dinette. The table top is covered with putty gray formica and has a padded turf/tan vinyl table trim. Cushioned bench-type seats which are color coordinated to interior decor and mounted to a base which is covered in white vinyl. The table converts to a 3/4 size bed.

DOOR 31, 33,

> Bi-Folding Doors

A panel folding divider door allows for extra privacy in the bedroom area. This door is located between the dinette and bedroom. When not in use, this bi-fold door is folded into an out-of-the-way location against the wall.

DOOR CHIME

31, 33

A multi-tune electronic door chime which is chassis battery operated. Located on the rear wall in dinette area.

35

Located down low behind the companion chair on the right side of the living room floor.

35 RB

Located on the rear wall over the right twin bed.

#### DRAPERIES:

Divider Drapes 35RB

A pleated curtain helps block out light in the bedroom area. This drape extends across the aisle on a track, separating the bedroom from the dinette area.

<u>Drapes</u> <u>Manual</u> 31, 33, 35 35RB

Drapes located in the living room and bedroom with a thermal suede blackout lining. Color and pattern coordinated to interior decor. Single panel living room drapes cover both living room window and driver's or co-pilot's window on each side.

Roman Shades 31, 33, 35 35RB

Located in kitchen window and dinette window. Color and pattern coordinated to interior decor.

35RB

Located on the rear window in the bathroom.

Venetian Blind

Located over entrance door window and on windshield with Velcro attached

31, 33, 35 35RB removable windshield drapes.

### ELECTRONICS MASTER 31, 33, 35 35RB

The electronics switch is located in the overhead cabinet above and to the rear of the sofa. Its purpose is to control all 12 volt circuitry to the digital clocks, monitoring panels, and burglar alarm.

# ENGINE HOOD TABLE 31, 33, 35 35RB

Turf tan padded top with turf tan vinyl covered edging. Two drawers are mounted in the center of the hood table, each containing an ashtray and a recessed glass holder. A removable hood cushion is installed on lower portion of the hood. Cushion is upholstered in the same fabric as the sofa.

# ENTRANCE DOOR 31, 33, 35 35RB

#### **Handles**

Entry door assist handles are located on the exterior of the coach, to the left of the entry door; and on the interior of the coach on the bottom of the stepwell cover and on door.

# <u>Lock</u> Deadbolt

Electric entrance door lock with switch on dash instrument panel and on

# & Bargman

bedroom control panel.

### Step

Air operated entrance door auxiliary step. Extends when the door is open — retracts when the door is closed. A rubber covering is over the bottom entrance step; the second step is carpeted.

## Screen

Aluminum screen door with sliding screened panel to allow access to door handle and door locks.

### FAN 31, 33, 35 35RB

A 12 volt portable oscillating fan to provide circulation within the coach is placed loose in the coach.

# FILTER ELEMENT GAUGE 31, 33, 35 35RB

Shows condition of Racor filter in terms of fuel line vacuum. High vacuum readings indicate when filter element change is required. This gauge is mounted in the driver's side of the engine hood.

# FIRE EXTINGUISHER 31, 33, 35 35RB

Two 2.5-pound dry chemical, Halon type, with a gauge. One fire extinguisher is located in an exterior luggage compartment and one is located on the interior base of the dinette seat.

FOOD CENTER 31, 33, 35 35RB

A built-in variable-speed motor driven counter unit. Designed for AC operation. Operable only when generator is on, or when coach is connected to shoreline hook-up. Food center includes processor, blender, power post, can opener.

FORMICA 31, 33, 35 35RB

Bathroom

See optional bathroom colors.

<u>Dinette</u>

Table Top

Putty Gray, (P/N 3763042) (Side Bath)

Woodgrain (Rear Bath)

<u>Kitchen</u>

COUNTERTOP, BLACKSPLASH, STOVE TOP COVER, AND UNDERNEATH OVERHEAD CABINET

(Putty Gray, P/N 3763042)

BASE CABINET FRONT AND DOORS OVERHEAD CABINET DOORS (Asian Teak, P/N 4016242)

Wall & Furniture Cabinets

(Asian Teak, P/N 4016242)

**GENERATOR** 

8.0 KW Diesel

**Operation** 

The generator is water cooled and located on an electro-mechanical linear actuator powered slide out tray. Generator can be operated at the drivers instrument panel, or the galley wall monitor switch panel, or the remote panel located in the generator compartment or the bedroom instrument panel. Generator gauges located on RH overhead dash panel.

The generator switch starts or shuts down the generator. Hold this switch in the "OFF" position for 30 seconds to activate the injector heaters to heat fuel entering the injectors for cold-weather starting.

<u>Generator</u> Voltmeter

Expanded-scale voltmeter, with scale graduations from 10 to 16 volts shows the condition of the generator battery.

#### Generator Water

Temp Gauge

Shows generator engine coolant temperature from 100 to 260 degrees.

## Generator 0il Pressure Gauge

Shows the oil pressure, not amount of oil in the generator engine reservoir.

# **Generator Hour** Meter

Indicates total hours of generator operation.

#### **GROUNDING BAR**

31, 33, 35 35RB

Heavy duty copper grounding Buss bar on which all electrical ground wires are attached.

# **HEATERS** 31, 33, 35 35RB

# Engine Block Heater

110 volt element that heats water in the engine block.

### Domestic Hot/ Water Heating

110 volt element and engine heat exchanger with a dry tank protection switch to prevent element from being turned on when tank is empty.

# Gas/Hot Air Heaters

31, 33, 35

LP gas furnaces are located in the living room, galley area, and bedroom with separate thermostats. The living room furnace is also used to supply heat to the bathroom via a separate duct booster fan and thermostat located in the bathroom. The furnaces operate automatically to stabilize temperature at a selected level on thermostatic control.

#### (Right Side) 35RB

LP gas furnaces are located in the living room, galley area, and bedroom with separate thermostats. The bedroom furnace is also used to supply heat to the bathroom via a separate duct booster fan and thermostat located in the bathroom. The furnaces operate automatically to stabilize temperature at a selected level on thermostatic control.

#### Heat Tape

A thermostatically controlled heat tape (120V) is run on the copper water tubing and then wrapped with insulation. Heat tapes start at 36°F and stop at 43°F.

# Engine-Aided Hot-Water Heating

Heat generated from the engine provides two sources of heating.

- Three chassis heaters (50,000 BTU) are located under the front dinette seat, front sofa, and island bed, these heaters are controlled by a centrally located chassis heat thermostat.
- 2. A 90,000 Btu heater located at the right front corner of the coach is controlled by the FRONT HEAT switch on the dash.

HORN 31, 33, 35 35RB

<u>Air</u>

Dual horns with covers, roof mounted, one on each side of the the coach, activated by foot switch in the driver floorboard or by horn button.

Musical

A solid-state stereo programmed electronic horn which can play a number of tunes available from the integral computer storage library. This unit is located in the lower dash.

#### INSULATION

<u>Noise</u> 31, 33, 35 35RB Forward portion of body floor consists of 1/8" thick noise barrier material. The engine radiator and lining covering assembly are completely surrounded by a noise control material consisting of decoupled absorption and barrier properties. The driver's floorboard has extra thick decoupled barrier type insulation.

Thermal 31, 33, 35 35RB

Insulation is applied on unexposed sides of all exterior panels, including the front floor section. Urethane foam insulation is applied throughout the body. The floor is insulated with Urethane foam. 5/8" plywood subfloor is standard. Driver's insulation cowl area is insulated with mylar back (TIF) or Therma Insulating Foam.

JACK, 12 TON HYDRAULIC 31, 33, 35 35RB

The hydraulic jack is located in a storage compartment and is secured with hold down clamps. The jack handle and lug arench are included.

LPG 31, 33, 35 35RB

One hundred fifty (150) pounds of LPG or Liquified Petroleum gas is stored in a 45 gallon frame-mounted tank. LP gas is the energy source for the refrigerator, range/oven and three gas furnaces. Tank controls include main gas valve, high pressure regulator, filler connection and a 20% relief valve. Tank level can be monitored on the Galley panel digital display when the PROPANE TANK button is pressed.

31, 33

The LPG supply tank is located in the right midsection forward the entry door.

35

The LPG tank is located in the RH rear overhang.

**35RB** 

The LPG supply tank is located in the left midsection forward of the storage compartment.

LP CUT-OFF VALVE 31, 33, 35 35RB Located in outside refrigerator vent compartment. Controls LPG flow into all of interior coach.

LP GAS & VAPOR DETECTORS 31, 33, 35 35RB

Lifeguard One, on the galley panel monitors various locations throughout the coach and sounds an alarm if the safe amount of LP gas or carbon monoxide in air is exceeded. The LP gas leakage detector beneath the refrigerator monitors only this area, sounding an alarm and actuating the LP gas solenoid shut-off valve if a leak is sensed.

#### LIGHTS (INTERIOR)

Bathroom 31, 33

Two recessed fluorescent lights, one in light valance and one in ceiling above medicine cabinet, and two surface mounted fluorescent lights, one on each side of the mirror, are controlled by a wall switch.

35

One 36" fluorescent tube in light valance on outside wall emitting light out front and bottom. One  $18^{\rm th}$  fluorescent tube mounted above vanity emitting light downward.

35RB

Two recessed fluorescent lights, one in light valance and one in ceiling above medicine cabinet, are controlled by wall switch located in bedroom, two ceiling mounted bullet reading lights and surface mounted shower lights with individual switches and a master switch on the wall.

Bedroom 31, 33

There are four indirect lighting recessed fluorescent lights, located, two above each bed, controlled by a master switch. One night light mounted in aisle is operated by switch in the bedroom. Four bullet reading lights are located underneath the overhead pan, one at the head and one at the foot of each bed.

35

Two, six foot long, indirect lighting fluorescent lights. Located behind valance One night light located in the aisle and operated by a switch in the bedroom. Two bullet reading lights located in the base of the rear overhead cabinet.

35RB

The rear bath coach has four indirect lighting recessed fluorescent lights, (two over each bed). Four bullet reading lights are located underneath the overhead pan, one at the head and one at the foot of each bed. One night-light is mounted in the aisle.

<u>Dinette</u> 31, 33, 35 35RB

Two indirect lighting recessed fluorescent lights mounted over dinette.

A bullet reading light is mounted on overhead pan centered over dinette. One night-light mounted in aisle is operated by switch in bedroom and on the dash.

Entrance Door 31, 33, 35 35RB

One recessed fluorescent light located over entrance door in entrance door valance.

Kitchen 31, 33

One recessed fluorescent light is located over the sink and counter top.

35, 35RB

Two recessed fluorescent lights are located over sink and counter top.

Living Room

Three bullet reading lights and four indirect lighting recessed fluorescent lights are located on left side of coach in the overhead cabinet pan and four bullet reading lights and four recessed fluorescent lights are located on the right side of the coach in the overhead cabinet pan. One night-light mounted in the aisle is operated by a switch in the bedroom.

31, 35, 35RB

Three bullet reading lights and four indirect lighting recessed fluorescent lights are located on left side of coach in the overhead cabinet pan and three bullet reading lights and four recessed fluorescent lights are located on the right side of the coach in the overhead cabinet pan. One night-light mounted in the aisle is operated by a switch in the bedroom.

LIGHTS (EXTERIOR) 31, 33, 35 35RB

Back-Up Lights

Located at the rear of the coach below the stop lights. Back-up lights illuminate only when the coach is in reverse.

Cornering Lights

Located in the front compartment doors on right and left side of coach. Cornering lights illuminate in conjunction with the turn signal lights.

Directional Lights

Located on each side of the front of the coach above the headlights.

#### **Driving Light**

Located behind the front bumper with the control switch on the dash instrument panel.

### **Headlights**

Dual quartz Halogen headlights with high and low beams. Located above front bumper.

# Outside Marker Lights

#### 1. Side Marker Lights

Three lights are on each side of the coach, one in the front, center, and rear.

#### 2. Identification Lights

Three lights are centered in the top of the coach, located on the front and rear.

#### Front Marker

Two lights are mounted, one on each side, lower than the identification lights, on the front of the coach.

#### 4. Rear Marker

Two lights are mounted, one on each side, lower than the identification lights, on the rear of the coach.

# Parking Lights

Located above the front bumper on each side of the coach. Parking lights work in conjunction with headlights.

#### Porch Lights

Amber, double bulb fluorescent light located high and to the rear of the entry door.

# Rear Parking

Lights

Halogen rear parking lights are operated by back-up light switch with master switch on dash. The lights are located at the rear of the coach above bumper.

# Security Lights

Security light switch is located in the bedroom activating landing lights, rear parking lights and high beam headlights.

# <u>Side Directional</u>

<u>Lights</u>

Two dual bulb lights are on each side of the coach, one in the front, and one in the rear. Side directional lights work in conjunction with cirectional lights.

#### Tag Light

Located at the rear of the coach above the tag. The tag light illuminates in conjunction with the headlights.

- 23 -

7-02-86

# Tail, Stop & Directional Lights

Located at the rear of the coach, above the back-up lights, these lights use double filament bulbs. The tail lights illuminate in conjunction with the headlights or parking lights. The combination stop and directional filament illuminate as stoplights and/or directional lights via the directional light override system in the directional light switch. The stop filament also illuminates when the retarder is actuated.

MAP HOLDER 31, 33, 35 35RB

A vinyl pocket mounted on the wall on the right side of the co-pilot seat.

#### **MIRRORS**

#### Interior

Batl	room
31,	33

A mirror is located above lavatory with smaller adjustable mirror over it, medicine cabinet doors are mirror covered, a larger mirror is located behind toilet and a full length mirror on inside of bathroom door.

35

Framed mirrors are located behind the toilet, in medicine cabinet doors, rear of vanity cabinet and on the side of the vanity. There is also a 3/4 height, beveled edge mirror on the bathroom door.

35RB

Medicine cabinet doors are mirror covered. A wall-mounted mirror over the chest-of-drawers, and a flip-up mirror are located on the chest of drawers. Also, a full length mirror is located on the inside of the bathroom door.

<u>Drivers</u> 31, 33, 35 35RB Drivers rearview mirror on center-post windshield for viewing interior of coach only.

Hall 31, 33 Full-length mirror located on inside door of hall closet. A framed mirror is located on the outside of bathroom wall.

35

Full-length mirror located on inside door of hall closet.

Bedroom 31, 33

Wall fitted mirror mounted on front wall facing bed and a full width rear mirror extending from the bed to the overhead cabinet.

35

Full width rear mirror extending from the bed to the overhead cabinet.

Exterior 31, 33, 35 35RB Exterior rearview mirrors are heated and thermostatically controlled. A non-glare 8"  $\times$  8" rearview mirror with cast aluminum heads and arms, and 2-5 1/2"  $\times$  6" convex rearview mirrors with stainless steel heads mounted on top and bottom of 8  $\times$  8 rearview mirror. Allen wrench is included with outside 8  $\times$  8 mirror for mirror adjustment.

MONITOR PANEL, GALLEY 31, 33, 35 35RB

# 1. Refrigerator Fan Switch

The master switch which activates a thermostatically controlled fan located in the refrigerator compartment. Thermostat starts fan at 110° and stops at 90°.

# 2. Water Pump Switch

The master switch is located on the Galley Panel as well as the bathroom panel. The dot indicator is lit whenever power is supplied to pump. The water pump maintains constant pressure in the water system.

# 3. Refrigerator Alarm

This alarm monitors the temperature variations in the refrigerator compartment. The ON indicator is lit when refrigerator alarm is turned on, if the temperature increases to an unsafe level, the WARM indicator is lit and buzzer is activated.

# 4. Tank Monitor

The tank monitor activates a tank level detector for the portable water tank, gray tank, waste tank, and LPG tank (marked PROPANE TANK).

#### Clock/Thermometer

Provides a digital display of inside and outside temperature, digital time display, and an alarm function.

#### 6. Gas/Smoke Alarm

A gas leak detector designed to sense dangerous concentrations of LP gas or carbon monoxide within the coach. Four floor mounted alarms for three furnaces and the refrigerator. A sensor is located above the 120 volt AC distribution panel to monitor carbon monoxide.

#### 7. Waste and Odor Control

Controls the cycling and electrolysis action of two pair of stainless steel electrodes contained within the body waste holding tank. A 12-volt current is passed between each pair of electrodes for a 16-minute ON period then OFF for 48 minutes. This current oxidizes the organics and eliminates odor.

#### 8. Digitell

A verbal information system that supplements a number of informational and warning indicator components. This system monitors shoreline attachments, generator door lock, jacks down, lights on, and TV antenna up. Also monitors low fuel and water in fuel when other monitors are clear. The Digitell has time on command and an alarm feature also. The main control center is in the kitchen, command stations are located near the pilot and co-pilot in the bathroom and in the bedroom overhead panel.

#### Generator

Switch to start or shut down generator. On diesel generator, hold this switch in "OFF" position for 30 seconds to activate injector heaters to heat fuel entering the injectors for cold weather starting.

#### 10. 12 Voltage Monitor

Monitors the battery low voltage level, activating an audible alarm if a low voltage condition is present.

11. AC Volt Meter - See METERS, ELECTRICAL.

# MUD FLAPS 31, 33, 35

35RB

Rubber mud flaps 24" x 30" at rear of rear wheels, with Blue Bird logo. Rubber mud flaps 12" x 24" at rear of front wheels.

#### NAMEPLATE -WANDERLODGE

Front

A Wanderlodge logo decal (chrome over flat black) is centered on the radiator fill door.

Rear

A Wanderlodge logo decal is centered in the rear of the coach and centered in the top base color paint line.

RH & LH

A Wanderlodge logo decal is located on each side of the coach, 8" from the front cowl and approximately 7-1/2" from the top of the center rub rail.

# **NIGHTSTAND** 31, 33, 35

Two drawers, woodgrain formica covered. Top has a vinyl border. An aircraft type paddle latch is center-mounted on the nightstand drawers. Toe space carpeted, stained interior.

# OVERHEAD PANEL 31, 33, 35 35RB

Located in the front of the coach, panel contains stereo speakers, 13" TV, and air conditioner return air grill. Panel is removable to gain access to air conditioner evaporator, blowers, and overhead 12 volt load center.

# PAINT 31, 33, 35

35RB

Imron polyurethane exterior base color paint is Doeskin Tan color. Accent color is customer selected from standard option list. Clear polycoat is painted over the accent colors.

#### **PARKTNG** BRAKE

Located in hood table, to the right side of the steering column. Brake cannot be released unless the system air pressure is at least 65 psi.

POLARITY
INDICATORS,
120 VOLT A/C

Polarity indicators are located in the utility compartment. Green light indicates proper cable connection between coach and shore line; red light indicates improper cable connection.

POLIWASH 31, 33, 35 35RB

One gallon of Poliwash formula used for washing the coach.

POWER CORDS 31, 33, 35 35RB

Approved power cords supply the coach for hookup to external power sources. Each cord has a ground pin which provides proper electrical system grounding. Divided storage for power cords in outside compartment.

<u>Quantity</u>	<u>Female/Mal</u> e	<u>Volts</u>	Length	
(1)	50A/50A	220V	25 Ft.	
(1)	50A/30A	120V	. 25 Ft.	
(2)	30A/30A	120V	25 Ft.	
(2)	30A/30A	Extension Cords	25 Ft.	
(2)	30A/20A	Adaptor	N/A:	

RACOR FUEL FILTER 31, 33, 35 35RB

A Racor Fuel Filter Water Separator/Preheater is incorporated in the diesel fuel supply line and processes the fuel supply for maximum purity. To obtain maximum purity, the fuel goes through three stages of filtering, then the fuel is supplied to the engine.

The fuel filter also includes a built-in preheater which operates thermostatically from the 12-volt battery supply when the ignition is on. A water sensor, which lights the dash indicator when the water level in the filter bowl is high enough to require drainage.

With diesel generator, the diesel fuel for the generator also goes through the Racor Filter with check valves to protect each engine from drawing air.

RADAR DETECTOR 31, 33, 35 35RB Provides flashing red warning light and beeping signal indicating radar detection.

# **REFLECTORS** 31, 33, 35

35ŔB

Three reflectors mounted on each side of the coach, one in the front, center, and rear sections.

# REFLECTORS, EMERGENCY

31, 33, 35

35RB

A kit containing triangular warning devices is located in the outside storage compartment.

#### REFRIGERATOR

31, 33, 35,

35RB

An Automatic Energy Seeking refrigerator with separate doors for freezer and refrigerator sections. The coach must be parked level  $\pm 6^{\circ}$  in order for the refrigerator to cool efficiently. The refrigerator automatically operate on LP gas or it may be electrically powered on 12 volts while traveling or on 120 volts from generator or shoreline.

# ROOF RACK

31, 33, 35

35RB

Full length aluminum roof rack with floor panel and access ladder. Steps are covered with rubber step tread. Aluminum JAL tread is located on floor of roof.

#### RUBBER FENDERS

31, 33, 35

35RB

Rubber fenders are located on flange of wheelhousings.

#### SEAT BELTS

# <u>Retractable</u>

31, 33, 35

35RB

Retractable seat belts are located on the driver and co-pilot seats and on the companion chair or chairs.

#### Non-Retractable

31, 33, 35

Two non-retractable seat belts are located on the sofa and two on each dinette seat.

35RB

Three non-retractable seat belts are located on the sofa and two on each dinette seat.

#### **SEATS**

Drivers and Co-Pilot

31, 33, 35

35RB

A six-way electrical pilot seat and co-pilot seat, upholstered in leather, adjustments are built into seats. Controls allow seat bench to tilt up-down and front-back. The pilot and co-pilot seat has a manual tilt for the seat back, and an air-powered side slide which allows driver and co-pilot a simple entrance and exit from their seats.

#### Companion Chair

Swivel/rocker companion chair. Colors and patterns to match interior decor of coach.

3	1, 35 RB	One companion chair is located on the right side in the living room area between closet and living room table.
3	3	Two companion chairs are located on the right side in the living room area, one on either side of living room table.
3	5RB	One companion chair is located on the right side in the living room area between the end table and living room table.
SECURITY 31, 33, 35RB		
		The watchdog security timer is a randomly-switched 120 volt electrical timer used to switch lamps ON/OFF when coach is unoccupied.
SINK		
3	<u>itchen</u> 1, 33, 35 5RB	Double bowl stainless steel sink with sink covers, spray attachment, and Moen single lever control faucet.
SOFA		
	1	A Wanderlodge 70" sofa which converts into a 54" wide double bed sleeper. Located next to bath wall. Colors and patterns are coordinated to interior decor.
3	3	A Wanderlodge 76" pullout sofa which converts to a 54" wide double bed sleeper. An end table is positioned between sofa and bath wall. Color and patterns are coordinated to interior decor.
3	5	A Wanderlodge 74" pullout sofa which converts to a 54" wide double bed sleeper. An end table is positioned between sofa and dinette. Color and patterns are coordinated to interior decor.
3	5RB	A Wanderlodge 76° pullout sofa which converts to a double bed sleeper. An end table is positioned between sofa and kitchen wall. Color and patterns are coordinated to interior decor.
STEERING CONTROLS 31, 33, 35RB	•	

<u>Horn</u> Button

Select air or electric horn with the ELEC./AIR HORN SELECTOR located on dash. Horn operates by pressing center section of wheel.

Telescoping Column Control Telescope locking is controlled by rotating the horn button ring and can be locked at infinite locations within its telescoping range of 2-1/4".

<u>Turn</u> <u>Signal</u> Lever

Lever moves forward for right turn and rearward for left turn. Also includes "lane change" switch for both turn signals.

Wiper & Washer Controls Located on turn signal lever. Controls the on/off and intermittent operation of the wipers. Also controls the windshield washer.

Wheel Tilt Control

Allows positioning of steering wheel to one of seven positions in increments of 7" each.

STEERING WHEEL 31, 33, 35 35RB

20" diameter. Upholstered in leather, with two flat black rally-type spokes tapering below center line of wheel.

# STORAGE, INTERIOR

Kitchen

Doors on base cabinets are 3/4" solid core birch with Asian Teak formica faces. Overhead cabinets are 3/4" birch plywood with Asian Teak formica faces. The countertop, black splash, and underneath base of overhead cabinets are covered with putty gray formica. Extra accessories include a cutlery tray and wastebasket and dish towel rack in base cabinet.

31, 33

Arrangement as follows, front to rear; three drawers; right hand hinged door with one shelf; left hand and right hand hinged doors with double width pullout bottom shelf and adjustable top shelf; pullout can rack; silverware drawer over can rack; and three cabinets overhead.

35

Arrangement as follows: Front to rear: left hand hinged door with silverware drawer above; left hand and right hand hinged doors with double width pullout shelf and adjustable top shelf; and two drawers and a fold-down door under cooktop; three cabinets overhead; and double doors above the refrigerator and one drawer below.

35RB

Arrangement as follows, front to rear; three drawers; right hand hinged door with one shelf; left hand and right hand hinged doors with double width pullout bottom shelf and adjustable top shelf; double width silverware drawer above double doors; pullout can rack; three drawers under the stove; and four cabinets overhead.

#### Bathroom

35

Medicine cabinet containing adjustable shelves with plexiglass lips. Two drawers, one fold-down door, and a swinging door with adjustable shelf located underneath the vanity cabinet.

**35RB** 

Medicine cabinet, containing adjustable shelves with Pexiglass lips. Safety latches are located on medicine cabinet doors. One drawer and two sliding formica doors located underneath lavatory. Two cedar-shelved closets and a three-drawer chest-of-drawers.

#### **Bathroom**

31, 33

Medicine cabinet, containing adjustable shelves with Pexiglass lips. Safety latches are located on medicine cabinet doors. One drawer and two sliding Formica doors located underneath lavatory.

# Bedroom 31, 33

A nightstand with two drawers located between twin beds. Three drawers under RH bed, front drawer to be full height, two rear drawers equal height. Three aircraft type overhead cabinets with liftup doors which are covered with White padded vinyl. Safety latches and gas cylinder springs are located on all liftup doors.

35

A two-drawer night table is located on each side of the island bed. An aircraft-type rear center overhead cabinet with lift up door covered with White padded vinyl and two storage drawers at foot of bed.

35R8

Four aircraft type overhead cabinets with lift up doors covered with White vinyl. Safety latches and gas cylinder springs located on all liftup doors.

<u>Dinette</u> 31, 33, 35 35RB Two aircraft type overhead cabinets with lift up doors which are covered with White padded vinyl, located over dinette. Safety latches and gas cylinder springs located on overhead cabinet doors. One-half of dinette overhead cabinet has stationary center shelf.

# Living Room 31

Six aircraft type overhead cabinets with liftup doors which are covered with White padded vinyl. Safety latches and gas cylinder springs are located on all liftup doors, except speaker and 12 Volt load center doors. A full height closet, located forward of the entrance door, contains a recessed vacuum cleaner and a living room table with double doors is located between the companion chair and the copilot seat.

33

Six aircraft type overhead cabinets with liftup doors which are covered with White padded vinyl. Safety latches and gas cylinder springs are located on all liftup doors, except speaker and 12 Volt load center doors. The end table with one door and one shelf is located to the rear of the sofa and a living room table with double doors is located between the companion chair and the copilot seat.

35

Six aircraft type overhead cabinets with liftup doors which are covered with White padded vinyl. Safety latches and gas cylinder springs are located on all liftup doors, except speaker and 12 Volt load center doors. An end table with three drawers and the 120V. load center below and a curio cabinet above is located forward of the entrance door; and a living room table with double doors is located between the companion chair and the copilot seat.

35RB

Six aircraft type overhead cabinets with liftup doors which are covered with White padded vinyl. Safety latches and gas cylinder springs are located on all liftup doors, except speaker and 12 Volt load center doors. The end table with one door and one shelf is located to the rear of the sofa. An end table is located forward of the entrance door, comtaining a recessed vacuum cleaner, with a living room table located between the companion chair and the copilot seat.

Hall 31, 33

One full length closet containing cedar shelves with a vent located on the door.

35

Two closets containing cedar shelves; each closet has a vent located on the door. The LH rear closet has a recessed vacuum cleaner. A drawer cabinet with five drawers and a single door above is located on the RH side.

#### STORAGE, EXTERIOR

<u>Luggage</u> 31, 33, 35 35RB

The luggage compartment is lined with Polypropylene Olefin carpet on floors and vertical walls. A light is activated by individual door switches with a master switch on the dash. There are two tublar vents located on the outside luggage compartment and a full length rubber hinge on all doors. The inside of the compartment door is painted with a gray/white paint; the inside of the compartment is painted black.

<u>Unit</u>	Drivers Side & Cubic Feet		Passenger Side & Cubic Feet		
		Approx.		Approx.	
31 '	Rear Compt.	9 Cu. Ft.	Rear Compt.	9 Cu. Ft.	
	Mid Compt.	5 Cu. Ft.			
33'	Mid. Compt.	5 Cu. Ft.	Mid. Compt.	3 Cu. Ft.	
	Rear Compt.	9 Cu. Ft.	Rear Compt.	9 Cu. Ft.	
35'	Mid. Compt.	8 Cu. Ft.	Mid. Compt.	16 Cu. Ft.	
	Mid. Compt.	8 Cu. Ft.	Mid. Compt.	5 Cu. Ft.	
	Rear Compt.	5 Cu. Ft.	Rear Compt.	5 Cu. Ft.	
35RB'	Mid. Compt.	9 Cu. Ft.	Mid. Compt.	5 Cu. Ft.	
•	Mid. Compt.	5 Cu. Ft.	Mid. Compt.	3 Cu. Ft.	
	• •		Rear Compt.	3 Cu. Ft.	

STOVE 31, 33, 35 35RB

A two-burner gas cooktop with a micro-convection oven mounted above. Cooktop includes a formica cover with glass cutting board, mirrors on walls around cooktop, and a reading light mounted above.

TELEVISION 31, 33, 35 35RB

**Antenna** 

The TV antenna is roof mounted and remotely rotated by controls in the overhead cabinet above the companion chair, the antenna can be rotated by 110 volts AC or 12 volts. An in-line antenna signal amplifier is operated on 12 volts. The antenna includes a raising/lowering feature with a 12 volt electric switch located in the overhead panel over companion chair or on dash.

C.C.T.V. Camera

Located in the rear bulkhead, the lens is pre-set to focus from about 4 feet to 300 feet. The camera is for black and white only.

C.C.T.V. Camera

Fan

A fan is located in the rear view camera cavity to prevent fogging. Switch is located on dash.

C.C.T.V. & TV

Receiver

Located on the overhead panel above the driver's seat. Controls are located on overhead panel forward and to the left of the driver's seat.

<u>T.V.</u>

A built-in color TV located in the front overhead panel. TV has remote control LED channel and time indicator and 139 channel capability.

T.V. Cable

The utility compartment stores the connector for a 25' coax cable. This cable connection system allows the coach to have cable television.

TOASTER

31, 33

A slide-out toaster is located in the kitchen.

35, 35RB

A toaster is placed loose in coach.

TOILET 31, 33, 35 35RB A marine type, toilet operates from a fresh water supply, flushing wastes directly into sewage tank. Two foot pedals are located at the bottom of the bowl. Right pedal (bowl fill) controls the amount of water delivered into the bowl; while the left pedal (bowl drain) opens the sliding valve to the tank. A water saver feature consisting of a manually-operated spray hose is located at the side of the bowl.

TOW HOOKS 31, 33, 35 35RB

Two tow hooks, located at front of coach, underneath the bumper.

TRAILER HITCH 31, 33, 35 35RB

7,500 lbs. towing capacity and 750 torque capacity. A 2" chrome hitch ball is provided.

UNDERCOAT 31, 33, 35 35RB

Floor, skirt of body and wheelhousings are undercoated before mounting and before foam insulation is applied.

**VACUUM CLEANER** 

This system is completely self-contained and supplied with a long, flexible hose and wand, carpet, upholstery, and crevice attachments.

31, 33, 35

The central vacuum system is recessed in the bottom of the living room full height closet.

35

The central vacuum system is recessed in the side of the LH rear closet.

35RB

The central vacuum system is recessed in the side of the livingroom right end table.

#### **VENTILATION**

Pilot & Co-Pilot 31, 33, 35 35RB

Cowl-mounted fresh air vents for pilot and co-pilot are provided with air powered controls with switches located on the panel below the gear selector.

Vent/ Exhaust Fan 31, 33, 35 35RB

The 14" x 14" Square ceiling vent fans are located in the living room, kitchen, and bath. These vent fans are controlled by panels. Vinyl covers with velcro attachments are designed to block out light and insulate vent.

12 VOLT MASTER SWITCH 31, 33, 35 35RB

The 12-volt master switch is located underneath the dash on the right side. This switch controls all 12-volt supplies except the digital clocks, monitoring panel, and burglar alarm.

WALL PANELS 31, 33, 35 35RB

Wall panels are made of White padded vinyl, heat sealed on 1/8" tempered masonite with 2" spaced, stitched design..

# WATER FAUCET (EXTERIOR)

31, 33, 35 35RB

The exterior water faucet is located in the LPG storage compartment. A shut-off valve for winterizing the coach is located on the interior of the coach.

WATER HOSE 31, 33, 35 35RB

A 50 ft. hose on a manual reel is stored in an outside compartment.

#### WATER SYSTEMS

Potable Water Supply System 31, 33, 35 35RB

# Commercial Water Hookup

The water supply system is dual purpose and has a COMMERCIAL WATER inlet connection that is located in the left rear utility compartment. Commercial water hookup can be used to supply all coach water system requirements. The Tack Fill ON/OFF switch controls a solenoid-activated water valve to divert the commercial water input to fill the pure (potable) water storage tanks.

#### 2. Water Tank

Fresh	Water

		Approx.
31 '		96 Gal.
33,	ż	96 Gal.
35'		92 Gal.
35RB		(2) 50 Gal.

Located beneath the rear bed, the tanks are non-pressurized types so that system water pressure is developed by a demand pump when not connected to commercial water.

#### Water Pump

A factory-calibrated pressure control switch is preset to turn the pump on when the system pressure falls below 20 psi; and turn it off when pressure reaches 35 psi.

#### 4. Water Purifier

The bacteriostatic water purifier filters and purifies potable water to eliminate tastes, order, and coloration produced by chlorine, rust, bacteria, insecticides, detergents, sediments and other foreign objects. Satisfactory elimination of water-borne disease-carrying bacteria is accomplished by a hygienic filter bed which consists of silver ions absorbed on sponge silver metal which is deposited in a finely divided form on granular activated carbon of high surface area. The water purifier is connected to cold water supply of both the bathroom and kitchen sinks, the optional icemaker and instant hot water faucet. The water purifier is a self-contained unit designed to purify 75,000 gallons before requiring replacement.

#### 5. Air Accumulator With Diaphragm

An accumulator in the water system smooths out the water flow by eliminating water hammer and pulsations from the water pump.

The WX101 incorporates a butyl diaphragm to prevent unit from becoming water logged. The air side (top) is pre-charged to 20 psi. If this is accidentally lost, the accumulator may be recharged to 20-25 psi through the Schrader valve on top.

#### 6. Water Healer

The water heater is a fiberglass-jacketed coil-type heat exchanger which ensures a continuous supply of hot water through heat exchanger action with the automotive coolant system and auxiliary pump. When the engine is OFF the electric heater will heat water when 120 volts AC is provided from the shoreline or the internal generator plant.

#### Drainage System

# 1. Sewer Hose

For drainage of gray and waste water, the sewer hose should be connected to the single discharge connection on the coach and the sewer connection on the shore. The storage compartment for the sewer hose is key locked.

31, 33, 35

The sewer hose is stored in a tube located in the compartment with a key-locked, aluminum-framed door above and to the left of the drain cap on the left side of the coach.

35RB

The sewer hose is stored in a tube located in the compartment with a key-locked door behind the rear wheel house on the left side of the coach.

# 2. Tanks

31, 33, 35 35RB Separate holding tanks for gray water and waste are located beneath the coach. Each holding tank has a separate drain valve, dumping gray water and wastes through a common single discharge connection. A individual wet vent system connects both holding tanks to vent stacks located on the coach roof.

	Gray	Waste		
	Approx.	Approx.		
31 '	56 Gal.	40 Gal.		
33,	56 Gal.	40 Gal.		
35'	62 Gal.	62 Gal.		
35R8	52 Gal.	56 Gal.		

#### A. Gray Water & Waste Water

31, 33, 35

Holding tank located in midsection of the coach and is the receiver for the gray water from the kitchen sink and the shower. The waste holding tank is located in the midsection toward the rear of the coach. This tank holds toilet waste and waste water from the bathroom sink.

35RB

#### B. Gray Water & Waste Water

The gray water holding tank is located in the right rear of unit; the waste water holding tank is located in the left rear of unit.

WINDOWS 31, 33, 35 35RB

<u>Side</u>

Horizontal single sliding, aluminum sash with screens and spring loaded latches. 6% light transmission tinted, laminated glass in all side windows.

**Entrance** 

Drop sash aluminum with screen, latch and 6% light transmission tinted, laminated glass.

Rear

Fixed laminated with 6% light transmission tinted laminated glass.

Driver's & Companion

Horizontal double sliding, aluminum sash with screen on the front section and spring loaded latches, and 10% light transmission tinted laminated glass.

WINDSHIELD 31, 33, 35 35RB

Curved, tinted plateglass wraparound glass. To allow easy access to windshield for maintenance purposes, four handles are located, two above windshield and two below windshield; two step holes with rubber treads are cut into bumper.

WIPERS 31, 33, 35

Dual 2-speed electric and intermittent wiper with non-glare arms and blades. Wiper arms are 24" parallegrams with 20" blades.

Note: All specifications subject to change without notice.

1401E

# TURNING RADIUS

BODY MODEL	WHEELBASE	*CURB RADIUS	**WALL RADIUS
31 '	179 IN.	29.4 FT.	33.7 FT
33'	194 IN.	35.6 FT	35.6 FT
35'	216.5 IN.	34.1 FT	38.5 FT

<sup>\*</sup> Curb radius is the distance from the drive axle center line to the outside edge of the front tire.

NOTE: Turning radii is with Standard 11R22.5 tires.

1248E

# SPEED CHART - MILES PER HOUR WANDERLODGE FORWARD CONTROL

Engine	Cat 3208 TA (250 HP)	
Engine Governed Speed	2600 RPM	
Transmission	Allison MT 643	
Transmission Calibration	2600 RPM	
Tires	11-22.5	
Trans. Ratio	Rear Axle Ratio - (4.88)	(4.63)
.first 3.58	17.8 MPH	18.8 MPH
Second 2.09	30.5 MPH	322 MPH
Third 1.39	45.9 MPH	48.4 MPH
Fourth 1.00	63.8 MPH	67.3 MPH
Tires	12-22.5	
Trans. Ratio	Rear Axle Ratio - (4.88)	(4.63)
First 3.58	18.3 MPH	19.3 MPH
Second 2.09	31.4 MPH	33.1 MPH
Third 1.39	47.2 MPH	49.8 MPH
Fourth 1.00	65.6 MPH	69.2 MPH
•	•	

<sup>\*\*</sup> Wall radius is the distance from the drive axle center to the edge of the front bumper.

# SPEED CHART - MILES PER HOUR WANDERLODGE FORWARD CONTROL

Engine Engine Governed Speed	Cat 3208 TA (250 HP) 2600 RPM	
Transmission Transmission Calibration	Allison MT 643 2600 RPM	
Tires	11-22.5	
Trans. Ratio First 3.58 Second 2.09 Third 1.39 Fourth 1.00	Rear Axle Ratio - (4.88) 17.8 MPH 30.5 MPH 45.9 MPH 63.8 MPH	(4.63) 18.8 MPH 322 MPH 48.4 MPH 67.3 MPH
Tires  Trans. Ratio First 3.58 Second 2.09 Third 1.39 Fourth 1.00	12-22.5  Rear Axle Ratio - (4.63) 18.3 MPH 31.4 MPH 47.2 MPH 65.6 MPH	(4.88) 19.3 MPH 33.1 MPH 49.8 MPH 69.2 MPH

# 1986 WANDERLODGE FORWARD CONTROL ENGINE SPECIFICATIONS

MAKE	Caterpillar 3208TA
TYPE	4 Cycle Diesel
	Valve-In-Head
	Turbo-Charged
NUMBER OF CYLINDERS	8 - 90 Degree Vee
BORE (Inches)	4.5 In.
STROKE (Inches)	5.0 In.
DISPLACEMENT (Cubic Inches)	636 Cu. In.
COMPRESSION RATIO	16.5 to 1
AMA RATING	64.8 HP
GROSS BHP @ RPM	250 @ 2600
GROSS TORQUE (1b-ft) @ RPM	640 @ 1400
MAX GOV. RPM LOAD	2600
NO LOAD	the second secon
GOVERNOR - TYPE	Hydra-Mechanical
PISTON MATERIAL	Aluminum Alloy
CRANKCASE CAPACITY - DRY	20.0
(QUARTS) REFILL	16.0
COOLING SYSTEM - CAP. (QTS.)	48
FAN	24"" Dia. – 8 Blades
WATER PUMP CAP. @ ENG. RPM	82 GPM @ 2600
ALTERNATOR - CAPACITY	12 Volt - 160 Amp Motorola
POLARITY	Negative Ground
OIL FILTER - TYPE	Full Flow - Two Disposable
AIR CLEANER - TYPE	Farr-Dry Type
FUEL FILTER	Spin-On
EXHAUST SYSTEM	Single 4" O.D. With One Muffler
TRANSMISSION - TYPE	Allison Automatic (MT 643)
NO. SPEEDS	4 Forward - 1 Reverse
RATIOS - FIRST	3.58
SECOND	2.09
THIRD	1.39
FOURTH LUBRICANT CAPACITY	Direct
	17 Quarts
BELLHOUSE SIZE COMPANION FLANGE	SAE #2
CUMPANION FLANGE	1610 Spicer

# 1986 FORWARD CONTROL CHASSIS AXLE AND BRAKE SPECIFICATION

AXLE CAPACITY	ROCKWELL Standard Model	TYPE	BRAKE SIZE	CHAMBER SIZE	LINING AREA	DRUM AREA	WHEELS	_TRACK
13,200	FF-942	Full Air	16 1/2 x 5 x 3/4	24"	314 Sq. In.	518 Sq. In.	10 Stud Disc	80 1/2
23,000	R-125	Full Air	16 1/2 x 7 x 3/4	30"	440 Sq. In.	726 Sq. In.	10 Stud Disc	72 7/32

# AXLE COMBINATIONS

AXLE <u>COMBINATION</u>	TYPE	TOTAL LINING AREA
13,200 Front, 23,000 Rear	Full Air	754 Sq. In.

# 1986 FORWARD CONTROL CHASSIS AXLE RATIO

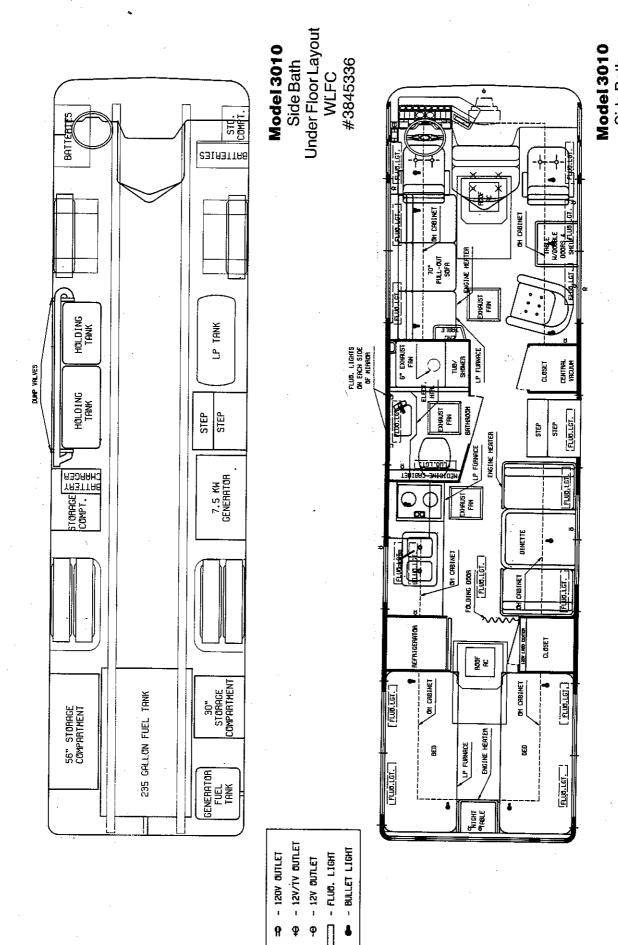
AXLE	AXLE	IYPE	BRAKE	SINGLE
MAKE	CAPACITY	WHEEL	SIZE	SPEED
Rockwell	23,000 LB R-125	Disc	7 In.	4.63

# FORWARD CONTROL TIRE DATA

TIRE SIZE	LOAD <u>RANGE</u>	PLY <u>RATING</u>	RATED Capacity (LBS.)	INFLATION PRESSURE (LBS.) FOR RATED CAPACITY
11-22.5	н .	16 (Single)	6610 Radial Ply	115
11-22.5	H ·	16 (Dual)	6610 Radial Ply	- 110

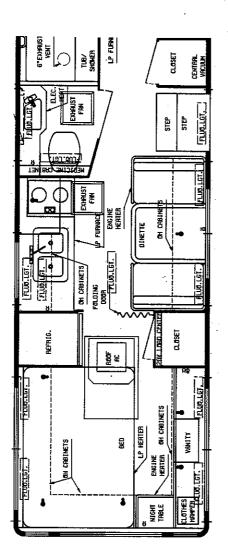
# WHEELBASE

BODY MODEL	WHEELBASE (INCHES)
31,	179
33'	194
35'	216 1/2



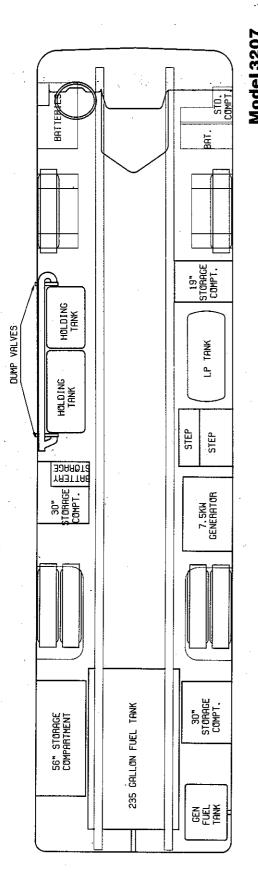
# 31' Forward Control

Model 3010 Side Bath Twin Beds WLFC #3845138



Model 3010 Side Bath Side Double Bed WLFC #3845781

# 31' Forward Control (Optional Bedroom)



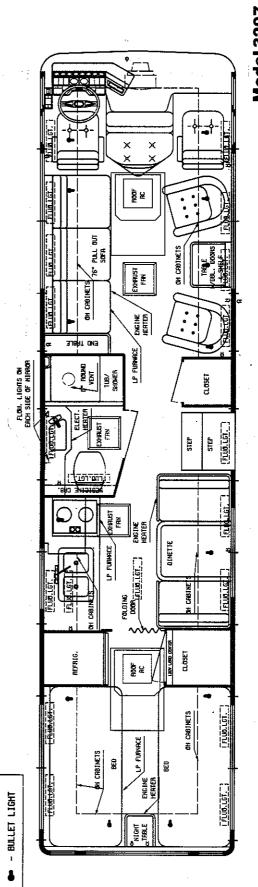
Model 3207
Side Bath
Under Floor Layout
WLFC
#3845344

- 12V/TV OUTLET

-⊖ - 12V OUTLET

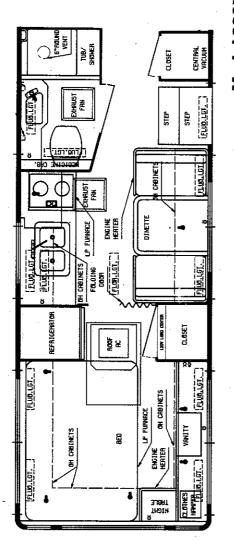
- 120V &UTLET

РФФ



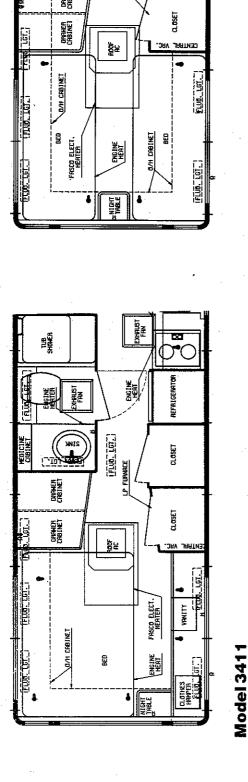
# 33' Forward Control

Model 3207 Side Bath Twin Beds WLFC #3845146



Model 3207
Side Bath
Side Double Bed
WLFC
#3845153

# 33' Forward Control (Optional Bedroom)



Model 3411 Side Bath Twin Beds WLFC #3845187

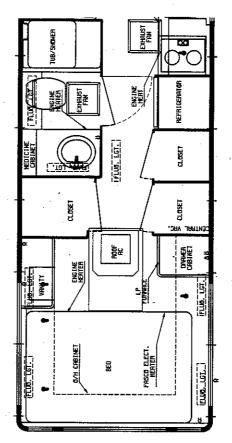
REFAIGERATOR

CLOSET

FLUG. LGT.

DPANEA CABINET

CABINET



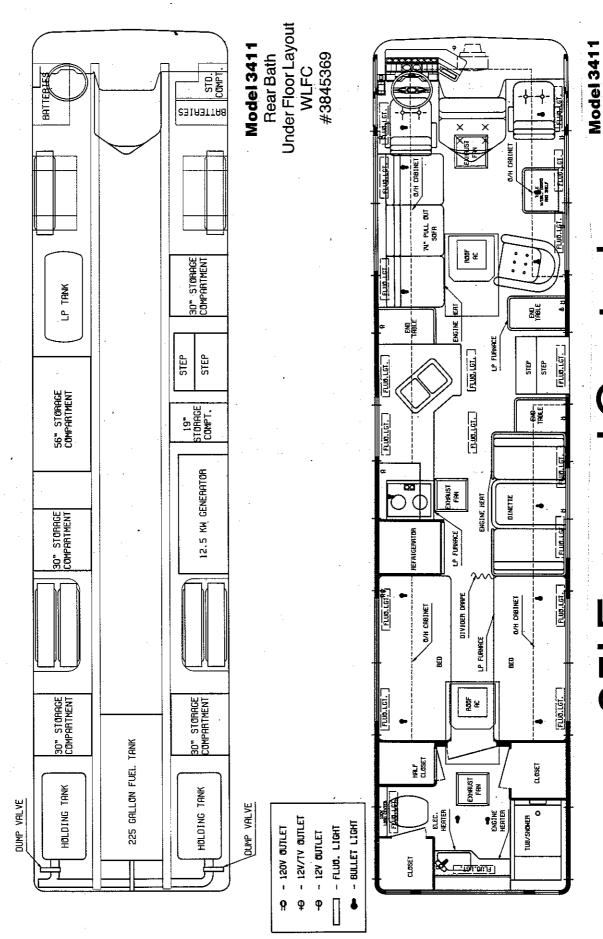
Side Double

#3845179 WLFC

Side Bath

#3845195 Model 3411 **Cross Bed** Side Bath WLFC

Optional Bedrooms) 35' Forward Control



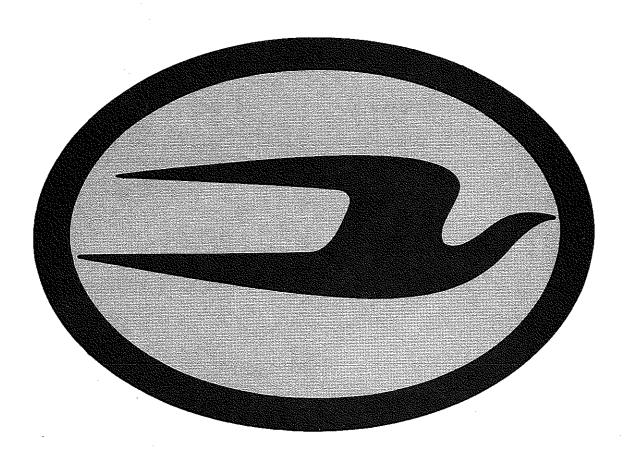
# 35' Forward Control (Rear Bath Optional)

WLFC #3845203

Rear Bath

### The 1987

## Wanderlodge Forward Control



### Here is Blue Bird's Message to every Wanderlodge® Owner

Our manual has been prepared to acquaint you with the operation and maintenance of your Wanderlodge, and to provide you important safety information. Please read it carefully and follow the recommendations contained to help assure the most enjoyable and trouble-free operation of your coach.

Blue Bird, a pioneer among school bus makers, is proud to build motorhomes of such excellence as your Wanderlodge. Dependability, Serviceability and Reliability are traditions started over five decades ago by our father, Mr. A. L. Luce, Sr. and are proudly preserved in today's Wanderlodge.

Serving the world from several plants, Blue Bird has a reputation for providing dependable products, unmatched customer service and personal owner assistance.

Congratulations on your purchase, we are confident you will find our convenient national network of reliable distributors willing to assist you in any way you require. They know your Wanderlodge best and are interested in your complete satisfaction too.

We thank you for choosing Wanderlodge...our best wishes for many years of safe, enjoyable wandering.

Sincerely,

George E. Luce

Albert L. Luce, Jr.

eng E. Luce allt & Lucy

Joseph P. Luce



### Your Limited Warranty On Your New wanderlodge

### Who are the parties to this Warranty?

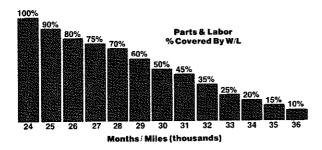
Blue Bird Wanderlodge, a division of Blue Bird Body Company, gives this Warranty. The terms "we," "us," and "our" in this Warranty refer to that division. The Warranty extends to the owner of the Wanderlodge®. The terms "you" and "your" in this Warranty refer to the owner.

### What parts are covered?

This Warranty covers all parts of the Wanderlodge® that are made or bought by our factory and installed there, those major power train components that are warranted from other manufacturers are not covered by this Warranty, such as engine, transmission and batteries. Those separate warranties are contained in the owner's package furnished to you by your dealer at the time of delivery. Our Warranty also does not include parts or accessories which you or your dealer bought or installed.

### How long does this Warranty last?

36 months and/or 36,000 miles, whichever event is first to occur, is the "Warranty Period." After the earlier of 24 months/24,000 miles warranty coverage will be prorated according to schedule below.



This warranty begins on the date the vehicle is delivered to the first retail purchaser or first placed in service as a demonstrator or company vehicle, whichever is earlier. Mileage accumulated while in possession of the dealer is included in the 36,000 mile total.

### What repair expenses does the Warranty cover?

We will pay for all parts and labor needed to make necessary repairs due to defects in factory material or workmanship (our payments after the earlier of 24 months or 24,000 miles will be prorated under the schedule set forth above). You may have those repairs made by any authorized dealer or any capable and reputable repair facility.

This Warranty does not cover maintenance services. You, as the owner, must see that the Wanderlodge<sup>®</sup> is properly maintained at your own expense. You must also pay for maintenance items, such as wiper blades, oil, filters, bulbs, antifreeze, brake linings, etc.

This Warranty also does not cover damage from things we could have no control over like collision, misuse, negligence, modifications and lack of maintenance. We do warrant that when the Wanderlodge left our factory it was free from defects in factory material or workmanship. Repair or replacement of defective parts is your exclusive remedy under this Warranty.

### Who may make a claim under the Warranty?

Whoever owns the Wanderlodge during the Warranty Period may make a claim. In other words, the Warranty is transferred automatically when the Wanderlodge is transferred.

What must the owner do to have defects repaired under the Warranty?

You should promptly take your Wanderlodge® to the dealer who sold it to you or to the nearest Wanderlodge® dealer. (You may obtain the name and address of the nearest dealer by writing or calling us at the address and number set forth below.) In the event there is some geographic or mechanical reason you cannot get to a Wanderlodge® dealer, you may (with our approval) use any capable and reputable repair facility. The dealer will make any needed repairs (or arrange for them to be made) within a reasonable time after you deliver the vehicle to him. You must take the vehicle to the dealer promptly after discovering the defect and, in any event, within the Warranty Period.

You are responsible for properly operating, maintaining and caring for your Wanderlodge® in accordance with the instructions contained in your Owner's Manual.

You are responsible for keeping maintenance records, since in some instances, it may be necessary for you to show that proper maintenance has been performed.

Where does the Warranty apply?

This Warranty applies to those Wanderlodges® which are legally registered and normally operated in the United States or Canada.

### What if a Warranty matter is not handled to the owner's satisfaction?

Let the dealer know if you are not happy with his treatment of your claim. If you believe he hasn't treated you right, let us know the details. Write directly to the top:

General Manager Blue Bird Wanderlodge One Wanderlodge Way Fort Valley, Georgia 31030

### What does this Warranty not cover?

The preceding paragraphs describe everything that is covered by this Warranty.

Anything else is not covered. Without limiting this general statement about what is not covered, we point out as examples that telephone calls, loss of time, commercial loss, inconvenience, and loss of use of the vehicle, hotel or motel accomodations, whether in the field or at the factory are not covered. Similarly, equipment we do not manufacture or supply is not covered, and material separately warranted by other manufacturers is not covered. Nor does this Warranty cover any part of the vehicle which fails or malfunctions as a result of work by anyone besides us. Normal deterioration of paint and trim from weather and exposure (and damage to paint and trim after you accept delivery of the Wanderlodge®) are not covered.

### Is there anything else important in this Warranty?

YES. ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS, ARE LIMITED TO THE WARRANTY PERIOD OF THIS WRITTEN WARRANTY, AND WE WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. Some states do not allow limitations on how long an implied warranty will last, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Any lawsuit for breach of this Warranty must be filed within one year of breach.

No one, including the dealer, is authorized to modify this Warranty or to make any other warranty on our behalf. There is no other express warranty on this vehicle. To the extent allowed by law, Georgia Law governs this Warranty and rights arising hereunder.

BLUE BIRD WANDERLODGE ● ONE WANDERLODGE WAY ● FORT VALLEY, GEORGIA, 31030 ● (912) 825-2021

### Dear Wanderlodge Owner:

Congratulations on being the new owner of the finest and safest production motor coach in the world – the Blue Bird Wanderlodge.

We have all worked hard to make your new Wanderlodge the best we have ever built. At the same time, we have also recognized your need for more and better information about your coach so you can enjoy it to the fullest. To that end, we have prepared this manual for your information. We hope you find it helpful as you acquaint yourself with the many luxurious features of your new coach.

I want to personally thank you for your business and invite you to take advantage of our Bird's Nest park and clubhouse whenever you can visit us in Ft. Valley.

Thank you again, and welcome to our Family of Friends!

Bill Milby

Bill Killy

Vice-President/General Manager





Table of Contents	Section III — Living Area Facilities
Section I — Introduction	Sofa 3-1
	Vacuum Cleaner
Contents	Dinette Area 3-1
Checklists1-2	Galley Facilities 3-1
Citizen's Band Transceiver 1-3	Refrigerator 3-2
Hot Weather Operation 1-3	Gas Cook Top 3-3
Cold Weather Operation 1-3	Microwave/Convection Oven 3-4
Campground Courtesy 1-4	Galley Sink 3-5
Insurance 1-4	Food Center
Safety Considerations 1-4	Toaster 3-5
Vehicle Loading 1-6	Bathroom 3-5
Economical Driving 1-7	Vent and Exhaust Fans
Engine Operating Hints 1-7	Heating Systems 3-6
Lubrication and Maintenance 1-7	Air Conditioners 3-8
Traveling in Your Motorhome 1-7	Systems Monitoring and Control Panel . 3-9
General Storage Notes 1-8	LP Gas Leakage Detector 3-10
Section II — Operation	Electronic Door Chime 3-11
	Portable Fan
Instrumentation	Security Timer 3-11
Upper Dash Panel 2-2	Burglar Alarm/Anti-Theft Features 3-12
Lower Dash Panel	Bedroom Overhead Panel 3-12
Air Suspension System 2-5	Fire Extinguisher 3-12
Shifter Panel 2-7	Intercom System 3-12
Upper Right Hand Dash Panel 2-7	Stepwell Area 3-13
Lower Right Hand Dash Panel 2-8	Smoke Detector 3-13
Pilot's Area Overhead Dash 2-9	Section IV — Electrical Systems
Co-Pilot's Overhead Dash 2-11	
Pilot's Left Overhead Control 2-12	12-Volt DC Supply System 4-1
Steering Column Area 2-12	Battery Heaters 4-1
Floor Controls	Battery Chargers 4-1
Radar Detector 2-13	DC Supply Monitors 4-2
Seat Controls	AC Supply System 4-2
Closed-Circuit TV Monitor System 2-14	Power Line Monitors 4-2
TV Antenna and Rotator System 2-14	AC Circuit Breaker Panel
CB Transceiver Unit 2-15	(Distribution Panel) 4-2
Diesel Engine/Transmission Operation 2-15	Generator Operation 4-3
To Start Engine 2-15	Shoreline Operation (Commercial Power) 4-3
To Stop Engine 2-15	Shoreline Operation—Troubleshooting 4-4
Using the ZF Transmission	Safeline Alarm 4-4
Retarder 2-15	Audio System Wiring 4-4
Trailer Hitch 2-16	Electronic Master Switch 4-4
Towing 2-16	Battery Jumper Terminals 4-4
Transmission Operation 2-16	Battery Storage in Freezing Weather 4-4
Driving Tips	Section V — Water Distribution and
Accelerator Control 2-16	Drainage Systems
Transmission Oil Temperature 2-16	<del>-</del> -
General Information – Caterpillar 3208	Water Supply and Distribution
Engines 2-17	System
Racor Fuel Filter 2-17	Commercial Water Hookup 5-1
Leveling Jacks Controls 2-17	Filling and Sanitizing 5-1



Potable Water Distribution System 5-2	Filter/Separator Operation 8-7
Water Pump 5-2	In-Filter Fuel Heater 8-7
Water Purifier 5-3	Water-In-Filter Alarm 8-7
Water Heater 5-3	Maintenance 8-7
Outside Faucet 5-3	Leveling Jacks Reservoir 8-8
Drainage System 5-3	Engine Cooling System Refill 8-8
Draining the Holding Tanks 5-4	Cooling System Additives 8-9
Tank Level Detectors 5-4	Windshield Washers 8-9
Winterizing 5-4	Battery Jumper Terminals and
Draining and Winterizing the	Jump-Starting 8-9
Fresh Water Supply System 5-4	Generator 8.0 KW 8-9
Draining the Ice-Maker 5-5	Maintenance Schedules 8-10
Section VI — LPG System	Generator Troubleshooting 8-11
_	Generator Overloads 8-11
LPG Tank and Controls 6-1	Generator Battery Charging 8-11
Fuel Requirements 6-1	Storage Procedures 8-11
Filling the LP Gas Tank 6-1	Refrigerator 8-12
LP Gas and Vapor Detectors 6-2	The Electrode 8-12
Regulator Pressure 6-2	General 8-12
Operation 6-2	Toilet 8-12
Checking for Leaks 6-2	Water Pump 8-13
LPG Consumption 6-2	Clock/Thermometer Calibration
LPG System Warnings 6-3	Procedures 8-13
Section VII — Air Brake Systems	Thermometer Calibration
<del>-</del>	Procedures 8-13
Operation	Tub/Shower Mixing Valve 8-14
Brake Failures 7-1	
Additional Air Operated	Section IX — General Information
Additional Air Operated Equipment	
Additional Air Operated	Section IX — General Information
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers Section X — Diagrams
Additional Air Operated  Equipment	Section IX — General Information Equipment Manufacturers Section X — Diagrams Section XI — Equipment Options
Additional Air Operated  Equipment	Section IX — General Information Equipment Manufacturers Section X — Diagrams Section XI — Equipment Options Awnings
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-1 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-1 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-1 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker 11-3
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker 11-3 Ice-Maker Operation 11-3
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker Operation 11-3 Ice-Maker Maintenance 11-3
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker Operation 11-3 Ice-Maker Maintenance 11-3 Winterizing 11-3
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker Operation 11-3 Ice-Maker Maintenance 11-3 Winterizing 11-3 Mountz Power Wrench 11-3
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker 11-3 Ice-Maker Operation 11-3 Ice-Maker Maintenance 11-3 Winterizing 11-3 Mountz Power Wrench 11-3 Konstant Hot Water Dispenser 11-3
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker Operation 11-3 Ice-Maker Operation 11-3 Winterizing 11-3 Winterizing 11-3 Mountz Power Wrench 11-3 Konstant Hot Water Dispenser 11-3 Kool-O-Matic Ventilation Fan 11-4
Additional Air Operated Equipment 7-1 Compressed Air System Air Dryer 7-2  Section VIII — Owner Maintenance Data  Specifications and Data 8-1 Changing Wheels/Tires 8-3 Checking Torque on Dual Wheels 8-5 Using the Optional Mountz Power Wrench 8-5 Battery Maintenance 8-5 Periodic Battery Checks and Maintenance 8-5 Exterior Care 8-6 Interior Care 8-6 Fluid Level Checks 8-6 Crankcase Oil Level 8-6 Power Steering Reservoir Fluid Level 8-6 Importance of Proper Oil Level 8-6 Importance of Proper Oil Level 8-6 Oil Check Procedure 8-7	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker Operation 11-3 Ice-Maker Maintenance 11-3 Winterizing 11-3 Mountz Power Wrench 11-3 Konstant Hot Water Dispenser 11-3 Kool-O-Matic Ventilation Fan 11-4 Operation 11-4
Additional Air Operated Equipment	Section IX — General Information Equipment Manufacturers  Section X — Diagrams  Section XI — Equipment Options  Awnings 11-1 Open Awning 11-2 Close Awning 11-2 Fabric Care 11-2 Washing 11-2 Washing 11-2 Water Leaks 11-2 Storm Precautions 11-2 Hardware and Mechanism Maintenance 11-3 At the End of Each Season 11-3 Ice-Maker Operation 11-3 Ice-Maker Operation 11-3 Winterizing 11-3 Winterizing 11-3 Mountz Power Wrench 11-3 Konstant Hot Water Dispenser 11-3 Kool-O-Matic Ventilation Fan 11-4



Maintenance	11-4
CORIAN Counter Tops	11-4
Inverter	11-4
Powr Dump Valves	11-5
Quick Start Aid	11-5
Water System Air Accumulator	
with Diaphram	11-5

iii



	List of	5-1	Location of Commercial Water
	Listoi		Hookup 5-1
	Illustrations	5-2	Water Purge Air Pressure, Water Heater Drain and Water Tank Drain
Fig.			Controls 5-2
No.	Title	5-3	Water Pump Location 5-3
1-1	Federal Certification Label 1-6	5-4	Location of Holding Tanks Drain
1-2	Identification Plates 1-6		Valve 5-4
		5-5	Kitchen Plumbing 5-4
2-1 2-2	Pilot/Co-Pilot Compartment 2-1	6-1	LPG Tank Compartment 6-1
	Dash 2-2	6-2	LPG Low Pressure Distribution 6-2
2-3	Upper Dash Panel	8-1	Locating Jack 8-4
2-4		8-2	Lug Nut Tightening Pattern 8-4
2-5	Shifter Panel 2-7	8-3	Mountz Power Wrench 8-5
2-6	Upper Right Hand Dash Panel 2-8	8-4	Racor Fuel Filter/Separator 8-7
2-7 2-8	Lower Right Hand Dash Panel 2-8 Overhead Control Center 2-9	8-5	Refrigerator Gas Burner 8-12
2-0 2-9	Pilot's Overhead Dash 2-10	8-6	Tub/Shower Mixing Valve 8-14
	Co-Pilot's Overhead Dash 2-10	10-1	Chassis and Water Heater Circuits
	Pilot's Left Overhead Control	10-1	12 Volt Diagram, Lower Front Load Center
2-11	Panel 2-12	10-3	12 Volt Diagram, Overhead Front Load
2 12	Steering Column Area 2-12	10 0	Center
	Seat Controls	10-4	12 Volt Diagram, Left Front Load
	CCTV Camera Port 2-14	10-4	Center
	Extendable TV Antenna Radome 2-14	10-5	12 Volt Diagram, Right Front Load
	Antenna Control Panel 2-15	10-3	Center
	Leveling Jack Controls 2-17	10-6	12 Volt Diagram, Left Rear Load
3-1	Vacuum Cleaner System 3-1	10-0	Center
3-2	Dinette Area	10-7	12 Volt Diagram, Right Rear Load
3-3	Galley Facilities 3-1	10.7	Center
3-4	Refrigerator Operating Controls 3-2	10-8	12 Volt Diagram, Batteries and
3-5	Gas Cooktop and Micro/Convection		Charging Circuits
0 0	Oven 3-4	10-9	Diagram, Wiring Stereo
3-6	Microwave/Convection Oven		Potable Water System
	Control Panel 3-4		Drainage System
3-7	Food Center 3-5		Liquid Petroleum Gas System
3-8	Toilet 3-6		Air System (sheet one)
3-9	Vent/Exhaust Fan		Air System (sheet two)
3-10	Heater Thermostat 3-7		Chassis Lubrication Guide
3-11	Roof Air Conditioners 3-8	11-1	Awning Opening Procedure 11-1
	Systems Monitoring and Control	11-2	Awning Opening Procedure 11-1
	Panel	11-3	Awning Opening Procedure 11-1
3-13	LP Gas Leakage Detector 3-11	11-4	Awning Opening Procedure 11-1
	Electronic Door Chime 3-11	11-5	Ice-Maker Details 11-3
3-15	Portable Oscillating Fan 3-11	113	loo waker betake
3-16	Security Timer 3-11		
3-17	Bedroom Overhead Panel 3-12		
3-18	Intercom System 3-12		
4-1	Typical Load Center 4-1		
4-2	Battery Compartment 4-1		
4-3	Stepwell Compartment 4-2		
4-4	Load Center Circuit Breakers 4-2		



### **List of Tables**

I CIL	ne -
No.	Title
4-1	Electrical Ratings for Motorhome
	Appliances 4-4
8-1	Engine and Chassis Specifications 8-1
8-2	Engine/Chassis Capacities 8-1
8-3	Generator Capacities and
	Specifications 8-1
8-4	Motorhome Capacities and
	Specifications 8-2
8-5	Maintenance Schedule Summary 8-2
8-6	12-Volt Light Equipment 8-3
8-7	Generator Maintenance Schedule 8-10
8-8	Anti-Freeze Protection Chart 8-11
8-9	Water Pump Troubleshooting Guide . 8-13



### Section I Introduction

This section of your Owner's Manual contains general hints and recommendations for using your motorhome. Checklists and suggestions are offered which cover just about every phase of motorhome travel.

The remaining sections of this manual, Sections II through XI, describe in detail the operation and use of the individual items and systems which comprise your motorhome. The following paragraphs summarize the contents of these sections:

**Section II Operation** — Covers driver's instrumentation, operating controls, gauges and indicators.

General data on operation of coach vehicular systems are also covered in this section.

- Section III Living Area Facilities Covers operation of heating and air conditioning systems, use of accessories and appliances and related general coach facilities data.
- **Section IV Electrical Systems** This section describes operation of coach electrical systems; ac/dc operation and generator switching are also covered.
- Section V Water Distribution and Drainage Systems Covers internal supply and distribution, plumbing, city water hookups, tank fill and sanitizing, holding tank dumping and operation of hot water supply system.
- **Section VI LPG System** This section describes LPG internal supply and distribution, tank filling procedures, system component locations, and precautions to observe regarding LPG handling.
- **Section VII Air Brake Systems** This section covers operation of the service brakes and spring brake systems, fail/safe features and general brakes system operation.

### Section VIII Owner Maintenance Data —

Includes information on maintenance procedures which may be within the scope of the owner. Coverage is provided for preventive maintenance schedules, specifications and system capacities, cold weather operation, storage and winterizing.

Interior/exterior appearance care and emergency maintenance procedures are also described.

- **Section IX General Information** A list of major components, including model numbers, name and address of manufacturer.
- **Section X Diagrams** Contains wiring, schematic, piping and general-purpose diagrams to assist in troubleshooting and understanding how these systems function.
- **Section XI Optional Equipment** This section provides you with information on optional equipment and features used in your motorhome.

We hope that this manual will help answer any questions that may arise about the use, operation and maintenance of your motorhome. Any suggestions or recommendations that you might have for including or expanding on material of interest will be carefully considered for incorporation in periodic supplements. We are always interested in providing our coach owners with the most current and comprehensive information about our product.

Your satisfaction is our assurance that we are fulfilling our responsibilities to our owners.

### Checklists.

A little preliminary planning will go a long way to help make your trips successful and enjoyable. As an aid to planning your travels, review the following checklists. If there are any additional items that you should be reminded of, add them where you see fit. These lists are only recommendations based on the experience and suggestions of sources well-versed in motor-coach expertise. You will eventually find that a short "walk-around"



the coach, outside and inside, will be adequate and comprehensive enough to ensure that you're ready for travel.

### **Before You Leave:**

- Store valuables and important papers in a safe place.
- Arrange care for your pets.
- · Cover all food to keep out mice and insects.
- Store oil, gasoline, matches and other inflammables properly; get rid of newspapers, magazines and oily rags.
- Connect timers to several inside lamps and outside lights; keep some shades open for a lived-in look.
- Discontinue newspaper, milk and other deliveries; store trash cans and outside equipment.
- If weather permits, shut down hot water and heating systems; close main water supply.
- · Ask the Post Office to hold your mail.
- Have your lawn, garden and house plants cared for.
- Arrange with the Telephone Company for discontinued or "Vacation Service".
- · Lock all windows and doors securely.
- Leave your key with your neighbor; let him know your basic itinerary.
- · Notify police.

### Checkout Your Coach — Outside:

- · Disconnect and stow:
  - 1. Electrical cord.
  - 2. Sewer hose (flush out)
  - 3. Water hose.
- · Check all exterior lights for damage.
- Check wheel lug nuts for tightness. (450-500 ft.-
- Check tires for correct pressure. (See Table 8-1).
- Check that all external compartments and filler openings are properly closed and/or locked.
- Check that items stored on exterior of coach are secured. (Be sure that these items present no clearance problems.

### Note

If the trip you are planning will take the coach well past suggested maintenance intervals listed in Section VIII, it may be advisable to perform these pro-

### cedures before leaving. This may avoid unscheduled stops or interruptions during your trip.

 Check that there are no obstacles to avoid above or under the coach. Be sure that there is sufficient clearance front and rear.

### Checkout Your Coach — Inside:

- · Turn off water pump switches.
- Close windows and vents.
- Check that cabinet doors and drawers are secured.
- Check that refrigerator door latch is in locked position.
- Check that no heavy item is stored in an overhead cabinet.
- · Store large items in base cabinets.
- Check that counter tops, range top, table tops and shelves are clear of unsecured items.
- Turn off interior lights; check that entrance step is retracted
- Secure and lock the entrance door.
- · Adjust exterior and interior mirrors.

### Warning

Mirrors provide needed additional driver visibility. To be effectively used mirrors must be properly adjusted for each driver and the driver must be aware of the limitations on viewing area that exist even when mirrors are properly used.

### **Check Your Automotive Systems:**

- Check that fluid levels are normal (oil, power steering, engine coolant, battery electrolyte, windshield washers, transmission, etc.).
- Check generator oil level, coolant level, battery condition.
- Check operation of turn signals, emergency flasher, stoplights and backup lights.
- Check that headlight high- and low-beams operate.
- Check horn operation.
- · Check fuel gauge, and top up fuel tank.
- Start engine and check gauges for signs of trouble.
- Check operation of foot brakes, emergency brake. (See that brake pressure builds up and steadies at about 100 to 120 psi.)



### And, Before Driving Away:

- Check operation of appliances and special equipment.
- Check that fire extinguishers are fully charged.
- · Check operation of interior and exterior lighting.
- Start generator and check 120v ac system and wall outlets.
- Adjust driver's seat so that all controls are within easy reach.
- Make sure that seat is locked in position. Do not adjust driver's seat swivel or foreaft mechanism while vehicle is moving or seat could move unexpectedly, causing a loss of control.
- Check that front passenger's seat is locked in position.
- Fasten seat belts. Belts should be placed as low as possible around the hips. This places the load of the body on the strong hip bone structure instead of around the soft abdominal area and prevents sliding out in case of an accident.
- Check that warning lights are lit when the ignition key is turned to on or start position.

### Some Items You Might Want to Take Along On Your Trip

### Note

You may find that many items taken were not needed and that some items that were needed were overlooked during planning of your last trip. Make notes of these items to prevent duplicating the same errors.

- Adequate supply of prescription medicines.
- · Prescription sunglasses or reading glasses.
- Camera equipment and film supply.
- · Heating pads, ice bags, etc.
- Stationery, envelopes, stamps.
- · Telephone number list.
- · Reading material.
- · Special pet supplies.
- · Extra toilet chemical and toilet articles.
- Spare belts for engine operated equipment.
- Spare parts for generator: suggested spares include oil filter, fuel pump, air filter, solenoid. Five quarts of approved motor oil.
- A professional-type double-action tire pressure gauge.
- Under the heading of Emergency Equipment, it is advisable to consider outfitting your coach with these items:

- 1. First aid-kit
- 2. Emergency highway flares
- 3. Flashlight or lantern (with extra batteries)
- 4. Tool kit
- 5. Replacement lamp assortment
- 6. Replacement fuse assortment
- 7. A trouble light with a long cord

### And Some Other Thoughts To Consider

- Automobile insurance to cover you and your family.
- Avoid cash. Use traveler's checks and credit cards wherever possible.
- · Confirm reservations well in advance of arrival.
- · Make a clothing check list for everyone.

### Citizen's Band Transceiver

You might also bear in mind that your coach is equipped with a CB unit (Citizen's Band receiver-transmitter). In the event of an emergency situation which requires outside assistance, remember to call for help on Channel 9. This channel is restricted to emergency use only and it is monitored 24 hours per day! Don't hesitate to use your CB if you see someone else in need of assistance.

### **Hot Weather Operation**

Wherever possible, choose a shaded parking site so that the coach will be cooler during the hottest part of the day. The full-length side awning will be especially useful in lowering inside temperature. Air conditioning units are indispensable in hot climates. Keep in mind that their proper operation depends on adequate line voltage. Low voltage causes motors to run hotter and reduces compressor motor life. Supply voltage in some campgrounds may not be as high as necessary, especially when there are heavy loads on the lines from other air conditioners. Check the wall-mounted monitors when in doubt.

### **Cold Weather Operation**

LPG appliances, furnace, and gas refrigerator are designed with sealed combustion areas. This is for your protection to prevent danger from carbon monoxide or depletion of oxygen. Your motorhome is equipped with a highly accurate and sensitive gas/smoke alarm. Heed alarm indications!

If frost or condensation accumulates in closets or cabinets during long periods of cold weather op-



eration, leave the doors to these areas slightly ajar to provide air circulation. Be sure that roof vents are open when using oven or burners.

### **Campground Courtesy**

Don't forget the "Golden Rule". Being considerate of your neighbors will help make friends. A few of the "Do's" and "Don'ts" are:

- Good housekeeping put all litter in the proper receptacles and leave your site neat and clean.
- Don't allow your water or sewer hook-ups to leak.
- Respect your neighbor's desire to retire at an early hour. Avoid loud noises and bright lights after dark.
- Drive slowly through camp areas at any hour for the safety of pedestrians.

### Insurance

As with your automobile, it is important that you have adequate protection with insurance coverages for personal liability, theft, collision, overturn, property damage, etc.

### Canadian and Mexican Insurance

Insurance for travel in Canada can usually be covered by your present U.S. policy for the recreational vehicle, often at no extra cost. Consult your individual company for procedures and be sure of your coverage before entry.

For travel in Mexico (at the present time) there are no U.S. insurance companies that can provide recognized Mexican coverage, with the exception of that required for travel through a narrow strip of Mexican territory in and around ports of entry and the U.S./Mexican border.

Mexican insurance is controlled, and rates are set, by the Mexican government. There are several reliable companies handling Mexican insurance, with similar rates for the necessary coverages. The principal differences between them are the "fringe benefits", received in the form of informational travelogs and other helpful information, such as dining places considered acceptable for sanitary conditions, fuel stations, and so on.

Some insurance services include detailed route maps with "where to stay" recommendations and "things to see" mile-by-mile (or kilometer-by-kilometer post). While the rates set by Mexico may seem quite expensive at first glance, you usually

end up not spending quite as much as expected because you can usually arrange to hold your state-side policy in abeyance during the same period you are in Mexico, thus not having to pay unnecessarily for double coverage. In addition, you may be able to obtain substantial refunds on the Mexican collision insurance after your return to the U.S. Be sure to obtain a certification from the park operator at each location in Mexico to certify the dates that your coach was parked there. If your coach is parked for most of the time, instead of constantly traveling, your refund may be a major portion of the original cost. This feature is referred to as the "in-storage" credit. (It is a good idea to always check with your insurance company before taking a trip to find out whether applicable insurance rules and regulations have changed. Keep up to date on your coverage.)

Carry insurance papers at all times!

### **Safety Considerations**

### **Using LP Gas**

Check for leaks at the connections on the LP gas system soon after purchase and initial filling of LP tank; continued periodic checks of the system are recommended. Even though the manufacturer and dealer have already made tests for leakage, this check is advisable because of the vibrations encountered during travel. Apply a soapy water solution to the outside of gas piping connections to find gas leakage (bubbles). Usually, tightening of connections will close leaks. (Be sure to first shut off the gas supply!) If not, ask your authorized dealer service to make the needed repairs.

Liquified Petroleum Gas (LPG) is heavier than air. Leaking gas tends to flow to low places, such as does water. It will sometimes pocket in a low area. LP gas can usually be detected by an identifiable odor characteristic to onions or garlic.

### Caution

Never light a match or allow any open flame in the presence of leaking gas!

Be sure that the main LP gas supply valve is closed during refueling to prevent accidental ignition of gas fumes by appliance pilot lights.

Your Wanderlodge\* has been provided with an automatic 80% fill valve to protect you from the dangers of an overfilled LPG tank.



### **Electrical Systems**

Your coach has been engineered and checked for your complete electrical system safety. Circuit breakers and fuses are installed to protect electrical circuits from overloading. Before making modifications or additions to the electrical system, consult your dealer for assistance in obtaining a safe and secure installation.

Do not "jump" circuit protectors!

### **Built-In Power Cord Adapter**

Approved power supply cords supplied with the coach for hookup to external power sources are listed below: Identification

- 50A female to 50A male (1) ..... Red Tape
- 50A female to 30A male (1) ..... Red Tape
- 30A female to 30A male (2) ... Yellow Tape
- 30A female to 30A male extension(2) . None
- 30A female to 20A male adapter (2) .. None

Note that each cord has a ground pin which provides proper electrical system grounding. The ground pin is your personal protection from electrical shock hazards. Do not use any adapter, cheater, or extension cord that will break the continuity of the grounding circuit. **Never** remove the grounding pin for convenience of being able to make a connection to a non-grounded receptacle!

The power cord adapter allows connection of two 30 ampere 120 volt lines (from separate external circuits) to the shoreline plug in the rear of your coach. This will permit use of all motorhome appliances without overloading the supply lines.

Never operate your coach with a "hot skin"! If you can feel even a slight "tingling" shock from touching the coach body while standing outside on the ground, immediately disconnect the electrical hookup until the trouble is located. This fault is usually caused by a break in the grounding circuit, which should be continuous from the coach skin or frame to the distribution panel board to the third (ground) pin on the power supply cord, and from there to the park receptacle and earth ground. Your motorhome is equipped with dual polarityprotector monitor panels, located on the galley wall. These panels are for your protection in ensuring against improper grounding or reversed hookups. In 1985 and 1986 model coaches, a second dual powerline monitor is located in the shoreline/utility box.

### **Emergency Stops**

Always carry road flares and/or relfective triangular highway warning markers for emergency warning display. Pull off the roadway as far as possible when changing flats or for other emergency situations. Turn on your hazard warning flashers when parked alongside a roadway, even if only for a short while. Have your coach occupants leave the vehicle and stand clear of the area when parked on the edge of a highway.

### **Engine Exhaust Gas**

Avoid inhaling exhaust gases because they contain carbon monoxide, which by itself is colorless and odorless. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal. If at any time you suspect that any exhaust fumes are entering the passenger compartment, have the cause determined and corrected as soon as possible.

The best protection against carbon monoxide entry into the vehicle body is a properly maintained engine exhaust system, body and ventilation system. It is a good practice to have the exhaust system and body inspected by a competent mechanic each time the vehicle is raised for lubrication or oil change. It should also be inspected whenever a change is noticed in the sound of the exhaust system and if the exhaust system, underbody or rear of the vehicle has been damaged.

To allow proper operation of the vehicle's ventilation system, keep ventilation inlets clear of snow, leaves, or other obstructions.

Sitting in a parked vehicle with the engine on for extended periods, without proper ventilation, is not recommended!

### More Safety Considerations

- Sanitize fresh water supply system periodically.
   See Section V.
- Prevent water connection fittings from contacting the ground or drain hose to reduce chances of contamination.
- Consider using a qualified technician for repairing gas or electrical appliances.
- Check fire extinguishers periodically for proper charge.
- · Avoid overloading your vehicle.
- Be careful not to cause an improper load distribution which can adversely affect roadability.



- Insure that tires are in good condition and properly inflated at all times. Under-inflated tires overheat and are blowout-prone!
- Check and tighten wheel lug nuts every 1,000 miles (torque to 450-300 ft-lbs.)
- Check brake operation in a safe area not while traveling on a busy highway!
- · Use seat belts!

### **Emergency Exits**

Sliding windows, which can be easily opened, may be used as an emergency exit. Squeeze the screen latch and slide it to the rear enough for access to the window latch. Squeeze the window latch and slide window open. Emergency exit windows are identified by an **EXIT** decal on the glass.

### **Vehicle Loading**

### Weight Distribution and Load Rating

The Federal Certification Label, located inside and above the drivers windshield between the sunvisor mounting brackets describes the maximum weight-carrying capacities of your motorhome and for each axle, respectively abbreviated by "GVWR" and "GAWR". A typical identification plate is shown in figure 1-1.



Figure 1-1. Federal Certification Label

The Gross Vehicle Weight Rating (GVWR) is the maximum motorhome weight allowable with all systems filled and with passengers and supplies aboard.

Each axle also has a maximum load-bearing capacity referred to as the Gross Axle Weight Rating (GAWR).

A typical motorhome rating might be as follows:

GVWR	34,000 lbs
GAWR (front)	13,200 lbs
GAWR (rear)	23,000 lbs

Generally, a 31-foot unit will weigh about 27,500 pounds; a 33-foot unit will weigh about 28,500 pounds; and a 35-foot unit will weigh about 29,500 pounds. If optional equipment is installed, add the weight of these items to determine the total weight.

The load capacity is the difference between the GVWR and the actual weight. This means the total weight of all food, clothing, other supplies and passengers, must not exceed the load capacity.

To find the actual weight, with the motorhome fully loaded, drive to a scale and read the weight on the front and on the rear wheels, separately, to determine axle loading. The load on each axle should not exceed its GAWR. If weight ratings are exceeded, move or remove items to bring all weights below the ratings.

Additional data plates located on the back of the stepwell compartment door provide information useful for identifying your coach if you are planning on ordering parts. Identification plates, figure 1-2, provide information such as:

- 1. Body Serial Number
- 2. Chassis Serial Number
- Model Year
- Model Number of Axle (if axle parts are to be ordered)

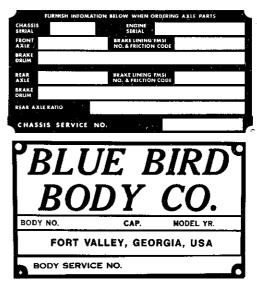


Figure 1-2. Identification Plates

When loading your motorhome, store heavy gear first, keeping it on or as close to the floor as possible. Heavy items should be stored centrally so as to distribute the weight more or less evenly between the front and the rear axles. Store only light objects on high shelves. Distribute weight to



obtain even side-to-side balance of the loaded unit. Secure loose items to prevent weight shifts that could adversely affect the balance and roadability of the vehicle.

### **Economical Driving**

How you drive, where you drive and when you drive — these factors all have an effect on determining how many miles you can get from a gallon of fuel. The careful attention you give your vehicle, as far as maintenance and repairs are concerned, will also contribute to fuel economy.

### Stop-And-Start Driving

Frequent stops and starts during a trip diminish miles per gallon. Plan even short shopping trips so you can take advantage of through-streets to avoid the traffic lights. Pace your driving like the professional drivers to avoid unnecessary stops.

### **Excessive Idling**

An idling engine also consumes fuel. If you are faced with more than a few minutes wait, and you are not in traffic, it may be advisable to shut off the engine and re-start later on.

### **Fuel and Additives**

The fuel recommended for your coach is #2 diesel along with a suitable algae inhibiter additive. See section 8 for recommended additive and quantities.

### **Lubrication and Maintenance**

A properly lubricated vehicle means less friction between moving parts. Consult the maintenance schedules in Section VIII for proper lubricants, lubrication intervals and general coach maintenance scheduling.

### Air Cleaner

The mixture of fuel and air which powers the engine is taken into the system through the air cleaner. Replace the air cleaner at required intervals to maintain peak engine efficiency.

### **Excess Weight**

Fuel economy is also related directly to the amount of work accomplished by the engine. Heavier loads require more power. Keep excess weight to a minimum.

### Tire Inflation

Under-inflation causes needless tire wear and promotes excess fuel consumption. Check tire pressures on a regular basis.

The Federal Certification Label, figure 1-1, shows the cold tire inflation pressures necessary to support the Gross Axle Weight Ratings.

These pressures can be reduced to greatly improve the ride qualities after the actual axle weights have been determined (see previous section on Vehicle Loading).

A Michelin Tire Data Book is included in your Owner's Kit. In the Specifications – Truck Tires (tubeless) section can be found the recommended tire inflation pressures for various axle weights and tire sizes. If any axle weight is on the borderline, always use the higher pressure.

In addition, a tire inflation information plate is located on the inside of the stepwell compartment door, figure 4-3. These are **normal** pressures as long as the axle weights are not in excess of those shown.

### Traveling in Your Motorhome Overnight Stops

There are many modern recreational vehicle parks with good facilities, including State, County and Federal Parks, where electrical, water and sewer connections are readily available. Directories are published which describe these parks in detail and list available services and hookups.

On overnight or short weekend trips, your motorhome has more than adequate holding tanks and water supply capacity in the event that campgrounds or parking sites are not equipped with these facilities.

On longer trips, where sewer connections and utility hookups are unavailable, it will be necessary to stop from time to time to dispose of holding tank wastes and replenish the water supply. Many gas stations (chain and individually-owned) have installed sanitary dumping stations for just this purpose.

When stopping for the night, park the coach in a location that is relatively level and where the ground is firm. This will ensure your comfort as well as the leveling of your refrigerator (for most efficient operation).



### **Extended Stays**

Making a long trip is not very different from making a weekend excursion since everything you need is right at hand and you are home wherever you travel. When packing for an extended trip, try to avoid taking non-essential items.

When planning to stay in the same location for several days, weeks, or even months, be sure to maintain the motorhome level. Use leveling jacks system controls for this purpose.

Hook up to the water supply by attaching the water hose to the commercial water supply inlet.

Plug the electrical cable into the shoreline receptacle. Be sure to observe all grounding and connection precautions!

Connect sewage hookup into the disposal facility.

### **Winter Traveling**

Certain precautions should be taken when traveling in your motorhome during the cold winter months. Keep these suggestions in mind:

- Provide heat in the coach at all times.
- Have a plentiful supply of LPG.
- If your stay is longer than overnight, and you do not use the generator, try to have a shoreline hooked up to outside ac power.
- Minimize your use of electricity if 120v ac is unavailable.
- Leave cabinet doors and wardrobe doors slightly open at night to allow for proper air circulation.

 Freeze protection heaters and heat tapes greatly decrease the chances of frozen water lines provided the coach is plugged into outside power (one 50A. or two 30A. power cords) or the generator is run continuously during cold weather periods.

Remember that low temperatures in combination with high winds will cause an equivalent chill temperature much below that indicated by your thermometer. For instance, with an outside temperature of zero degrees, and a wind velocity of 10 miles per hour, the equivalent chill temperature would be – 20 degrees F!

There is no substitute for common sense when traveling in cold weather.

### **General Storage Notes**

Drawing draperies will reduce fading of rugs and upholstery. Leaving an air freshener agent will minimize odors from plastics and other materials. Slight opening of windows and vents will allow air circulation without worry of water entering. Covering wheels to eliminate direct rays of the sun on tires will reduce sidewall cracking.

### Note

Remove all items from the coach which may freeze, including canned foods, miscellaneous liquids, etc. Remove all contents of the refrigerator/freezer, clean unit and leave doors ajar.

### **Emergency Assistance**

To locate the closest Caterpillar dealer or other authorized repair shop, call toll free (800) 447-4986 except in Illinois call (309) 673-3252.



### Section II Operation

This section provides information on the operation and function of the controls, indicators and gauges located in the pilot/co-pilot compartment that are used in connection with the coach automotive systems. Figure 2-1 illustrates the pilot/co-pilot compartment, high-lighting the instrumentation and panels covered in this section.

### Instrumentation

All essential operating controls and gauges used to monitor and control associated engine, generator and coach systems are located conveniently on and adjacent to the electroluminescent dash panel, figure 2-2.

Associated instrumentation, accessible on the bulkhead above the pilot, includes TV, generator ON-OFF switch, altimeter and diesel fuel filter monitors. Controls for CCTV monitor operation are located on the left side bulkhead above the pilot. Refer to figures 2-2 through 2-11 and the following paragraphs for locations and functions of associated operating controls and indicators.

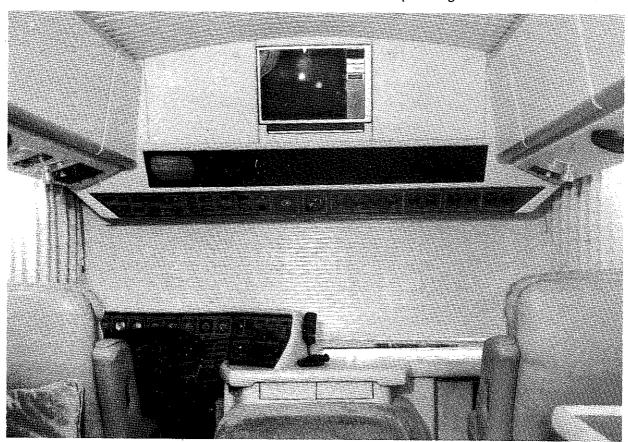


Figure 2-1. Pilot/Co-Pilot Compartment



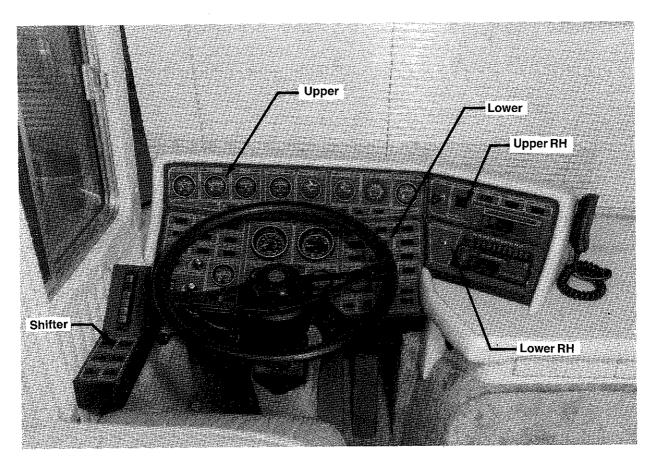


Figure 2-2. Dash

### **Pilets Centrel Center**

You are now seated in the control center of your new coach. You have control of all engine functions, generator functions as well as all accessory functions at your fingertips.

Our new dash layouts for 1987 were designed for viewing continuity as well as function and beauty. You will notice as you drive that viewing angle changes only slightly from the road to any part of the dash.

The dash is divided into five main panels, (fig. 2-2) which are the upper dash panel, lower dash panel, shifter panel, upper right hand dash panel and lower right hand dash panel. The gauges, switches and warning lights installed in these panels will be explained as far as function and operation in the following text.

### **Note**

Some items operate at all times, some require the 12 volt master to be on, while others need the 12 volt master to be on, while others need the 12 volt master and the ignition on. Gauges marked with an \* require the engine to be at normal operating temperature for correct readings.

### **Upper Dash Panel** – (See Fig. 2-3)

1 \* ENG. WATER TEMPERATURE Gauge — Normal water temperature should be between 180° and 205° for safe operation.

### Caution

If the Engine Temperature gauge indicates excessively high temperatures, the engine may be over-heating and should be stopped to prevent damage. Allow the engine to cool before checking the radiator coolant level.



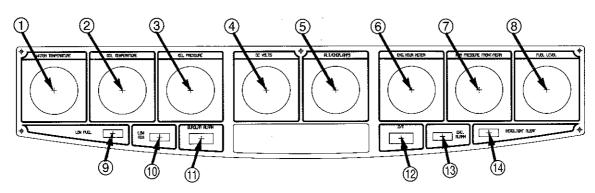


Figure 2-3. Upper Dash Panel

- 2 \* ENG. OIL TEMPERATURE Gauge—Gives a constant reading of the engine oil in the supply line from the pump. The normal operating temperature is from 200°F to 250°F. If the temperature goes over 250° the engine may be low on oil or there is overheating of the cooling system.
- ③ \* ENG. OIL PRESSURE Gauge Indicates the pressure of the oil, not the amount of oil in the engine reservoir. This gauge will normally read between 40 and 65 psi during cruising speeds; and drop to a minimum of 14 psi when the engine is idling.

### Caution

No oil pressure, or low oil pressure readings (below 25 psi) when engine is operating at cruising speeds are trouble indications! Do Not Operate the Engine Under These Conditions!

- (4) **DC VOLTS** Registers the actual voltage at the coach batteries. With the engine running, gauge should read 14 volts (+ or 0.5).
- (5) ALT. CHARGING AMPS Shows total charging current in amperes. With the engine running, total alternator output is shown. When parked, with a source of 120 volt ac, (outside power or generator), the gauge will show total output of the battery chargers.
- 6 ENG. HOUR METER This operates whenever the ignition switch is on. The smallest increment is 1/10 hour or six minutes.
- 7 AIR PRESSURE FRONT/REAR Gauge The Dual Air service Brake Pressure systems are engine operated and supply independent brake system air pressure for front and rear service

brakes and the parking brake. During normal operation, each air pressure gauge reading will build up to 100 psi to 120 psi shortly after the engine is started. Note that, as a safety feature, the parking brake cannot be released until air pressure readings are at least 65 psi.

- (8) FUEL LEVEL Gauge Indicates the amount of diesel fuel remaining in the tank. This gauge reads only when the ignition switch is in ON or ACCESSORY position. The fuel gauge used on 31-foot and 33-foot units is a dual-purpose monitor: when the fuel tank gauge selector switch is operated, it can also read the level of gasoline (30 gallons maximum) remaining in the generator fuel tank.
- 9 LOW FUEL This light comes on when the fuel in the tank is below the 1/4 full mark.
- (10) **LOW AIR** Warning Indicator This light is associated with a buzzer. These warn the driver that there is an insufficient supply of air (65 psi or less) to properly operate the coach. If the air pressure is low, when the ignition key is turned on, the light and buzzer will come on immediately. Both warnings will continue until the air pressure is built back up, or the ignition key is turned off.
- 11) BURGLAR ALARM Switch There are two switches that turn the Burglar Alarm on and off. The switch on the dash is used when you are inside the coach. The weather proof key switch, outside the coach next to the entrance door, is used when you are going to be leaving your coach for awhile.

Note that both switches operate independently of one another. If the Burglar Alarm is turned on at the dash, then it must be turned off at the dash. The outside switch works on the same principle.



- (12) A/T Switch (Anti-Theft) deactivates the starting system for protection against unauthorized cranking and theft.
- (13) **ENGINE ALARM** Indicator This indicator, along with a Buzzer Alarm, monitors engine operation. If the oil pressure or the coolant level drops
- too low or if the coolant temperature gets too high, the engine alarm light and buzzer will be activated.
- (14) **HEADLIGHT ALERT** When the ignition switch is turned off and the headlight switch is on, this red warning light, along with a buzzer, will come on. These will remain on until the headlight switch is turned off or the ignition switch is turned back on.

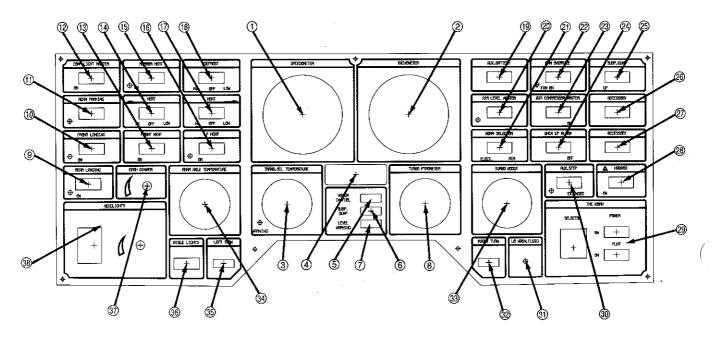


Figure 2-4. Lower Dash Panel

### Lower Dash Panel (See Fig. 2-4)

- 1 SPEEDOMETER Indicates speed and accumulated mileage (odometer). This is a solid-state electronic monitor, with an RPM sensor located at the right drive axle brake drum.
- (2) **TACHOMETER** Indicates actual engine RPM (Revolutions Per Minute) when scale (0-40) reading is multiplied by 100. Idle RPM should be 700 and full load (uphill) 2600 RPM.
- 3 TRANS. OIL TEMPERATURE Gauge Monitors and gives constant temperature readings of the transmission oil. If the gauge registers a temperature over the 300°F maximum safety range, check for low fluid in the transmission.
- 4 HIGH BEAM Indicator The Blue Bird logo is illuminated when high beams are selected using steering column switch.
- **ACCESSORY WARNING** Lights These three (3) warning indicators light to alert you of the following conditions:

- (5) **WATER IN FUEL** This light comes on when there is an excess of water in the bottom of the fuel tank.
- (6) **SUSP. DUMP** Lights to tell you that the suspension system has little or no air, and that the suspension needs to be pressurized before the coach is driven.
- 7 **LEVEL WARNING** This light comes on when any of the four (4) leveling jacks is not fully retracted.
- (8) **TURBO PYROMETER** Registers the temperature of the exhaust gas output of the Turbo. The correct temperature of the exhaust should be around 740°F at maximum power.

### 1986 FORWARD CONTROL CHASSIS AXLE AND BRAKE SPECIFICATION

	ROCKWELL	•						
AXLE CAPACITY	STANDARD Model	TVOC	DDAVE CTTE	CHAMBER	1 Thirthe			
CULUCIII	HOULL	TYPE	BRAKE SIZE	SIZE	LINING AREA	DRUM AREA	<u> WHEELS</u>	TRACK
13,200	FF-942	Full Air	16 1/2 x 5 x 3/4	24 <b>"</b>	314 Sq. In.	518 Sq. In.	10 Stud Disc	80 1/2
23,000	R-125	Full Air	16 1/2 x 7 x 3/4	30"	440 Sq. In.	726 Sq. In.	10 Stud Disc	72 7/32

### **AXLE COMBINATIONS**

AXLE COMBINATION	TYPE	TOTAL LINING AREA
13,200 Front, 23,000 Rear	Full Air	754 Sq. In.

### 1986 FORWARD CONTROL CHASSIS AXLE RATIO

AXLE	AXLE	WHEEL	BRAKE	SINGLE
MAKE	<u>CAPACITY</u>	TYPE	SIZE	SPEED
Rockwell	23,000 LB R-125	Disc	7 In.	5.29

### FORWARD CONTROL TIRE DATA

TIRE SIZE	LOAD <u>Range</u>	PLY <u>rating</u>	RATED Capacity (LBS.)	INFLATION PRESSURE (LBS.) FOR RATED CAPACITY
11-22.5	Н	16 (Single)	6610 Radial Ply	115
11-22.5	H	16 (Dual)	6610 Radial Ply	110

### WHEELBASE

BODY MODEL	WHEELBASE (INCHES)
31 '	177
33'	192
35,	210



- (10) **FRONT LANDING** Light Switch To turn on the front Landing lights, located in the rear side panels just in front of the rear wheels, push this switch to the **ON** position. The indicator next to the switch should be lit when the switch is on.
- (11) **REAR PARKING** Light Switch This switch controls the on-off operation of the rear parking lights (rectangular halogen lights above the rear bumper) when transmission selector lever is in **R**. An indicator next to the switch lights when the rear parking lights are on.
- (12) **COMP. LIGHT MASTER** Switch This switch in the **ON** position provides power to all of the exterior compartment light switches. As each compartment door is opened, the light automatically comes on; closing the door turns the light off.
- (13) **FRONT HEAT** Switch Activates a solenoid valve to provide engine coolant flow to the front heater core.
- (14) **HEAT** Switch To turn on the heater blower for the pilot's area press this switch to either the **HI** or **LOW** position. Note that when the front heat switch (13) is **OFF**, the heat switches (14) and (17) can be used to provide cool air circulation by turning on the blowers.
- (15) MIRROR HEAT Switch This switch turns on a thermostatically controlled heater in the right and left outside mirrors (convex mirrors excluded). With the switch **ON** the Mirror Heaters will automatically come on to defogg the mirrors.
- (16) L.P. HEAT Switch When in the **ON** position, 12v. power is supplied to the L.P.G. furnaces.
- (17) **HEAT** Switch To turn on the heater blower for the co-pilot's area press this switch to either the **HI** or **LOW** position. Note that when the front heat switch (13) is **OFF**, the heat switches (14) and (17) can be used to provide cool air circulation by turning on the blowers.
- (18) **DEFROST** Switch Turns on the blower for defrosting or defogging the front windshield. Set to **HI** or **LOW** speed as desired.
- (19) AUX. BATTERY Switch When this switch is pressed, a jumper solenoid connects the generator and coach batteries together (in parallel) to provide extra power for cranking the generator or coach. Releasing the switch immediately isolates the two battery systems.

20 AIR LEVEL MASTER Switch — With this switch ON power is supplied to the level system and the Level Warning system. Leveling jacks can be extended only when the Level Master switch is ON.

### Caution

Even with all power **OFF** the leveling jacks can still be retracted. Make sure everyone is clear of the outside of the coach before retracting the jacks.

- (21) **HORN SELECTOR** Switch Allows selection of the air or electric horns when the steering wheel horn button is depressed.
- 22 FAN OVERRIDE This switch operates the engine cooling fan in the engine compartment. The engine cooling fan is thermostatically controlled, and the activating temperature is 195°. To override the thermostat turn the Fan Override switch on, and the engine cooling fan will operate at any temperature continuously.
- 23 AIR COMPRESSOR MASTER Switch This switch operates the auxiliary air compressor (optional equipment) which is a 120 vac operated back up air compressor.
- ② BACK UP ALARM Switch This switch turns the back-up alarm buzzer off.

### **Air Suspension System**

Your motorhome is equipped with air suspension bags which **cushion** the front and rear axles. Dumping these air bags when the vehicle is parked allows the rubber bumpers to come together and eliminate vehicle **springiness**. The **SUSP. DUMP** switch controls the dumping and filling of the suspension air bags.

### Note

The accessory air tank must contain at least 65 PSI pressure for the air switch to function. The accessory air tank pressure does not register directly on the dash air pressure gauges but when the dash gauges register 65 or above, there is ample pressure.

Moving the **SUSP. DUMP** switch toggle down (to the rear) applies air pressure to three air pilot-operated valves on the suspension system. Two of these valves are located on the rear axle; and one



is located on the front axle. The pilot air shifts the valves, cutting off the air supply to the air bags and allows the air in the bags to escape. After the suspension system has been dumped, and the ignition is turned on, a warning pilot light is illuminated on the dash to warn the driver that the system is dumped and not to drive the vehicle until the air switch toggle is set to the up position.

### Note

If the leveling jacks are to be used while the coach is parked, the jacks must be lowered to level the vehicle **before** the air bags are dumped. If the air bags are dumped before the jacks are down, the vehicle is too low for the jacks to unfold into lifting position properly. This could damage the jacks.

- (25) SUSP. DUMP Switch This switch controls the inflation of the air suspension system. Move toggle down (to the rear) to dump the bags. Note that SUSP. DUMP ACCESSORY WARNING light is lit: set switch to UP position to re-inflate the air bags before driving away. (System air pressure must be at least 65 psi.)
- (26) ACCESSORY Position—
- 27 ACCESSORY Position These blank positions may be used for the installation of additional switches and indicator lights for customer add on equipment.

### Caution

Use existing panel holes for installation of additional controls or indicators. Drilling new holes will destroy the electroluminescent features.

- (28) **HAZARD** Switch This switch turns on the emergency flashers. When switch is used both turn signals will flash in unison.
- (29) **THE HORN**, Figure 2-4 This corner of the dash has 3 different switches for use with the musical horn.

The **SELECTOR** switch incorporates 2 thumb-wheels for selecting the tune to be played. Use **The Horn** manual to select a tune. Then set the thumb-wheels to the corresponding numbers or number and letter. Note, that if a tune is playing, making a new selection on the selector switch will not affect the tune playing.

The **POWER** switch provides power to the musical horn. When this switch is turned **ON** the horn will immediately start playing the tune that corresponds to the digits on the selector switch.

The **PLAY** switch (momentary) resets the horn to the beginning of tune chosen by the Selector switch. If the **PLAY** switch is pressed while a tune is playing, that tune will stop instantly and the horn will reset to the beginning of the tune that corresponds to the digits on the **SELECTOR**.

- 30 AUXILIARY STEP Switch An On-Off switch that, when set to the EXTENDED position, activates a relay automatically locking the outside entry step in the out position. The indicator light comes on when the ignition switch is turned on to remind you that you need to retract the step before proceeding.
- (31) LOW WASHER FLUID LIGHT Light indicates when there is approximately 1/4 contained in the fluid reservoir.
- 32) RIGHT TURN Indicator When the turn signal lever, (steering column control section), is pushed up into the right turn position this indicator flashes in conjunction with the outside directional lights. The right cornering light will come on continuously if the headlights or the parking lights are turned on while the turn signal lever calls for a right turn.

The indicator, along with the left turn indicator and all outside directional lights, flash in unison when the HAZARD switch (item 28) is pressed to the on position.

- (33) \* TURBO BOOST Gauge Registers the psi of the Turbo Compressor outlet. The gauge should read a maximum of 15 psi at maximum power.
- 34 REAR AXLE TEMP—Indicates the temperature of the oil in the rear axle by degrees fahrenheit. 100 ABOVE
- 35 **LEFT TURN** Indicator When the turn signal lever is pulled down into the left turn position, this indicator flashes in conjunction with the outside directional lights.

The left cornering light will come on continuously if the headlights or the parking lights are turned on while the turn signal lever calls for a left turn.

36 AISLE LIGHTS — This switch allows you to turn on or off the flourescent aisle lights from the pilot's chair.



- (37) **DASH DIMMER** This control will only operate when the headlight switch is on. The background lighting (electroluminescent) for the dash can be brightened by turning counter-clockwise and dimmed by turning clockwise.
- (38) **HEADLIGHTS** The Headlight switch serves two functions. Press **P** for parking lights and gauge illumination. Press the bulb symbol for headlights, parking lights and gauge illumination. The dimmer controls brightness of all gauges in dash. Turn counter-clockwise to increase or clockwise to decrease the brightness.

### Shifter Panel (See Fig. 2-5)

1 TRANSMISSION SHIFT SELECTOR — A lighted transmission (6) six pushbutton shift selector. Five forward gears with reverse and neutral.

(See Operating Manual and Owners Maintenance Data Section VIII for further information.)

- 2 MARKER LIGHTS Switch Press this switch to **ON** to turn on the clearance and identification lamps located on the top sides and ends of the coach. This switch may also be flipped on and off to flash the marker lights as a courtesy signal.
- 3 **DRIVING LIGHTS** Switch—Driving lights are recessed in the front bumper. When the Driving Light switch is turned **ON**, the Driving Lights and an indicator next to the switch should come on.
- 4 CRUISE CONTROL These two switches operate in the following manner: The switch on the right turns the cruise control on or off. The switch on the left locks the cruise control in on the desired cruising speed.

Note that the coach must be traveling at least 20 mph before the cruise control will activate. When the desired speed is reached press the **ON-OFF** switch to the **ON** position then press the **SET-RE-SUME** switch to the **SET** position and hold for 2 seconds before releasing. The coach should automatically remain at that speed.

Note that the accelerator can be used to increase the speed of the coach, but the speed cannot be decreased unless the brake pedal is depressed, or the **ON-OFF** switch is turned **OFF**. If you use the brake to disengage the cruise control, and you would like to pick back up to your original cruising speed, press the **SET-RESUME** switch to the **RESUME** position for 2 seconds. The coach should automatically return to that original speed.

Engine idle speed can be increased, while parked, by means of the cruise control switches, push the **ON-OFF** switch to **ON**; then push and release **RESUME** switch rocker until desired RPM is attained. RPM will return to normal idle speed when:

- CRUISE CONTROL ON-OFF switch is turned off.
- 2. Transmission selector is moved from **N** position.
- 3. Parking brake is released.

### Note

Pressing on brake pedal will decrease RPM but speed will return to higher setting as soon as pedal is released.

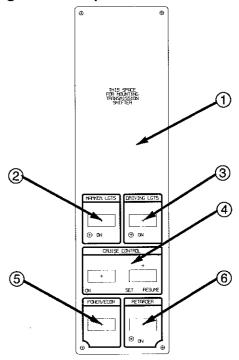


Figure 2-5. Shifter Panel

**POWER ECONOMY** Switch — changes the shift point in the transmission to increase low end torque (power) or to increase engine efficiency (economy).

6 **RETARDER** Switch — Provides power to Retarder controller mounted on transmission gear selector console.

### **Upper Right Hand Dash**

Panel (See Fig. 2-6)

1 LIGHTER — Depress to heat the element; pops out when hot.



- ② SECURITY LOCK Switch Dual switches used to lock and unlock the deadbolt lock on the entrance door. A switch is also located on bedroom control panel.
- 3 ACCESSORY This blank position may be used for the installation of an additional switch or light.
- 4 LEFT VENT and RIGHT VENT Switches Operate the air cylinder controlled air vents to direct fresh air to the pilot and co-pilot areas.
- (5) **COMPACT DISC PLAYER** Space available for optional disc player with premium sound system.

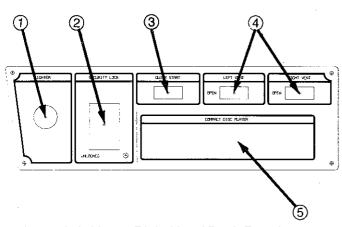


Figure 2-6. Upper Right Hand Dash Panel

### **Lower Right Hand Dash Panel**

(See Figure 2-7)

Ignition Switch — A four-position, standard-type key switch. In OFF position (center), ignition and accessory positions are disabled and the key can be inserted or removed. In ON position (right) the battery is connected to the engine-run ignition circuits and the key can be advanced to START to start the engine, providing that the transmission selector is in neutral N position. ACCESSORY position (left) allows operation of accessories without activating the engine-run circuits.

Wandersound Stereo — is comprised of the Sony AM/FM Tuner/Cassette with 11-Band Graphic Equalizer, six (6) 6½ inch coaxial pyledriver speakers, one 8 inch dual coil subwoofer and 120 watts RMS of power. The Sony Tuner/Cassette has auto reverse, auto-music sensor, Dolby B and C noise reduction and metal tape capabilities.

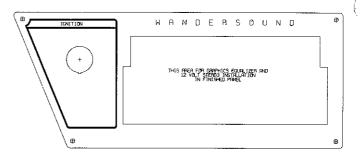


Figure 2-7. Lower Right Hand Dash Panel

The equalizer has eleven (11) slide controls and selectable subwoofer crossover. The speakers are located four (4) in the living room and two (2) in the bedroom. The subwoofer is located in the living room. A privacy switch is located on the overhead panel above the driver's head. The privacy switch turns the livingroom speakers off. Headphone jacks are located on the hood table and in the bedroom. There is a volume control in the bedroom controlling the volume of the bedroom speakers.

### Note

The front/rear fader on the equalizer controls the livingroom front to rear volume and the bedroom speakers are slaved to the livingroom rear speakers. The front/rear control on the tuner/cassette should be kept all front for proper operation. Refer to stereo owners manuals for control locations and operation of components.



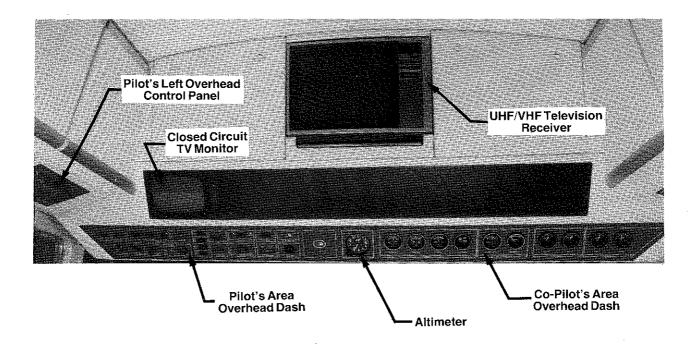


Figure 2-8. Overhead Control Center

### **Overhead Control Center**

(See Figure 2-8)

**CLOSED CIRCUIT TV MONITOR** — Operation will be covered in conjunction with figure 2-14.

**UHF/VHF TELEVISION RECEIVER** — Is a standard TV. Operation is covered in the owner's manual supplied with set.

**ALTIMETER** — Indicates coach height above sea level. (Zeroing adjustment can be used to calibrate unit at known elevations.)

### **Pilot's Area Overhead Dash**

(See Figure 2-9)

1 HEAT SELECTOR Switch — Operates solenoid valves in engine coolant line to divert coolant flow through hot water heater and chassis heaters when this switch is in WINTER position. Setting the switch to SUMMER position causes the coolant to flow through the hot water supply heater coil only.

- 2 AUX. PUMP Switch Controls the auxiliary water pump (under floor at road side rear) that boosts the circulation of engine coolant through the water heater heat exchanger and chassis heaters in the bedroom, kitchen and livingroom.
- 3 DASH DIMMER This control will only operate when the headlight switch is on. The background lighting (electroluminescent) for the upper dash can be brightened by turning counterclockwise and dimmed by turning clockwise.

### **Remote Spotlight Controls**

The optional roof-mounted remote-control high intensity spotlight is operated by the **SPOTLIGHT** controls located in the overhead dash. The spotlight produces 100,000 BCP (beam candle-power) and can be turned on and off, positioned horizontally or vertically at an adjustable rate of speed, and can be used for spot- or flood-lighting. The following controls operate the spotlight:



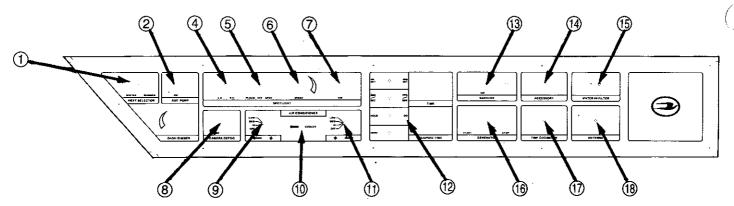


Figure 2-9. Pilot's Overhead Dash

- 4 SPOTLIGHT SELECTOR Switch Depressing switch, left or right, selects LH or RH light operation. This switch is functional only when dual spotlights are installed.
- 5 SPOTLIGHT BEAM SELECTOR Switch Depressing left side of switch activates FLOOD while right side pressure selects SPOT. Center position is OFF.
- 6 SPOTLIGHT SPEED Control Adjusts speed of light head movement.
- 7 SPOTLIGHT AIM Control Controls horizontal and vertical beam position.
- (8) CAMERA DEFOG Switch Energizes fan in compartment for Closed Circuit TV (CCTV) camera.
- AIR CONDITIONER LEFT FAN Switch —
   Three speed blower for left front area of coach. Left fan switch must be in either HI, MED, or LOW to energize compressor.
- 10 AIR CONDITIONER Temperature Selector
   Thermostat setting controls temperature by cycling compressor.
- 11) AIR CONDITIONER RIGHT FAN Switch Three speed blower for right front area of coach.
- (12) CLOCK PANEL This panel includes a digital readout. Four switches to the left of the display set clock timing. To set TIME display set clock timing, to set TIME display, press HR SET/MIN SET switch to HR SET position and hold until correct hour is displayed; repeat with switch in MIN SET position until correct minutes are displayed.

The **ELAPSED TIME** display will show elapsed time in terms of hours and minutes, or in minutes and seconds, depending on the position of the

HRS/MIN - MIN/SEC switch. Set this switch as desired, press ZERO to reset the display to a 00:00 readout, and the elapsed time will count. The HOLD/GO switch may be set to HOLD position to suspend operation of the elapsed time display; for elapsed time opertion, leave switch in GO position.

(13) **SAFELINE ALARM** — The Safeline alarm operates whenever the shoreline is connected to the coach and the ignition switch is in **ON** position as a reminder to disconnect the shoreline before driving away.

With the Safeline switch **ON**, the alarm is given by buzzer sound and red light. The buzzer can be deactivated in favor of a flashing amber light by turning off the switch.

- 14 ACCESSORY Position See item (3), figure 2-2.
- (15) WATER IN FILTER Light and buzzer alarm.
- (16) **GENERATOR START/STOP** Switch Provides local control for generator operation. Press this center-off momentary switch to **START** position and hold until generator starts, as indicated by the switch indicator illuminating. If generator does not start within 2 to 5 seconds, release switch, wait 30 seconds, then try again. To shut down the generator, press to **OFF** position and hold until light extinguishes.

#### Caution

Do not start the generator when a heavy circuit load is on-line, such as the air conditioners. This can cause an excessive strain on the genertor rotating components and may result in equipment damage.



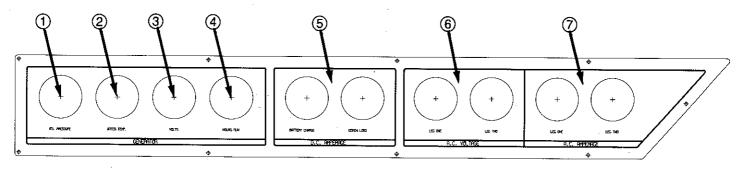


Figure 2-10. Co-Pilot's Overhead Dash

#### **Note**

When starting the generator during cold weather, press the switch to **STOP** position for 15-20 seconds. This activates the glow plugs for easier starting.

- 17 TRIP ODOMETER Depress bar to reset.
- (18) ANTENNA Switches Both switches must be pushed simultaneously to cause raising or lowering of TV antenna. Indicator will light when TV antenna is up from its secured position when ignition switch is turned on.

#### Co-Pilot's Overhead Dash

(See Figure 2-10)

- 1 GENERATOR OIL PRESSURE Gauge Shows the oil pressure, not amount of oil in the generator enegine reservoir. This gauge will normally read between 30 and 60 psi. Low oil pressure indications are often a symptom of possible generator failure. Oil level should be checked on a regular basis. Note that the generator has a low-oil pressure shut-off switch which operates if the generator oil pressure falls below 15 psi.
- ② **GENERATOR WATER TEMP.** Gauge Displays generator engine coolant temperatures from 100 to 240 degrees. Normal operating temperatures vary from 175 to 190 degrees. If consistently high temperatures are indicated, shut down the generator, wait for the engine to cool, then check radiator coolant level. Note that the generator has a high-temperature shut-off switch which operates if the generator temperature reaches 225 degrees F.
- (3) **GENERATOR VOLTS** Expanded-scale voltmeter, with scale graduations from 10 to 16 volts, shows the condition of the generator battery. Normally, the battery voltage varies from 12 to 13 volts; under starting load it may drop to about 10.5

volts and then rise to about 14.0 when the generator starts and begins charging the battery through the external isolator unit and battery chargers. Battery voltage readings less than 10.5 or more than 15 are usually a symptom of an electrical system failure or impending battery breakdown.

- 4 GENERATOR HOURS RUN Meter Indicates total hours of generator operation.
- (labeled **CHARGE**) shows net current flow to or from batteries. Needle movement from the center of the gauge indicates discharge to the left and charge to the right. When parked, following highway travel, it is normal to see a needle position to the left of center even when plugged into shore power (or running generator). This will gradually diminish and should eventually show some movement to the right with coach loads turned off.

Ammeter on right (labelled **DISCHARGE**) shows current demand of 12 volt load.

6 A.C. VOLTAGE — Voltmeter on left monitors LEG ONE while that on right monitors LEG TWO of 120 volt alternating current circuits.

#### Caution

Appliances can be damaged by low voltage. Loads should be balanced so voltage does not drop below 110 volts for either leg. Low campground (shore-power) voltage can be defected quickly from gauge readings. If cause of low campground voltage can not be corrected, generator power will have to be used during periods of high appliance demands.



7 A.C. AMPERAGE — Ammeters show current flow in LEG ONE (left) and LEG TWO (right) of 120 volt alternating current circuits.

#### **Pilot's Left Overhead Control**

Panel (See Figure 2-11)

- 1 STEREO JACK For headphone use with AM/FM Stereo Tuner/Cassette Player.
- ② **LIGHTS** Switch turns the flourescent lights in the pilot's and co-pilot's area on.
- 3 AIR CONDITIONING Remote Switches Permit air conditioning control by the pilot. See Section III for full description.
- 4 MONITOR Controls CCTV ON/OFF and BRIGHTNESS.
- (5) **INVERTER** Space for optional inverter controls. See Section XI for information.
- 6 C.B. Jack for headphone listening with volume control.

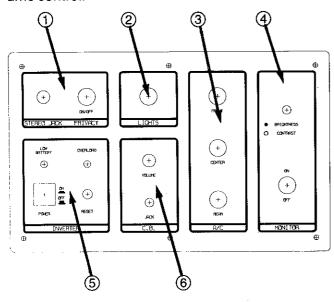


Figure 2-11. Pilot's Left Overhead Control Panel

#### **Steering Column Area**

(See Figure 2-12)

The steering column area, figure 2-12 includes controls located on the steering column, and under the dash as well as a gauge on the engine cover.

**HORN** — Operate the horn by pressing in on the center section of the wheel. Select air or electric horn with the **HORN SELECTOR** switch on the dash.

COMBINATION TURN SIGNAL/High BEAM and WASHER/WIPER SELECTOR — Push lever toward dash for right turn signal, pull lever away from dash for left turn signal. Pull lever up toward steering wheel and hold for momentary high beam. When lever is released low beams are activated. Push lever down until switch is activated for high beam operation. Pull lever back toward steering wheel to go to low beam operation. The washer ring is located at the end of the lever and when pushed activates the windshield washer, but only when the wipers are activated. To activate the wiper twist lever from -O - position to I or II for continuous speeds or to INT for intermittent operation. When in INT position the delay of the wipers can be changed by pushing in the button on the end of the lever. Twist lever back to - O - position to turn wipers off.

TILT LEVER — Pull lever up to release lock mechanism. While holding lever up, adjust the steering wheel to a comfortable position and release lever. Move the steering wheel slightly to make sure the column locks into position.

#### Caution

Always make sure that lever is in the fully locked position in whichever detent setting is used. Do not change the wheel tilt setting while the coach is in motion.

TELESCOPING STEERING WHEEL — to unlock telescoping wheel twist center section of steering wheel counter-clockwise and adjust wheel to comfortable position. While holding steering wheel at desired position with one hand lock it into position by turning the center section of wheel clockwise.

**FUEL VACUUM GAUGE** — Located in engine cover. Racor fuel filter element should be changed when pointer goes into red!

PARKING BRAKE — The Parking Brake control is located under the lower dash, to the left of the fuel vacuum gauge. Note that the parking brake cannot be released unless the system air pressure is at least 65 psi.

12 VOLT MASTER SWITCH — This switch is hidden on an inner dash panel directly in front of (and below) the **Parking Brake** control. Use this switch to shut off 12 volt battery power to all circuits except digital clocks, radio memory, monitoring panel functions, refrigerator control system, and burglar alarm.



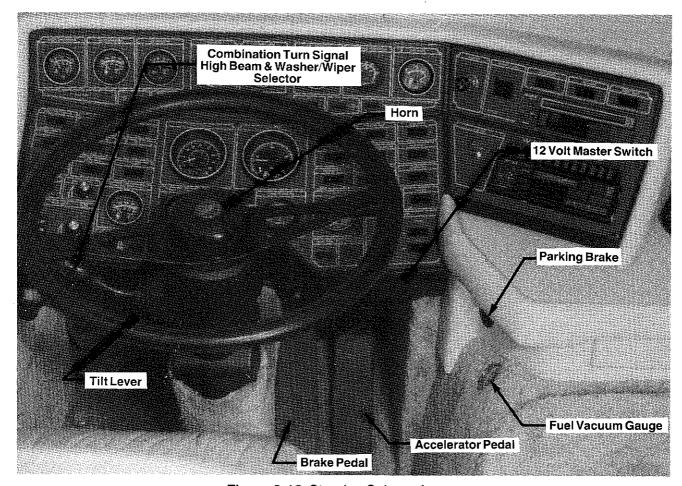


Figure 2-12. Steering Column Area

#### **Floor Controls**

**AIR HORN FOOT** Switch — Operates **highway** horns. Close to steering column.

**ACCELERATOR PEDAL** — Controls engine fuel flow to select power output. See Diesel Engine/Transmission Operation later in this section for detailed description.

BRAKE PEDAL — The coach is equipped with a dual air brake system which includes independent systems for the front and rear service brakes. A separate reservoir and panel-mounted pressure gauge is provided for each service brake system.

#### **Radar Detector**

A high-sensitivity superheterodyne microwave radar detector is installed as standard equipment on your coach. This unit, is designed to activate when transmissions are received from radar-type speed detection equipment.

#### Note

Because some states have ruled radar detection equipment illegal, it is the responsibility of the driver or owner to obey the appropriate laws. (There are quick-disconnect features provided which allow for easy removal of the unit.)

**CONTROLS AND INDICATORS** — See Radar Detector Owner's Manual.

#### **Seat Controls**

Electrically and air-operated six-way seat adjustments are built into the pilot's and co-pilot's seats. A typical control panel is shown in figure 2-13.

Three electric **SEAT CONTROLS** are used to control seat bench tilt, up-down and front-back seat movement, and seat back tilt. the **SIDE SLIDE** to disengage the seat slide lock, adjust



side-to-side position, then set to **LOCKED** to reengage lock mechanism. This switch must be kept **LOCKED** to secure the seat during travel.

These seats may be rotated by releasing the lever underneath the seat base on the right side.

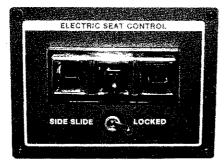


Figure 2-13. Seat Controls

## Closed Circuit TV Monitor System

#### **System Components**

Besides the TV receiver on the upper panel, the CCTV Monitor receiver system also includes:

- CCTV camera, located in the rear of the coach, figure 2-14.
- Picture brightness and ON/OFF switch on pilot's left overhead control panel, figure 2-6.

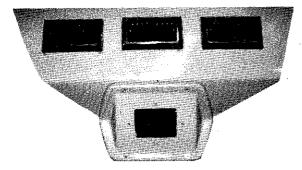


Figure 2-14. CCTV Camera Port

#### **CCTV** Operation

The rear-facing CCTV camera transmits images directly to the monitor via coach cabling.

Note that the system requires a brief warmup period before achieving full resolution. CCTV camera contrls are preset and the standard lens supplied with the unit is designed to focus from about two feet to infinity.

#### TV Antenna and Rotator System

The control components of the antenna and rotator are a hand-held switch-operated rotator;

radome-type TV roof antenna, switcher for the antenna or cable inputs and a switch for raising and lowering the antenna.

The **A-C**switch switches antenna **A** or cable **C** input via connections in shoreline compartment at the rear of the coach to the TV receptacles via the VCR (if present).

The antenna rotator controls the position of the TV antenna within the radome. The three-position momentary switch (center **OFF**) provides right/left antenna rotation.

The radome includes an amplifier and rotator mechanism. The remote power supply is designed to operate from either 120 volts ac or 12 volts dc. Low-loss coaxial cable and three-wire rotator control cable interconnect the antenna and power supply.

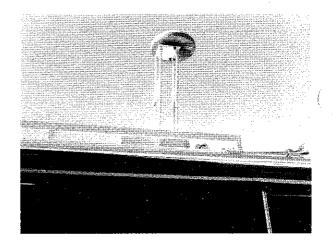


Figure 2-15. Extendable TV Antenna Radome

Note that a .8 ampere fuse is connected in the 12-volt dc supply line to the unit. In the event that the TV set exhibits problems relating to low antenna input (**ghosts,etc.**) check this fuse before servicing the TV set.

#### **Antenna Operation**

With the Tv on and a station tuned in, rotate the antenna by pressing the rocker switch located on the control unit. Press the right side of the switch to turn the antenna clockwise; press the left side to turn the antenna counter-clockwise. Although the actual antenna movement is not visible, the indicator arrow on the control unit lights and shows the direction of movement. When the antenna has made one full turn (360 degrees), the End of Rotation light comes on. Observe the picture while



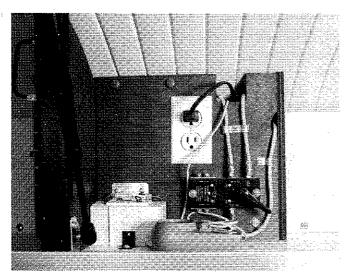


Figure 2-16. Antenna Control Panel

rotating the antenna, first in one direction, then the other, to obtain best picture quality.

The switches for raising or lowering the antenna are located in the Pilot's Area Overhead Dash and Radio Panel, figure 2-9, item 18.

#### **CB Transceiver Unit**

The CB transceiver has all the functions in the mike, figure 2-12, while the electronic parts are in the **black box** module mounted in the dash area.

## Controls and Indicators — See CB Owners Manual.

#### **Diesel Engine/Transmission Operation**

Proper operation and maintenance are key factors in determining the useful life and operating economy of a diesel engine. Follow these directions for trouble-free, economical operation.

#### To Start Engine

Caterpillar 3208 Engines will start at temperatures above 10 degrees F ( — 12 degrees C) without using a starting aid. However, for colder temperatures it may be necessary to activate the engine block heater (120 volt ac-operated). The **ENGINE BLOCK HEATER** switch is located on the wall in front of the engine cover on the co-pilot side. Remember to turn switch **OFF** after starting.

- 1. Place transmission in **NEUTRAL**.
- 2. Push the accelerator pedal to the floor one time and release.
- Turn ignition switch to START. Engine should start within 5 seconds. If engine fails to start within 30 seconds, release the starter switch

- and wait two minutes to allow the starter motor to cool before trying again.
- As soon as the engine starts, reduce engine speed to low idle. After normal oil pressure is indicated, speed may be increased to bild up air pressure more rapidly.
- 5. Do not apply a load to the engine or increase engine speed until oil pressure gauge indicates normal.
- Operate the engine at low load and low rpm unitl the temperature gague starts to move. Check all gauges during warmup period.

#### To Stop Engine

#### Caution

Before stopping the engine, operate at low idle for a minute or so. This will allow hot areas in the engine to cool gradually and extend engine life.

With the vehicle stopped, apply the parking brake and place the transmission shifter in **NEUTRAL**. Turn the ignition switch to the **OFF** position. This shuts off the fuel supply to the engine.

#### Using the ZF Transmission Retarder

The retarder is a hydrodynamic brake and application is recommended on lengthy gradients or when slowing down from high speeds. This saves wear on the service brakes and in an emergency the full braking effect (no fading) of the service brakes is available.

The system is electrically controlled by operation of the lever on the retarder hand control located on the Transmission Gear Selector Consol (figure 2-12), or by pressure on the brake pedal.

Turn on **RETARDER** Switch. (item 6, figure 2-5) and select desired amount of braking action by moving lever from **OFF** to positions 1-4 for progressively increasing braking action. Any selected setting is on full time. When acceleration is desired move lever to **OFF**.

#### **important!**

If by accident the accelerator is depressed when the retarder is engaged, the retarder automatically disengages. Only when the accelerator has been released does the retarder come back into operation.



To use the brake pedal for retarding, you must have the **RETARDER** switch (item 6, figure 2-5) engaged. When the brake pedal is used the retarder and the service brake will engage. When the brake pedal is released the retarder will also disengage.

#### Caution

Since the RETARDER raises the temperature of the oil, it is possible that the permissible oil temperature will be exceeded. Check transmission oil temperature using dash gauge (item 3, figure 2-3). The green section is normal operating temperature. The yellow section is normal retarder range. If excessive oil temperature is indicated, the vehicle must be slowed with the service brake until a downshift is made into a lower gear. If this precaution is insufficient to lower the oil temperature below the danger zone, the retarder must be switched off completely.

#### **Trailer Hitch**

Hitch capacity is 7,500 pounds tow and 750 pounds tongue weight.

#### Note

Trailer hitch ball capacity is 5,000 pounds, torque nut to 200 ft.-lb.

#### **Towing**

Two towing eyes are provided behind the front bumper.

#### Caution

Do not tow a vehicle equipped with ZF ECOMAT automatic transmission unless the drive shaft has been removed, or the rear wheels raised from the ground. Do not attempt to tow unit by front axle or cross-member. Damage to wiring and/or air lines can result because of proximity of these items to front cross-member. Do not tow by the bumpers.

#### **Transmission Operation**

The ZF ECOMAT transmission provides five forward ranges and one in reverse. Speed selection is provided through the transmission shift selector located on the SHIFTER PANEL (figure 2-5).

The selector must be in N (neutral) position when the engine is started. If the engine can start in any other position, the neutral start switch deficiency should be corrected as soon as possible. Use **D** position for all normal driving conditions so that the coach begins moving in first gear and upshifts automatically into 2nd, 3rd, 4th and 5th gears. As the coach slows, the transmission automatically downshifts to the correct gear. Use a low gear 2, 3 or 4 when road, load or traffic conditions make it desirable to restrict automatic shifting to a lower range; or use the retarder, as previously described. Use 1 or 2 when pulling through mud and snow or driving up steep grades. The vehicle should be completely stopped before shifting into reverse.

#### **Driving Tips**

#### **Accelerator Control**

Foot pressure on the accelerator pedal influences the automatic upshifting or downshifting within each driving range. When the pedal is fully depressed against the floor pedal stop, the transmission automatically upshifts near the recommended governed speed of the engine. A partially-depressed position of the pedal causes the upshifts to occur sooner at a lower engine speed. Shift timing is accomplished by using an electronic automatic shift control unit in conjunction with pressure modulation linkage. This throttle-modulation method provides the accurate shift spacing and control necessary for maximum performance.

#### **Transmission Oil Temperature**

Extended operation at low vehicle speeds, with the engine at full throttle, can cause excessively high temperature in the transmission. These temperatures may tend to overheat the engine cooling system as well as cause possible damage to the transmission. If excessive temperature is indicated by the engine coolant temperature gauge, stop the vehicle and determine the cause. If the cooling system appears to be functioning properly, the transmission is probably overheated. Shift to **N** and accelerate the engine to 1,200 to 1,500 RPM.

This should reduce the oil sump temperature to operating level within a short time. If high temperatures persist, stop the engine and have the overheating condition investigated by service personnel.



#### Caution

Do not operate the engine for more than 30 seconds at full throttle with the transmission in gear and the unit stationary. Prolonged operation of this type will cause the transmission oil temperature to become excessively high and may result in severe overheat damage to transmission components.

If the transmission overheats during normal operation, check transmission oil level.

#### **General Information**— Caterpillar 3208 Engines

#### Caution

Cooling fan operation is controlled electrically by a thermostat which senses engine coolant temperature. Any time the engine is running the fan may engage and start to run without warning. The engine must be shut off and the fan stopped before servicing.

Check crankcase oil level before starting and when refueling. Always check oil level with engine stopped. The dipstick has 2 markings, **FULL** and **ADD**. Maintain oil level between these marks. Do not overfill. Refer to table 8-2 for recommended oil.

- Check (with engine stopped) drive belts for cracks, breaks and frayed edges. While checking belts, look for oil, water or fuel leaks.
- Check (with engine stopped) for water in the fuel. Drain a cupful of fuel from the bottom of the tank to remove water or sediment. Fill fuel tanks after completing a run. Partially-filled tanks will collect moisture if the coach is allowed to sit for an appreciable length of time. Use number 2-D diesel fuel (with a minimum Cetane number of 40). Keep fuel clean. Inspect Racor filter bowl periodically and observe **WATER-IN-FUEL** indications on the dash gauge. Remove and clean filter bowl as necessary.

Number 1-D diesel fuel may be used in cold temperatures or when operating in altitudes above 5,000 feet.

 Check coolant level (with engine cool and off). Fill to the properlevel with water and permanent-type anti-freeze, adding one quart of Nalcool 2000 cooling System conditioner with replenisher coolant. Use clean water that is low in scale-forming minerals, not softened water. Leave space for expansion. (Note that Nalcool 2000 is compatible only with ethylene-glycol base coolants.)

#### **Racor Fuel Filter**

A Racor fuel filter/preheater is incorporated in the diesel fuel supply line and processes the fuel supply for maximum purity.

The fuel filter also includes a built-in preheater, which operates from the 12-volt battery supply and a water sensor, which lights a dash indicator when the water level in the filter bowl is high enough to require drainage.

#### **Leveling Jacks Controls**

(See Figure 2-17)

The motorhome is optionally equipped with four heavy-duty leveling jacks; one at each corner of the chassis. The jacks are the fold-down type, and cannot be extended until they are unfolded.

Overall system operation is monitored at the leveling jack controls, while each jack is independently operated by one of four respective **EXTEND-RETRACT** levers located in the outside compartment to the left of the entrance door on the 35 foot model, on the floor to the left of the driver, on all other models. A dash indicator and a buzzer (when ignition switch is on) provide visual and audible signals to show that the associated leveling jacks are not stowed to a safe travel position.

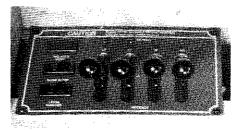


Figure 2-17. Leveling Jack Controls

#### Caution

Be sure that the frame is securely blocked before changing tires or working beneath the coach.

Use the following procedures to operate the leveling jacks:

#### Note

12 Volt master switch must be on to operate leveling jacks.



- 1 Set LEVEL MASTER switch (item 20 figure 2-4) to ON position. Note that the LEVEL WARNING indicator will light. LEVEL SYSTEM indicators LF, RF, LRand RR are lit only when the respective corner of the coach is low.
- ② Unfold the leveling jacks by setting the floor controls to **EXTEND** position. As soon as the jacks contact the ground, as indicated by the characteristic landing gear **thump**, release the respective control lever to prevent further jack movement.

Note that the red **LEVEL WARNING SYSTEM** indicator will be lit to show that the jacks are no longer in the stowed **(RETRACT)** position.

(3) De-pressurize the air suspension system by setting the SUSP. DUMP switch to DUMP (down).

#### Caution

Do not dump the coach air suspension system until the leveling jacks are unstowed and vertical or the coach chassis may be too low to permit the jacks to be unstowed.

- 4 Operate the **EXTEND-RETRACT** levers for the leveling jacks as necessary to level the coach. The blue and **LEVEL SYSTEM** indicators will extinguish when the respective corners are leveled.
- (5) To restow the leveling jacks prior to moving the coach, start engine to initiate air compressor operation, repressurize the air suspension system by setting the **DUMP** switch to the **FILL** (up) position.
- (6) When the air suspension is once again stabilized, pull all four leveling jacks controls back to the **RETRACT** (locked) position. The red warning indicator will extinguish when the jacks are in the stowed position.
- 7 Set LEVEL MASTER switch to OFF position. This completes one full operating cycle for the leveling jacks system.

#### Note

If the jacks are not withdrawn before driving away, the buzzer will sound.



## Section III Living Area Facilities

This section provides information on operation of the appliances and systems which contribute to comfortable living within your motorhome.

#### Sofa

Your **Wanderlodge®** sofa converts into a double bed sleeper. To convert the sofa you must first release 2 latches under the front edge of the sofa seat. Then pull out on the seat until the sofa is fully extended and the back of the sofa is lying in the flat position. To fold the sofa back up into the sitting position pull up on the sofa back with the pull strap stored between the back cushions and at the same time push in on the sofa seat with your knees until the sofa latches **click** into the locked position.

#### **Vacuum Cleaner**

The Vacuum Cleaner System, figure 3-1, is located in the bottom of the livingroom closet for 31 and 33 foot coaches; in the side of the left rear closet for 35 foot coaches and in the side of the livingroom right end table for 35 foot rear bath coaches. The system is completely self-contained and supplied with a long flexible hose and wand, carpet, upholstery and crevice tools.

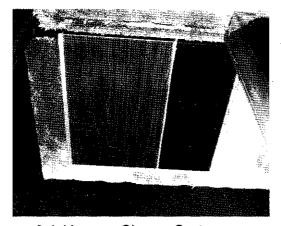


Figure 3-1. Vacuum Cleaner System

Install the flexible hose end-fitting into the corresponding intake hole, accessible when the spring-loaded door is swung aside. The disposable paper bag, located in the compartment to the right of the intake, is easily removed and replaced when the compartment door is opened (vacuum cleaner should be off when changing bags). A new bag is installed by sliding the cardboard ring on the bag over the intake tube. Clean or replace foam filter periodically to keep system operating efficiently.

#### **Dinette Area**

The dinette area, figure 3-2 includes the area thermostat, door chime and four place bench type dinette, which converts into a 3/4 size bed.

To convert dinette into bed you must first lift up and remove the back cushions from both sides of table, lay these cushions to the side. Next unsnap and slide the bottom cushions toward the back rests. While holding table up, reach underneath the table to unlock and fold leg under table. Raise end of table up to remove table top from wall brackets and lay table top into place on dinette base. Place back cushions in open space on lowered table top and dinette base. To convert back to dinette just reverse order of steps above.

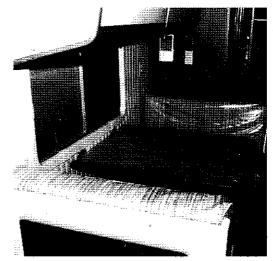


Figure 3-2. Dinette Area

#### **Galley Facilities**

The galley, figure 3-3, includes a double sink, food center, toaster (except 35 foot coach) refrigerator/freezer, gas cooktop and micro convection oven. The refrigerator operates from the LP gas supply, from the 120 volts ac supply, or from 12 volt alternator output while in transit. The cooktop also operates from the LP gas supply, Operating procedures for these appliances given in the following paragraphs assume that the main LPG valve is on. An LPG leak detector, located below



the refrigerator door, continuously monitors the area for LPG leakage, shutting off the LPG supply and sounding an alarm if leaks are detected.



Figure 3-3. Galley Facilities

#### Refrigerator

Understanding just how the refrigeration process operates will help to explain one of the important reasons why it is necessary to level a parked motorhome. The gas-fired (or electrically-heated) boiler converts the ammonia-water solution to distilled ammonia vapor, which is carried to the finned condenser, where it liquifies. The liquid flows to the evaporator, where it creates a cooling effect by evaporating into a circulating flow of hydrogen gas. If the evaporator coil is not level, the liquid accumulates, forming pockets which do not readily evaporate and impair or block gas circulation, inhibiting the cooling process.

When the coach is parked, it must be leveled to assure comfortable living accomodations. The refrigerator will then also perform well. Place a bubble level (furnished with unit) on the freezer shelf. When the vehicle is moving, the continuous rolling and pitching movement will not affect the refrigerator as long as the movement passes either side of level; but when the coach is parked, the refrigerator must be level (within 6 degrees).

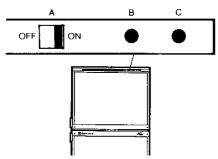


Figure 3-4. Refrigerator Operating Controls

#### Operation:

Before starting the refrigerator check the gas valve in the piping. Do not forget the valve on the rear of the refrigerator.

- 1. To start the refrigerator set the switch A to position **On**. Lamp B shall now be green.
- 2. Turn the thermostat knob inside the cabinet to suitable setting, e.g. start with the thinnest part of the arrow.
- 3. To shut off the refrigerator set the switch A to position **Off**.

This refrigerator is equipped with an automatic energy selector system. The control system selects the most suitable available energy source. The selection will be made with highest priority to 120 volt. Second priority is to 12 volt from the alternator (when so connected), and lowest priority is gas operation. No manual operation is necessary for change of energy. If the unit does not succeed in lighting the gas the lamp E will change from continuous green into red flashing light. Further information is given below under the heading red flashing light. If the battery voltage drops, the control system will start continuous gas operation. The lamp will not be lit. The thermostat will not be in operation. When the voltage increases, normal operation will start up again.

During normal operation, the control system shuts off the gas when correct temperature is obtained. The gas flame will be lit by the control system when the temperature increases above the preset one.

#### **Delay for Gas Start Up**

In order to avoid a gas-flame at gasoline stations the refrigerator is programmed to delay gas start up for about 30 minutes after 12 volt operation. Please observe that this delay occurs even after only 1 minute of 12 volt operation from your engine in order to cover events when you have to wait in line for a gasoline pump. If you want a quick gas start up after 12 volt operation you can switch **Off** the refrigerator for a few seconds and then switch back to **On**.

#### Note

This operation is only available when the refrigerator is connected for threeway use.



#### **Red Flashing Light**

If the lamp E begins to flash with a red light, the refrigerator control system has tried to light the gas flame but did not succeed in doing so. We recommend the following operations:

- 1. Turn knob A to position **Off** and back to **On** again. The lamp shall now be green as the control system makes a new starting attempt. If the refrigerator has not been in operation for a while, or you have just refilled with gas, this operation may have to be repeated several times. Each start attempt will last for up to three minutes. If the starting is not successful the lamp will turn red again.
- 2. If operation 1. is not successful, check your gas supply.
- 3. If you have gas make sure that all valves in the gas pipe are opened.
- 4. If none of these operations are successful contact a service center.

Selection of electric operation is not blocked during display of red flashing light. Provide electrical power (120 volt ac or alternator) to maintain cooling when LPG operation is unavailable.

#### **Food Storage Compartment**

To maintain required low temperatures for food storage, the food storage compartment is completely closed and unventilated. Consequently, foods having a strong odor, or foods liable to absorb odors, should always be covered. Cover vegetables and salads to retain crispness. The coldest locations within the refrigerator are beneath the cooling evaporator and on the lowest shelves; the least cold locations are on the upper door shelves. Consider this when storing different types of food.

#### Defrosting

Shut off the refrigerator.

Empty the refrigerator leaving the drip tray under the finned evaporator and the cabinet and freezer doors open. If desired, defrosting may be speeded up by filling the ice trays with hot water and replacing in the freezer.

When all frost is melted, dry the interior of the refrigerator with a clean cloth. Empty the drip cup at the back of the refrigerator which is reached through the lower side vent. Replace the drip cup and ice trays. Replace all food stuffs and turn on the refrigerator.

#### **Frozen Food Compartment**

Quick-frozen soft fruits and ice cream should be placed in the coldest part of the compartment, on or just below the shelf. Frozen vegetables may be stored in any part of the compartment.

The freezer compartment is not designed for deep or quick freezing of foodstuffs. Meat or fish foods, whether raw or prepared, provided they are pre-cooled in the refrigerator, can be stored in the frozen food storage compartment about three times as long as in the normal temperature compartment. To prevent dehydration, keep food in covered dishes, in plastic bags or wrapped tightly in aluminum foil.

#### Ice Making

Place ice trays in direct contact with freezer shelf for fastest ice making. Fill trays with water to within 1/4 inch from the top. To release ice cubes grasp the tray with both hands and twist. Return unused cubes to the tray. Refill tray with water, dry outsides, replace in frozen storage compartment. Clean compartment with dry cloth.

#### Refrigerator Shutdown

To shut off the refrigerator turn the knob A to **Off** position. If the cabinet is not in operation over a period of weeks, it should be emptied and cleaned and the door left ajar. the ice trays should also be dried and kept outside the cabinet.

#### Cleaning

Clean cabinet interior lining with a lukewarm weak soda solution. Clean evaporator, ice trays and shelves with warm water only. **Do Not** use strong chemicals or abrasives to clean these parts or protective surfaces may be damaged. Always keep cabinet clean.

#### **Gas Cooktop**

The gas supply for the cooktop burners, figure 3-5, is provided from the LPG tank. Make sure that the main valve (on tank) is turned **On** before use.



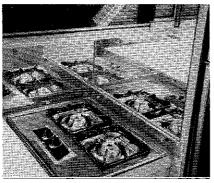


Figure 3-5. Gas Cooktop and Micro Convection Oven

#### **Lighting Cooktop Burner**

- 1. Depress knob and turn counter clockwise to HI position. **Note** A faint popping noise will be heard during step 1.
- 2. After burner has lit turn knob a few degrees clockwise until popping stops.
- 3. Turn knob to desired setting.

#### **Shut Off Cooktop**

See Owners Manual for further instructions.

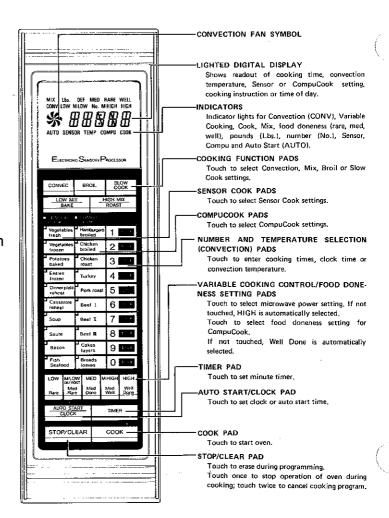
**Figure 3-6.** Microwave/Convection Oven Control Panel

#### **Microwave/Convection Oven**

The microwave/convection oven provides programmed microwave cooking, convection operation for crisp, even browning, or a combination of both.

#### **Caution Notes**

- Unlike microwave-only ovens, all microwave/ convection ovens have a tendency to become hot on the cabinet and oven door, as do conventional range ovens and convection-only ovens. Be careful when touching parts other than the handle or control panel during or immediately following cooking that uses convection heat.
- Do not cook eggs in the shell. Steam builds up inside the shell and it may explode from pressure. Shelled hard-cooked eggs should be sliced or cut up before reheating in the microwave oven. You may hard-poach eggs for salads and casseroles.





- Pop popcorn only in special microwave poppers. following manufacturer's directions. Do not use oil unless specified by the manufacturer, or heat longer than recommended. Never pop popcorn in paper bags or glass utensils.
- Do not heat oil or fat for deep-frying. The temperature of the oil cannot be controlled and it may overheat.
- 5. Do not attempt to can in the microwave oven as it requir3es prolonged high temperatures.
- 6. Do not operate the oven empty.
- Remove wire twist-ties from bags before placing in oven.

This oven uses a microprocessor, the electronic brain that provides a wide variety of cooking programs which could not be achieved by conventional control methods. The operation of the oven is controlled by touching the appropriate pads arranged on the surface of the control panel, figure 11-6. The lighted digital readout will display the cooking time, convection temperature, sensor or compu-cook setting, or time of day, and indicators show the variable cooking setting or cooking function you have programmed. See owners manual for operating instructions.

#### **Galley Sink**

The heavy-gauge stainless steel sink provides maximum durability with minimum care. After use, rinse sink thoroughly with warm water and wipe dry with a cloth to avoid streaks and spots. For stubborn stains, a mild abrasive cleaner can be used

with care. Be sure to wipe in the direction of the steel finish to help maintain the original appearance. Always wash counter surfaces before applying a complete wax coating; regular cleaning prevents wax buildup.

Boiling water will not harm stainless steel; however, salt, mustard, ketchup and other similar food acids can cause pitting. If any of these are spilled on the surface, clean off immediately.

#### **Food Center**

A built-in variable-speed motor-driven counter unit, figure 3-7, may be used with mixing and blending attachments for a large variety of food preparation tasks. The food center is designed for ac operation and is operable only when the generator is on; or when coach systems are connected to an external shoreline hookup.

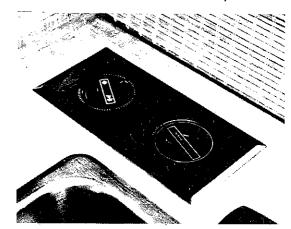


Figure 3-7. Food Center

#### **Toaster**

A two slice toaster (except 35 foot coach) is built in directly to the rear of the food center. After opening the door, the toaster can be run forward on its track by momentarily pushing the handle to the rear.

#### **Bathroom**

#### Water Pump Switch

Two Water Pump On-Off switch/indicators are provided for separate control of water pump operation. One switch is located on the control panel in the galley area; the second is located in the bathroom. The pump may be operated On or Off from either location. The associated indicator is lit whenever power is being supplied to the pump. Setting either switch On pressurizes the water system, with the pump operating on demand to main-



tain constant pressure. Continuous or erratic pump operation can indicate an empty water tank, system leakage, or air lock in hot or cold water lines. (Air locks are normally caused by movement of water in the tanks during pump operation.) Since tank water level and water pressure can vary with road movement, leave water pump switch **Off** while the coach is moving. The water pump and air accumulator are located in the bed base cabinet.

#### **Tub/Shower Unit**

The combination tub/shower unit, includes a pressure-balancing single mixing valve, tub water spout with shower head diverter button, shower head and drain lever.

#### **Toilet**

The toilet, figure 3-8, operates from the fresh water supply, flushing wastes directly into the sewage holding tank. The double-flush foot pedal located at the bottom of the bowl controls the amount of water delivered into the bowl and opens the sliding valve to the tank. After use, depress bowl drain pedal until water swirls, draining wastes into tank, then release pedal. A water-saver feature, consisting of a manually-operated spray hose, is located at the side of the bowl. To raise the level of water in the bowl, press on the small foot pedal.

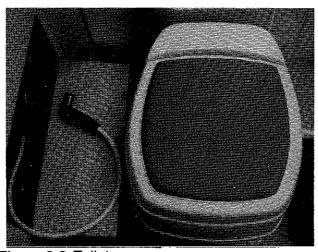


Figure 3-8. Toilet

#### **Vent and Exhaust Fan**

Exhaust fans in the livingroom, galley and bath are controlled at the fan housing. The bedroom fan also has a master switch on the bedroom overhead panel.

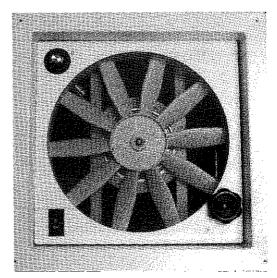


Figure 3-9. Vent and Exhaust Fan

#### **Heating Systems**

Three types of comfort heating systems are used in your motorhome: gas/hot air heat; electric heat; and engine hot water circulating heaters.

Three gas/hot air furnaces are used in the coach. Each unit has a separate zone thermostat, figure 3-10.

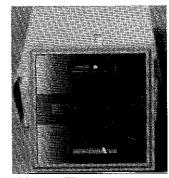


Figure 3-10. Heater Thermostat

One furnace is located in the living room, another is in the galley area, and the third in the bedroom. The living room furnace is also used to supply hot air to the bathroom via a separate duct booster fan controlled by a thermostat in the bathroom. The kitchen furnace supplies hot air to bathroom on 35 foot coaches.

Separate heating can also be provided by circulating hot-water heaters (chassis heaters) when the engine is operating and the **Winter-Summer Heat Selector** switch (located on the pilot's area overhead dash) is in **Winter** position. These heaters share the area thermostat with the L.P.G. furnace.



Four optional electric heaters (120 volt) are located in the bedroom, bathroom (except 35 foot coach), galley area, and living area. **On-Off** thermostat switches are located on each heater. Two freeze-protection heaters (120 volt) are installed to protect plumbing and water supply tanks.

#### Gas/Hot Air Furnaces

To operate the furnaces, **L.P. HEAT** switch on dash must be **ON**. Proceed as follows:

- 1. Turn manual gas valve to ON.
- 2. Set thermostat on desired temperature.
- 3. Allow 24 seconds for ignition to occur.
- If burner does not light, set thermostat on OFF and repeat steps 1 through 3.
- 5. If after three (3) attempts with no ignition, go to shutdown and contact a qualified service agency. Do not continue to cycle furnace through thermostat in an attempt to get ignition.

When coach temperature drops below the thermostat setting, the internal relay contacts close to operate the main burner. The air flow created by the blower closes an air-actuated switch that, in turn, energizes the main burner gas line solenoid valve which then lights from the electronic ignition.

#### Caution

## Do not store items in or near the burner compartment.

When the coach temperature exceeds the thermostat setting, the relay contacts open. This shuts off the burner gas supply but the blower continues to operate until residual heat within the furnace is dissipated, when a thermostatically-controlled relay turns off the blower. Air for the sealed combustion chamber is pulled in from outside the coach, routed around the heat exchanger, then exhausted through the outside vent. Recirculated fan-forced air blowing across the heat exchanger is used to heat the coach interior.

Switch at bottom of thermostat must be **Off** (to left) if operation of furnace at lower temperatures is not desired.

#### **Hot-Water Heating Systems**

Four sources of hot water heating are provided which depend on heat generated from engine operation. One heater (90,000 BTU), which serves

the pilot's and co-pilot's area, is controlled by the **Front Heat** switch on the dash. Three chassis heaters, (50,000 BTU) under the dinette seat, living room sofa, and in the bedroom are controlled by the thermostat in that area.

The bathroom chassis heater (15,000 BTU) is controlled by the bathroom thermostat.

The engine coolant is normally routed through the engine cooling system and the water heater, which also can be heated electrically, to provide the hot water supply for the coach. However, by operating the **Winter-Summer Heat Selector** switch, the engine coolant can also be diverted through the previously-mentioned area heaters, via a solenoid valve. The coolant level in the engine radiator should be checked after these valves are opened. A pump is used to circulate hot water through the coolant lines. It is controlled by the **Aux. Pump** switch (located on the upper left pilot's overhead dash).

Chassis heater blower motors (dinette seat, front sofa and bedroom), are controlled by **On-Off Heat** switches adjacent to the heater louvers. **Hi-Lo** blower speed switches are also provided. The front heater is equipped with three squirrel-cage dual-speed blowers, operated from separate dash controls. One blower provides defroster air; one provides air to the pilot's side; the third provides air to the co-pilot's side. Use **Defrost Hi-Off-Low** switch for setting the defroster blower speed; use the left and right **Hi-Off-Low Heat** switches to control air flow to the pilot's and co-pilot's sides, respectively. To supply heat, the dash **Front Heat** switch must be **On**.

#### Note

If additional defrosting action is needed, turn auto air conditioning temperature control to the warmest position and turn auto air conditioning fans to highspeed. This will circulate additional warm air about the windshield area.

Engine heat is picked up by the engine coolant which is pumped through the heaters inside the coach and back into the engine. A typical heater consists of a heat exchanger, or core, and a fan which moves the air across the core, transferring heat from the engine coolant into the room.



#### **Heating System Operation**

Satisfactory performance of the hot-water circulating type of heating system depends on the following conditions:

- 1. Engine Coolant Temperature Coolant temperatures vary between 180 and 195 defrees F, during normal engine operation.
  - 2. Coolant Flow Coolant flow varies with the engine speed. Setting the **Aux. Pump** switch (located on the upper left auxiliary dash) to **On** turns on the auxiliary pump to increase the coolant flow through the system.
- Proper Fan Operation All fan motors are twospeed and can easily be checked for proper operation by listening to the motor speed change as the switch is operated.

More heat will be generated by the engine when it is also used to move the coach. Be sure that the engine radiator is full and that all coolant flow valves are open. Warm engine to operating temperature and set heating system switches as follows:

- Winter-Summer Heat Selector to Winter positon;
- 2) Aux. Pump to On;
- 3) Front Heat switch to On;
- 4) Left and right **Heat** blower switches to **Hi** or **Low**;
- 5) Thermostats to desired temperature.

#### **Duct Booster**

The duct booster system, installed in the hot air duct between the living room (dinette in 35 foot coach) furnace and bathroom, is controlled by chassis heat thermostat in the bathroom. The hot air vent is located at floor level, below the bath tub seat.

#### **Electric Heaters**

Optional electric forced-air heaters (120 volts) are located in the bedroom, bath (standard), galley and living room areas. Each heater is controlled by a combination **On-Off** switch/thermostat. Heater operating voltage is provided from the same switches which control the air conditioners. Air conditioner **On-Off** toggle switches, on the pilot's left overhead control panel control panel above the pilot, must be in **On** position and individual **A/C** switches **Off**.

#### Freeze Protection Heaters and Heat Tape

Optional freeze protection heaters (120 volts) are thermostatically-operated to turn on and protect the water supply tanks and associated plumbing in the event that temperatures drop below 40°. Two heaters are used; under the kitchen sink and within the bed base cabinet.

Thermostatically controlled heat tape (120 volts) are run on the copper water tubing and then wrapped with insulation. Heat tapes start to heat at 36°F and stop at 43°F.

#### Note

This freeze protection will greatly decrease the chances of frozen water lines provided the coach is plugged into outside power (one 50A. or two 30A. power cords) or the generator is run continuously during cold weather periods.

#### **Hot Water Supply Heater**

See Section V.

#### **Air Conditioners**

Two 13,500 BTU roof air conditioners located in the livingroom and bedroom. The 12 volt master **ON/OFF** switches are located on the **Pilots left overhead control panel**. Fan and thermostat controls are located on the roof air conditioners. Each air conditioner is equipped with a 1,000 watt heat strip.

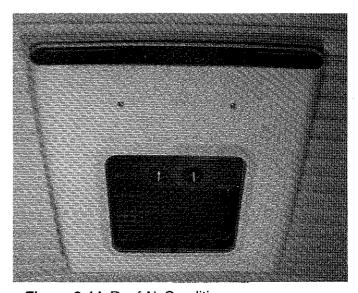


Figure 3-11. Roof Air Conditioner



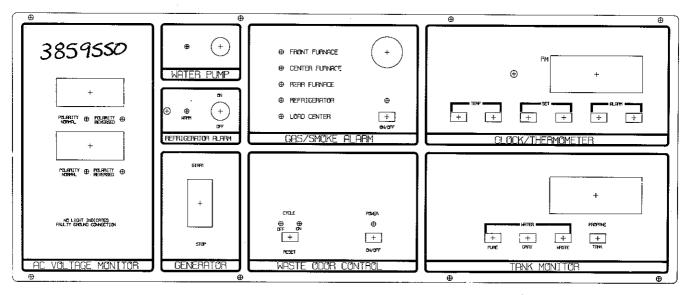


Figure 3-12. Systems Monitoring and Control Panel

#### **Systems Monitoring and Control Panel**

The systems monitoring and control panel, figure 3-12, is located above the entrance door. This one panel provides a convenient means of displaying inside and outside temperature, time, level of potable water supply, holding tanks, and LPG supply, as well as other monitoring and alarm functions discussed in the following paragraphs.

A/C Voltage Monitor — The dual channel power line monitor continuously monitors ac line voltage and shoreline hookup(s) polarity. Each channel includes an expanded-scale ac voltmeter, reading from 90 to 130 volt ac, a Polarity Normal indicator (green), lit whenever the shoreline hookup is properly connected and grounded and line polarity is compatible with coach wiring and a Polarity Reversed indicator (red) which lights when hookup is reversed. Note that shaded area on the meter face indicates normal voltage range.

A faulty ground connection is indicated if none of the LEDs is lighted.

**Water Pump** — The water pump switch is one of two switches that can be used to operate the water pump. The **ON** indicator will be lit when power is being supplied to the pump.

Refrigerator Alarm — When the switch is on the refrigerator temperature is being monitored. Normally, the ON indicator is lit; if the refrigerator temperture increases to an unsafe level, the **WARM** indicator lights with an accompanying audible alarm.

Gas/Smoke Alarm — The gas/smoke alarm is a gas leak detector designed to sense dangerous concentrations of LP gar or carbon monoxide within the coach. There are four(4) sensors mounted at floor level (LP gas is heavier than air) for the three furnaces and the refrigerator. One sensor is located above the 120 volt ac distribution panel (load center) to monitor carbon monoxide. Carbon monoxide, of course, is the most deadly of the products of combustion. It will provide an alert in the event of a short circuit, at the load center, causing an electrical fire.

The alarm has been factory calibrated to an alarm point of 2,000 PPM propane for standard conditions (temperature, 20 degrees C + /-2 degrees; relative humidity 65% +/-5%). This provides for a minimum of false alarms consistent with providing reasonable safety.

To turn on the unit, set **ON-Off** switch to **On** and observe that **Power On** indicator is lit. Excessive propane PPM conditions are indicated by the sounding of the audible alarm and lighting of an indicator associated with the danger area. The alarm, if left turned off for a period of time, has a warmup period of about one minute. During this time, the alarm may sound. This is a normal response and should stop once the unit is warm.



**Clock/Thermometer** — The clock/thermometer provides, on demand, a digital display of inside and outside temperature, digital time display, and an alarm function. Operate the panel controls as follows:

- 1. Monitor inside or outside temperature (°F) by pressing the **Temp In** or **Temp Out** buttons. There is an internal adjustment, at the rear of the unit, which may be used to calibrate the temperature readings. (Calibration of this unit is described in Section VIII.)
- Set the clock by depressing the Fast or Slow Set button until the correct time is shown. PM is indicated by lighted dot in the upper left corner. The dot in the center of the display marks the seconds.
- 3. Set alarm as follows: depress Alarm Display button then depress the Fast or Slow button to set the alarm time. Dot in upper left corner will light when alarm is set for PM. After setting the alarm, release Alarm Display button to return to the normal time mode. To activate the alarm feature, depress Alarm On/Off button to On; to shut off the alarm, depress Alarm On/Off button and release so it pops out to Off.

#### Note

When 12 V. power has been interrupted (batteries disconnected or Electronic Master switch turned off) clock display will flash "12:00". Reset clock to eliminate flashing. Alarm will also have to be reset.

Tank Monitor — The Tank Monitor panel provides an illuminated readout of the content level of the pure water, gray and waste water tanks, and the LPG tank level. When full, each of these tanks has the following capacity: pure water supply, 96 gallons (See Table 8-4); gray water holding tank, 56 gallons; body waste tank, 50 gallons (40 gallons for 31 and 33 foot coaches); and LPG tank, 43.5 gallons (148 lb.). Use the features of this panel as follows:

 Monitor Pure, Gray or Waste Tank levels by depressing the respective button. The content level remaining in the tank is indicated by five sets of lit readings. The E lamp, at the left of the display, is lit all the time; if the next indicator is lit, the level is approximately 1/4 tank; if the cen-

- ter indicator is lit, tank level is between 1/2 and 3/4 full; if the 3/4 indicator is lit, tank level is between 3/4 and full; and if the F indicator is lit, tank level is full. If only the E indicator is lit, the tank level is between empty and 1/4.
- 2. LPG tank level can be monitored in the same manner as the water tank level by depressing the **Propane Tank** button. Note that this display is pre-calibrated. However, if it is necessary to recalibrate the display, this can be done when the tank is full by setting a rear-panel adjustment. Note that the display will read **Full** when the LPG tank float reads 80% because the remaining 20% volume is needed for expansion.

Waste Odor Control Panel — This panel controls the cycling and electrolysis action of two pairs of stainless steel electrodes contained within the body waste holding tank. A 12-volt current is passed between each pair of electrodes for a 16-minute On period (green LED); and switched off for a 48-minute Off period (red LED). For each cycle, the current is reversed so that the electrolytic action does not excessively erode the steel electrodes.

As current flows through the waste liquid, it oxidizes the organics and eliminates associated odor. To increase odor control effectiveness, a tablespoonful or two of salt may be added through the toilet if desired.

The electrodes (probes) are replaceable.

**Generator Switch** — The generator **Start-Stop** switch provides the same features as the generator switch located above the driver. Press switch to **Start** position and hold until generator starts as shown by the switch indicator light. Press switch to **Stop** to shut-down the generator (light extinguished).

#### LP Gas Leakage Detector

The gas leakage detector, figure 3-13, is located below the refrigerator door. In the event of an LP leak, the unit sounds an alarm and closes down the main LPG supply by activating the leak detector solenoid shutoff valve located in the gas line just after the low pressure regulator. If it is necessary to reset the solenoid (red band is visible inside clear plastic valve housing), open the outside re-



frigerator vent compartment door, remove plastic housing by gripping locking levers and lifting upward, push valve plunger down until it remains down, then replace the cover. For continuous operation of the leak detector, set **Off-On** switch **On**; to test alarm operation, press the test switch located on top of the detector unit. Alarm must sound for at least 15 seconds before the shutoff valve will be activated.

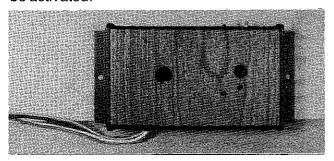


Figure 3-13. LP Gas Leakage Detector

#### **Electronic Door Chime**

The door chime, figure 3-14, is located on the rear dinette wall on 31 and 33 foot coaches, behind companion chair in livingroom on 35 foot coaches and on rear wall over right twin bed on 35 foot rear bath coaches.

The door chime can be preset to play any one of 60 different tunes when the doorbell button is pressed. As shown, all controls for tune selection, volume, tone and tempo are easily accessible. Tunes may be selected as follows:

- Refer to tune index, at bottom of chime, and note the code number for the desired tune. For example, "William Tell Overture" is identified by D8.
- 2. Press in the left-hand tune selector button and move it to position D.
- 3. Press in right-hand button and move it to position 8.
- Press test button to play selected tune and adjust volume, tone and tempo as desired. Note that tunes identified with an asterisk (\*) will play longer if the button remains depressed.

#### Caution

Do not use a lighted door button with this chime or chime may be inadvertently activated.

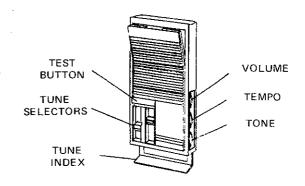


Figure 3-14. Electronic Door Chime

#### **Portable Fan**

The portable oscillating fan is shown in figure 3-15. The 12-volt hookup cable is coiled within the base section when the fan is not in use. This will supply air circulation within the coach when it is too cool for air conditioning.



Figure 3-15. Portable Oscillating Fan

#### **Security Timer**

The **Watchdog** security timer, figure 3-16, is a randomly-switched electrical timer which can be used to control the on-off operation of an appliance, light, etc., to give your coach that 'lived-in' look when it is unoccupied. The three-position switch may be set to **Off**, to shut off the controlled appliance; to **On**, for manual control; or to **Security**, for random operation.

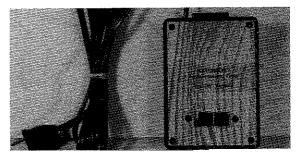


Figure 3-16. Security Timer



#### **Burglar Alarm/Anti-Theft Features**

The security of your motorhome and contents are assured by an intruder alarm system which protects windows and entry door. Each window is protected by a magnetic proximity switch which triggers an alarm if the window is opened. The entry door uses a door jamb switch which operates when the door is opened. When the system is **secured** it may be activated from outside the coach by a key-switch adjacent to the entry door. From inside the coach, a master burglar alarm switch may be operated at the front instrument panel.

In addition to the alarm system, an anti-theft switch for the ignition circuits (A/T switch on dash) can be operated so that the unit cannot be started. Lastly, the 12 volt **Master** switch (hidden behind the right side of the dash) can be operated to turn off all but essential 12 volt circuits.

#### **Bedroom Overhead Panel**

The bedroom panel, figure 3-17, is directly above the head of the bed. It contains the following:

**Left Drape** switch — Opens or closes the drapes on left side of bedroom, when optional electric drapes are used.

**Generator** switch — is used to start or stop generator.

**Lights** switches — **Night** switch controls the aisle lights and **Flour** controls the flourescent lights in bedroom only.

**Alarm Clock** — See Systems Monitoring and Control Panel.

**Security** switches — **Lock** switch controls the deadbolt entrance door lock. **Light** switch illuminates front and rear landing lights, driving lights and rear halogen parking lights.

**Fan** switch — supplies power to optional vent fan in bedroom.

**Stereo** — the **Jack** is used for privacy headphone use and **Volume** controls the sound level.

**Right Drape** switch — opens or closes the drapes on right side of bedroom, when optional electric drapes are used.

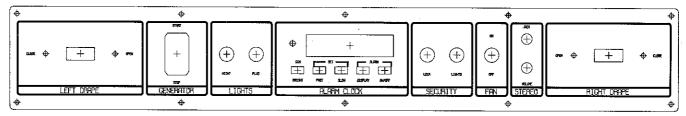


Figure 3-17. Bedroom Overhead Panel

#### Fire Extinguisher

A portable, multi-purpose dry chemical Halon type fire extinguisher with gauge, is located behind the companion chair in livingroom on 3411 and the aisle end of the front dinette seat for other models. A second fire extinguisher is located in an outside compartment. To use, release the clamp and remove the fire extinguisher from the bracket, pull safety pin from handle, squeeze handle and apply chemical under flame.

#### **Intercom System**

The optional intercom system used in your motorhome, figure 3-18, is a master-to-master system so that any station can originate calls to any other station. Just lift the handset, push in the button corresponding to the called station, and carry on your conversation. Intercom stations are

located on the floor to the left of the driver, on the rear bedroom wall, and bedroom and dinette except on 35 foot coaches.



Figure 3-18. Intercom System



#### Stepwell Area

The stepwell cover is hand operated and is retained in the upright (stowed) position by two latches.

The **Step** and **Step Light** switches are accessible after opening the door of the electrical change over switch compartment, figure 4-3.

The **Step Light** switch makes it possible to turn off the step lights if the step is to remain in the extended position for a time.

If it is desirable for the step to be left in the extended position, for repeated trips into the coach, the **Step** switch may be used.

#### **Smoke Detector**

A smoke detector (now code mandated) is installed in a ceiling location just outside the entrance to the bedroom area. Operator instructions are attached inside the overhead cabinet where the warning label is displayed on the exterior door trim.

It is possible for the smoke detector to be activated by the cold air coming from an Air Conditioner outlet. Slight downward rotation of the outlet louvre is all that is necessary to discontinue activation.



## Section IV Electrical Systems

There are actually two interrelated electrical systems used in your motorhome: the 12 volt do supply system; and the 120 volt ac supply system. The 12 volt dc supply system is divided into several branches, or zones, each functioning from the common 12-volt battery source. One branch provides the 12 volts required for the automotive starting, ignition and lighting systems; remaining branches supply those motorhome circuits and appliances which require 12 volts dc for operation.

The 120 volt ac system includes those motorhome appliances which require 120 volts for their operation, supplied from either the internal generator; or from the external 120 volt ac (or a split 240 volt ac) supply, via the shoreline hookup. An optional inverter supplies 120 volt ac from the batteries to selected circuits.

#### 12-Volt DC Supply System

Wiring diagrams of the 12-volt supply and distribution system are included in Section X.

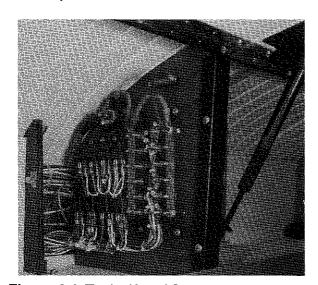


Figure 4-1. Typical Load Center

The 12 volts supplied to all motorhome appliances, outlets and accessories is routed from the batteries through a main 12 volt master switch and routed through busses to the individual branches, or zones, that are serviced from this supply. Circuit breakers are located behind the access panel at

the top front left side of the coach, lower front load center (behind left headlight panel) and at each of the zones. The circuits supplied and fuse or circuit breaker protection at each zone are shown on diagrams included in Section X. A typical load center is shown in figure 4-1.

#### **Battery Heaters**

120 volt ac battery heater pads provide faster engine starts during cold weather conditions by increasing the available cold cranking power. Heaters operate only from the ac supply line via the **Battery Heater** switch located on the living room sofa front (behind pilot's seat).

#### Note

To avoid premature deterioration of the batteries, heaters should be used only when the temperature is below 32°F.

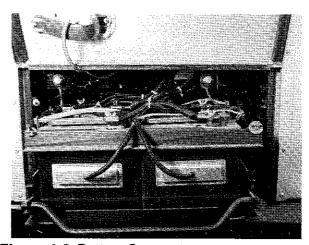


Figure 4-2. Battery Compartment

#### **Battery Chargers**

The 12 volt coach battery supply, figure 4-2, and the generator battery are maintained fully-charged by either the engine alternator (when engine operates); or by battery charger/converter. The automatic electronic battery charger operates whenever a source of 120 volts ac is supplied to the coach circuits.

Batteries can become discharged because of coach 12 volt loads, while parked, without a 120 volt ac source. For overnight stops this presents no problem, with judicious use of 12v. service, because the engine alternator will recharge the batteries rapidly during the next day's travel. When



operating from shoreline or generator power, the batteries obtain the major portion of the charge during "sleeping" time, while coach loads are low, so that the battery chargers can "top off" the batteries.



Figure 4-3. Stepwell Compartment

If it is planned to leave the coach parked without exterior power for two days or longer turn off the **Electronic Master** switch in overhead cabinet adjacent to left front load center. This will ensure that there is no drain from the circuits which remain on when the **Master** (under dash) switch is **Off** (clock, memory and LPG leak detector).

#### **DC Supply Monitors**

The **ALT/CHGR METER**, located on the lower dash, indicates the total current flow from the charging source (engine alternator or battery chargers).

The **BATTERY CHARGE** ammeter, located on the co-pilot's overhead dash, shows the current flow to or from the coach batteries.

The **COACH LOAD** ammeter, also located on the co-pilot's overhead dash, shows the load drawn by coach circuits.

**ENG. VOLT METER**, located on lower dash, shows voltage at the batteries.

While in transit, this should reflect an alternator regulated setting of 14v. When parked, with 120v. source supplied, this should read between 12.5

and 14.0v. depending upon load. When parked, without 120v. source, do not permit voltage to drop below 11.5.

After a trip, **CHARGE** ammeter may show some discharge reading, even when 120v. source is supplied, if there is a load on the 12v. coach circuits. The **Float** type battery charger allows a voltage of 12.5-13 when there is a load.

#### **AC Supply System**

Motorhome ac-operated appliances are supplied from either an external shoreline hookup or from the on-board generator. Selection of shoreline or generator power source is determined by a four-position ac power selector switch located in the stepwell compartment, figure 4-3. Set this switch to either **Gen**, **Shore 50A**, **Shore 30A** or **Off**, depending on the power source availability. Leave this switch in **Off** position to completely disconnect the motorhome 120-volt ac circuits normally supplied by these inputs.

#### **Power Line Monitors**

A dual power line monitor, on the monitor panel displays the voltage in both legs of the ac shoreline supply (or generator supply). Each monitor has polarity and ground detector circuits to indicate possible electrical hazards due to incorrect hookups.

A second power line monitor is located in the Utility Box (figure 5-1). You will know immediately if there is reversed polarity or an unsatisfactory ground in the shoreline source.

#### **AC Circuit Breaker Panel (Distribution Panel)**

The main ac circuit breaker panel, located in the curb-side curio cabinet base in the stepwell area (35 foot coach). In 33 and 35 foot coaches the panel may be found in the curb-side closet.

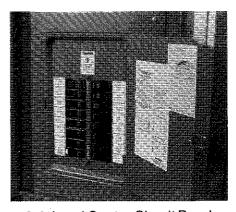


Figure 4-4. Load Center Circuit Breakers



#### **Generator Operation**

The generator plant has its own 12-volt starting battery so that it can be started independently of the coach 12-volt batteries.

The generator can be started and stopped from either of three locations within the coach: at the driver's instrument panel; at the systems Monitor Panel, or at the bedroom panel. In addition, the generator can also be started in the generator compartment.

To start the generator, push the **Generator** switch to the **Start** position and hold until the generator starts, as indicated by the generator **On** indicator light. **Do not hold switch on for longer than 5 seconds at a time!** If the generator does not start the first time, wait a minute and try again. Release the switch when the indicator light in the switch glows. The generator may be stopped at any time, by holding the switch to the **Stop** position until the generator stops (light in switch extinguishes).

In cold weather, it is necessary to activate the cylinder glow plugs before starting. Push **Start-Stop** switch to **Stop** position and hold for 14 to 20 seconds.

It is not advisable to start the generator under a heavy load, expecially with the high current demands made by the air conditioners. This may cause hard starting and possible damage to the generator electrical system. It is a good practice to remember to set the **Main Selector** switch to **Off** (figure 4-3) before turning on the generator so there will be no electrical load on the line. Also, remember to set the selector switch to **Gen** position when the generator is being used; and to reset the switch to either **Off** or **Shore** position, as appropriate.

#### **Shoreline Operation (Commercial Power)**

Set the power selector switch, figure 4-3, to **Off** position **before** the motorhome electrical system and external supply are joined.

#### Caution

Your motorhome has been wired in accordance with the National Electrical Code. All 120 volt ac wiring is two-wire service with ground; all 240 volt wiring is three-wire service with ground. If the motorhome is connected to an external

hookup which has only a two-wire circuit, ground the third wire on the adapter to the external supply metal junction box or conduit. For personal safety, check the polarity detector indicators on the power line monitors to be sure that lines are properly connected and grounded.

For purposes of safety, observe all precautions when making these connections. First, connect the shoreline to the coach (rotate plug clockwise to assure firm connections). The coach receptacles are located in the same compartment as the water hookup, in the rear pilot's side, figure 5-1. Connect the other end of the shoreline to the power source. Set the power selector switch to the appropriate **Shore** position. Poor grounding or incorrectly-wired receptacles can cause personal harm as well as equipment damage or fire hazards. Check power line monitors on Systems Monitor Panel to verify correct supply voltage, polarity and grounding of hookup.

In many instances, the shoreline hookups will not be rated to operate all electrical appliances in your coach. Check with facility personnel to determine the maximum current capability of the hookup. Sometimes, only one air conditioner may be operated. The current ratings for appliances designated for standard or optional usage in your coach are listed in table 4-1.



**Table 4-1.** Electrical Ratings for Motorhome Appliances

	Current Rating	
Item	(Amperes)	
Air Conditioners		
14,500 BTU	(Start)	19.0
Water Heater		10.0
Television Receivers		
Black-and-white		.5
Color		1.0
Battery Chargers (depends on	-	
battery condition/load) each	0 to 15.0	
Engine Block Heater		10.0
Electric Heaters		
* "Cheater Heater"		12.5
Battery Heaters		1.2
Heat Tapes	3 w	atts/ft
Microwave Oven		14.0
Food Center		4.0
Vacuum Cleaner System		9.0
Refrigerator		2.7
* Ice-Maker	Start 15 R	un 2.5
* Washing Machine/Dryer		25.0
* Instant Hot Water		6.5
* Optional Item		

#### Shoreline Operation — Troubleshooting

Your coach is designed and tested to make sure the 120v. ac **Neutral** (white) wire and the **Ground** (bare copper or green) are not tied together (no continuity). This will prevent any danger of a "hot skin" if the source of power has reversed polarity (red LED lit).

#### **Problem**

- --- Probable Cause
  - Corrective Action

#### Green LEDs lit - Normal (desired)

#### Red LEDs lit

- Reversed Polarity at power source.
  - Convince park management to correct or change lot assignment.

#### Neither red or green LED lights

- No ground connection with park service
  - Use jumper lead from ground pin on shore cord to service box.

Power source (park) circuit breaker trips.

- Reversed polarity in park (or incorrect connections in power cord) along with coach neutral and ground tied together.
  - Use on-board generator until qualified electrician can correct coach problem. (Generator polarity is correct).

Green LED's lit plus Red LED's glow when additional load is turned on (Air Conditioner or Water Heater).

- Poor ground connection at park (floating ground).
  - Make sure shoreline plug is fully engaged twist locked (clockwise) at coach.

#### Safeline Alarm

Your coach is equipped with a shoreline disconnect alarm, which is located on the upper left auxiliary dash. This device will provide an audible or visual alarm whenever the shoreline is left connected to the coach at the same time that the ignition switch is turned **On**. This assures that the coach is not inadvertently driven away while still connected to the shoreline hookup. In addition to the Safeline-originated alarm, the Digitell unit will announce continuously that the shoreline is still connected.

#### **Audio System Wiring**

Low-voltage audio system wiring is run throughout the coach between the stereo radio, speakers, headphone jacks, volume controls and "booster" amplifiers. These interconnections are shown on wiring diagrams provided in section X.

#### **Electronic Master Switch**

Most of the electronic circuits are de-energized when the main **Master** switch (behind dash) is turned **Off** (relay action). Circuits that still receive power when the **Master** switch is off serve the monitor panel, clocks, radio memory, and LPG leakage detector. If coach is to be stored for a week or more without external power, the **Electronic Master** switch in overhead adjacent to left front load center should be turned off.

#### **Battery Jumper Terminals**

For your convenience and safety when jump starting (usually someone else's vehicle), terminal



posts are provided at the top front of the battery compartment, figure 4-2. Utilization of these terminal posts is described in Section VIII.

#### **Battery Storage in Freezing Weather**

Batteries that are not kept full-charged must be given protection against freezing. Partially-charged batteries will freeze at low temperatures, so batteries must either be left charged or removed from the vehicle and stored in a warm location.

The motorhome can be left connected to the shoreline ac supply and the coach battery chargers will keep all batteries charged. Note that even in a warm location it is advisable to keep the batteries charged to prevent deterioration. The main coach batteries should be checked for proper electrolyte level: add water, as required. The battery used for the generator is a sealed battery.



# Section V Water Distribution and Drainage Systems

Your motorhome is equipped with a completely self-contained water system which includes piping, heating and drainage facilities similar to those used in home installations. The water supply and distribution system includes three networks: (1) a potable water supply system, which includes the water tanks, pump, air accumulator, pressure switch, water purifier and input supply lines; (2) water heater and interior hot water heating systems; and (3) waste, winterizing, quick drain and sewage drainage systems. Refer to Section X for potable water system and plumbing drainage system piping diagrams.

#### **Water Supply and Distribution System**

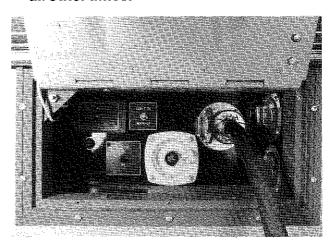
As shown in figure 5-1, the dual purpose Tank Water Fill/Commercial Water inlet connection is located in the rear utility compartment. The Tank Fill On-Off switch controls a solenoid-actuated water valve to divert the commercial water input to fill the pure water storage tank(s). Located beneath the rear bed(s), the tank(s) are non-pressurized types so that system water pressure is developed by pumping action directly into the supply lines, rather than by tank pressurization. A bacteriostatic water purifier system purifies the coldwater supply to the cold-water taps in the galley sink and bathroom lavatory, ice-maker and Konstant Hot water tap.

#### **Commercial Water Hookup**

When facilities are available, the **Commercial Water** hookup can be used to supply all coach water system requirements. In this manner, the coach water tank and pump system is automatically bypassed by the supply line check valve and water pressure is developed by the external connection. Water input pressure is regulated to 40 psi by a valve which is part of the combination city (commercial) water fill, check valve, and regulator shown in figure 5-1.

#### Note

The **Tank Fill** switch should be **On** only when the water tank is being filled. This switch must be in **Off** position at all other times.



**Figure 5-1.** Location of Commercial Water Hookup

#### **Filling and Sanitizing**

Filling the Tanks — To fill the water supply tanks, connect the water hose to the commercial water inlet, set Tank Fill switch to On, then turn on the water supply. When the tank is full, as indicated by water overflow beneath the coach, set the Tank Fill switch to Off position, shut off the water supply and disconnect the hose. At this time, check that the Monitor panel readout indicates a full water tank. To check, press the Pure tank switch and observe that the E through F indicator segments are lit.

Sanitizing the Water System — Water sanitizing procedures should be followed before the system is used for the first time, after long idle periods, where water may become stagnant; or after any suspected contamination of the water supply. Whenever possible, use a commercially-approved tank sanitizer and follow the procedures on the product package. If it is not possible to use a commercial product, prepare your own mixture and sanitize the tank in accordance with the following procedures:

1. Empty the Water Tank(s) — To drain tank(s), set the **Water Tank Drain** control (on the control panel in the bed base cabinet) to **Open**, figure 5-2. After tank(s) is completely drained turn **Water Tank Drain** control to **Closed**.





Figure 5-2. Water Purge Air Pressure, Water Heater Drain and Water Tank Drain Controls

- 2. Prepare the sanitizing solution using ½ cup of household bleach (sodium hypochlorite solution) for each gallon of water. Use one gallon of the solution for each 15 gallons of tank capacity. This procedure will result in a residual chlorine concentration of 50 ppm in the water system. If a 100 ppm concentration is required use ½ cup of household bleach with one gallon of water to prepare the chlorine solution. Seven gallons of solution will be most adequate for the largest tank(s) (100 gallons).
- 3. Add sanitizing solution to water tank(s) Disconnect overflow hose from tank(s) and pour solution into vent fitting. A curved piece of 1 ½ l.D. hose, clamped to the vent fitting, will facilitate this process. Reconnect overflow hose.
- 4. Fill tanks to Capacity Connect the hose to the commercial water inlet, set the **Tank Fill** switch to **On** and fill water tank(s) completely. Shut off hose, and set **Tank Fill** switch to **Off**. Turn on water pump. Open each faucet (hot and cold) and run the water until a distinct odor of chlorine can be detected. Shut off water pump.
- 5. Allow the system to stand for at least 4 hours when disinfecting with 50 ppm residual chlorine. If a shorter time period is desired, then a 100 ppm chlorine concentration should be permitted to stand in the system for at least 1 hour.
- 6. Drain Tank(s) Open the **Water Tank Drain** control and allow the tank(s) to drain completely.
- 7. Refill Tanks Close the **Water Tank Drain** control, and turn on the water supply to the com-

mercial water inlet, set **Tank Fill** switch to **On** and fill tank(s) completely. When the tanks are full, set **Tank Fill** switch to **Off**, shut off water supply and disconnect hose, replace fill cap and turn on water pump. When water flows from opened faucets, close them and open other faucets until water flows. This flushes the system, removing trapped air from the piping and ensures that the fresh water supply is ready for use.

#### Note

Residual tastes or odors can be removed by again draining and rinsing the system with a vinegar solution mixed to the ratio of one quart of vinegar to five gallons of water.

#### **Potable Water Distribution System**

The major components of the potable water distribution system are the water tanks, water pump, air accumulator, water heater, piping and fixtures. In addition, a bacteriostatic water purifier is connected in the water supply line to the coach. These components are located under the bed(s).

In 31 and 33 foot coaches, the air accumulator and water pump are located below the kitchen counter. The water purifier is behind location for optional ice-maker and connected in the cold water supply line to the galley sink, lavatory, instant hot tap and ice-maker (options).

#### **Water Pump**

The water pump, figure 5-3, is equipped with a factory-calibrated pressure control switch which is preset to turn the pump on when the system pressure falls below 20 psi; and turn the pump off when the pressure reaches 35 psi. If the pump has been out of service for a period of time, it is advisable to open a faucet before turning the pump on. When water flows steadily from the opened faucet, close faucet and observe that pump shuts off when system becomes pressurized. (it may also be necessary to bleed the air from the other faucets as well.) When the potable water supply tank(s) level is low, or empty, shut the pump off to prevent possible damage to the pump motor. In addition to integral motor overload protection, the pump mechanism is also protected from jamming by the presence of an inline filter (pump guard) between the pump and the supply tank.



Accumulator

Figure 5-3. Water Pump Location

#### **Water Purifier**

**Water Pump** 

The bacteriostatic water purifier filters and purifies potable water to eliminate tastes, odors and coloration produced by chlorine, rust, insecticides, detergents, sediment and other foreign objects. Satisfactory elimination of water-borne disease-carrying bacteria is accomplished by a hygienic filter bed which consists of silver ions absorbed on sponge silver metal which is deposited in a finely divided form on granular activated carbon of high surface area.

An added benefit is that even though the coach is not used for some time, bacteria will not grow in the water distribution system.

The water purifier is a self-contained unit requiring no routine or periodic maintenance.

Each time the filtered water supply is used for drinking or cooking purposes, run the tap for a few seconds to clean out the line prior to using the water. This is particularly important if the water tap is not used on a daily basis. If the water supply has not been in use for extended periods, allow the water to flow for a minute or two before use.

**Purifier Replacement** — Depending upon the condition of the municipal water used, the filter media will normally process 75,000 gallons of water before the purifier will need to be replaced. For the majority of "Wanderers" this means there will be at least five years of useful life.

The only practical way to determine when replacement is required is to go by the sense of taste. If a faint taste of chlorine is detected, it is time for a change. Even when there is a noticeable taste, the bacteria stopping properties have not been compromised.

#### **Water Heater**

The 10 gallon Marine Electric Water Heater has a "motor aid" heat exchanger to ensure a supply of hot water while in transit and upon arrival at your destination. Engine coolant circulates through this heat exchanger as shown in the chassis heater piping diagram in Section X. The electrical heater can be used whenever 120 volts ac is available. The heater switch, located in the bedfront, should be switched **Off** when heated water is not needed.

#### Dry Tank Switch - Water Heater

In order to preclude the possibility of water heater element burn-out, a dry tank sensor circuit is provided.

This circuit consists of a sensor in the outlet of the hot water tank which sends a signal through a printed circuit board to energize a relay whenever the tank is not full.

When the 12 volt coil of the relay is energized, it breaks the 120 volt ac circuit the the heater element.

#### **Outside Faucet**

An outside faucet is provided in the L.P.G. tank compartment so it is not necessary to enter coach to wash hands, etc.

The low point drain valve under the kitchen sink must be open to supply water to this faucet. In 31 and 33 foot coaches the low point drain valve is under the bathroom lavatory.

While traveling in freezing weather, this faucet should be left open and the low point drain valve closed.

#### **Drainage System**

A diagram of the drainage system is provided in Section X. Separate holding tanks for gray water and waste (60 gallons) are located beneath the coach mid-section. 31 and 33 foot coaches have capacities of 56 gallons for gray water and 40 gallons for waste holding tanks. The gray water holding tank is the receiver for the gray water from the kitchen sink and the shower. The waste holding tank stores toilet wastes and waste water from the bathroom lavatory. Each holding tank has a separate drain valve, dumping gray water and wastes through a common single discharge connection on the road (left) side. Separate vents from each holding tank extend through the roof of the coach.



#### Note

On optional rear bath coaches, the waste holding tank stores toilet wastes and receives water from the kitchen sink while the gray water holding tank is the receiver for the bathroom tub/shower and lavatory.

#### **Draining the Holding Tanks**

The waste holding tank is drained first, then the gray water tank. Drain the holding tanks as follows:

1. Check that both drain valves are in a closed position before removing drain cap. Note that the valve handles are turned clockwise to lock the valve.

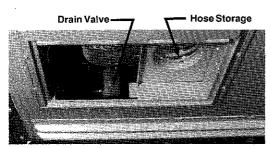


Figure 5-4. Location of Holding Tanks
Drain Valve

- 2. Remove the safety cap from the single discharge connection by turning the locking ring in a counter-clockwise direction and connect the 3-inch sewer hose coupling to the end of the valve. Tighten locking ring securely, in a clockwise direction. The sewer hose is stored within a tube accessible through a compartment door located above the drain cap, figure 5-4. Place the discharge end of the hose into the sewer connection and check that all connections are secure to prevent accidental spillage.
- Open the drain valves, by turning the handles to the left (counterclockwise) to unlock, then pull the handles straight outward.
- 4. After contents are emptied, flush out holding tank to dislodge remaining solids.

#### Note

To clean the holding tank, add a deter-

#### gent solution into the tank after it is emptied. The agitating action from vehicle movement will clean the tank.

- 5. Close drain valves by pushing handle inward and turning to the right (clockwise) into the locked position.
- 6. Disconnect and wash out drain hose, replace hose and replace safety cap securely.

#### **Tank Level Detectors**

Each of the holding tanks and the potable water supply tank has a level detector which provides an electrical input to the Systems Monitor panel. Activate the display to read the level of liquid remaining in each tank by pressing the appropriate pushbutton switch.

#### Winterizing

To prevent freezing of water supply lines, they are wrapped with heat tapes that operate automatically when the temperature drops below 38 degrees F. The heat tapes are connected to ac outlets under the bathroom vanity and behind the kitchen sink base.

If you are planning on storing your motorhome in an unheated area during cold weather, it will be necessary to winterize the water system to prevent damage from freezing conditions. Winterizing procedures are covered in the following paragraphs.

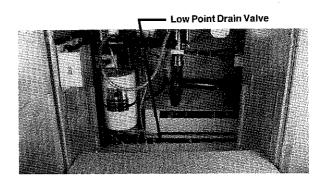


Figure 5-5. Kitchen Plumbing

## Draining and Winterizing the Fresh Water Supply System

The following procedures show the use of the various drain valves, controls and pressurized air system to remove the water from the plumbing and appliances in the fresh water supply system. Refer to figures 5-2 through 5-5 for the location of controls and valves.



- Open the main circuit breaker box, figure 4 and set the Water Heater and Instant Hot circuit breakers to Off.
- 2. Turn Water Pump switch On and open all faucets (galley sink, lavatory, shower, outside hose connection and toilet water valve after depressing pedal insert block to maintain position). Note that the outside water hose connection should always be left open when freezing temperatures are expected. Also, remove thumbserew from bottom of toilet valve, and drain plug at bottom of Instant Hot. If equipped with Ice-Maker refer to Draining the Ice-Maker below.
- 3. Open the low-point drain valve located beneath the kitchen sink, figure 5-5.
- 4. Turn the **Water Tank Drain** control to **Open**, and the **Water Heater** switch to **Drain**. Both controls are located on a panel in the bed base cabinet, figure 5-2.
- 5. Allow water to drain completely before proceeding to the next step.
  - 6. Move the Water Heater switch to Fill.
- 7. Set **Water Purge Air Pressure** switch, figure 5-2, to **On** to activate the solenoid which applies air pressure to the input water line to purge the water system. Note that it may be necessary to start the engine to build up air pressure.
- 8. When only air remains in the lines, close the low-point drain valve, replace drain screw/plug in toilet valve and **INSTANT HOT** and all fauctes. Operate the Instant Hot water heater valve to clear the heat exchanger of remaining water.

#### Note

On 31 and 33 foot coaches, close cold water galley sink faucet last to ensure that the water purifier is cleared of residual water.

When reactivating system, make sure INSTANT HOT is full of water before switching ON.

- 9. Turn Water Purge Air Pressure control to Off, set Water Pump switch off, and shut down engine.
- 10. Disconnect both hoses from the water pump to prevent residual water from backing up into the pump.

- 11. Open all faucets and lowpoint drain valve (toilet valve to remain open).
- 12. Drain the holding tanks and add RV antifreeze (several quarts) to each tank through the toilet (into the sewage tank); and through the galley sink (gray water tank).
- 13. At this point, the only water remaining in the system is contained in the U-traps (P traps) behaviorable the lavatory and shower drain. To prevent this water from freezing and damaging the traps, pour one pint of RV system anti-freeze into each trap.

**Draining the Ice-Maker** — If your motorhome is equipped with an ice-maker it will also have to be drained so that no water remains in the line or ice-making mechanism.

- 1. Remove the cover from the bottom compartment and turn the switch **Off** .
- 2. Disconnect the water line from the solenoid valve fitting.
- 3. This line must be blown free of water, and can best be done during step 7. Do not reconnect the water line at this time.
- 4. Turn **On** the ice-maker and allow it to operate until all remaining water is drained (approximately one hour). Remove any water remaining in the ice-maker mold, drip tray, or cube compartment.
- 5. Turn ice-maker **Off**, reconnect water line, and leave door slightly ajar to prevent interior humidity build-up from corroding the ice-making mechanism micro-switches.



### Section VI LPG System

The coach is equipped with a permanently mounted 43.5 gallon (148 pounds of fuel-net) LP gas tank which is the energy source for the range, three gas furnaces and alternate source for the refrigerator. A piping diagram of the LPG system is shown in Section X.

#### **LPG Tank and Controls**

The LPG supply tank is located in a curbside compartment (roadside with rear bath option), as shown in figure 6-1. LPG system controls include a main gas service valve, high pressure regulator, filler connection with Auto Stop (80%) fill valve, 20% vapor (stop filling when liquid appears) valve, and the pressure relief valve.

A flexible hose from the high pressure regulator connects to tubing which carries the LP gas to the refrigerator vent compartment. Conveniently located in this compartment are the low pressure regulator (set at 11 inch water column), manual shut off valve, electrical solenoid shutoff valve, and manifold to individual appliances shown in figure 6-2.

The solenoid valve is actuated by either a high-pressure condition (caused by a defective regulator), or by the remote LP leak detector, located below the refrigerator door. Tank level can be monitored at the Systems Monitor panel. To read the digital display, press the **Propane Tank** button.

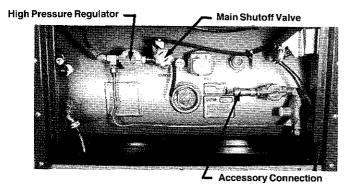


Figure 6-1. LPG Tank Compartment

#### **Caution**

Be sure to shut off all gas appliances before filling the LPG tank. Check gas lines and fittings periodically for tightness and leakage.

#### **Fuel Requirements**

Liquefied petroleum gas is a material composed of various hydrocarbons such as propane, butane, or a mixture thereof. In its gaseous form (vaporized) it is colorless and has a garlic-scented additive to ensure detection. In addition to being highly inflammable, it is also dangerous to inhale. For ease of transportation and storage, LPG is compressed into a liquid state and stored, in this form, within the LPG tank. As fuel is used, vapor passes from the top of the tank, via the high-pressure regulator, to the low-pressure regulator, and to the various gas appliances.

Appliances will not function if the LP gas does not vaporize. Butane will not vaporize below 32 degrees F. (the freezing point of water), but propane will continue to vaporize down to 44 degrees below zero. Propane has become the main type of LP gas used in RV's in recent years. Your LP supplier will have the correct type or blend for your locale. If your travels will take you into an area where climate differs, ask your LP dealer for his recommendations. The names of LP suppliers can be found in the yellow pages of your telephone directory under "Gas-Liquefied Petroleum – Bottled & Bulk". Many campgrounds now have LP gas fill facilities, as do some service stations.

Prevent condensation and possible regulator or line freeze-ups, when filling the tank, by requesting the dealer to add a small amount of Methyl Alcohol to the fill-up. A common mixture is one ounce of Methyl Alcohol to each 20 pounds of LPG.

#### Filling the LP Gas Tank

When the tank is being filled, the Service valve must be **Closed** and the 80% liquid level valve (20% vapor valve) must be **Open**. The 80% **Auto** stop fill valve may close before liquid appears at the 80% liquid level valve, but if liquid does appear, stop filling immediately; the tank is filled to its LP capacity. Close the liquid level valve. Do not use a wrench to tighten this or the **Service** valve; they are designed to be closed leak-tight by hand. If you cannot hand-tighten properly, the valve probably needs repair or replacement.



#### LP Gas and Vapor Detectors

The Gas/Smoke alarm, on the monitor panel, has sensors at various locations through the coach and sounds an alarm if the safe amount of LP gas or carbon monoxide in air is exceeded. The LP gas leakage detector below the refrigerator door monitors the area near the refrigerator and the range, sounding an alarm and actuating the LP gas solenoid shut-off valve if a leak is sensed.

#### **Regulator Pressure**

The low-pressure regulator, located in the refrigerator compartment, figure 6-2, regulates the pressure of the LPG supplied to the appliances. The regulator functions automatically and is factory-preset to provide the correct line pressure. **Do Not** attempt to tamper with or reset the regulator! Even a small variation above the normal gas line pressure can be sufficient to create a dangerous situation and cause possible damage to individual appliance components. If there is any doubt about the regulator setting it can be checked by your Wanderlodge® dealer or LPG supplier. The correct setting is 11 inch water column.

#### Operation

To operate any LPG appliance, the main gas (Service) valve, figure 6-1, must be **Open**. At each furnace there is a shut-off valve that must be opened prior to use. When first used, or after a refill, there may be some air in the gas lines which will escape when you open a range burner or similar LP gas valve. The air may extinguish your match or igniter the first time or two, before you get ignition. Remember, too, that when you close the tank's Service Valve some of the gas will remain in the lines. To completely bleed the lines of gas, **Close** the tank's **Service** valve and light a range burner to use up the excess. When the flame burns out, turn the range burner **Off**.

#### **Checking For Leaks**

Periodically check the LPG system for possible leakage. Do not wait for an alarm condition to occur before correcting a leak! Although the entire system and associated appliances undergo extensive factory testing for leakage, road shocks and heavy vibrations may loosen or damage piping or fittings. Leaks will usually become noticeable by the characteristic odor of the garlic-scented gas additive. To check, turn off all burners and pilot

lights. Open all doors and windows. Open LPG tank service valve and use an ammonia & chlorine free soap-bubble solution on all connections. Any bubbles are evidence of leakage.

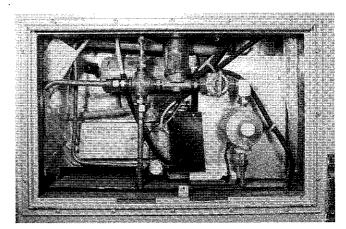


Figure 6-2. LPG Low-Pressure Distribution

#### Note

The gas leakage detectors may momentarily sound an alarm when the engine is initially started or when a heavy electrical load is placed on the system. Further, the ultrasensitive response of these units may also cause an alarm to be given in the presence of certain pressurized-can sprays or cleaning agents. Do Not Assume! Always Determine the Reason For This Vital Alarm Being Given!

#### **LPG Consumption**

Most gas appliances are intermittently operated. However, operation during cold weather conditions does cause a heavy use of the gas furnaces. Extensive oven usage also consumes a great deal of fuel. The amount of LPG consumption depends on the total use and manner of use of these appliances.

Note that each gallon (4-1/4) lbs of LPG fuel produces approximately 91,500 BTU's of heat energy. The LPG tank used in your coach will furnish over 3 million BTU's.



For your guidance in estimating your anticipated fuel consumption, the following is a listing of typical appliance consumption ratings when the appliance is operated for one hour:

Refrigerator

1,500 BTU's

Cooktop Burners

5,200 BTU's Each

Furnaces (3)

16,000 BTU's Each

#### **LPG System Warnings**

#### Warning

LP gas containers shall not be placed or stored inside the vehicle. LP gas containers are equipped with safety devices which relieve excessive pressure by discharging gas to the atmosphere.

#### Warning

It is not safe to use cooking appliances for comfort heating.

Cooking appliances need fresh air for safe operation. Before operation:

- 1. Open overhead vent or turn on exhaust fan.
- 2. Open Window.

This warning label has been located in the cooking area to remind you to provide an adequate supply of fresh air for combustion. Unlike homes, the amount of oxygen supply is limited due to the size of the recreational vehicle, and proper ventilation when using the cooking appliance(s) will avoid dangers of asphyxiation. It is especially important that cooking appliances not be used for comfort heating as the danger of asphyxiation is greater when the appliance is used for long periods of time.

A warning label has been located near the LP gas container. This label reads.

## Do not fill container(s) to more than 80 percent of capacity.

Overfilling the LP gas container can result in uncontrolled gas flow which can cause fire or explosion. A properly filled container will contain approximately 80 percent of its volume as liquid LP gas.

#### Warning

Portable fuel-burning equipment, including wood and charcoal grills and stoves, shall not be used inside the recreational vehicle. The use of this equipment inside the recreational vehicle may cause fires or asphyxiation.

#### Warning

Do not bring or store LP gas containers, gasoline or other flammable liquids inside the vehicle because a fire or explosion may result.

The following label has been placed in the vehicle near the range area:

#### If You Smell Gas:

- 1. Extinguish any open flames, pilot lights and all smoking materials.
- 2. Do not touch electrical switches.
- 3. Shut off the gas supply at the tank valve(s) or gas supply connection.
- 4. Open doors and other ventilating openings.
- 5. Leave the area until odor clears
- 6. Have the gas system checked and leakage source corrected before using again.

LP gas regulators must always be installed with the diaphragm vent facing downward. This will minimize any chances of vent blockage which could result in excessive gas pressure causing fire or explosion.

#### Warning

Never check for leaks with an open flame. Do not check copper plumbing lines for leaks using ammoniated or chlorinated household-type detergents. These can cause cracks to form on the line and brass fittings. If the leak cannot be located, take the unit to your Wanderlodge® dealer or LPG supplier.



•.



# Section VII Air Brake System

Your motorhome is equipped with dual service air brake systems for front and rear brakes, with integral fail/safe operation; and manual/automatic rear spring (parking) brakes. As shown in the air brakes system diagram in Section X, the service brakes are completely independent systems, each including a reservoir and separate distribution lines and valves. A separate reservoir is also supplied for the rear spring brakes, which function independently of the service brakes. All three reservoirs are pressurized from a single compressor. Both service brake systems are brought into operation each time the brake treadle is depressed to slow or stop the coach. Reservoir pressure for each service brake system is monitored by a respective pressure gauge on the front panel; system failure(s) are indicated by low pressure readings, illumination of the Low Air failure lamp and sounding of buzzer (item 10, figure 2-3).

# **Operation**

When the coach is parked, and the engine off, the rear spring brakes will normally be set by operating the parking brake. The spring brakes cannot be fully released until the air pressure is above 65 psi. These brakes are in the released position when the control is pushed in. In the event that there is a loss of air pressure, the spring brakes will set automatically, at the brake-applied position, and will not release until the air reserve has again built up to required value. Consequently, there will be a normal delay, after the coach is first started, before the compressor builds up sufficient pressure in the three reservoir tanks, before the brakes can be released and the coach driven. When the brake treadle is depressed, to slow or stop the coach, reservoir air is applied simultaneously to both front and rear service brakes to effect the braking action. The spring brakes are held in a released position by the air pressure supplied from the associated reservoir tank.

# **Caution**

Do not attempt to drive the coach until system pressure is above 90 psi.

#### **Brake Failures**

To compensate for normal lining wear, each brake system is individually self-adjusting.

A combination of fail/safe features provide protection against brake system failures. Each service braking system, front and rear, has a backup capability in the event of partial or total system failures. If the front brakes fail, operating the brake treadle activates the rear service brakes normally providing sufficient braking action to effectively stop the coach. If a failure occurs in the rear, the front service brakes and rear spring brakes provide braking action. Under these conditions, the spring brakes do not lock in, as in a normal set position, but instead their application is "modulated" in the same manner as the service brakes, thereby providing a normal braking "feel".

In the unlikely event of a failure where both service braking systems are disabled, the rear spring brakes will apply automatically and bring the vehicle to a stop. As a safety factor, the coach should not be moved until brake failures (any type) are corrected.

# Note

With the front brake system service reservoir fully charged, enough air pressure is available to provide four full releases of the rear spring brakes. This will allow the coach to be brought to a safe position until repairs can be accomplished.

# Additional Air-Operated Equipment

Besides providing the compressed air supply for the coach braking systems, the compressor also provides the air supply for the entry step, side-slide mechanism on pilot's and co-pilot's seats, front air vents and air suspension system (air bags) - all via separately-controlled solenoid switches operated from the dash, or at other locations throughout the coach. (This compressed air source is furnished from the front right side reservoir.) A compressed air outlet fitting, tire gauge, and spiral hose are contained in the center storage compartment on the left side of the coach, convenient for blowing out the water system, inflating tires, and so on. A Schrader valve (air connection) is available at the rear of the front right side air tank to to allow the air system to be pressurized from a "shop" source without the necessity of starting the engine.



# **Compressed Air System Air Dryer**

The air dryer unit collects and removes moisture and contaminants from the compressor air output before the air reaches the reservoirs. This unit is different from a reservoir drain or an aftercooler in that it provides dry air for the brake system by eliminating the possible accumulation of condensate in the system reservoirs. Note that each reservoir also has a drain cock on the bottom for draining accumulated moisture. This assures a long maintenance-free life for air brake system components due to the removal of system contaminants.

The air dryer is located between the compressor discharge (output) line and the compressed air reservoirs. A safety valve mounted in the air dryer housing assembly protects against excessive pressure buildup. The desiccant cartridge and pleated paper oil filters are easily removable and replaceable as a complete serviceable unit. The desiccant "beads" which provide the drying action have a large capacity for absorption due to their combined surface area. In addition, an internal thermostatically-controlled heating element prevents freezeups on the purge drain valve when the unit is used during sub-freezing temperatures.

Purging of the dryer is automatic, exhausting combined oil and water residue to the atmosphere. At the same time that the contaminants are purged the reverse air flow across the desiccant material removes the accumulated moisture and reactivates the desiccant. Cartridge replacement should be accomplished at 12-month periods; sooner, if the cartridge has become contaminated.



# Section VIII Owner Maintenance Data

This section provides general information for use in performing scheduled services as well as preventive and routine maintenance on your Wanderlodge.\*

# Caution

Cooling fan operation is controlled electrically by a thermostat which senses engine coolant temperature. Any time the engine is running the fan may engage and start to run without warning. The engine must be shut off and the fan stopped before servicing.

# **Specifications and Data**

# Table 8-1 Engine and Chassis Specifications

•
Caterpillar 3208TA
Chassis GVWR
Front Axle
Rear Axle
Wheelbase
(35 ft.); 192 in. (33 ft.) 177 in. (31 ft.)
Air Brake System
Front Axle Self adjusting 16.5 in.
$\times$ 5 in. brakes Rear Axle Self-adjusting 16.5 in.
× 7 in. brakes
Air Reservoirs Three Air Tanks
4,760 cu. in.
Retarder Transmission Hydrodynamic Brake
Wheels & Tires (6) Aluminum rim, 11R22.5, 16 PR tubeless steel-belted radial
Tire Inflation See information plate inside
stepwell compartment door (figure 4-3)
Axle Ratio 5.29:1
Leveling Jacks (Hydraulic)
Front (each) 20790 lb. rating
Rear (each) 10990 lb. rating
Alternator Belt —
W/L P/N 0814038 - Gates 9600 (2)

Water Pump Belt — W/L P/N 2106771 – Gates 9490 (2)
Power Steering Belt — W/L P/N 0854034 – Gates 9370 (1)
Air Conditioning Compressor Belt — W/L P/N 1040005 – Gates 9700 (1)
Fan Belt - W/L P/N 2106714 - Gates 9430 (1)

# Table 8-2 Engine/Chassis Capacities

Electrical Rating ...... 120 Vac 8 k.w.



Fuel Cupely
Fuel Supply , 6
Diesel: Tee in engine supply line.
Coolant System Water-cooled
Crankcase Capacity 4 quarts w/ filter,
Oil Filter
KABOTA No. DKD-15241-3209-2
Oil Specifications for Generator
API CC/SE, CC/SF, CD/SC
CD/SE, or CD/SF
30 degrees to 100 degrees F . SAE 10W-30
0 degrees to 30 degrees F SAE 10W-30
Below 0 degrees F SAE 5W-20
Battery 12 volts, min. 500 CCA
Ballery 12 volts, min. 300 COA
Table 8-4
<b>Motorhome Capacities</b>
and Specifications
<u>-</u>
Potable Water Tanks 96 gallons
(92 gallons 35 ft. side bath)
(100 gallons w/rear bath)
Holding Tank, Gray Water 56 gallons
31 & 33 ft. side bath
(62 gallons, 35 ft. side bath)
(52 gallons w/rear bath)
Holding Tank, Waste 62 gallons
(40 gallons, 31 & 33 ft. side Bath;
56 gallons w/rear bath)
LPG Tank 148 lbsnet (43.5 gallons)
Water Pump 3.5 GPM
Water Heater 10 gallons
Batteries Six 6-volt batteries, series-parallel
connected to supply 12v at 660 AH
Battery Chargers 75 amperes output each
Air Conditioners*
Automotive 18,000 BTU
Roof
Hot Water Circulating Heaters**
Living Area (3) 50,000 BTU ea.
Cockpit Area 90,000 BTU
Gas/Hot Air Heaters*
Living Area (3) 16,000 BTU ea.
Electric Heaters
120 volt (4)
*NEMA Rating
**SBBMA Rating

# Table 8-5 Maintenance Schedule Summary

## Item

- Frequency

- Type of Service

and Specification

#### **Transmission**

See Section X Diagram, Lubrication Guide for service of other Engine/Chassis components

## **Batteries**

- Every 500 miles to 1,000 miles
  - Replenish cells with distilled water to %-inch above plates.
  - Coat Battery terminals with lubricant

## **Air Cleaner**

 Replace when air cleaner indicator shows red after high power run. Loss of power and black smoke also indicate need for change.
 W/L P/N 3734191, Donaldson P12-9396

#### **Fuel Filters**

- 10,000 to 15,000 miles
  - Replace as required
  - W/L P/N 2236677, CAT 1P-2299 Racor Filter and Water Separator Change when vacuum (Racor) gauge goes ito red

Element W/L P/N 2254035 (Racor 2040SM)

Gasket (large) W/L P/N 3747359 (2) (Racor 11007) Gasket (T-handle) W/L P/N 3747342 (Racor 11350)

#### **Air Brakes System**

#### **Reservoir Tanks**

- Daily or depending on usage (not necessary with air dryer)
  - Drain each reservoir tank of moisture by opening petcock at bottom of tank.

# Air Compressor Air Dryer

- 23,000 miles, or every 3 months, or every 900 hours. Refer to Bendix Air Dryer Manual.
  - Check/replace air dryer cartridge
     W/L P/N 2107753 (Bendix 287313)

# **Air Suspension System**

- 1,000 miles to 3,000 miles, or every month
  - Check air springs for even inflation
  - Check for tightness of nuts, bolts, air connections
  - Check shock absorbers for oil leakage, worn bushings
  - No lubrication is required



# Table 8-6 12-Volt Lighting Equipment

Specification
item (Qty)/Amperes
Automotive Lighting Marker/Clearance/
Identification, bulb # 1895 (16)/4.5
Stoplights, bulb upper & lower # 1157 (4)/8.4
Parking Lights bulb # 1157
& # 194 (front inside) w/tag (9)/4.5
Turn Signal Lights
bulb # 1157 (2)/4.2 Cornering Lights, bulb # 1156
Side Turn Lights, 2/side, 2 # 1895 bulbs/light
Indicator Light W/L P/N 2271955
Hazard Warning (6)/12.6
Tag Light, bulb # 168 (1)/.35
Headlights and Taillights (with park & tag)
Driving Lights, bulb
W/L P/N 2126019 (4)/31.2
Instrument Panel–Electroluminescent
(inverters)
Instrument Panel-
Gauges, bulb # 53 (14)/1.7
Spot Light, bulb W/L P/N 2103760 6.8
Stepwell outside, bulb # 53 (1)/.12
Stepwell inside, bulb # 67 (1)/.55
Landing Lights, bulb assy.
W/L P/N 2261626
Backup Lights, bulb # 1156 (2)/3.8
Rear Parking Halogen (2)/13.4 Engine Compartment Lights
bulb # 1416 (1)/.8
Luggage & Stepwell Compartment Lights
bulb # 1416
Porch light, bulb # F8T5/CW (2)/2.2
Interior Lighting
Reading Spots, bulb # 1383 . (15)/1.54 ea.
Front Living, Flush,
bulb# F15T8/CW (8)/14.0
Aisle, Bulb # 53 (3)/.36
Bathroom Mirror
bulb # F8T5/CW (2)/2.2
Bathroom, Flush,
bulb# F15T8/CW (2)/3.5
Shower, bulb # 1141 (1)/1.5
Dinette, Flush, bulb # F15T8/CW . (2)/3.5
Kitchen, Flush,
bulb# F15T8/CW (2)/3.5
Bedroom Flush bulb # F15T8/CW (4)/7
Ceiling, Flush, bulb # F15T8/CW . (2)/3.5

Vent Fans, bulb # 912 @1.0A (3)/4/Vent
Windshield Wipers (2)/8.0(max.)
Water Pump (1)/6.2
Blower Motors
Front Heater (Hi/Lo) Right (1)9.0/4.5
Defroster (Hi/Lo)(1)/9.0/4.5
Foot Warmer (Hi/Lo) Left (1)/9.0/4.5
Chassis Heater (Hi/Lo) (3)/9.0/4.5 ea.
LPG Furnace (3)/9.0
Portable Fan(1)/1.0
Duct Booster (1)/1.0
Ceiling Vent (Round) (2)/8.0
Vent Fan (Square) (3)/6.6
Stereo System (1)/15
Motor Generator(Option) (1)14.6

#### **Fuses**

Electronic equipment fuses are located in left front and left rear 12 volt load centers. See diagrams in Section X.

Radio Privacy Switch — left front load center

AM/FM Stereo Tuner/Cassette Player — left front load center.

Radio Memory Circuit — left front load center.

**Refrigerator**—left front load center.

**Spot Light Rotation** — upper front load center (behind rubber flap).

**Burglar Alarm** — under dash right side below master switch.

**Turn/Hazard Flasher** — under dash left side of steering column behind retarder, black wire; fuse below master switch.

# **Changing Wheels/Tires**

The wheel/tire assemblies used on your motorhome are heavy-duty truck-type. They are heavy and may be difficult to handle. If at all possible, changes should be accomplished by a service station equipped to handle truck equipment. However, if a situation arises where no service facilities are available, the following procedures may be used.

#### Front Axle Wheels

- 1. Drive motorhome out of traffic lane onto a level surface capable of supporting jack.
- 2. Turn on hazard flasher and apply parking brakes before leaving coach.



- Turn off ignition and set transmission selector to Neutral (N) position.
- Remove white plastic wheel saver, jack, lug wrench and handles from front curb side storage compartment.
- 5. Place wheel chocks against front & rear of tires on opposite side.
- 6. Place jack under axle and raise slightly until securely in place. See figure 8-1 for location of typical jacking point.

# Caution

Bumpers are not designed for lifting and/or towing of the vehicle.



Figure 8-1. Locating Jack

- 7. Remove spare wheel assembly from mounting and place on ground near work area.
- 8. Pull off lug nut covers.
- 9. Install wheel saver.
- Loosen lug nuts slightly, then jack up coach until tire is clear of ground. Solidly support the vehicle under the main frame rails with jackstands or blocks before working under or around the coach.

#### Note

Lug nuts on right side of coach are righthand threaded (turn counter-clockwise to loosen, clockwise to tighten); lug nuts on driver's side of coach are lefthand threaded (turn clockwise to loosen, counterclockwise to tighten).

11. Remove lug nuts and wheel assembly.

12. Install spare and replace lug nuts. Tighten progressively in the sequence shown in figure 8-2 starting with # 1 and proceeding to # 10. Final torque will be 450 to 500 foot-pounds.

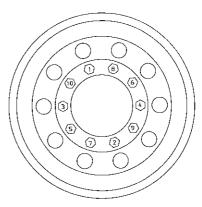


Figure 8-2. Lug Nut Tightening Pattern

- 13. Snap front hub cover into front wheel opening after front lug nuts have been properly torqued.
- 14. Place lug nut covers on all lug nuts. Make certain that these nut covers fit snugly. This is accomplished by squeezing the dimpled sides together before installing.
- 15. Lower coach to ground and remove jack and handle.
- 16. Replace wheel saver, lug wrench, jack and handles in storage compartment and tie down to prevent road noise. Return damaged wheel/tire assembly to holder and have it repaired as soon as possible.
- 17. Remove and stow wheel chocks.
- 18. Turn off hazard flasher before returning to traffic.

# Caution

Check lug nuts for tightness every 1,000 miles. Lug nuts should be torqued to 450 to 500 foot-pounds.

# **Drive Axle Dual Wheels**

- 1. Repeat steps 1 through 10, front axle wheels.
- 2. Loosen inner lug nuts (studs with square heads), if inner wheel is to be replaced.
- Remove outer lug nuts from the (5) studs which have lock rings and slide hub cover over remaining lug nuts.



- 4. Remove the (5) remaining lug nuts and wheel.
- 5. Remove inner lug nuts and inner wheel, if inner wheel is to be replaced.
- Install replacement wheel and inner lug nuts.
   Tighten progressively in the sequence shown in figure 8-2 starting with #1 and proceeding to #10. Final torque should be between 450 and 500 foot pounds.
- 7. Install outer wheel (or replacement wheel) and lug nuts over inner lug nuts marked 1, 3, 7, 9 and 6. Torque nuts in the following sequence 1, 7, 6, 3 and 9 to between 450 and 500 foot pounds.
- 8. Install hub cover over the (5) lug nuts holding wheel to hub. Place lock rings and lug nuts on remaining inner lug nuts 10, 5, 2, 4 and 8.
- 9. Replace wheel saver.
- Torque nuts in the following sequence 10, 2,
   5 and 4 to between 450 and 500 foot pounds.
- 11. Return to step 14 of **Front Axle Wheels** and continue.

# Note

When checking torque on dual wheels loosen all outside lug nuts. Check torque on inner lug nuts (studs with square heads) for torque value shown above then torque outer lug nuts to value shown above.

# **Using the Optional Mountz Power Wrench**

The Mountz Power Wrench, figure 8-3, is a 12-times force multiplier which is designed for easy removal of wheel lug nuts. This tool is supplied as a kit which includes a 1/2-inch square ratchet drive with extension sleeve, a precalibrated ratchet torque wrench, and both hex and square wheel lug nut sockets.

To remove the lug nut, jack up the side of the coach where the defective tire is located, or use the leveling jacks. Select the appropriate lug nut socket, fit the tool over the wheel nut (after installing wheel saver), as shown, attach the 1/2-inch drive reaction bar and remove the nut(s). After the wheel is replaced, replace all nuts finger-tight, remove the reaction bar and use the precalibrated torque wrench to tighten the wheel nuts to the

proper torque. Do not use the reaction bar to tighten the lug nuts. When tightening nuts, work opposite sides so that all nuts are equally torqued. Note that the torque wrench is factory calibrated to provide an inner cap nut and lug nut torque of 450 foot-pounds; an audible **click** indicates proper torque. For maximum accuracy, the torque wrench should be recalibrated on a yearly basis.

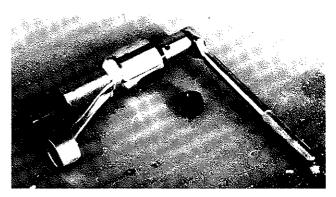


Figure 8-3. Mountz Power Wrench

# **Battery Maintenance**

Your motorhome is equipped with six 6-volt batteries, connected in a series-parallel arrangement to provide 12 volts for engine and motorhome use. This arrangement makes available 660 AH (20 hour rate). Four batteries are located on a slide-out tray in the front compartment on the road side, as shown in figure 4-2 and two are on a similar tray in the curb side front compartment. A separate 12-volt battery is contained in the generator compartment and is used only for the generator. All batteries are charged from either the engine alternator or battery chargers (when 120 volts ac is available). Note that the generator will supply 120 volt ac to the battery chargers.

# **Periodic Battery Checks and Maintenance**

Periodically check electrolyte level in the four six-volt batteries. The generator battery is sealed so it is not necessary to check the level of the electrolyte. Battery condition depends on battery usage and proper utilization of the battery chargers.

# Caution

Do not wear metal rings, watches or jewelry when working on or near the batteries, cables, solenoids, or chassis wiring. These can short out electrical wiring and cause injury



To make sure that the batteries are always ready for use, periodically check and charge as necessary. Check batteries at least every two weeks in freezing weather; at least every four weeks in warmer weather. A fully-charged battery will not freeze under normal circumstances, so it is imperative that the batteries remain charged during winter. A safe level of charge is a specific gravity reading of 1.225 to 1.280. Always use a battery hydrometer which has a temperature correction scale. It is advisable to have the coach shoreline connected to the 120 volt ac supply so that the batteries remain fully charged.

A dirty battery may eventually dissipate its charge through conductive surface contamination. Clean battery top surface with a damp cloth and dry thoroughly. Check that battery terminals and associated battery jumper terminals are tight and free of corrosion. To clean terminals, neutralize corrosive deposits with a solution of baking soda, rinse with clear water, and dry. Note that commercial type spray-on battery cleaners are available at automotive supply stores. Use as directed to keep the batteries clean. Spray-on cable and terminal protective coatings are also available, easy to use, and effective.

#### **Exterior Care**

Exterior paint finish life can be extended by periodic cleaning and waxing. This will preserve the paint and allow easier removal of dirt and road tars. Use touch-up paint for small areas to keep the coach finish in like-new condition.

Frequent washing of the coach is necessary to prevent corrosion in areas where heavy salt sprays are evident. A clear acrylic spray may be used, with care, to control corrosive effects of salt spray on metal surfaces.

# Caution

Avoid spraying water through the refrigerator vent door.

## **Interior Care**

The interior can be kept in good condition with the use of approved cleaning agents for vinyl walls and ceilings, plastic fixtures, stainless steel, formica and so on. Never use abrasive cleaning agents on interior of refrigerators, or on the lavatory, tub/shower, or toilet, as they can cause permanent scratches. Be sure that the cleaning agent will not damage the material. Note that some plastics are incompatible with certain cleaners. Read the directions on the container before using. For the most part, the cleaners and polishes that would normally be used in your home are equally well-suited for use in your motorhome.

# Fluid Level Checks

#### Crankcase Oil Level

The crankcase oil dipstick and oil fill is readily available under the front logo panel, to the left of the radiator fill.

The oil level must be checked only with the engine off. Maintain oil level at the proper fill line. If checking oil level immediately after engine has been operating, allow a few minutes for the oil to drain back into the crankcase before checking the oil level reading.

The best time to check the oil is before getting underway because the engine is cool and the reading will be most accurate.

# Power Steering Reservoir Fluid Level

Regularly check fluid level in the power steering reservoir. Add Dexron II as necessary to maintain the correct dipstick reading, depending on fluid/engine temperature. (Note that the dipstick is attached to the T-handle plug on top of the reservoir). If the fluid is at normal operating temperature — about 150 degrees, and hot to touch — the dipstick should indicate **FULL** or just below. If engine is cool, fluid level should read about 1/2 way between the **ADD** and **FULL** marks.

# **Transmission Fluid Level**

The transmission dipstick is located just inside the engine cover opening (at the right rear).

# Importance of Proper Oil Level

Since the transmission oil cools, lubricates, and transmits power, it is important that the proper oil level be maintained at all times. If it is too low, the converter and clutches will not receive an adequate supply of oil. This can result in poor performance or transmission failure. If the level is too high, the oil will aerate, causing the transmission to overheat. Check the oil level at intervals specified in your vehicle service instructions, or more frequently, if operating conditions indicate.



## Oil Check Procedure

For oil check procedure refer to **ZF Ecomat Operating Instructions** Section II operation number 8.

# Note

Always clean around the end of the fill tube before removing the dipstick. Dirt or foreign matter must not be permitted to enter the oil system. It can cause valves to stick, cause undue wear of transmission parts, or clog passages. Check the oil level and report any abnormal oil level to your maintenance personnel. Check for abnormal oil level, milky appearance or any trace of coolant in the oil.

# Racor Fuel Filter and Water Separator System

# Filter/Separator Operation

The three stages of the Racor filter/separator, figure 8-4, work in series to progressively clean the diesel fuel. Because virtually all water and larger particles of solid contamination are removed in the primary and secondary stages, the effective life of the fine micron replaceable element is 2-3 times longer than standard filters.

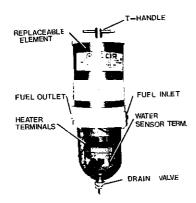


Figure 8-4. Racor Fuel Filter/Separator

Primary Stage (Separation) — In the primary stage, liquid and solid contamination down to 30 microns are separated out by centrifugal action created by the turbine centrifuge. There are no moving parts in this highly efficient design. Because the contamination is heavier than the fuel it alls to the bottom of the clear bowl.

Secondary Stage (Coalescing) — This stage functions when minute particles of liquid contaminants (lighter than the fuel) remain in suspension

and flow up with the fuel into the lower part of the filter/separator shell. Here the minute particles tend to bead on the inner wall of the shell and the bottom of the replaceable cartridge. As the beads accumulate, they become larger and heavier and will eventually fall to the bottom of the filter/separator bowl.

**Final Stage (Filtration)** — In this stage the fuel enters the replaceable cartridge where the minute solids are removed.

#### In-Filter Fuel Heater

Internal automatic thermostats turn on the Racor in-filter fuel heater as the fuel temperature drops below 35°F. (1.7°C.)

The in-filter fuel heater operates from the 12-volt battery source, supplying heat to the fuel filter just below the replaceable element. This critical placement provides increased fuel temperature as the fuel passes through the fine micron filtering element.

When the engine is not running and the temperature is below 35°F., the heater is operated by turning on the ignition switch for a maximum of 10 minutes prior to starting the engine. With the diesel fuel temperature above 35°F, there is no waxing or icing of the filter element. The in-filter heater is primarily a cold starting aid. Note that the top two terminals imbedded in the glass filter bowl connect to the internal heater.

#### Water-In-Filter Alarm

The electronic water sensor alerts the operator when liquid contaminants filtered out of the system should be drained from the collector bowl, thereby maintaining maximum filter/separator efficiency.

When water reaches a pre-determined level in the collector bowl, sensing probes activate the **Water-In-Filter** alarm circuit. The light illuminates, warning the operator to drain excessive water contamination collected in the bowl. Shut down engine before draining the bowl to avoid sucking air into the system. Note that the bottom two terminals imbedded in the bowl connect to the water sensors.

#### **Maintenance**

Filter Element — Routine maintenance of the Racor unit consists of periodic filter replacement and drainage of the moisture collected at the bottom of the bowl. (Engine is off during maintenance.)



**Filter Element Replacement** — Replace the element as follows:

- 1. Loosen handle and remove lid.
- 2. Inspect lid gaskets and replace, if necessary.
- 3. Remove filter element by grasping bale and lifting upward while rotating.
- 4. Replace Racor element by positioning over center return tube and twisting downward into place.
- 5. Top off by pouring clean diesel fuel into filter cylinder until full.
- 6. Replace lid and hand-tighten handle.

**Draining** — Drain bowl of accumulated moisture by opening petcock on bottom of bowl. Allow to flow until clean fuel appears.

# **Leveling Jacks Reservoir**

The leveling jacks oil fill is located beneath the center entry step. Lift up the hinged step top (hinge at door side) and remove the screws attaching the square metal cover plate to gain access to the oil fill to check oil level.

# **Engine Cooling System Refill**

Use of anti-freeze (ethylene glycol type only) is recommended for summer or winter operation because of it's corrosion inhibition and lubrication properties. A 50-50 solution of antifreeze and water is preferred and it gives freeze protection to about 30°F below zero. Ultimate protection is attained at 68% antifreeze (about 92°F below zero): a higher concentration of antifreeze should never be used. The approximate (dry) cooling system capacities are:

Engine, Radiator,	
& Engine Hoses	15.25 gallons
Right front heater system	2 gallons
Rear coach heater system	4 gallons
Total	. 21.25 gallons
	(85 quarts)

... so the system would require 10.625 gallons of antifreeze for a 50% solution or 14.5 gallons for a 68% mixture. Final solution should always be tested with a thermo-hydrometer or equivalently reliable testing device to determine actual protection.

If it becomes necessary to completely re-fill the chassis coolant system, the following procedure must be followed (see figure 10-1). Pure antifreeze can be used initially until prescribed amount has been installed, and then water for final filling.

# **Engine, Radiator, and Engine Hoses**

Locate and close the manual gate valves separating the engine from the heater systems. Both pressure and return valves for the coach heaters are under the pilot's floor. The pressure valve for the front (cockpit) heater is electric solenoid operated and the return line has a gate valve at the engine (lower right side front). Close the front heater electric solenoid valve by placing the **FRONT HEAT** switch in the pilot's control area to **OFF**. Remove the radiator cap and fill to the top. Replace radiator cap and run engine @1500 to 2000 RPM for one minute to purge air from the engine water jacket. Shut off engine, carefully remove the radiator cap, re-fill the radiator, and replace the cap.

# NOTE

Use extreme care at all times when removing the radiator cap as hot coolant under pressure can cause injury.

# Front (Cockpit) Heater and Coach (Chassis) Rear Heater Systems

Air bleeder valves are located under the pilot's floor (at the return gate valve) for the coach system and over the radiator fill (in black tubing) for the front heater. Leave the return line gate valves closed and open the pressure line valves for front and coach heaters. Place the FRONT HEAT switch (item 13,figure 2-4) ON and the HEAT SELECTOR switch (item 1, figure 2-9) to WINTER. Press the AUX. PUMP switch (item 2, figure 2-9) ON.

Set area thermostats to the maximum high temperature position. Using suitable containers to catch coolant, open the bleeder valves and run the engine slightly over 2,000 RPM until a steady flow of coolant passes through the front heater bleed valve. Close bleed valve and open front heater return gate valve.

To ensure bleeding of the coach (chassis) heaters, the following additional operations should be performed.



 Again run the engine slightly over 2,000 R.P.M. until steady flow comes from the bleeder valve under the pilot's floor.

# Note

# The radiator must be filled often during bleeding procedures.

- 2. Close bleeder valve and open return gate valve (under pilot's floor). Refill radiator using coolant recovered from bleeder valves and additional water as necessary.
- Start and rev engine to maximum governed R.P.M. 2-3 times. Push HEAT SELECTOR switch to SUMMER and rev engine to max R.P.M. 3-4 times.
- Return HEAT SELECTOR switch to WINTER and test heaters to make sure they are blowing hot air.
- 5. Shut down engine and allow to cool.
- 6. Fill radiator completely.

# **Cooling System Additives**

Automotive cooling systems are subject to various types of corrosion, rust, pitting and cavitationerosion. These are common factors which prevent efficient cooling and contribute to engine overheating and higher maintenance costs resulting from replacement of hoses, fittings, filters and cracked heads. The manufacturer of the engine used in your motorhome recommends the use of Nalcool 2000 — a chemically buffered liquid additive which effectively neutralizes the formation of acids caused by dissolved exhaust gases, and inhibits the cooling system against corrosion and scale formation. This additive is compatible with most commerical automotive anti-freeze solutions containing ethylene glycol; however, its use is not recommended in cooling systems using Dow Therm 209. When refilling the coolant system, add four pints of Nalcool before topping off with anti-freeze solution. To ensure constant system protection, replenish Nalcool 2000 additive, periodically, in accordance with manufacturer's instructions.

#### Windshield Washers

Check reservoir fluid level periodically and use a prepared washer solution if possible. (Note that low reservoir levels are indicated by a dash monitor light.) During freezing weather, use a solution additive, or a solution specifically designed for cold weather usage. The washer reservoir is accessible through the front curb side storage compartment.

# Battery Jumper Terminals and Jump-Starting

For your convenience and safety when jumpstarting, terminal **posts** are provided at the top front and rear of the battery compartment, figure 4-

- 2. Proper procedure for jump-starting is as follows:
- 1. Turn off all main battery-operated accessories in both vehicles lights, radio, etc.
- 2. Connect one end of the positive-coded jumper cable to the positive (red) battery jumper terminal, and the opposite end of the cable to the positive (+) terminal on the other battery.
- Connect one end of the negative-coded jumper cable to the negative ( – ) terminal on the other battery and the opposite end of the cable to the negative (black) battery jumper terminal.
- 4. Once the engine of the disabled vehicle is started and brought up to idle, reverse the above procedure to remove the jumper cables. Always remove the jumper cable connected to the Wanderlodge® negative (black) battery jumper terminal first to prevent sparks at the other battery.

# Caution

Avoid sparks in the vicinity of a charging battery: the gas produced is explosive.

#### Generator 8.0 k.w.

Keep the generator operating at peak efficiency by following a regular schedule for inspections and servicing, based on operating hours. Keep an accurate logbook record of maintenance, service and hours of operation, following regular schedules for normal operating conditions, and a more frequent service schedule for operation under dusty or dirty conditions. Check condition of crankcase oil and change air filter frequently until the proper service/time periods can be determined based on your usage.

After the first 15 to 30 hours of operation, arrange to have the following performed at an authorized service center.

• Drain and refill engine oil.



- · Replace engine oil filter.
- · Check external nuts and bolts for tightness.
- Torque cylinder head nuts.
- · Check and adjust valve tappets.
- · Check for fuel or lubricating oil leaks.
- Check radiator coolant level and inspect cooling system for leaks.
- · Check and adjust water pump belt tension.
- Check mounting tray bolts and vibro mounts for tightness.
- Operate generator set at full or rated load, checking for proper output and governor operation.

# **Maintenance Schedules**

Use the generator maintenance schedule in table 8-7 as a guide for routine and periodic maintenance. Neglecting generator maintenance can result in failures or permanent generator damage. Refer to the generator service manual for detailed repair and maintenance.

# Table 8-7 Generator Maintenance Schedule

# Frequency

—Service

Daily, or before each startup

- Check oil level
- Check coolant level
- Clean radiator intake screen

Every 100 hours, or 6 months, whichever occurs first

- Change lubrication oil
- Change oil filter
- Check engine for oil, water, or fuel leakage
- Check belt tension

Every 200 hours, or 12 months, whichever occurs first

- Check hoses and clamps
- Check and tighten electrical connections
- Check exhaust system for leakage
- Check and tighten mounting bolts
- —Check generator brushes, commutator and slip rings
- Replace fuel filter element
- Check electrical system for frayed wires, corroded connections
- -Replace air filter

# Every 400 hours or 12 months

 Contact authorized service center for tuneup to include:

- Injector inspection
- Check and adjust valve tappets
- Clean sliprings and inspect brushes
- Check governor operation and adjust as necessary.

Periodically, perform a complete visual inspection of the generator when operating at full load.

# **Battery**

Check the condition of the generator battery periodically. See that battery connections are clean and secure. A light coating of nonconductive grease will prevent corrosion at terminals. Refer to Battery Maintenance procedures provided earlier in this section.

# Oil Pressure

Always ensure that with the engine running, oil pressure is registering on the upper dash generator oil pressure gauge.

Pressures do vary according to climatic conditions and even between individual engines, but the oil pressure range at normal working speed and temperature will usually vary between 30 to 60 psi. The pressure will drop while the engine is idling and also a slight drop will be experienced when the oil is hot.

#### Oil Filters

To ensure cleanliness of the lubricating oil, a sump strainer and a main full flow type of oil filter are used. The sump strainer consists of a gauze wire container which is fitted over the end of the lubricating oil pump suction pipe. All oil must pass through this strainer before it reaches the oil pump.

The main full flow type oil filter is mounted externally on the side of the cylinder block. All the oil passes through this filter after it leaves the pump, but before it reaches the bearings.

The full flow filter is a spinon cartridge in which the element is an integral part. Filter should be replaced at each oil change.

# Replacing Oil Filter Cartridge

- 1. Unscrew the cartridge from the filter head.
- 2. Check that the threaded adapter is secure in the filter head and discard the old cartridge. Clean the filter head.



- Using clean engine lubricating oil, lightly oil the top seal of the new cartridge. Prime filter by filling with new oil to bottom of threaded hole.
- Screw the new cartridge on to the filter head until the seal just touches the head and then tighten by hand a further half of a turn. If the cartridge is overtightened, it may be difficult to remove later on.
- 5. Since the filter cartridge will normally be changed at the same time as the engine lubricating oil, refill the sump with oil, run the engine and check for oil leaks. Recheck the oil level after running the engine and add oil as necessary.

# Oil Check

To be on the safe side, check oil in engine crankcase daily, or before each start, to ensure that the level is in the safe range between the **L** and **F** marks on the dipstick. Do not operate generator if level exceeds **F** mark, or is below **L** mark.

# Caution

Do not check oil level while engine is operating. Engine must be stopped to obtain a true reading, as well as for safety reasons!

# Oil Change

On a new engine, change the oil after the first five hours of operation and, thereafter, at 100 hour intervals, or every six months, whichever occurs first. Whenever possible, drain the oil while the engine is still warm. To drain, place a container below the unit, open the oil drain and allow sufficient time for the old oil to drain completely. After draining, close drain plug and tighten securely.

# **Cooling System**

To avoid having the inconvenience of the generator shutting down due to overheating, or becoming damaged as a result of an overheat condition, be sure to keep the cooling air inlets to the compartment clean and unobstructed at all times.

When operating in climates subject to freezing temperatures, make sure that enough antifreeze solution is added to the coolant to prevent system reeze-up. (A drain petcock is provided on the underside of the radiator.)

Check coolant level frequently and add antifreeze mixture as needed to maintain correct level.

# Table 8-8 Anti-Freeze Protection Chart

Anti-Freeze Protects to:	Mixture Proportions (ethylene glycol)
+ 16 degrees F (-9 degr +3 degrees F (-16 degr -11 degrees F (-24 degrees F (-35	rees C) 30% grees C) 40%

# **Generator Troubleshooting**

Refer to the generator service manual for repair and maintenance data. Generator repairs should be accomplished by a qualified repair agency.

#### **Generator Overloads**

If the rated capacity of the generator is exceeded, the safeguard circuit breaker, located in box on rear wall of generator compartment, will trip to protect the generator against damage. This condition could be caused by a short in the coach ac supply circuits, or by operating too many appliances simultaneously, resulting in an overload condition. If the safeguard circuit breaker trips, the generator will continue running but no ac output will be supplied. Before resetting the circuit breakers, turn off some of the coach appliances and lighting to reduce the load to within the operating limits of the generator. If this is done, and the generator breakers still trip, a short circuit is indicated. Turn off the generator, locate and correct the cause of the short circuit.

# **Generator Battery Charging**

Generator battery charging current is supplied through the isolator from either the engine alternator or the battery chargers (when ac power is available).

# **Storage Procedures**

If the generator is to be out of service for a long period of time, perform the following procedures before placing the unit in storage:

- 1. Drain oil from crankcase (while hot) then flush with clean lightweight oil. Refill crankcase with regular-weight oil after flushing.
- Clean exterior surfaces of generator set then spread a light film of oil over any unpainted metallic surfaces which could corrode.



# Refrigerator

To ensure that your refrigerator will provide trouble-free operation, the following routine maintenance procedures should be performed at least once each year.

- Inspect all gas connections for leakage, using a solution of soapy water. Tighten, as necessary.
- 2. Remove and clean the gas burner jet, figure as follows:
  - Remove burner housing cover screw and cover (removal of drip cup will provide better access to screw).
  - b. Unplug 120 volt ac cord.
  - c. With refrigerator **on**, observe the burner flame. It should be clear blue over the slots of the burner, encircling the feeler point of the thermostat. If flame is otherwise, proceed as follows:
  - d. Shut-off LPG supply and disconnect 12 volt dc leads.
  - e. Disconnect lighter cable from electrode.
  - f. Remove burner attachment screw and withdraw burner.
  - g. Clean burner tube with brush and blow out with air nozzle.
  - h. Unscrew burner jet, clean with alcohol and blow out with air nozzle. Inspect jet against light to see that it is clean.

# Note

# **Do not clean jet with pin or sharp object.** This will affect the size of the opening.

- i. Reassemble burner jet and replace burner being careful that end of burner fits into slot on bracket with slots of burner centrally located under the boiler tube. Reconnect 12 volt dc leads. Turn LPG supply and refrigerator on. Leak test burner jet seat.
- j. Observe burner flame. It should be as described in item 4. If not, take it to an authorized service center for proper adjustment.
- k. Replace burner housing cover and plug in 120 volt ac cord.

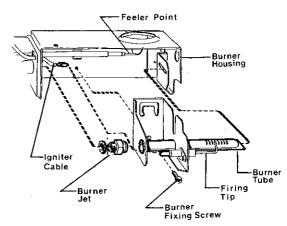


Figure 8-5. Refrigerator Gas Burner

## The Electrode

For proper ignition it is necessary to keep the electrode insulation dry and free from dirt. The gap between burner tube and electrode shall be maximum 3/16" (5 mm) and minimum 1/8" (3 mm).

# General

It is important to keep the refrigerator vent area clear and free from combustible materials, gasoline and other flammable vapors and liquids. Check the venting system. The flow of combustion and ventilating air must not be obstructed.

Check that the flue baffle is clean and reasonably free from soot. Heavy soot formation indicates improper functioning of the burner. Clean baffle and flue, cooling unit, and floor under refrigerator.

Check the energy selector system by connecting/disconnecting main voltage, start/stop the engine etc.

Compare and check that the system operates as described in Section III. If in doubt please contact a service center.

#### **Toilet**

No routine maintenance is required. If the bowl sealing blade fails to operate freely or does not close completely, clean foreign material out of sealing groove with stiff bristle brush.

To clean the toilet, use a high-grade, non-abrasive cleaner. Do not use highly concentrated or high-acid household cleaners. They may damage seals and finish.



# **Water Pump**

Under normal usage, the water pump should require no periodic maintenance other than ensuring that the input water supply is properly filtered of particles that could damage the pump mechanism. Pump failures can generally be tied in to the plumbing system, or to electrical wiring. If the pump fails to operate properly, refer to the general trouble-shooting guide given in table 8-9. Note that detail pump repairs and overhaul should be performed by a qualified repair facility.

A pumpgard filter is provided on the suction side of the water pump. This should be cleaned periodically.

# Table 8-9 Water Pump Troubleshooting Guide

# Symptom

- Possible Cause
  - Corrective Action

Pump operates but no water flows through faucet.

- Low water level in tank.
  - Add water.
- Suction lines or filter clogged.
  - Clear water lines and clean filter.
- Kink in water suction hose.
  - Check water hose connections to tank and straighten or replace, as necessary.
- Air leak in suction line.
  - Replace suction line.

Pump cycles on and off when faucets are closed.

- Water leak in plumbing.
  - Check for signs of leakage and tighten or replace fittings, pipe, etc.
- Defective toilet flush valve.
  - Repair flush valve.

Pump operates roughly and has excessive noise and vibration.

- Intake line is restricted, kink in suction hose or fittings too small.
  - Check input hoses and straighten or replace, as necessary.
- Loosened screws at pulleys and connecting rod.
  - Tighten screws.
- Deformed or collapsed pulsation dampener in pump.
  - Replace dampener.

Pump fails to start when faucet is opened.

- Clogged pressure piping.
  - Blow out water lines with compressed air.
- No voltage to pump.
  - Check input wiring, circuit breaker and switches.

Pump fails to stop when faucets are closed.

- Empty water tank.
  - Add water.
- Insufficient voltage to pump motor.
  - Check battery voltage. If voltage is OK, pump is defective.

# **Holding Tank Drain Valves**

Periodically the drain valve may become hard to open. It is recommended that the (2) two screws in top of mechanism be removed and pull paddle out. After cleaning paddle a coat of vaseline should be added to both surfaces and valve reassembled.

# Clock/Thermometer Calibration Procedures

The thermometer section of the Clock Thermometer indicates either the inside temperature or outside temperature, depending on the position of the panel pushbutton. It may be necessary to recalibrate the unit if there are differences between the actual inside or outside temperatures and the corresponding displays.

# Thermometer Calibration Procedures

- Place an accurately calibrated thermometer unit next to the outdoor temperature probe (located under metal shield on outside of lower roof rail near refrigerator vent) while the coach is in a protected environment away from direct sunlight, rain, winds, etc. Note the thermometer reading.
- 2. Press in the outdoor panel switch and compare the digital display reading with the actual outside temperature noted previously. If the reading disagrees sufficiently to require calibration, open the monitor panel so that the rear of the thermometer unit is accessible. (If the readings agree, proceed to step 3.) Adjust the outdoor calibration control, located in the extreme left center of the rear panel, as necessary, to make the display agree with the thermometer reading.



- Place the calibrated thermometer unit next to the indoor temperature probe and note the thermometer reading.
- 4. Press the **Indoor** panel switch and compare the digital display reading with the actual inside temperature noted previously. If the readings disagree sufficiently to require calibration, open the monitor panel so that the rear of the thermometer unit is accessible. Adjust the indoor calibration control, located on the lower lefthand side of the rear panel, as necessary, to make the display agree with the thermometer reading. Replace the monitor panel.

User maintenance of this equipment is not recommended.

# **Tub/Shower Mixing Valve**

The water mixing valve used in the tub/shower contains a pressure balancing spool valve, figure 8-6, to make sure there are no sudden temperature changes. Water mineral deposits which can accumulate in the valve body and spool valve will affect the normal operation of the mixing unit. To

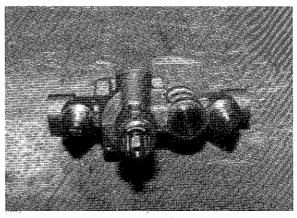


Figure 8-6. Tub/Shower Mixing Valve gain access to the valve body, remove the screws which hold the faceplate to the shower wall. (Water supply must be turned off.) Remove the control knob, then lift off the faceplate.

To remove the spool, unscrew the large center screw and carefully withdraw the spool from the valve body. Inspect O-rings for damage and replace, if necessary. Flush out spool of any foreign material, then replace in valve. Replace faceplate and secure with screws. Replace knob.



# Section IX General Information

# **Equipment Manufacturers**

# **Equipment**

Manufacturer
Model or Type Number

wodei or i ype Numbe

Air Conditioner (Automotive)

Motive Manufacturing Division

3657 10th Avenue, North Birmingham, AL 35234

Motivair

# **Awning**

Zip-Dee Incorporated

96 Crossen Avenue

Elk Grove, IL 60007

Model BB (specify length)

# Bath Vent

Hammond Manufacturing Corp.

P.O. Box 5393

2220 Raymond Drive

Lansing, MI 48905

Model CB-350-B Compact Blower

# Burglar Alarm

Kolin Industries, Inc.

Box 357

Bronxville, NY 10708

Cat. No. 120

# **CB** Radio

Custom Audio Dist.

4725 Atlanta Hwy

Bogart, GA 30622

**AUDIOVOX** 

Model MDU-6000A

#### Central Air Conditioner

Marine Development Corporation

P.O. Box 8570

Richmond, VA 23226

Cruisair Model ACA 14U

# Central Vacuum

Central Vac International

3133 East 12th Street

Los Angeles, CA 90023

Model 612 Floor-Recessed

#### Chime

Ron Levy Company

P.O. Box 2456

Smyrna, GA 30081

Model GE-861

#### Closed Circuit TV Camera

Mashnick Associates

1977 Scenic Highway, Suite 1D

Snellville, GA 30278

SANYO Model VDC-3800

# Closed Circuit TV Receiver

Audiotronics Co.

7428 Bellair Avenue

P.O. Box 3997

North Hollywood, CA 91609

900938-XX

#### **Duct Booster**

Acar Industries

4563 Hamann Parkway

Willoughby, OH 44094

Model 951553

#### Electric Heaters

FASCO Industries, Inc.

810 Gillespie Street

Fayetteville, NC 28306

Model 2450

Living room, galley & bedroom

# Markel Products Co.

726-740 Young

Tonawanda, NY 14150

Model No. E 3125 TE-RP Bathroom

#### **TPI Corporation**

P.O. Box T-CRS

Johnson City, TN 37601

Model BCIA05

Freeze Protection

# Electric Heat Tapes

Easy Heat, Inc.

31977 U.S. 20 East

New Carlisle, IN 46552

MT Cables

# Fan, Exhaust

Fantastic Vent Co.

4349 South Dort Hwy

Burton, MI 48529

Model 1000R



Fan, Portable **Furnace Guest Corporation** Suburban Manufacturing Co. 17 Culbro Drive P.O. Box 399 West Hartford, CT 06110 Dayton, OH 37321 12-volt Oscillating Dyna-Trail Model NT-16SW Fan, Roof Gas/Smoke Alarm Kool-O-Matic P.M.M.I., Inc. 1831 Terrace Road Drawer 10 Niles MI 49120 Old Ocean, TX 77463 **RU-12** Ice Maker **Faucets U-Line Corporation** Bathroom 8900 North 55th Street Grohe America Inc. Milwaukee, WI 53223 900 Lively Blvd Model BI-45A Wood Dale, IL 60191 Instant Hot Water Model 33.031 Kitchenaid Division Kitchen Whirlpool Corporation Stanadyne Moen Division World Street 377 Woodland Avenue Trov. OH 45374 Elyria, OH 44036 Konstant Hot Model 7843A KIH-160 Flourescent Lights Intercom System Lighting Specialists, Inc. **Newport Engineering** P.O. Box 610 P.O. Box 1306 Marble Springs, TX 78654 Newport Beach, CA 92663 NP-IT5-8 Model TP-6S NEW MAR Bath Mirror LPG Alarm/Control F-15R P.M.M.I., Inc. Flush Mount Drawer 10 REC Specialities, Inc. Old Ocean, TX 77463 530 Constitution Avenue LP Gas Grill Camarillo, CA 93010 W.C. Bradley Enterprises, Inc. Porch Light P.O. Box 12040 Food Center Columbus, GA 31993 Scovill Industries Charbroil **NuTone Division** Model TG110 Madison and Red Bank Roads LPG Tank Cincinnati, OH 45277 Manchester Tank & Equipment Co. Power Unit, Model 251 2738 Lithonia Industrial Blvd. Food Processor Model 256 Lithonia, GA 30058 Fuel Filter - Water Separator No. 6042 Racor Industries, Inc. Leveling Jacks 1137 Barium Road **HWH** Corporation Modesto, CA 95351 R.R. 1 Model 1000FG Moscow, IA 52760 **Detroit Diesel Engine** AP 3179

Model 500 FG

Kohler Power Generator



1icrowave/Convection Oven Sharp Electronics Corp. P.O. Box 588 Paramus, NJ 07652 Carousel R8340

Mountz Power Wrench Mountz, Inc. 1080 North 11th Street San Jose, CA 95112 MP2

Power Generator Kohler Company Kohler, WI 53044 12.5 KW or 8.0 KW

Radio (AM/FM Stereo Cassette)
Custom Audio Dist.
4725 Atlanta Hwy
Bogart, GA 30622
SONY
AM/FM Cassette-Model XR 900
Equalizer-Model EX 110
Compact Disc PlayerModel CDX-5

Range and Oven Magic Chef, Inc. P.O. Box 1145 Elkhart, IN 46514 Model BRT 743S-5T

Reading Lights
Wemac
3433 West Harvard
Santa Ana, CA 92904
Model 5019

Refrigerator
Dometic
P.O. Box 490
Elkhart, IN 46515
RM 1303

Safeline Warning Device Omnifac Corporation 1700 East Whipp Road Dayton, OH 45440 Model 2 Shower Hose Kit
Alsons Corporation
42 Union Street
Hillsdale, MI 49242
500 PB59

Shower Valve Stanadyne Moen Division 377 Woodland Avenue Elyria, OH 44036

Tank, Water Inca Plastics, Inc. 11555 Packard Drive Middlebury, IN 46540

TV Antenna Tandy Distributor Products Swannanoa, NC 28788 Model 5MS550

Toilet
Thetford Corporation
P.O. Box 1285
Ann Arbor, MI 48106
Aqua Magic Galaxy Model 08445

Washer/Dryer
Sears Roebuck and Co.
675 Ponce De Leon Ave., N.E.
Atlanta, GA 30308
Washer: 26K4090
Dryer: 26K8090

Water Heater
Mor-Flo Industries, Inc.
18450 S. Miles Road
Cleveland, OH 44128
Marine 10

Water Pump ITT JABSCO 1485 Daleway Costa Mesa, CA 92626 Model 36950-1180

Water Purifier
Pure Water Enterprises, Inc.
343 Broad Street
Lake Charles, LA 70607
Model 7550



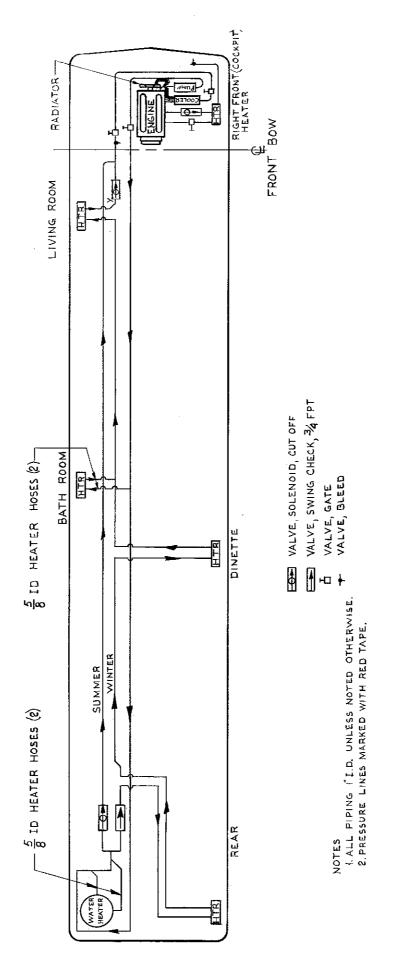


Figure 10-1. Diagram, Chassis and Water Heater Circuits

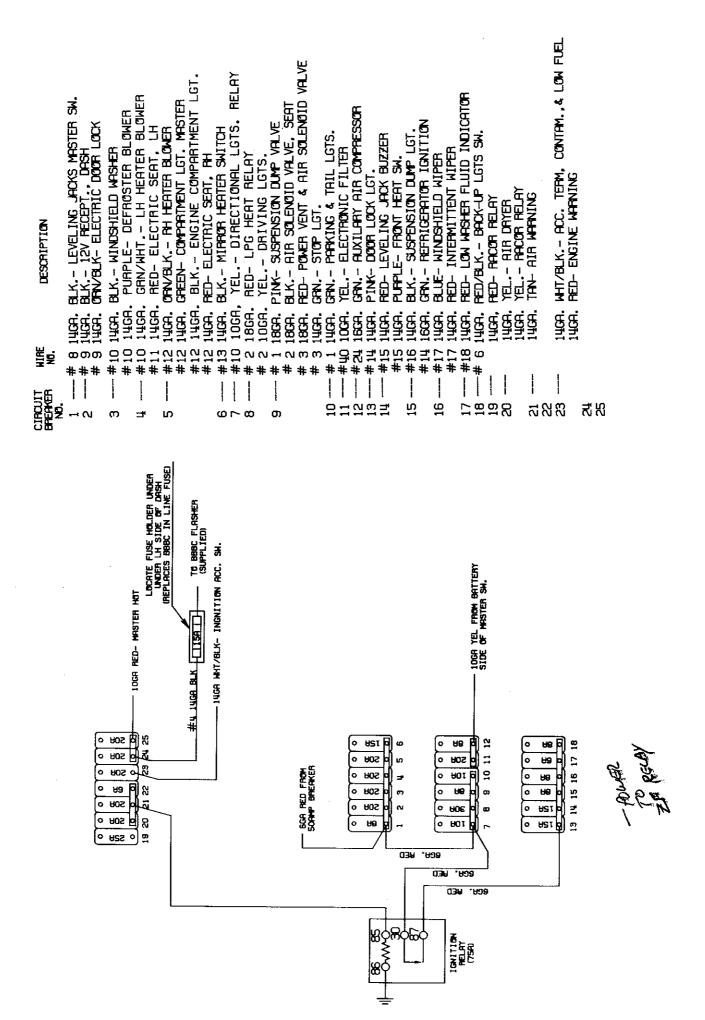


Figure 10-2. 12 Volt Diagram, Lower Front Load Center

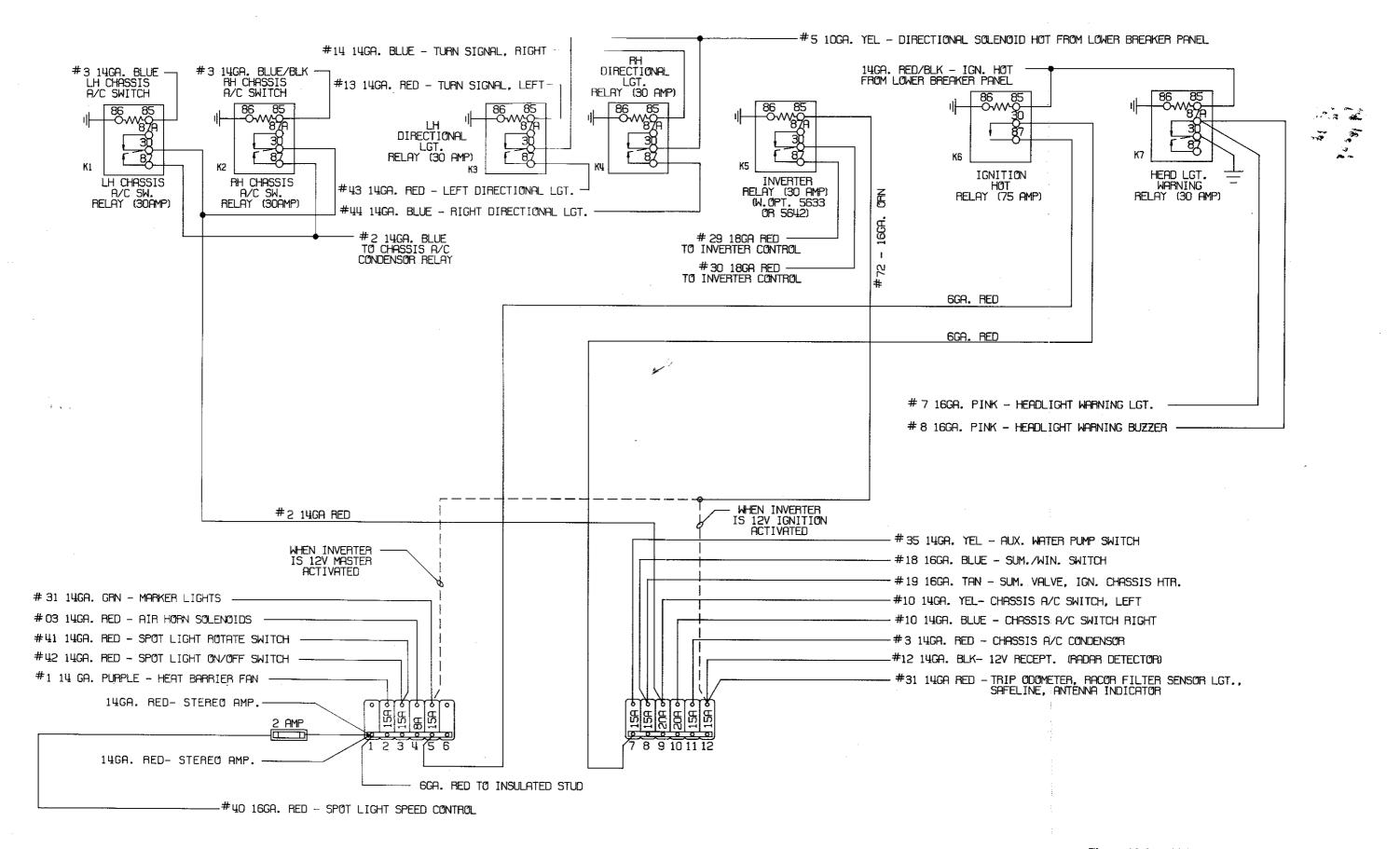
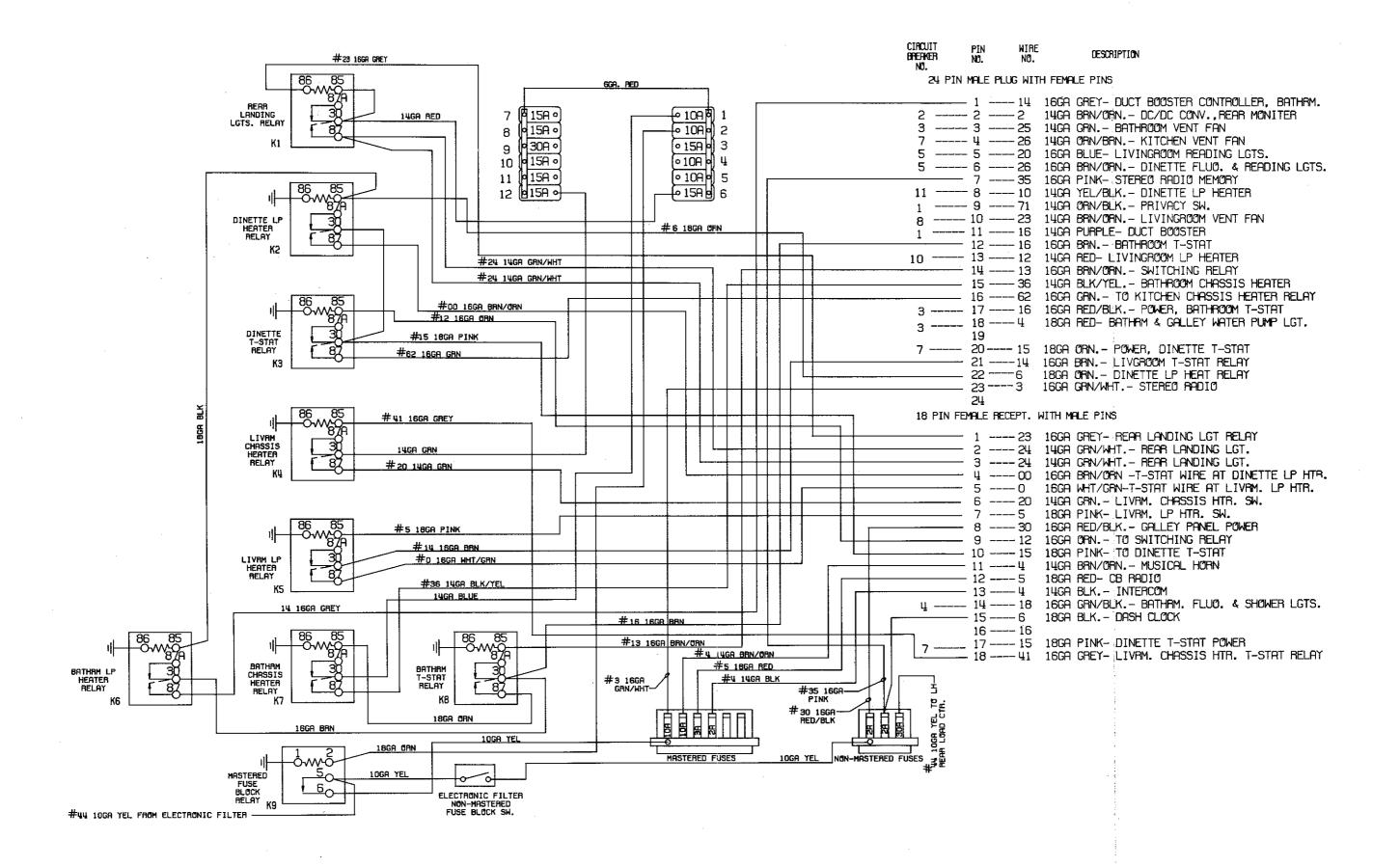
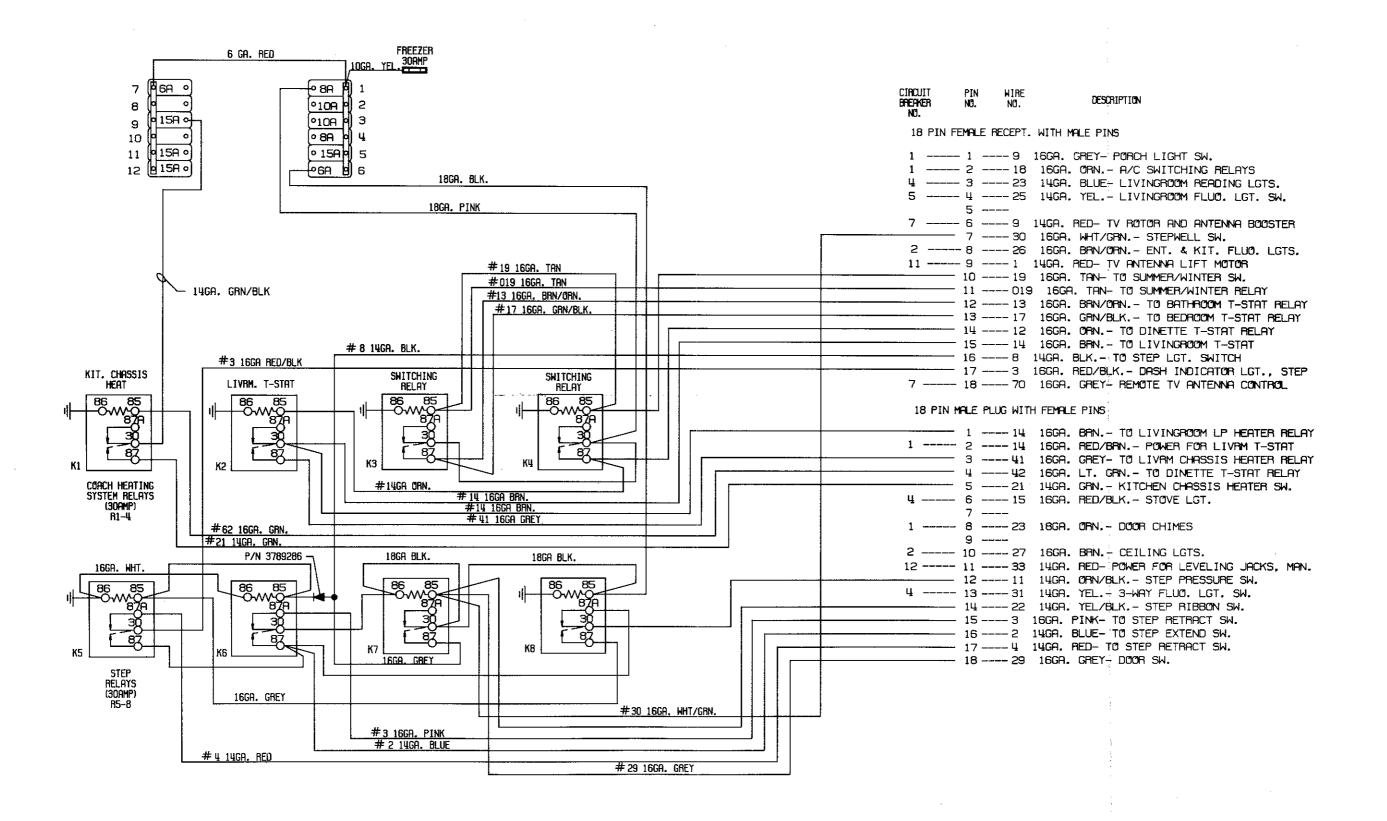
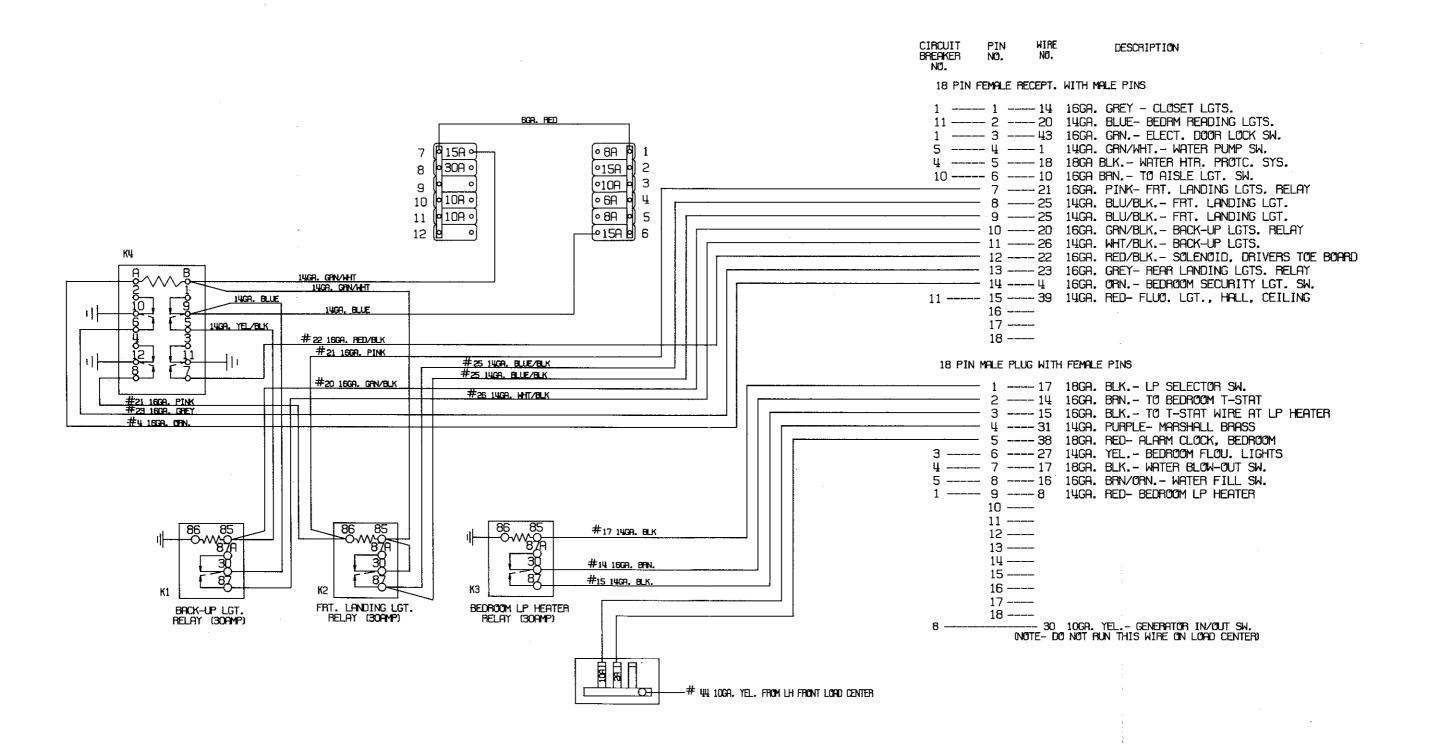


Figure 10-3. 12 Volt Diagram, Overhead Front Load Center







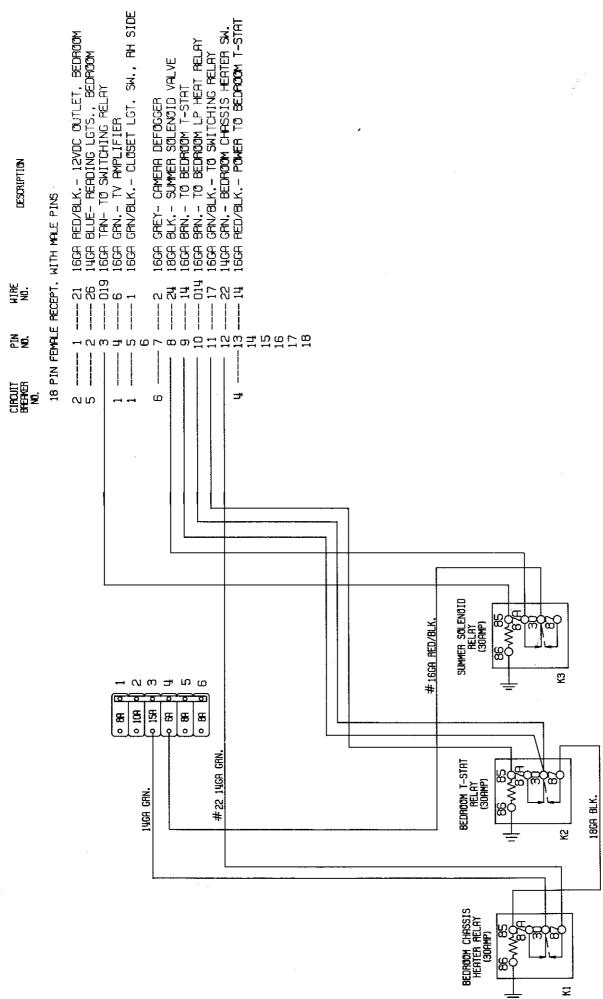


Figure 10-7. 12 Volt Diagram, Right Rear Load Center

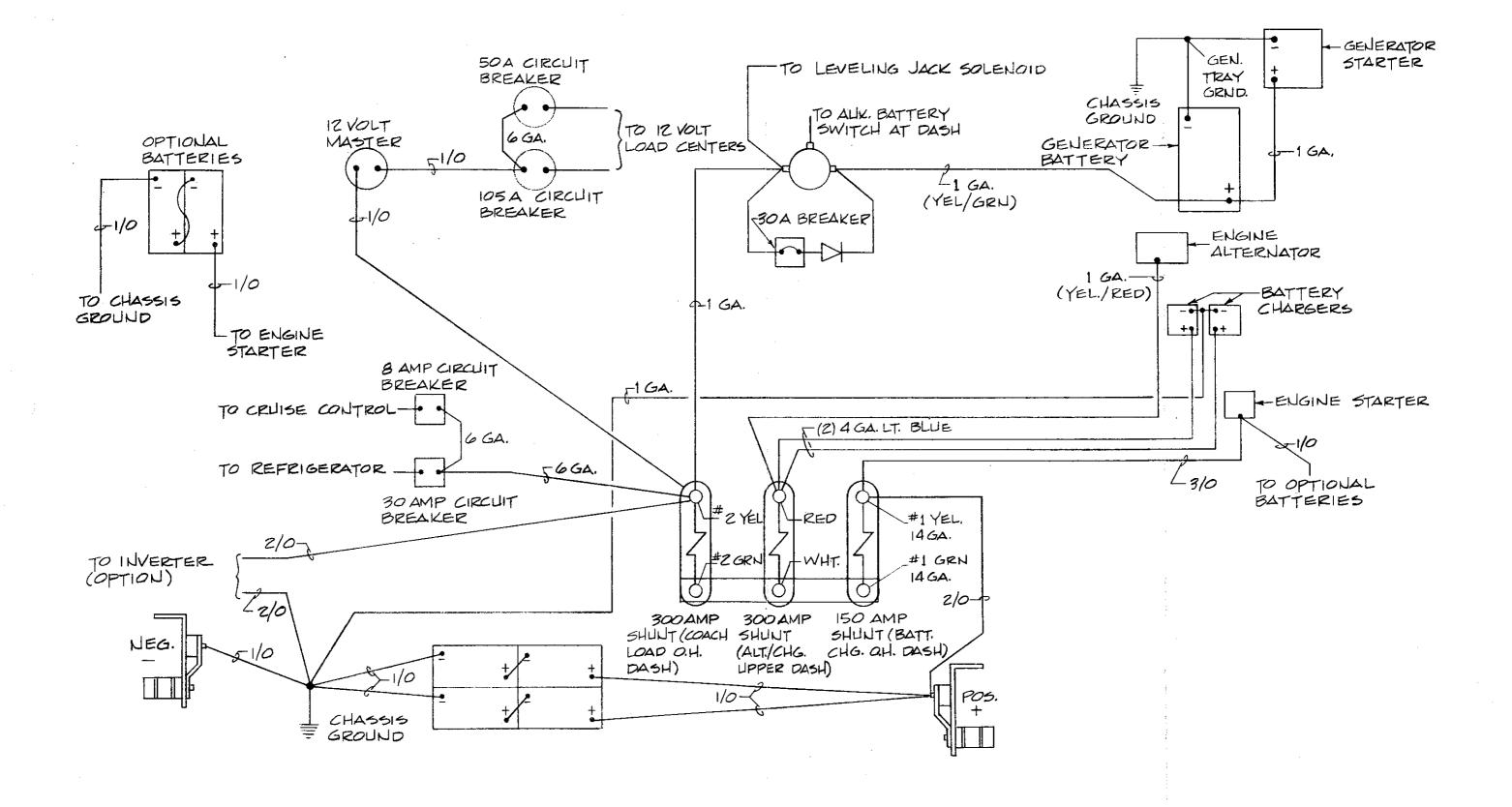
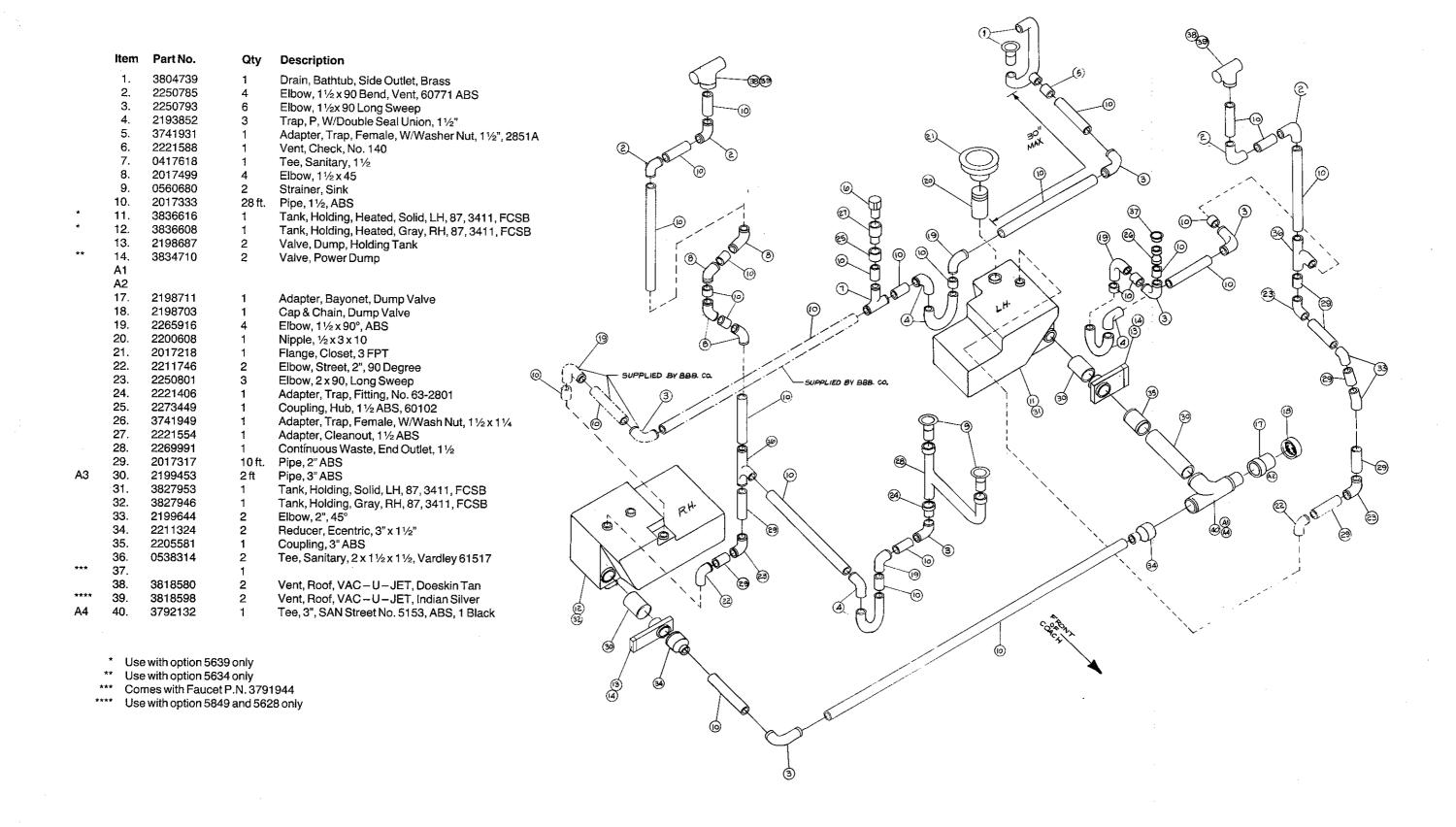
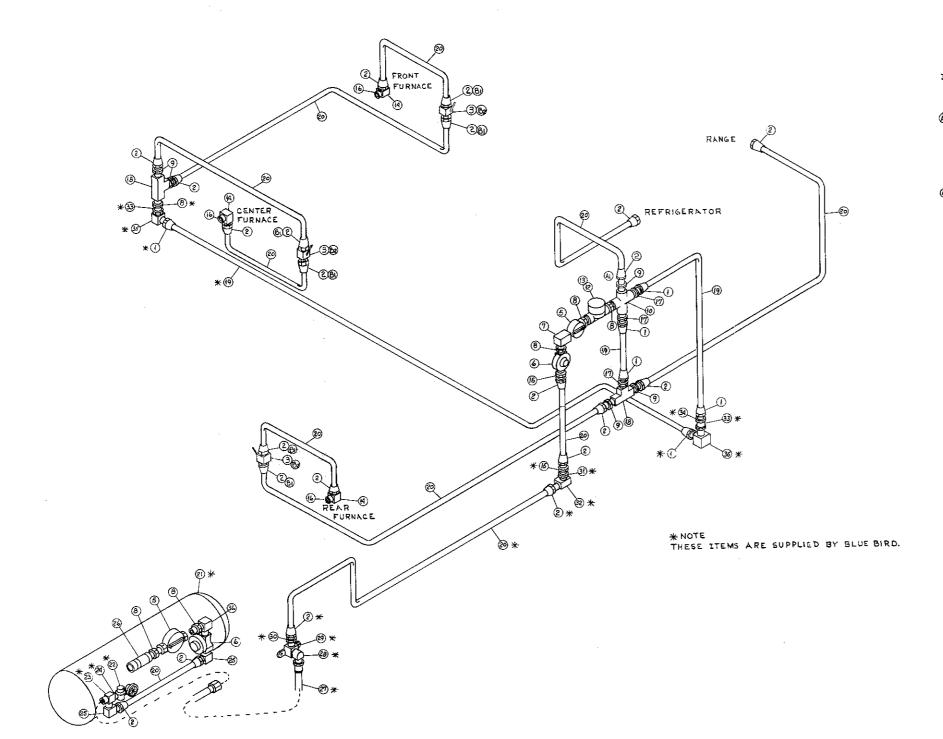


Figure 10-8. 12 Volt Diagram, Batteries and Charging Circuits

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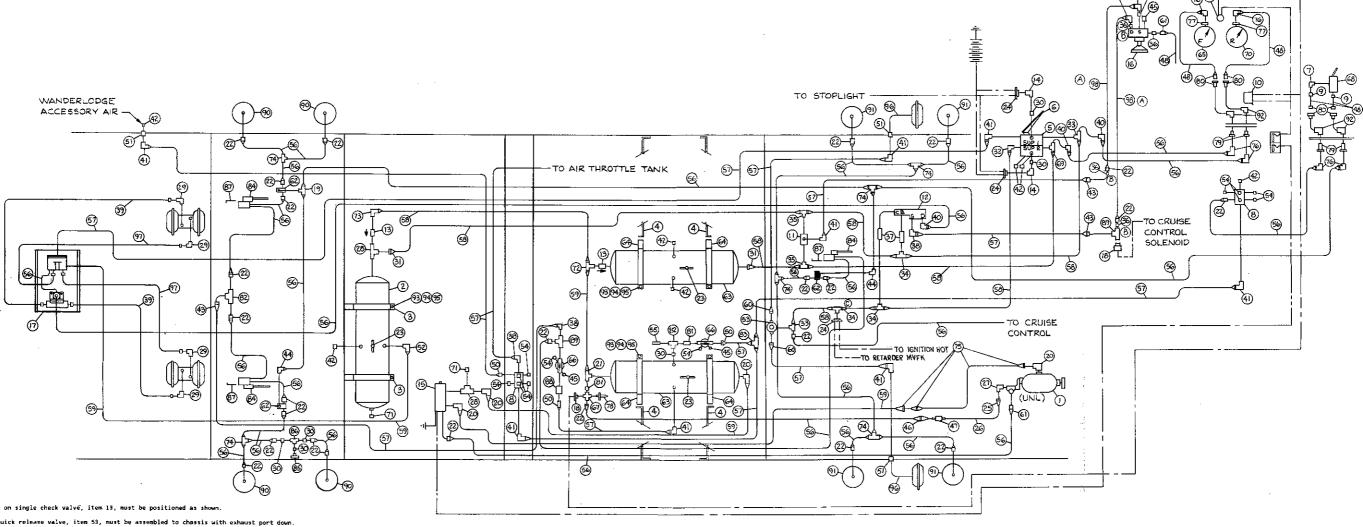




```
PART NO.
                                  DESCR. PTION
ITEM
                            NUT, LONG, FORGED FLARE, 1/2 14 FL-8 ( 4 REOD)
           3744000 (B3)
        ® 3743994 ®
® 2854050
                           NUT, LONG, FORGED FLARE, 3/8 14 FL-6 (20 REOD). VALVE, SHUTOFF 3/8 x3/8 FL (3 REOD)
           2245454
                            VALVE SHUT . OFF, LPG (2 REQ D)
           2265494
                            REGULATOR LOW PRESSURE, MARSHALL BRASS (2 REGD)
           2233930
                            ELBOW 1/2 MPT ( | REQ'D)
                            NIPPLE, HEA 'E MPT X B MPT (5 REQ'D)
                           CONNECTOR MALE, TO FL X 1/2 MPT (5 REO'D)
           2257897
           2257905
                           CROSS FEMALE PIPE, 1/2 IN, NO A 102 (1 REQ'D)
(A) { }
                            YALVE, REG -1 PRESSURE SHUT-OFF MARSHALL BRA ( 1 REQ'D)
           2266591
           2266609
                            ADAPTER, SOLENOID, ARMATURE MARSHALL, BRASS ( REQ'D)
                           ELBOW, 3/8 FLARE x 3/8 FPT 5654 EE (3 REQ'D)
CONNECTOR 4 MPT x 3/8, FLARE (1 REQ'D)
           2216745
           2253979
           2027191
                           NIPPLE 3326 x 6 3/8 CLOSE PIPE (3 REQ'D)
                            CONNECTOR MALE, 12 MPT x 1/2 45 FLARE, 48x8x (3 RLOO)
           2260822
           3804804
                            TEE, & FPT, CAST BRASS (2 REQ'D)
           2027399
                            TUBING 1/2 COPPER 3/8 TYPE L WATER TUBE
           2027381
                            TUBING COPPER, 3/8 IN
                            TANK ASSY, LPG, 44 IN LONG, FRAME MTD (SUPPLIED BY BLUE BIRD)
 51
           0929554
                            REGULATOR, W/EXCESS FLOW (SUPPLIED BY BLUE BIRD)
           1019231
 63
                            TEE STREET, 4 PIPE, 3750 x4 (SUPPLIED BY BLUE BIRD)
           0654277
 24
25
                            NIPPLE, 3326 x 4 4 CLOSE (SUPPLIED BY BLUE BIRD)
           2027183
                            ELBOW, 14 MPT x3/8 TUBE, 205102 (2 REQ'D)
           2023190
                            SOCKET, QWIK DISCONNECT, LP GAS (I REQ'D)
 26
27
28
29
30
31
32
           2266054
                           HOSE ASSY, DUAL LABEL, DH430MP4FP4 (SUPPLIED BY BLUE BIRD) ELBOW, 3400 X 4 4 STREET (SUPPLIED BY BLUE BIRD)
            0976068
           2027233
                           ELBOW, ANCHOR, 14 FPT, 90 DEG, BENDIX NO 201010 (SUPPLIED BY BLUE BIRD)
CONNECTOR, 14 MPT X 3/8 FLARE (SUPPLIED BY BLUE BIRD)
            1153303
            1154913
                            COUPLING, BULKHEAD, 4 FPT (SUPPLIED BY BLUE BIRD)
            2265106
           2260719
                            ELBOW, MALE, 3/8 FLARE X 14 MPT (SUPPLIED BY BLUE BIRD)
                            COUPLING, ANCHOR B-W 817709 BENDIX WESTNIGHS (SUPPLIED BY BLUE BIRD)
 33
            0758698
                            CONNECTOR, 48x8 % MPT x 1/2 TUBE, FLARE (SUPPLIED BY BLUE BIRD)
            2026664
                            ELBOW, MALE, 12 FL X 38 MPT , 49 X8 (SUPPLIED BY BLUE BIRD) ELBOW, STREET, 36 PIPE THOS X 36 PIPE TAP (I REQD)
 35
            2265155
 36
            2023554
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NOTE: 1) PART QUANTITIES SHOWN IN THE ABOVE
PARTS LIST ARE THE QUANTITY SUPPLIED
BY WANDERLODGE.

(FOUR BURNER GAS COOK TOP)



FOR DIAGRAM, DUAL AIR BRAKE ASS'Y W/AIR SUSP. PIPING, PARTS LIST, WLFC, SEE DRAWING 1247246

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QTV. BB NO. 1 0654533 2 2027134	1/2 Tube /4 MPT x 1/4 Tube 8 Tube, 205829 4 Street 2 Tube, 215709 MPT x 1/2 Tube	53 I 1160464 B-W 104000 Valve, Quick Release, BW 104000 33 I 0948919 B-W 217640 Tee, 1/4 FPT x 3/8 MPT x 1/2 Tube 60 2 2023240 B-W 205824 Comnector, 205824, 3/8 MPT x 3/8 Tube	11 1 0654434 B-W 278614 Valve, Double Check, 3/8 Pipe 35 2 0556878 B-W 215/00 Tee, 3/8 Male Pipe x 1/2 Tube x 1/2 Tube 41 1 2023265 B-W 205829 Elbow, 3/8 MPT x 3/8 Tube, 205829 SPRING BRAKE VALVE ASSEMBLY	12 ] 0654426 B-W 286364 Valve, Spring Brake 37 2 2009330 Mipple, 1/4 Pipe x 2" Long (Steel) 38 1 2023190 B-W 205102 Elbow, 124 Male Pipe x 3/8 Tube, 205102 40 1 2023935 B-W 224318 Elbow, 269AB-4-4, 1/4 MPT x 1/4 Tube 34 2 2023505 B-W 22812 CANTROL VALVE ASSEMBLY TV Tube, 228751		3 (B) 0654970 I.E. 459F Insert, Plastic Tubing, 1/4 168 in. 1220011 SRE-J844— Tubing, Plastic, 1/4 0.D. Brown (2 pai Type A long each) FRONT RESERVOIR TANK ASSEMBLY	63 1 0991513 Johnson Reervoir, 9 1/2 x 27 1760 Cu. In., 0129 01229 23 1 1110188 B-W 103385 Cock, Orain, Reservoir, B-W 103385 31 1 2023380 BpM 217691 Connector, 1/2 MPT x 1/2 Tube 13 1 0654418 B-W 227871 Valva, Single Check, 1/2 Pipe	2 2009559 B-W 222155	1 0654418 B-W 227871 1 0754929 B-W 227629 1 1110188 B-W 103385 1 2023380 B-W 217691	52 1 2023422 B-W 221993 Elbow, 3/8 MPT x 5/8 Tube 71 1 0663427 Plug, 1/2 Square Head Pipe, 3151 x 8 28 1 0654350 W-H 3750x8 Tee, 1/2 Pipe, Street 73 1 2023349 B-W 216310 Plug, 1/2 MPT x 1/2 Tube, 216310 42 1 2009595 Plug, Pipe, 3/8	MET RESERVOIR TANK ASSEMBLY	1 2023265 B-W 205829 1 2023265 B-W 205829 1 0991513 Johnson 1 1110188 B-W 103385	22 1 2023224 B-W 224103 Toe, 1/4 FPT x 1/2 MPT x 5/8 Tube 22x103 22 1 2023224 B-W 205183 Connector, 1/4 FPT x 1/4 Tube, 205183 6/ 1 0559054 W-H 3950x4 Cross, 1/4, Fomale Pipe, 3550 x 4 55 1 0839019 B-W 284142 Valve, Safety, 1/4 Pipe, B-W 284142 20 1 2026706 W-H 49 x 10 Elbow, 49 x 10, 1/2 MPT x 5/8 Tube, Flare	2 2027134 W-H 3220x6x4 2 2027183 W-H 3326 x n 1 0559047 W-H 3600 x n	1 2023118 B-W 230576 1 2027118 B-W 233410 1 0522508 Midland N-15759-C 1 2023182 B-W 205053	JUNCTION B J 2023083 B-W 212322 J 2023265 B-W 205829	54 4 2023513 B-W 230576 Plug, Pipe, 1/4 38 1 2023190 B-W 205102 Elbow, 1/4 Male Pipe x 3/8 Tube, 205102 50 1 2023182 B-W 205053 Connector, 205053, 1/4 MPT x 3/8 Tube	2023513 BpW 230576 Plug, Pipe, 1/4   2027118 B-W 233410 Plug, 1/8 In., Pipe	1 0962183 Ridewell S-6888 N-7883 W-H 3126×4	89   064427/ W.H.3750x4   lee, Street, 1/4 Pipe, 3750x4 38   2073190 B.W. 201102   t.bow, 1/4 Male Pipe x.3/8 Tube, 205102 27   20732x4 B.W. 205183   t.annoctor, 1/4 Mpl x.1/4 Tube 205183 66   052250B Midland Valve, Pressure Protection, 65 PST N. 15759 t.	JUNCTION	8 1 2023083 8-W 212322 Fitting, Manifold, 212372 42 1 2009585 Plug, Pipe, 3/8 41 1 2023256 8-W 205829 Elbow, 3/8 MPT x 3/8 Tube, 205829 54 5 2023513 8-W 230576 Plug, Pipe, 1/4 72 1 2023224 8-W 205183 Connector, 1/4 MPT x 1/4 Tube, 205183	CONTROL VALVE ASSEMBLY AIR SUSPENSION DUMP AD 20073398 Control Value Air 10.38
DESCRIPTION Air Compressor Reservoir, Air, 1240 Cu Bracket, Mounting, 8 Ir Spacer, Air Reservoir 8 Valve, Treadle, Dual 8 Treadle Assy, w/Rubber Pin, Dual Brake Valve, Pin, Roll, Brake Valve,	Button. Stop, Dual Brake Treadle Valve, Not Shown 981 Plunger, Dual Brake Valve, Not Shown Capscrew, Har 5/16-187/8, Not Shown Washer, Lock, Split Hd, 5/16, Not Shown 1979 Plate, Mounting, Dual Brake Valve, Not Shown 500-2 Fitting, 90 Dea Elbow, Tilt Steering Switch 322 Fitting, Manifold, 212322 Fitting, Manifold, 212322 Fitting, Barb, Tilt Steering Switch 2150-0	Variation Fine genty by Variation Fine genty by Variation Window, Figure 3.8 Valve, Spring Brake 1/2 (alve, Single Check, 1/2 (lbow, 3400 x 4, 1/4 Strein, Dance 2)	954 Value, PP-1, 30 psi 954 Value, PP-1, 30 psi 246 Indicator, Low Pressure, 66 PSI, BW 104246 182 Tee, 1/8 MPT x 1/4 Tube x 1/4 Tube 193 Elbow, 49x10, 1/2 MPT x 5/8 Tube, Flare 193 Flare, 1/4 FPT x 1/2 x 5/8 Tube, 224103	B-W 205183 Connector, 1/4 MPT x 1/4 Tube, 205183 B-W 103385 Cock, Drain, Reservoir, B-W 103385 W-M 7778 Switch, Stop Light Insp. East End, KA04-04MF, Hose KA94-04MF	lose, Air, 1/4 ID x 1/2  lbow, Male, louvered F1 lipe ee, 1/2 Pipe Street  lbow) 3400 x 6, 3/8 Pip  ushing, Pipe, 3/8 x 1/4  ushing, Pipe, 3/8 x 1/4  onnector, 1/2 MP1 x 1/2	709 Elbow, 3/8 MPT x 1/2 Tube, 215709 640 Tee, 1/4 FPT x 3/8 MPT x 1/2 Tube 7751 Tee, 1/4 FPT x 1/2 Tube x 1/2 Tube 7760 Tee, 3/8 Male Pipe x 1/2 Tube x 1/2 Tube 7.9-F Tanart, Plantic Tubing 1/4	Nipple, 1/4 Pipe x 2" Lo Elbow, 1/4 Male Pipe x 3 Hose Assy, 7/16 I.D. x Elbow, 5/8/Bp-4-x 3/8 TUB Plico, 3/8 Apple x 3/8 TUB		end, KHU4-U4KL, Hose Tubing, Plastic, 1/4 OD, B Light, Pilot, 17/32 Dia.,		Valve, Safety, 1/4 In. Pipe, B-W 28414 Tubing, Copper, 1/4 In. Tubing, Copper, 3/8 In.	ubing, 1/2 Copper, 3/8 Tubing, 5/8 Copper, 1/2 T Connector, 205024, 3/8 MPT Connector, 468-F, 1/8 MPT Valve, Relay, Pilot Contr	#D1229 Reservoir, 9 1/2 x 2-1760 Cu. In., D1229 Brakete, Mounthing, 9 1/2 In., Air Reservoir Gauge, Air Pressure, Front Brake, Dual Scale (Supplied W/Inst. Panel) Valve, Pressure Protection, 65 PSI					56x4 Nipple, 3326 x 4, 1/4 close 00x4 Tee, Male Branch, 1/4 Pipe, 3600 x 4 5106 Tee, 3/8 x 3/8 x 3/8 Tube 11 Value, Height Control		Filter, Air, Ridewell Sus  **A Tee, Street, 1/4 Pipe, 37  Air Spring, Ridewell Rear  Air Spring, Ridewell Frea	Elbow, 3400 x 2, 1/8 Strv Capscrew, Hex 3/8-16x6-1, Lockwasher, 3/8 in., Cad Nut, Hex, 3/8-16, Cad		
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Cross TV-3S Valve, Air TV-3S Cross 11752-1 Fitting, Barb Tilt Steering Switch Cross 15002-2 Fitting, 90 Deg., Elbow, Tilt Steering Switch

- 2 -

WH 147-P Valve, Relay, Pilot Control B-W 209519 Elbow, 269 AB-4-2, 1/8 MPT x 1/8 Tube B-W 205183 Connector, 1/4 MPT x 1/4 Tube, 205183

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RELAY VALVE ASSEMBLY (LH REAR) AIR SUSPENSION DUMP

RELAY VALVE ASSEMBLY (FROMT 6. RH REAR) AIR SUSPENSION DUMP (2 REQ'D)

Air Dryer Elbow, 49 x 10, 1/2 MPT x 5/8 Tube, Flare Connector, 1/4 MPT x 1/4 Tube, 205183

B-W 286931 W-H 49 x 10 B-W 205183

7 2 7

15 20 22

Valve, Relay, Pilot Control Tee, 1/8 MPT x 1/4 Tube x 1/4 Tube Connector, 1/4 MPT x 1/4 Tube, 205183

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Figure 10-13. Air System (Sheet Two)



# Section XI Equipment Options

### **Awnings**

The awnings are standard equipment on your coach and designed for simplicity of operation and long-term use. To open the awning, refer to the figures below and proceed as follows:

### **Open Awning**

1. Pull down on **Z** lock lever, as shown in **figure 11-1**, to permit awning to be unrolled.

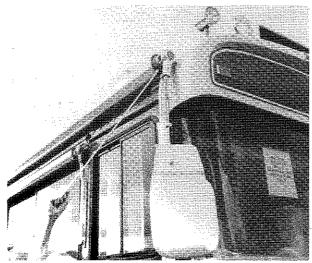


Figure 11-1.

- 2. Completely unroll awning by first pulling the tab toward you with the hook and then grasping strap with hands as shown in **figure 11-2**. Fold or roll the strap so the Velcro strips meet and hold tab in place next to the roller. Now move beneath the awning and proceed with step 3.
- 3. Release the ratchet stud on the rafter arm. Swing the arm toward the case and engage the hook section of the claw in the rafter lock, figure 11-3. Lock the rafter arm by pressing down on main arm bar, making the fabric taut, until the ratchet stud engages.
- 4. Referring to figure 11-4, raise awning to desired height by releasing snap stud on main arm and pushing up and out on roller assembly. Lean, so that body weight rather than arm strength carries out this step.
- 5. Repeat steps 3 and 4 at other end of awning.

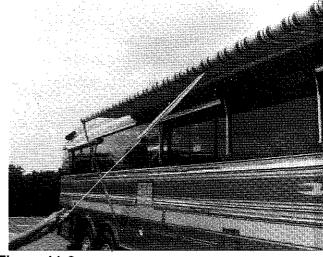


Figure 11-2.

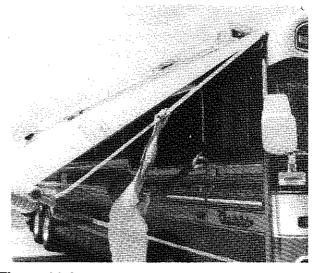


Figure 11-3.

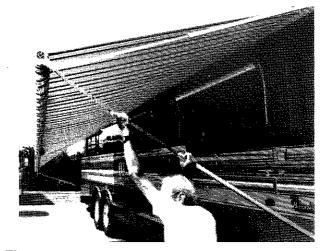


Figure 11-4.

### Caution

Be sure to raise high enough to allow for clearance with the top of the door.



### **Close Awning**

- 1. Lower awning to bottom position by releasing snap studs and dropping roller assembly.
- 2. Release ratchet stud on rafter arms and lift the claws out of the rafter locks.
- Place arm claw casting end against protruding screw. To lock assembly, push rafter tube toward coach body until ratchet stud engages. Repeat at other end of awning.
- 4. Roll awning against coach using the pull tab to guide.
- 5. Lock the awning in place for travel by pushing up the **Z** lock lever.

### Note

The tab must be spiraled around the roller to prevent a loose roll and the bunching-up of fabric.

6. Observe if the roll-up is even and in-line with clamps. If not, then unroll and give roller a slight push toward the direction required to line up the roller. If you wish to have the awning roll up more in either direction spiral the pull tab in that direction.

### **Fabric Care**

The fabric of your awning is made of acrylic fibers which cannot rot or mildew. Your awning can be rolled up wet if necessary, but be sure to open it to dry as soon as possible.

The acrylic fabric of your awning is a synthetic and cannot support mildew or other plant growth. However, mildew can find a home on any pollen, grain dust, plant spores, or other airborne plant material that can accumulate on the awning. If mildew forms on any of these elements, it can leave a stain which can be unsightly and difficult to remove, even though it will not weaken the fabric itself. To minimize the chance of a stain, keep your awnings as clean and dry as possible by hosing it down frequently between seasonal washings.

### Washing

On a monthly basis, loosen hardened dirt and dust with a dry, medium bristle brush, then thoroughly rinse both top and bottom with a hose. For more stubborn stains, use a mild solution of 1/2 cup bleach and 1/2 cup soap flakes diluted in one gallon of lukewarm water.

Wash both sides of the awning with the solution while scrubbing with a soft brush. Saturate the fabric and leave the solution on for 15-20 minutes. (Keep the fabric saturated by reapplying solution as needed.) Rinse **thoroughly**. Repeat if necessary until most of the stains disappear.

### Caution

Never use a strong detergent (super spray) or stain remover on your awning. These can destroy the water repellency of the fabric.

### Water Leaks

If leaking occurs after washing, it is usually the result of insufficient rinsing. If water drips through the needle holes in the stitching, you can use a commercial seam sealer available in canvas and trailer supply stores. You may also apply a paraffin wax to the top of the seams. However, as the awning **weathers**, these holes will normally seal themselves.

It is normal for slight leakage to occur through the fabric where water is allowed to accumulate or **pocket** on the fabric. See **Storm Precautions** for information on awning settings for proper water drainage. Sometimes soap or chemical residue, such as from active agents in insect fogs or sprays, can wet the fabric so that it appears unable to repel water. Rinse the fabric thoroughly and test for water repellancy after it dries. If leakage continues, wash the fabric or contact the manufacturer for information on treating the fabric.

### **Storm Precautions**

Because there is no warranty for damage caused by acts of God, steps should be taken to prevent damage from occurring due to wind, rain or storm.

If you are leaving or retiring for the night, close the awning. This takes only a few seconds (less time than closing your windows) and gives you the best protection. If for some reason you can't close the awning, lower both ends of it as far as you can without removing the spring arms. This will create a sufficient slope for water run-off. If you are remaining with the awning, you may lower one end only sufficiently to divert water.



### Hardware and Mechanism Maintenance

Although your awning requires less maintenance than any other awning, a little care (about the same amount that you give to your coach) will keep the metal parts in top shape. The rafter arm assemblies, main arm tubes, and the awning case are bright-anodized aluminum; the castings are polished, high-strength aluminum alloys. To keep these parts new looking they should be cleaned once a year with a good quality chrome or aluminum polish.

The main arm bar and all fasteners and stress bearing shafts are stainless steel. These need only be cleaned occasionally to remove accumulated grime that might hinder their operation.

### At the end of each season:

- Tighten any loose bolts or screws. (Replace missing parts only with factory authorized replacements.)
- Polish accessible hardware.
- Use a silicone lubricant only on the 1/2" round shafts that protrude from each end of the roller.
- Extend all telescoping arms as far as possible to wipe off accummulated sand and dirt that can clog and scratch the protective aluminum finish.

### Ice-Maker

The ice-maker, figure 11-5, is designed to provide a continuous automatic supply of ice cubes. It will operate unattended providing that the water supply line is open and the ac power is applied to the unit. This may be supplied from shorepower, the power generator, or from the optional motor generator (Redi-Line).

### **Ice-Maker Operation**

The power on-off switch is located on the front grillework. When the ice cube supply is full, the ice-making mechanism shuts off automatically. However, the refrigeration system continues to operate to prevent the prepared ice cubes from melting. When removing cubes, do not use a sharp instrument to separate the cubes that are frozen together or the interior may be damaged.

Note that the ice-maker may supply small cubes the first time that it is used. This is due to accumulated air in the water line and subsequent batches will be normal-sized. If the machine is used only intermittently, empty the ice periodically (every week to 10 days) to ensure a fresh supply of cubes.

Do not clean the cabinet interior with solvent-type cleaners, abrasives, or other cleaners that might cause ice cubes to acquire a bad taste. The exterior should be cleaned with a furniture-type cleaner/polish. Clean condenser (behind grille) with a blower/vacuum at least 3 to 4 times each year, depending on usage.

### Caution

The ice-maker grille must be free from all obstructions. Any interference with free air flow to the grille will cause faulty operation.

To shut down the ice-maker, set power switch to off, and remove all cubes. Leave the door slightly ajar for ventilation to avoid mold or odors.

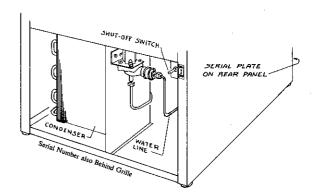


Figure 11-5 Ice-Maker Details.

### **Ice-Maker Maintenance**

Other than periodic cleaning of grillework, condenser and interior, no other maintenance procedures are required. Remove the grille as follows: take out screw at top, put fingers in slots and lift up and out.

### Winterizing

Follow procedure in Section V. To facilitate draining of water line, remove garden hose type fitting shown in figure 11-5

### **Mountz Power Wrench**

Usage described in Section VIII.

### **Konstant Hot Water Dispenser**

Operated from 120V. ac (shoreline or power generator) to provide instant hot water.



Winterizing instructions are provided in Section V

### **Kool-O-Matic Ventilation Fan**

This 12 volt dc power ventilator has the capacity to move a large volume of air.

In many low humidity regions it will eliminate the need for operating air conditioning units.

### Operation

Remove the magnetically attached fabric cover and open inlet dampers.

Be sure windows are open to provide proper air flow cooling and ventilation.

A heat-cool thermostat is located near the Kool-O-Matic fan. It also serves the area LPG furnace and chassis heater. In order to activate the fan, the selector switch (at the bottom) must be moved to **COOL** and the temperature lever set so the fan will operate. The fan will then start automatically whenever the temperature rises above the desired level.

### **Auxiliary Air Compressor**

This unit provides a quick source of air so there is no need to wait for pressure to build up after starting engine; you just drive right off! It can be used to operate air tools and accessories without starting the coach engine. It also serves as a standby unit in the rare case of a malfunction in the engine driven air compressor system.

The compressor and starting relay are located in an outside compartment while the 12 volt switch to operate the relay is in an **ACCESSORY** position on the dash.

### Operation

The compressor operates from 120 volt ac power so the coach must be plugged into shore power or the generator must be running. Press dash switch (in **ACCESSORY** position) ON.

For intermittent use, enough air will be supplied by the luggage compartment. If, however, it is to be used for an extended period, such as to power air tools, it is suggested that the luggage compartment door be opened.

### Maintenance

No lubrication is required for the life of the unit.

The air inlet filters should be inspected once or

twice a year. The black plastic air inlet covers can be removed by turning counter-clockwise. This will reveal the felt filters. If there is evidence of dirt on filters and covers they may be washed in a solvent and air dried.

### **CORIAN Counter Tops**

Even stubborn stains — such as grape or beet juices — wipe off with a damp cloth and household cleanser. Because CORIAN is solid all the way through, it cannot be harmed by abrasive cleansers and normal household cleaners.

CORIAN is strong and tough, but slicing on it with knives can cause scratches. Use a cutting board.

While CORIAN does provide an extra measure of protection (better than ordinary countertops), it is **not** recommended as a hot pad. Do not place hot pots and pans directly on your CORIAN countertop.

Since it's a solid material with color and pattern all the way through, unusual damage such as cigarette burns, scratches, or other surface abuse can usually be removed using ordinary household cleansers or fine sandpaper. If the stain persists, or if the scratch is particularly deep, first use a medium sandpaper (120 or 240 grit) then fine sandpaper (320 or 400 grit) followed by circular motion buffing with a scotch Brite pad to match the gloss of adjacent surfaces. Household cleanser, steel wool or Du Pont No. 7 polishing compound can also be used if higher gloss levels are needed.

### **Caution**

Certain chemicals found in the home — such as paint removers, paint brush cleaners, acid drain cleaners and certain brands of nail polish and polish removers — can harm CORIAN if left in contact even for short periods of time. These materials should be wiped away promptly and flushed with water. Depending on time of exposure, surface damage caused by these materials can sometimes extend too deeply for practical repairs.

### Inverter

A 1500 watt inverter is offered to provide auxiliary power to operate ice maker, front overhead



television, and electric drapes while in transit from 12 volt source. The inverter is located in the left hand outside luggage compartment with the battery chargers. See owner's manual for operating instructions.

### **Power Dump Valves**

Air operated cylinders with a control panel located on left side of coach behind holding tank access door. Panel incudes toggle switch for each tank and an air pressure gauge for the system. Manual operating tool is attached to control panel in case of low air pressure. (Available on 35 foot side bath only.)

### **Quick Start Aid**

An ether injection system is used to aid starting the engine in cold weather. The switch for the system is located in the accessory position on upper right hand dash panel (item 3, figure 2-6). To activate valve depress switch for 3 seconds to fill valve then release switch to inject charge into engine. Allow 3 seconds before starting engine.

### Caution

Use only for starting engine and inject prior to cranking.

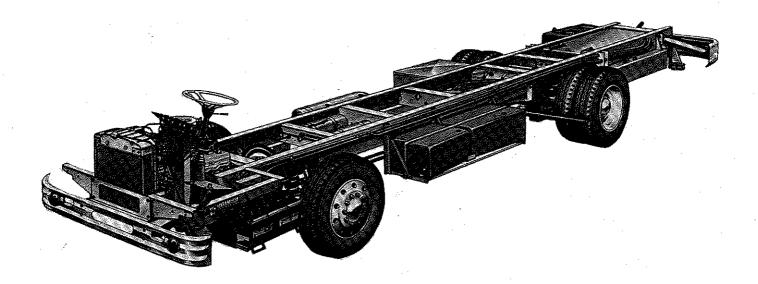
# Water System Air Accumulator With Diaphram

An accumulator in the water system smooths out the water flow, eliminates water hammer, and pulsations from the water pump.

Having no diaphragm, the present accumulator can become water-logged, lose its effectness and require frequent re-pressurizing.

The WX101 incorporates a butyl diaphragm with the air side (top) being pre-charged to 20 psi. If this is accidentally lost, the accumulator may be recharged to 20-25 psi through the Schrader valve on top.

# 1987 Wanderlodge Forward Control Chassis Parts Catalog





Fort Valley, Georgia Brantford, Ontario Buena Vista, Virginia Mt. Pleasant, Iowa

Chassis No. \_\_\_\_\_ Body No. \_\_\_\_

# BLUE BIRD BODY CO. BODY NO. F70816 MODEL YR. 1987 FORT VALLEY, GEORGIA, USA BODY SERVICE NO. 0160070

	FURNISH INFOM	ATION	BELOW WHEN ORDE	RING	AXLE PARTS
CHASSIS SERIAL	24252		ENGINE SERIAL 0	2Z2	5684
FRONT A XLE	FF942NX5		BRAKE LINING FMS NO. & FRICTION CO		4524B/FF
BRAKE DRUM	1117365		,		
REAR AXLE	R125NX10		BRAKE LINING FMS		4515G/FF
BRAKE DRUM	1117340				
REAR AX	(LE RATIO	5.29	)		
CHAS	SIS SERVICE	NO.		09	62593



### Introduction

Thank you for the confidence you have shown in our company by purchasing a Blue Bird Wanderlodge. This catalog is designed to assist you in ordering service replacement parts for your Blue Bird. It contains illustrations with parts information for most parts and accessories.

If at any time you should need assistance. Please don't hesitate to contact your Blue Bird Distributor or the Service Parts Department in Fort Valley, Georgia, U.S.A.

### **Ordering Parts**

You can order your service parts/from your Blue Bird Distributor or directly from Blue Bird Body Company, Fort Valley, Georgia. When placing an order give the quantity, Blue Bird part number and a brief description. If for some reason you have been unable to find the part number, advise the quantity and a complete parts description, along with the body number for which the parts are required. The body number of your Blue Bird may be found on the Data Plate which is inside the electrical box compartment. The electrical box compartment is inside the coach immediately to the right of the entrance door. A picture of the Data Plate appears on the inside front cover of this catalog.

When ordering parts for a major wreck, it is a good idea to include photographs with your order. This will help to fill your order correctly.

### **Receiving Parts from Carrier**

Certain steps should be taken when receiving an order to insure it's completeness and to evaluate the condition of the parts received.

- 1. Check the number of pieces actually received against the number of pieces shown on the bill of lading.
- 2. Visually check the external condition of the boxes, crates, etc. Any discrepancies should be noted on the bill of lading. Have the driver initial each notation on your copy and his copy of the bill of lading.
- 3. Any concealed damage not discovered until after the carrier has left should be reported immediately to the carrier.
- 4. Claims for shortages or damages should be filed with the carrier immediately.
- 5. If incorrect parts are received, notify the Service Parts Department from whom you purchased the parts. They will advise disposition of the parts. Do not return parts without prior authorization.

### **Shipment of Material**

All parts will be shipped the most economical way, unless otherwise specified.

### **Company Policy**

Although it is impractical to include all parts in this catalog for all options offered, we believe those included will meet the great majority of your needs. It is our earnest desire at Blue Bird to give you the fastest and most accurate service possible. Please help us by studying this catalog and ordering by the correct part number.

### A Word of Caution

Blue Bird uses new parts and components in the manufacture of its' coaches. We strongly recommend that you use only new parts and components for replacement purposes. Blue Bird or its' vendor can not be responsible for failures due to the use of used or rebuilt parts.

### **Payment**

All parts orders are shipped on a C.O.D. basis unless other arrangements have been made with your Blue Bird Distributor or Blue Bird Body Company. This is customary in the automotive field.

### Important

The illustrations and drawings used in this parts catalog are to be used for parts identification purposes only, not as a guide for assembly, disassembly, maintenance or service.

### Chassis Service Number

A chassis service number (CSN) is assigned to the **chassis** of each Blue Bird Wanderlodge. This number is used to identify the sequence in which a chassis is set up in production.

Example: CSN 0958560 is set up immediately before CSN 0958561.

This will assist you in identifying the first unit (beginning CSN) or last unit (ending CSN) on which a part was installed.

The CSN can be found attached to the axle record plate which is inside the electrical box compartment. The electrical box compartment is inside the coach immediately to the right of the entrance door. A picture of the axle record plate appears on the inside front cover of this catalog.

# TABLE OF CONTENTS

DESCRIPTION	PAGE NO.
FRONT AXLE (FF-942-NX5)	2
REAR AXLE (R-125-NX-10)	6
FRONT BRAKES	10
REAR BRAKES	14
WHEEL END COMPONENTS, FRONT	16
WHEEL END COMPONENTS, REAR	18
DUAL AIR BRAKE SYSTEM W/AIR SUSPENSION PIPING	20
REAR BRAKE CHAMBER, ANCHORLOK	24
BRAKE TREADLE VALVE	26
COOLING SYSTEM, CAT. 3208TA	28
COOLING RETARDER, Z-F TRANSMISSION	30
DRIVELINE	32
ENGINE TRIM	34
MOUNTING ZF TRANSMISSION	36
OPT. 4393, ENGINE FAN CLUTCH, AIR	38
AIR INTAKE, CAT 300 HP	40
BATTERY AND CABLES	42
EXHAUST SYSTEM, 31' & 33' SIDE & 35' REAR BATH	44
EXHAUST SYSTEM, 35' SIDE BATH	46
FRAME FRONT SECTION	48
FRAME REAR SECTION	50
FUEL SYSTEM, 31' & 33' SIDE BATH	53
FUEL LINES, 35', SIDE BATH	54
FUEL SYSTEM, 35' W/REAR BATH	56
PANEL ASSY., DASH, UPPER	58
PANEL ASSY., DASH LOWER	60
PANEL, DASH, SHIFTER	62
PANEL, DASH, OVERHEAD AUXILIARY, RH	64
PANEL INSTRUMENTS, LEFT HAND OVERHEAD	66
PANEL, DASH, RH, UPPER	68
STEERING INSTALLATION	70
COLUMN ASSY., TILT & TELESCOPING	72
HFB 64, STEERING GEAR ASSY	74
POWER STEERING ASSY., 300 H.P	78
SUSPENSION, FRONT	80
SUSPENSION, REAR	82
AIR LEVELING SYSTEM, OPT. 5640-00	
AIR THROTTLE CONTROL	86
ACCELERATOR CABLE INSTALLATION, 300 HP	88
HOLDING TANK, 31' & 33'	90
HOLDING TANKS, 35' SIDE BATH	91
HOLDING TANK, 35' REAR BATH	92
LPG TANKS, 31' & 33' W/SIDE BATH	94
LPG TANKS, 35' W/SIDE BATH	96
I.P.C. TANKS 35' W/REAR RATH	9.8

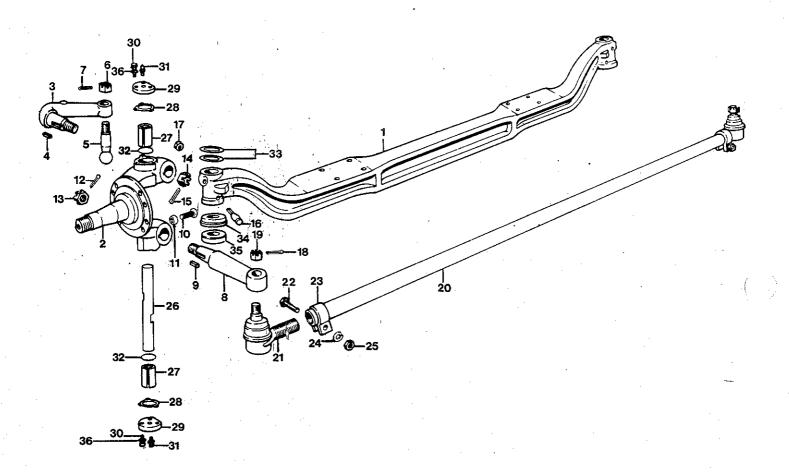


### **ABBREVIATIONS**

AC ADJ. AR ASSY. BB BLK BRKT. COMP.	AIR CONDITIONING ADJUSTING AS REQUIRED ASSEMBLY BLUE BIRD BLACK BRACKET COMPRESSOR CONTINUED
CTR.	CENTER
CU. CYL.	CUBIC CYLINDER
DEG.	DEGREE
DIA.	DIAMETER
DIFF.	DIFFERENTIAL
DRI'S	DRIVER'S
ENG.	ENGINE
EXH.	EXHAUST
FPT	FEMALE PIPE THREAD
FRT.	FRONT
FWD	FORWARD
GD.	GRADE
GM	GENERAL MOTORS
GR.	GRADE
HDND I.D.	HARDENED INSIDE DIAMETER
INCL.	INCLUDED
LH	LEFT HAND
MAT'L	MATERIAL
MPT	MALE PIPE THREAD
MTG	MOUNTING
NI	NOT ILLUSTRATED
O.D.	OUTSIDE DIAMETER
OZ	OUNCE
PLTD.	PLATED
POS.	POSITION
PT	PIPE THREAD
RD.	ROUND
RH	RIGHT HAND
SM	SMALL
STD.	STANDARD
SUSP.	SUSPENSION
TRANS.	TRANSMISSION

DR. 5/10/84 BY JET 8002883

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	Г			· · · · · · · · · · · · · · · · · · ·
KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1 2 NI 3 4 5 6 7	2137040 2137057 2136455 2135218 2601631 2643294 2594398	AXLE CENTER STEERING KNUCKLE ASSY. LH STEERING KNUCKLE ASSY. RH STEERING ARM KEY, STEERING ARM BALL, STEERING ARM, 1 3/4" NUT. STEERING ARM BALL PIN, COTTER  ARM, CROSSTUBE LH (SHOWN)	3100-G-6091 A19-3111-Y-2599 A16-3111-R-2358 3133-K-5653 16-X-202 2110-Y-103 N-214-1 K-2412	
9 10 11 12 13 14 15	2646545 2596195 2594596 2600724 2135200	RH  KEY, CROSSTUBE ARM  SCREW, STOP  LOCKNUT  PIN, COTTER  NUT, CROSSTUBE ARM  NUT, STEERING ARM  PIN, COTTER, STEERING ARM	3133-J-998 16-X-202 26-X-219 N-48-1 K-2616 14-X-27 13-X-159 K-2618	2 2 2 2 2
16	2622470 2622371	•	7-X-112 7-X-111	2 2
17 18 19 20	2594398 2643294	NUT, DRAW KEY PIN, COTTER NUT, CROSSTUBE END CROSSTUBE & CLAMP ASSY.	1227-Z-780 K-2412 N-214-1 A-3102-N-3472	4 2 2
21	2597151	END ASSY., CROSSTUBE LH (SHOWN) RH	A-3144-N-456 A-3144-P-458	
27 28 29 30 31 32	2600351 2595601 2596393 2599769 2137016 2602142 2600757 2703262 2703270	CAP, STEERING KNUCKLE CAPSCREW FITTING, GREASE SEAL ASSY., OIL	S-11022-C 2257-Q-17 WA-110 N-710-C 3101-W-179 1225-W-985 2208-Q-823 2297-C-2681 S-259-1 1199-N-1860 A-1205-X-1428	2 2 2 2 2 4 4 12 4
33	2603538 2603231		2203-L-3002 2203-K-3001	AR AR

# FRONT AXLE FF-942-NX5

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
34 35 36	2703288 2595502 2600419	SEAL & GASKET ASSY., LOWER THRUST BEARING & GASKET ASSY. WASHER	A-1205-B-1432 T-182 1229-E-1669	2 2 12
NI	2137305	REPAIR KIT, KNUCKLE PIN (INCLUDES ITEMS 16.26.27 28.29.30.32.33.34.35)	KIT 1307	
		·		
				·
			. *	

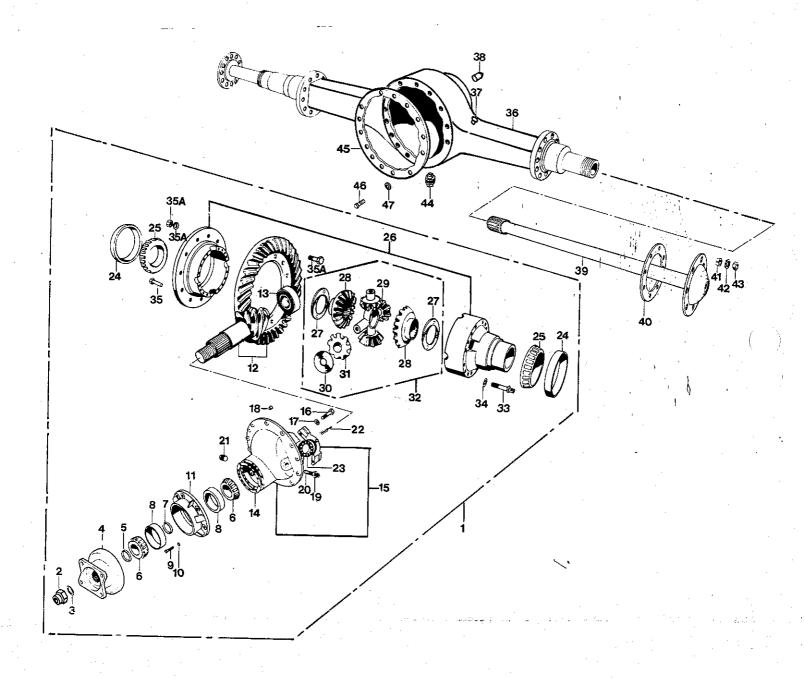
ONE 4 REQUIRED 0729P QUANTITY IS UNLESS OTHERWISE -SPECIFIED.



# ROCKWELL STANDARD REAR AXLE R-125-NX-10

OR 6/14/83 BY JET 8002362

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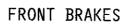
# ROCKWELL STANDARD REAR AXLE R-125-NX-10

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
NI*	2137156	KIT, DIFF. CARRIER OVERHAUL	QR100-1314	
1	2149391	CARRIER ASSY, DIFFERENTIAL, COMPLETE, 5.29	Ã48-3200-N-1314	
2	2135903	NUT, YOKE INPUT	1227-R-902	
3	2117778	WASHER. YOKE INPUT	1229-T-1736	
4	2139848	YOKE. DRIVE	3260-Q-121	
5	2136851	COMPLETE, 5.29  NUT, YOKE INPUT  WASHER, YOKE INPUT  YOKE, DRIVE  SEAL ASSY., PINION OIL  BEARING, PINION, FWD. & REAR  SPACER KIT, PINION BEARING  CUP, PINION BEARING  CAPSCREW, FWD. BEARING CAGE  WASHER FWD REARING CAGE	A-1205-Y-1897	
6	2135051	BEARING, PINION, FWD. & REAR	72212-C	2
7	2135895	SPACER KIT, PINION BEARING	KIT 545	
8	2624427	CUP, PINION BEARING	72487	2
9	2594208	CAPSCREW, FWD. BEARING CAGE	S-2812-1	8
10	2600211	WASHER, FWD. BEARING CAGE		8
11	2135044	WASHER, FWD. BEARING CAGE CAGE ASSY, PINION (INCLUDES ITEM #8)	A-3226-Z-806	
12	2125102		A-37376-1	
13			1228-F-552	
		AVIN DINION CAGE	•	
14		SHIM, PINION CAGE	2203-C-8115	
		.003 THICK .005 THICK	2203-C-8115 2203-D-8116	
l <sub>e</sub>		.010 THICK	2203-E-8117	
15	2135028	CARRIER & CAPS ASSY. CAPSCREW, DIFF. BEARING CAP WASHER, DIFF. BEARING CAP	A2-3200-N-1314	
16	2135036	CAPSCREW. DIFF. BEARING CAP	S-21238-1	4
17	2603017	WASHER, DIFF, BEARING CAP	1229-V-1556	4
18	2599728	DOWEL, DIFF. BEARING CAP	1246-D-342	4
19	2121861		13X-41	
20	2121853	CODEM PUDICE DRIVE CEAR	15X_1025	
21	2596898	PLUG, OIL FILL & INSPECTION	P-212	
22	2596807	COTTER PIN, ADJUSTING RING	P-212 1199-R-2176	2 .
23	2135168	COTTER PIN, ADJUSTING RING ADJUSTING RING, DIFF. BEARING	2214-Z-208 JM-716610	2 '
24	2135143	CUP, DIFFERENTIAL BEARING	JM-716610	2
25	2135150	CONE, DIFFERENTIAL BEARING	JM-716649	2
26		CASE ASSY., DIFFERENTIAL, 5.29	A28-3235-D-1174	1
27		WASHER, THRUST DIFF. SIDE GEAR	1229-T-1034	2
28		GEAR, DIFF. SIDE	2234-C-783	2
29		SPIDER, DIFF.	3278-S-305	_
30	_	WASHER, DIFFERENTIAL PINION	1229-R-1032	4 4
31		GEAR, DIFFERENTIAL PINION	2233-U-151	4.
32	2137412	KIT, DIFFERENTIAL	KIT 326	
		* NOTE: THIS KIT CONTAINS ALL PARTS NECESSARY TO PERFORM BASIC DIFFERENTIAL CARRIER OVERHAUL	-	

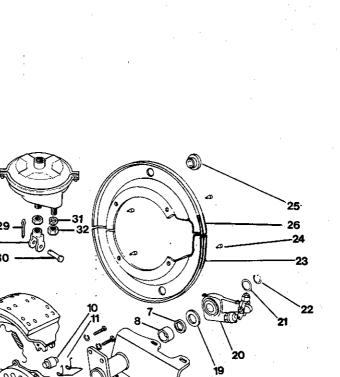
# ROCKWELL STANDARD REAR AXLE R-125-NX-10

KEY NO.	PARTNO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
33 34 35 35A 36 37 38 39 40 41 42 43	2135119 2600211 2597292 2120814 2135804 2593150 2134997 2135002 0929083 0929091 2603512 2594893 2121887	BREATHER ASSY., AXLE HOUSING PLUG ASSY., HEAT INDICATOR SHAFT, AXLE, LH & RH GASKET, AXLE SHAFT DOWEL, AXLE SHAFT STUD LOCKWASHER, AXLE SHAFT STUD NUT, AXLE SHAFT STUD	S-2826A-1 1229-C-1511 RV-71013 KIT 570 C-3121-Q-797 A-1199-P-1394 P-28 3202-P-8362 2208-X-440 13885 1229-X-518 N-110-1 1250-E-473	16 12 16 16 16
45 46 47	2127017 2704666 2602712	GASKET, SILASTIC (3 OZ. TUBE)	EATON 107276 S-21014-1 1229-U-1503	14 14
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7	7. vn 1 <del>1</del> .			





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## FRONT BRAKES

KEY NO.	PART NO.	DESCRIPTION		QTY REQ'D
ı	2121598	BRAKE SHOE & LINING ASSY., 5"	A17-3222-E-1383	4
NI	2120897	BRAKE SHOE ONLY. 5"	A-3222-E-1383	4
NI	2117968	KIT, BRAKE LINING (1 PER AXLE)	D39A-4524-A	
NI	2135978	RIVET, BRAKE LINING	10-9	64
2	2120863	SPRING, BRAKE SHOE RETAINING	2258-Q-615	4
3	2120889	BUSHING, ANCHOR PIN	1225-B-496	2
4	2120871	SPRING, BRAKE SHOE RETAINING BUSHING, ANCHOR PIN ANCHOR PIN, BRAKE SHOE	1259-N-274	2
5		CAMSHAFT, FRONT BRAKE		İ
	2121606	LH	2210-R-5374	
	2121614	RH	2210-Q-5373	
6	2121622	WASHER, CAMHEAD, (FLAT)	1229-N-2250	2
7	2121689	SEAL, CAMSHAFI	A-1205-V-1556	4
8	2597706	BUSHING, CAMSHAFT SPIDER & BRKT.	1225-N-378	4
9	2597300	PIN, BRAKE SHOE RETURN SPRING	1218-G-85	4
	2598134	ROLLER, BRAKE SHOE	1779-R-18	4
	2121655	RETAINER, SHOE ROLLER	3105-B-210	4
	2638716	RETURN SPRING, BRAKE SHOE	2258-U-619	2
13	:	SPIDER, BRAKE		
	2136935		A-3211-H-4428	
	2157923	RH	A-3211-J-4430	
14	2644235	GASKET, CHAMBER BRKT.	1779-J-1024	2
15		BRACKET, CAMSHAFT & CHAMBER		- •
	2136927	LH	B21-3299-K-2013	
	2157931	RH	B21-3299-L-2014	
		WASHER, BRKT. CAPSCREW	WA-18	8 8
17	2594109	CAPSCREW, CHAMBER BRKT.	S-2812	8
18	2027431	FITTING, GREASE	1199-N-1860	2
19	2121663	WASHER, CAMSHAFT (THICK)	1229-S-2697	2 .
20		SLACK ADJUSTER ASSY.		
	1032499	RH	A2-3275-A-599	
	1032481	LH	A2-3275-U-593	
21	2121671	WASHER SPACING (STANDARD)	1229-G-2971	6
22	2121697	LOCKRING, CAMSHAFT	1229-D-2942	2
23		NOT APPLICABLE	,	
24		NOT APPLICABLE		
25		NOT APPLICABLE		
26	1	NOT APPLICABLE		
27	1099183	BRAKE CHAMBER, 24"	162895	
28	2137685	YOKE, BRAKE CHAMBER PUSH ROD	A-1245-E-395	
29	223,003	NOT APPLICABLE		

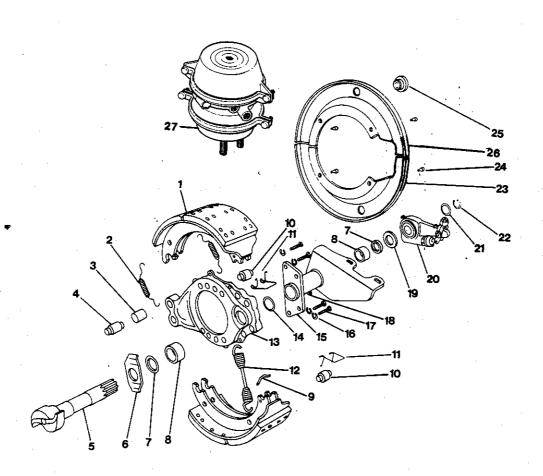
# FRONT BRAKES

KEY NO.	PARTNO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
30 31 32	2595601 2001501	N/A LOCKWASHER, BRAKE CHAMBER NUT, BRAKE CHAMBER STUD	WA-110	
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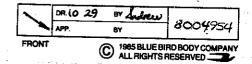
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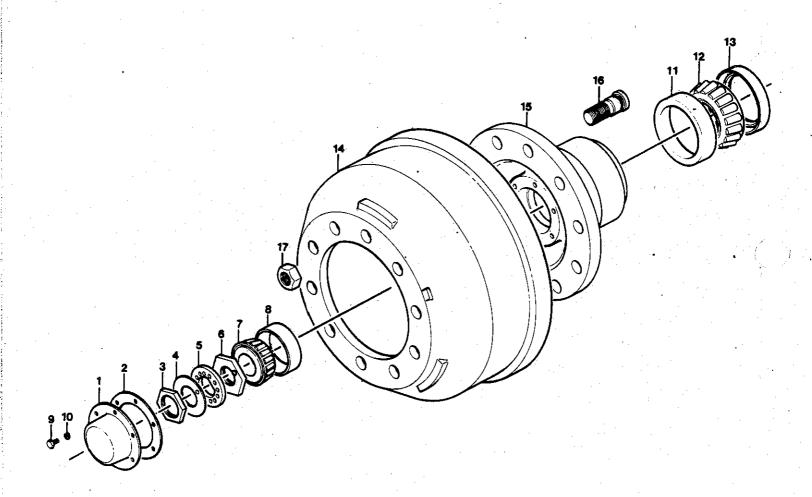


### REAR BRAKES

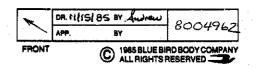
				· · · · · · · · · · · · · · · · · · ·	
NI	KEY NO.	PART NO.	DESCRIPTION		QTY REQ'D
NI	1	2121705	BRAKE SHOE & LINING ASSY., 7"	A48-3222-S-1293	4
NI				A-3222-S-1293	4
NI				D39A-4515-E	
1220889				10-9	64
3	2	2120863	SPRING BRAKE SHOE RETAINING	2258-Q-615	
4 2120871 ANCHOR PIN. BRAKE SHOE 1259-N-274 2  CAMSHAFT. BRAKE LH 2210-A-5331 2210-B-5332  6 2121622 WASHER. CAMHEAD. (FLAT) 1229-N-2250 4 1205-V-1556 4 1259-7706 10 2597300 10 2598134 11 2121655 12 2638716 12137081 14 2644235 12 2135689 14 2644235 12 2135689 17 2595809 17 2595809 17 2595809 17 2595109 17 2	3		BUSHING, ANCHOR PIN	1225-B-496	
2121739	4	2120871	ANCHOR PIN. BRAKE SHOE	1259-N-274	2
2121747 RH 2210-B-5332  6 2121622 WASHER, CAMHEAD, (FLAT) 1229-N-2250 2 A-1205-V-1556 4 BEAL, CAMSHAFT SPIDER & BRKT. 1225-N-378 1218-G-85 ROLLER, BRAKE SHOE RETURN SPRING 1218-G-85 RETURN SPRING 1218-G-85 RETURN SPRING 1218-G-85 ROLLER, BRAKE SHOE RETURN SPRING 1225-N-378 1218-G-85 ROLLER, BRAKE SHOE 1779-R-18 4 3105-B-210 4 RETURN SPRING, BRAKE SHOE 2258-U-619 2 SPIDER, BRAKE SHOE 2258-U-619 2 A-3211-P-3448 1 179-J-1024 2 BRACKET, CHAMBER BRACKET 179-J-1024 2 BRACKET, CAMSHAFT & CHAMBER 1779-J-1024 2 BRACKET, CAMSHAFT & CHAMBER 1779-J-1024 2 BRACKET, CAMSHAFT & CHAMBER MA-18 8 S-2812 8 FITTING, GREASE WASHER, BRACKET CAPSCREW WA-18 8 S-2812 8 FITTING, GREASE WASHER, CAMSHAFT, (THICK) 1229-S-2697 2 WASHER, CAMSHAFT, (THICK) 1229-S-2697 2 SLACK ADJUSTER ASSY. LH A4930 LH RH A2-3275-C-601-S A2-3275-W-595-S 1444948 RH A2-3275-W-595-S 121 2121667 LOCKRING, CAMSHAFT N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	5		CAMSHAFT, BRAKE		
6 2121622		2121739	LH	2210-A-5331	
Table   Tabl				2210-B-5332	
S   2597706   BUSHING, CAMSHAFT SPIDER & BRKT.   1225-M-378   1218-G-85   179-R-18   4   121655   RETAINER, SHOE ROLLER   179-R-18   4   3105-B-210   4   310	6	2121622	WASHER, CAMHEAD, (FLAT)	1229-N-2250	
8   2597706   BUSHING, CAMSHAFT SPIDER & BRKT.   1225-M-378   1218-G-85   10   2598134   ROLLER, BRAKE SHOE   RETURN SPRING   1218-G-85   1779-R-18   4   1216-55   1779-R-18   4   1216-55   1779-R-18   4   1216-B-210   4   1225-B-210   4   1225-B-210   4   1225-B-210   4   1225-B-210   4   1225-B-210   4   1225-B-210   4   1225-B-210   4   1225-B-210   2   1215	7	2121689	SEAL, CAMSHAFT	A-1205-V-1556	4
9				1225-N-378	
10	9	2597300	PIN, BRAKE SHOE RETURN SPRING	1218-G-85	1
11				1779-R-18	4
12		2121655	RETAINER, SHOE ROLLER	3105-B-210	4
13 2137081 SPIDER, BRAKE GASKET, CHAMBER BRACKET 1779-J-1024 2 15 2135689 BRACKET, CAMSHAFT & CHAMBER LH & RH WASHER, BRACKET CAPSCREW CAPSCREW, CHAMBER BRKT. S-2812 8 17 2594109 CAPSCREW, CHAMBER BRKT. S-2812 8 18 2027431 FITTING, GREASE 1199-N-1860 2 19 2121663 WASHER, CAMSHAFT, (THICK) 1229-S-2697 2  20 SLACK ADJUSTER ASSY. LH RH A2-3275-C-601-S A2-3275-W-595-S 21 2121671 WASHER, SPACING LOCKRING, CAMSHAFT 1229-D-294M 2 21 2121697 LOCKRING, CAMSHAFT 1229-D-294M 2 27* 0754960 O754952 AIR CHAMBER ASSY., 30" ANCHORLOK L. H. R. H. * SEE AIR BRAKE CHAMBER SECTION				2258-U-619	. 2
14 2644235 GASKET, CHAMBER BRACKET 1779-J-1024 A1-3299-M-1547 LH & RH WASHER, BRACKET CAPSCREW WA-18 S-2812 8 PITTING, GREASE WASHER, CAMSHAFT, (THICK) 1229-S-2697 2 SLACK ADJUSTER ASSY.  1144930 LH RH A2-3275-C-601-S A2-3275-W-595-S				A-3211-P-3448	
15 2135689 BRACKET, CAMSHAFT & CHAMBER 16 2595809 WASHER, BRACKET CAPSCREW 17 2594109 CAPSCREW, CHAMBER BRKT. 18 2027431 FITTING, GREASE 19 2121663 WASHER, CAMSHAFT, (THICK) 2121663 CAMSHAFT, (THICK) 212464 CAMSHAFT, (THICK) 212465 CAMSHAFT, CAMS	14	2644235	GASKET, CHAMBER BRACKET		2 .
16			BRACKET. CAMSHAFT & CHAMBER	A1-3299-M-1547	
18 2027431 FITTING, GREASE 1199-N-1860 1229-S-2697 2  20 SLACK ADJUSTER ASSY.  LH RH RH RH A2-3275-C-601-S A2-3275-W-595-S  21 2121671 WASHER, SPACING LOCKRING, CAMSHAFT N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	1.6	2595809		WA-18	8
18 2027431 FITTING, GREASE 1199-N-1860 1229-S-2697 2  20 SLACK ADJUSTER ASSY.  LH RH RH RH A2-3275-C-601-S A2-3275-W-595-S  21 2121671 WASHER, SPACING LOCKRING, CAMSHAFT N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	17	2594109	CAPSCREW, CHAMBER BRKT.		8
19 2121663 WASHER, CAMSHAFT, (THICK)  20 SLACK ADJUSTER ASSY.  LH RH  21 2121671 22 2121697 23 24 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A		2027431	FITTING GREASE		2
1144930 LH RH A2-3275-C-601-S A2-3275-W-595-S  21 2121671 WASHER, SPACING LOCKRING, CAMSHAFT N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A					2
1144930 LH RH A2-3275-C-601-S A2-3275-W-595-S  21 2121671 WASHER, SPACING LOCKRING, CAMSHAFT N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20		SLACK ADJUSTER ASSY.		
1144948 RH A2-3275-W-595-S  21 2121671 WASHER, SPACING LOCKRING, CAMSHAFT N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A		1144930		A2-3275-C-601-S	
22 2121697 LOCKRING, CAMSHAFT N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A				A2-3275-W-595-S	
22 2121697 LOCKRING, CAMSHAFT N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	21	2121671	WASHER SPACING	1229-G-2971	6
23 24 25 26 N/A N/A N/A N/A N/A N/A N/A N/A N/A  AIR CHAMBER ASSY., 30" ANCHORLOK L. H. 0754960 C754952 R. H.  * SEE AIR BRAKE CHAMBER SECTION				1229-D-294M	2
24 25 26 N/A 27* O754960 AIR CHAMBER ASSY., 30" ANCHORLOK L. H. 0754952 R. H. * SEE AIR BRAKE CHAMBER SECTION	1		·		·
25 26 N/A 27* AIR CHAMBER ASSY., 30" ANCHORLOK 0754960 L. H. 0754952 R. H. * SEE AIR BRAKE CHAMBER SECTION					
26 N/A 27* AIR CHAMBER ASSY., 30" ANCHORLOK				·	
0754960 L. H. 0754952 R. H. * SEE AIR BRAKE CHAMBER SECTION					
0754960 L. H. 0754952 R. H. * SEE AIR BRAKE CHAMBER SECTION	27*		AIR CHAMBER ASSY., 30" ANCHORLOK		
0754952 R. H.  * SEE AIR BRAKE CHAMBER SECTION	-	1			
	<b>!</b>				
			·		

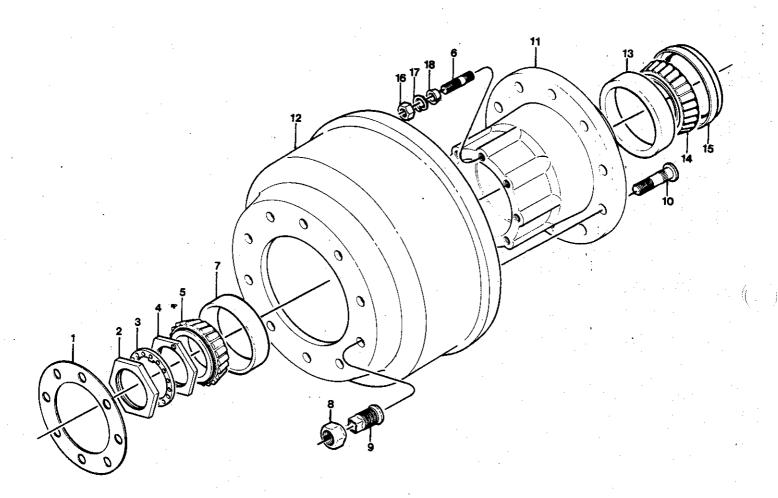
WHEEL END COMPONENTS, FRONT



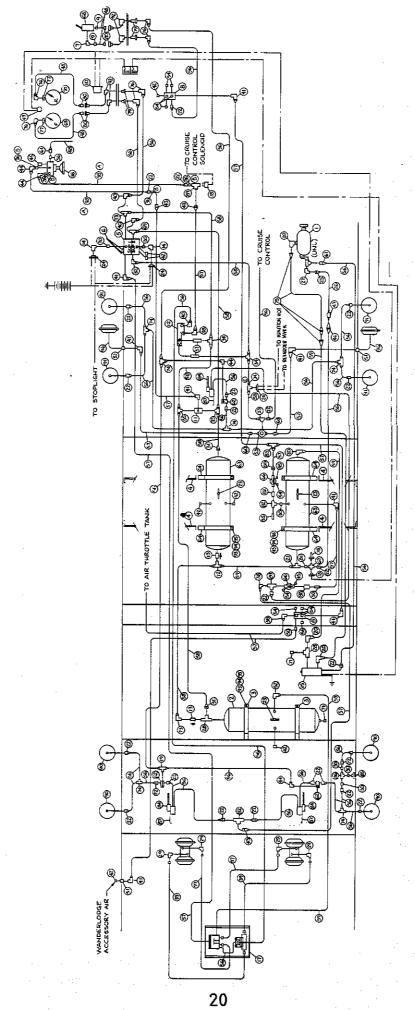


KEY NO.	PART NO.	. DESCRIPTION	VENDOR PART NO.	QTY REQ'D
l NI	0998534 2139582	HUB CAP, FRONT SIGHT GLASS	340-4095	
NI	2137008	PLUG, SIGHT GLASS		
2	0998484	GASKET, FRONT HUB CAP	330-3009	
3			1227-B-106 1229-F-474	
4		LOCK, OUTER WHEEL BEARING LOCKING, OUTER WHEEL BEARING NUT	1229-F-474 1229-G-475	
5 6	2500015	ADJUSTING NUT, WHEEL BEARING	1227-U-541	
7	0929414	BEARING ASSY., OUTER	3782	
8		CUP, OUTER BEARING	3720	
9	0654459	CAPSCREW, HUB CAP	,	
10	2001188	LOCKWASHER, HUB CAP CAPSCREW		
11		CUP, INNER BEARING	HM-212011 HM-212049	
12		BEARING ASSY., INNER SEAL, WHEEL BEARING, INNER	IM-212049 .	
13		DRUM, BRAKE		
15	1147016		1521F-N	
16		STUDS, LUG	,	
10	1074475		UF-835L	
	1074467		UF-835R	
17		NUT, LUG, OUTER		
	1034784		1199-M-117	
	1034776	RH	1199-N-118	
NI	_	HUB COVER, CHROME NUT COVER, CHROME		
NI	0992925	NOT COVER, CHROME		
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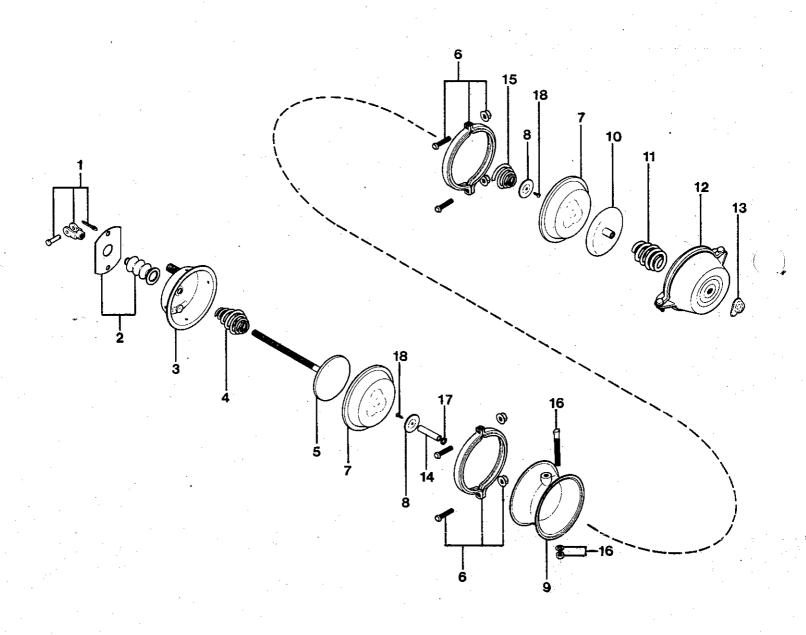
KEY NO.	PARTNO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1 2 3 4 5 6 7	2647238 2599215 0929059 2138584		2208-X-440 1227-R-330 1229-U-1009 1227-W-517 580 161832 572	2 2 2 2 2 16 2
8	1034784 1034776		1199-M-117 1199-N-118	10
9	1084813 1084805			10
10	1034750 1034768	,	195L 195R	10
11 12 13 14 15 16 17 18 NI NI		WHEEL BEARING (INNER) OIL SEAL, WHEEL BEARING (INNER) NUT, AXLE SHAFT DRIVE STUD LOCKWASHER, AXLE SHAFT DRIVE STUD DOWEL, AXLE SHAFT DRIVE STUD HUB COVER, CHROME LOCKING RING, HUB COVER	16227-N B69883B 592-A 594-A 47697-S	2 2 2 16 16 16
				,



KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
		AIR COMPRESSOR	
		RESERVOIR, AIR	
	0850578	BRACKET, MOUNTING, 8", AIR RESERVOIR	4.
4	1095306	SPACER, AIR RESERVOIR BRACKET	4
5	0654533	VALVE, TREADLE, DUAL BRAKE	
6	1133347	TREADLE ASSY., W/RUBBER COVER	
NI	0654517	PIN, DUAL BRAKE VALVE, FULCRUM	
NI	0654509	PIN, ROLL, BRAKE VALVE	,
NI	0654491	BUTTON, STOP, DUAL BRAKE TREADLE VALVE	
NI	0654483	PLUNGER, DUAL BRAKE VALVE	1
NI	0654475	BOOT, DUAL BRAKE VALVE	
NI	0654459	CAPSCREW, HEX 5/16-18 X 7/8	3
NI	2001188	WASHER, LOCK, SPLIT HD, 5/16	3
	0654467	PLATE, MOUNTING, DUAL BRAKE VALVE	
	2227353	FITTING, 90 DEG. ELBOW, TILT STEERING SWITCH	
		FITTING, MANIFOLD	2
	2227346	FITTING, BARB, TILT STEERING SWITCH	2
_	2006187	BUZZER	
	0654434	VALVE, DOUBLE CHECK, 3/8 PIPE	
	0654426	VALVE, SPRING BRAKE	
		VALVE, SINGLE CHECK, 1/2 PIPE	2
	2027233	ELBOW, 3400 X 4, 1/4 STREET	2
	0801373		
	0900266		
	1247253	VALVE ASSY., SPRING & SERVICE BRAKE RELAY	
	1145853	INDICATOR, LOW PRESSURE, 66 PSI	~ 2
	0982272	TEE, 1/8 MPT X 1/4 TUBE X 1/4 TUBE	
20	2026706	ELBOW, 1/2 MPT X 5/8 TUBE, FLARE	4
21	0993295	TEE, 1/4 FPT X 1/2 X 5/8 TUBE	
22	2023224	CONNECTOR, 1/4 MPT X 1/4 TUBE	25
	1110188	COCK, DRAIN, RESERVOIR	3
24		SWITCH, STOP LIGHT	3
25		END, HOSE	
26	2008324	HOSE, AIR, 1/4 ID X 1/2 OD	
27	2026979	ELBOW, MALE, LOUVERED FLARE, 1/4 TUBE X 1/8 MALE PIPE	
28	0654350	TEE, 1/2 PIPE STREET	2
29	2027241	ELBOW, 3/8 PIPE	4
30	2027134	RIGHTNG PIPE 3/8 X 1/4	6
31	2023380	<b>1</b>	= ::°2::::
32	2023307	I RIBOW 3/8 MPT X 1/2 TUBE	2
33	0948919	TEE, 1/4 FPT X 3/8 MPT X 1/2 TUBE	2
34	2023505	TEE, 1/4 FPT X 1/2 TUBE X 1/2 TUBE	3
35	0556878	TEE, 3/8 MALE PIPE X 1/2 TUBE X 1/2 TUBE	2
36		INSERT, PLASTIC TUBING, 1/4	5
37	2009330	1	2
38		ELBOW, 1/4 MALE PIPE X 3/8 TUBE	3
39		HOSE ASSY., 7/16 ID X 28" LONG	2
40		ELBOW, 1/4 MPT X 1/4 TUBE	3
41	2023265	ELBOW, 3/8 MPT X 3/8 TUBE	8
1 ± ±	2043405	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
42	2009595	PLUG, PIPE, 3/8	7
43	2023257	CONNECTOR, 1/4 FPT X 3/8 TUBE	3
44	2023786	ELBOW, 1/8 MPT X 1/4 TUBE	4
45	2027118	PLUG, 1/8" PIPE	3
	2052736	UNION, TUBE, 1/4"	
	2020907	END, HOSE	
48	0654962	TUBING, PLASTIC, 1/4 OD, BLACK	9 9 8 11
		LIGHT, PILOT, 17/32 DIA., RED LENS	' '
	2023182	CONNECTOR, 1/4 MPT X 3/8 TUBE	3
	0758698	COUPLING, ANCHOR	3
	2023422	ELBOW, 3/8 MPT X 5/8 TUBE	
	1160464	VALVE, QUICK RELEASE	
	2023513	PLUG. PIPE, 1/4	12
	0839019	VALVE, SAFETY, 1/4" PIPE	
	2008431	TUBING, COPPER, 1/4"	
57	2027381	TUBING, COPPER, 3/8"	
58	1	TUBING, 1/2 COPPER, 3/8 TYPE L, WATER TUBE	
59	2027407	TUBING, 5/8 COPPER, 1/2 TYPE L, WATER	}
60	2023240	CONNECTOR, 3/8 MPT X 3/8 TUBE	1 2
	i i	CONNECTOR, 1/8 MPT X 1/4 TUBE	2
62	1	VALVE, RELAY, PILOT CONTROL	2
63	0991513	RESERVOIR, 9 1/2 X 27	2 2 3 2
64	0850586	BRACKET, MOUNTING, 9 1/2", AIR RESERVOIR	8
65	3810389	GAUGE, AIR PRESSURE, FRONT/REAR	"
66	0522508	VALVE, PRESSURE PROTECTION, 65 PSI	2
	0559054	CROSS, 1/4", FEMALE PIPE	
68	2227338	VALVE, AIR	
69	0654319	TEE, 1/4 FPT X 3/8 MPT X 1/2 TUBE	
70	0654319	GAUGE, AIR PRESSURE (SEE ITEM #65)	
71	0663427	PLUG, 1/2 SQ. HD., PIPE	2
	2023901	TEE, 1/2 MPT X 1/2 TUBE X 5/8 TUBE, 8C BRAKE	
73	2023349	ELBOW, 1/2 MPT X 1/2 TUBE X 5/8 TUBE, SC BRAKE	,
	l I	TEE, 1/4"	6
74 75	2008381 1024975	HOSE ASSY., AIR COMP. DISCH., 30 LONG	0
76	2008241	ELBOW, MALE, 1/4 TUBE X 1/8 PIPE	6
70 77		COUPLING, PIPE, 3300 X 2	2
	2008209 0818609		4
78 70	-	VALVE, SCHRADER, 1/4 MPT ADAPTER, BULKHEAD, 1/8 PIPE X 1 1/2" LONG	4
79	0949370		4
80	0949388	COUPLING, KWIK CONNECT, 1/4 TUBE X 1/8 PIPE	2
81	2027183	NIPPLE, 3326 X 4, 1/4 CLOSE	2
82	0559047	TEE, MALE BRANCH, 1/4 PIPE, 3600 X 4	4
83	0654541	TEE, 3/8 X 3/8 X 3/8 TUBE	3
84	0871376	VALVE, HEIGHT CONTROL	3
85	0982918	INDICATOR, LOW PRESSURE LP-3, 30 PSI	
86	2027258	TEE, 3/8 BRASS PIPE	3
87	0961649	BRACKET, MOUNTING, HEIGHT CONTROL VALVE	3
88	0962183	FILTER, AIR, RIDEWELL SUSPENSION	
	1 .	,	1

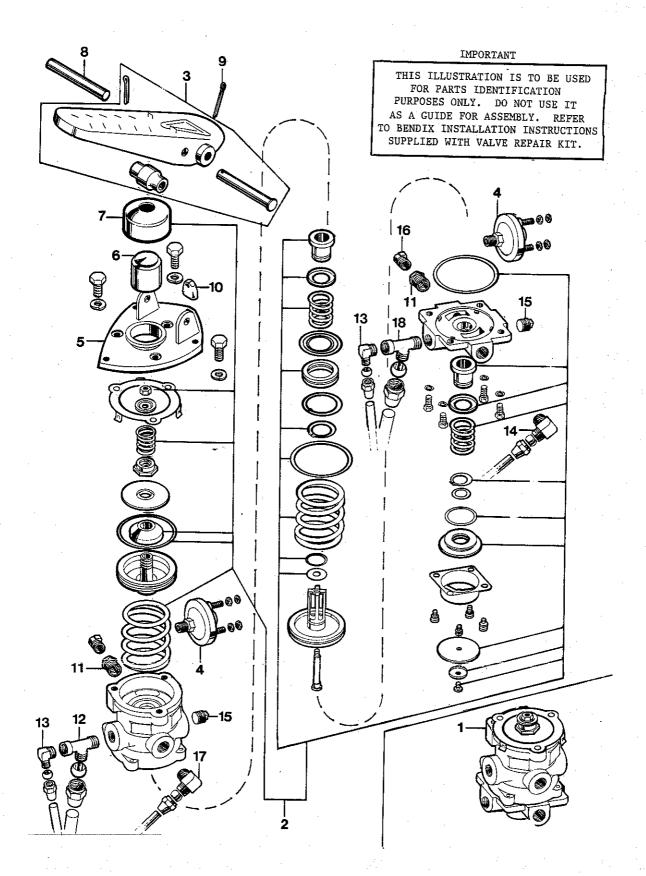
KEY NO.	PART NO.		QTY EQ'D
89 90 91 92 93 94 95 96 97	0654277 0961250 1263581 2027225 0851337 0882795 2001451 0770909 0991653 1220011	AIR SPRING, RIDEWELL REAR SUSPENSION AIR SPRING, RIDEWELL FRONT SUSPENSION ELBOW, 3400 X 2, 1/8 STREET CAPSCREW, HEX 3/8-16 X 6-1/2 LOCKWASHER, 3/8", CAD. PLTD. NUT, HEX, 3/8-16, CAD.	2 4 4 6 6 6 2 2
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## REAR BRAKE CHAMBER, ANCHORLOK STANDARD BRAKES

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
7 8* 9* 10 12@ 13@ 14* 16	2703395 2703452 2703437 2643534 2707941 2118529 2121911 2703445 2707933 2118545 2118537 2703387 2707198 2703429 2117745	OPT. 4321-01, 4321-02  DUST BOOT ASSEMBLY HOUSING ASSEMBLY RETURN SPRING PUSH ROD ASSEMBLY CLAMP ASSEMBLY DIAPHRAGM PLATE ADAPTER PRESSURE PLATE COMPRESSION SPRING CHAMBER PLUG ADAPTER PUSH ROD RETURN SPRING RELEASE STUD ASSEMBLY (ALSO INCLUDED IN KIT 2140002) "O" RING NYLOK SCREW KIT, PUSH ROD REPLACEMENT (INCLUDES ITEMS 8,9,14,15,17,18)	11M018 A-1245-E-395  11M034 1127M015 11M016 1126M005 1126M009 11M037 1134M001 1126M003 1126M006 1126M002 11M012 1126M038 11M014 11M011  11M114 11428R8	
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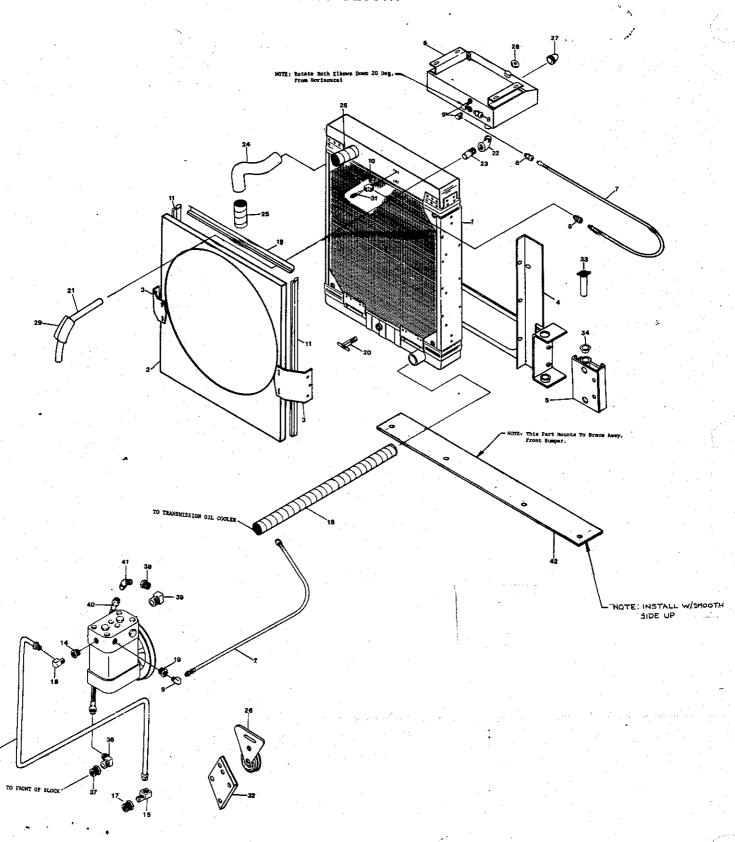
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#### BRAKE TREADLE VALVE

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 2 3 NI 4 5 6 7 8 9 10	2643237 1133347 2137545 0998740 0654467 0654483 0654475 0654517 0654509 0 0654491	REPAIR KIT, TREADLE VALVE TREADLE, DUAL BRAKE VALVE, RUBBER COVERED COVER, RUBBER, DUAL BRAKE VALVE TREADLE SWITCH, STOP LIGHT PLATE, MOUNTING PLUNGER, BRAKE VALVE BOOT, BRAKE VALVE PIN, BRAKE VALVE PIN, BRAKE VALVE FULCRUM PIN, ROLL, BRAKE VALVE FULCRUM BOTTOM, STOP BUSHING, 1/4 X 3/8 PIPE	
12 13 14 15 16 17 18	0948919 2023935 2023265 2009595 2027233 2023307	TEE, 1/4 FEMALE PIPE X 3/8 MALE PIPE X 1/2 TUBE ELBOW, 1/4 MALE PIPE X 1/4 TUBE ELBOW, 3/8 MALE PIPE X 3/8 TUBE PLUG, 3/8 PIPE ELBOW, 90 DEGREE STREET, 1/4 PIPE ELBOW, 3/8 MALE PIPE X 1/2 TUBE TEE, 1/4 FPT X 3/8 MPT X 1/2 TUBE	
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# COOLING SYSTEM CAT. 3208TA



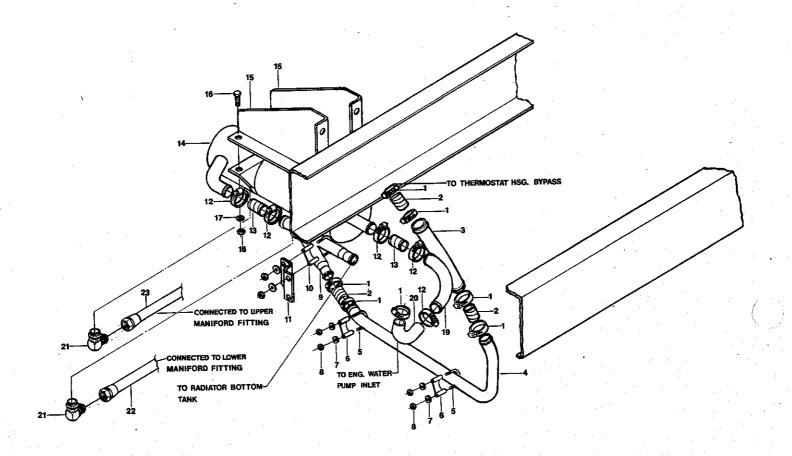
# COOLING SYSTEM CAT. 3208TA

1 2			REQ'D
2		RADIATOR ASSY.	
		SHROUD, RADIATOR	
3	1	BRACKET, MOUNTING, SHROUD	
4	1238948	CROSSMEMBER ASSY., FRONT HINGED	
5	1238591	HINGE ASSY	
6	1238252	TANK ASSY, DEAREATION	
	0870303	HOSE ASSY, 20 IN.	
8	1119700	ADAPTER, SWIVEL MALE PIPE	
9	2027233	ELBOW, 1/4 STREET, PT	
10 11		TEE STR 1/4	-
12	1149376	SEAL, RUBBER ENGINE COVER FRT.	
14	1 1	SEAL, RUBBER, A/C HOOD TRIM BUSHING, PIPE, 1/2 MPT X 3/8 FPT	
15		ELBOW, 3/8 MPF X 1/2 IF	Ì
	0854620	TUBE ASSY	
	1 1	BUSHING PIPE, 3/8 X 3/4	
18		HOSE RADIATOR, 2 IN X 33	
19		BUSHING, PIPE 1/4 X 1/2	
20		COCK, RAD. DRAIN	
21		HOSE, HEATER 1 IN. ID SILICONE	
		ELBOW, STREET GALV. 3/4 IN	
23		ADAPTER, HEATER 3/4 PIPE X 1" HOSE	
24	1	TUBE, RADIATOR UPPER	
25	1 1	HOSE, RADIATOR 2 IN ID SILICONE	
26	1247527	PULLEY IDLER	
27	1	BULB, WITH O-RING	
28	0522052	CAP, RADIATOR PRESSURE 7 PSI	1
29	1059278	SPLINT 1 IN. HOSE BEND, 90 DEGREE	
NI	0964940	CLAMP HOSE LINED 2 1.4 IN	
31			
32		PLATE IDLER PULLEY CAT 3208TA	
33	1 1	PIN ASSY., HINGE SWING-OUT RADIATOR	
34		BUSHING, NYLON 1 I.D., THOMSON	1
ΝI	1257138	POST, RADIATOR, LH CAT 300 HP	
36	1 1	ELBOW, 90 DEGREE MALE 1/2 TUBE FLARE X 1/2 PIPE	1
37	2023950	BUSHING, 1/2 X 3/4 PIPE (STEEL)	1
38	2009058	BUSHING, PIPE 3/8 X 1/2	
39	2008274	ELBOW, 90 DEG ., STREET, 3400 X 8	ļ
40	0854596	HOSE ASSY., AIR COMPRESSOR	
41	0963736	ELBOW, 45 DEGREE 3/8 MPT X 1/2 TUBE	,
42	1287911	DEFLECTOR, AIR	
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#### COOLING, RETARDER, Z-F TRANSMISSION

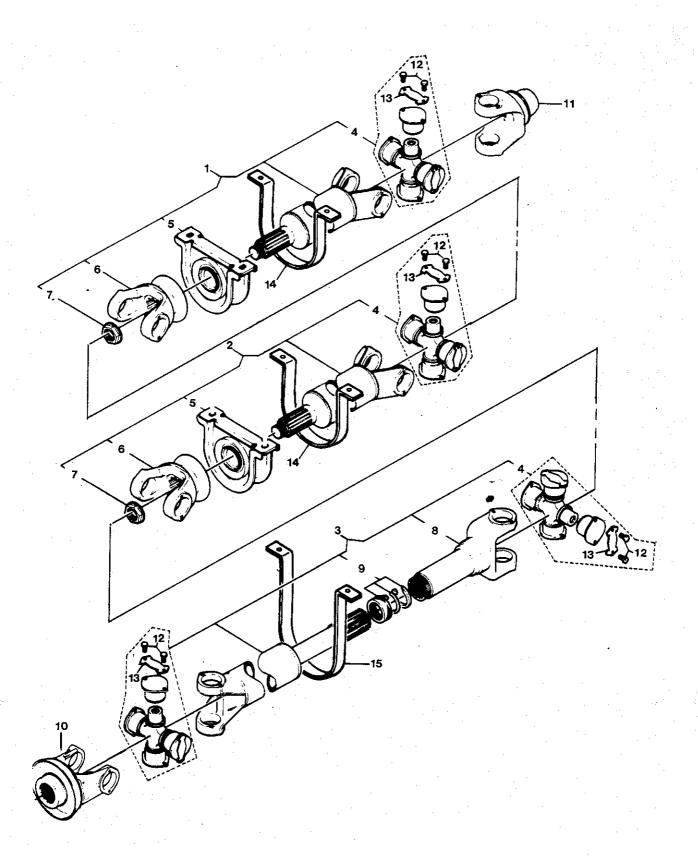
DR.	BY	
APP,	ВY	1240258

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## COOLING RETARDER, Z-F TRANSMISSION

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2	1167709 0422162 1237437	CLAMP HOSE, LINED, 2 IN. HOSE RADIATOR, 2 ID X 14 1/2 LONG (4" LONG) ELBOW, BYPASS, OIL COOLER	7
4 5 6 7 8 9	1237445 0805218 0805226 1166750 2001451 1237429	CONNECTOR, BYPASS LOWER, OIL COOLER U-BOLT, TILT STEERING SADDLE, 2 IN., TILT STEERING WASHER, FLAT 3/8 DD NUT, HEX, 3/8-16 CAD TEE, CONNECTOR, OIL COOLER, INLET	2 2 4 4
11 12 13 14	1237411 0964940 0964932 1280627	CLAMP, MUFFLER, 2 1/4 IN. BRACKET SUPPORT, OIL COOLER, TEE CONNECTOR CLAMP, HOSE, LINED, 2 1/2 INCH HOSE, RADIATOR, 2 1/4 IN. (4" LONG) COOLER, TRANS. OIL BRACKET, SUPPORT, OIL COOLER	5 2 2
16 17 18 19	0803221 1003045 0966051 1237395	BOLT, HEX 1/2-20 X 1 1/4 GR. 8 WASHER, FLAT 17/32 X 1 3/32 NUT, HEX, LOCKING, 1/2 - 20 ELBOW, OIL COOLER TO ENG. INLET	4 4 4
21 22 23 NI	1232826 1107614 1259696 1259704 1039486	CLIP, 1.562 VINYL	6
NI	2005734	LOOM, ASPHALTUM WIRE	21
		•	



## DRIVELINE

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2		192 W.B.	
4 5 6 7 8	1247915 1248038 1121565 1247998 1248004 1248012 1121573 1121581	210 W.B.  REAR SHAFT (ALL W.B.)  KIT, 5-280X, JOURNAL & BEARING  BEARING ASSY.  YOKE END  NUT, FLANGE  YOKE ASSY., SLIP 1710  SEAL, SLIP JOINT	
10 11 12 13 14	2139848 1250331 1084128 1084136 1282003 0119784	YOKE ASSY., DRIVE AXLE YOKE END, TRANS. BOLT, 3/8-24 X 19/32, GD. 8	
		g decorrer e frantes	To the second se

## ENGINE TRIM

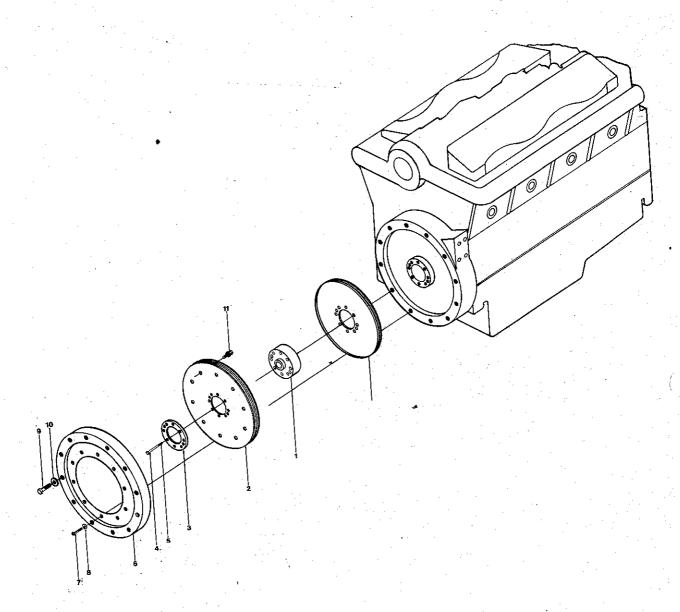
KEY NO.	PART NO.	DESCRIPTION		QTY REQ'D
		AIR COMPRESSOR & ASSOCIATES PARTS		
	0853226	AIR COMPRESSOR		
	0908160	AIR COMPRESSOR GOVERNOR		
	0603324	GASKET, AIR COMPRESSOR GOVERNOR		
	0616755	AIR STAINER		
	1017797	• = =		
	1017805	ADAPTER, AIR COMPRESSOR		
	0854513			
	0854638 0814038	* * * * * * * * * * * * * * * * * * * *		
	0814038	BELT, A/COMP (MATCHED SET)		
-	1071001	ENGINE MOUNTING PARTS		
	1071281	SUPPORT BRACKET ASSY., FRONT ENGINE MOUNT BRACKET ASSY., ENGINE MOUNTING TO FRAME	ŔΗ.	
	1233725			2
	1235647			
	1255371			
	1255827	ISOLATOR, MOTOR MOUNT, FRONT		2
	1255835	ISOLATOR, MOTOR MOUNT, REAR		2
		ALTERNATOR & ASSOCIATED PARTS		
	1263359	ALTERNATOR, 160 AMP, SELF-EXITED		
	0771873	SPACER, ALT. ADJUSTING CENTER		]
	0854109	BASE, ALT. ADJUSTING		
	0854679	PULLEY, ALT.		
	0966432	BRACKET ASSY., ALT. & FREON COMP.		
•	1007673	PULLEY, ALT.		
		FREON COMPRESSOR		
	0966432	BRACKET ASSY., ALT & FREON COMPRESSOR		
	0860098	CLUTCH, FREON COMPRESSOR		
	0893453	COMPRESSOR, FREON		Ì
	0860072	PULLEY, IDLER		
	0908160	VALVE, SERVICE 5/8 ROTOLOCK		
	0908517	VALVE, SERVICE 1/2 ROTOLOCK		
	0967125	BOLT SHOULDER		
	1031400	IDLER, ECCENTRIC HOSE, A/C 5/8 X 240		
•	1152354	HOSE		
	1 2 2 3 2 3 3 4	11000		i ·
		STARTER MOTOR	•	
	1204494	STARTER MOTOR, 12V		1
	0809103	SWITCH, MAGNETIC STARTER		
	0823963	GASKET, STARTER MOTOR	• .	
				1

## ENGINE TRIM

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
		TRANSMISSION ACCESSORIES	
	1250364 1250448 1250455 1250810 1250836	CONTROL SHIFTER, PUSH BUTTON SENDER, OIL TEMP, TRANS. CLAMP, OIL FILLER TUBE	
	1238039 1238047 1238617	DIPSTICK, ENGINE OIL	
	1257732 1148998 0965491 1054378 1078781 1112564 1148998	FAN ASSY 8 BLADES FAN CLUTCH SWITCH, TEMP CONTROL MODULE, ENGINE WARNING ALARMSTAT, HIGH TEMP, KYSOR SENDER, WATER TEMP. PRESSURE SWITCH, FASCO, LOW OIL SWITCH, TEMP CONTROL, FAN CLUTCH HEATER, DIRECT IMMERSION	
		BELTS BELT SET (WATER PUMP & FAN) BELT, FREON COMPRESSOR BELT AIR COMP., ALT, MATCHED SET	2
	2236677 3743481 1258615 2136752 2107753 2108199 2107670 0871657	FILTER, ENGINE OIL AIR CLEANER, ELEMENT FILTER KIT, REAR FUEL FILTER/WATER SEPARATOR CATRIDGE KIT, AIR DRYER ELEMENT, POWER STEERING RESORVOIR	

REQUIRED 0729P **QUANTITY** IS ONE UNLESS OTHERWISE SPECIFIED. 35

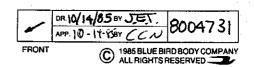
## MOUNTING ZF TRANSMISSION

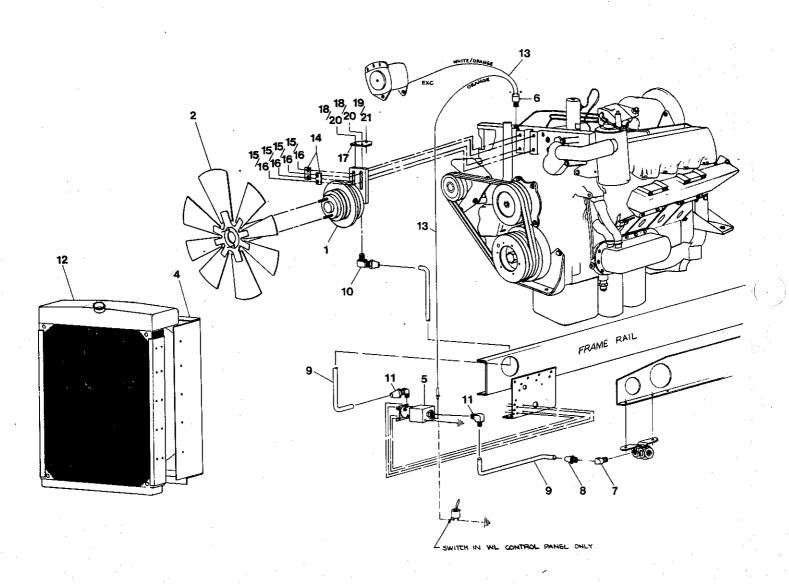


## MOUNTING ZF TRANSMISSION

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2	1250422 1250414 1250430	FLANGE, FLEX DISC, TRANS, ZF DISC, FLEX TRANS., ZF PLATE, SCUFF, FLEX DISC, ZF	4
4 5	1252790 0969816 1250372	BOLT, HEX 7/16-20 X 3.25 GD. 8 SEALANT, LOCTITE, THREADLOCKER 27L ADHESIVE RING, ADAPTER SAE 1/2	10 AR
7 8 9 10	0870451 2028579 1250380 1107085 1250398	BOLT, HEX, 3/8-16 X 2 1/2, GD. 8 P & O LOCKWASHER, 3/8 MED. SPRING, P & O BOLT, M10-1.5 X 40 ZF WASHER, FLAT 13/32 X 13/16 X 3/32 BOLT, M12-1.5 X 22 W/WASHER ZF	

OPT. 4393 ENGINE FAN CLUTCH, AIR

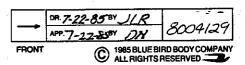


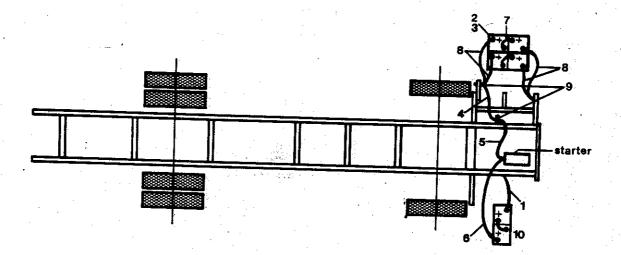


## AIR INTAKE, CAT 300 HP

KEY NO.	PART NO.	DESCRIPTION	QTY: REQ'D
11 12 13 14 15 16 17 18 19 20 21	1244748 1249325 1249309 0969741 1258607 1258565 1258565 1258565 1258565 1258565 1258565 1258623 1258623 1258623 1258631 1243484 1235654 1235662 1235670 1198159 1249333 1249341 1238187 1106822 0801910	CLAMP HOSE, 2-7 INCH HOSE, RUBBER, 6 ID X 4 1/2 HOSE TURBO CHARGER 2 3/4 ID HOSE TURBO CHARGER 3 ID HOSE TURBO CHARGER 4 ID HOSE TURBO CHARGER 4 ID HOSE TURBO CHARGER 4 ID CLAMP, SPRING LOADED, 3 ID CLAMP, SPRING LOADED, 3 1/4 ID CLAMP, SPRING LOADED, 4 1/4 ID AIR CLEANER, ECO II 9 3/4 X 24 CLAMPS, MOUNTING 9 3/4 ADAPTER, INLET 9 3/4 BRACKET, MOUNTING, AIR CLEANER TUBE, AIR INTAKE TO TURBO TUBE, AFTER COOLER TO MANIFOLD TUBE, TURBO TO AFTER COOLER DECAL, WARNING, SWING-OUT RADIATOR RUBBER, 1/4 X 1 3/4 X 12 1/2 RUBBER, 1/4 X 1 3/4 X 19 1/2 ANGLE 3/8 X 2 X 3 X 3 1/4 LONG INSULATOR, 3/8 CAPSCREW, HEX, 3/8-16 X 2 GR. 8 WASHER, 15/32 X 1 1/2 X 3/32 WASHER, 3/4, PLAIN	8 5" 8" 74 4 8 2

## BATTERIES AND CABLES





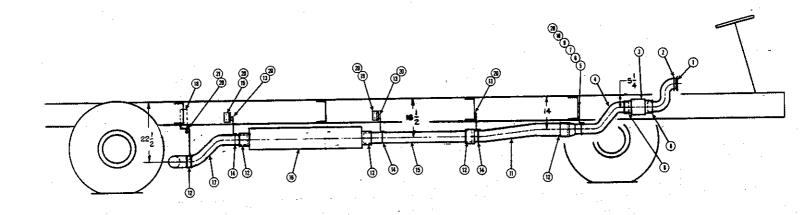
WLFC

## BATTERIES AND CABLES

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2 3 4 5 6 7 8	1142173 0621342 1073139 0815761 1130665 0359109 1171727	CABLE, BATTERY (OPT. 5633 ONLY) ANGLE, BATTERY CLAMPING BATTERY CABLE, STARTER FRAME CABLE, STARTER CABLE, BATTERY (OPT. 5633 ONLY) CABLE, BATTERY CABLE, BATTERY CABLE, BATTERY ANGLE, BATTERY ANGLE, BATTERY CLAMPING, 10 1/4" (OPT. 5633 ONLY)	2
	0553131 1049139 1069202 1081652 1210970 1231265 1250497 1256171 1259241 1259480 1259803 1267624 1289909 1289917 2006112 2025146	(ELECTRICAL COMPONENTS)  RELAY, HORN JUNCTION, BATTERY CABLE CABLE ASSY., ALTERNATOR HOT TO INSL STUD CABLE ASSY., BATTERY CHARGER POSITIVE CABLE ASSY., SHUNT TO BATTERY SWITCH TERMINAL BLOCK, ELECTRICAL, 13 STUD CABLE ASSY., AMMETER SHUNT TO U/BLOCK HARNESS, KICK ON HARNESS, WIRING, ENGINE MODULE, TRANS RELAY, ZF MODULE, DIRECTIONAL CONTROL HARNESS, MASTER WIRING, CHASSIS HARNESS, WIRING, CHASSIS, 300 HP HORN ASSY., HIGH NOTE HORN ASSY., LOW NOTE BREAKER, CIRCUIT, 20 AMP HORN, LOW NOTE	6

**QUANTITY REQUIRED** IS ONE UNLESS SPECIFIED. 43 0729P

EXHAUST SYSTEM CAT. 3208TA 31' & 33' SIDE BATH 35' REAR BATH



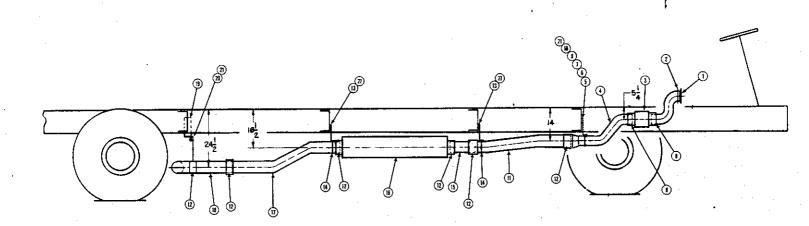
#### EXHAUST SYSTEM CAT. 3208TA 31' & 33' SIDE BATH 35' REAR BATH

PART NO.	DESCRIPTION	QTY REQ'D
1250646 1124767 1239516 0867549 0815621 0819359 1005552 2001451 2028579 1239524 1250851 1250687	CLAMP, TURBO EXHAUST, 4"  CONNECTOR, FLEXIBLE, EXHAUST, 4"  PIPE, EXHAUST, FRONT  BRACKET, FRONT EXHAUST  U-BOLT, 4" EXHAUST PIPE  CLAMP, SADDLE, 4" EXHAUST PIPE  CLAMP, EXHAUST, WIDE BAND, 4"  NUT, HEX, 3/8-16  LOCKWASHER, 3/8"  PIPE, CROSSOVER  CLAMP, EXHAUST, WIDE BAND  BRACKET FINAL ASSY., REAR EXHAUST SUPPORT	2 2 2 2 2
2148955 2148963 1250844 1239557 1252154 1252162 2001428 1250661 1242395	31" 192 10" 210 W/REAR BATH  MUFFLER, 5" TAILPIPE, 177, 192 & 210 W/REAR BATH BRACKET, TAILPIPE HANGER ANGLE, MUFFLER HANGER NUT, HEX, 5/16-24 BRACKET FINAL ASSY., TAILPIPE EXH. SUPPORT BLANKET, TURBO COVER	
1242411	BLANKET, EXHAUST PIPE FRONT	
	1239508 1250646 1124767 1239516 0867549 0815621 0819359 1005552 2001451 2028579 1239524 1250687 0993915 2148948 2148955 2148963 1250844 1239557 1252162 2001428 1250661 1242395 1242403 1242411	DESCRIPTION

EXHAUST SYSTEM 35' SIDE BATH

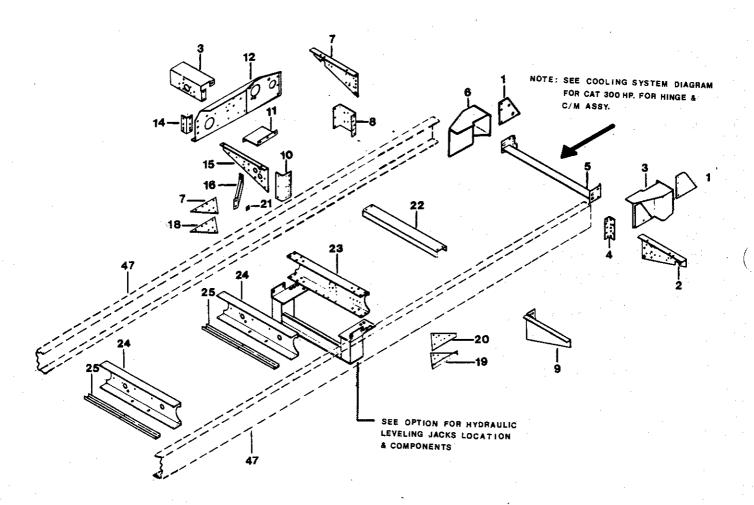
DR. BY
APP. BY

1985 BLUE BIRD BODY COMPANY
ALL RIGHTS RESERVED



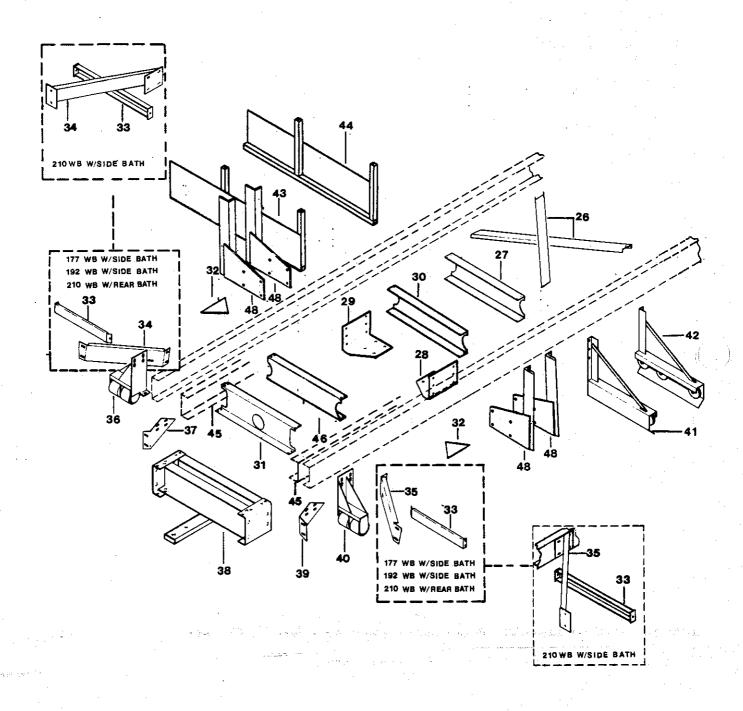
# EXHAUST SYSTEM 35' SIDE BATH

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	1239508	PIPE, EXHAUST, ENGINE	
2		CLAMP, TURBO EXHAUST, 4"	]
3		CONNECTOR, FLEXIBLE, EXHAUST, 4"	
		PIPE, EXHAUST, FRONT	
		BRACKET, FRONT EXHAUST	
6		U-BOLT, 4" EXHAUST PIPE	
	1 :	CLAMP, SADDLE, 4" EXHAUST PIPE	
8		CLAMP, EXHAUST, WIDE BAND, 4" NUT, HEX, 3/8-16	2 2 2
9		LOCKWASHER, 3/8"	2
		PIPE, CROSSOVER	-
		CLAMP, EXHAUST, WIDE BAND	·
13	1250697	BRACKET FINAL ASSY., REAR EXHAUST SUPPORT	2
14	0993915	CLAMP, EXHAUST PIPE, 5"	2 2
		PIPE, EXHAUST, 5" X 49"	
	. — —	MUFFLER, 5"	
		EXHAUST PIPE, REAR	
18	1239540	TAILPIPE	
19	1250653	BRACKET, TAILPIPE HANGER	1
20		BRACKET, FINAL ASSY., TAILPIPE EXHAUST SUPPORT	
21		NUT, HEX, 5/16-24	8
		BLANKET, TURBO COVER	₩
		BLANKET, EXHAUST PIPE ENGINE	
		BLANKET, EXHAUST PIPE FRONT BLANKET, FLEX EXHAUST PIPE	
NI	1255777	DUMNKEI, PUEN ENHAUSI FIFE	
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#### FRAME FRONT SECTION

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
7 8 9 10 11 12 13 14 15 16 17 18	0984674 1244664 1021773 1255108 1254853 0996520 0995225 1255603 1249101 0995357 0995654 0996272 0995316 0996546 0998492 0961664 1039866 0961722 1105717 0998526 1276674 1109545 1084524 3841681	BRACE, TOW HOOK, RH, FRONT BUMPER OUTRIGGER, FRONT, RH BRACKET ASSY, FRONT BUMPER RH ANGLE, FRONT OUTRIGGER BRACE ASSY, FRONT BUMPER BRACKET BRACKET ASSY, FRONT BUMPER LH OUTRIGGER, FRONT LH BRACKET, FRONT OUTRIGGER & STEERING GEAR BRKT. OUTRIGGER ASSY, REAR RH ANGLE, OUTRIGGER BRACKET, SUPPORT STEERING GEAR BRACKET ROSS BRACKET, SUPPORT STEERING GEAR BRACKET ROSS BRACKET, BRAKE & CLUTCH S/GR ROSS ANGLE, STEERING GEAR BRKT. MOUNT BAR ROSS OUTRIGGER, REAR LH BRACE ASSY, OUTRIGGER TO FRAME GUSSET, FRONT SUSPENSION, RR C/M LH GUSSET, FRT. SUSPENSION RR/C/M, RH UPPER GUSSET, FRT. SUSPENSION RR/C/M, RH LOWER SPACER, OUTRIGGER TO FRAME BRACE ASSY CROSSMEMBER, HORIZONTAL CROSSMEMBER, HORIZONTAL CROSSMEMBER, MIDSHIP, BEARING BUMPER, FRONT SUPPORT, PROPELLAR SHAFT	2



#### FRAME REAR SECTION

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'
25 26 27 28 29	0102467 0977157 0977165 0977173	SUPPORT, PROPELLER SHIFT GUARD BRACE, CROSS, CHASSIS FRAME CROSSMEMBER, REAR SUSP, FRONT GUSSET, REAR SUSPENSION FRT C/M RH GUSSET, REAR SUSPENSION FRT C/M LH	2 2
30 31 32 33	1088277 1095413	CROSSMEMBER REAR SUSPENSION, RR CROSSMEMBER REAR, 275 GAL., FUEL TANK GUSSET, RR SUSPENSION RR BRACE ASSY, HORIZONTAL, REAR BUMPER MODEL 3411, SIDE BATH (210 WB)	2 2
NI 33	3763307 1078203	BUMPER, REAR BRACE, BUMPER END REAR MODEL 3010, SIDE BATH (177 WB) MODEL 3207, SIDE BATH (192 WB) MODEL 3411, REAR BATH (210 WB)	2
34	1248756	BRACE ASSY, REAR BUMPER, LH MODEL 3411, SIDE BATH (210 WB)	
34	1078195	BRACE, REAR BUMPER, CORNER, LH MODEL 3411, REAR BATH (210 WB) MODEL 3207, SIDE BATH (192 WB) MODEL 3010, SIDE BATH (177 WB)	
35	1248749	BRACE ASSY, REAR BUMPER RH MODEL 3411, REAR BATH (210 WB)	
35	1078187	BRACE, REAR BUMPER, CORNER, RH MODEL 3411, REAR BATH (210 WB) MODEL 3010, SIDE BATH (177 WB) MODEL 3207, SIDE BATH (192 WB)	
36	3770948	BRACKET ASSY, SKID ROLLER LH, SIDE BATH 177 WB, MODEL 3010 192 WB, MODEL 3207 210 WB, MODEL 3411	
36	3770930	210 WB, MODEL 3411, REAR BATH	
37	1076009	BRACKET, BUMPER, REAR, LH TRAILER HITCH ASSY, LH	
38 39	1085323	BRACKET, BUMPER, REAR, RH	
40	3770880	BRACKET ASSY, SKID ROLLER, RH 177 WB, MODEL 3010, SIDE BATH 192 WB, MODEL 3207, SIDE BATH 210 WB, MODEL 3411, SIDE BATH	

#### FRAME REAR SECTION

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
40	3770872	BRACKET ASSY, SKID ROLLER, REAR BATH, RH 210 WB, MODEL 3411, SIDE BATH	
41	2258234	BRACKET ASSY, REAR, 7.5 GEN	
41	3774379	BRACKET ASSY, REAR MTG, 12.5 KOHLER GENERATOR	
42	2252658	BRACKET ASSY, FRT, 7.5 GEN 33 FT	
42		BRACKET ASSY, FRT, MTG, 12.5 KOHLER GENERATOR	
43		BRACKET ASSY, GEN. SUPPORT, REAR, 300 HP	
44	3835576	BRACKET ASSY, GEN. SUPPORT, FRONT, 300 HP	
45	1147636	INSERT, FRAME RAIL MODEL, 3010, SIDE BATH (177 WB) MODEL, 3207, SIDE BATH (192 WB) MODEL, 3411, REAR BATH (210 WB) MODEL, 3411, REAR BATH (210 WB)	2
	,		"
46	1245018	CROSSMEMBER, SUPPORT 90 GALLON FUEL TANK W/INSERT MODEL, 3411, REAR BATH (210 WB)	:
47		FRAME RAIL	1
		177 WB, MODEL 3010	2
		210 WB, MODEL 3411	2
		192 WB. MODEL 3207	2
NI	3839560	SUPPORT ASSY, LEVELING JACK, NON-KICKDOWN, MODEL 3411, SIDE BATH	4
		MODEL SAII, SIDE BAIN	
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# FUEL SYSTEM 31' & 33' SIDE BATH

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1		DESCRIPTION	QTY REQ'D
•	3828571	TANK ASSY, FUEL, 230 GALLON	
2	1237072	VENT, FUEL TANK	2
3	1218551	SENDER, FUEL TANK	
4	2025815	GASKET, FUEL TANK SENDER	
5		INDICATOR, FUEL TANK LEVEL	
6	0890145	INDICATOR, FUEL TANK	
7	2023190	ELBOW, 1/4 MPT X 3/8 TUBE	
8	2023349	ELBOW, 1/2 MPT X 1/2 TUBE	
9	2027399	TUBING, 1/2 COPPER	
10	2027381	TUBING, COPPER, 3/8 IN (SPECIFY LENGTH)	
11		CONNECTOR 1/2 FLARE X 3/8 MPT, 48 X 8	2
12	1029594	PUMP, FUEL, ELECTRIC	
13		FUEL FILTER	
NI		BRACKET, FUEL FILTER	
NI		ELBOW, FUEL FILTER	,
14		HOSE ASSY	,
15		HOSE ASSY	
NI		COUPLING, HOSE END FEMALE	
NI		COUPLING, HOSE END MALE	
16		ELBOW, BRASS, 45 DEGREE STREET	
17	1	NUT, 1/2 FLARE, 1110 X 8	4
18		COUPLING, ANCHOR	2
19		ELBOW, 1/4, STREET, 45 DEG .	
20		COUPLING, ANCHOR	2
21		CONNECTOR 3/8 FLARE X 1/4 MPT	
22	1 '	PLUG, PIPE 1/4	
23		TEE, MALE BRANCH, 1/4 PIPE	
24		TEE, STREET, 3/8 PIPE	
25	I .	NIPPLE, 3/8 CLOSE PIPE	
26		VALVE, CHECK	
27		COUPLING, 3/8 X 3/8 PIPE	
28		ELBOW 1/2 FLARE X 3/8 MPT, 49 X 8	
29		NUT 3/8 FLARE HOSE ASSY, FUEL, 1/4 - 26 VIN K 25 020 06 04 0 4 0 4 - 26	
30	1024876	HOSE ASSY, FUEL, 1/4 - 26 UTV KAIS OF STATE	
31	1248954	HOSE ASSY VIM 43605 E 04605 - 03800	
32	2009595	PLUG, PIPE, 3/8	
NI	2225431	COCK, RESERVOIR, DRAIN	
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## PANEL ASSY., DASH, UPPER

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
NI 2 3 4 NI 5 6 NI 7 NI 8 NI 9	3746112 3847381 0804294 3746120 3795481 1078773 3768496 1018799 1078823 1078781 2271807 2268522 2271823	GAUGE, FUEL LEVEL SENDER, FUEL LEVEL GAUGE, AIR PRESSURE, DUAL FRONT/REAR GAUGE, HOURMETER GAUGE, AMPERE, 0-300 ADC SHUNT, AMP GAUGE GAUGE, VOLTMETER GAUGE, OIL PRESSURE, ELECTRIC SENDER, ENGINE OIL PRESSURE GAUGE, ENGINE OIL TEMP. SENDER, OIL TEMP. GAUGE, WATER TEMP, D/SCALE, GAS ENGINE SENDER, WATER TEMP. LIGHT, PILOT RED, LEVELING JACK SWITCH, CHICAGO, DASH LIGHT, INDICATOR, BLUE PANEL ASSY., DASH, UPPER	3 2
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KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 2 3 4 5 6 NI	2268522 2268555 2268548 2268530 3839040 3765062 0910216	SWITCH, CHICAGO DASH, ON-OFF SWITCH, CHICAGO DASH, MOM ON SWITCH, CHICAGO DASH, ON-OFF-ON SWITCH, CHICAGO DASH, ON-ON SWITCH, HEADLIGHT TACHOMETER SENDER, TACH	13 2 4 4
7 NI 8 9 10 NI 11 12 13 14 15 16 17 18	1250455 3768496 3761632 3851920 3851904 3843877 2271815 2271807		9 2 2
19 20 21 22 NI NI	2274165 3851912 3841012 3737160	SWITCH, BLANK LIGHT ASSY., P, RED PANEL ASSY., SASH, LOWER 6039762 SWITCH SELECTOR LIGHT, INDICATOR, BLUE	
		A S. M. Market State of Angelong State of State	
			The state of the s

## PANEL, DASH, SHIFTER

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 2 3 4 5 NI	2268522 2268563 2268530 3851904 3841061 1250448	SWITCH, CHICAGO DASH SWITCH, CHICAGO DASH SWITCH, CHICAGO DASH, ON-ON LIGHT ASSY., P, BLUE PANEL ASSY., DASH, SHIFTER CONTROL, SHIFTER, PUSH-BUTTON	3
		CONTROL, SHIFTER, PUSH-BUTTON	

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2 NI 3 4 5 6 7 8	3795481 3811254 1078823 3811221 3746120 3746112 3847357 3847381 3847373 3847365 3841038 3811254	GAUGE, OIL PRESSURE. ELECTRIC SENDER. OIL PRESSURE GAUGE. WATER TEMP. D/SCALE. GAS ENGINE A-C SENDER. WATER TEMP GAUGE. VOLTMETER GAUGE. HOURMETER GAUGE. AMPERE. 150-0-150 ADC GAUGE. AMPERE. 3-300 ADC GAUGE. VOLT. 60-140 VAC GAUGE. AMPERE. 0-50 AAC PANEL ASSY DASH. OVERHEAD AUXILIARY. RH SENDER. OIL PRESSURE	2 2
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#### INSTRUMENTS LEFT HAND, OVERHEAD

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
4 5 6	2268522 2271484 3761632 2268548 3856721	DECAL ONLY SWITCH, ON/OFF LIGHT SWITCH, RHEOSTAT SWITCH, ON/OFF/ON SWITCH, AC KNOB, AC	
NI 8 9 10 11	3767613	THERMOSTAT KNOB, THERMOSTAT SWITCH, SPEED CONTROL, SPOTLIGHT SWITCH, MOMENTARY ON/ON SWITCH, MOMENTARY ON CLOCK SWITCH, ON/ON	• •
13 NI 14 15 16 17	3805306 3804846 2274165 3765021 2271484 3743929 3780491	SWITCH, GEN. BEZEL BLANK GAUGE, TRIP ODOMETER LIGHT ALARM, WATER FILTER DECAL, W/L LOGO	·
19 20	2105351 3756012	SWITCH, ROTATING SPOTLIGHT SWITCH ASSY., SPOTLIGHT	
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KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2 3 4 5	2268522 2274165 3851904 2268530 2018406 3841053	SWITCH, CHICAGO DASH SWITCH, BLANK, CHICAGO LIGHT ASSY., P. BLUE SWITCH, CHICAGO, DASH, ON-ON LIGHTER, CIGARETTE PANEL, ASSY., DASH, RH UPPER	2
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	Advantage of the second		,

**ONE** 69 UNLESS **OTHERWISE QUANTITY REQUIRED** IS SPECIFIED.

#### STEERING INSTALLATION

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 NI 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 31 31 31 31 31 31 31 31 31 31 31	3841350 3841327 1247618 1287606 1254986 1255140 1255009 1255017 1255025 1255041 1255033 2003473 1290972 2003457 1270685 1256015 1256023 2000511 1037688 0996496 1252212 0609495 2027472 2027431 2597318 2596617 2627107 2596518 2118198	ANGLE, MTG., TILT & TELESCOPE STEERING COLUMN BRACKET, MTG., TILT & TELESCOPE STEERING COLUMN, LH SCREW, SM PH OVAL HD 10 X 1/2 PLATE, SERVICE ACCESS. TOEBOARD POWER STEERING PLATE, SERVICE ACCESS. TOEBOARD TOEBOARD, W/ACCESS HOLE COTTER PIN 3/16 X 3 FITTING, 1/8 MPT 90 DEG. GREASE FITTING, 1/8 MPT STRAIGHT GREASE BALL SEAT, DRAG ROD SPRING SPRING SPRING SEAT PLUG, ADJUSTING 1 3/4 DRAG ROD KIT, REPAIR, DRAG ROD ASSY. DRAG ROD ASSY., POWER STEERING, HFB-64, PAINTED BOLT, HEX 3/4-10 X 4, GD. 8 WASHER, 3/4 PLAIN NUT, HEX, 3/4-10 GD. 8, PREV. TORQUE DUST COVER, DRAG ROD STEERING ARM, PITTMAN, 8 1/2, ISP-564, PAINTED	2 2 2 2 2 2 3 2 4 2 2 2

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1 2 3* 4 5 6 7 8 9 10 11 NI		COVER-UPPER COVER-UPPER MODEL 909 STEERING COLUMN COVER-LOWER HOUSING & PLATE ASSY. SPRING COVER ASSY. PROTECTOR (DISCARD) NUT LOCKWASHER NUT KNOB-LOCKING ROD	47369 47371D 4733A 4737D 47372 47376 47377A 47383 46361 47386 43472B 47384	
		*NOT SERVICED SEPARATE		
		,	*	

KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
NI		SEAL KIT, HFB 64 STEERING GEAR	HFB 640001	
		GEAR ASSY., POWER STEERING		
1	2120996	BOLT, 1/2-13 TORX HEAD	020251	4
2	2121044	ADJUSTING SCREW	021336	
3	2121051	NUT	025121	
3A		NUT, 5/16-24	025124	
4		SEAL	032579	
5		RETAINING RING	401314	
6		BACKUP WASHER	028445	
7	2121176	SEAL ASSY.	032577-A1	
9	2121416	VALVE HOUSING ASSY.	HFB-646013-A1	
до ;	2121226	O-RING	032616	2 2
11		THRUST WASHER	028430	4
12 13 14		THRUST BEARING	067026	
13		SEAL RING	032570	2 2
14	2121168		032571	4
15		NOT SERVICED SEPARATELY, SEE ITEM 17		
17	2121374	WORM AND VALVE ASSY.	HFB-523001-J1	_
<b>J</b> 18	2121135		032552	2 2
19		SEAL RING	032536	2
20		HOUSING ASSY.		
21		ROLLER BEARING	071018	
20 21 22 23 24 25		RETAINING RING	401309	
23		SEAL RING ASSY.	032634-A1	1
24	2121093		028433	
25	2121192		032586	
26		TRUNNION COVER ASSY.	402368-A1	
26 27 28	2121200		032591	
28	2121366	SCREW	G-9429710	4
29 30		SEAL RING	032590	
	2121218		032615	
31	I .	RACK AND BALL ASSY.	HFB-647002-J1	
32	2121309		401379	2 2
33	2121341		415442	2
34	2121234		040124	2
35	2121242		040125	
36 37		SPRING	401375	τ.
	2121333		402376	
38	2121069		025122	
39	2121036		021333	
40	2121010	1	021322	4
41	2121002		020252	4
41A	2596922		216191-X1	*
42 43	2121275	BALL ASSY. (KIT OF 27) NOT SERVICED SEPARATELY, SEE ITEM 46A	210191-41	



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KEY NO.	PARTNO.	DESCRIPTION	QTY REQ'D
1		BRACKET POWER STEERING PUMP	
2		PUMP ASSY., POWER STEERING	
3		BELT SET, MATCHED, 41 3/4 X 1/2	
4		HOSE ASSY., 3/8 I.D., 40 IN. LONG	
5		HOSE ASSY., POWER STEERING RETURN	
6		HOSE, 3/4 I.D. BLACK RESERVOIR ASSY	
7		ELEMENT, P/S RESERVOIR	
NI.		PULLEY, POWER STEERING PUMP	
	*	WASHER, FLAT	
10	*	CAPSCREW, HEX HEAD	
111	*	LOCK WASHER	
12	*	BOLT, P/S PUMP TO BRACKET MOUNTING	
		ELBOW, STREET, 45 DEG .	
14	1237726	BRACKET ASSY., MOUNTING, POWER STEERING RESERVOIR	
15	2051134	INSERT, BARBED, 3/4 HOSE X 1/2 PIPE	
16	0413146	INSERT, BARBED, 5/8 I.D. HOSE X 3/8 PIPE	
17		ADAPTOR, SWIVEL, UNION	
18	1025857	CLAMP, HOSE, SIZE 8, LINED	2
19	0557710	CLAMP, CLOSED TYPE, INSULATED, 13/16	
20		STRAP, POWER STEERING RESERVOIR MTG.	
21	'	CAPSCREW, HEX HD. 1/4 - 20 X 3 1/2	
22	2001337		
23		BRACKET, REAR ACC CONTROL	3
24	1237734		3
25	1100112	CONNECTOR, SAE 37 DEG . FLARE ELBOW, 90 DEG . SAE 37 DEG . FLARE	
26	1100107	CLAMP, 1 IN. HOSE	2
27 28	1243153	ELBOW, 90 DEG . 5/8 HOSE BARBED X 1/2 MALE PIPE	-
		* SUPPLIED WITH PUMP	
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KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1	1253004	SUSPENSION SYSTEM, FRONT HANGER RAIL ASSY., LH HANGER RAIL ASSY., RH TORQUE BEAM ASSY., UPPER TORQUE BEAM ASSY., LOWER CLAMPING PLATE ASSY. ECCENTRIC BOLT ASSY. WASHER, BEARING SLEEVE NUT, HEX LOCKING, 1 1/4-7NC LOWER BEAM ASSY., LH LOWER BEAM ASSY., RH CAPSCREW, 1 1/2-6 X 7" LONG WASHER, LOCK 1 1/2 INT. TOOTH BUSHING, TORQUE BEAM, SOFT RUBBER BUSHING, TORQUE BEAM, HARD RUBBER		<del>                                     </del>
2	1253046	HANGER RAIL ASSY., LH	309-4360C-100	
3	1253038	HANGER RAIL ASSY., RH	309-4360C-200	
4	1026368	TORQUE BEAM ASSY., UPPER	506-4035B-000	2 2
5	0961821	TORQUE BEAM ASSY., LOWER	505-4033B-000	2
6	0961839	CLAMPING PLATE ASSY.	740-1494B-000	4
7	0961847	ECCENTRIC BOLT ASSY.	500-1458B-000	4
8	0961359	WASHER, BEARING SLEEVE	116-0519B-302	8
9	1077221	NUT, HEX LOCKING, 1 1/4-7NC	115-5648B-105	· 4
10	1130657	LOWER BEAM ASSY., LH	425-4361D-100	
11	0961383	LOWER BEAM ASSY., RH	425-4362D-200	
12	0961409	CAPSCREW, 1 1/2-6 X 7" LONG	113-0670B-105	4
13	0961417	WASHER, LOCK 1 1/2 INT. TOOTH	116-0673B-000	4
14	0961573	BUSHING, TORQUE BEAM, SOFT RUBBER	111-3328B-000	4
15	0961581	BUSHING, TORQUE BEAM, HARD RUBBER	111-0512B-000	4
16	1087329	WASHER, 2" O.D. SHOCK STUD	116-1677B-100	4
17	1105782	NUT, LOCK, 1"-8 NYLON INSERT	115-5939B-102	4
18	1263581	AIR SPRING, FRT. SUSP.	100-358-8997C	4
19	0985549	NUT, 3/4-16 THIN LOCK	115-4700B-102	4
20	0961458	NUT, 1/2-13	115-0555B-102	4
21	0961458	NUT, LOCK, 1/2-13	115-0555B-102	4 2
22	1085489	BUSHING, TORQUE BEAM, SOFT RUBBER BUSHING, TORQUE BEAM, HARD RUBBER WASHER, 2" O.D. SHOCK STUD NUT. LOCK, 1"-8 NYLON INSERT AIR SPRING, FRT. SUSP. NUT, 3/4-16 THIN LOCK NUT, 1/2-13 NUT, LOCK, 1/2-13 NUT, LOCK, 1"-8, NYLON INSERT	115-1678B-105	2
23	1245927	SWAY BAR	503-4326B-303	
NI	2159879	SWAY BAR BUSHING, SWAY BAR BRKT. SWAY BAR CAPSCREW, 1"-8 X 6" CHANNEL, CROSSBRACE BOLT. HEX 1/2-13 X 1 1/2 GD. 8	111-7195B-000	
24	1280270	BRKT. SWAY BAR	353-6019C-000	
25	1085380	CAPSCREW, 1"-8 X 6"	113-5711B-108	2
26	1280288	CHANNEL, CROSSBRACE	817-4754B-301	
27	1 0000	<b></b>	1	8
28	0850776	WASHER, FLAT 17/32 X 1 1/16		62
29	0850800			31
30	1	NOT APPLICABLE		
31		NOT APPLICABLE		
32	2028470	CAPSCREW. HEX HD. 1/2-20 X 2 GD. 5		4
33	2001485		ļ	4
34		NOT APPLICABLE	200 20028 000	
35	0961375		900-3092B-000	4 2
36	1235233			
1		INCLUDED)	15 22 22 000 0	
37		BUSHING, SHOCK ABSORBER	15.23.33.008.0	19
38	0803205			3
39	0803148	BOLT, HEX 1/2-13 X 1 3/4, GD. 8		,
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KEY NO.	PART NO.	DESCRIPTION	VENDOR PART NO.	QTY REQ'D
1	1087279	SUSPENSION SYSTEM, REAR HANGER RAIL ASSY., LH HANGER RAIL ASSY., RH TORQUE BEAM ASSY., LOWER TORQUE BEAM ASSY., UPPER CLAMPING PLATE ASSY. ECCENTRIC BOLT ASSY. WASHER, BEARING SLEEVE NUT, HEX LOCKING 1 1/4-7NC LOWER BEAM ASSY., LH LOWER BEAM ASSY., RH		
2	0990093	HANGER RAIL ASSY., LH	310-4416C-100	
3	0990085	HANGER RAIL ASSY., RH	310-4416C-200	
4	0961821	TOROUE BEAM ASSY., LOWER	505-4033B-000	2
5	1026368	TOROUE BEAM ASSY., UPPER	506-4035B-000	
6	0961839	CLAMPING PLATE ASSY.	740-1494-000	4
7	0961847	ECCENTRIC BOLT ASSY.	500-1458B-000	4
8	0962118	WASHER, BEARING SLEEVE	116-0519B-301	8
9	1077221	NUT, HEX LOCKING 1 1/4-7NC	115-5648B-105	4
10	1087311	LOWER BEAM ASSY., LH	426-5744-D-100	
11	1087303	LOWER BEAM ASSY., RH	426-5745D-200	
12		MASSING BUCK I I/C INI I/O'II	116-0673B-000	
13	0961409	CAPSCREW, 1 1/2 X 6 X 7" WASHER, 2" O.D., SHOCK STUD	113-0670B-105	4
14	1087329	WASHER, 2" O.D., SHOCK STUD	116-1677B-100	4
15	1105782	NUT, LOCK 1"-8 NYLON, INSERT	115-5939B-102	4
16	0961573	BUSHING, TORQUE BEAM, SOFT RUBBER	111-3328B-000	4 .
	""	BEAM END		
17	0961581	BUSHING, TORQUE BEAM, HARD RUBBER HANGER END SPACER PLATE ASSY., LH SPACER PLATE ASSY., RH U-BOLT 7/8-14-14" LONG U-BOLT 7/8-14-14 1/2" LONG U-BOLT 7/8-14-14" LONG WASHER, FLAT 7/8 NUT, LOCK 7/8-14 AIR SPRING NUT, LOCK 1/2-13 NUT, 3/4-16 THIN LOCK NUT, LOCK, 3/4-10 SHOCK ABSORBER	111-0512B-000	4
18	1087345	SPACER PLATE ASSY., LH	465-5702B-100	
19	1087337	SPACER PLATE ASSY., RH	465-5703B-200	
20	0961201	U-BOLT 7/8-14-14" LONG	117-3532B-308	2
21	1087352	U-BOLT 7/8-14-14 1/2" LONG	117-3532B-327	ł
22	1087352	U-BOLT 7/8-14-14" LONG	117-3532B-327	
23	0961235	WASHER. FLAT 7/8	116-0868B-100	8
24	1095892	NUT. LOCK 7/8-14	115-5876B-108 100-358-9039C	. 8
25	0961250	AIR SPRING	100-358-9039C	4
26	0961458	NUT. LOCK 1/2-13	115-0555B-102	4
27	0985549	NUT, 3/4-16 THIN LOCK	115-4700B-102	4
28	0961276	NUT, LOCK, 3/4-10	115-1384B-102	4
29	0961284	SHOCK ABSORBER	125-4025B-000 110-2608B-000	2
30	0961474	BUSHING. SHOCK ABSORBER	110-2608B-000	8
	1085489	SHOCK ABSORBER BUSHING, SHOCK ABSORBER NUT, LOCK, 1"-8 SWAY BAR ASSY	115-1678B-105	2
32	1245935	SWAY BAR ASSY.	503-4326B-304	
NI			111-7195B-000	
33	1087360		353-5704B-000	
34	1087378		462-5746B-000	
35	1085380		113-5711B-108	2
36	1118124		548-6099B-000	ļ
37	0803239		İ	8
38	0850776			76
39	0850800			38
40	1101062		900-4565B-000	4
41	0803148	BOLT, HEX 1/2-13 X 1 3/4, GD.8	1	11
42	0803205			19
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# AIR LEVELING SYSTEM OPT. 5640-00

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 NI 2 3	1255405 1255397 1255389	BRACKET ASSY., MERCURY SWITCH SWITCH ASSY., MERCURY VALVE ASSY., SOLENOID, NORMALLY CLOSED VALVE ASSY., SOLENOID, NORMALLY CLOSED, 2 WAY HARNESS, WIRING	4
5 6 7 8 9 NI	0982272 2008050 2023935 2008431 2023224	TEE, 1/8 MPT X 1/4 TUBE X 1/4 TUBE BUSHING, BRASS, 1/8 X 1/4 ELBOW, 1/4 MPT X 1/4 TUBE TUBING, COPPER, 1/4" CONNECTOR, 1/4 MPT X 1/4 TUBE LEVELING VALVES	4 4 7 50' 3
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### AIR THROTTLE CONTROL

$\overline{}$	PART NO.	DESCRIPTION	QTY REQ'D
ı	1252204	VALVE, TREADLE, AIR THROTTLE CONTROL	
NI	0986356	VALVE, ONLY	
2	1087428	CYLINDER, AIR CRUISE CONTROL	
3	0654434	VALVE, DOUBLE CHECK, 3/8 PIPE	2
4	1087436	VALVE, PRESSURE REDUCING, CRUISE CONTROL	
5	1087410	MODULE, BENDIX, CRUISE CONTROL	
6		VALVE, SOLENOID, NORMALLY OPEN, ALLENAIR	
		BRACKET, MOUNTING, ALLENAIR VALVE, CRUISE CONTROL	
8		VALVE, INVERSION, AIR THROTTLE	
		VALVE, INVERSION, CRUISE CONTROL	
		VALVE, SINGLE CHECK, 1/2 PIPE	
		ELBOW, 1/4 MPT X 1/4 TUBE	11
12		ELBOW, 3/8 MPT X 1/2 TUBE	3
13	0766188	ADAPTER, 3/8 FPT X 1/4 MPT	2
14	2027134	BUSHING, PIPE, 3/8 X 1/4	3 .
15	2023364	CONNECTOR, 3/8 MPT X 1/2 TUBE	
		CONNECTOR, 1/4 MPT X 1/4 TUBE	3
17	0654277	TEE, STREET, 1/4 PIPE	
18	0982272	TEE, 1/8 MPT X 1/4 TUBE X 1/4 TUBE	
19	2023786	ELBOW, 1/8 MPT X 1/4 TUBE	. 4
		ELBOW, 1/2 MPT X 3/8 TUBE	
21	0654350	TEE, 1/2 PIPE, STREET	
22	2027159	BUSHING, PIPE, 1/2 X 1/4	· ·
23		RESERVOIR, AIR	
24	2009595	PLUG, PIPE, 3/8	2
		COCK, RESERVOIR DRAIN	
26	L .	PLUG, 1/2 SQ. HD., PIPE	1
27	1	BRACKET, MOUNTING, 8 IN., AIR RESERVOIR	4
28	0851337	CAPSCREW, HEX, 3/8-16 X 6 1/2	2
29	0882795	LOCKWASHER, 3/8 IN., CAD. PLATED	2
30		NUT, HEX, 3/8-16, CAD PLATED	2
31		TUBING, COPPER, 1/4 INCH	
		TUBING, COPPER, 3/8 INCH (SPECIFY LENGTH)	
33	2027399	TUBING, 1/2 COPPER, 3/8 TYPE L, WATER TUBE	
34	2027142	BUSHING, PIPE, 3/8 X 1/8, BRASS	
35	1197177	TUBING, PLASTIC, 1/2 OD GRAY	
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### ACCELERATOR CABLE INSTALLATION, 300 HP

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	0870477 2001170 2001329 1248251 1287937 2001253 2001162 0620120 1091446 2000743 1291004 1276815 0939348 0939231 1248244 1248186 1248442 1218056 1250513 1248269 1249192	BRACKET ASSY, MOUNTING, POWER STEERING RESERVOIR BOLT, HEX, 1/4-20 X 1, G8 WASHER, LOCK, 1/4, MEDIUM NUT, HEX, 1/4, NC, CAD BRACKET, MOUNTING, MODULATOR CABLE, UPPER BRACKET, MOUNTING, ACCELERATOR CABLE NUT, HEX CAD WASHER, LOCK, 3/16 MEDIUM SHIM, CABLE CLAMP CLAMP ACCELERATOR CABLE, CRUISE CONTROL SCREW, PHILLIP HEAD, ROUND EXTENSION ASSY, THROTTLE LEVER, CAT 3208TA SOCKET, CABLE END BALLJOINT, CABLE END SPRING, ACCELERATOR RETURN BRACKET, SPRING, ACCELERATOR CABLE BRACKET, MOUNTING, ISOLATOR, BATTERY TRAY BRACKET ASSY, MOUNTING, MODULATOR RETURN SPRING SPRING, ACCELERATOR RETURN SENSOR, THROTTLE POSITION BRACKET, MOUNTING, MODULATOR CABLE, LOWER SHIELD, MODULATOR CABLE CABLE, THROTTLE, CRUISE CONTROL	
23 24	1052109	CABLE, ACCELERATOR	
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# HOLDING TANKS 35' SIDE BATH

NO.	PART NO.	DESCRIPTION	QTY REQ'D
	1249002	TANK ASSY., WASTE HOLDING, SOLID	
	1061449	PROBE, ODOR CONTROL	4
	1234350	BRACKET ASSY., HOLDING TANK, LEFT FRONT	
	1234368	BRACKET ASSY., HOLDING TANK, LEFT REAR	•
	1140623	STRAP ASSY., HOLDING TANK, SOLID STRAP ASSY., RETAINER, HOLDING TANK, SOLID, OUTSIDE	
	1249150	TANK ASSY., WASTE HOLDING, GRAY	
	1248996 1234376	BRACKET ASSY., HOLDING TANK, RIGHT FRONT	
	1234376	BRACKET ASSY., RIGHT REAR	
		STRAP ASSY., GRAY	
	1249176	STRAP ASSY., RETAINER, GRAY	2
	2001451	NUT, HEX, 3/8-16, CAD	- 8
	2000339	CAPSCREW, HEX, 5/8-11 X 1 1/2	12
		WASHER, LOCK, 5/8	12
	2001493	NUT, 5/8-11, NC	12
	2001485	NUT, HEX, 1/2-20 NC, P & O	16
		STRAP ASSY., RETAINER, INSIDE	<b> </b> .
	3738903	ELBOW, STREET, PVC 1 1/2 X 90 DEG.	18"
		PIPE, PLASTIC, 1 1/2 X 20 FEET ELBOW, PVC 1 1/2 X 90 DEGREE	2
	2250793	PIPE, PLASTIC 1 1/2 X 20 FEET	40"
	1018407	l	2
	2017333	PIPE, PLASTIC 1 1/2 X 20 FEET	1"
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### LPG TANKS 31' & 33' W/SIDE BATH

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
8 9 10	2023513 0976068 2023232 1154897 1154905 2027381 1154905 1154897 2023232 2023513	REGULATOR WITH EXCESS FLOW P.O.L NIPPLE, 1/4 CLOSE TEE STREET, 1/4 PIPE PLUG, PIPE 1/4" HOSE ASSY., DUAL LABEL COUPLING, ANCHOR ELBOW, 90 DEGREE, 1/4 MPT X 3/8 FLARE NUT, 3/8 FLARE TUBING, 3/8 COPPER 1/4 TYPE L WATER TUBE NUT, 3/8 FLARE ELBOW, 90 DEGREE, 1/4 MPT X 3/8 FLARE COUPLING, ANCHOR PLUG, PIPE 1/4" TANK ASSY., LPG, 44" LONG, FRAME MOUNTED	
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### LPG TANKS 35' W/SIDE BATH

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1 2 3 4 5 6 NI	1297373 2027183 0654277 2023513 0976068 0929554 1248285	REGULATOR WITH EXCESS FLOW P.O.L. NIPPLE, 1/4 CLOSE TEE STREET, 1/4 PIPE PLUG, PIPE 1/4" HOSE ASSY., DUAL LABEL TANK ASSY., LPG, 44" LONG, FRAME MOUNTED CHANNEL, MOUNTING, LPG TANK	

### LPG TANKS 35' W/ REAR BATH

KEY NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	1297373	REGULATOR WITH EXCESS FLOW P.O.L	
2	2027183	NIPPLE, 1/4 CLOSE	1
3	0654277	TEE STREET, 1/4 PIPE	
4	2023513	PLUG, PIPE 1/4"	
5		HOSE ASSY., DUAL LABEL	
6		COUPLING, ANCHOR	-
7		ELBOW, 90 DEGREE, 1/4 MPT X 3/8 FLARE	
		NUT, 3/8 FLARE	
I.		TUBING, 3/8 COPPER, 1/4 TYPE L, WATER TUBE	
		NUT, 3/8 FLARE	
		ELBOW, 90 DEGREE, 1/4 MPT X 3/8 FLARE	
•		COUPLING, ANCHOR	
13		PLUG, PIPE, 1/4" PLUG, PIPE, 1/4"	
		COUPLING, ANCHOR	
		ELBOW, 90 DEGREE, 1/4 MPT X 3/8 FLARE	
		NUT, 3/8 FLARE	
ı	4	TUBING, 3/8 COPPER, 1/4 TYPE L. WATER TUBE	
		TANK ASSY., LPG, 44" LONG, FRAME MOUNTED	1 1
		NUT. 3/8 FLARE	2
		TEE, 1/4 MPT X 3/8 FLARE BRANCH	
		COUPLING, ANCHOR	
1		PLUG, PIPE, 1/4"	
		TUBING, 3/8 COPPER, 1/4 TYPE L, WATER TUBE	
25	1154905	NUT, 3/8 FLARE	
26	1154897	ELBOW, 90 DEGREE, 1/4 MPT X 3/8 FLARE	1
27	2023232	COUPLING, ANCHOR	
28		PLUG, PIPE, 1/4"	
29		PLUG, PIPE, 1/4"	
30		COUPLING, ANCHOR	
		ELBOW, 90 DEGREE, 1/4 MPT X 3/8 FLARE	
t		NUT, 3/8 FLARE	
5		TUBING, 3/8 COPPER, 1/4 TYPE L, WATER TUBE	
34	1154905	NUT, 3/8 FLARE	
35	1154897	ELBOW, 90 DEGREE, 1/4 MPT X 3/8 FLARE	
36	2023232	COUPLING, ANCHOR	
37	2023513	PLUG, PIPE, 1/4"	
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OUTLINE OF COMPONENT LOCATION

AND FUNCTION FOR THE

1987 FORWARD CONTROL AND PUSHER

1988 W. B.

MECHANICS WORKSHOP

NOVEMBER 2-5, 1987

AIR SOLENOID VALVE, AIR VENT: located in the left hand access; there are two valves that operate the right and left fresh air vent.

AIR SOLENOID VALVE, SUSPENSION DUMP: located in the left hand access; this valve dumps or raises the suspension.

AIR SOLENOID VALVE, DRIVING LIGHTS: located in the left hand access; this operates the drop down driving lights.

AIR SOLENOID VALVE, SEAT CONTROL: on 1987 models, these are located in the left hand access; on 1988 modesl, these are located on the seat bases; these valves control the side slides.

C.B. MODULE: located behind copilot kick panel.

CIRCUIT BREAKER, 105A: located in the left hand access.

E.L. INVERTERS, DASH: lower dash E.L.'s are located under lower dash; upper dash E.L.'s are located to the left of the overhead load center.

HORN MODULE: located behind copilot kick panel.

MIST CONTROL MODULE: on 1987 models, the module is located under the lower dash; on 1988 models, the module is located on the lower dash.

PMMI SIGNAL SWITCH RELAY BOX: located in left hand access; the relay box completes the circuit for the headlights, turn signals, brakes and cornering lights.

REARVIEW MONITOR DC TO DC CONVERTER: mounted to the left or left hand overhead access panel; this converter is used to supply correct voltage to the monitor chassis and to the camera even if coach voltage is low.

T.V. RF AMP/SPLITTER: located behind panel where antenna/cable switch and T.V. antenna rotation control are located.

TRANSMISSION MODULE: located behind panel under shift tower.

WASHER, LOW FLUID MODULE: located under lower dash panel.

## COMPONENT LOCATION FOR 1987 PUSHER

AIR SOLENOID VALVE, AIR VENT: located in left hand access; there are two valves that operate the right and left fresh air vent.

AIR SOLENOID VALVE, DRIVING LIGHTS: located in the left hand access; this valve operates the drop-down driving lights.

AIR SOLENOID VALVES, SEAT CONTROLS: located in the left hand access; these valves control the side slide.

AIR SOLENOID VALVE, SUSPENIONS DUMP/TAG DUMP: located in the left hand access; this valve dumps or raises the suspension.

C.B. MODULE: located behind drawers under dash mounted on floor/(early 1987) mounted at top.

CIRCUIT BREAKERS, 105A: mounted in front of steering column (early 87); in left hand access (late 87).

E.L. INVERTERS: E.L.'s for lower dashes are located under the lower dash; for the overhead dash, they are located in the right or left overhead access.

HORN MODULE: located behind the copilot kick panel.

MIST CONTROL MODULE: located behind drawers at the dash area on wall.

PMMI SIGNAL SWITCH RELAY BOX: mounted above top drawer at dash.

REARVIEW DC TO DC CONVERTER: mounted to the left of the left hand overhead access panel.

T.V. RF AMP/SPLITTER: located behind panel where antenna/cable switch and T.V. antenna rotation control are located.

TRANSMISSION MODULE: located behind drawers under dash on wall.

WASHER, LOW FLUID MODULE: mounted behind drawers under dash on wall.

## COMPONENT LOCATION FOR 1988 PUSHER 102"

AIR VALVES, AIR VENTS: located in the front lower load center.

AIR VALVES, DRIVING LIGHTS: located in the front lower load center.

AIR VALVES, SEAT CONTROL: located on the seat base.

AIR VALVES, SUSPENSION DUMP/TAG DUMP: located in the front lower load center.

BALLAST, FLUORESCENT: located behind mirror panel at end of sofa, under front dinette seat; bedroom behind light valance.

C.B. MODULE: mounted to the right of the accelerator.

CIRCUIT BREAKERS: mounted in the front access on left hand side

DDEC MODULE: located in left hand rear load center, behind 110V load center.

E.L. INVERTERS: lower dashes - located lower front load center; overhead dashes - left hand overhead access.

HORN MODULE: located behind copilot kick panel.

MIST CONTROL MODULE: located on lower dash panel.

PMMI SIGNAL SWITCH RELAY BOX: located in generator blower compartment.

REARVIEW DC TO DC CONVERTER: located behind rearview monitor picture tube in compartment.

SUSPENSION DUMP LIGHT DELAY MODULE: located in front lower load center.

T.V. RF AMP/SPLITTER: located in front overhead load center.

TRANSMISSION MODULE: mounted in the generator blower compartment.

WASHER, LOW FLUID MODULE: located in the front lower load center.

## "STEREO PRIVACY RELAYS AND AMP LOCATIONS

## 1987 FORWARD CONTROL PREMIUM AND STANDARD

PRIVACY RELAYS, LIVING ROOM (FRONT): located behind front left hand overhead cabinet wire cover or front end panel.

PRIVACY RELAYS, LIVING ROOM (REAR): located behind front right hand overhead cabinet end panel.

PRIVACY RELAYS, LIVING ROOM (SUB-WOOFER): located on top of power amps.

POWER AMPS: located behind left hand overhead access panel.

### 1988 FORWARD CONTROL PREMIUM

PRIVACY RELAYS: located on top of the power amp located in the left hand overhead access.

POWER AMP: located in the left hand overhead access.

## 1988 FORWARD CONTROL STANDARD

PRIVACY RELAYS: mounted in left hand access panel.

POWER AMP: mounted behind radio.

## STEREO PRIVACY RELAYS AND AMP LOCATIONS

#### 1987 PUSHER PREMIUM AND STANDARD

PRIVACY RELAY, LIVING ROOM (FRONT): located behind front left hand wire cover.

PRIVACY RELAY, LIVINGROOM (REAR): located behind front right hand overhead cabinet wire cover.

PRIVACY RELAY, LIVING ROOM (SUB-WOOFER): located on top of power amps.

POWER AMPS: located in left hand overhead cabinet behind front end panel.

### 1988 PUSHER 102"

PRIVACY RELAYS: located behind drawers at dash mounted on wall.

POWER AMPS: located behind drawers at dash mounted on wall.

OUTLINE OF BOSCH RELAY LOCATION

AND FUNCTION FOR THE

1987 FORWARD CONTROL AND PUSHER

MECHANICS WORKSHOP

NOVEMBER 2-5, 1987

# BOSCH RELAY LOCATION AND FUNCTION FOR 1987 PUSHER AND FORWARD CONTROL

ALTERNATOR EXCITER WIRE RELAY: location on 1987 pusher is battery charger compartment; not used on forward control; completes circuit for alternator to get a true voltage reading direct from batteries. Relay is not used on coaches that have a self excited alternator.

BACK-UP LIGHT RELAY: location on all is left rear load center; completes circuit for rear halogen back-up lights.

CHASSIS A/C SWITCH RELAYS: location on all is front overhead load center; completes circuit for condensor fan relay and compressor clutch relay (compressor clutch on FC).

CHASSIS A/C COMPRESSOR CLUTCH RELAY: on 87 pusher location is battery charger compartment; not used on FC; completes circuit for compressor clutch.

### CHASSIS HEAT SYSTEM RELAYS

LIVING ROOM CHASSIS HEAT RELAY: location on all is left hand front load center.

DINETTE CHASSIS HEAT RELAY: location on all is right front load center.

BATHROOM CHASSIS HEAT RELAY: location on pusher is right hand front load center; location on forward control side bath is left hand front load center; location on forward control rear bath is right hand rear load center.

BEDROOM CHASSIS HEATER RELAY: location on pusher is left hand rear load center; location on forward control side bath is right hand rear load center.

Completes the circuit to chassis heater switches.

LIVING ROOM T-STAT RELAY: location on pusher is left hand front load center; location on forward control side bath and rear bath is right hand front load center.

DINETTE T-STAT RELAY: location on pusher and forward control rear bath is right hand front load center; location on forward control side bath is left hand front load center.

BATHROOM T-STAT RELAY: location on pusher is right hand front load center; location on forward control side bath is left hand front load center; location on forward control rear bath is right hand rear load center.

November 2-5, 1987

## CHASSIS HEAT SYSTEM RELAYS CONT.

BEDROOM T-STAT RELAY: location on pusher is left hand rear load center; location on forward control side bath is right hand rear load center.

Completes the circuit for the thermostats to activate the chassis heater relays.

SWITCHING RELAYS: location on all is right hand front load center; activates the thermostat relays and summer/winter relay when winter switch is turned on.

SUMMER/WINTER RELAY: location on pusher is left hand rear load center; location on forward control rear bath is left hand rear load center; location on forward control side bath is right hand rear load center; completes circuit for summer/winter solenoid valves.

CRUISE CONTROL RELAY: location on all is cruise control mounting plate; supplies CC module with 12V from a non-ignition source so there will be no low voltage problems.

DIRECTIONAL LIGHT RELAYS: location on all is front overhead load center; completes circuit for rear direction lights and trailer plug connections.

DRIVING LIGHT SUSPENSION DUMP RELAY: location on pusher is behind drawers under dash; location on forward control is under dash panels; prevents driving lights from coming down when the suspension is dumped.

FAN LIGHT RELAY: location on pusher is behind drawers under dash; location on forward control is under dash panels; activates fan light when either override switch is turned on or temperature switch activates fan. Some 1987's have this relay and some do not. Those that don't, the light only comes on when override switch is turned on.

FRONT LANDING LIGHT RELAY: location on all is left hand rear load center; completes circuit for front landing lights.

GENERATOR CHARGING CIRCUIT RELAY: location on pusher is generator blower compartment; location on forward control is under coach behind stepwell; completes circuit for generator battery charge.

HEADLIGHT WARNING RELAY: location on all is front overhead load center; completes circuit to headlight warning light and buzzer when ignition is turned off.

Page Three Outline for Bosch Relay

HEADLIGHT RELAYS: location on pusher is in generator blower compartment; completes circuit for headlights.

HEADLIGHT WARNING SECURITY LIGHT RELAY: location on all is front overhead load center; breaks circuit to headlight warning light and buzzer when security lights are turned on.

IGNITION BREAKER RELAYS: location on all is front overhead and lower front load centers; energize ignition circuit breakers when ignition switch is turned on.

INVERTER RELAY: location on all is front overhead load center; complete circuit to activate inverter.

### LP HEAT SYSTEM

LIVING ROOM LP HEATER RELAY: location on pusher and forward control side bath is left hand front load center; location on forward control rear bath is right hand front load center.

DINETTE LP HEATER RELAY: location on pusher is right hand front load center; location on forward control side bath and rear bath is left hand front load center.

BATHROOM DUCT BOOSTER RELAY: location on pusher is right hand front load center; location on forward control side bath is left hand front load center; location on forward control rear bath is right hand rear load center.

BEDROOM LP HEATER RELAY: location on pusher and forward control side bath is left hand rear load center; location on forward control rear bath is right hand rear load center.

Completes circuit for thermostat to activate LP heater.

REAR LANDING LIGHT RELAY: location on all is left hand front load center; completes circuit for rear landing lights.

RETARDER BRAKE LIGHT RELAY: location on all is left hand front compartment by the body terminal block; completes circuit for brake lights when retarder hand control is used.

STEP RELAYS: location on pusher is lower front load center; location on forward control side bath and rear bath is right front load center; (1) & (2) control in/out function on step; (3) controls (1) & (2) relay when step switch is activated; (4) extends step when air pressure drops below 60 PSI.

STEREO RELAYS: location on all - the two (2) relays for front speakers are in the left hand front OHC behind wire cover; the two (2) relays for rear speakers are in the right hand front overhead cabinet behind the front end panel; the two (2) relays for sub woofers are in the left hand overhead cabinet behind the front end panel; breaks circuit to each speaker when privacy switch is activated.

TRANSMISSION RELAYS: these relays are activated by ATEC transmission module; location is the lower front load center in front of the driver's left foot; there are six (6) relays.

HIGH IDLE RELAY: breaks circuit to high idle solenoid valve when transmission not in neutral.

TRANSMISSION CHECK LIGHT RELAY: completes circuit for transmission check light.

TRANSMISSION CHECK GROUND RELAY: if transmission check light comes on, press test switch to activate relay and check light will flash trouble code.

REVERSE RELAY: completes circuit for back-up lights, rear parking lights and back-up alarm.

NEUTRAL SAFTEY RELAY: breaks starting circuit unless transmission is in neutral.

TRANSMISSION ON RELAY: completes circuit for transmission moduel to get 12V directly from master switch. This relay is ignition activated.

WIPER RELAYS: location on pusher is behind the drawers underthe dash mounted on the wall; location on forward control is mounted under dash panels; two (2) relays activate left hand right hand wipers on low speed; two (2) relays activate left hand and right hand wipers on high speed; mist control relay activates mist control module; these five (5) relays are activated by control switch on turn signal arm.