

4-4 Battery Systems

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The battery system is comprised of two chassis (engine) batteries and eight house batteries, located in the last bay curbside of the coach. There is also a generator battery that is located in the nose of the coach next to the generator. Batteries are described below:

4-4.1 Chassis (engine) Batteries

Two 12-volt maintenance free 810 CCA batteries wired parallel produce power for starting the motor home engine.

4-4.2 Battery Charger

One 160-Amp battery charger (integral with the Vanner inverter) operates when a source of 120 volts of AC is supplied from either shoreline or generator. The charger is connected to the motor home batteries. Enabling the auxiliary battery switch on the lower dash may also charge the engine batteries.

4-4.3 Generator Battery

A separate 12V rated at 530 CCA battery is installed for starting the generator. This is located in the nose of the coach right next to the generator.

4-4.4 House Batteries

The house battery system consists of eight Lifeline 4D AGM batteries with an Amp-Hour rating of 210 alt each. With the Lifeline batteries you get:

- Aircraft class cell construction:
 - » Lowers internal resistance for high repeated engine start current.
 - » Withstands shock and vibration much better than standard flooded or gelled electrolyte designs.
- Twice as many discharge/charge cycles as the leading gel battery depending on depth of discharges.
- Faster recharge, no current limitations with voltage regulated recharging
- Much better charge retention than low cost, flooded cell types, even at high ambient temperature.
- Full recharge after 30 days storage in a full discharge condition (77°F rating).
- Less than 3% per month self discharge at 77°F (25°C); less at lower temperatures.
- Sealed construction with absorbed electrolyte-no shipment restrictions, submersible without damage; install in any position; no need for watering.
- Cell safety vent valves-pressure regulated, non-removable.
- Rugged, non-marring polypropylene (copolymer) case/cover.
- Safety-even during severe overcharge the Lifeline AGM battery produces less than 2% hydrogen gas (4.1% is required for flammability in air)

Deep Cycle Batteries Specifications

PART NUMBER	NOM VOLTS	OVERALL DIMENSIONS			UNIT WT Lbs. (Kgs)	CCA 68°F	CCA 32°F	CCA 0°F	CAPACITY AMPERE HOURS @20 HR. RATE	MINUTES OF DISCHARGE@		
		L in (mm)	W in (mm)	H in (mm)						25 AMPS	15 AMPS	8 AMPS
GPL-U1T	12	7.71 (196)	5.18 (132)	6.89 (175)	24 (10.9)	325	275	215	33	50	93	185
GPL-24T	12	11.13 (283)	6.77 (172)	9.25 (235)	56 (25.5)	800	680	550	80	149	259	524
GPL-27T	12	13.09 (333)	6.77 (172)	9.25 (235)	65 (29.5)	845	715	575	100	186	324	655
GPL-31T	12	12.90 (328)	6.75 (172)	9.27 (236)	69 (31.4)	880	750	600	105	195	340	688
GPL-4DA	12	20.75 (528)	8.71 (222)	10.09 (257)	135 (61.2)	1595	1360	1100	210	390	680	1375
GPL-4DL	12	20.75 (528)	8.71 (222)	10.44 (266)	135 (61.2)	1595	1360	1100	210	390	680	1375
GPL-8DA	12	20.72 (527)	10.94 (278)	9.88 (251)	162 (73.6)	1975	1675	1350	255	475	825	1670
GPL-8DL	12	20.72 (527)	10.94 (278)	10.23 (260)	162 (73.6)	1975	1675	1350	255	475	825	1670
GPL-4C	6	10.27 (261)	7.12 (181)	11.54 (294)	66 (30.0)	1095	925	750	220	492	856	1692

Terminals: GPL-24T, GPL-27T & GPL-31T are heavy duty silicon-bronze Marine Terminals and the GPL-U1T is a 6mm copper alloy threaded insert. All "T" batteries supplied with brass bolts and washers. A=Automatic Post. L=L bladed terminal 8mm bolt hole and supplied with bolts and washers. Handles: "T" models-Handles are built into cover design. GPL-24T and GPL-27T also incorporate strap handles. Handles not available on part numbers GPL-4C and GPL-31T. Models GPL-4D & GPL-8D are equipped with rope handles. Ratings: Capacity ratings are stated at 77°F (25°C) to 1.75 volts per cell. Drawings: Product drawings for each model available upon request.

Starting Batteries Specifications

PART NUMBER	NOM VOLTS	OVERALL DIMENSIONS			UNIT WT Lbs. (Kgs)	CCA 68°F	CCA 32°F	CCA 0°F	CAPACITY AMPERE HOURS @20 HR. RATE
		L in (mm)	W in (mm)	H in (mm)					
*GPL-1400T	12	9.78 (249)	5.17 (132)	5.83 (174)	32 (14.5)	850	700	550	57
*GPL-2400T	12	11.13 (283)	6.77 (172)	9.25 (235)	53 (24.1)	870	790	650	75
*GPL-2700T	12	13.09 (333)	6.77 (172)	9.25 (235)	63 (28.6)	1020	900	745	95
*GPL-3100T	12	12.90 (328)	6.75 (172)	9.27 (236)	67 (30.4)	1120	950	810	100

Ratings: Capacity ratings are stated at 77°F (25°C) to 1.75 volts per cell.

Drawings: Product drawings for each model available upon request.

*NOTE: These are starting batteries only. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

4-4.5 Split Battery Power System

The coach is run by house and chassis batteries. The Battery Connect/ Battery Disconnect switch connects and disconnects the house and chassis batteries.

4-4.6 Battery Maintenance

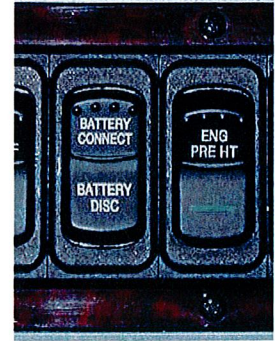
Your motor home is equipped with separate engine and house battery systems for greater assurance that there will be sufficient voltage to crank the motor home engine.

The two engine batteries and the eight house batteries are all located in the last bay curbside of the coach.

The house and engine batteries are charged from either the alternator or the inverter battery charger. The auxiliary battery switch is in the ON position in order for the inverter battery charger to operate, either the generator must be running or the motor home must be connected to a shoreline supply.

To make sure that the batteries are always ready for use, periodically check and charge them as necessary.

A dirty battery may eventually dissipate its charge through conductive surface contamination. Clean the engine battery top surfaces 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.



!!CAUTION: Avoid sparking of any form in the vicinity of the batteries.

!!CAUTION: Do not wear metal rings, watches or jewelry when working on or near the batteries, cable, solenoids or chassis wiring. These can short out electrical wiring and cause injury.

4-4.7 Battery Storage in Freezing Weather

Batteries that are not kept fully 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 motor home can be left connected to the shoreline AC supply and the inverter battery charger will keep the motor home batteries charged.

NOTE: The inverter must be turned on to charge the batteries.

NOTE: Even in a warm location it is advisable to keep the batteries charged to prevent deterioration. The engine batteries are the sealed type and require no electrolyte service.

Coat battery terminals with lubricant or protective coating.

4-4.8 Battery Terminals and Jump Starting

The proper procedure for jump-starting, using the Wanderlodge® engine batteries, is as follows:

1. Turn off all main battery-operated accessories in both vehicles such as the lights, radio, etc.
2. Connect one end of the positive-coded jumper cable to the positive (+) battery terminal, and the opposite end of the cable to the positive (+) terminal on the other battery.
3. 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 Wanderlodge engine block.
4. Once the engine of the disable 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 engine block terminal first to prevent sparks at the other battery.

!!CAUTION: Avoid sparks in the vicinity of a charging battery. The gas produced is explosive.

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