



**READ
INSTRUCTIONS
THOROUGHLY
BEFORE
PROCEEDING**

CYLINDER REPLACEMENT/BLEEDING PROCEDURE FOUR CYLINDER ROOM EXTENSION WITH SYNCHRONIZING CYLINDER WITH ROOM EXTENSION MANIFOLD

If a room cylinder is not being replaced but the room cylinders are not synchronized, follow Steps 1, 4, 5, and Steps 15 thru 18.

IMPORTANT: The following instructions must be followed or air lock of the synchronizing cylinder and unsynchronized operation of the room cylinders may result causing damage to the room. Please read the instructions before replacing the cylinder. DO NOT reverse direction of the room unless the room is fully extended or retracted.

NOTE: Do not remove the caps from the new cylinder hose connections until you are ready to reattach the hoses. Save the caps.

1. Extend the room fully. Support the outer edge of the room so that the room cannot sag when the room cylinder rods are disconnected. If the room will not extend, disconnect the room cylinder rods from the room and manually pull the room out to its full extension and support the room.

2. Loosen the extend valve "T" handle/Valve release nut.

3. Loosen the retract valve "T" handle/Valve release nut.

4. Remove coach equipment and panels as necessary to gain access to all four room cylinders. Protect the coach interior from possible oil spillage.

5. Remove the outer out stop adjustment nut from each cylinder.

IMPORTANT: Step 5 must be done to protect the room from being damaged while bleeding air from and synchronizing the room cylinders.

6. Remove and cap the hoses from the rod and cap end of the cylinder that is to be replaced. Cap the cylinder fittings.

7. Remove the three cylinder mounting bolts.

8. Remove the cylinder from the vehicle.

IMPORTANT: DO NOT PULL THE CYLINDER ROD OUT OF THE NEW CYLINDER. INSTALL THE CYLINDER WITH THE ROD RETRACTED AS IT WAS SHIPPED.

9. Install the inner out stop adjustment nut from the old cylinder onto the new cylinder rod as far as it will go.

10. Install the new cylinder and attach it to the vehicle with the three mounting bolts. Do not pull the rod out of the cylinder.

11. Reattach the hoses to the correct fittings. Do not over tighten the fittings.

Tightening of hose ends: If tightening a new hose end, make the hose end snug (finger tight) on the fitting, then tighten the hose end 1/3 turn (2 FLATS). If tightening an existing hose end, tighten the hose end to snug plus 1/4 turn (1 FLAT).

12. Remove hose A from the manifold. Remove the breather cap and direct hose A into the tank. Cap fitting A with a steel cap from the replacement cylinder.

13. Close the extend and retract valve "T" handles/Valve release nuts.

14. Push and hold the room control switch to "EXTEND" until the new cylinder is fully extended plus 3 to 5 seconds. Watch carefully that the cylinder does not extend too far.

15. Reattach hose A to fitting A.

16. Push and hold the room control switch to "RETRACT" until all four cylinders are fully retracted. The new cylinder may not retract until the other three cylinders are fully retracted.

17. Repeat extending and retracting the cylinders fully at least 3 more times or until the cylinders are completely synchronized. Do not go from "RETRACT" to "EXTEND" until the cylinders are fully retracted. Do not go from "EXTEND" to "RETRACT" until the cylinders are fully extended. Check that there are no leaks and that hose routings are ok.

18. Reattach all four cylinders to the room with the out stop adjustment nuts. Run the inner out stop adjustment nut on the new cylinder out to the room for the initial adjustment.

19. Retract the room watching carefully that the room does not bind up. If the room binds up, DO NOT try to extend the room. Remove the outer out stop adjustment nuts and manually push the room out and support it. Repeat Steps 16 thru 18. If the room will still not work properly, call HWH CORPORATION Customer Service at (800)321-3494 or at (563)724-3396.

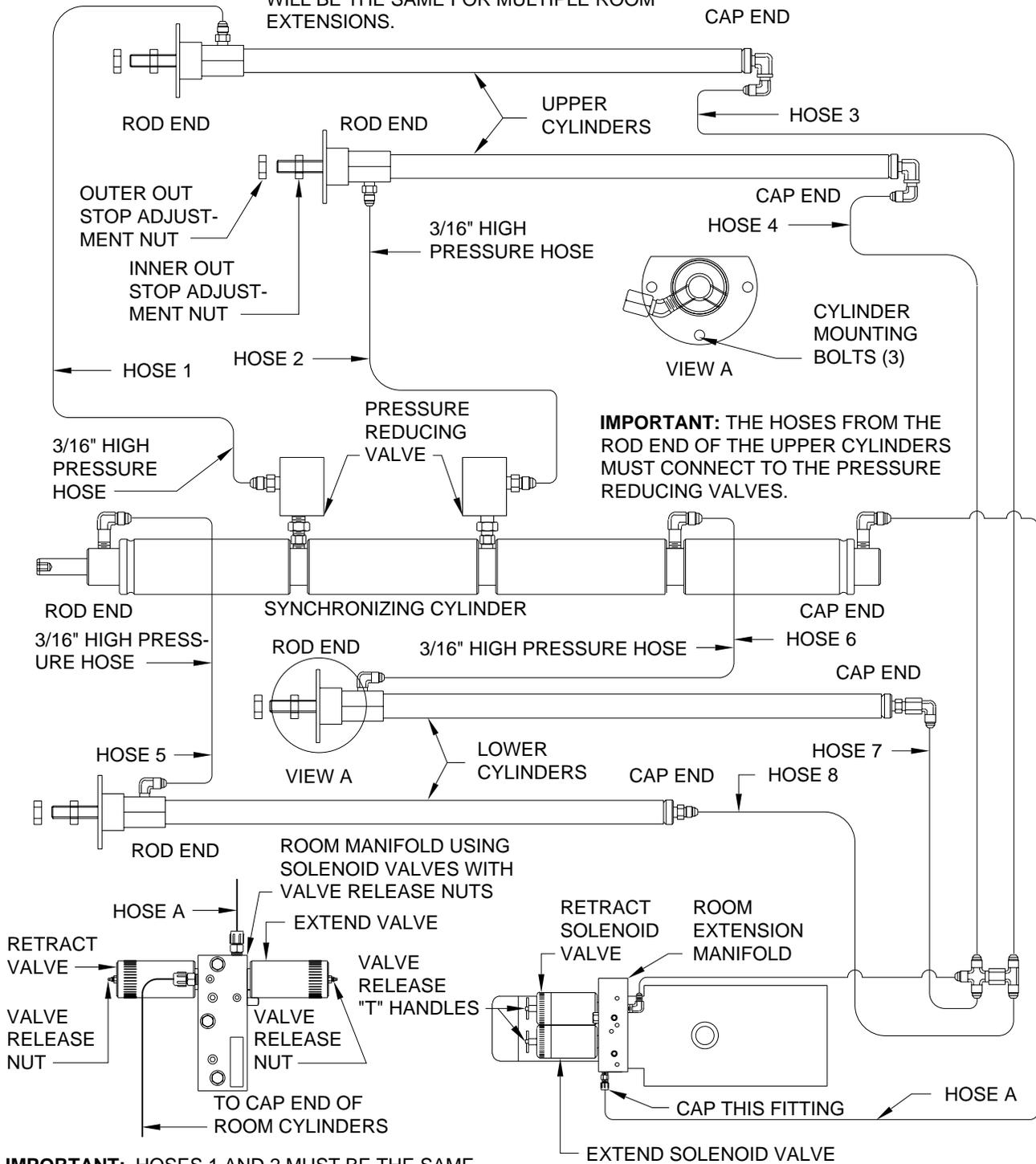
20. If the room works properly, extend and retract the room several times. Watch carefully that the room does not extend too far or bind up. Check that the room seals are properly compressed with the room extended. If the room needs to extend more, loosen the outer out stop adjustment nut and turn the inner adjustment nut out until the room is seated properly. Tighten the outer adjustment nut. If the room is extended too far, loosen the inner outstop nut and tighten the outer adjustment nut until the room is seated properly. Tighten the inner adjustment nut.

21. Check again for leaks and hose routings. **Clean any oil spills.** Reinstall the vehicle interior.

ROOM EXTENSION CYLINDER REPLACEMENT/BLEEDING PROCEDURE

FOUR CYLINDER ROOM EXTENSION WITH SYNCHRONIZING CYLINDER WITH ROOM EXTENSION MANIFOLD

NOTE: ROD AND CAP END HOSE CONNECTIONS WILL BE THE SAME FOR MULTIPLE ROOM EXTENSIONS.



IMPORTANT: THE HOSES FROM THE ROD END OF THE UPPER CYLINDERS MUST CONNECT TO THE PRESSURE REDUCING VALVES.

IMPORTANT: HOSES 1 AND 2 MUST BE THE SAME LENGTH 3/16" HIGH PRESSURE HOSE. HOSES 5 AND 6 MUST BE THE SAME LENGTH 3/16" HIGH PRESSURE HOSE. SOME EARLY SYSTEMS USED 1/8" HIGH PRESSURE HOSE. DO NOT MIX 1/8" HIGH PRESSURE AND 3/16" HIGH PRESSURE HOSE.

HOSES 3 AND 4 MUST BE THE SAME LENGTH AND DIAMETER. HOSES 7 AND 8 MUST BE THE SAME LENGTH AND DIAMETER.

NOTE: THE PRESSURE REDUCING VALVES MAY BE IN A DIFFERENT POSITION ON THE SYNCHRONIZING CYLINDER. THEY WILL ALWAYS CONNECT TO THE ROD END OF THE UPPER CYLINDER.