



## ROOM EXTENSION CYLINDER REPLACEMENT DUAL CYLINDER VERTICAL ARM (WITH SYNCHRONIZING CYLINDER) (WITH ROOM EXTENSION MANIFOLD)

**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 extension arms are disconnected.
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 to gain access to the front and rear room extension arm assemblies. Protect the coach interior from possible oil spillage.
5. Remove the pin plate from both room extension arms. This will allow both arms to move separately from the room.

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

**NOTE:** Only the faulty cylinder is to be removed from the room extension arm.

6. Remove and cap the hose from the rod end of the cylinder that is to be removed. Cut the wire ties holding the hose to the cylinder. There may be some pressure on the hoses.
7. Remove the four cylinder mounting bolts.
8. Work the cylinder out of the arm assembly. Remove and cap the hose from the cap end of the cylinder.

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

9. Install the new cylinder. First attach the proper hose to the cap end of the cylinder. 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).**

10. Install the cylinder into the arm assembly. Make sure the cap end hose is properly routed over the pivot pin as shown in the drawing.

11. Install the cap end trunion bolts. Make sure the bolts are properly seated into the groove at the cap end of the cylinder.

12. Attach the rod end hose to the cylinder. Do not over tighten the fitting. Wire tie the hose to the cylinder so it will not bind or be cut by the arm assembly.

13. Pull the arm assembly together and attach the rod end cylinder mounting nut to the arm.

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

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

16. 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.

17. Reattach hose A to fitting A.

18. Push and hold the room control switch to "RETRACT" until both arm assemblies are fully retracted. The new cylinder may not retract until the other arm is fully retracted.

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

20. Reattach the arms to the room with the pin plates.

21. 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 pin plates and manually push the room out and support it. Repeat Steps 18 thru 20. If the room will still not work properly, call HWH CORPORATION Customer Service at (800)321-3494 or at (563)724-3396.

22. If the room works properly extend and retract the room several times. Watch carefully that the room does not extend too far. Check that the room seals are properly compressed with the room extended. If the room needs to extend more, loosen the out stop cylinder adjustment jam nut. Use an allen wrench to turn the rod clockwise until the room is seated properly. Tighten the jam nut. If the room is extended too far, loosen the out stop cylinder adjustment jam nut and use an allen wrench to turn the rod counterclockwise until the room is properly seated. Tighten the jam nut.

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

# CYLINDER REPLACEMENT VERTICAL ARM ROOM EXTENSION WITH SYNCHRONIZING CYLINDER

LEVELING SYSTEM  
MANIFOLD OR  
FITTINGS NOT SHOWN.

**IMPORTANT:** HOSES 1 AND 2 BETWEEN THE CAP END OF THE CYLINDERS AND THE PUMP MUST BE THE SAME LENGTH AND DIAMETER.

HOSES 3 AND 4 BETWEEN THE ROD END OF THE CYLINDERS AND THE SYNCHRONIZING CYLINDER MUST BE THE SAME LENGTH OF 3/16" HIGH PRESSURE HOSE. SOME OLDER SYSTEMS USED 1/8" HIGH PRESSURE HOSE. DO NOT MIX 1/8" HIGH PRESSURE AND 3/16" HIGH PRESSURE HOSE.

