

## ROOM EXTENSION CYLINDER REPLACEMENT LATERAL ARMROOM EXTENSION (WITH SYNCHRONIZING CYLINDER)

**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.

1. Retract the room fully to gain access to the cylinder rod mounting nuts.
2. Loosen the extend valve "T" Handle/Valve release nut.
3. Loosen the retract valve "T" Handle/Valve release nut.
4. Remove the upper rod nut and lock washer from the rod mount plate for both the front and rear room cylinders.
5. Retract cylinder until rod clears rod mount plate.
6. Remove and cap the hoses at the end of the cylinder that is to be replaced.
7. Remove the cylinder mount bolt and lockwasher and remove both the front and rear room cylinders from the mechansim channels.

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

8. Remove the lower rod nut from the old cylinder and install onto the rod of the new cylinder in the same exact position.

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

9. Attach the hoses to the cylinder. Do not over tighten the hose ends. See MP45.9436 for tightening of hoses.
10. Remove Hose A from the room extension manifold. Use a cap from the new cylinder to cap the fitting in the manifold. Direct Hose A into the fluid reservoir.
11. Close the extend & retract valve "T" handles/Valve release nuts.
12. Push and hold the room control switch to "RETRACT" until both cylinders are fully extended plus five seconds.
13. Reattach Hose A to the room extension manifold.
14. Push and hold the room control switch to "EXTEND" until both cylinders are fully retracted, plus 5 seconds. Extend and retract the cylinders at least twice or until they are running fully synchronized.

**NOTE: DO NOT** replace the cylinders until they are running fully synchronized.

15. Retract (Push Extend) both cylinders fully before installing the cylinders.

**IMPORTANT: BEFORE INSTALLING THE CYLINDERS, CLEAN ALL EXCESS OIL FROM THE ROOM EXTENSION CHANNEL AND SWAB THOROUGHLY WITH A MILD SOLVENT AND RAGS. EXCESS OIL LEFT IN THE CHANNEL MAY LEAK OUT GIVING THE APPEARANCE OF A LEAKY CYLINDER OR HOSE CONNECTION.**

16. Install both cylinders in the room extension channel. Replace both cylinder mount bolts and washers, but do not fully tighten to aide in ease of rod connection.

**CAUTION: DO NOT TRY TO LINE THE ROOM CYLINDER ROD UP WITH THE MOUNTING HOLE WHILE THE ROD IS EXTENDING.**

17. Extend both cylinder rods through the rod mount plate so that each lower rod nut is making contact under full pressure.
18. Replace both upper rod nuts and lockwashers and fully tighten.

**IMPORTANT:** Make sure that the fittings are centered in the channel to avoid damaging hoses and fittings with room travel.

19. Fully tighten cylinder mount bolt.

**IMPORTANT: Do not reverse direction of the room until the room is fully extended or retracted.**

20. Push the room control switch to extend and hold until the room is fully extended plus 5 seconds. Watch for excessive racking of the room. Some racking can occur do to air in the system. If the room starts to bind up, release the room control switch immediately. If the room does not bind up, proceed to Step 21. If the room is bound up, go to Step 20.

21. If the room is bound up, repeat Steps 2 and 3. Manually push the room in to its full retraction. Now repeat Steps 4, 11, 14, 16, and 17. If the room will still not run properly, contact HWH CORPORATION Customer Service at (800)321-3494 or at (563)724-3396.

22. Retract the room fully again. Do not reverse direction until the room is fully retracted. Repeat retracting and extending the room several times being careful not to reverse directions until the room is fully extended or retracted.

23. With the room fully retracted, check seals for proper compression. If the seal is not compressed or needs more compression, decrease dimension "A" on the in stop adjustment. If the seal is compressed too much, increase dimension "A" on the in stop adjustment.

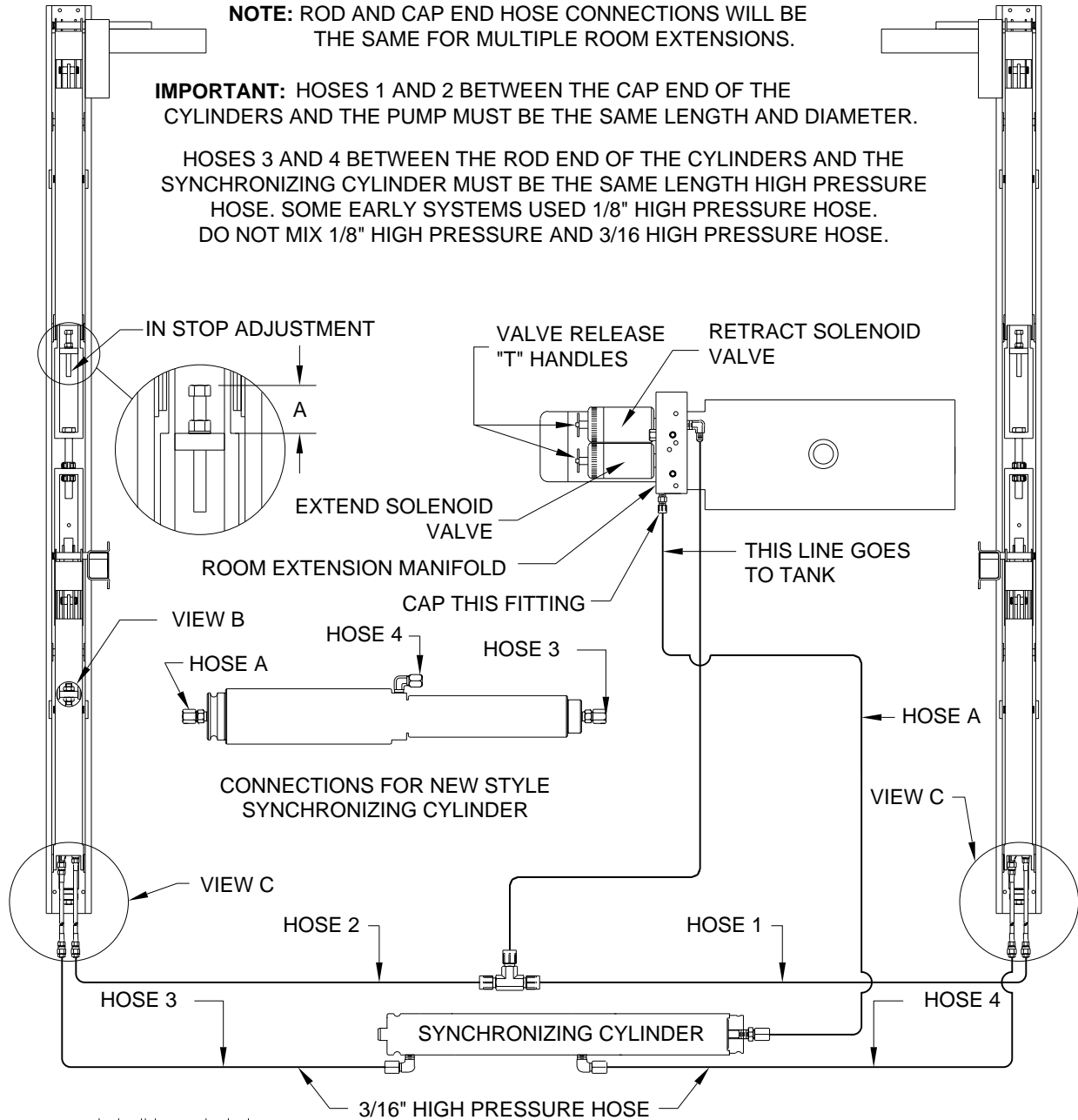
24. Check all hose connections and mounting nuts and bolts for tightness and leaks.

# CYLINDER REPLACEMENT LATERAL ARM ROOM EXTENSION (WITH SYNCHRONIZING CYLINDER)

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

**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 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.



**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 (1FLAT).

