



## SYNCHRONIZING CYLINDER REPLACEMENT UNIVERSAL PLATFORM LEVEL OUT (UPLO) (SYNCHRONIZING CYLINDER W/SOLENOID VALVES)

**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.

**WARNING: USE EXTREME CAUTION WHEN WORKING WITH MOVING HYDRAULIC COMPONENTS. SERIOUS BODILY INJURY CAN OCCUR.**

1. Move the slide out to a position that allows access to the lower rod mounting/adjustment nuts. Remove the lower adjusting nut for both mechanisms. Do not lose the lock washer. Fully retract the room.
2. Support the slide with blocks or pads to protect the floor and keep the slide from dropping.
3. Push and hold the room control switch to EXTEND until both cylinders are fully retracted.
4. Use the solenoid valve cam release to open both valves on the sync cylinder. This will relieve the system pressure. Label the hoses and fittings so the system is plumbed correctly after installing the new sync cylinder.
5. Replace the sync cylinder. Make sure all hoses are in the correct position.  
**IMPORTANT: Make sure the return line fitting is on top with the sync cylinder installed.**
6. Refer to the drawing on this instruction sheet and locate the I hose and N hose. Reverse these two hoses at the sync cylinder. This will allow the cylinder/room to extend and retract without the room dropping.
7. Open the valve release cam for both solenoid valves and run the pump, EXTEND or RETRACT, for 5 seconds. Close the valves.
8. Push the room control switch to RETRACT until both cylinders are fully extended. Make sure the rods are guided into the mounting holes of the rack mechanisms. Use extreme caution that your fingers do not get caught in the rack mechanisms or the rod mounting hole. Hold the switch to RETRACT several seconds after the rods are fully seated in the rack mounting holes.
9. Push the room control switch to EXTEND until the cylinder rods are fully retracted. Hold the switch to EXTEND several seconds after the rods are fully retracted.
10. Repeat this as necessary until the rods are running fully synchronized. Re-attach the rods to the rack mechanisms. Remove the blocks or pads from under the room.
11. Extend and retract the rooms several times to make sure the room is running with both sides fully synchronized. A small difference, one inch or less, end to end is acceptable. Stop with the room fully retracted.
12. Use the solenoid valve cam release to open both valves on the sync cylinder. Move the I and N hoses back to their original position. Move the valve cam releases back to the valve closed position.
13. Fully extend the room out and down. Fully retract the room. Watch carefully that the room does not bind. If the room is running fully synchronized, the repair is complete. Replace room trim as necessary.

If the room will not run in a synchronized manner repeat the procedure or contact HWH Technical Assistance:  
800-321-3494 or 563-724-3396

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