



SLIDE OUT 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. Retract the cylinder rod just enough so the rod is clear of the end of the rack mechanism. This will allow the cylinder to be removed. This is done by pushing the room control switch to EXTEND for a second or two.
4. Use the solenoid valve cam release to open both valves on the sync cylinder. After several seconds, move the cam releases back to the valve closed position.
5. At the sync cylinder, reverse position of the hoses marked I and N on the drawing. **DO NOT** remove any other hoses. This will allow the slide out to extend and retract without lowering.
6. Mark the hoses at the cylinder connections to maintain the proper connection position. Remove the cylinder mounting bolts, remove the existing cylinder and install the new cylinder.
7. **IMPORTANT: When replacing the cylinder, be careful to maintain the position of the two rack mechanisms and the pinion assembly. Proper timing of the racks must be maintained. The cylinder holds the pinion in place. The pinion can come out when the cylinder is removed. Make sure this does not happen.**
8. Install the cylinder mounting bolts with Loctite and torque to 25 ft. lbs.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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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