



# OPERATOR'S MANUAL

## HWH® HYDRAULIC SPACEMAKER ROOM EXTENSION SYSTEM

### **FEATURING:**

*"X-ARM" Room Extension System  
(With Synchronizing Cylinder)*

### **HWH CORPORATION**

(On I-80, Exit 267 South)

2096 Moscow Road | Moscow, Iowa 52760

Ph: 800/321-3494 (or) 563/724-3396 | Fax: 563/724-3408

[www.hwh.com](http://www.hwh.com)

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# OPERATOR'S MANUAL

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## CAUTION !

**READ THE ENTIRE OPERATOR'S MANUAL BEFORE OPERATING.**

**KEEP PEOPLE AND OBSTRUCTIONS CLEAR OF ROOM WHEN OPERATING. ANY OBJECT OBSTRUCTING ROOM MOVEMENT MAY BE CRUSHED CAUSING INJURY OR DEATH AND VEHICLE DAMAGE.**

**NEVER PLACE HANDS OR OTHER PARTS OF THE BODY NEAR HYDRAULIC LEAKS. OIL MAY PENETRATE SKIN CAUSING INJURY OR DEATH.**

**WEAR SAFETY GLASSES WHEN INSPECTING OR SERVICING THE SYSTEM TO PROTECT EYES FROM DIRT, METAL CHIPS, OIL LEAKS, ETC. FOLLOW ALL OTHER APPLICABLE SHOP SAFETY PRACTICES.**

## HOW TO OBTAIN WARRANTY SERVICE

### **THIS IS NOT TO BE INTERPRETED AS A STATEMENT OF WARRANTY**

HWH CORPORATION strives to maintain the highest level of customer satisfaction. Therefore, if you discover a defect or problem, please do the following:

**FIRST:** Notify the dealership where you purchased the vehicle or had the leveling system installed. Dealership management people are in the best position to resolve the problem quickly. If the dealer has difficulty solving the problem, he should immediately contact the Customer Service Department, at HWH CORPORATION.

**SECOND:** If your dealer cannot or will not solve the problem, notify the Customer Service Department:  
HWH CORPORATION 2096 Moscow Rd. Moscow IA. 52760  
(563) 724-3396 OR (800) 321-3494. Give your name and address, coach manufacturer and model year, date the coach was purchased, or the date of system installation,

description of the problem, and where you can be reached during business hours (8:00 a.m. till 5:00 p.m. c.s.t.). HWH CORPORATION personnel will contact you to determine whether or not your claim is valid. If it is, HWH CORPORATION will authorize repair or replacement of the defective part, either by appointment at the factory or by the authorization of an independent service facility, to be determined by HWH CORPORATION. All warranty repairs must be performed by an independent service facility authorized by HWH CORPORATION, or at the HWH CORPORATION factory, unless prior written approval has been obtained from proper HWH CORPORATION personnel.

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# OPERATING PROCEDURES

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## ROOM EXTEND PROCEDURE

**CAUTION:** OPERATING THE ROOM WITH ANY ROOM-LOCKING DEVICES LOCKED OR THE MANUAL-RETRACT WINCH ATTACHED CAN CAUSE PERSONAL INJURY AND VEHICLE DAMAGE. IT IS THE OPERATOR'S RESPONSIBILITY TO ENSURE THAT ALL ROOM-LOCKING DEVICES AND THE MANUAL RETRACT WINCH ARE DISENGAGED BEFORE OPERATING THE ROOM.

1. Unlock all room-locking devices.

**NOTE:** If the MANUAL RETRACT WINCH is attached to the room remove it before extending the room.

**CAUTION:** KEEP PEOPLE AND OBSTRUCTIONS CLEAR OF ROOM WHEN OPERATING.

**NOTE:** Make sure there is adequate clearance to fully extend the room.

2. Turn the ignition key to the "ON" or "ACC" position. **THE PARK BRAKE MUST BE SET FOR THE ROOM TO OPERATE.**
3. To extend the room, press and hold the ROOM CONTROL SWITCH in the "EXTEND" position. When the room is fully extended, release the ROOM CONTROL SWITCH.

**NOTE:** Hold the switch to "EXTEND" three or four seconds after the room is fully extended. This assures proper pressurization of the cylinders. **During normal operation of the room, do not reverse direction of the room until the room is fully extended. If necessary, the direction of the room may be reversed, but watch for binding of the room. If the direction of the room has been reversed, DO NOT re-extend the room until the room has been fully retracted.**

**IMPORTANT:** Do not hold the ROOM CONTROL SWITCH in the "EXTEND" position for more than ten seconds after the room is fully extended or stops moving. **If either side of the room stops moving, release the room control switch immediately. DO NOT force the room. DO NOT reverse direction of the room, contact HWH Customer Service for assistance 1-800-321-3494.**

**NOTE :** Releasing the ROOM CONTROL SWITCH will halt the operation of the room.

4. Turn the ignition to the "OFF" position.

## ROOM RETRACT PROCEDURE

**CAUTION:** KEEP PEOPLE AND OBSTRUCTIONS CLEAR OF ROOM WHEN OPERATING.

1. Turn the ignition key to the "ON" or "ACC" position. **THE PARK BRAKE MUST BE SET FOR THE ROOM TO OPERATE.**
2. To retract the room press and hold the ROOM CONTROL SWITCH in the "RETRACT" position. When the room is fully retracted, release the ROOM CONTROL SWITCH.

**NOTE:** Hold the switch to "RETRACT" three or four seconds after the room is fully retracted. This assures proper pressurization of the cylinders. **During normal operation of the room, do not reverse direction of the room until the room is fully retracted. If necessary, the direction of the room may be reversed, but watch for binding of the room. If the direction of the room has been reversed, DO NOT retract the room until the room has been fully extended.**

**IMPORTANT:** Do not hold the ROOM CONTROL SWITCH in the "RETRACT" position for more than ten seconds after the room is fully retracted or stops moving. **If either side of the room stops moving, release the room control switch immediately. DO NOT force the room. DO NOT reverse direction of the room, contact HWH Customer Service for assistance 1-800-321-3494.**

**NOTE:** Releasing the ROOM CONTROL SWITCH will halt the operation of the room.

3. Turn the ignition to the "OFF" position.
4. Engage all room-locking devices.
5. If the room will not retract see the MANUAL ROOM RETRACT PROCEDURE.

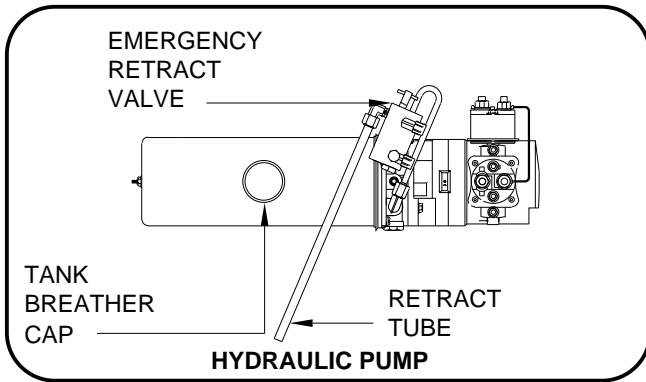
**IMPORTANT:** Room-locking devices should be locked while traveling.

# OPERATING PROCEDURES

## "X-SLIDE" ROOM EXTENSION MECHANISM

### MANUAL ROOM RETRACTION PROCEDURES

1. Locate the HYDRAULIC PUMP.



2. Remove the tank breather cap and replace the retract tube in the breather cap opening.

3. Open the EMERGENCY RETRACT VALVE.

4. Start both threaded rods until resistance is met, one for the front and one for the rear mechanism should be provided.

**NOTE:** To access the threaded blocks refer to vehicle manufacturer.

5. **Do Not use an impact wrench.** Using wrench provided, a personal wrench or a tire iron with a 1-1/8" opening rotate either mechanism's threaded rod clockwise 6 complete turns.

6. Move to the other room extension mechanism, rotate the threaded rod clockwise 12 complete turns.

7. Return to the first room extension mechanism and rotate the threaded rod clockwise 12 complete turns.

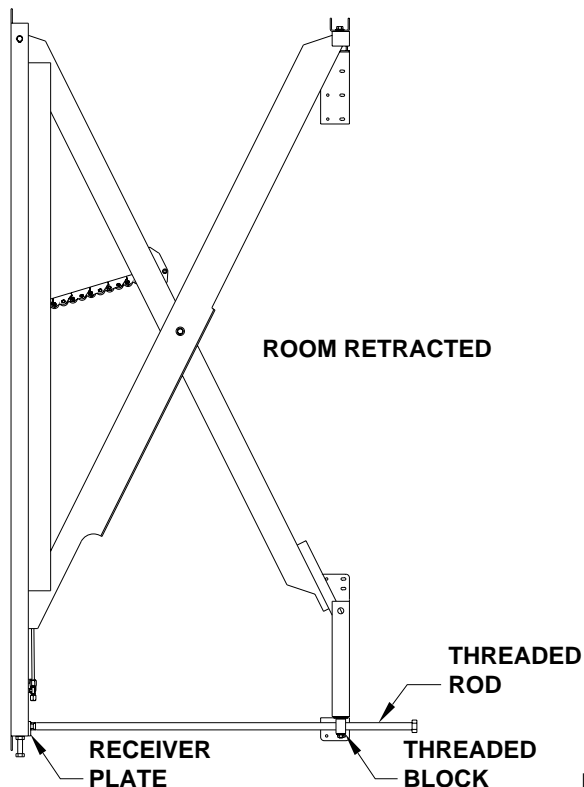
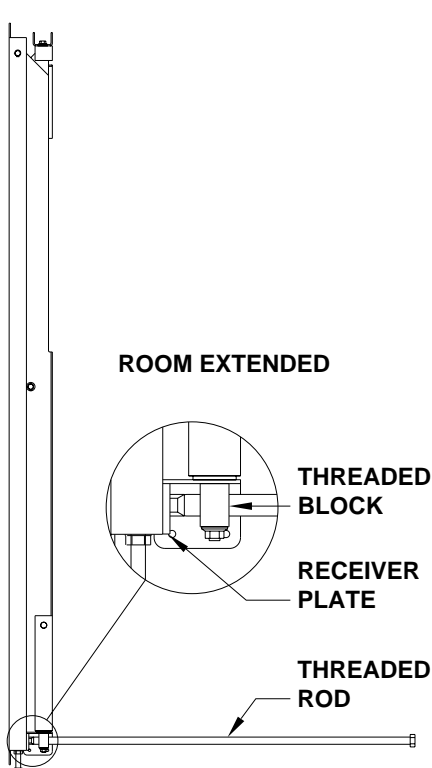
8. Repeat steps 6 and 7 alternating from mechanism to mechanism rotating each threaded rod 12 complete turns until room is sealed. (DO NOT exceed 15 ft.lbs) Make sure the room does not bind.

**IMPORTANT:** If at any stage something is not understood or if the room begins to bind DO NOT force the room, contact HWH Customer Service for assistance 1-800-321-3494.

**NOTE:** Leave the emergency retract valve open and the threaded rods in place until the room has been serviced.

**IMPORTANT:** DO NOT EXTEND THE ROOM UNTIL THE ROOM HAS BEEN SERVICED. EMERGENCY RETRACT VALVES LEFT OPEN SHOULD BE CLOSED AND THE THREADED RODS SHOULD BE COMPLETELY REMOVED.

**NOTE:** If there is not enough room to remove both threaded rods completely, alternate backing the threaded rods out and slightly extending the room. Be careful to not extend the room so far that the threaded rods impact the coach wall or the mechanism.



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## MAINTENANCE

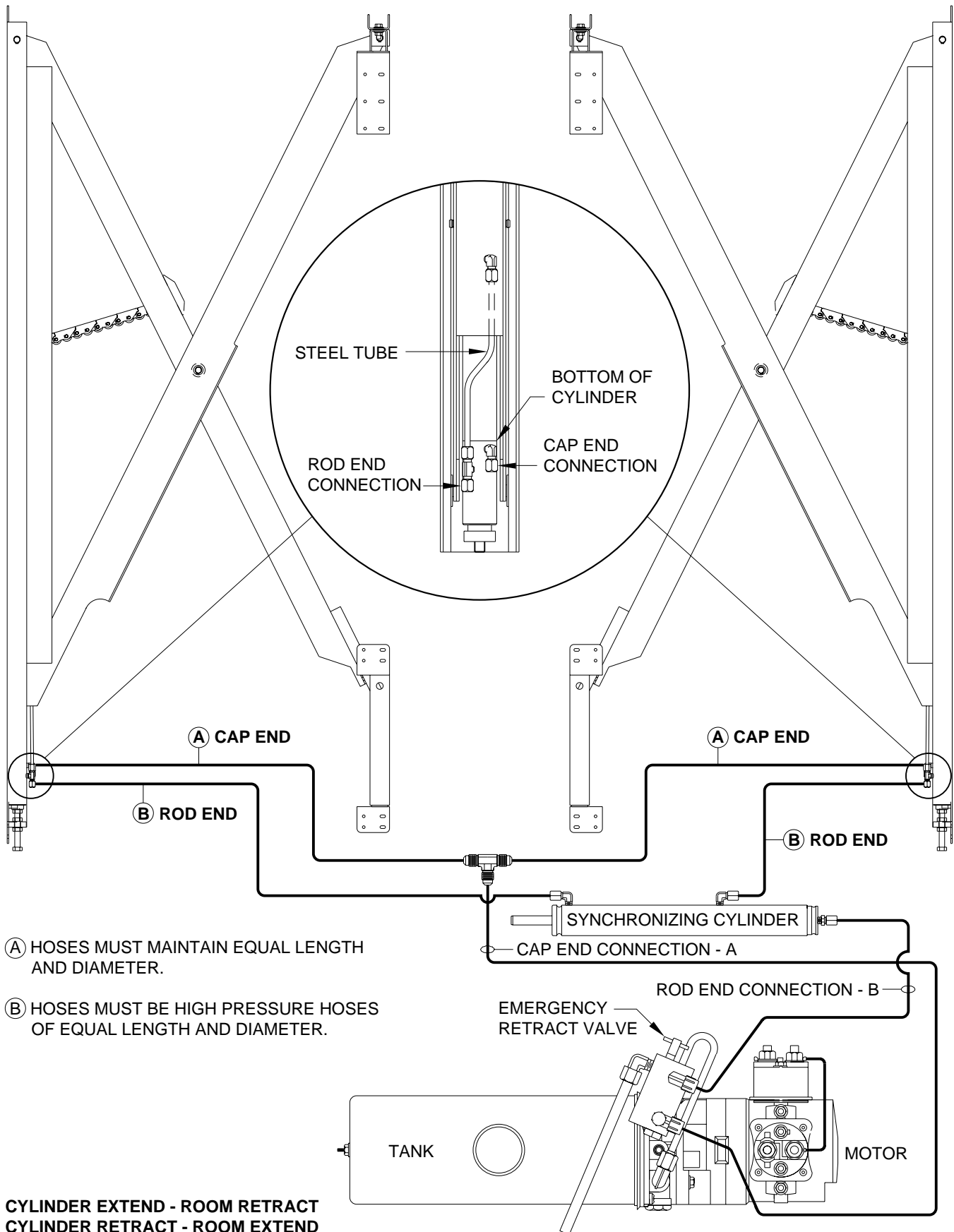
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### OIL LEVEL

It is important that the room is fully extended before checking the hydraulic oil level. To check the oil supply, remove the breather cap from the top of the hydraulic oil reservoir. The oil level should be approximately one inch below the top of the reservoir when adequately filled.

**FLUID:** HWH Specialty Hydraulic Oil is recommended. In an emergency Dexron automatic transmission fluid can be used.  
**NOTE:** Dexron automatic transmission fluid contains red dye and can cause staining should a leak occur. **DO NOT USE** brake fluid or hydraulic jack fluid. Use of these can damage seals.

# HYDRAULIC LINE CONNECTION DIAGRAM X-SLIDE ROOM EXTENSION (WITH SYNCHRONIZING CYLINDER)



Ⓐ HOSES MUST MAINTAIN EQUAL LENGTH AND DIAMETER.

Ⓑ HOSES MUST BE HIGH PRESSURE HOSES OF EQUAL LENGTH AND DIAMETER.

**CYLINDER EXTEND - ROOM RETRACT  
CYLINDER RETRACT - ROOM EXTEND  
CHECK OIL LEVEL WITH ROOM EXTENDED**

# ELECTRICAL CONNECTION DIAGRAM "X-ARM" ROOM EXTENSION SYSTEM NO LEVELING SYSTEM

