OPERATOR’S MANUAL

HWH® HYDRAULIC SPACEMAKER®
ROOM EXTENSION SYSTEMS

FEATURING:
Single / Multiple Room Extensions / Generator Slide
Optional Travel Clamps

CAUTION!
UNDERSTAND OPERATOR’S MANUAL BEFORE USING. KEEP PEOPLE AND OBSTRUCTIONS CLEAR OF ROOM WHEN OPERATING.

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
WARNING!

READ THE ENTIRE OPERATOR’S MANUAL BEFORE OPERATING.

KEEP PEOPLE AND OBSTRUCTIONS CLEAR OF ROOM OR STEP WHEN OPERATING. ANY OBJECT OBSTRUCTING ROOM OR STEP 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.
CONTROL IDENTIFICATION

ROOM OPERATOR’S PANEL

HYDRAULIC ROOM EXTENSION

KEY SWITCH

OFF
ON

EXTEND
RETRACT

ROOM CONTROL SWITCH

CONTROL FUNCTIONS

KEY SWITCH: The KEY SWITCH controls power to the ROOM CONTROL SWITCH. When the KEY SWITCH is in the "ON" POSITION the room can be operated, and the key cannot be removed. When the KEY SWITCH is in the "OFF" position the room cannot be operated, and the key can be removed.

ROOM CONTROL SWITCH: The ROOM CONTROL SWITCH is a two position momentary switch. Pressing the switch in the EXTEND POSITION will extend the room. Pressing the switch in the RETRACT POSITION will retract the room. Releasing the ROOM CONTROL SWITCH will halt the operation of the room. The panel may be equipped with two rocker switches for controlling multiple rooms.

OEM PROVIDED ROOM SELECTOR SWITCH (IF APPLICABLE)

ROOM SELECTOR SWITCH: This switch (not shown) is OEM provided. Refer to OEM operator instructions.
CONTROL FUNCTIONS

KEY SWITCH: The KEY SWITCH controls power to the ROOM CONTROL SWITCH. When the KEY SWITCH is in the "ON" position the room can be operated and the key cannot be removed. When the KEY SWITCH is in the "OFF" position the room cannot be operated, and the key can be removed.

ROOM CONTROL SWITCH: The ROOM CONTROL SWITCH is a two position momentary switch. Pressing the switch in the EXTEND position will extend the room. Pressing the switch in the RETRACT position will retract the room. Releasing the ROOM CONTROL SWITCH will halt the operation of the room.

TRAVEL CLAMPS ENABLED INDICATOR LIGHT: These lights only come on if the Room Control Switch is being pushed to ROOM RETRACT. The ignition must be on and the room panel Key Switch must be on. These lights will come on when the room is fully retracted and the Travel Clamps are fully extended.
CONTROL FUNCTIONS

TRAVEL CLAMP CONTROL SWITCH: This switch extends and retracts the Travel Clamps. The Travel Clamps will automatically shut off when fully extended. The room cannot be extended or retracted if the Travel Clamps are not fully retracted.

ROOM CONTROL SWITCH: The ROOM CONTROL SWITCH is a two position momentary switch. This switch will not function unless the room clamps are fully retracted. Pressing the switch in the EXTEND position will extend the room. Pressing the switch in the RETRACT position will retract the room. Releasing the ROOM CONTROL SWITCH will halt the operation of the room.
GENERAL INSTRUCTIONS

Maintain adequate clearance in all directions for vehicle, room extensions, awnings, doors, steps, etc. Vehicle may move in any direction due to jacks extending or retracting, settling of the jacks or the vehicle, equipment malfunction, etc..

PREPARATION FOR TRAVEL

Any room extension or generator slide should be fully retracted before traveling.

CAUTION: THE VEHICLE SHOULD NOT BE MOVED IF ONE OR MORE ROOMS OR THE GENERATOR SLIDE ARE EXTENDED.

If the rooms cannot be retracted according to the ROOM RETRACT Section, retract the rooms according to the MANUAL ROOM RETRACTION Section. The system should then be checked.
OPERATING PROCEDURES

ROOM EXTEND PROCEDURE FOR ROOMS
WITHOUT TRAVEL CLAMPS

WARNING: OPERATING A ROOM WITH ANY
ROOM LOCKING, CLAMPING OR MANUAL RETRACTING
DEVICES ATTACHED OR ENGAGED CAN CAUSE
PERSONAL INJURY AND VEHICLE DAMAGE. IT IS THE
OPERATOR’S RESPONSIBILITY TO ENSURE THAT
ALL ROOM LOCKING, CLAMPING OR MANUAL
RETRACTING DEVICES ARE DETACHED OR
DIENGAGED BEFORE OPERATING THE ROOM.

Refer to vehicle manufacturer for proper sequence of
room extension and leveling system operation.

1. The park brake must be set for motorized vehicles.
The room will not operate if the park brake is not set.

2. Unlock all room-locking devices to include travel
clamps/locks supplied by manufacturers other than HWH.

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

WARNING: KEEP PEOPLE AND OBSTRUCTIONS
CLEAR OF ROOM WHEN OPERATING.

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

3. Turn the ignition switch to ACCESSORY or turn
a MASTER POWER SWITCH on, if applicable.

4. Turn the room control panel KEY SWITCH to
the "ON" position.

5. To extend the room, press and hold the
ROOM CONTROL SWITCH in the "EXTEND" position
until the room is fully extended.

IMPORTANT: If the room extension is a level out room,
hold the room control switch to the extend position
until the room is fully extended and has dropped to the
completely lowered position.

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 (and down if applicable) 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.

6. Turn the room control panel KEY SWITCH to
the "OFF" position.

7. Turn off the ignition switch, if applicable.

IMPORTANT: Do not use a room extension support
when the vehicle is supported by the leveling system.
OPERATING PROCEDURES

ROOM RETRACT PROCEDURE FOR ROOMS
WITHOUT TRAVEL CLAMPS

WARNING: KEEP PEOPLE AND OBSTRUCTIONS CLEAR OF ROOM WHEN OPERATING.

Refer to vehicle manufacturer for proper sequence of room extension and leveling system operation.

1. The park brake must be set, if applicable. The room will not operate if the park brake is not set.

2. Turn the ignition switch to ACCESSORY or turn a MASTER POWER SWITCH on, if applicable.

3. Turn the room control panel KEY SWITCH to the "ON" position.

4. To retract the room press and hold the ROOM CONTROL SWITCH in the "RETRACT" position until the room is fully retracted.

Important: If the room extension is a level-out room, the room must raise completely before it will retract. If the room will not raise, do not force the room. Refer to the MANUAL ROOM LIFT PROCEDURES page.

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.

5. Turn the room control panel KEY SWITCH to the "OFF" position.

6. Turn the ignition switch off, if applicable.

7. If the room will not retract see the MANUAL ROOM RETRACT PROCEDURE.

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

ROOM EXTEND PROCEDURE FOR ROOMS
WITH AUTOMATIC TRAVEL CLAMPS

CAUTION: OPERATING A ROOM WITH ANY
ROOM LOCKING, CLAMPING OR MANUAL RETRACTING
DEVICES ATTACHED OR ENGAGED CAN CAUSE
PERSONAL INJURY AND VEHICLE DAMAGE. IT IS THE
OPERATOR’S RESPONSIBILITY TO ENSURE THAT
ALL ROOM LOCKING, CLAMPING OR MANUAL
RETRACTING DEVICES ARE DETACHED OR
DISENGAGED BEFORE OPERATING THE ROOM.

Refer to vehicle manufacturer for proper sequence of
room extension and leveling system operation.

1. The park brake must be set for motorized vehicles.
The room will not operate if the park brake is not set.

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 switch to ACCESSORY or turn
a MASTER POWER SWITCH on, if applicable.

3. Turn the room control panel KEY SWITCH to
the "ON" position.

4. To extend the room, press and hold the
ROOM CONTROL SWITCH in the "EXTEND" position
until the room is fully extended.

IMPORTANT: The room will not start to move until the
Travel Clamps are retracted. This will take approximately
15 to 20 seconds after pushing the control switch to "EXTEND". Do not try to manually extend the room if
the Travel Clamps will not retract.

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.

5. Turn the room panel Key Switch to the "OFF" position.

6. Turn off the ignition switch, if applicable.

IMPORTANT: Do not use a room extension support
when the vehicle is supported by the leveling system.
CAUTION: KEEP PEOPLE AND OBLSTRUCTIONS CLEAR OF ROOM WHEN OPERATING.

Refer to vehicle manufacturer for proper sequence of room extension and leveling system operation.

1. The park brake must be set, if applicable. The room will not operate if the park brake is not set.

2. Turn the ignition switch to ACCESSORY or turn a MASTER POWER SWITCH on, if applicable.

3. Turn the room control panel KEY SWITCH to the "ON" position.

4. To retract the room press and hold the ROOM CONTROL SWITCH in the "RETRACT" position until the room is fully retracted and both Travel Clamps Engaged light come on.

IMPORTANT: When the room is fully retracted, a room in limit switch will allow the Travel Clamps to extend. The hydraulic pump will run for approximately 5 seconds after the room is fully retracted. It will take the Travel Clamps approximately 20 seconds to extend after the room is fully retracted. When the Travel Clamps are fully extended, the 2 Travel Clamps Engaged lights will come on. When both Travel Clamps Engaged lights are on, the room control switch should be released. If the Travel Clamps Engaged lights do not come on, DO NOT hold the room control switch to RETRACT for longer than 40 seconds after the room extension is fully retracted.

NOTE: 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: 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.

5. Turn the room panel KEY SWITCH to the "OFF" position.

6. Turn the ignition switch off, if applicable.

7. If the room will not retract see the MANUAL ROOM RETRACT PROCEDURE.

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

ROOM EXTEND PROCEDURE FOR ROOMS
WITH MANUAL TRAVEL CLAMPS

CAUTION: OPERATING A ROOM WITH ANY
ROOM LOCKING, CLAMPING OR MANUAL RETRACTING
DEVICES ATTACHED OR ENGAGED CAN CAUSE
PERSONAL INJURY AND VEHICLE DAMAGE. IT IS THE
OPERATOR’S RESPONSIBILITY TO ENSURE THAT
ALL ROOM LOCKING, CLAMPING OR MANUAL
RETRACTING DEVICES ARE DETACHED OR
DIENGAGED BEFORE OPERATING THE ROOM.

Refer to vehicle manufacturer for proper sequence of
room extension and leveling system operation.

1. The park brake must be set for motorized vehicles.
The room will not operate if the park brake is not set.

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 switch to ACCESSORY or turn
a MASTER POWER SWITCH on, if applicable.

3. Push and hold the Travel Clamp switch to UNLOCK
until the Travel Clamp is fully retracted. The clamp will
shut of automatically when fully retracted. The room
cannot be extended until the clamp is fully retracted.

4. To extend the room, press and hold the
ROOM CONTROL SWITCH in the "EXTEND" position
until the room is fully extended.

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.

5. Turn the ignition switch off, if applicable.

IMPORTANT: Do not use a room extension support
when the vehicle is supported by the leveling system.
OPERATING PROCEDURES

ROOM RETRACT PROCEDURE FOR ROOMS
WITH MANUAL TRAVEL CLAMPS

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

Refer to vehicle manufacturer for proper sequence of room extension and leveling system operation.

1. The park brake must be set, if applicable. The room will not operate if the park brake is not set.

2. Turn the ignition switch to ACCESSORY or turn a MASTER POWER SWITCH on, if applicable.

3. To retract the room press and hold the ROOM CONTROL SWITCH in the "RETRACT" position until the room is fully retracted.

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: Room-locking devices should be locked while traveling.

4. To extend the Travel Clamps, push and hold the Travel Clamp control switch to LOCK until the Travel Clamps are fully extended. The clamps will shut off automatically when fully extended.

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

5. Turn the ignition switch off, if applicable.

6. If the room will not retract see the MANUAL ROOM RETRACT PROCEDURE.

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.
GENERATOR SLIDE EXTEND PROCEDURE

**WARNING:** KEEP PEOPLE AND OBSTRUCTIONS CLEAR OF SLIDE WHEN OPERATING.

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

1. **THE PARK BRAKE MUST BE SET FOR THE SLIDE TO OPERATE.**

2. To extend the slide, press and hold the GENERATOR SLIDE CONTROL SWITCH in the "EXTEND" position. When the slide is fully extended, release the GENERATOR SLIDE CONTROL SWITCH.

**IMPORTANT:** Do not hold the GENERATOR SLIDE CONTROL SWITCH in the "EXTEND" position for more than ten seconds after the slide is fully extended or stops moving. **DO NOT FORCE THE SLIDE.**

**NOTE:** Releasing the GENERATOR SLIDE CONTROL SWITCH will halt the operation of the slide.

GENERATOR SLIDE RETRACT PROCEDURE

1. **THE PARK BRAKE MUST BE SET FOR THE SLIDE TO OPERATE.**

2. To retract the slide, press and hold the GENERATOR SLIDE CONTROL SWITCH in the "RETRACT" position. When the slide is fully retracted, release the GENERATOR SLIDE CONTROL SWITCH.

**IMPORTANT:** Do not hold the GENERATOR SLIDE CONTROL SWITCH in the "RETRACT" position for more than ten seconds after the slide is fully retracted or stops moving. **DO NOT FORCE THE SLIDE.**

**NOTE:** Releasing the GENERATOR SLIDE CONTROL SWITCH will halt the operation of the slide.

3. If the slide will not retract see the MANUAL SLIDE RETRACT PROCEDURE.
OVERVIEW
The room can be retracted manually if a hydraulic or electric failure prevents the room from being retracted using the CONTROL SWITCH. For normal retract sequence see the ROOM SLIDE RETRACT PROCEDURES. Refer to the vehicle manufacturer for storage location of the retract device and information for connecting the device to the room.

IMPORTANT: If the vehicle is not equipped with a winch, DO NOT use other pulling devices to retract the room. Follow steps 2 and 3 and try pushing the room in. Contact the vehicle manufacturer or HWH Customer Service at 1-800-321-3494 or 563-724-3396 for assistance.

WARNING: A MANUAL RETRACT WINCH PROVIDED BY HWH IS EQUIPPED FOR MANUALLY RETRACTING THE ROOM ONLY. IT IS NOT TO BE USED FOR LIFTING OR ANY OTHER APPLICATION. HIGH FORCES ARE CREATED WHEN USING A WINCH, CREATE POTENTIAL SAFETY HAZARDS. FAILURE TO FOLLOW ALL WARNINGS AND INSTRUCTIONS MAY CAUSE FAILURE OF THE MANUAL RETRACT WINCH OR CONNECTIONS RESULTING IN DAMAGE OR PERSONAL INJURY. MAINTAIN A FIRM GRIP ON THE WINCH HANDLE AT ALL TIMES. NEVER RELEASE THE HANDLE WHEN RATCHET LEVER IS IN THE OFF POSITION AND THE WINCH IS LOADED. THE WINCH HANDLE COULD SPIN VIOLENTLY AND CAUSE PERSONAL INJURY. CHECK THE WINCH AND STRAPS FOR DAMAGE OR WEAR, AND CHECK FOR PROPER RATCHET OPERATION ON EACH USE OF THE WINCH. DO NOT USE IF DAMAGED OR WORN.

1. Retract jacks following the LEVELING SYSTEM RETRACT PROCEDURE.

NOTE : When manually retracting the room, it is recommended the jacks are retracted before retracting the room.

2. Locate the HYDRAULIC PUMP and/or MANIFOLD unit. Some systems may have a remote manifold.

3. Open Nut Style Solenoid Valves by slowly turning the valve release nut counter clockwise using a 1/4” nut driver.

IMPORTANT: Only open the valves enough to retract the room. DO NOT turn the release nuts more than 4 and 1/2 turns. Turning the nuts more could damage the valves.

Open Cam Style Solenoid Valves by following the instructions located on the last page of this manual MP84.9999.

NOTE: The room may move slightly as the SOLENOID VALVES are opened and internal pressure is released.

4. Locate the MANUAL RETRACT DEVICE and connect it to the room according to the vehicle manufacturer’s instructions. To extend a WINCH STRAP firmly grasp WINCH HANDLE, place RATCHET LEVER in its OFF position, and slowly rotate the WINCH HANDLE counter clockwise, keeping a firm grip on the handle. When enough WINCH STRAP is extended, place the RATCHET LEVER in its ON position and slowly rotate the WINCH HANDLE clockwise until the RATCHET LEVER locks.

5. Slowly winch the room in by turning the WINCH HANDLE clockwise. The RATCHET LEVER should produce a loud, sharp, clicking noise.

NOTE: Winching the room in quickly will raise pressure in the hydraulic fluid and make winching more difficult.

WARNING: OPERATE THE MANUAL RETRACT WINCH BY HAND POWER ONLY. IF THE WINCH CANNOT BE CRANKED EASILY WITH ONE HAND IT IS PROBABLY OVERLOADED. IF WINCHING BECOMES TO DIFFICULT STOP AND CHECK FOR OBSTRUCTIONS/RESTRICTIONS ON THE ROOM AND ROOM EXTENSION MECHANISM.

6. When the room is fully retracted, engage the room locking devices. Leave the retract winch engaged and the solenoid valves open.

WARNING: THE ROOM EXTENSION SOLENOID VALVE RELEASE MUST BE IN THE OPEN POSITION WHEN THE MANUAL RETRACT WINCH IS ENGAGED.

7. The system should be repaired before using again.

NOTE: After repairs are made, when closing the VALVE RELEASE NUTS, do not over tighten the nuts.

MP34.9500
20JUN14
OPERATING PROCEDURES
"LEVEL-OUT" (ANGLE MOUNT) ROOM EXTENSION MECHANISM
MANUAL ROOM RETRACTION PROCEDURES

IMPORTANT: READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING TO USE THE MANUAL RETRACT BOLTS TO RETRACT THE ROOM.

1. Determine which extend and retract solenoid valves are assigned to the room. Manually open the valve release nuts for the extend and retract solenoid valves by turning the 1/4" release nuts counter clockwise 4 and 1/2 turns. Turning the nuts more could damage the valves. If necessary, open all valves on the pump/manifold arrangement. There are 4 valves for the leveling system (if applicable) and 2 valves for each HWH room extension.

NOTE: The breather cap dip stick is also a 1/4" nut driver.

2. Gain access to the 13/16" Manual Retraction Bolts (one on each mechanism) by raising the STORE-MORE access panel.

3. Remove the Thumb Screws (one on each mechanism) completely by turning them counterclockwise.

4. Using wrench provided, a personal wrench or a tire iron with a 13/16" or 21mm opening rotate either mechanism's Manual Retraction Bolt clockwise 6 complete turns.

5. Move to the second room extension mechanism, rotate the Manual Retraction Bolt clockwise 12 complete turns.

6. Return to the first room extension mechanism and rotate the Manual Retraction Bolt clockwise 12 complete turns.

7. Repeat steps 4 and 5 alternating from mechanism to mechanism rotating each Manual Retraction Bolt 12 complete turns until room is sealed. (DO NOT EXCEED 15 FT.LBS. FORCING THE MANUAL RETRACT BOLT MAY DAMAGE THE MANUAL RETRACT MECHANISM.) Make sure the room does not bind.

8. Replace both Thumb Screws. Leave the manual valve releases open.

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.

IMPORTANT: DO NOT EXTEND THE ROOM UNTIL THE STEPS BELOW HAVE BEEN COMPLETED!

1. Gain access to the 13/16" Manual Retraction Bolts (one on each mechanism) by raising the STORE-MORE access panel.

2. Remove the Thumb Screws (one on each mechanism) completely by turning them counterclockwise.

3. If needed, using wrench provided, a personal wrench or a tire iron with a 13/16" or 21mm opening rotate either mechanism's Manual Retraction Bolt counterclockwise until resistance is met.

4. Move to the second room extension mechanism and repeat step 3.

5. Replace both Thumb Screws.

6. Close both manual valve releases assigned to the room. Turn the valve release nuts clockwise until snug. DO NOT over tighten.
1. Determine which extend and retract solenoid valves are assigned to the room. Manually open the valve release nuts for the extend and retract solenoid valves by turning the 1/4” release nuts counter clockwise 4 and 1/2 turns. Turning the nuts more could damage the valves.

**NOTE: The breather cap dip stick is also a 1/4” nut driver.**

2. Gain access to the 13/16” Manual Retraction Bolts (one on each mechanism) by raising the STORE-MORE access panel.

3. Remove the Thumb Screws (one on each mechanism) completely by turning them counterclockwise.

4. Using wrench provided, a personal wrench or a tire iron with a 13/16” or 21mm opening rotate either mechanism’s Manual Retraction Bolt clockwise 6 complete turns.

5. Move to the second room extension mechanism, rotate the Manual Retraction Bolt clockwise 12 complete turns.

6. Return to the first room extension mechanism and rotate the Manual Retraction Bolt clockwise 12 complete turns.

7. Repeat steps 4 and 5 alternating from mechanism to mechanism rotating each Manual Retraction Bolt 12 complete turns until room is sealed. (DO NOT exceed 15 ft.lbs) Make sure the room does not bind.

8. Replace both Thumb Screws. Leave the manual valve releases open.

**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.**

**IMPORTANT: DO NOT EXTEND THE ROOM UNTIL THE STEPS BELOW HAVE BEEN COMPLETED!**

1. Gain access to the 13/16” Manual Retraction Bolts (one on each mechanism) by raising the STORE-MORE access panel.

2. Remove the Thumb Screws (one on each mechanism) completely by turning them counterclockwise.

3. If needed, using wrench provided, a personal wrench or a tire iron with a 13/16” or 21mm opening rotate either mechanism’s Manual Retraction Bolt counterclockwise until resistance is met.

4. Move to the second room extension mechanism and repeat step 3.

5. Replace both Thumb Screws.

6. Close both manual valve releases assigned to the room. Turn the valve release nuts clockwise until snug. DO NOT over tighten.
1. Determine which extend and retract solenoid valves are assigned to the room. Manually open the valve release nuts for the extend and retract solenoid valves by turning the 1/4" release nuts counter clockwise 4 and 1/2 turns. Turning the nuts more could damage the valves. If equipped with valve release cams, move the cams to the OPEN position.

**NOTE:** The breather cap dip stick is also a 1/4" nut driver.

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

**NOTE:** For location of the threaded rods and to access the threaded blocks refer to vehicle manufacturer.

3. **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.

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

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

6. Repeat steps 4 and 5 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 solenoid valves 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. ANY SOLENOID 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.
1. Determine which extend and retract solenoid valves are assigned to the room. Manually open the valve release nuts for the extend and retract solenoid valves by turning the 1/4" release nuts counter clockwise 4 and 1/2 turns. Turning the nuts more could damage the valves. If equipped with valve release cams, move the cams to the OPEN position.

NOTE: The breather cap dip stick is also a 1/4" nut driver.

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

NOTE: For location of the threaded rods and to access the threaded blocks refer to vehicle manufacturer.

3. 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.

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

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

6. Repeat steps 4 and 5 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 solenoid valves 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. ANY SOLENOID VALVES LEFT OPEN SHOULD BE CLOSED AND THE THREADED RODS SHOULD BE COMPLETELY REMOVED.

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**NOTE:** The breather cap dip stick is also a 1/4" nut driver.

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

**NOTE:** For location of the threaded rods and to access the threaded blocks refer to vehicle manufacturer.

3. 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.

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

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

6. Repeat steps 4 and 5 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 solenoid valves 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. ANY SOLENOID 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.
NOTE: Manual room lift procedures must be done before manual room retraction procedures.

1. Determine which extend and retract solenoid valves are assigned to the room. Manually open the valve release nuts for the extend and retract solenoid valves by turning the 1/4" release nuts counter clockwise 4 and 1/2 turns. Turning the nuts more could damage the valves. If equipped with valve release cams, move the cams to the OPEN position.

NOTE: The breather cap dip stick is also a 1/4" nut driver.

2. Start both room lift bolts until resistance is met, one for the front and one for the rear mechanism should be provided.

NOTE: To locate the room lift access holes and bolts refer to vehicle manufacturer.

3. Do Not use an impact wrench. Using a 9/16 wrench alternate between lift bolts turning each 4 full turns each time. Lift the room only as far as is needed to clear the bottom surface of the room over the lift ramps. As the room is lifted a gap should develop allowing you to view the lift ramps more clearly.

4. Follow MANUAL ROOM RETRACT PROCEDURES.

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.
OPERATING PROCEDURES
"UNIVERSAL LEVEL OUT" ROOM EXTENSION MECHANISM
MANUAL ROOM RETRACT PROCEDURES

NOTE: Manual room lift procedures must be done before manual room retraction procedures.

1. 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.

2. 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.

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

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

5. Repeat steps 3 and 4 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 solenoid valves open, the lift bolts and threaded rods in place until the room has been serviced.

IMPORTANT: DO NOT EXTEND THE ROOM UNTIL THE ROOM HAS BEEN SERVICED. ANY SOLENOID VALVES LEFT OPEN SHOULD BE CLOSED, LIFT BOLTS AND 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.
REPLACEMENT VALVES WILL HAVE A VALVE RELEASE CAM

**Breather Cap with Nut Driver**

The breather cap is located on the top side of the power unit reservoir.

Fill between oil level grooves.

1/4" Nut Driver

**Important:** Prior to removing the breather cap, either to check the oil level or to use 1/4" Nut Driver, clean any debris from the top of the reservoir. Before returning the breather cap to the reservoir, remove any paint chips or other debris from the dipstick including debris inside the 1/4" Nut Driver.

**Solenoid Valves with Cam Release**

**1 1/2" Diameter Solenoid Valve**

Cam Release Valve Open

Default position

NOTE: The cam release may be rotated in any direction on the valve. Do not assume that pushing down will open the valve. Pushing the cam in the wrong direction could damage the valve.

**2 1/4" Diameter Solenoid Valve**

Cam Release Valve Open

Default position

NOTE: The cam release may be rotated in any direction on the valve. Do not assume that pushing down will open the valve. Pushing the cam in the wrong direction could damage the valve.

**Solenoid Valves with 1/4" Nut Release**

**1 1/2" Diameter Solenoid Valve**

Valve Release Nut

NOTE: When opening the valve, do not turn the valve release nut more than 4 and 1/2 turns counter clockwise. Damage to the valve may result.

**2 1/4" Diameter Solenoid Valve**

Valve Release Nut

NOTE: When opening the valve, do not turn the valve release nut more than 2 full turns counter clockwise. Damage to the valve may result.

**Solenoid Valves with T-Handle Release**

**2 1/4" Diameter Solenoid Valve**

Turn T-handle counterclockwise to open the valve. T-handle should turn easy at first, then harder as it compresses a spring. It takes approximately 4 1/2 turns to fully open the valve. Do not over tighten when closing.

**Note:** Old style hex shaped solenoid valves have no manual valve release.