

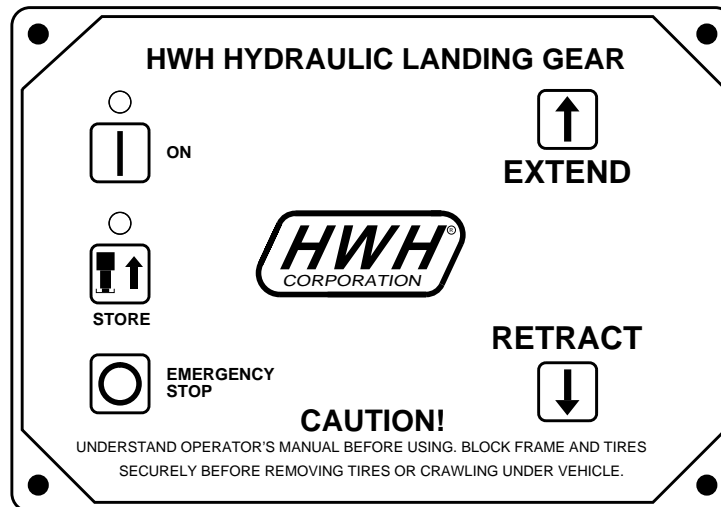


OPERATOR'S MANUAL

HWH HYDRAULIC LANDING GEAR SYSTEM

SPACEMAKER ROOM EXTENSION SYSTEM

FEATURING:
TOUCH PANEL LEVELING CONTROL
TWO STRAIGHT-ACTING JACKS
SINGLE CYLINDER ROOM EXTENSION



HWH CORPORATION
(ON I-80, EXIT 267 SOUTH)
2096 MOSCOW ROAD
MOSCOW, IOWA 52760
(800) 321-3494 / (563) 724-3396
INTERNET: <http://www.hwhcorp.com>

OPERATOR'S MANUAL

CAUTION !

READ THE ENTIRE OPERATOR'S MANUAL BEFORE OPERATING.

FOLLOW THE TRAILER MANUFACTURER'S INSTRUCTIONS FOR HITCHING AND UNHITCHING THE TRAILER WHEN USING THE HWH HYDRAULIC LANDING GEAR.

CHOCK TRAILER WHEELS SECURELY BEFORE USING THE LANDING GEAR.

KEEP PEOPLE CLEAR OF THE TRAILER WHILE HITCHING OR UNHITCHING THE TRAILER, WHILE THE LANDING GEAR IS IN USE OR WHILE ANY ROOM EXTENSION IS BEING OPERATED. ALWAYS AVOID AREAS WHERE BODY MAY BE CRUSHED BY SUDDEN DROPPING OR SLIDING OF TRAILER.

BLOCK FRAME AND TIRES SECURELY BEFORE CRAWLING UNDER THE TRAILER. DO NOT USE THE LANDING GEAR TO SUPPORT THE TRAILER WHILE UNDER THE TRAILER OR CHANGING TIRES. THE TRAILER MAY DROP AND/OR MOVE FORWARD OR BACKWARD WITHOUT WARNING CAUSING INJURY OR DEATH.

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.

IMPORTANT: IF COACH IS EQUIPPED WITH A ROOM EXTENSION, READ ROOM EXTENSION SECTION BEFORE OPERATING LEVELING SYSTEM.

HOW TO OBTAIN WARRANTY SERVICE

THIS IS NOT TO BE INTERPRETED AS A STATEMENT OF WARRANTY

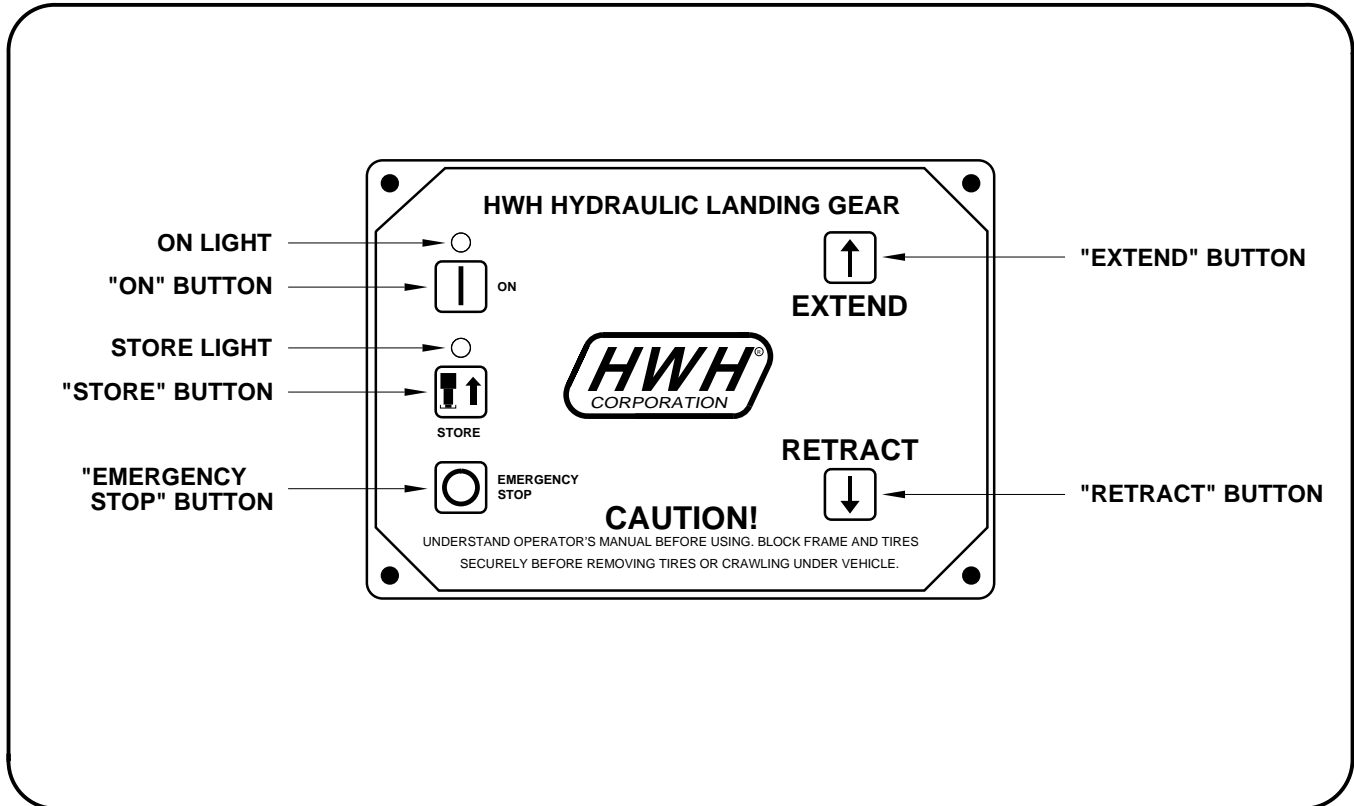
HWH CORPORATION strives to maintain the highest level of customer satisfaction. Therefore, if you discover a defect or problem, please do the following:

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



CONTROL FUNCTIONS

CONTROL BUTTONS

"ON" BUTTON: This is the "ON" button for the landing gear system.

"EMERGENCY STOP" BUTTON: This button turns off all power to the landing gear system.

"STORE" BUTTON: This button is used to store the landing gear. It is to be used only after the trailer is hitched to the tow vehicle.

"EXTEND" BUTTON (UP ARROW): This button will extend the landing gear and raise the front of the trailer.

"RETRACT" BUTTON (DOWN ARROW): This button will retract the landing gear and lower the front of the trailer.

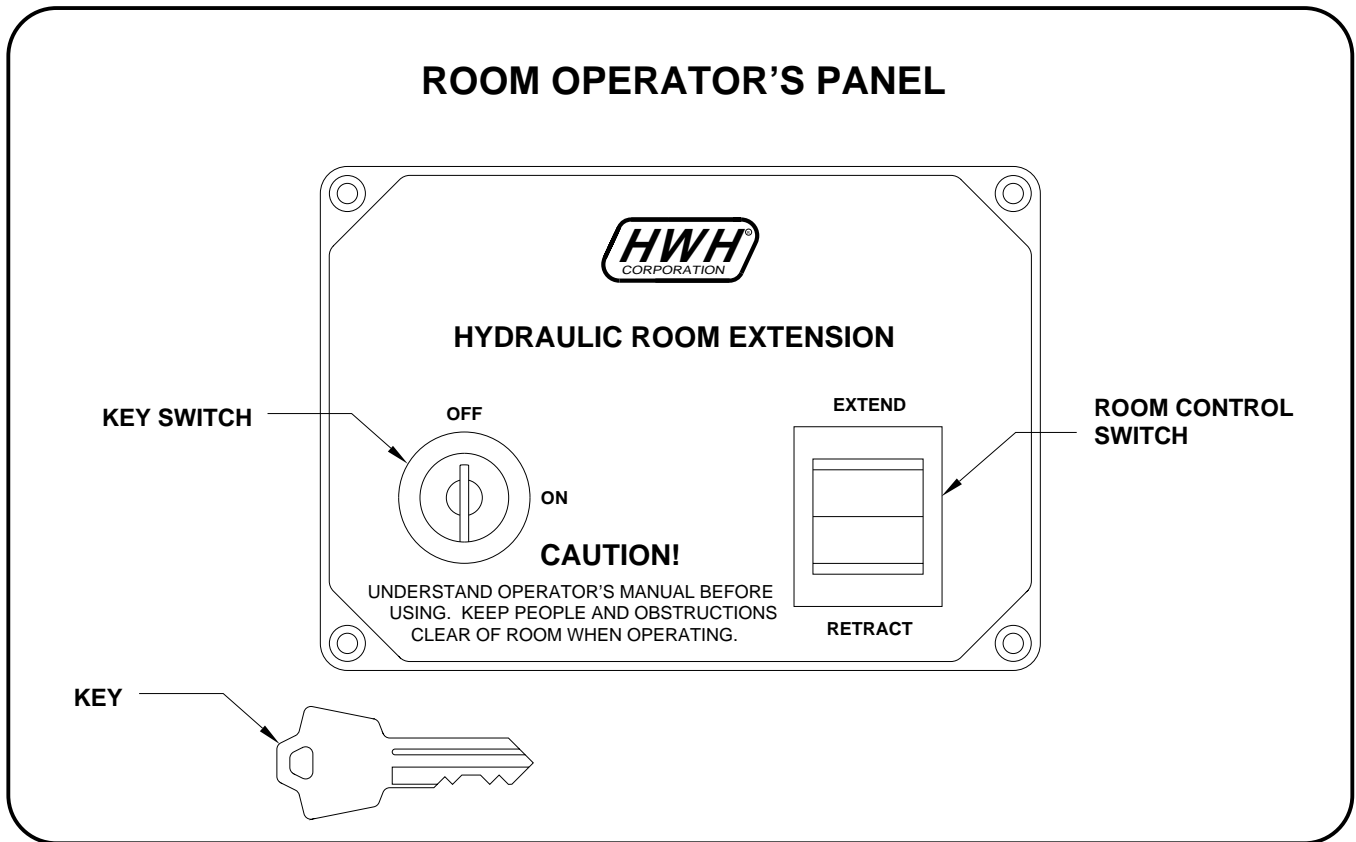
NOTE: The "EXTEND" and "RETRACT" buttons are momentary buttons.

INDICATOR LIGHTS

ON LIGHT: This light indicates the system is on.

STORE LIGHT: This light indicates the system is in the store mode.

CONTROL IDENTIFICATION



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.

OPERATING PROCEDURES

ROOM EXTENSION PROCEDURES

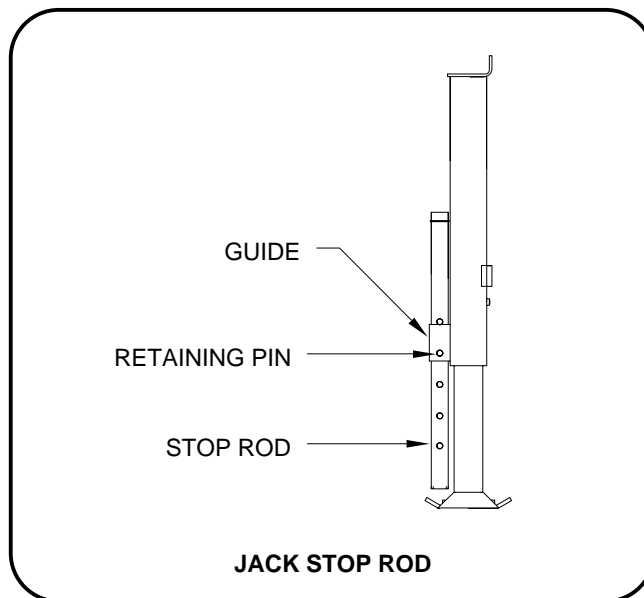
IMPORTANT: If the vehicle is equipped with a room extension read this section carefully.

It is not recommended to operate any room extension until the landing gear setup procedure is complete. It is not recommended to retract the the landing gear until all room extensions are retracted. It is not recommended to operate

the landing gear when any room extensions are extended. Refer to the vehicle owners manual for proper operation of room extensions.

IMPORTANT: Do not use a room extension support when the vehicle is supported by the landing gear.

LANDING GEAR SET UP PROCEDURE



CAUTION: FOLLOW THE TRAILER MANUFACTURER'S INSTRUCTIONS FOR UNHITCHING THE TRAILER FROM THE TOW VEHICLE. DO NOT STAND BETWEEN THE TOW VEHICLE AND THE TRAILER OR BEHIND THE TRAILER WHEN UNHITCHING THE TRAILER OR OPERATING THE HWH LANDING GEAR.

If parking on soft ground or asphalt paving, wood blocks or pads should be placed under the landing gear.

1. Push the "ON" button on the landing gear control panel. The on light should come on.
2. Push the "EXTEND" button (UP ARROW). The pump will come on and the landing gear will begin to extend. The "EXTEND" button is a momentary button. When the button is released the landing gear will stop extending.
3. When the landing gear and trailer are in the desired position, release the "EXTEND" button.
4. Push the "EMERGENCY STOP" button on the landing gear control panel. This will turn the system off.

5. The jack stop rods should be adjusted immediately after the leveling and stabilizing procedure is finished.

NOTE: The jack stop rods should be set anytime the trailer is supported by the front jacks.

CAUTION: WHILE SETTING STOP RODS AVOID AREAS WHERE BODY MAY BE CRUSHED BY SUDDEN DROPPING OR SLIDING OF TRAILER.

- A. Remove retaining pin to allow stop rod to drop down to the foot of the jack.
- B. Lift stop rod as needed (up to 4") to align the hole in the guide with the nearest available hole in the stop rod. Insert the retaining pin through the holes in the guide and stop rod. Latch the keeper wire for the retaining pin.

NOTE: The landing gear should be cycled at least once a month or whenever the trailer is used to keep the system in operating condition.

OPERATING PROCEDURES

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. Insert the KEY and turn the KEY SWITCH to the "ON" POSITION.
3. 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.

4. Turn the KEY SWITCH to the "OFF" POSITION.
5. Remove the KEY to prevent undesired operation of the room.

ROOM RETRACT PROCEDURE

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

1. Insert the KEY and turn the KEY SWITCH to the "ON" POSITION.
2. 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: 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.**

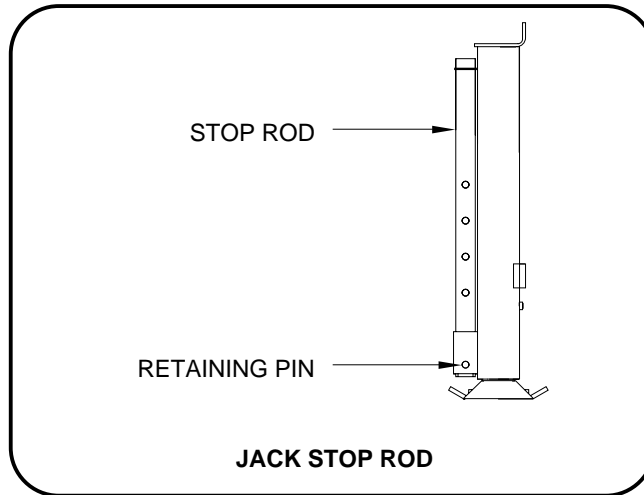
NOTE: Releasing the ROOM CONTROL SWITCH will halt the operation of the room.

3. Turn the KEY SWITCH to the "OFF" POSITION.
4. Remove the KEY to prevent undesired operation of the room.
5. Engage all room-locking devices.
6. If the room will not retract see the MANUAL ROOM RETRACT PROCEDURE.

IMPORTANT: All room extensions should be fully retracted before traveling. Any room locking devices should be locked while traveling.

OPERATING PROCEDURES

PREPARATION FOR TRAVEL



CAUTION: FOLLOW THE MANUFACTURER'S INSTRUCTIONS FOR HITCHING THE TRAILER TO THE TOW VEHICLE. DO NOT STAND BETWEEN THE TOW VEHICLE AND TRAILER OR BEHIND THE TRAILER WHEN HITCHING THE TRAILER OR OPERATING THE LANDING GEAR.

1. Before retracting the jacks, the stop rods must be returned to the travel position.

CAUTION: WHEN STORING THE JACK STOP RODS, AVOID AREAS WHERE BODY MAY BE CRUSHED BY SUDDEN DROPPING OR SLIDING OF TRAILER.

A. Remove the retaining pin. If the trailer weight is on the stop rods, the front jacks may have to be extended slightly to free the retaining pin.

B. Lift the stop rod to align the bottom hole in the stop rod with the hole in the guide. Insert the retaining pin through both holes and latch the retaining pin keeper wire.

2. Push the "ON" button. The on light should be on.

3. Pushing the "RETRACT" button (DOWN ARROW) will retract the landing gear and lower the front of the trailer. It is a momentary button. When the button is released, the landing gear will stop retracting.

CAUTION: USE THE "RETRACT" BUTTON TO HITCH THE TRAILER TO THE TOW VEHICLE. DO NOT USE THE "STORE" BUTTON UNTIL THE TRAILER IS SECURELY HITCHED TO THE TOW VEHICLE.

4. When the trailer is securely hitched to the tow vehicle, push the "STORE" button. The store light will come on. The landing gear will retract and continue to retract when the "STORE" button is released. Approximately one minute after the jacks are fully retracted, the control panel will automatically turn off.

IMPORTANT: If the "EXTEND" button (UP ARROW) is pushed while the store light is on, the store mode will shut off. The store light will go out, and the landing gear will start to extend. When the "EXTEND" button is released, the landing gear will stay in the extend position.

If the "RETRACT" button (DOWN ARROW) is pushed while the store light is on, the store mode will shut off and the store light will go out.

CAUTION: IT IS THE OPERATOR'S RESPONSIBILITY TO VISUALLY CHECK THAT THE LANDING GEAR IS IN THE FULLY STORED POSITION BEFORE MOVING THE TRAILER.

OPERATING PROCEDURES

AUXILIARY HAND PUMP OPERATION

The auxiliary hand pump should be used only if the room extension control panel does not function properly. The hand pump

is located on the hydraulic manifold with the room extension solenoid valves.

ROOM EXTEND PROCEDURE

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.

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 DIS-ENGAGED BEFORE OPERATING THE ROOM.

2. Locate the Room Extension EXTEND SOLENOID VALVE. (See Electrical Connection Diagram - Room Extension System)

3. Turn the valve release "T" handle counter-clockwise.

NOTE : The "T" handle may turn easily at first but will become more difficult to turn as an internal spring is compressed. Be sure to open both valves completely (about six turns of "T" handle).

4. Use the hand pump on the manifold to extend the room. Pump the hand pump several times after the room is fully extended.

IMPORTANT: Do not continue to use the hand pump if the room will not move or if either side of the room stops moving.

5. Close the valve release "T" handle for the Room Extension EXTEND SOLENOID VALVE.

ROOM RETRACT PROCEDURE

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

1. Locate the Room Extension RETRACT SOLENOID VALVE. (See Electrical Connection Diagram - Room Extension System)

2. Turn the valve release "T" handle counter-clockwise.

NOTE : The "T" handle may turn easily at first but will become more difficult to turn as an internal spring is compressed. Be sure to open both valves completely (about six turns of "T" handle).

3. Use the hand pump on the manifold to retract the room. Pump the hand pump several times after the room is fully retracted.

IMPORTANT: Do not continue to use the hand pump if the room will not move or if either side of the room stops moving.

4. Close the valve release "T" handle for the Room Extension RETRACT SOLENOID VALVE.

NOTE : If the hand pump will not retract the room, refer to the Manual Room Retract Procedure page.

OPERATING PROCEDURES

AUXILIARY HAND PUMP OPERATION

The auxiliary hand pump should be used only if the Room Extension or Landing Gear control panels do not function properly.

The hand pump is located on the hydraulic manifold with the Room Extension and Landing Gear solenoid valves.

LANDING GEAR EXTENSION PROCEDURE

CAUTION: FOLLOW THE TRAILER MANUFACTURER'S INSTRUCTIONS FOR UNHITCHING THE TRAILER FROM THE TOW VEHICLE. DO NOT STAND BETWEEN THE TOW VEHICLE AND THE TRAILER OR BEHIND THE TRAILER WHEN UNHITCHING THE TRAILER OR OPERATING THE HWH LANDING GEAR.

1. Locate the Landing Gear extend solenoid valve on the hydraulic manifold. (See Electrical Connection Diagram Landing Gear Manifold Wiring Diagram.)

2. Turn the valve release "T" handle for the Landing Gear extend valve counter clockwise.

NOTE: The "T" handle may turn easily at first but will become more difficult to turn as an internal spring is compressed. Be sure to open both valves completely (about six turns of "T" handle.

3. Use the hand pump on the manifold to extend the landing gear to the desired position.

4. Close the valve release "T" handle for the Landing Gear extend valve.

5. Set the Landing Gear stop rod.

NOTE: The jack stop rods should be set anytime the trailer is supported by the front jacks.

CAUTION: WHILE SETTING STOP RODS AVOID AREAS WHERE BODY MAY BE CRUSHED BY SUDDEN DROPPING OR SLIDING OF TRAILER.

A. Remove retaining pin to allow stop rod to drop down to the foot of the jack.

B. Lift stop rod as needed (up to 4") to align the hole in the guide with the nearest available hole in the stop rod. Insert the retaining pin through the holes in the guide and stop rod. Latch the keeper wire for the retaining pin.

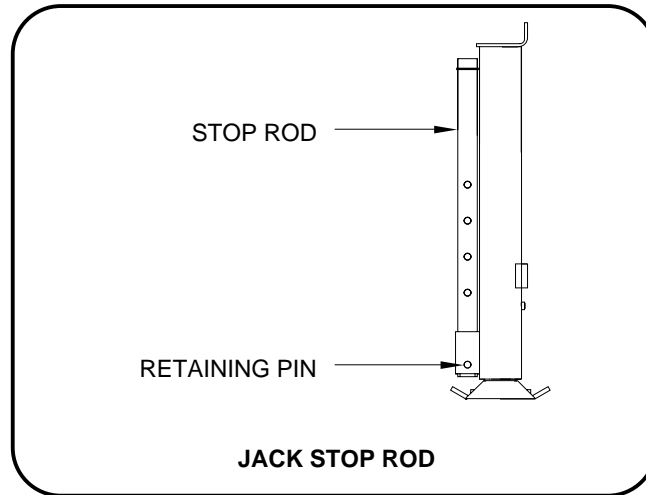
NOTE: The landing gear should be cycled at least once a month or whenever the trailer is used to keep the system in operating condition.

LANDING GEAR RETRACT PROCEDURE

Refer to Manual Jack Retraction page in Operating Procedures Section.

OPERATING PROCEDURES

MANUAL JACK RETRACTION



IMPORTANT: Retract all room extensions before using the valve release "T" handles.

NOTE: Use the valve release "T" handles for retracting only if the "STORE" button on the control panel will not retract the jacks for travel.

CAUTION: KEEP AWAY FROM THE WHEELS, DO NOT CRAWL UNDER THE VEHICLE, KEEP A SAFE DISTANCE IN FRONT AND REAR OF VEHICLE. THE VEHICLE MAY DROP AND/OR MOVE FORWARD OR BACKWARD WITHOUT WARNING AS THE VALVE RELEASE IS OPERATED.

1. Locate the valve release "T" handles on the solenoid valves. The solenoid valves are located on the pump/valve assembly. (See ELECTRICAL CONNECTION DIAGRAM.)

2. Allow clearance for vehicle to lower.

3. Before retracting the jacks, the stop rods must be returned to the travel position.

CAUTION: WHEN STORING THE JACK STOP RODS, AVOID AREAS WHERE BODY MAY BE CRUSHED BY SUDDEN DROPPING OR SLIDING OF TRAILER.

A. Remove the retaining pin. If the trailer weight is on the stop rods, the front jacks may have to be extended slightly to free the retaining pin.

B. Lift the stop rod to align the bottom hole in the stop rod with the hole in the guide. Insert the retaining pin through both holes and latch the retaining pin keeper wire.

4. Slowly turn the "T" handles counter clockwise. The handles may turn easily at first, but as an internal spring is compressed, turning may become more difficult. The valves need only to be opened enough to retract the landing gear.

5. Hitch the trailer to the tow vehicle while retracting the landing gear.

6. Check that the landing gear is fully retracted.

7. Close the valves by turning the release handles clockwise. Once the internal spring tension has been released, the handles will turn free for several turns. Once the "T" handles are snug, DO NOT tighten the handles past this point as internal damage may occur to the solenoid.

8. The system should now be repaired before using again.

MANUAL ROOM RETRACT PROCEDURE (WITH SOLENOID VALVES WITH VALVE RELEASE "T" HANDLES)

(USE ONLY WHEN THE ROOM WILL NOT RETRACT WITH THE ROOM CONTROL SWITCH)

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.

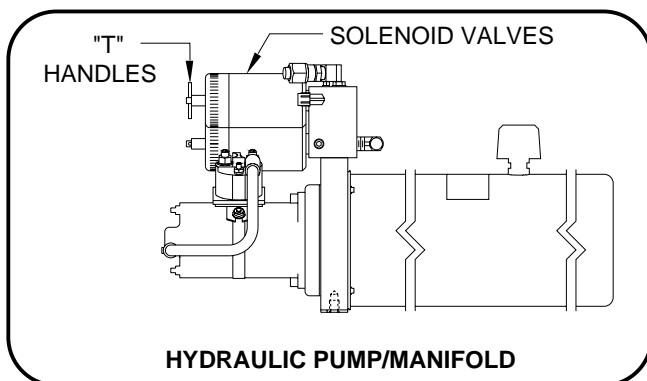
IMPORTANT: If the vehicle is not equipped with a winch, DO NOT use other pulling devices to retract the room. Follow steps 2 and 3 and try pushing the room in. Contact the vehicle manufacturer or HWH Customer Service at 1-800-321-3494 or 563-724-3396 for assistance.

WARNING: THE MANUAL RETRACT WINCH 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, CREATING POTENTIAL SAFETY HAZARDS. FAILURE TO FOLLOW ALL CAUTIONS AND INSTRUCTIONS MAY CAUSE FAILURE OF THE MANUAL RETRACT WINCH OR CONNECTIONS RESULTING IN DAMAGE OR PERSONAL INJURY. MAINTAIN 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, make sure the jacks are retracted before retracting the room.

2. Locate the HYDRAULIC PUMP/MANIFOLD unit.

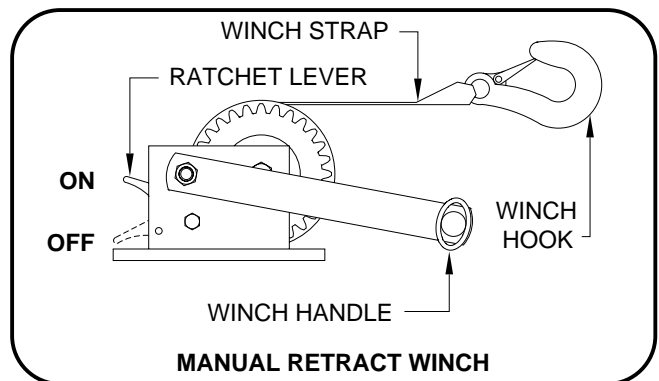


3. Open the SOLENOID VALVES by turning the "T" HANDLES counterclockwise.

NOTE : The "T" HANDLE may turn easily at first but will become more difficult to turn as an internal spring is compressed. Be sure to open both valves completely (about six turns of the "T" HANDLE).

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

4. Locate the MANUAL RETRACT WINCH and connect it to the room according to the vehicle manufacturer's instructions. To extend the WINCH STRAP firmly grasp WINCH HANDLE, place RATCHET LEVER in its OFF position, and slowly rotate the WINCH HANDLE counterclockwise, 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 OVER-LOADED. IF WINCHING BECOMES TOO DIFFICULT STOP AND CHECK FOR OBSTRUCTIONS OR RESTRICTIONS ON THE ROOM AND ROOM EXTENSION MECHANISM.

6. When the room is fully retracted, engage the room locking devices. Leave the retract winch in place.

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

7. The system should be repaired before using again.

MAINTENANCE

OIL LEVEL

It is important that the landing gear and room extensions are fully retracted 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.

UNUSUAL CONDITIONS

In general, to insure the smooth operation of the landing gear, it is a good idea to occasionally check the landing gear to prevent problems. This is especially true under the unusual conditions stated in the following:

If driving conditions are unusually muddy, the units may become caked or clogged with mud. This condition may hamper the proper operation of the landing gear. This problem may be prevented or remedied by cleaning off each unit if they become excessively muddy.

In wet or icy weather landing gear may become encrusted with ice. This may cause the landing gear to function improperly.

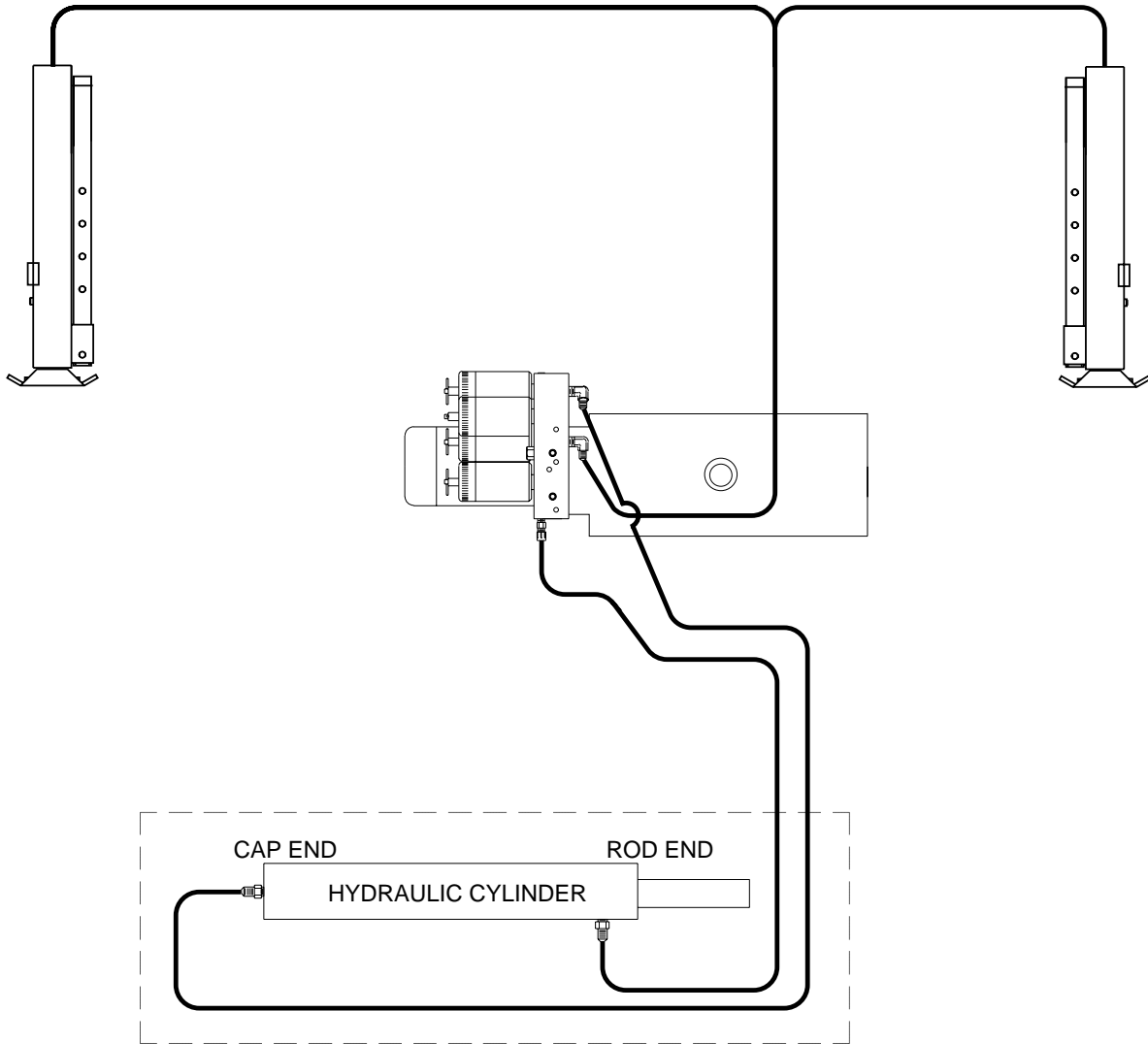
To eliminate this problem, periodically check the landing gear and break loose any ice which may be causing improper operation.

The stop rods and retaining pins on the landing gear must be kept in good operating condition. Clean and lubricate the rod and retaining pin regularly.

Do not move the trailer while the landing gear is still in contact with the ground. Visually check to see if the landing gear has returned to the STORE/TRAVEL position before moving the trailer.

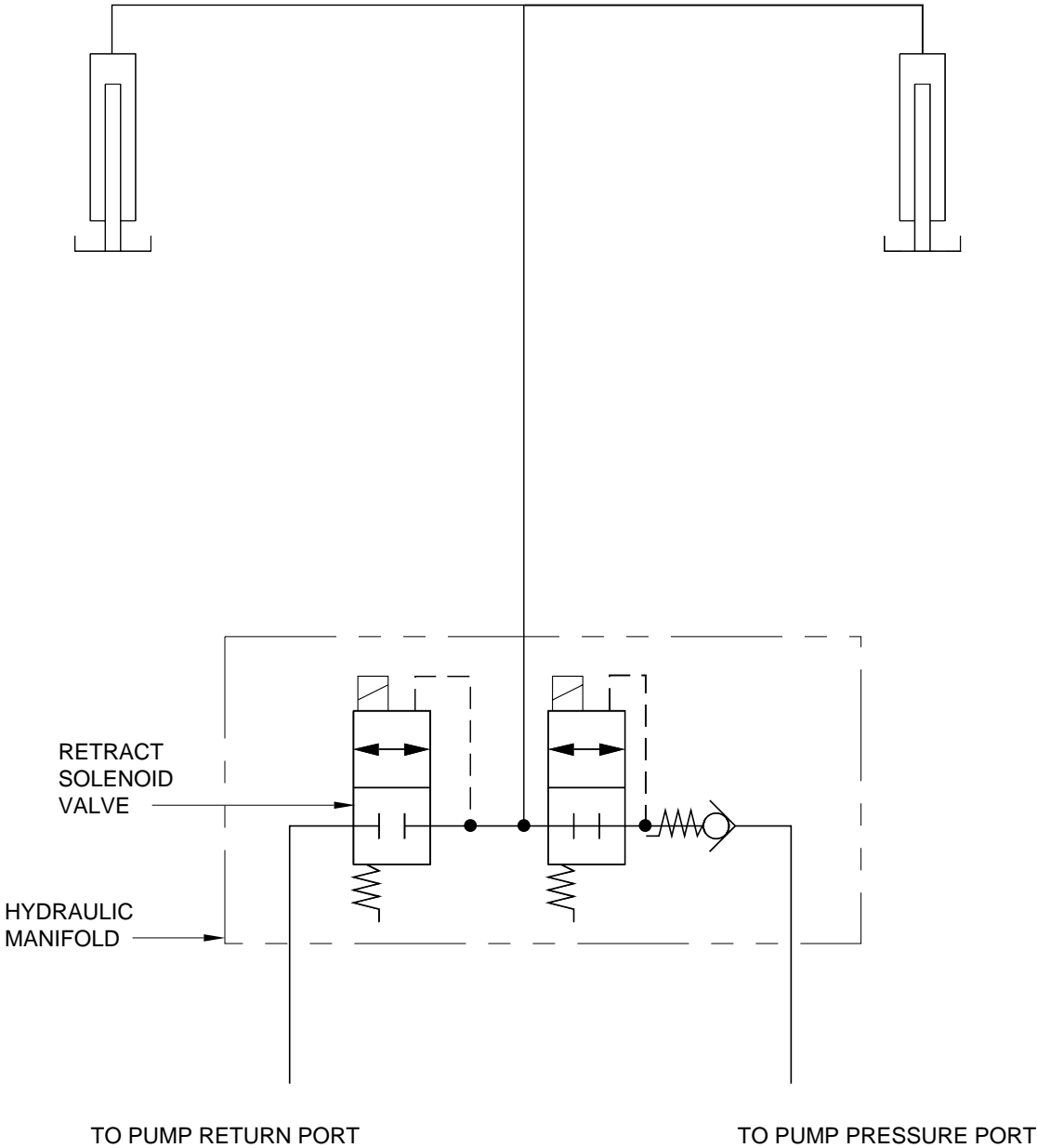
NOTE: All major components of the system can be replaced with rebuilt units or can be sent to HWH CORPORATION to be rebuilt, when the system is out of warranty.

**HYDRAULIC LINE CONNECTION DIAGRAM
2 JACK LANDING GEAR SYSTEM
WITH ONE ROOM EXTENSION**



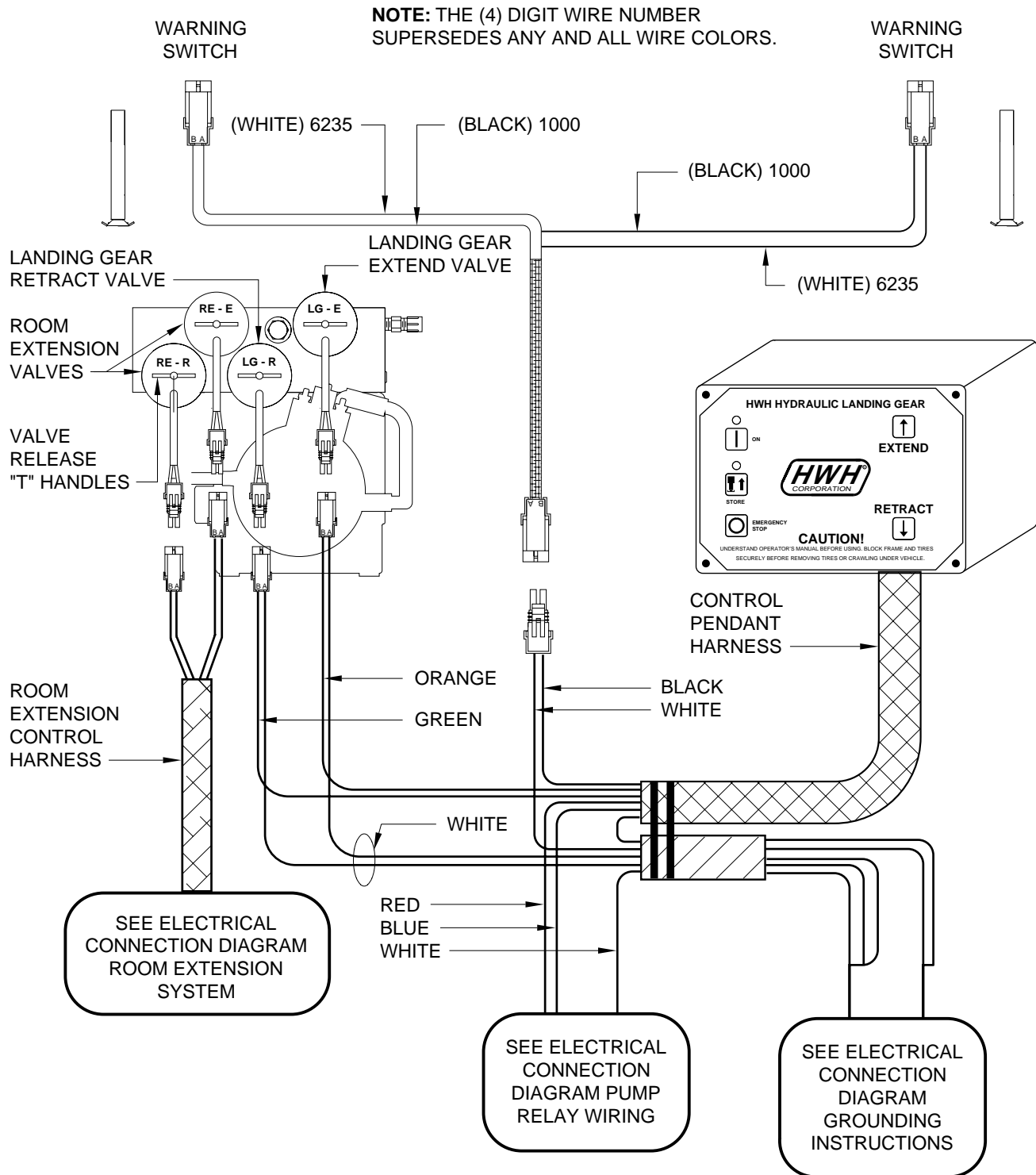
SINGLE CYLINDER ROOM EXTENSION

**HYDRAULIC SCHEMATIC
2 JACK LANDING GEAR SYSTEM
WITH ROOM EXTENSION**

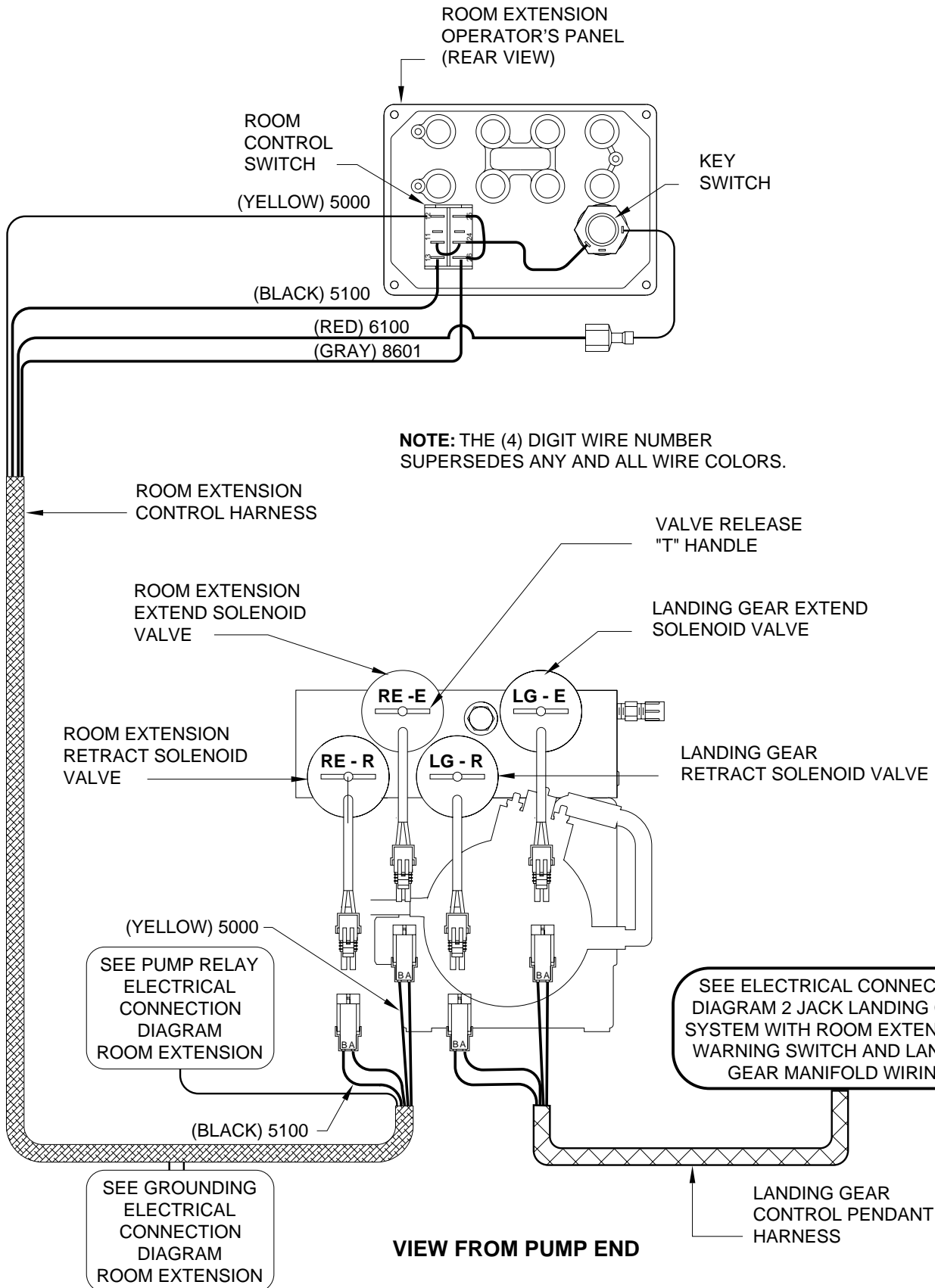


ELECTRICAL CONNECTION DIAGRAM

2 JACK LANDING GEAR SYSTEM WITH ROOM EXTENSION WARNING SWITCH AND LANDING GEAR MANIFOLD WIRING



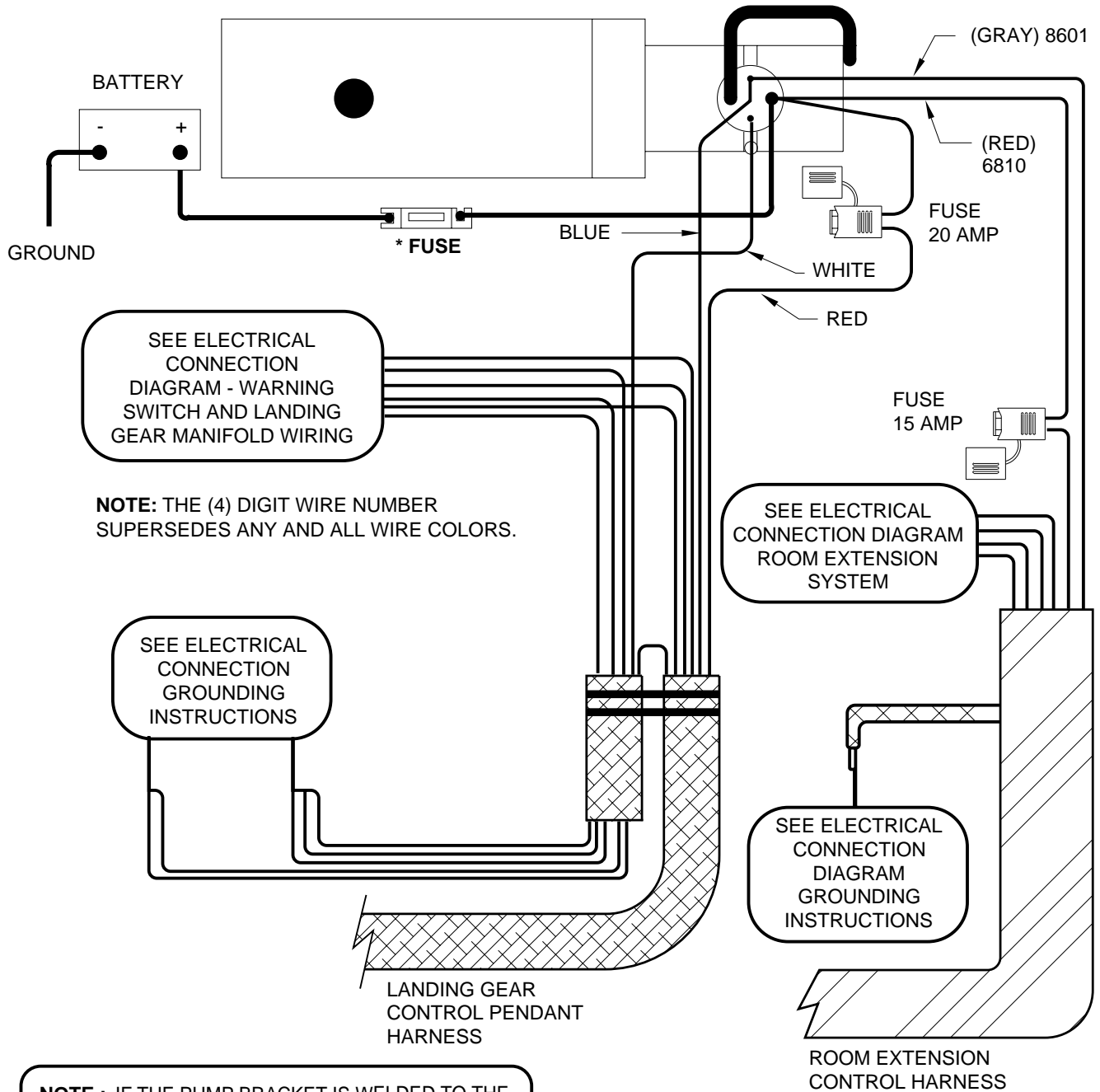
ELECTRICAL CONNECTION DIAGRAM ROOM EXTENSION SYSTEM



ELECTRICAL CONNECTION DIAGRAM 2 JACK LANDING GEAR SYSTEM WITH ROOM EXTENSION PUMP RELAY WIRING

PUMP RELAY

PUMP MUST BE MOUNTED SOLIDLY TO FRAME. SOME PUMPS HAVE A GROUND CABLE THAT IS TO BE ATTACHED TO THE GROUND STUD.



NOTE : IF THE PUMP BRACKET IS WELDED TO THE FRAME, USE THE GROUND STUD TO ATTACH THE THE PUMP TO THE BRACKET. IF THE PUMP BRACKET IS BOLTED TO THE FRAME, USE THE GROUND STUD TO ATTACH THE BRACKET TO THE FRAME.

* FUSE MAY BE REQUIRED - CHECK APPLICABLE CODE

ELECTRICAL CONNECTION DIAGRAM 2 JACK LANDING GEAR SYSTEM GROUNDING INSTRUCTIONS

GROUNDING INSTRUCTIONS

WHEN POWER UNIT IS MOUNTED TO VEHICLE FRAME VIA WELDED CHANNEL, CONNECT GROUND CABLE STRAP TO EITHER PUMP MOUNTING BOLT POSITION AS SHOWN. A 3/8" INTERNAL STAR LOCKWASHER MUST BE USED BETWEEN PUMP CHANNEL/GROUNDING STUD, GROUNDING STUD/GROUND CABLE STRAP TERMINAL AND BETWEEN GROUND WIRE TERMINALS/NUT.

