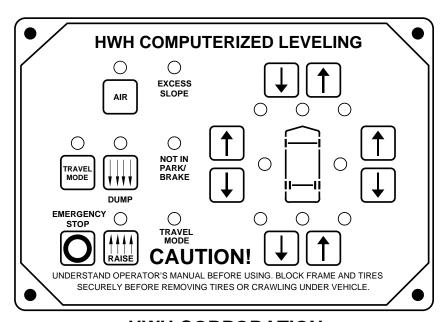


OPERATOR'S MANUAL

HWH COMPUTER-CONTROLLED LEVELING SYSTEM 2000 SERIES

FEATURING: TOUCH PANEL CONTROL AIR LEVELING (WITH TAG AXLE) TWO OR THREE ROOM EXTENSIONS



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

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OPERATOR'S MANUAL

CAUTION!

READ THE ENTIRE OPERATOR'S MANUAL BEFORE OPERATING.

BLOCK FRAME AND TIRES SECURELY BEFORE CRAWLING UNDER VEHICLE. DO NOT USE LEVELING JACKS OR AIR SUSPENSION TO SUPPORT VEHICLE WHILE UNDER VEHICLE OR CHANGING TIRES. VEHICLE MAY DROP AND/OR MOVE FORWARD OR BACKWARD WITHOUT WARNING CAUSING INJURY OR DEATH.

KEEP ALL PEOPLE CLEAR OF VEHICLE WHILE LEVELING SYSTEM AND ROOM EXTENSION ARE BEING OPERATED.

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

DO NOT OPERATE THE LEVELING SYSTEM OR USE THE DUMP OR RAISE BUTTONS IF THE VEHICLE IS MOVING IN EXCESS OF 5 MPH.

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

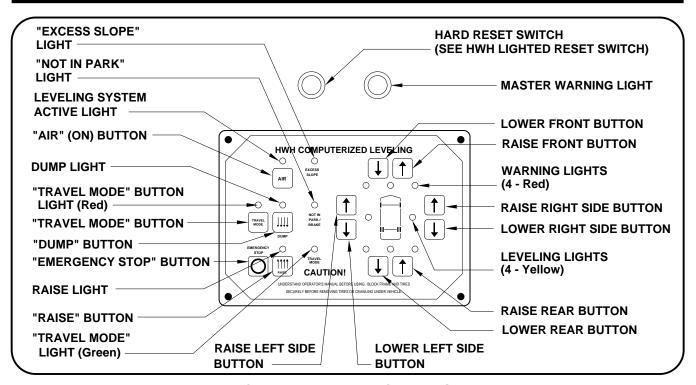
HWH CORPORATION strives to maintain the highest level of customer satisfaction. Therefore, if you discover a defect or problem, please do the following:

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

INDICATOR LIGHTS

"AIR" BUTTON: This is the system active and automatic operation button. It works if the ignition is in the "ON" position.

"EMERGENCY STOP" BUTTON: This button turns the system OFF but does NOT control power to the "DUMP" or "RAISE" buttons. Pushing this button will NOT put the system in the TRAVEL mode.

"TRAVEL MODE" BUTTON: This button will put the Leveling System in the TRAVEL mode. The ignition must be "ON" for the vehicle to return to proper ride height for traveling.

"DUMP" BUTTON: This button will lower the whole coach by dumping air from the suspension system.

"RAISE" BUTTON: This button will raise the whole coach by adding air to the suspension system.

IMPORTANT: Read "DUMP AND RAISE FUNCTIONS" before using the "DUMP" or "RAISE" buttons.

UP ARROWS (RAISE BUTTONS): These momentary buttons are used for manually operating the air leveling systems. Sides or ends of the vehicle will raise while these buttons are pushed.

DOWN ARROWS (LOWER BUTTONS): These momentary buttons are used for manually operating the air leveling systems. Sides or ends of the vehicle will lower while these buttons are pushed.

LEVEL SYSTEM ACTIVE LIGHT: ON when the system is active, and flashes during automatic leveling.

DUMP LIGHT: Flashes when "DUMP" button is pushed.

RAISE LIGHT: Flashes when "RAISE" button is pushed.

"EXCESS SLOPE" LIGHT: ON if the leveling system can NOT level the coach.

"TRAVEL MODE" BUTTON LIGHT (RED): Light flashes for 3 seconds after the "TRAVEL MODE" button is pushed.

"TRAVEL MODE" LIGHT (GREEN): ON if the ignition is in the "ON" position, the system is not being used, and there is sufficient air pressure in the suspension.

See PREPARATION FOR TRAVEL.

WARNING LIGHTS: Function with the ignition in the "ON" position. ON when the LEVELING SYSTEM ACTIVE LIGHT is ON. See PREPARATION FOR TRAVEL.

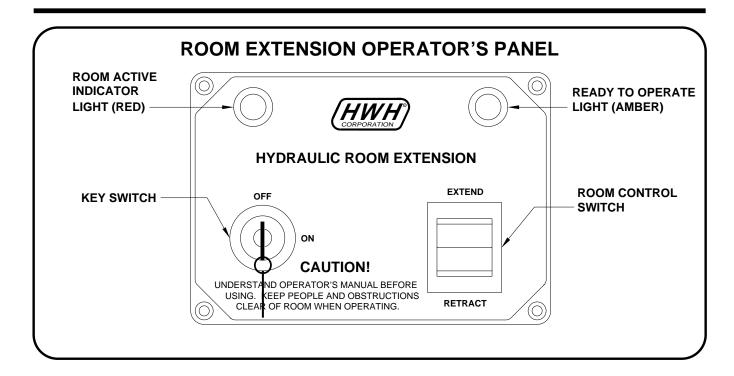
LEVELING LIGHTS: One or two yellow lights can be on indicating the side, end or corner of the coach is low.

"NOT IN PARK/BRAKE" LIGHT: ON while the "AIR" button is being pushed if the Park Brake is NOT set. The light will go out when the "AIR" button is released.

MASTER WARNING LIGHT: ON any time the "TRAVEL" light is not ON, if the ignition is in the "ON" position.

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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.

NOTE: Any time the KEY SWITCH is ON, the network will be active and will not power down.

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.

ROOM ACTIVE INDICATOR LIGHT: This light will be on when the room actuators are running.

READY TO OPERATE LIGHT: This light will flash for 2 seconds after the KEY SWITCH is turned on. It will then glow steady. The room cannot be extended or retracted if this light is flashing.

If a RAISE or LOWER function of the Leveling System is in use, MANUAL or AUTOMATIC operation, the READY TO OPERATE light will flash if the KEY SWITCH is in the "ON" position. The room will not operate.

MASTER WARNING LIGHT

This light is on the dash, separate from the control panels. It can be on only if the ignition key is in the "ON" or "ACC" position.

The light will be on if a HWH low air pressure switch is on, if the Leveling System is on, or if the Leveling System is not in the TRAVEL mode.

NETWORK INFORMATION

The HWH 2000 series CAN system is a computerized modular network. It controls all functions of the leveling system and the room extensions. The network is active any time the ignition is in the "ON" or "ACC" position or when any room extension control panel key is "ON". Certain functions and indicator lights for the leveling system will work when the network is active. Certain functions and lights will work ONLY if the the ignition is in the "ON" or "ACC" position to start the function.

NOTE: The network will stay active for 10 minutes after the ignition key and all room extension control panel keys have been turned "OFF". If the leveling system was turned "ON", the network will stay active for 10 minutes after automatic leveling is complete or the system goes "EXCESS SLOPE". If manual leveling buttons were used, the network stays active for 10 minutes after the last manual button is released.

GENERAL INSTRUCTIONS

Maintain adequate clearance in all directions for vehicles, room extensions, doors, steps, etc.. Vehicle may move in any direction due to raising or lowering of vehicle during leveling, settling of vehicle, equipment malfunction, etc..

The MASTER WARNING LIGHT will be on if an air bag has low pressure, if the ignition is in the "ON" position.

CAUTION: DO NOT MOVE THE VEHICLE IF A ROOM IS EXTENDED. DO NOT MOVE THE VEHICLE AT SPEEDS IN EXCESS OF 5 MPH IF THE MASTER WARNING LIGHT IS ON.

The "DUMP" and "RAISE" buttons will function with the leveling system and park brake off, if the ignition is in the "ON" or "ACC" position or if the network is active. See AIR DUMP AND RAISE FUNCTIONS section of this manual.

If the Park Brake is not set, the Leveling System cannot be turned ON and the room extension will not operate.

If a ROOM CONTROL SWITCH is being pushed, no other room or the Leveling System can be operated. If any Leveling System raise or lower function is being operated, no room control switch will work.

HWH LIGHTED RESET SWITCH

The HWH lighted reset switch is located on the vehicle dash. If there is a failure at any time in the HWH CAN network, the network will shut down. The leveling system and all room extensions will not operate. If the ignition is off, no indicator lights will come on. If the ignition is in the "ON" or "ACC" position, the lighted reset switch and the MASTER WARNING Light will come on.

If the lighted reset switch is on, the switch must be pushed before any room or the leveling system can be operated.

A network problem with one room will not inhibit the use of the other rooms or leveling system after the reset switch is pushed. A network problem with the leveling system will not inhibit the use of the room extensions after the reset switch is pushed.

If the lighted reset switch will not go out when pushed, there is a problem with the central control module of the network system. No rooms or the Leveling System will operate. The vehicle suspension will return to the travel mode if the ignition key is in the "ON" position.

CAUTION: IF THE IGNITION IS IN THE "ON" POSITION AND THE LIGHTED RESET SWITCH IS ON, THE VEHICLE CAN RETURN TO RIDE HEIGHT WITHOUT RELEASING THE PARK BRAKE.

PREPARATION FOR TRAVEL

Check that all room extensions are fully retracted. DO NOT move the vehicle unless the room extensions are retracted.

Visually check that the vehicle is at the proper ride height for traveling.

The ignition must be in the "ON" position for the vehicle suspension to be in the travel mode. Also the "TRAVEL MODE" button must be pushed or the park brake released for the suspension to be in the travel mode if the Leveling System was used.

A lit "TRAVEL MODE" LIGHT indicates that the HWH Leveling System is in the TRAVEL MODE. It does not indicate that the suspension is at ride height or that the coach is ready to travel.

CAUTION: IT IS THE OPERATOR'S RESPONSIBILITY TO CHECK THAT THE VEHICLE IS AT PROPER RIDE HEIGHT AND THE SLIDE-OUT IS FULLY RETRACTED BEFORE TRAVELING.

Before traveling, the MASTER WARNING light must be off and the "TRAVEL MODE" light must be ON.

NOTE: Low air pressure can turn the green "TRAVEL MODE" light off and turn the MASTER WARNING light on.

Refer to "DUMP" and "RAISE" FUNCTIONS operating procedures when moving the vehicle with the suspension NOT at the proper ride height.

AUTOMATIC AIR OPERATION

NOTE: The ignition must be in the "ON" or "ACC" position to use the "AIR" button. Once the operation is started, the ignition can be moved to the "OFF" position and the operation will continue. If a ROOM CONTROL switch is being pushed, the Leveling System can not be operated.

1. Place the transmission in the proper position for parking and set the park brake. The air leveling system can only be turned on if the ignition is in the "ON" or "ACC" position. Leaving the engine running during leveling is recommended. This will provide a better air supply for leveling.

NOTE: If the TAG DUMP SWITCH is in the DUMP position, it is recommended that it is returned to the TRAVEL position before starting the leveling procedure.

2. Press the "AIR" button once to enter the air mode. The LEVELING SYSTEM ACTIVE LIGHT will glow steady. The four red WARNING lights on the panel will come on. This indicates that the height control valves have been locked out. The vehicle should not be moved when these lights are on.

NOTE: If the park brake is not set, the "NOT IN PARK/BRAKE" light will be on while the "AIR" button is being pushed.

3. Press the "AIR" button a second time. The LEVELING SYSTEM ACTIVE LIGHT will start flashing and air leveling will begin. The system will attempt to level the vehicle by exhausting air from the air bags. If a level position is not achieved by lowering the vehicle, the low side and/or end of the vehicle will be raised by adding air to the air bags. When all four yellow LEVEL SENSING lights are out the leveling is complete.

NOTE: Only one or two yellow LEVEL SENSING lights may be ON at one time.

4. When all four yellow level lights are out, the LEVELING SYSTEM ACTIVE LIGHT will stop flashing and start pulsating dimly. The Leveling System is now in the SLEEP MODE. The vehicle's engine/ignition may now be turned OFF.

NOTE: After the ignition and all room extension KEY SWITCHES are turned OFF, the CAN Network stays active for 10 minutes before shutting down. Leveling System touch panel lights will stay ON during this time and go out when the CAN Network shuts down. If the Leveling System is in the SLEEP MODE when the Network shuts down, the computer will stay ON. The Leveling System touch panel lights will all be OFF, but the Leveling System will still be in the SLEEP MODE.

5. During the Sleep Mode, after 30 minutes the processor checks the Level Sensing Unit inputs. If no input for a yellow level light is seen, the processor remains dormant and will recheck the level unit inputs every 30 minutes. If the yellow light input stays on for one minute continuously, the processor will relevel the vehicle. If a yellow level light input is flickering, the processor will monitor the level sensing unit inputs continuously. If the yellow light input stays off for one minute, the processor reverts to checking the inputs every 30 minutes.

NOTE: No lights, including yellow level lights, on the Touch Panel will be ON unless the Network is actively trying to level the vehicle.

6. If the vehicle needs to be releveled, the CAN Network will become active. The LEVELING SYSTEM ACTIVE LIGHT will flash. One or two yellow LEVELING LIGHTS will be ON. When the yellow LEVELING LIGHTS are all out, the LEVELING SYSTEM ACTIVE LIGHT will stop flashing and start pulsating dimly. The Leveling System will remain in the SLEEP MODE with the computer monitoring the LEVELING SENSING UNIT every 30 minutes, releveling the vehicle as needed.

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AUTOMATIC AIR OPERATION (Continued)

NOTE: The CAN Network will stay active for 10 minutes after releveling the vehicle and then shut down, turning the touch panel lights OFF. This happens every time the system relevels the vehicle.

7. The SLEEP MODE will continue until the "EMERGENCY STOP" button is pushed or the park brake is released, if the ignition is in the "ON" position.

EXCESS SLOPE: The system will attempt to level the vehicle for approximately 15 to 20 minutes. After the 15 to 20 minutes, if a LEVEL SENSING light is still on, the "EXCESS SLOPE" light will come on. The LEVEL LIGHT indicator light will go out. The "EXCESS SLOPE" light will be on whenever the network is active.

The "EXCESS SLOPE" light will be on whenever the network is active until the vehicle is leveled with all yellow LEVEL indicator lights off.

TAG AXLE DUMP

The tag axle dump switch is supplied by Country Coach.

IMPORTANT: Refer to Country Coach for proper use of the TAG DUMP feature.

The tag dump switch will work only with the ignition switch in the "ON" position and the Leveling System panel off. The transmission must be in the R, N or 1 position.

NOTE: If the TAG DUMP switch is in the DUMP position and the ignition key is turned ON (with the Leveling System panel OFF) the tag axle air bags will go into the dump mode.

The TAG DUMP switch, in either the DUMP or TRAVEL position, will not interfere with any air leveling operations.

MANUAL AIR OPERATION

NOTE: The ignition must be in the "ON" or "ACC" position to use the "AIR" button. Once the operation is started, the ignition can be moved to the "OFF" position and the operation will continue.

1. Place the transmission in the proper position for parking and set the park brake. The air leveling system can only be turned on if the ignition is in the "ON" position. Running the vehicle engine during leveling is recommended. This will provide a better air supply for leveling. The vehicle will level with the engine shut off, however more time will be required for leveling.

NOTE: If the "NOT IN PARK/BRAKE" light is on, the leveling system cannot be turned on.

- 2. Press the "AIR" button once to enter the air mode. The LEVELING SYSTEM ACTIVE LIGHT indicator light will glow steady. When the ignition is in the "ON" position, the four red WARNING lights on the panel will come on. This indicates that the height control valves have been locked out. The vehicle should not be moved when these lights are on.
- 3. The vehicle can now be leveled using the RAISE (up arrow) and LOWER (down arrow) buttons on the right half of the

panel in conjunction with the yellow LEVEL indicator lights. Any side to side leveling should be done, if needed, before leveling the vehicle front to rear. The yellow LEVEL indicator light indicates that side or end is low. When all yellow lights are out the vehicle is level. Try leveling the vehicle by lowering the high side or end (opposite of the lit yellow level lights). If a level position is not achieved use the RAISE (up arrow) button to raise the low side or end.

NOTE: In either manual or automatic leveling when either front air manifold air bag pressure switch is on a front lower procedure is halted. When either rear air manifold air bag pressure switch is on, a rear lower procedure is halted. Air bag pressure switches will not interfere with either a right or left lower procedure.

- 4. Turn the ignition to the "OFF" position.
- 5. Turn the system off.

NOTE: If the "DUMP" or "RAISE" buttons are pushed while manually leveling the vehicle with air and the ignition is in the "ON" position, the system will latch into the dump or raise mode until the "EMERGENCY STOP" button is pushed or the ignition is turned off.

"DUMP" AND "RAISE" FUNCTIONS

The "DUMP" and "RAISE" functions are provided for operator convenience for purposes such as dumping the air suspension when parked.

Leave the engine running if the "RAISE" function is to be used. The park brake does not have to be set to use the "DUMP" or "RAISE" buttons.

IMPORTANT: If the ignition is ON and the park brake is OFF, the "DUMP" and "RAISE" features will latch in and remain on. If the vehicle exceeds 10 MPH, the "DUMP" or "RAISE" functions will automatically turn off and the system will return to the TRAVEL MODE. If the park brake is set, the "TRAVEL MODE" button must be pushed before the vehicle can return to ride height.

CAUTION: REREAD CAUTIONS ON THE FIRST PAGE OF THIS MANUAL. THE VEHICLE MAY DROP OR RAISE AND/OR MOVE FORWARD OR BACKWARD WITHOUT WARNING CAUSING INJURY OR DEATH.

DO NOT OPERATE THE VEHICLE UNLESS THE AIR SUSPENSION IS AT THE PROPER HEIGHT FOR TRAVEL.

The "RAISE" and "DUMP" buttons can be used at any time the network is active. The park brake does not have to be on.

If the ignition is in the "ON" position and the park brake is off, the "RAISE" or "DUMP" buttons will latch in. The vehicle will raise or lower completely and stay in that position. The vehicle can not return to ride height until the "TRAVEL MODE" button or the "EMERGENCY STOP" button is pushed or the vehicle exceeds 10 M.P.H, putting the system in the TRAVEL MODE.

If the ignition is in the "OFF" position the "RAISE" and "DUMP" buttons will not latch in. The vehicle will remain in the position it was when the button was released. The vehicle can return to ride height when the ignition is turned to "ON" if the park brake is released or the "TRAVEL MODE" button is pushed.

DO NOT operate the vehicle for extended distances unless the air suspension is at the proper height for travel. The vehicle can not return to ride height until the "EMERGENCY STOP" button is pushed or the vehicle exceeds 10 MPH, putting the system in the TRAVEL MODE.

CAUTION: IT IS THE OPERATOR'S RESPONSIBILITY TO CHECK THAT THE VEHICLE IS AT PROPER RIDE HEIGHT BEFORE TRAVELING.

ROOM EXTEND PROCEDURE

IMPORTANT: It is recommended to level and stabilize the vehicle before extending the room.

1. The park brake must be set for the room to be operated.

IMPORTANT: The room should not be extended unless the vehicle is level. If the "EXCESS SLOPE" light is ON, the vehicle should be re-leveled so all yellow LEVEL indicator lights on the touch panel are OFF. If any of the four yellow LEVEL indicator lights cannot be put out, the vehicle should be moved to a more level location before using the room extension.

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 into the KEY SWITCH on the room extension operator's panel and turn it to the "ON" position. The READY TO OPERATE light will flash. When the amber light is on steady the room can be operated.

NOTE: If the Leveling System is being operated, the room will not extend. If the room panel KEY SWITCH is on, the "READY TO OPERATE" light will flash while the Leveling System is being operated.

3. To extend the room, push and hold the ROOM CONTROL SWITCH in the extend position. The red ROOM ACTIVE light will come on. When the room is fully extended, the room actuators will automatically shut off. The red ROOM ACTIVE light will go out. Do not release the ROOM CONTROL SWITCH, until the red ROOM ACTIVE light goes out.

IMPORTANT: IF EITHER SIDE OF THE ROOM STOPS MOVING, OR THE (RED) ROOM ACTIVE LIGHT GOES OUT BEFORE THE ROOM IS FULLY EXTENDED, RELEASE THE ROOM CONTROL SWITCH IMMEDIATELY. THE ROOM OPERATION WILL HALT. DO NOT FORCE THE ROOM. TAKE CARE WHEN REVERSING DIRECTION OF THE ROOM. BINDING OF ROOM CAN CAUSE ROOM DAMAGE.

SEE "ROOM RE-SYNCHRONIZATION" FOR FURTHER INFORMATION. CONTACT HWH CORPORATION

4. Turn the KEY SWITCH to the "OFF" position and remove the key. The READY TO OPERATE light will go out.

CUSTOMER SERVICE FOR ASSISTANCE.

NOTE: If the KEY SWITCH is left "ON" The Network will stay active and not power down.

ROOM RETRACT PROCEDURE

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

1. The park brake must be set for the room to be operated.

IMPORTANT: it is recommended that the vehicle is level and stable before retracting a room.

2. Insert the KEY into the KEY SWITCH on the room extension operator's panel and turn it to the "ON" position. The READY TO OPERATE light will flash. When the amber light is on steady the room can be operated.

NOTE: If the Leveling System is being operated, the room will not retract. If the room panel KEY SWITCH is ON, the READY TO OPERATE light will flash while the Leveling System is being operated.

3. To retract the room, push and hold the ROOM CONTROL SWITCH in the "RETRACT" position. The red ROOM ACTIVE light will come on. When the room is fully retracted, the room actuators will automatically shut off. The red ROOM ACTIVE light will go out. Do not release the ROOM CONTROL SWITCH, until the red ROOM ACTIVE light goes out.

IMPORTANT: IF EITHER SIDE OF THE ROOM STOPS MOVING, RELEASE THE ROOM CONTROL SWITCH IMMEDIATELY. THE ROOM OPERATION WILL HALT. DO NOT FORCE THE ROOM. TAKE CARE WHEN REVERSING DIRECTION OF THE ROOM. BINDING OF ROOM CAN CAUSE ROOM DAMAGE. CONTACT HWH CORPORATION CUSTOMER SERVICE FOR ASSISTANCE.

4. Turn the KEY SWITCH to the "OFF" position and remove the key. The READY TO OPERATE light will go out.

NOTE: If the KEY SWITCH is left "ON" The Network will stay active and not power down.

IN THE EVENT OF THE FAILURE OF THE ROOM TO RETRACT, CONTACT HWH CORPORATION CUSTOMER SERVICE AT 1-800-321-3494 FOR ASSISTANCE.

MAINTENANCE/SERVICE

SENSING UNIT ADJUSTMENT

Level the vehicle by placing a bubble level in the center of the freezer floor or upon whichever surface within the vehicle that is to be level. Using the Leveling System and the bubble level, ignoring the yellow LEVEL lights on the Touch Panel, level the vehicle until the bubble is centered.

With the vehicle level according to the bubble level, if there are no yellow lights lit on the Touch Panel, the sensing unit is properly adjusted. If there are yellow LEVEL lights lit on the Touch Panel, manual adjustments to the Sensing Unit are needed. A 7/8", 3/4" or 5/16" socket w/driver or box end wrench and a philips screw driver will be needed.

The Sensing Unit is mounted inside the Control Box. The Control Box is mounted to the power unit/valve assembly.

There are four LED's on the Sensing Unit, A,B,C and D. Refer to the drawing below. The Sensing Unit is adjusted by turning the adjustment nut to turn out LED's B and D. The adjustment screw will turn out LED's A and C. If the adjustment nut has to be turned more than 1/2 flat or the adjustment screw has to be turned more than 3/4 turn to turn the LED out, there may be a problem with the Sensing Unit or the mounting of the Control Box. If two LED's are on, it is best to make the B-D adjustments first, then hold the adjustment nut from moving while making the A-C adjustment.

NUT

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TOP VIEW - SENSING UNIT the OPPOSITE direction that is given in the above the front up more. Again, unlevel the vehicle then touch panel. Recheck with a level. Repeat the properly. SIDE VIEW - CONTROL BOX **LED'S - LOCATION MAY BE DIFFERENT ADJUSTMENT** NUT (5/16") **ADJUSTMENT** NUT (7/8" or 3/4") **CONTROL BOX WALL ADJUSTMENT** SCREW (Phillips or 1/4") **ADJUSTMENT ADJUSTMENT SCREW**

ADJUSTMENT NUT

NOTE: If opposing LED's are lit, there is a problem with the Sensing Unit.

If LED (A) is lit: Turn the adjustment screw COUNTER CLOCKWISE until the LED is off.

If LED (C) is lit: Turn the adjustment screw CLOCKWISE until the LED is off.

If LED (B) is lit: Turn the adjustment nut COUNTER CLOCKWISE until the LED is off.

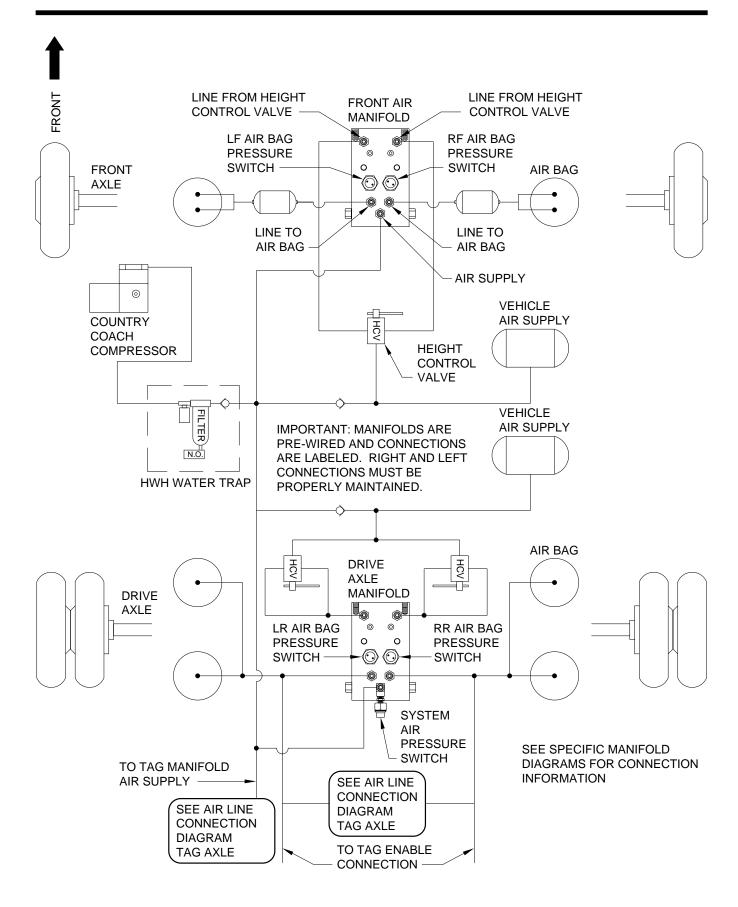
If LED (D) is lit: Turn the adjustment nut CLOCKWISE until the LED is off.

IMPORTANT: When all 4 LED's are off, move the vehicle to an unlevel position so one or two vellow lights are on. Level the vehicle according to the yellow LEVEL lights. Recheck the level. If more adjustment is needed, DO NOT try to adjust the sensing unit until the yellow level lights go out, instead just "tweak" the sensing unit, ignoring the LED's on the sensing unit.

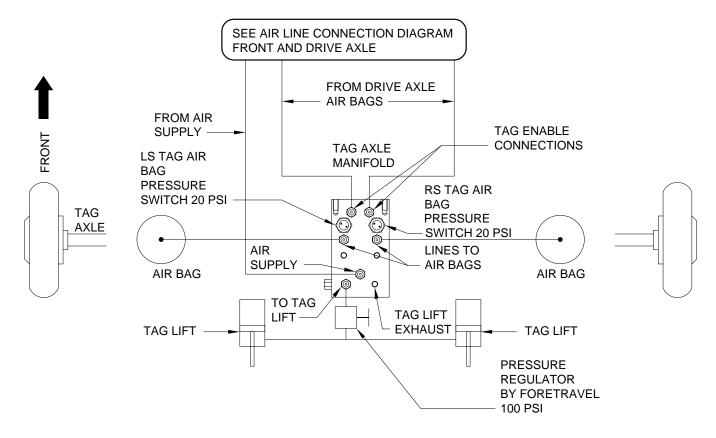
Example: After the initial adjustment and releveling the vehicle, the front is still low. This means the front yellow level light is turning off too soon. Determine which sensing unit light is the front light, A-B-C or D. Move the adjustment for that light very, very, slightly in instructions for LED's A, B, C, and D. This will allow the front yellow light to stay on slightly longer to bring relevel the vehicle using the yellow level lights on the "tweaking" process until the system levels the vehicle

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AIR LINE CONNECTION DIAGRAM FRONT AND DRIVE AXLE



AIR LINE CONNECTION DIAGRAM TAG AXLE

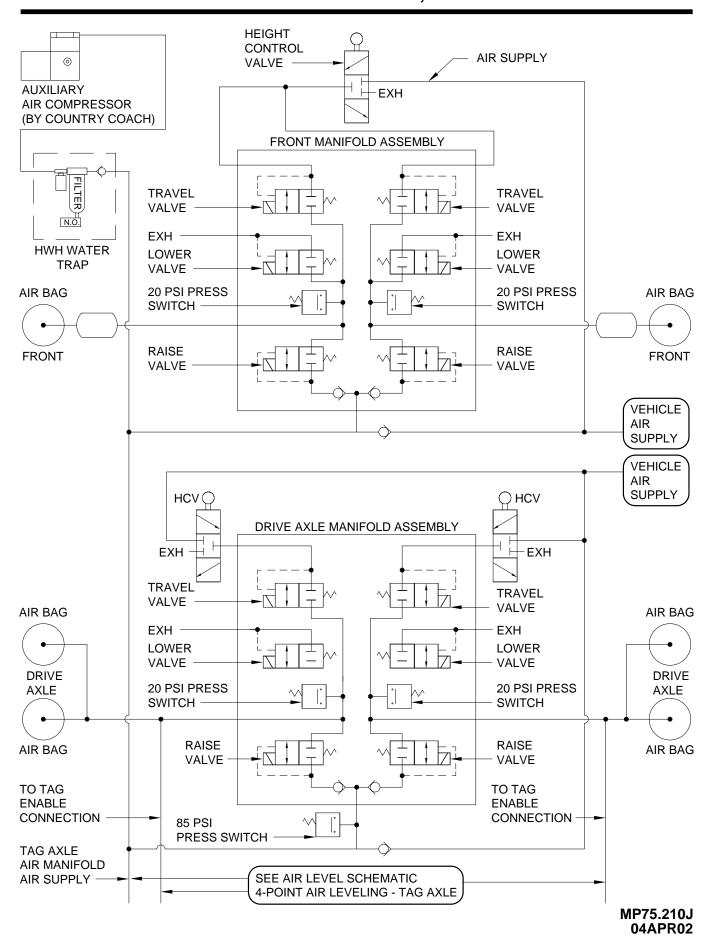


IMPORTANT: MANIFOLDS ARE PRE WIRED AND CONNECTIONS ARE LABELED. RIGHT AND LEFT CONNECTIONS MUST BE PROPERLY MAINTAINED

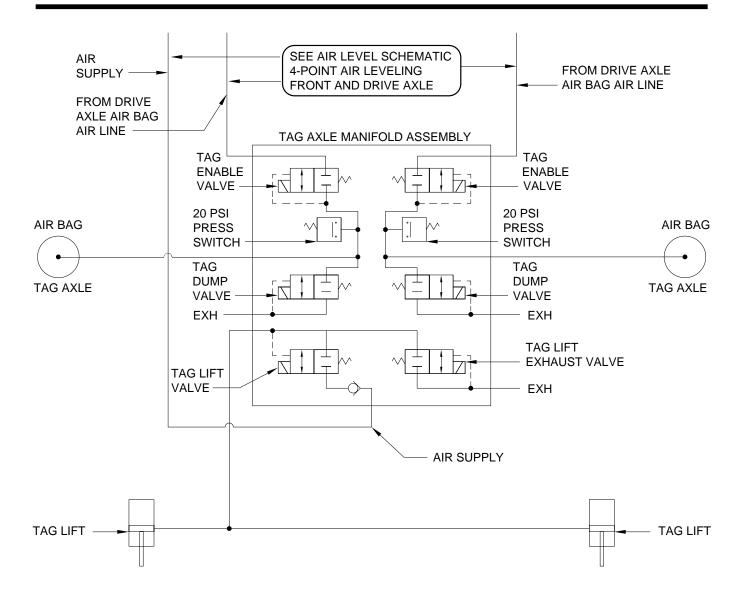
SEE SPECIFIC MANIFOLD DIAGRAMS FOR CONNECTION INFORMATION

VALVE REPLACEMENT NOTE: THE TAG DUMP/LOWER AIR SOLENOID VALVES ARE A DIFFERENT VALVE THAN THE OTHER VALVES ON THE MANIFOLD. ALL OTHER AIR SOLENOID VALVES ON THE FRONT, DRIVE AND TAG MANIFOLD ASSEMBLIES ARE THE SAME.

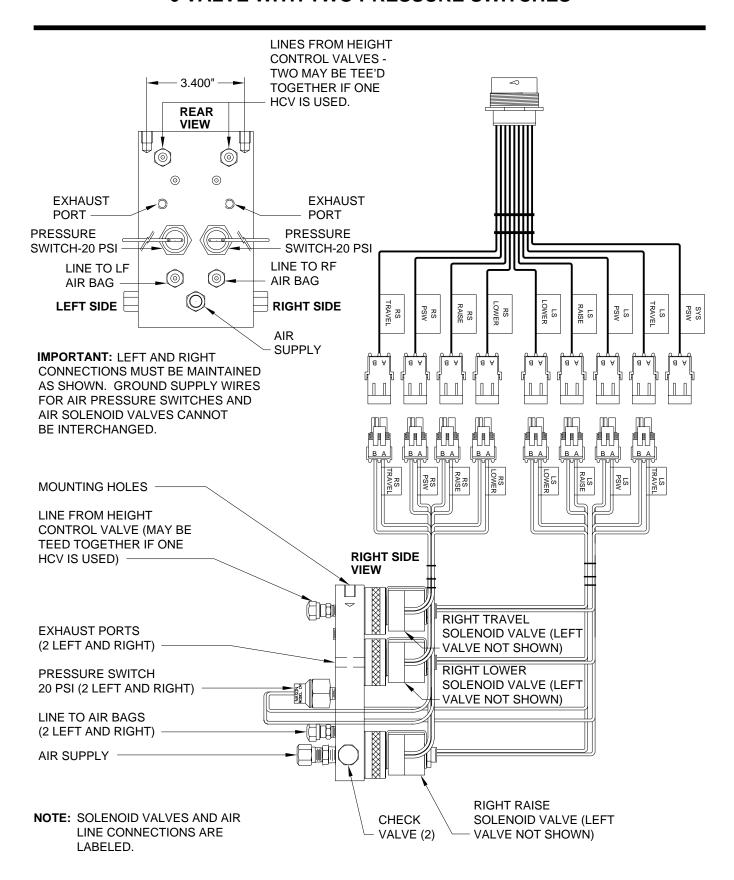
AIR LEVEL SCHEMATIC 4-POINT AIR LEVELING - FRONT AND DRIVE AXLE PRESSURE SWITCHES FRONT, REAR AND TAG



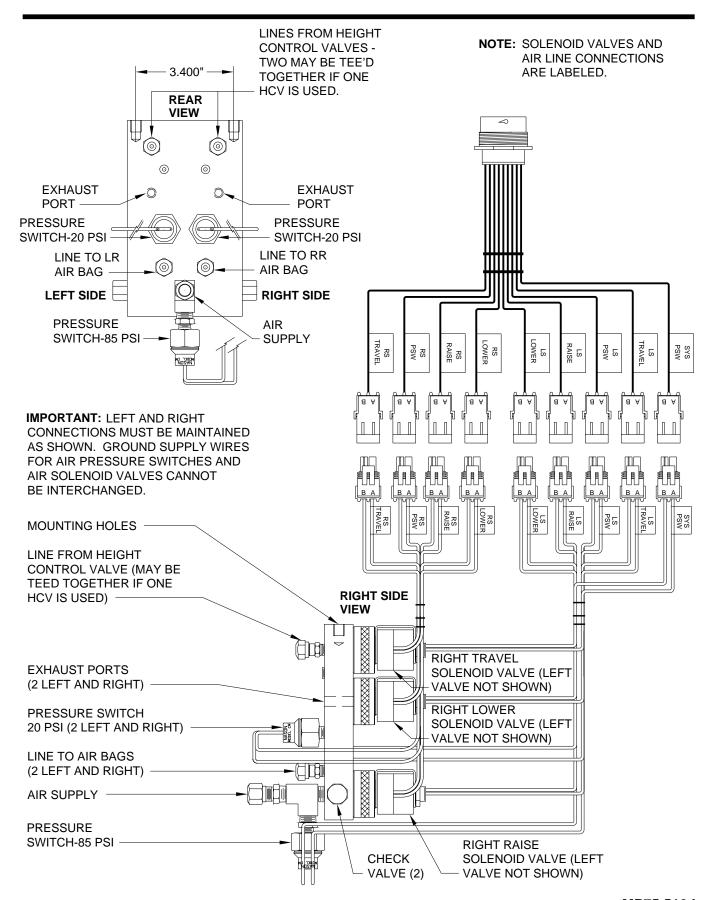
AIR LEVEL SCHEMATIC 4-POINT AIR LEVELING - TAG AXLE PRESSURE SWITCHES FRONT, REAR AND TAG



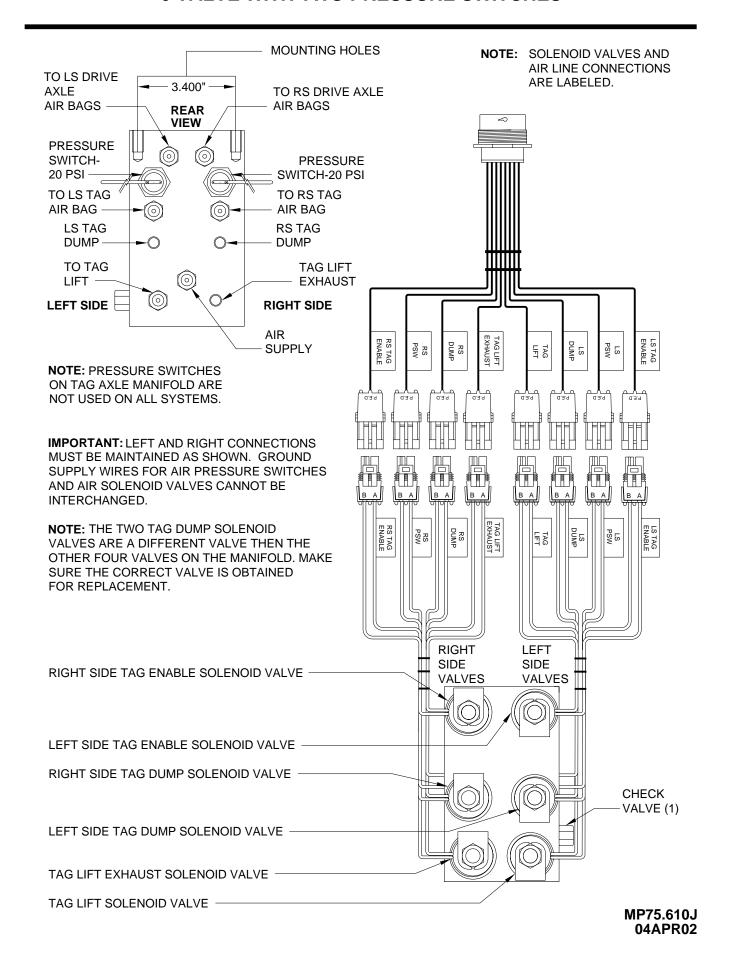
FRONT AIR SOLENOID MANIFOLD CONNECTIONS 6 VALVE WITH TWO PRESSURE SWITCHES



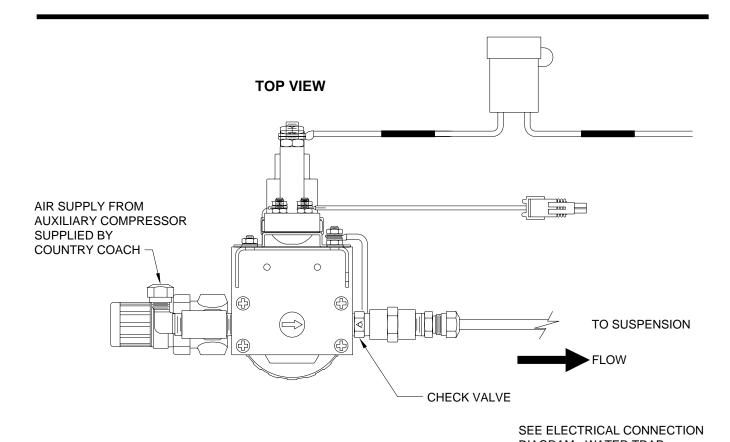
REAR AIR SOLENOID MANIFOLD CONNECTIONS 6 VALVE WITH THREE PRESSURE SWITCHES

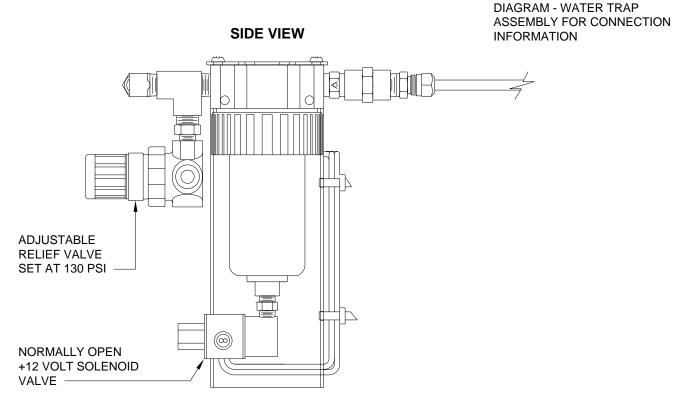


TAG AIR SOLENOID MANIFOLD CONNECTIONS 6 VALVE WITH TWO PRESSURE SWITCHES

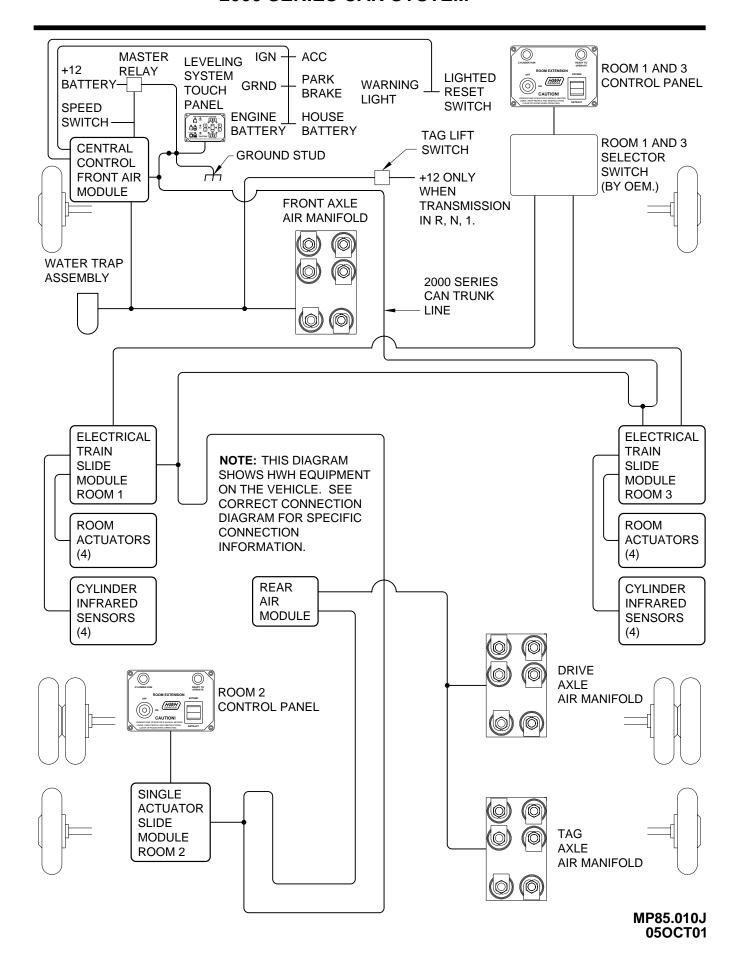


AIR LINE CONNECTION DIAGRAM WATER TRAP ASSEMBLY

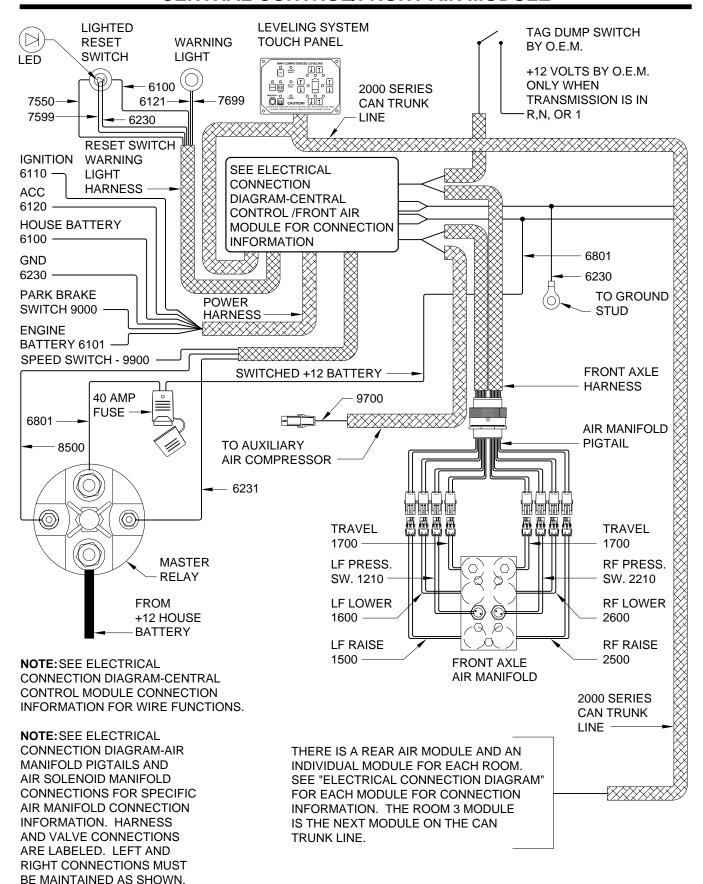




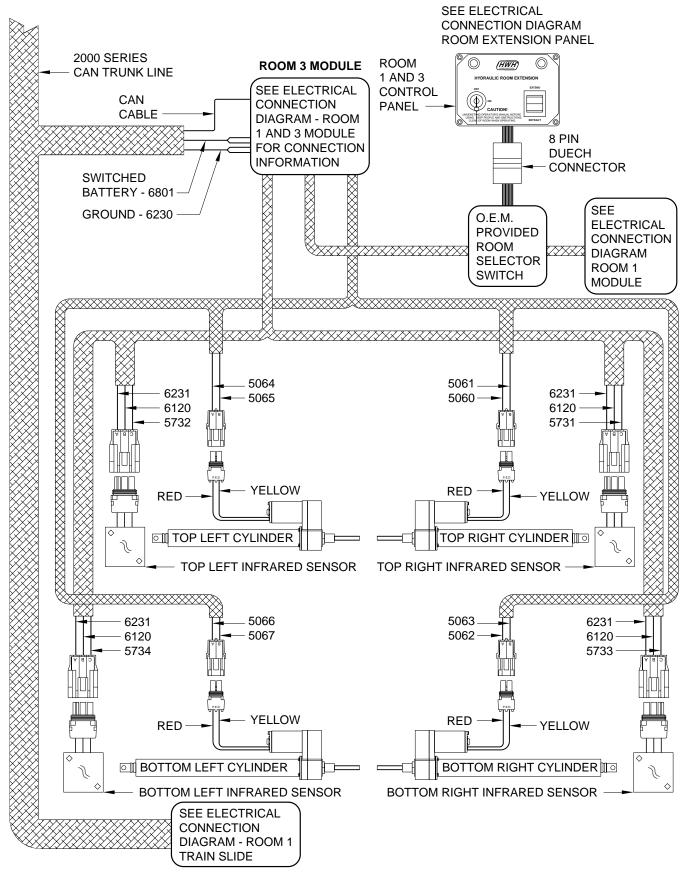
ELECTRICAL CONNECTION DIAGRAM 2000 SERIES CAN SYSTEM



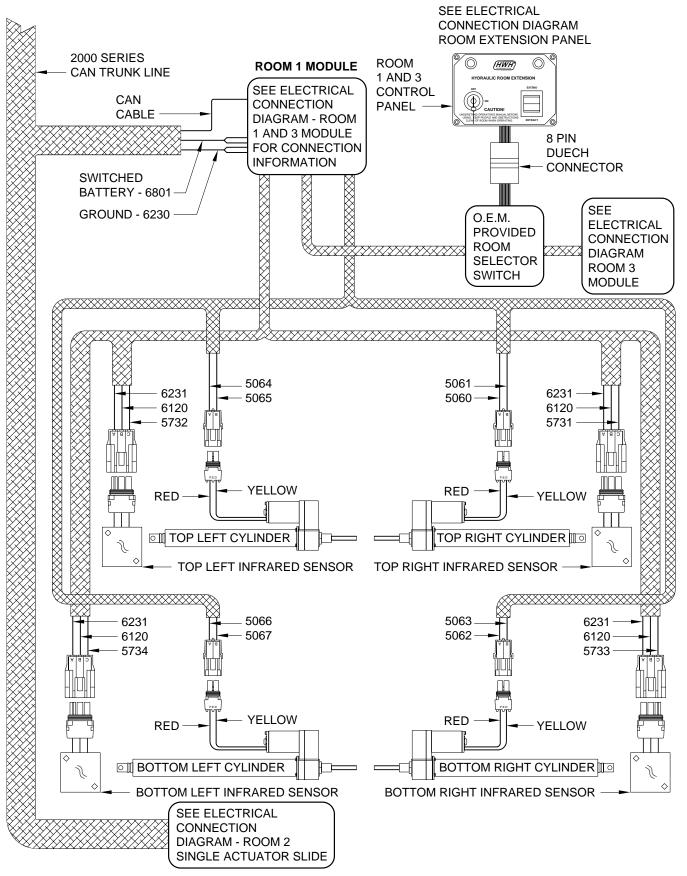
ELECTRICAL CONNECTION DIAGRAM 2000 SERIES CAN SYSTEM AIR LEVELING - WITH TAG AXLE - 3 ROOM EXTENSIONS CENTRAL CONTROL/FRONT AIR MODULE



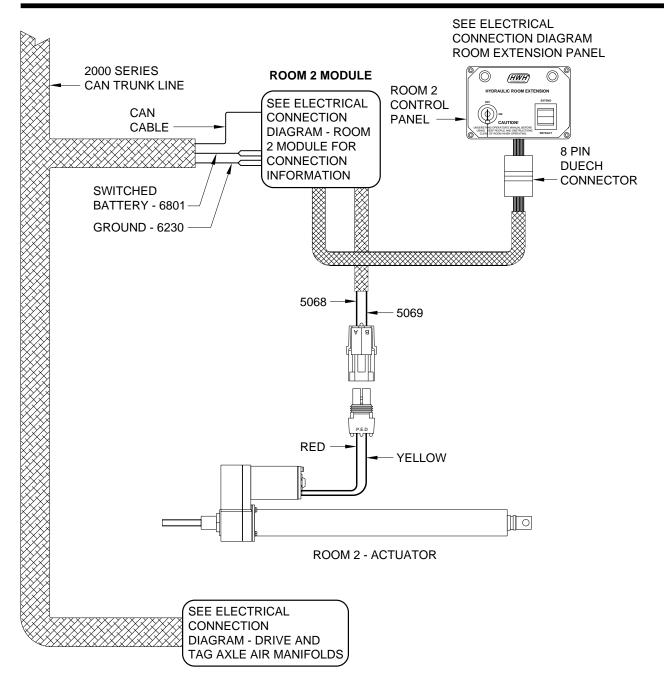
ELECTRICAL CONNECTION DIAGRAM 2000 SERIES CAN SYSTEM AIR LEVELING - WITH TAG AXLE - 3 ROOM EXTENSIONS ROOM 3 - TRAIN SLIDE



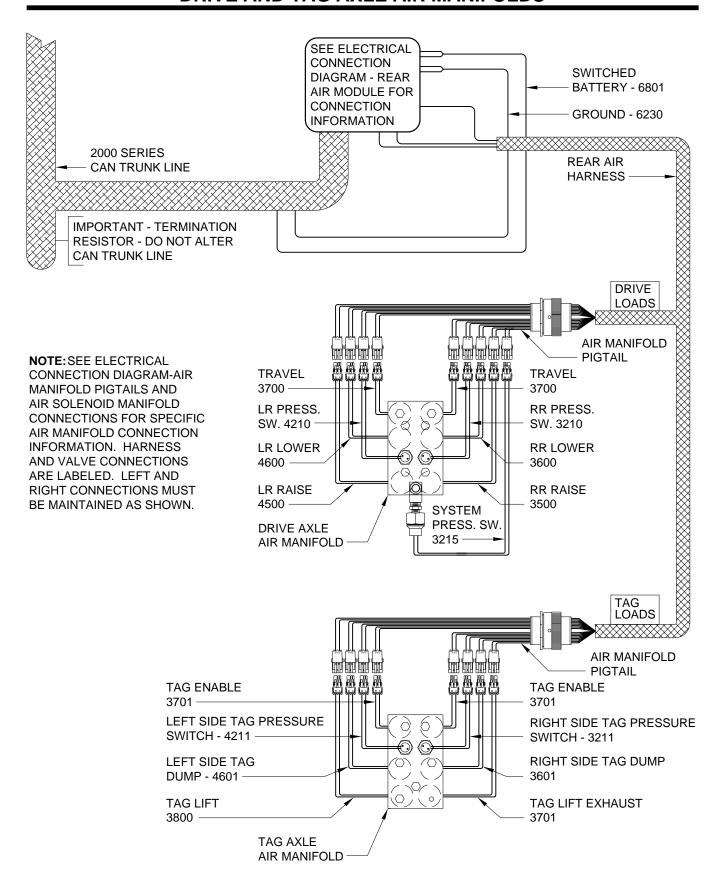
ELECTRICAL CONNECTION DIAGRAM 2000 SERIES CAN SYSTEM AIR LEVELING - WITH TAG AXLE - 3 ROOM EXTENSIONS ROOM 1 - TRAIN SLIDE



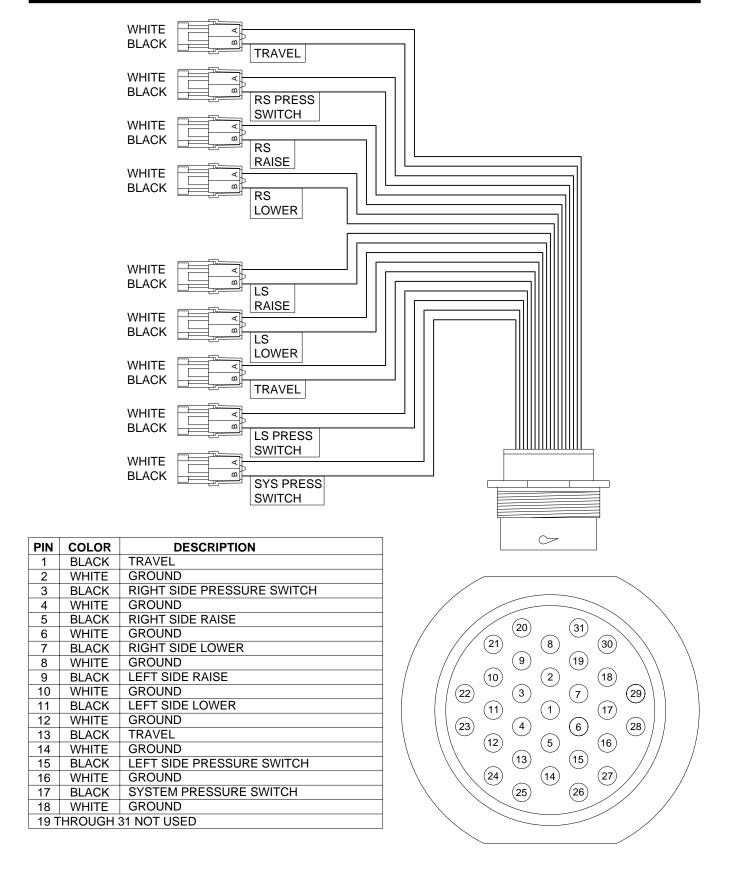
ELECTRICAL CONNECTION DIAGRAM 2000 SERIES CAN SYSTEM AIR LEVELING - WITH TAG AXLE - 3 ROOM EXTENSIONS ROOM 2 - SINGLE ACTUATOR SLIDE



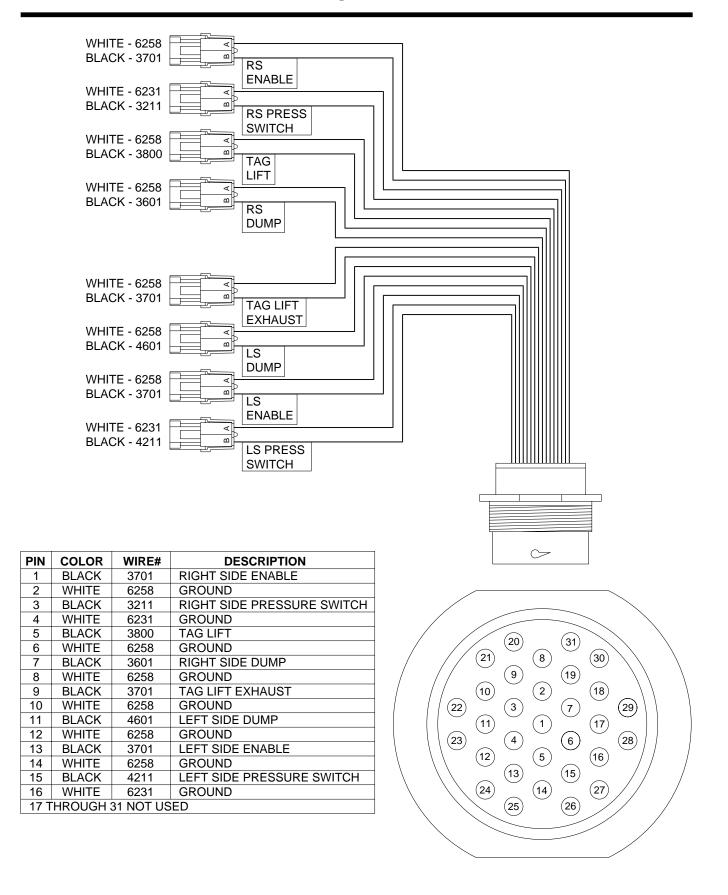
ELECTRICAL CONNECTION DIAGRAM 2000 SERIES CAN SYSTEM AIR LEVELING - WITH TAG AXLE - 3 ROOM EXTENSIONS DRIVE AND TAG AXLE AIR MANIFOLDS



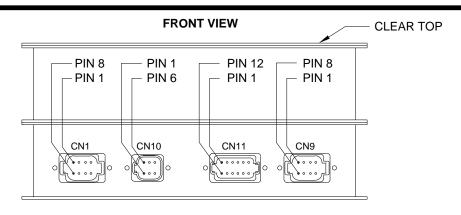
AIR MANIFOLD PIGTAIL FRONT AND DRIVE AXLES



AIR MANIFOLD PIGTAIL TAG AXLE

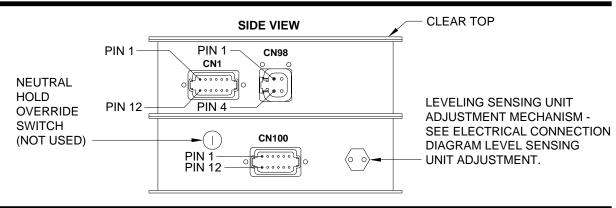


ELECTRICAL CONNECTION DIAGRAM CENTRAL CONTROL / AIR MODULE PAGE 1 OF 2



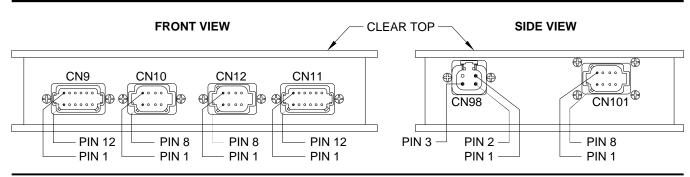
PIN#	WIRE COLOR	WIRE NUMBER	WIRE DESCRIPTION AND FUNCTION
CN1 —			8 PIN BLACK CONNECTOR
1 — —	-BLACK	— – 7696 — — — —	SYSTEM WAKE UP - SWITCHED GROUND
2			NO CONNECTION
3 — —	- RED	— — 6800 — — — — —	— — — – SWITCHED +12 BATTERY
4 — —	- WHITE $ -$	— — 6230 — — — — —	— — — GRND TO TOUCH PANEL
5 — —			SHIELD WIRE FOR CAN CABLE
6 — —	- RED	6110	— — — IGNITION +12
7 — —	- GREEN		CAN DATA LINE LOW-DO NOT MODIFY
8 — —	- YELLOW		CAN DATA LINE HIGH-DO NOT MODIFY
CN10 —			6 PIN GRAY CONNECTOR
1 — —	- BLACK	— — 7599 — — — —	— — — RESET SWITCH LIGHT CONTROL-SWITCHED +12
2 — —	— RED — — —	6100	— — — RESET SWITCH SUPPLY +12
3 — —	- BLACK		— — — RESET SWITCH OUTPUT +12
4 — —	— RED — — —	6121	— — — — WARNING LIGHT SUPPLY +12
5 — —	— WHITE — —	6230	— — — RESET SWITCH LIGHT GROUND
6 — —	- BLACK	— — 7699 — — — —	— — — — WARNING LIGHT CONTROL - SWITCHED GROUND
CN11 —			12 PIN GRAY CONNECTOR
1 — —	— RED — — —	6110	— — — SWITCHED +12 FROM IGNITION
			NO CONNECTION
			— — — NO CONNECTION
			— — — NO CONNECTION
5 — —	— RFD — — —	6120	— — — SWITCHED +12 FROM ACCESSORY
6 — —	— RED — — —	6100	— — — HOUSE BATTERY +12
7 — —	— WHITE — —	6230	— — — — GROUND FOR PROCESSOR FROM GROUND STUD
8			NO CONNECTION
			— — — NO CONNECTION
10 — –			— — — NO CONNECTION
11 — —	- BLACK	— — 9000 — — — — —	— — — FROM PARK BRAKE SWITCH - SWITCHED GROUND
12 — —	- RED	6101	— — — ENGINE BATTERY +12
CN9 —			8 PIN GREEN CONNECTOR
		— — 8500 — — — — —	— — — MASTER RELAY CONTROL - SWITCHED +12
			NO CONNECTION
3			— — — NO CONNECTION
4			— — — NO CONNECTION
			— — — SPEED SWITCH
			— — — NO CONNECTION
			— — — NO CONNECTION
			— — — MASTER RELAY GROUND

ELECTRICAL CONNECTION DIAGRAM CENTRAL CONTROL / AIR MODULE PAGE 2 OF 2



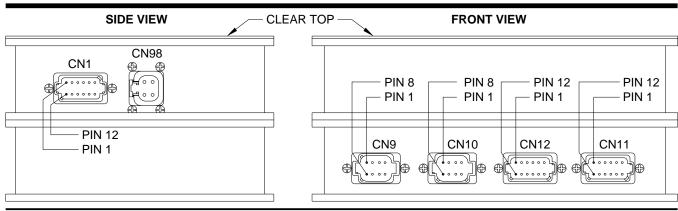
PIN#	WIRE COLOR	WIRE NUMBER	WIRE DESCRIPTION AND FUNCTION
CN1 —			—— 12 PIN BROWN CONNECTOR
1 — —			- — NO CONNECTION
2 — —	- BLACK $ -$	1500	LEFT FRONT RAISE AIR VALVE CONTROL - SWITCHED +12
3 — —	- BLACK	1600	- — LEFT FRONT LOWER AIR VALVE CONTROL - SWITCHED +12
4 — —	- BLACK		RIGHT FRONT RAISE AIR VALVE CONTROL - SWITCHED +12
5 — —	- BLACK		RIGHT FRONT LOWER AIR VALVE CONTROL - SWITCHED +12
6 — —	- BLACK $ -$	9700	- — AUXILARY AIR COMPRESSOR CONTROL - SWITCHED +12
7 —			- — NO CONNECTION
8 — —	- BLACK $ -$	1700	FRONT AIR MANIFOLD TRAVEL VALVES CONTROL - SWITCHED +12
9 — —			- — NO CONNECTION
10 - —			- — NO CONNECTION
11 — —	$-\operatorname{WHITE}$	6254	- — GROUND FOR AIR SOLENOID VALVES
12 - —			- — NO CONNECTION
CN98 —			— 4 PIN GRAY CONNECTOR
			- — SWITCHED +12 FROM MASTER RELAY
2 — —	- BLACK	6801	- — SWITCHED +12 FROM MASTER RELAY
3 — —	- WHITE $ -$	6230	- — GROUND FROM GROUND STUD - FOR SOLENOID VALVES
4 — —	- WHITE $ -$	6230	 — GROUND FROM GROUND STUD - FOR SOLENOID VALVES
CN100 -			—— 12 PIN GRAY CONNECTOR
			- — GROUND FOR PRESSURE SWITCHES
	_	-	- — LEFT FRONT PRESSURE SWITCH INPUT - SWITCHED GROUND
3 — —	─ BLACK - —	2210	- — RIGHT FRONT PRESSURE SWITCH INPUT - SWITCHED GROUND
			- — NO CONNECTION
			- — NO CONNECTION
			- — SYSTEM PRESSURE SWITCH INPUT - SWITCHED GROUND
			- — NO CONNECTION
8			- — NO CONNECTION
			- — NO CONNECTION
			- — NO CONNECTION
			- — SWITCHED +12 FROM TAG DUMP SWITCH
12 - —			- — NO CONNECTION

ELECTRICAL CONNECTION DIAGRAM ROOM 1 AND 3 MODULE



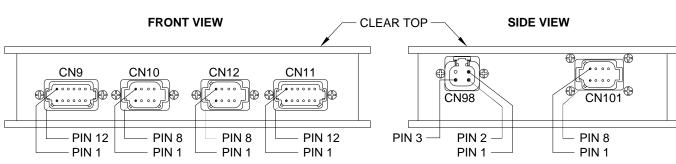
PIN#	WIRE COLOR	WIRE NUMBER	WIRE DESCRIPTION AND FUNCTION
CN9 —			12 PIN GRAY CONNECTOR
			TOP RIGHT INFRARED SENSOR - OFF 12V, ON 1.8V OR LESS
			TOP LEFT INFRARED SENSOR - OFF 12V, ON 1.8V OR LESS
			BOTTOM RIGHT INFRARED SENSOR - OFF 12V, ON 1.8V OR LESS
4 — —	— BLACK — —	— — 5734 — — —	- BOTTOM LEFT INFRARED SENSOR - OFF 12V, ON 1.8V OR LESS
			- — NO CONNECTION
			- — GROUND TO INFRARED SENSORS
12	- BLACK	— — 6120 — — —	- — SWITCHED +12 BATTERY TO INFRARED SENSOR EMITTERS
CN10 -			
1 — — -			- — NO CONNECTION
2 — —	— BLACK — —	— — 7510 — — —	READY TO OPERATE LIGHT CONTROL SWITCHED +12
3 — —	- BLACK	— — 7530 — — —	- — ACTUATOR RUN LIGHT CONTROL SWITCHED +12
4 — —	- BLACK	— — 7501 — — —	- — ROOM EXTEND SWITCHED +12
5 — —	— BLACK — —	— — 7502 — — —	- — ROOM RETRACT SWITCHED +12
6 — —	— RED - — —	— — 6805 — — —	- — SWITCHED +12 BATTERY TO ROOM PANEL KEY SWITCH
7 — —	- BLACK	7631	- — SYSTEM WAKE UP - SWITCHED GROUND
8 — —	─ WHITE - —	— — 6230 — — —	- — GROUND TO ROOM PANEL KEY SWITCH
			— 12 PIN BROWN CONNECTOR
			- — NO CONNECTION
			TOP RIGHT ACTUATOR - RETRACT +12, EXTEND GROUND
			- — BOTTOM LEFT ACTUATOR - EXTEND +12, RETRACT GROUND
4 — —	- BLACK	5063	- — BOTTOM RIGHT ACTUATOR - RETRACT +12, EXTEND GROUND
5 — —	─ BLACK - —	5062	- — BOTTOM RIGHT ACTUATOR - EXTEND +12, RETRACT GROUND
6 — —			- — NO CONNECTION
			TOP RIGHT ACTUATOR - EXTEND +12, RETRACT GROUND
8 — —	─ BLACK - —	— — 5064 — — —	TOP LEFT ACTUATOR - EXTEND +12, RETRACT GROUND
			- — NO CONNECTION
			- — BOTTOM LEFT ACTUATOR - RETRACT +12, EXTEND GROUND
			TOP LEFT ACTUATOR - RETRACT +12, EXTEND GROUND
			- — NO CONNECTION
			- — SYSTEM WAKE UP - SWITCHED GROUND
2 — — -			- — NO CONNECTION
			- — SWITCHED +12 BATTERY
		— — 6230 — — —	
			- — SHIELD WIRE FOR CAN CABLE
		— — 6110 — — —	
			- — CAN DATA LINE LOW - DO NOT MODIFY
8 ——			- — CAN DATA LINE HIGH - DO NOT MODIFY
CN98 —			4 PIN GRAY CONNECTOR
			- — SWITHED +12 FROM MASTER RELAY
			- — SWITHED +12 FROM MASTER RELAY
			- — GROUND FROM GROUND STUD
4 — —	─ WHITE - —	6230	- — GROUND FROM GROUND STUD

REAR AIR MODULE



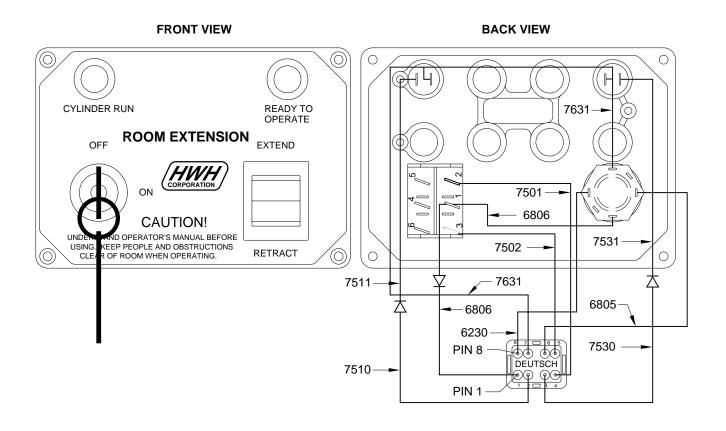
PIN#	WIRE COLOR	WIRE NUMBER	WIRE DESCRIPTION AND FUNCTION
CN1 —			— 12 PIN BROWN CONNECTOR
1 — —	BLACK	3800	TAG LIFT SWITCHED +12 FROM TAG DUMP SWITCH
2 — —	BLACK	— — 4 500 — — —	- — LEFT REAR RAISE SWITCHED +12
			- — LEFT REAR LOWER SWITCHED +12
4 — —	BLACK	— — 3500 — — —	RIGHT REAR RAISE SWITCHED +12
5 — —	BLACK	— — 3600 — — —	RIGHT REAR LOWER SWITCHED +12
			- NO CONNECTION
			TAG ENABLE SWITCHED +12
			REAR TRAVEL SWITCHED +12
			RIGHT SIDE TAG DUMP SWITCHED +12
			- LEFT SIDE TAG DUMP SWITCHED +12
			- — GROUND FOR SOLENOID VALVES
			- — NO CONNECTION
			4 PIN GRAY CONNECTOR
			- SWITCHED +12 FROM MASTER RELAY
			- SWITCHED +12 FROM MASTER RELAY
3 — —	— WHITE — —	6230	- — GROUND FROM GROUND STUD
4 — —	— WHITE — —	6230	- — GROUND FROM GROUND STUD
CN9 —			
			- — SYSTEM WAKE UP SWITCHED GROUND
			- NO CONNECTION
			- — SWITCHED +12 BATTERY
4 — —	— WHITE — —	— — 6230 — — —	- — GROUND
			— SHIELD WIRE FOR CAN CABLE
		— — 6110 — — —	
			— CAN DATA LINE LOW - DO NOT MODIFY
8 — —	— YELLOW — —		— CAN DATA LINE HIGH - DO NOT MODIFY
CN10 -	NO	I USED —	── 6 PIN GRAY CONNECTOR ── 12 PIN GRAY CONNECTOR
CN12 —	DI AOK	1011	— 12 PIN GRAY CONNECTOR
1 — —	BLACK	— 4211 — —	LEFT SIDE TAG PRESSURE SWITCH INPUT SWITCHED GROUND
2 — —	— BLACK — —	— — 3211 — — —	RIGHT SIDE TAG PRESSURE SWITCH INPUT SWITCHED GROUND
			— SYSTEM PRESSURE SWITCH INPUT SWITCHED GROUND
			- NO CONNECTION
			- — GROUND FOR PRESSURE SWITCHES
/ IHRO	UGH 9 — — —		- — NO CONNECTION
10 — —	BLACK	— — 3210 — — —	RIGHT REAR PRESSURE SWITCH INPUT SWITCHED GROUND
CNAA	12 — — — —		- — NO CONNECTION —— 12 PIN GREEN CONNECTOR
			- NO CONNECTION
7 THPO			- — GROUND FOR PRESSURE SWITCH
1 I I I KU	. — В АСК — — —	4210	- — NO CONNECTION - — LEFT REAR PRESSURE SWITCH INPUT SWITCHED GROUND
II AND	12 — — — —		- NO CONNECTION

ELECTRICAL CONNECTION DIAGRAM ROOM 2 MODULE



PIN#	WIRE COLOR	WIRE NUMBER	WIRE DESCRIPTION AND FUNCTION
CN9 —	NO	T USED ———	— 12 PIN GRAY CONNECTOR
CN10 —	NO	T USED ———	
CN12 —			
			- NO CONNECTION
			READY TO OPERATE LIGHT CONTROL SWITCHED +12
			— ACTUATOR RUN LIGHT CONTROL SWITCHED +12
			ROOM EXTEND SWITCHED +12
	-		ROOM RETRACT SWITCHED +12
			— SWITCHED +12 BATTERY TO ROOM PANEL KEY SWITCH
			— SYSTEM WAKE UP - SWITCHED GROUND
			— GROUND TO ROOM PANEL KEY SWITCH
			— 12 PIN BROWN CONNECTOR
			NO CONNECTION
			— ACTUATOR RETRACT +12, EXTEND GROUND
			- NO CONNECTION
			- NO CONNECTION
			— ACTUATOR EXTEND +12, RETRACT GROUND
			- 8 PIN BLACK CONNECTOR
			— SYSTEM WAKE UP - SWITCHED GROUND
			- — NO CONNECTION - — SWITCHED +12 BATTERY
		— — 6230 — — —	- — GROUND - — SHIELD WIRE FOR CAN CABLE
-		6110	• · · · = - · · · · · = · • · · · · · · · · · =
			- — IGNITION +12 - — CAN DATA LINE LOW - DO NOT MODIFY
			- — CAN DATA LINE HIGH - DO NOT MODIFY
			— 4 PIN GRAY CONNECTOR
			- SWITHED +12 FROM MASTER RELAY
			- — SWITHED +12 FROM MASTER RELAY
			- — GROUND FROM GROUND STUD
			- — GROUND FROM GROUND STUD

ELECTRICAL CONNECTION DIAGRAM ROOM EXTENSION PANEL



CONNECTOR PIN #	WIRE NUMBER	WIRE DESCRIPTION AND FUNCTION
1	— — — 6806 — — —	— SWITCHED +12 FROM KEY SWITCH FOR COUNTRY COACH AND ROOM CONTROL SWITCH
2	— — — 7510/7511 —	- READY TO OPERATE LIGHT CONTROL WIRE SWITCHED +12V
3	— — — 7530/7531 —	— CYLINDER RUN LIGHT CONTROL WIRE SWITCHED +12
4	— — — 7 501 — — —	— ROOM EXTEND - ACTUATOR RETRACT SWITCHED +12V FROM ROOM CONTROL SWITCH
5	— — — 7502 — — —	— ROOM RETRACT - ACTUATOR EXTEND SWITCHED +12V FROM ROOM CONTROL SWITCH
6	— — — 6805 — — —	- SWITCHED +12V TO ROOM PANEL KEY SWITCH
7	— — — 7631 — — —	— SWITCHED GROUND FROM ROOM PANEL KEY SWITCH FOR PANEL INDICATOR LIGHTS AND SYSTEM WAKE UP
8	— — — 6230 — — —	— GROUND SUPPLY FOR ROOM PANEL KEY SWITCH

ELECTRICAL CONNECTION DIAGRAM WATER TRAP ASSEMBLY

