

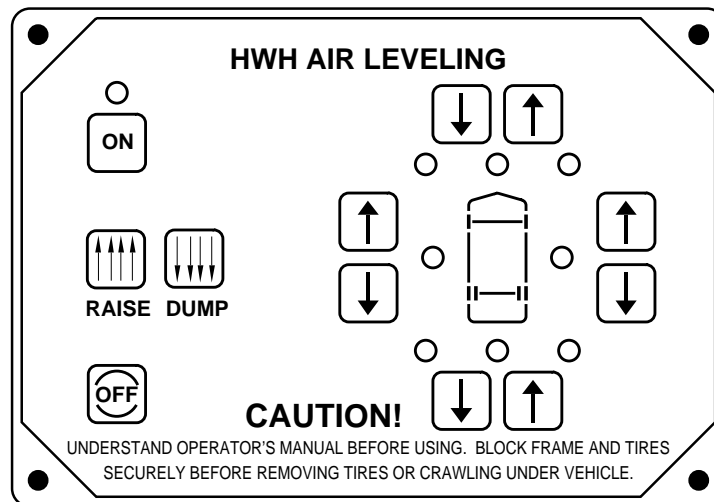


# OPERATOR'S MANUAL

## HWH® TOUCH PANEL-CONTROLLED 310 SERIES LEVELING SYSTEM

### **FEATURING:**

*Touch Panel Control  
Four Point Air Leveling*



### **HWH CORPORATION**

(On I-80, Exit 267 South)

2096 Moscow Road | Moscow, Iowa 52760

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

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

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# OPERATOR'S MANUAL

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## HWH LEVELING SYSTEM AIR LEVELING ONLY

### CAUTION !

READ THE ENTIRE OPERATOR 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.

DO NOT OPERATE LEVELING SYSTEM OR USE THE RAISE OR DUMP BUTTONS WHEN TRAVELING AT SPEEDS 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

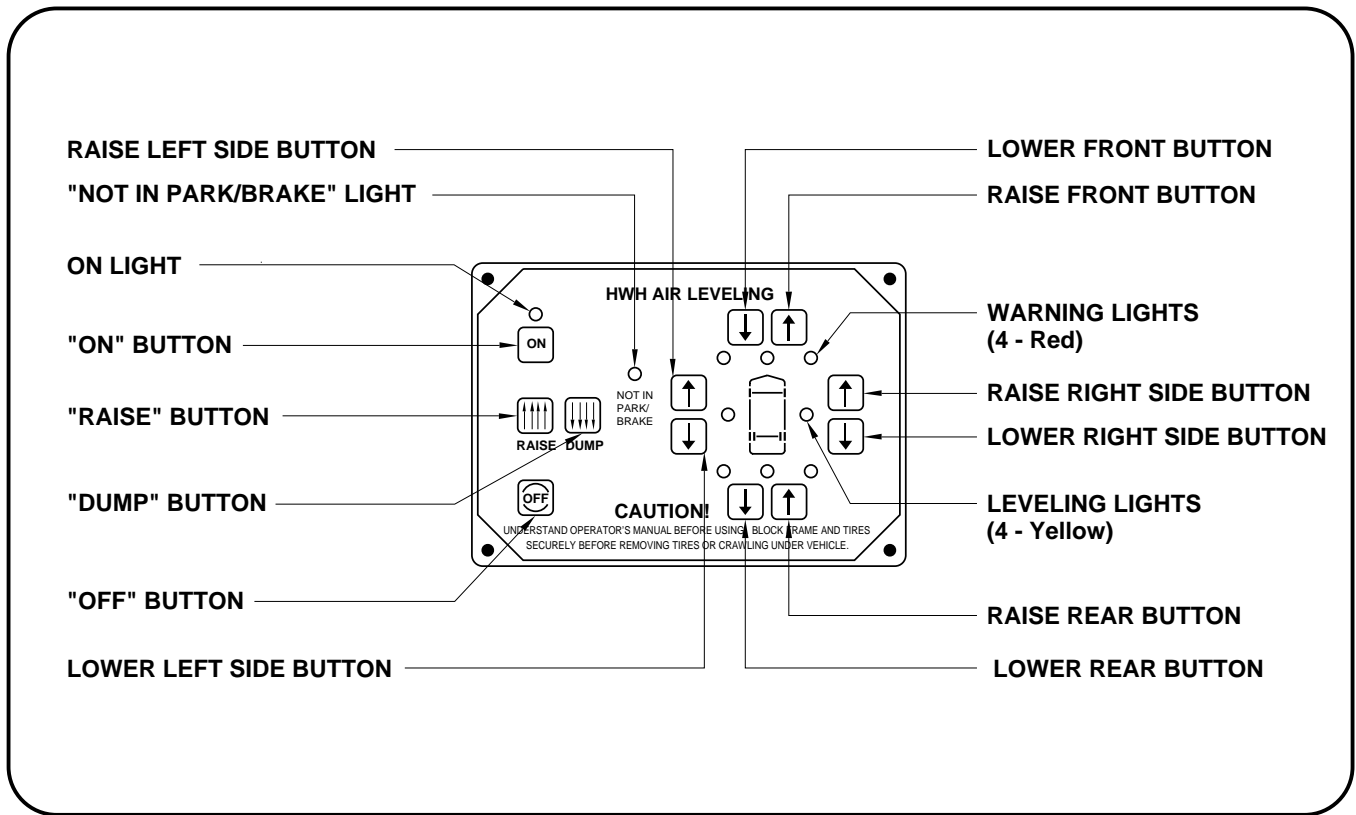
HWH CORPORATION strives to maintain the highest level of customer satisfaction. Therefore, if you discover a defect or problem, please do the following:

**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



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## CONTROL BUTTONS

**"ON" BUTTON:** This is the "ON" button for the leveling system. It does not control power to the "RAISE" OR "DUMP" BUTTON.

**"OFF" BUTTON:** This button will turn off the system but does not control power to the "DUMP" or "RAISE" buttons.

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

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

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

## INDICATOR LIGHTS

**ON LIGHT:** This light will be on steady whenever the system is on.

**"NOT IN PARK/BRAKE" LIGHT:** This light will be on when the panel is on and the park brake is not set if the ignition is in "ON" position.

**WARNING LIGHTS:** These lights will be on only when the system is on and the ignition is in the "ON" position. This light indicates the suspension is not in the travel mode. The vehicle should not be moved while these lights are on.

**LEVELING LIGHTS:** These lights indicate the end, side or corner of the coach is low. No more than two lights should be on at the same time.

**MASTER WARNING LIGHT:** This is a remote light that will be on only when the system is "ON" or if any air bag has low pressure. The ignition switch must be in the "ON" position.

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# OPERATING PROCEDURES

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## GENERAL INSTRUCTIONS

The coach engine must be running during leveling. If the system is on and the "NOT IN PARK/BRAKE" light is on, the system will function but the coach will return to normal ride height when the buttons are released. After leveling, turn the

ignition switch OFF. **DO NOT** push the "OFF BUTTON". The "DUMP" AND "RAISE" buttons will function with the system and park brake off if the ignition is "ON". See "AIR DUMP AND RAISE FUNCTIONS".

## PREPARATION FOR TRAVEL

Start the coach engine and allow air pressure to build to recommended level before traveling. The coach will return to

ride height whenever the ignition is "ON" and the leveling system is "OFF".

## AIR OPERATION

1. Place the hand/auto brake in the recommended position for parking. The engine must be running to provide air for leveling.

**NOTE:** The system will NOT operate if the ignition is "OFF".

2. Press the "ON" button. The "ON" indicator light will glow steady.

**NOTE:** If "NOT IN PARK/BRAKE" light is on, set park brake. System will function, but the coach will return to ride height when buttons are released.

3. Individual "RAISE" and "LOWER" buttons will add or dump air from suspension air bags to raise or lower coach for level-

ing. These are momentary buttons. The function will stop when the button is released.

These yellow "LEVEL" lights indicate a side, end, or corner of the coach is low. Lower the opposite side or end of the coach to achieve leveling. If a level position cannot be achieved by dumping air, raise the coach according to lit yellow "LEVEL" lights.

**IMPORTANT:** Always give preference to any side light before leveling the coach front to rear.

4. Turn ignition switch "OFF". This will turn the system "OFF". **DO NOT** push the "OFF" button.

## AIR DUMP AND RAISE FUNCTIONS

The "DUMP" and "RAISE" functions are provided for operator convenience for purposes such as dumping air suspension when parked in the wind, or raising or lowering the vehicle to avoid obstacles. The "DUMP" and "RAISE" buttons will function with the system "ON" or "OFF" if the ignition is "ON".

**IMPORTANT:** "DUMP" and "RAISE" functions will automatically turn off when the button is released. If the system is off the suspension will return to travel 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 OVER 5 MPH UNLESS AIR SUSPENSION IS AT THE PROPER HEIGHT FOR TRAVEL.

1. Leave the engine running if the "RAISE" function is to be used. The park brake does not have to be set and the system does not have to be on to use the "RAISE" or "DUMP" functions.

2. Press and hold the "RAISE" or "DUMP" button as desired to raise or lower the vehicle. The system will remain in the "RAISE" or "DUMP" mode as long as the button is held down. When the button is released the system will automatically turn off. If the leveling system is "OFF", the suspension will return to travel height.

3. If desired for clearing an obstacle, the vehicle may be moved while in the "RAISE" or "DUMP" mode for a short distance at a slow speed. Remember the vehicle will return to travel height when the "RAISE" or "DUMP" button is released and the leveling system is "OFF".

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# MAINTENANCE

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## OPERATIONAL CHECK

Review the operator's manual and check that all functions and lights work correctly.

"NOT IN PARK/BRAKE" Check: Set hand/auto park brake. Set the transmission in the recommended position for parking the vehicle. Turn the ignition on. Push the "ON" button on the touch panel. Apply the main foot brake. Release the hand/auto park brake.

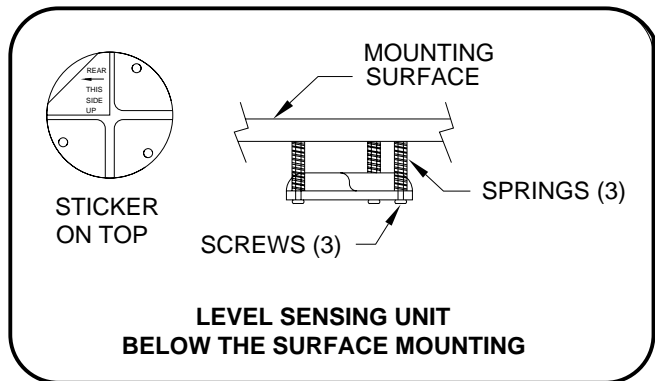
**CAUTION:** THE VEHICLE MAY MOVE FORWARD OR BACKWARD WHEN THE PARK IS RELEASED.

Check that the "NOT IN PARK/BRAKE" light comes on. Re-apply the park brake. The "NOT IN PARK/BRAKE" light should go out.

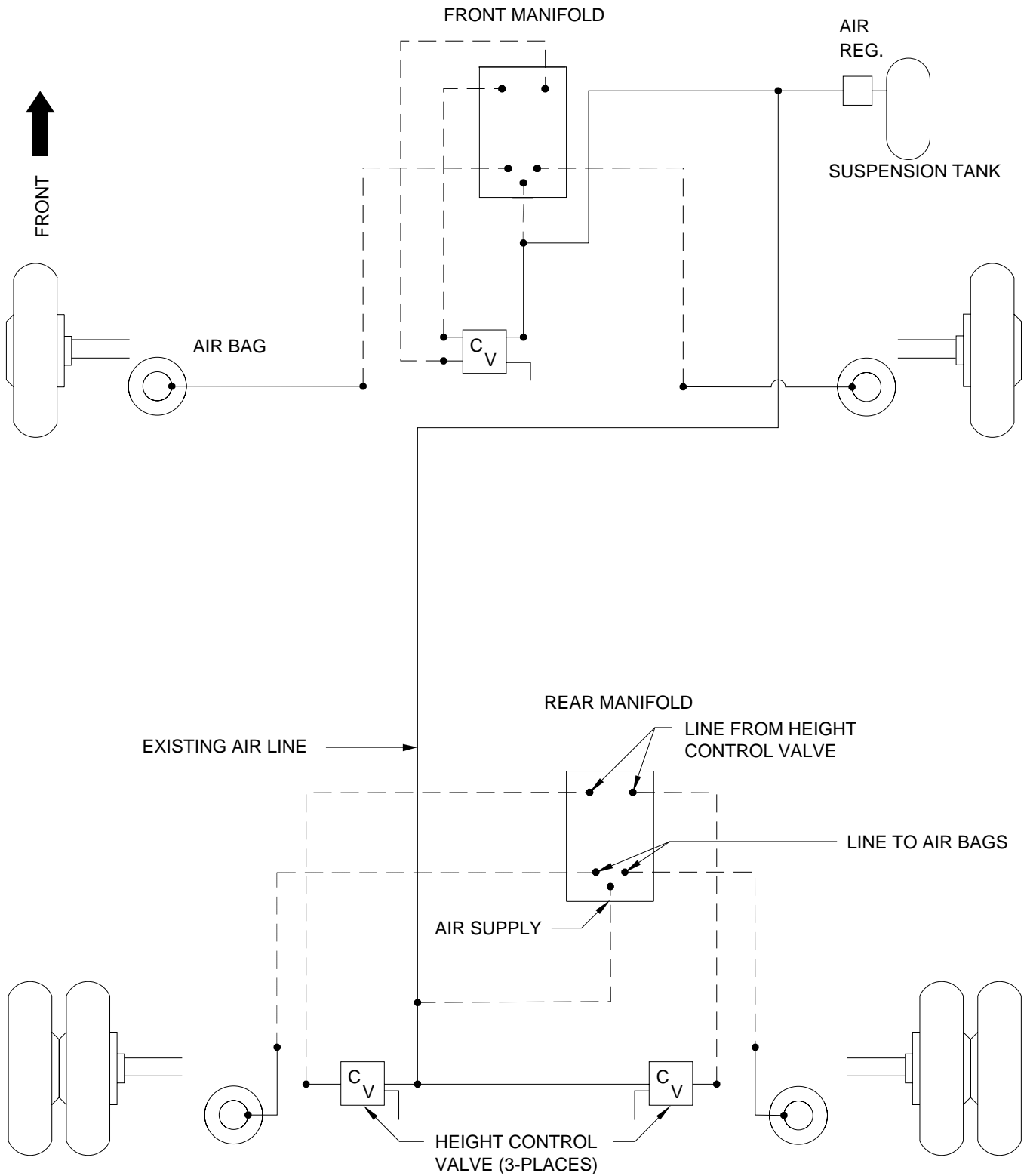
**NOTE:** If any checks reveal any problems or if there are other problems or questions, consult a qualified RV repair center, your vehicle or coach manufacturer or HWH CORPORATION for service or assistance.

## LEVEL SENSING UNIT ADJUSTMENT

Level the vehicle by placing a circular bubble level in the center of the freezer floor or location within the vehicle that is to be level. With the vehicle level, adjust the sensing unit until all yellow lights are off. This is done by drawing up the corresponding screw if the sensing unit is mounted below the surface, as shown, or backing out the corresponding screw if the sensing unit is mounted above the surface. Bump the sensing unit to see that it has settled down in the level position.



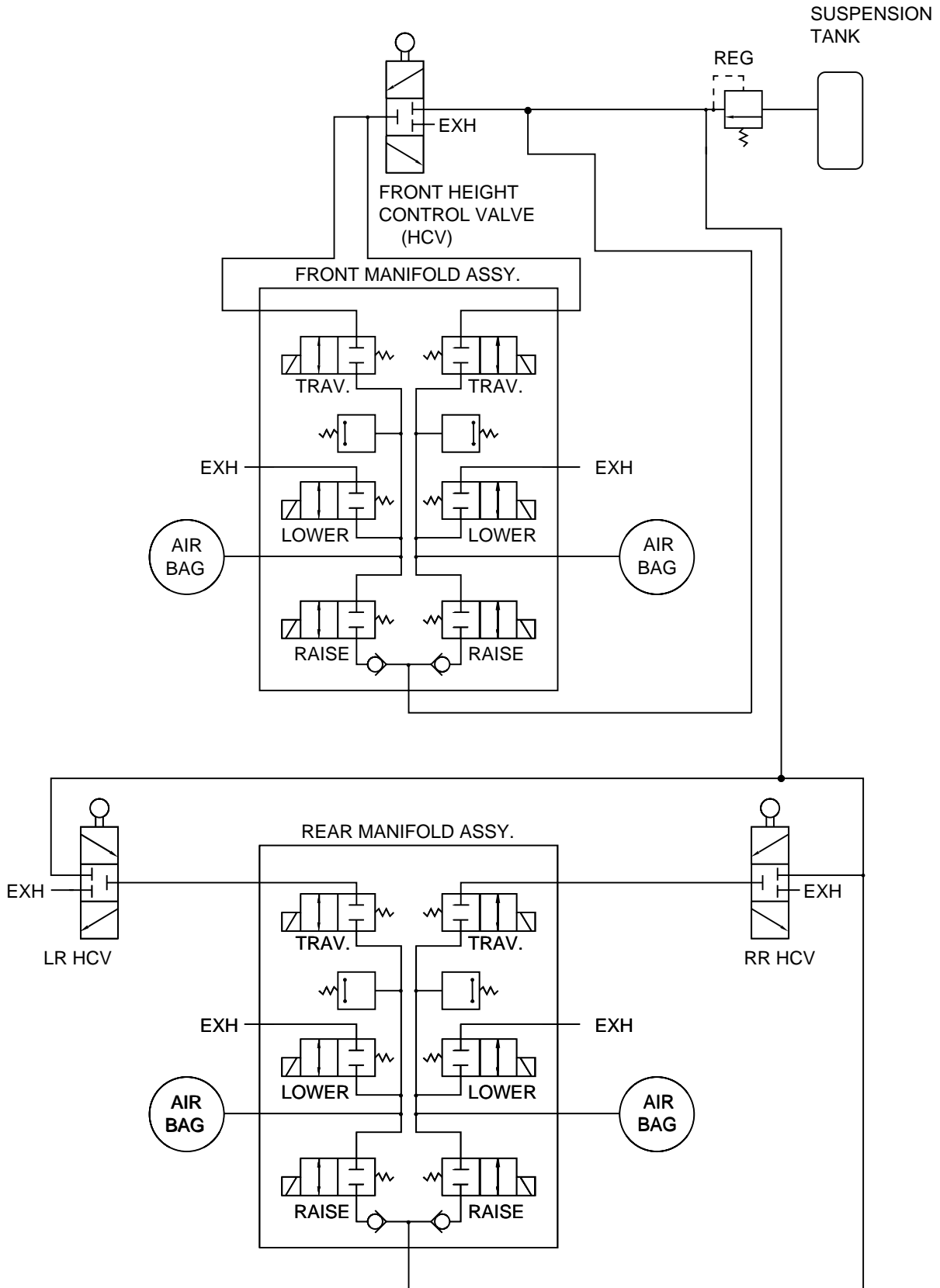
# AIR LINE CONNECTION DIAGRAM NEWAY



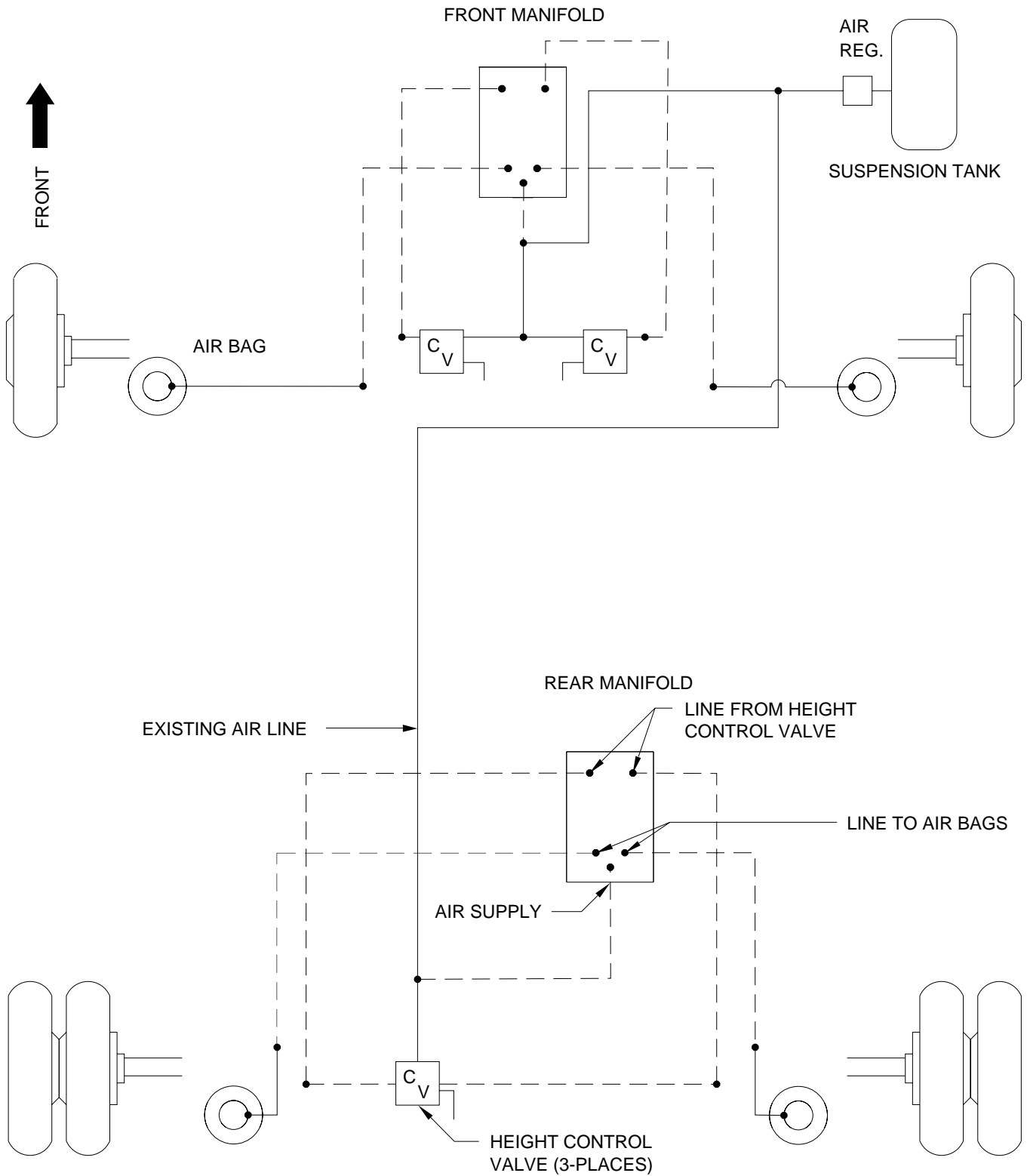
MANIFOLDS ARE MOUNTED TO MAIN CROSS MEMBERS. LEAVE AMPLE CLEARANCE FOR CONNECTION OF HOSES TO FITTINGS.

**MP75.0105**  
**31JUL95**

# AIR LEVEL SCHEMATIC - NEWAY 4-POINT LEVELING W/ WATER TRAP PRESSURE SWITCHES FRONT AND REAR



# AIR LINE CONNECTION DIAGRAM REYCO

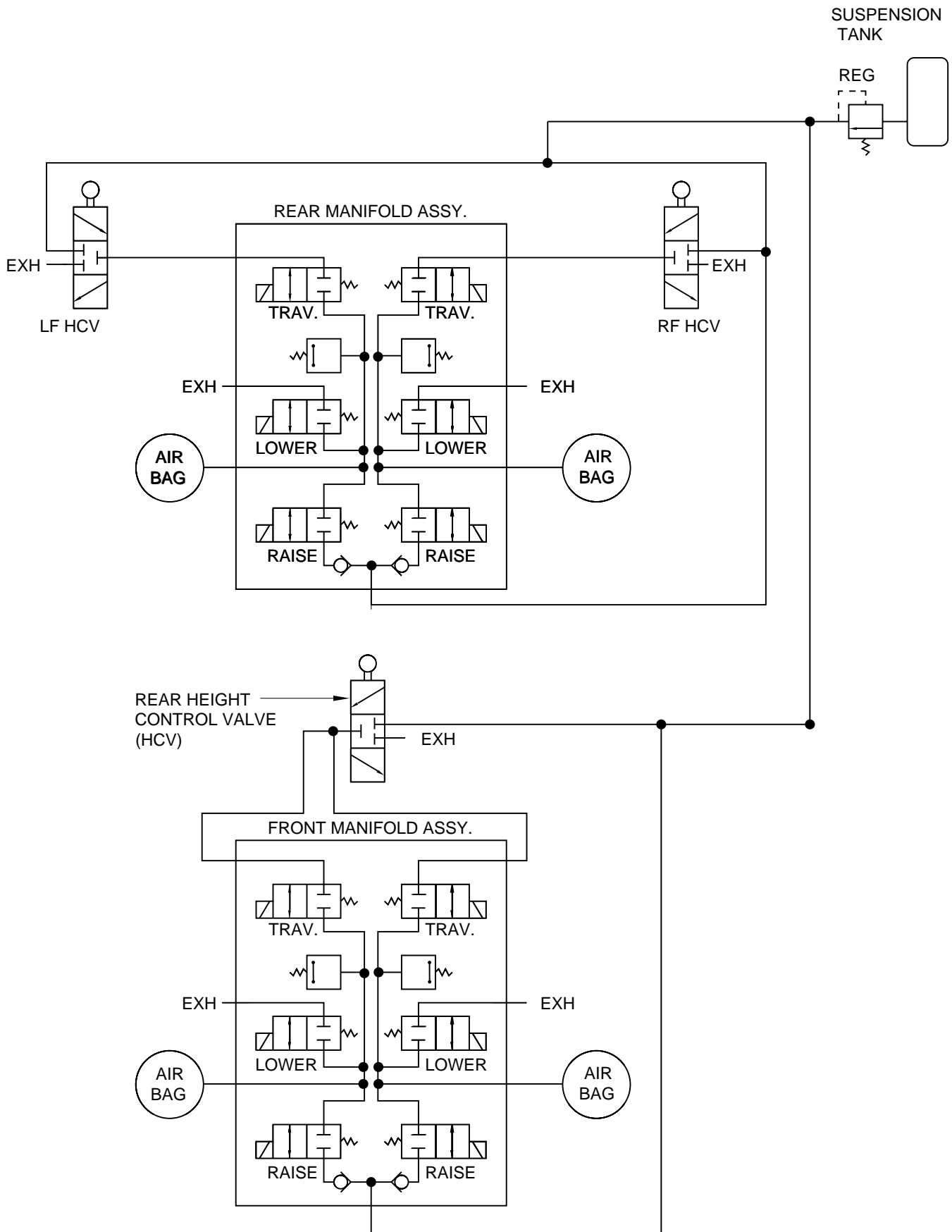


MANIFOLDS ARE MOUNTED TO MAIN CROSS MEMBERS. LEAVE AMPLE CLEARANCE FOR CONNECTION OF HOSES TO FITTINGS.

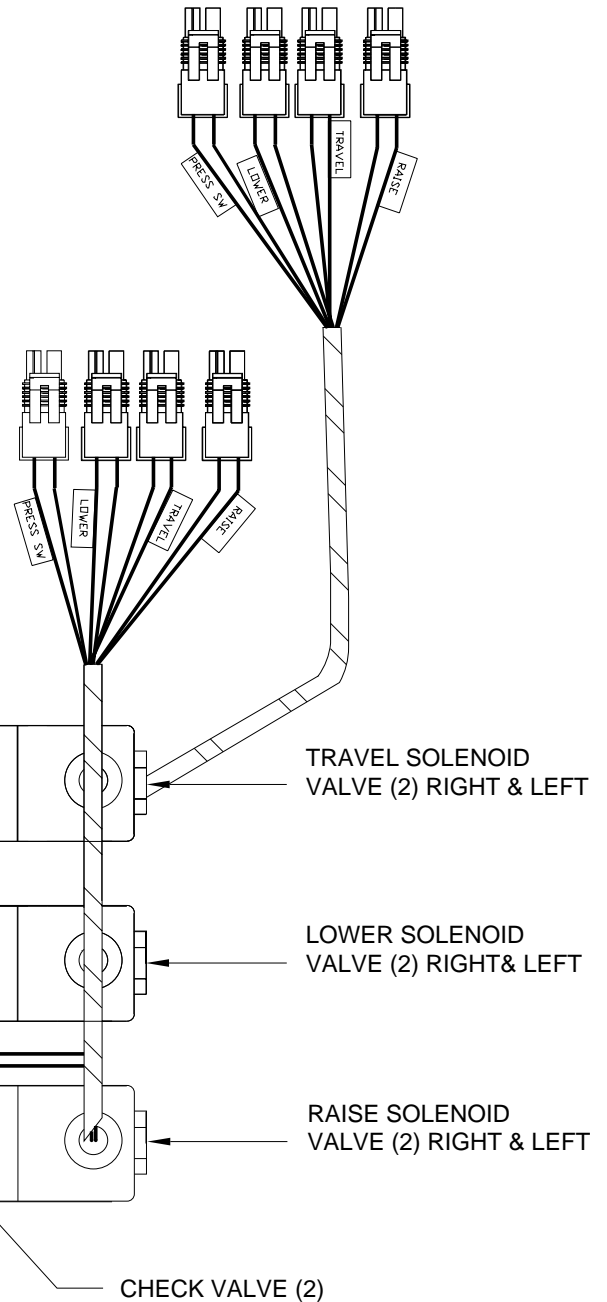
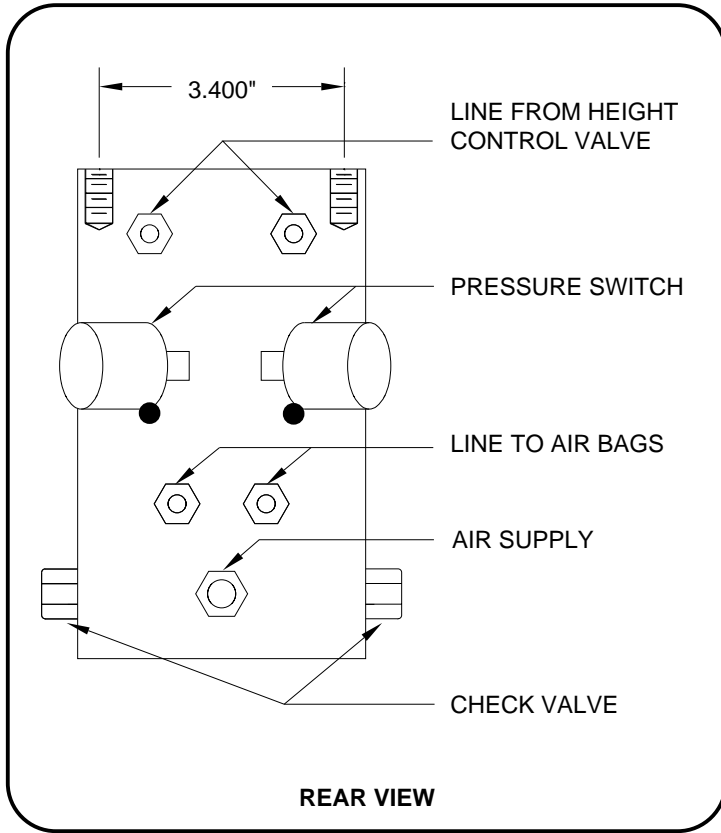
**MP75.0115**  
**31JUL95**



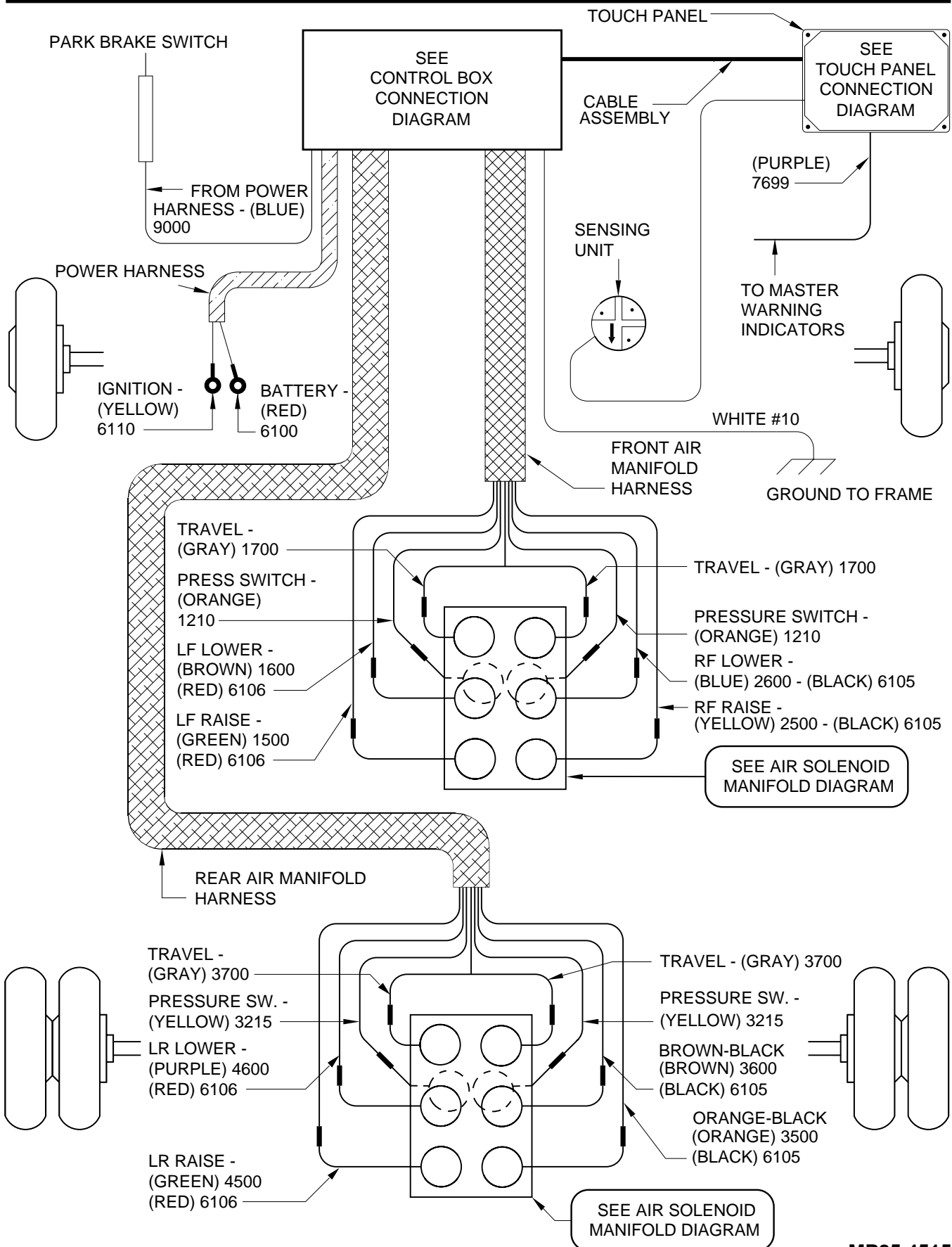
# AIR LEVEL SCHEMATIC-REYCO 4-POINT LEVELING W/ WATER TRAP PRESSURE SWITCHES FRONT AND REAR



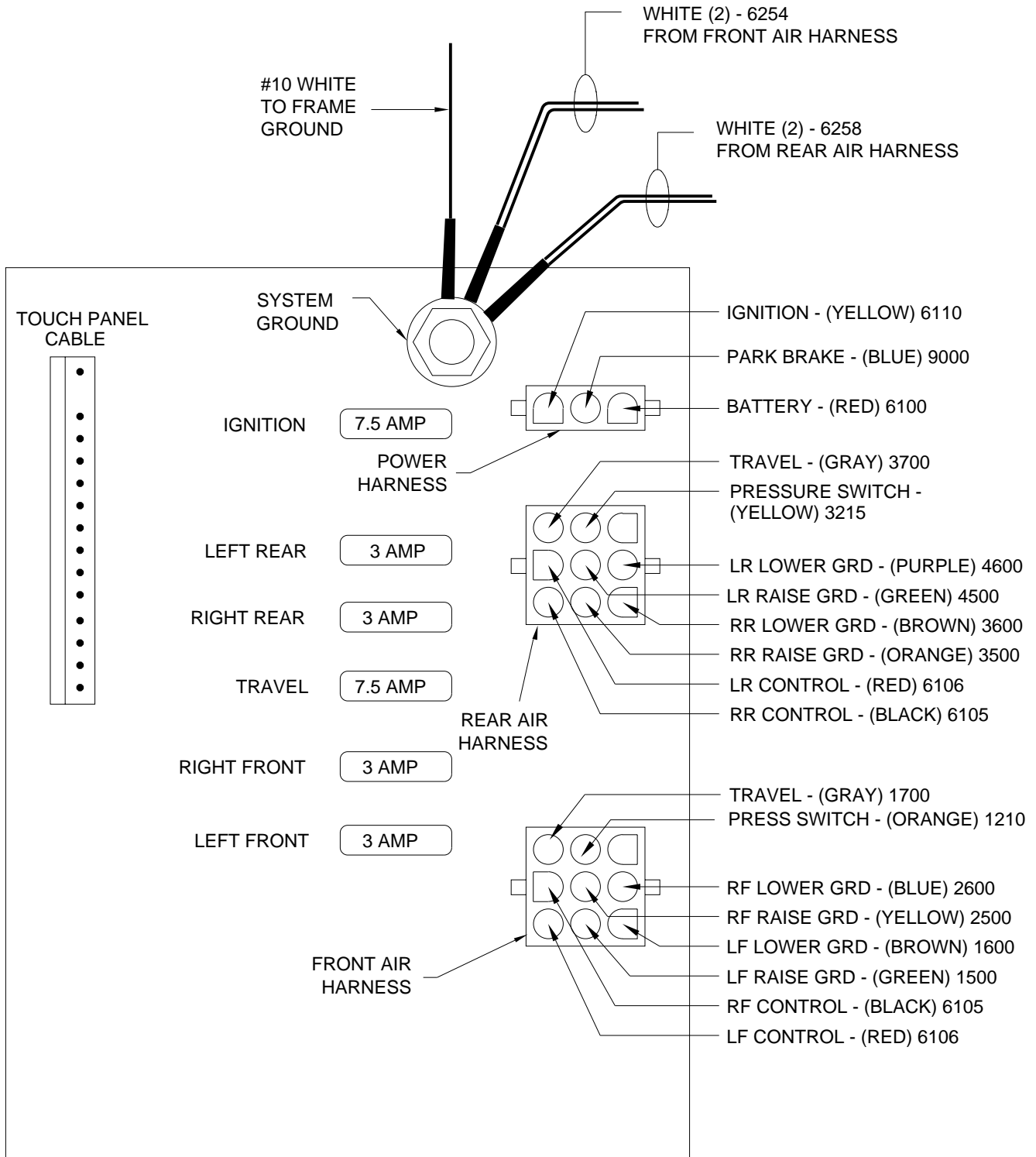
# AIR SOLENOID MANIFOLD 6 VALVE WITH TWO PRESSURE SWITCHES



# ELECTRICAL CONNECTION DIAGRAM MANUAL AIR LEVELING SYSTEM WITH TOUCH PANEL CONTROL



# CONTROL BOX CONNECTION DIAGRAM



# TOUCH PANEL CONNECTION DIAGRAM

