

Manual Installation



IN-CAB CONTROL KIT

PREMIUM

w/ 325 SERIES AIR COMPRESSOR
(for vehicles without a preexisting air system)

10274* **SIMULTANEOUS ACTIVATION**
Electric Valve w/ Digital Gauge

10273** **INDEPENDENT ACTIVATION**
Electric Valve w/ Digital Gauge

BASIC

(for vehicles with a preexisting air system)

10262* **SIMULTANEOUS ACTIVATION**
Electric Valve w/ Digital Gauge

10261** **INDEPENDENT ACTIVATION**
Electric Valve w/ Digital Gauge

Thank you & congratulations on the purchase of either an In-Cab Control Kit with simultaneous or independent air spring activation via a Digital Electric Valve switch.

- **Premium Kits (10273 & 10274)** are for vehicles without an existing onboard air system.
- **Basic Kits (10261 & 10262)** are for those with a pre-existing air system on their vehicle.
- **Simultaneous Kits* (10262 & 10274)** are designed to fill and exhaust both air springs to the same pressure simultaneously.
- **Independent Kits (10261 & 10273)** are designed to fill and exhaust each air spring independently to its own pressure.
- *Air Spring Kit sold separately.*

***IMPORTANT**

This kit is not recommended for vehicles carrying slide in campers or other loads which the load is above the cab. Air spring inflation kits that simultaneously fill both air springs through one supply / discharge line do not prevent air transfer from one air spring to the other when cornering.

*If this is a concern to the customer, contact Customer Service at 800.663.0096 for an **Independent Air Spring Inflation Kit** option.*

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BEFORE STARTING THE INSTALLATION:

1. Read through this manual and ensure you can complete the installation once started.
2. Ensure the kit you received contains all the items shown in the kit layout photos on the following page.
3. It is recommended to use a good quality anti-seize on all fasteners. This will reduce the chance of corrosion on the fasteners and will help facilitate removal, if required at a later date.

PLEASE NOTE:

This kit contains push-to-connect fittings; using scissors or wire cutters to cut the nylon airline will distort the line and cause the connection to leak. THE AIRLINE MUST BE CUT OFF SQUARELY WITH THE NYLON HOSE CUTTER PROVIDED IN THIS KIT OR A SHARP UTILITY KNIFE.

KIT CONTENTS / LAYOUTS

BASIC KITS: for those with a pre-existing air system on their vehicle.

10261: INDEPENDENT ACTIVATION



10262: SIMULTANEOUS ACTIVATION



PREMIUM KITS: for those without a pre-existing air system on their vehicle.

10273: INDEPENDENT ACTIVATION



10274: SIMULTANEOUS ACTIVATION





FOR PREMIUM KIT INSTALLATIONS: Complete Steps 1-7.

FOR BASIC KIT INSTALLATIONS: Complete Steps 5-7.

1 ASSEMBLY PREPARATION

Install the air spring assemblies (if not previously installed).

Follow the instructions provided within the air spring kit – with the exception of the airline routing.

2 AIR COMPRESSOR AND AIR TANK MOUNTING

NOTE: *Thread sealant or Teflon tape must be applied to all the fitting threads installed throughout the installation to prevent air leaks.*

Install the check valve and straight air fitting into the compressor head (as shown in Figure 2A).

PLEASE NOTE: *The compressor makes an audible pumping noise when activated. Consider this when choosing a mounting location. The location should also be in a clean, dry area to maintain long compressor life.*

Using the compressor as a template, mark and drill three 13/64" diameter holes.

Secure the compressor to the desired location using three #10 socket head cap screws, three nuts, and six flat washers provided in the kit.

Install the air filter by inserting one end of the ¼" blue airline into the elbow fitting on the inlet of the compressor.

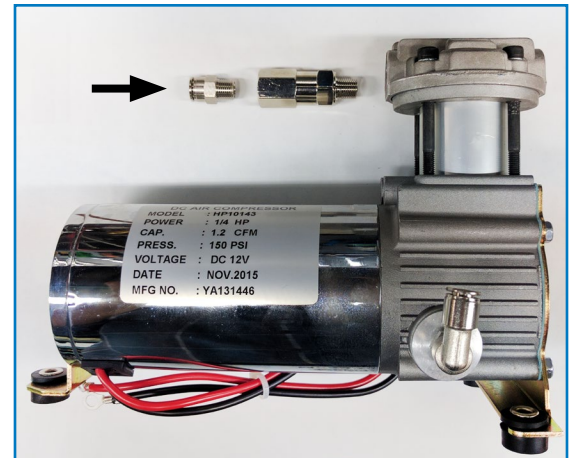
Insert a barbed tube to NPT fitting into the other end of the blue airline and screw it into the air filter. Secure the air filter in a dry location, away from heat sources, and any debris.

To maximize air filter life and prevent blockages, ensure that the air filter inlet slots are not facing upwards.

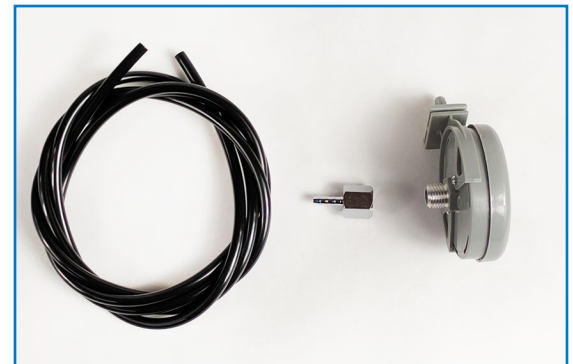
Choose a location to mount the air tank.

Use the air tank as a template to scribe and drill the mounting holes.

Use the supplied 3/8" bolts, washers and nuts to secure it to the chosen location.



2A



2B

3 AIR TANK ACCESSORY INSTALLATION

Use the fittings provided to install the pressure switch, and pressure relief valve into the air tank.

Periodic draining of the tank will be necessary. DO NOT INSTALL THE PRESSURE SWITCH OR SOURCE AIR FROM THE BOTTOM PORT OF THE TANK.

NOTE: The pressure switch included in this kit has a maximum pressure of 130 PSI and a minimum pressure of 110 PSI. Please ensure your accessories are capable of this pressure. A regulator may be necessary for some accessories.

For Independent Activation Kits: Install a plug into the cross fitting.

For Simultaneous Activation Kits: Install the pressure sensor into the air tank. Do not install it into the bottom of the tank.

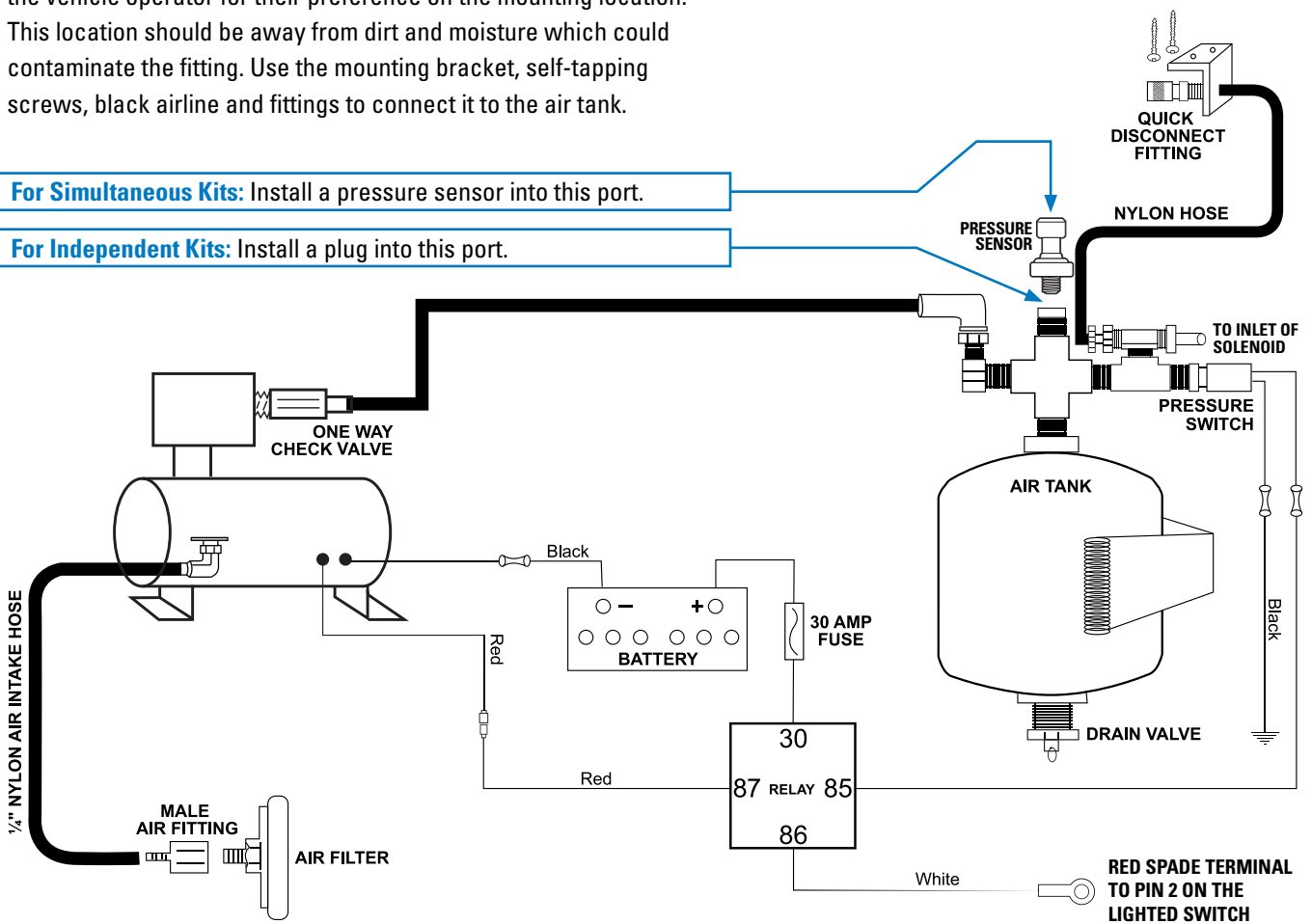
Locate the quick disconnect fitting provided (Figure 3A). Consult with the vehicle operator for their preference on the mounting location. This location should be away from dirt and moisture which could contaminate the fitting. Use the mounting bracket, self-tapping screws, black airline and fittings to connect it to the air tank.



3A

For Simultaneous Kits: Install a pressure sensor into this port.

For Independent Kits: Install a plug into this port.



3B

4 ELECTRICAL CONNECTIONS

Provided in the kit is a pre-wired relay receptacle to make this part of the installation easy. Use the provided self-tapping screw to secure the relay receptacle.

NOTE: The red wire (Pin 30) on the relay must be within 12" of the positive battery terminal. The red wire (Pin 87) on the relay must be able to reach the compressor. The black wire (Pin 85) must be able to reach the air tank. Consider this when choosing a mounting location for the relay. Never extend the wiring harness beyond the length supplied.

Locate the black wire of the relay harness (Pin 85), route it to the air tank location. Connect the black wire of the relay harness to one of the two wires of the pressure switch using the supplied blue heat shrink butt connector.

Use a blue heat shrink butt connector and crimp the remaining black wire on the pressure switch to the supplied piece of black wire with the ring terminal attached to it. Apply heat to the connector to create a sealed connection. Connect the ring terminal to a clean chassis ground.

Locate the white wire of the relay harness (Pin 86) and crimp a red spade terminal onto the end of it. Route the white wire through the firewall and into the cab. Connect the spade terminal to Pin 2 of the lighted switch on the control panel.

Refer to the Wiring Diagram on Pages 13/14.

Locate the red wire of the relay harness (Pin 87) and route it to the compressor mounting location. Use a blue heat shrink butt connector to connect the red wire of the relay to the red wire of the compressor.

Connect the black wire of the compressor to a good chassis ground. Use the provided convoluted loom to cover the exposed wires and secure it away from any moving objects or heat sources with the tie straps provided.

Locate the red wire on the relay harness that has a ring terminal and fuse attached to it (Pin 30).

Connect it to the positive terminal of the battery. Install the supplied 30 A fuse into the fuse holder.



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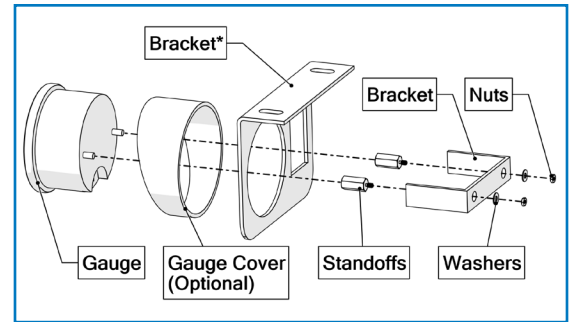
5 CONTROL PANEL INSTALLATION

The control panel has been pre-assembled for ease of installation.

Choose a location to mount the control panel and use the provided two #10 Philips head screws, four flat washers, and two nuts to secure it in place.

NOTE: *The gauge cover is hidden from view and mounted on the rear of the control panel. If glare is affecting the legibility of the digital gauge, disassemble the gauge from the control panel by removing the two nuts holding it in place. Reassemble it according to Figure 5.*

* Your kit may contain a different bracket



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6 SOLENOID INSTALLATION

Solenoid assemblies are designed to control the raising and lowering of the air springs from inside the cab.

Dual input pressure gauge can be used to monitor the pressure in each air spring (10261 / 10273 Kits) or to measure air tank pressure and air spring pressure (10262 / 10274 Kits).

MOUNTING THE SOLENOID

For Independent Activation Kits: Two pressure sensors are provided in the kit. Install each sensor into the two "gauge" ports on the solenoid block. (Refer to the Wiring Diagram on Page 14).

For Simultaneous Activation Kits: Install one pressure sensor into the cross fitting on the tank, and install the other pressure sensor into the gauge port of the solenoid block. (Refer to the Wiring Diagram on Page 13).

Choose a location on the frame to mount the solenoid assembly such that the 18 ft harness attached to it can reach the control panel that was installed in the cab.

Use the solenoid block as a template and drill four 5/32" holes. Use the provided self-tapping screws to secure the solenoid assembly to the frame.

NOTE: *Ensure that the solenoid is mounted away from heat sources, or road spray. Do not mount the solenoid with the bronze filter pointing up.*

...Step continues on the following page

PLUMBING THE SOLENOID

NOTE: This kit contains “push to connect” airline fittings. They require the end of the airline to be round and cut cleanly to ensure the internal seal will not leak air. The airline must only be cut with a sharp knife or the provided hose cutter. Using scissors or wire cutters will distort the end of the airline causing the connection to leak air past the internal o-ring seal.

The solenoid port marked “inlet” is to supply air to the air spring, and the solenoid port marked exhaust is to deflate the air spring.

From the reservoir (air tank) route a black airline to the fitting that is in the port marked “inlet” and connect the airline to it.

For Independent Activation Kits: Connect a red airline from each air spring to one of the two ports marked “bag” on the solenoid. Ensure that the left air spring (drivers side) is connected to the “bag” fitting that supplies air to the left air spring. (Refer to the Wiring Diagram on Page 14).

For Simultaneous Activation Kits: Route a red airline from the “bag” port on the solenoid to the tee fitting provided and from there individual lines must be connected to each air spring. (Refer to the Wiring Diagram on Page 13).

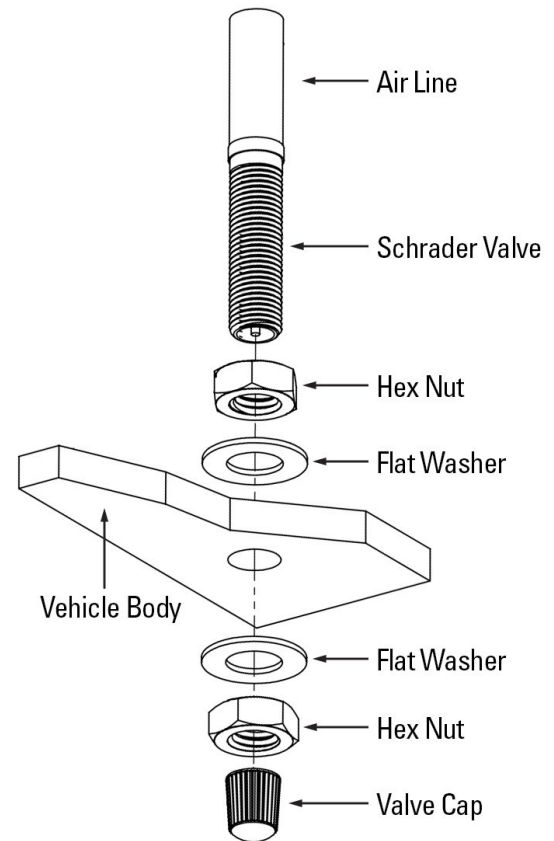
Two tees and a black airline with Schrader valves have been included in the kit.

If you wish to have the option of manually filling the air springs through the Schrader valves then plumb it into the system (as shown in the Wiring Diagram on Pages 13/14).

Install the Schrader valves in a convenient location. The most common place to install the Schrader valves is to replace the license plate fasteners with the fill valves.

Secure the airlines are away from any heat sources or moving items with the provided tie straps.

...Step continues on the following page



SOLENOID ELECTRICAL CONNECTIONS

The solenoid has been pre-wired to make this portion of the installation easier. Locate the ring terminal(s) attached to the black wires on the solenoid. Connect the ring terminal(s) to a good chassis ground.

Route the solenoid harness up into the cab to where the control panel was mounted. Secure the solenoid harness away from any moving parts or heat sources with the provided tie straps.

For Independent Activation Kits: Crimp four red spade terminals to the end of each wire on the solenoid wiring harness. The red and white wires are designated for inflation of the air springs, and the black and green wires are designated for deflation. Attach the spade terminals to the switches on the control board (*as shown in the Wiring Diagram on Page 14*). Ensure that the right switch of the gauge assembly operates the right air spring and the left switch operates the left air spring.

For Simultaneous Activation Kits: Crimp two red spade terminals to the end of the black and white wire of the solenoid wiring harness. The white wire is used to activate the solenoid that inflates the air springs. The black wire is used to activate the solenoid that deflates the air springs. Attach the spade terminals to the switches on the control board (*as shown in the Wiring Diagram on Page 13*).

7 DIGITAL GAUGE ELECTRICAL CONNECTIONS

POWER & GROUND CONNECTIONS

Locate the red wires connected to the yellow butt connector on the gauge harness. Attach the supplied 12 AWG red wire, yellow butt connector and 12 AWG fuse holder to the wiring harness (*as shown in the Wiring Diagram on Pages 13/14*).

Attach a blue spade terminal to the other end of the fuse holder. Insert a 5 AMP fuse into the fuse holder.

Locate a 12 VDC switched ignition source, use either a red (22-18 AWG) or blue (16-14 AWG) T-tap connector to tap into it.

Insert the blue spade terminal on the fuse holder to the T-tap connected to the switched ignition. (*See the Wiring Diagram on Pages 13/14*).

...Step continues on the following page

Connect the orange wire to the headlight switch for auto dimming of the gauge (optional).

Locate the black wires connected to the blue butt connector on the gauge harness. Strip, insert and crimp one end of the supplied 20 AWG black wire into the blue butt connector. Attach the other end to a clean chassis ground with the supplied ring terminal.

PRESSURE SENSOR HARNESS CONNECTIONS

Locate two pressure sensor harnesses provided in the kit. Connect each harness to each of the pressure sensors. Depending on your kit, the pressure sensors were installed on either the solenoid or the tank.

Route both sensor harnesses from the pressure sensors to inside the cab where the control panel was mounted.

Use six red heat shrinkable butt connectors to connect the wires from the pressure sensor harness to the pressure gauge (*as shown in the Wiring Diagram on Pages 13/14*).

NOTE: The pressure sensor connected to the blue wire on the gauge harness will display on the lower display of the gauge. The sensor connected to the green wire will display on the upper display of the gauge.

***The installation for this kit is complete.
Proceed to testing instructions.***

8 TESTING THE SYSTEM

Turn the ignition ON, move the paddle switch to the UP position.

The gauge should show air pressure being delivered to the air springs raising the vehicle.

Then move the paddle switch to the lower position.

The gauge should show the air pressure dropping and lowering the vehicle.

If the pressure gauge cannot read the pressure sensor signal the gauge will count down to "0" and begin flashing.

Check to ensure that the system is wired correctly.

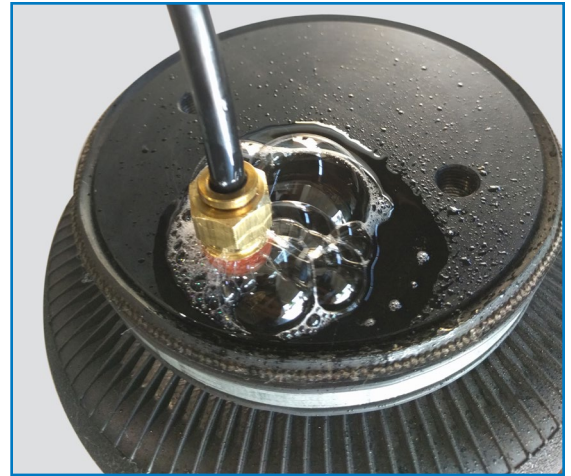
9 CHECK SYSTEM FOR LEAKS

Inflate both air springs to 90 psi (60 psi for in-coil bags) and then use a mixture of dish soap and water on all air line connections to detect any air leaks. Large, expanding bubbles indicate a leak (as shown in Figure 9).

Repair as necessary and retest.

Inflate air springs to a predetermined value and on following day recheck pressure. If one or both of air springs have lost pressure, an air leak is present.

! *Leak must be repaired, and then retested until no leaks exist.*



**Air Spring & NPT Air Fitting may differ between kits*

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AFTER COMPLETING THE INSTALLATION

- The air spring must have clearance between itself and the surrounding components to prevent any contact when spring is inflated or compressed. Trimming off excess bolt length may also be required to ensure no contact with the spring or other suspension components can be made once installed.
 - If removed, re-install the wheels and torque fasteners to the manufacturer's specifications. Re-torque all fasteners after the first 500 miles of driving.
-

OPERATING YOUR VEHICLE WITH AIR SUSPENSION

Air springs have minimum and maximum recommended pressure requirements:

PART #	SPRING STYLE	SPRING TYPE	MIN PSI	MAX PSI
HP10189	In-Coil	STANDARD DUTY	5 PSI	70 PSI
HP10560		STANDARD DUTY		
HP10001	Sleeve Style	STANDARD DUTY	10 PSI	100 PSI
HP10173		STANDARD DUTY		
HP10199		STANDARD DUTY		
HP10083	Single Convoluted	HEAVY DUTY	5 PSI	100 PSI
HP10083J		HEAVY DUTY with JOUNCE BUMPER	0 PSI* / 5 PSI	100 PSI
HP10000	Double Convoluted	HEAVY DUTY	5 PSI	100 PSI
HP10000J		HEAVY DUTY with JOUNCE BUMPER	0 PSI* / 5 PSI	100 PSI
HP10068	Large Double Convoluted	HEAVY DUTY	5 PSI	100 PSI
HP10438	Double Convoluted	EXTREME DUTY	5 PSI	100 PSI
HP10438J		EXTREME DUTY with JOUNCE BUMPER	0 PSI* / 5 PSI	100 PSI

* Springs with a jounce bumper can be run at zero PSI when vehicle is unloaded only

For safe and proper operation, never operate the vehicle over the maximum listed PSI in the air springs. Staying under the pressure limit will ensure maximum air spring life. **Failure in doing so may result in damage to your vehicle and/or a void warranty.**

! *It is recommended to check the air pressure in your air springs daily for first couple of days to ensure a leak has not developed.*

Air springs are designed to maintain the vehicle’s stock ride height with a load. Do not use the air springs as a means to lift vehicle with no load. This will result in a harsh ride.

SERVICING YOUR VEHICLE WITH AIR SUSPENSION

When lifting the vehicle with a floor jack or hoist on the frame, never allow the air spring to limit the travel of the axle. Try to always jack the vehicle on the axle. Suspending the axle with the air spring limiting the axle travel will damage the air spring and void the air spring warranty.

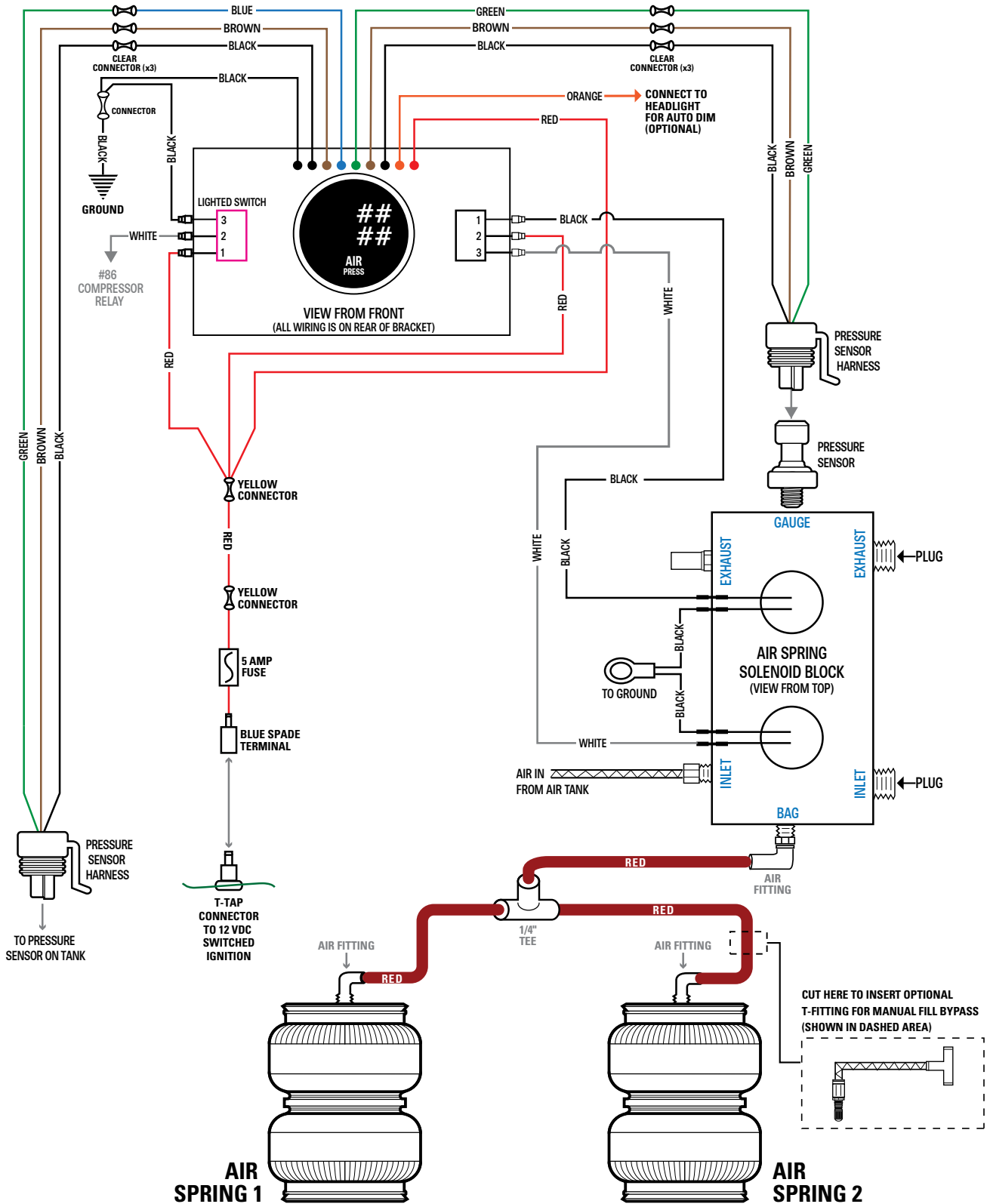
WARRANTY

See additional warranty included with this kit for details.



WIRING & PLUMBING DIAGRAM

SIMULTANEOUS AIR SPRING ACTIVATION (10262 / 10274 Kits)



WIRING & PLUMBING DIAGRAM

INDEPENDENT AIR SPRING ACTIVATION (10261 / 10273 Kits)

