

Installation Manual



BASIC **IN-CAB CONTROL KIT**

(for vehicles with a preexisting air system)

10124 INDEPENDENT ACTIVATION
Paddle Valve w/ Mechanical Gauge

Use this kit in conjunction with air tank kits and air compressor kits to build your own customizable onboard air system.

Thank you & congratulations on the purchase of a Basic In-Cab Control Kit with independent air spring activation via a Mechanical Paddle Valve switch.

- This Basic Kit is for vehicles with an existing onboard air system. Premium kits are available for those without a pre-existing air system on their vehicle.

PLEASE NOTE: The existing vehicle air system must be capable of 100 PSI.

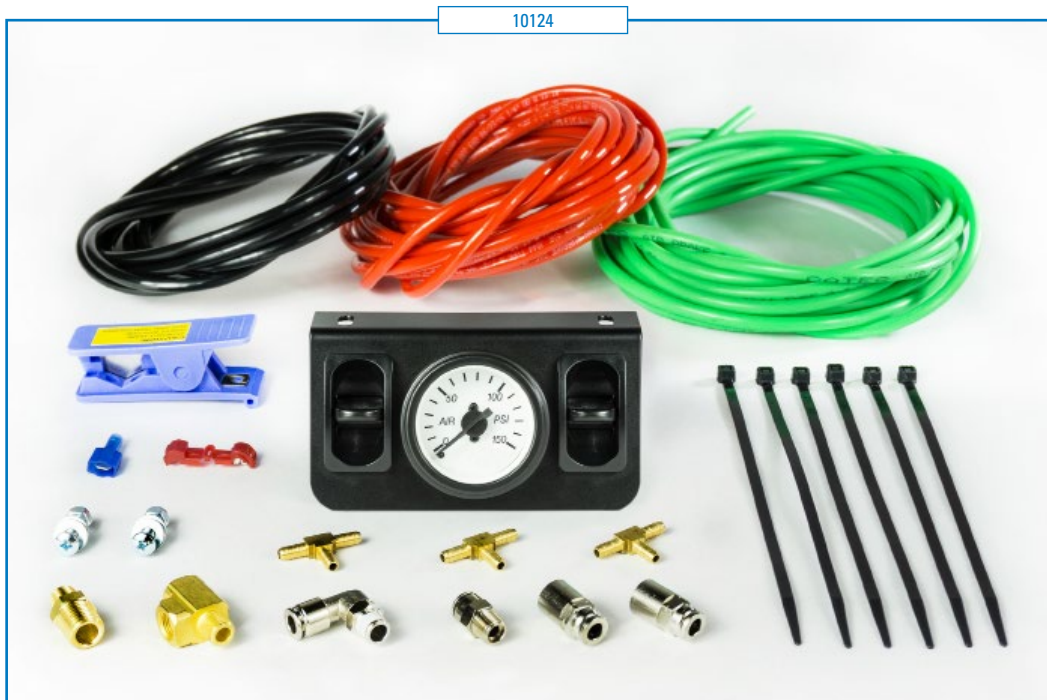
- This kit is designed to fill and exhaust each air spring independently to its own pressure. *Air Spring Kit sold separately.*

BEFORE STARTING THE INSTALLATION:

1. Read through this manual and ensure you can complete the installation once started.
2. Ensure the kit you recieved contains all the items shown in the kit layout photo below.
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.



1 INSTALL THE AIR SPRING ASSEMBLIES (if not previously installed).

Follow the installation instructions provided in your air spring kit.

Use the red and green nylon hoses provided in the control system kit to connect the air springs to the control panel as they are longer than the black nylon hoses provided in the kit.

Connect the green nylon hose to the right side air spring and the red nylon hose to the left side air spring.

Route these airlines to the control panel mounting location.



1

2 SOURCE AIR FROM THE TANK.

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

Install the tee fitting and straight push-to-connect fitting provided into the top of the air tank. Cut the end of the black nylon hose off squarely with the hose cutter provided in this kit or a sharp razor knife, then insert it into the push-to-connect fitting until it clicks and stops.

Route this nylon hose into the cab through the firewall boot with the red and green air spring to gauge panel mounting location.

Once complete, secure all 3 nylon hoses away from heat sources and moving components with the tie-straps provided.



2

3 COMPONENT MOUNTING

Choose a location to mount the gauge and switch panel. It should be in reach and in clear view to the driver.

Using the bracket as a template, mark and drill two 3/16" diameter holes to secure the bracket.

Do not install the bracket until the electrical and airlines are connected.



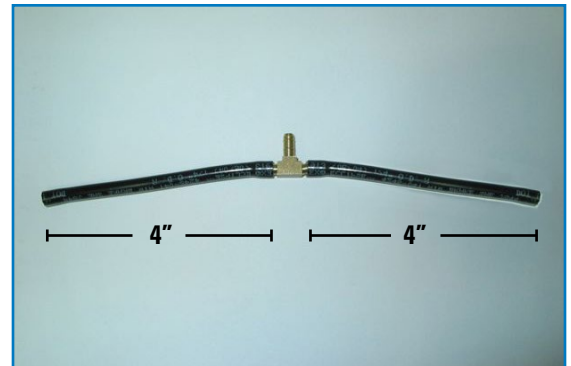
3

4 GAUGE PLUMBING

Locate the two 1/8" NPT female push-to-connect fittings provided. These fittings are installed on the back of the dual needle gauge. Use thread sealant or Teflon tape on the threads to prevent leaks. When tightening these fittings, hold the jam nut on the back of the gauge fitting to provide support.

Cut two 4" pieces of black airline. Insert one end of each piece onto the supplied push-on "T" fitting (see Figure 4).

Connect the black hose and "T" fitting (as shown in Figure 4) push each end of the hose onto the SUPPLY port on both switches (as shown in Figure 10). This is the air supply line.



4

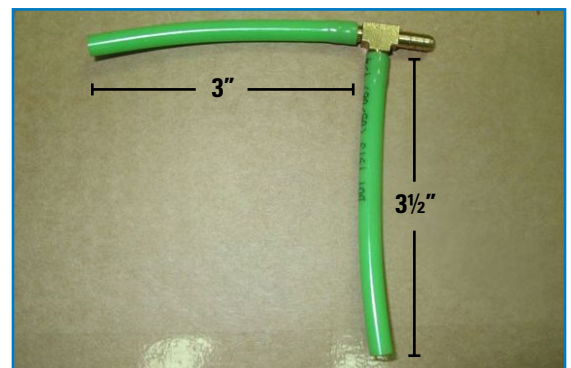
5 RIGHT AIR SPRING AIRLINE ASSEMBLY

Cut two pieces of the green airline provided. One to 3", one to 3 1/2".

Connect these two airlines to the bared "T" fitting provided, (as shown in Figure 5A).

Using Figure 5B: Connect the 3 1/2" long airline onto the R/H switch DELIVERY port. Insert the 3" long airline into the left air gauge supply fitting.

PLEASE NOTE: It is recommended to use a wrench on the flat spot of the threaded ports on the backside of the mechanical gauge, when installing lines. Failure to do so may result in damaged ports



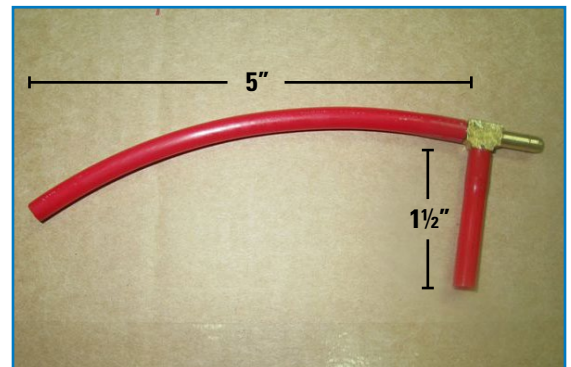
5A

6 LEFT AIR SPRING AIRLINE ASSEMBLY

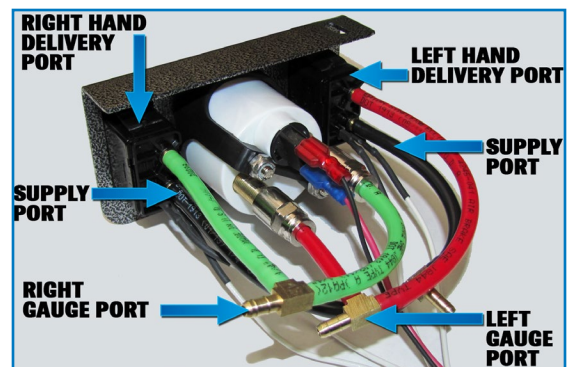
Cut two pieces of the red airline provided: one to 5", the other to 1 1/2".

Connect these two airlines to the barbed "T" fitting provided (as shown in Figure 6A).

(Using Figure 6B:) Connect the 5" long airline onto the L/H switch DELIVERY port. Insert the 1 1/2" long airline into the right air gauge supply fitting.



6A



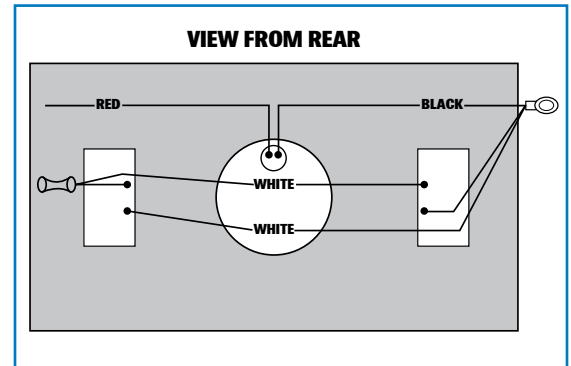
5B / 6B

7 ELECTRICAL CONNECTIONS

At the rear of the control panel, locate the single red wire, (use Figure 7 as reference). This is for the air pressure gauge lighting.

Using the red "T" tap provided, connect this wire to the dashboard illumination circuit. Crimp the insulated male blade terminal to the red wire and connect it to the red "T" tap.

PLEASE NOTE: If you do not wish to have the ability to dim the gauge lights with the vehicles dimmer switch, then attach the red wire from the gauge to a 12 VDC fused ignition source.



- 8 At the rear of the control panel, locate the three wire harness (one black and two white wires) with the eye terminal.

Attach this eye terminal to a good chassis ground. It is not necessary to connect the two white wires with the blue butt connector for this installation.

9 PLUMBING CONNECTIONS

The remaining lengths of red and green nylon airline are to connect the control panel to the air springs. The airline colour identifies which air spring they will be connected to.

Red is for the left air spring.

Green is for the right air spring.

Starting at the control panel, route two lengths of nylon airline through the firewall boot and along the frame rail to the correct air spring.

Cut the ends of the airlines off squarely with the hose cutter provided or a sharp razor knife, then push firmly all the way into the fitting at the air spring.

Secure the nylon airline with tie-straps provided.

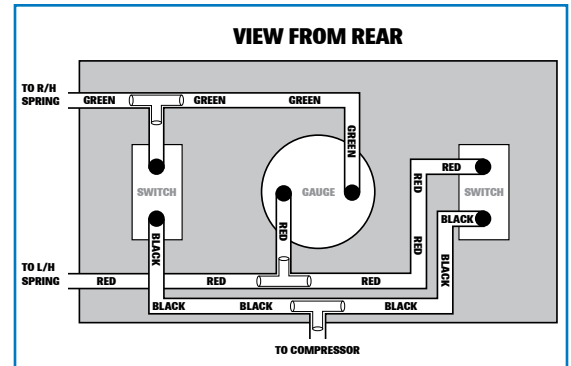
- 10** At the rear of the control panel, locate the three “T” fittings with different coloured airline. These colours pertain to where they get connected.

Black is the supply line from the air tank to the control panel.

Green is the inflate/deflate line to the right side air spring

Red is the inflate/deflate line to the left side air spring.

See Figure 10 for airline routing.



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- 11** Using the fasteners provided, secure the control panel to the chosen mounting location. Secure the wiring and airlines with the tie-straps provided.

12 TESTING THE SYSTEM

Turn the ignition ON, move the left paddle switch to the UP position. The left side needle of the gauge should show air pressure being delivered to the air spring raising the left side of the vehicle.

Then move the left paddle switch to the lower position. The needle of the gauge should show the air pressure dropping and lowering the left side of the vehicle.

Repeat on the right side switch. The right side air spring should raise and lower with movement of the switch.



11

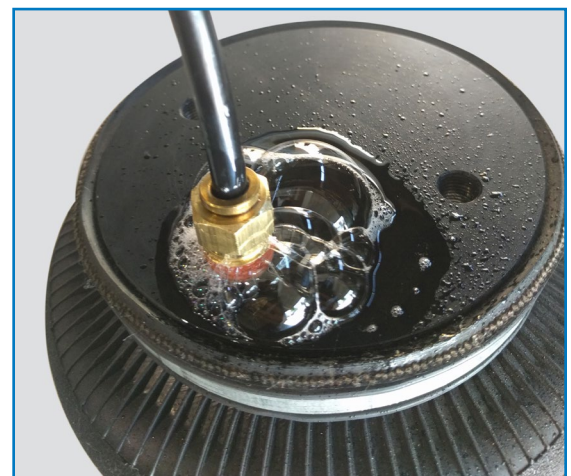
13 CHECK SYSTEM FOR LEAKS

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 13).

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.