

# Installation Manual



## 10163 / 10164 KITS

ONBOARD AIR SYSTEM Universal Vehicle Applications

*Perfect for a multitude of air applications: air suspension, air horns, inflatables, flat tires & small air tools.*

**Thank you and congratulations on the purchase of an onboard air system.**

Please read the installation manual prior to starting to ensure you can complete the installation once started.

These kits are specially designed for those who want customizable options when building their own onboard air system.

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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 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.

10163 KITS - Includes a ½ Gallon Air 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.***

10164 KITS - Includes a 2 ½ Gallon Air Tank



## 1 AIR COMPRESSOR AND AIR TANK MOUNTING

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

Install the push-to-connect fittings into the check valve, then install the assembly into the compressor head, (as shown in Figure 1).

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 3/16" diameter holes. Secure the compressor using the fasteners provided.



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- 2 Choose a location to mount the air tank. Using the supplied hardware mount the tank with the drain port facing down.



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## 3 ELECTRICAL CONNECTIONS

Provided in the kit is a pre-wired relay receptacle to make this part of the installation easy.

Find a convenient location to mount the relay receptacle within 12" of the positive battery terminal. Using the self tapping screw provided, secure the relay receptacle and install the relay.

***CAUTION: Never extend the wire of the harness beyond the length supplied.***

- 4 Locate the black wire of the relay harness, route it to the air tank location. Using the fittings provided, install the pressure switch into one of the ports in the air tank.

***DO NOT INSTALL IN THE BOTTOM PORT.***

Using the fittings provided, install the pressure switch in a location for it to sense air tank pressure. Connect the black wire of the relay harness to one of the two wires of the pressure switch using the heat shrink butt connector.

Using the loose piece of black wire and another heat shrink butt connector, connect to the remaining wire of the pressure switch. Heat the connectors to provide a water tight seal. Then, connect the end with an eye terminal to a good chassis ground.



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- 5 Locate the white wire of the relay harness. Connect it to an ignition power source through the 5 amp inline fuse provided. This wire can be connected through an ON/OFF switch to override the compressor activation should the customer prefer this option.
- 6 Locate the red 12 gauge wire of the relay harness, route this wire to the compressor mounting location. Connect to the red wire at the compressor. Connect the black wire of the compressor to a good chassis ground or grounded directly to the negative battery terminal.

Using the convoluted loom provided cover the exposed wires and secure with tie straps provided.

- 7 Install the air compressors air intake filter using the blue nylon hose provided.

Connect one end to the barbed fitting below the compressor head.

Install the filter housing in the other end of the nylon hose.

Install the filter housing in a dry clean area below the level of the air intake port to ensure maximum compressor life.

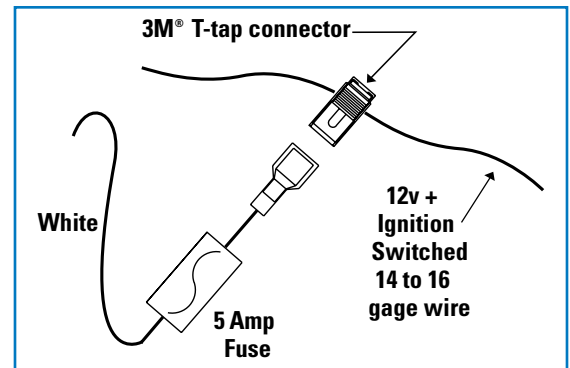
## 8 CONNECTING AIR ACCESSORIES TO THE AIR TANK

Do not source air from the bottom port of the air tank. Install the pressure relief valve provided in the bottom port of the air tank. Periodic draining of the tank will be necessary.

**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. A lower pressure switch is available upon request. Dual needle gauge kits are also available to monitor system pressure. This gauge kit can also be used to monitor air spring pressure.**

- 9 Locate the quick disconnect fitting provided. 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.

Using the mounting bracket, self tapping screws, nylon air line and fittings provided, connect it to the air tank. Use thread sealant on all fittings installed.



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## BASIC AIRLINE &amp; WIRING DIAGRAM

