

# IRON ROCK OFF ROAD

12 Volt Iron Air Compressor Install Instructions

I-877-919-JEEP www.ironrockoffroad.com

## Shipping Checklist:

### \*Box 1 (8x17x22)\*

- Instructions
- Invoice
- Iron Rock Off Road Decal (2)
- Iron Air Compressor w/ tank (1)

### With Accessory and Installation Kit ONLY:

- 40 amp self-resetting circuit breaker (1)
- 40/60 Amp relay with harness 73572 (1)
- Flexible Air Hose 1/4" / 25 ft. (1)
- Rubber Tip Blow gun (1)
- Clip on tire chuck (1)
- Tire pressure gauge [5-50 psi] (1)
- 1/4" FPT QD coupler (1)
- 1/4" MPT QD plug (2)
- 1/4" FPT QD plug (1)
- 1/4" MPT x 1/4" tube push to connect (1)
- 1/4" FPT x 1/4" tube push to connect (1)
- 1/4" OD Polyurethane tubing; clear [3 ft.] (1)
- 10 gauge wire RED [25 ft.] (1)
- 10 gauge wire BLACK [3 ft.] (1)
- 16 gauge wire RED [10 ft.] (1)
- 16 gauge wire BLACK [3 ft.] (1)
- 1/4-20 x 1" Gr.5 hex bolt (4)
- 1/4-20 gr.5 hex nut (4)
- 1/4" USS washer (4)
- #10 x 1-1/2" LG self-drilling screw (4)
- #10 x 1" LG self-drilling screw (4)
- 10 gauge x .19" ring terminal (3)
- 10 gauge x .38" ring terminal (2)
- 18 gauge x .19" ring terminal (1)
- 10 gauge butt connector (3)
- Blue wiretap (1)
- 18 gauge flat blade terminal, female (1)
- 18 gauge butt connector (1)
- Heat shrink tubing [2 ft.] (1)
- Zip ties (15)
- PTFE tape roll (1)



## **Mounting the components:**

1. Mount the circuit breaker (40 amp, self-resetting) near the battery using #10 x 1" self-drilling screws.
2. Mount the relay using #10 x 1" self-drilling screw. This can be mounted inside or outside of the vehicle in a location free from direct water spray. **This relay is provided to prevent accidental battery drain. The compressor should be wired to run only when the ignition key is on.**
3. Mount the Air Compressor:
4. Install the extended air tank water drain kit:
5. Remove the drain cock from the bottom of the air tank.
6. Install the male threaded push to connect hose fitting into the tank. Thread sealant is pre-applied.
7. Install the drain cock into the female threaded push to connect hose fitting. Follow pneumatic connection instructions on last page.
8. Install the 1/4" clear polyurethane hose by making sure there is a clean square cut on each end and simply push the hose into the fitting. Leave this hose long to provide easy tank drainage. The hose can be removed by simply pulling back the collar on the push to connect fitting and pulling the hose out.
9. Remove the rubber feet and re-drill the holes using a 9/32" drill bit.
10. Choose a cool, dry location to mount the compressor. Be sure to allow adequate airflow to the compressor for cooling. Compressor can be mounted in any orientation except upside down, a new air tank water drain will need to be installed for orientations other than upright.
11. Mount the compressor using the 1/4" bolts, washers, and nuts provided. The compressor can also be mounted using the provided #10 x 1 1/2" self-drilling screws by drilling a screwdriver clearance hole in the upper plate of each mounting pad.

## **Electrical connections:**

**For all electrical connections:** Crimp on electrical connectors are provided. Most are unshielded and require heat shrink tubing (provided) or electrical tape to seal out moisture and provide electrical insulation. These connectors can be crimped onto the wires or soldered. Soldering is best, particularly for connections that will be exposed to the weather. Be sure to slide the heat shrink tubing onto the wiring before crimping or soldering, then shrink with a heat gun or small flame (cigarette lighter or similar). See wiring diagram below for more information.

12. Connect the air compressor's black ground wire to the nearest grounded solid metal surface.
13. Extend the black wire using provided 10 gauge black wire and butt connector.

14. Remove any paint or contaminants from connection location. Connect the ground using provided ring terminal and 1/4" x 1" bolt and nut or #10 x 1 1/2" self-drilling screw.
15. Connect the provided 10 gauge red wire to the red wire coming from the compressor motor using provided butt connector and heat shrink tubing.
16. Carefully route this wire to the relay leaving a safe distance to heat sources and abrasion. Use grommets where needed if passing through sheet metal or similar surfaces. Connect to terminal 87 of the relay using provided butt connector and heat shrink tubing. (see wiring diagram)
17. Connect terminal 30 of the relay directly to the circuit breaker using the provided ring terminal and heat shrink tubing. (see wiring diagram)
18. Connect another section of red 10 gauge wire from the circuit breaker to the positive (+) terminal of the battery. Use the provided ring terminals and heat shrink tubing. (see wiring diagram)
19. Connect terminal 85 of the relay directly to ground (solid metal surface free of paint or contaminants) using provided ring terminals, and #10 x 1" self-drilling screw.
20. To prevent accidental battery drain, wire the compressor to only run when the ignition key is on.
21. At the vehicles fuse panel or under the dashboard locate a switched and fused power source that is live (+12 volts) when the key is in the "Run" and "Accessory" position. The cigar lighter circuit works well on most Jeeps.
22. Make sure the air compressor is turned off, the switch on the compressor should be in the down position.

### Test the compressor:

24. Read and follow the break in period from your owner's manual.
25. Turn the vehicle's ignition key to the "Accessory" position and turn on the switch located on the compressor. The compressor should turn on and run until the tank is full then automatically shut off.
26. Note the exact air tank gauge pressure. Check this again in about 15 minutes (after making the pneumatic connections) to verify that no air is leaking.

### Pneumatic Connections:

27. **For all pneumatic connections:** Thread sealing tape is provided. Use 2 or more wraps clockwise on all male NPT threads.
28. Apply thread sealing tape then install the quick disconnect plugs into the compressed air gun and tire filling chuck.
29. Apply thread sealing tape then install the quick disconnect onto one end of the air hose, and the quick disconnect plug onto the other.
30. After 15 minutes (from step 26) verify that air has not leaked by checking the gauge pressure. If leaks are present check all threaded connections by spraying leak detector or soapy water onto all the connections and watching for bubbles to form. Tighten or re-seal any connections as required.
31. The air pressure regulator located on the compressor can be adjusted to a desired maximum pressure or opened all the way for maximum airflow.
32. Periodically drain the water from the air tank. Drain more often with heavy usage. The drain is located on the bottom of the air tank.
33. Contact us if you have any questions about your new air compressor system.

### Wiring Diagram:

