



Air Compressor

Owner's Manual

⚠ WARNING!

Failures due to lack of lubrication, corrosion, water ingressions, disassembly or modification are not covered under Warranty.

Please note: Motor brushes and oil are consumable items - oil must be added periodically, and brushes must be replaced periodically.

Read these instructions carefully before installing or using this product. Failure to follow instructions may result in personal injury, death and/or property damage and may void warranty! Save these instructions for future reference.

UPDATED 04/02/2025

SAFETY INFORMATION

⚠ WARNING!

You are completely responsible for your own safety and the safety of those with you. Oasis Mfg. will not be responsible and will not assume any liability for indirect, incidental, or consequential loss, damage, injury, expense or inconvenience to property or persons as a result of use or misuse of this product.

Compressor and motor surfaces become extremely hot during use! **To avoid serious burns, do not touch** any part of this equipment, except for the on/off switch, with bare hands **during, or for 30 minutes immediately following operation.**

1. Only persons who have read and understand these instructions should be allowed to use this compressor.
2. **The air produced by this compressor is not fit for human or animal consumption and it must not be used to provide a breathing air supply.**
3. Do not operate compressor with any damaged hose(s) or after the compressor or attachments have been dropped or damaged.
4. Never use while sleepy or drowsy.
5. Do not use near flames.
6. Do not pump anything but air.
7. Never point any air nozzle at any person or animal. Serious injury may result.
8. Do not leave unattended during use.
9. Use an appropriately sized fuse to protect both vehicle and compressor from a short circuit condition. We DO NOT recommend the use of circuit breakers.
10. Never rely on a safety valve to protect this compressor in place of a pressure switch. **A pressure switch must be used to control the compressor.**
11. Overheating, short circuiting and fire damage will result from inadequate wiring.
12. If the equipment starts to vibrate abnormally, slows down or stalls, STOP the motor immediately.
13. Never operate near a flammable gas or liquid. Never store flammable liquids or gasses in the vicinity of the compressor.
14. Keep this equipment's exterior clean and free of oil, solvent and grease to reduce fire hazard.
15. Disconnect power and release all pressure from the system before attempting to install or perform maintenance to the system (tank, air lines, etc.).
16. Be sure any tools or attachments are compatible with the pressure and flow rate of this equipment.
17. Check all fasteners and electrical connections at frequent intervals for proper tightness and cleanliness.
18. Do not attempt to modify this equipment.

INSTALLATION

Mounting location and mounting surface must be:

Solid and fully supportive – Mounting surface must wide enough and long enough to support the entire frame of the compressor, and must not be able to flex under the weight of the compressor while driving. We recommend mounting to a metal surface made from U-channel, as opposed to flat metal.

Upright – Mount the compressor so the intake and output fittings are located on top of the compressor for proper lubrication, do not mount the unit on its side.

Dry – Avoid mounting in a location that exposes the compressor to moisture (rain, road spray, snow, etc.) if possible, especially the motor controller and the air intake filter.

⚠ WARNING: Water inside the motor controller can cause the compressor to run until it dries out.

⚠ WARNING: Water sucked into the air intake filter will cause corrosion inside compressor, which will cause failure. Remotely mount it to a dry location if necessary.

Cool and well ventilated – This will allow the compressor to run for longer periods.

Away from materials that can melt or are combustible – Compressor gets extremely hot during operation.

Level – Compressor must be as level as possible during operation for proper lubrication.

Close to battery – The shorter the power cables are, the better your performance will be. New ring terminals and heat shrink are available from the manufacturer if you wish to shorten the power cables. Mounting an isolated auxiliary battery next to the compressor and cutting the cables down to minimum length will provide maximum performance. **Use a deep cycle battery.** If you must mount the compressor farther away than the 10' power cables will allow, use #0AWG wire for runs up to 20' instead of #4AWG cable provided. Be sure charging system is in top condition, and optimized to deliver maximum charge current to battery. Some applications may require an upgrade to the charging system and/or multiple batteries.

⚠ CAUTION: A fuse and fuse block have been included with this compressor and must be used. Do not use a circuit breaker for protection!

⚠ WARNING: Do not attempt to run more than one compressor at a time from a single battery, extreme fire danger will result!

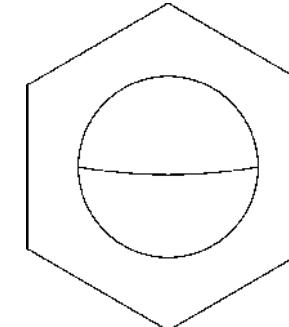
Protect from corrosion – Exposure to de-icing chemicals used on winter roadways, marine environments, etc., will cause corrosion and failure if left unprotected. Heavy duty applications where the compressor runs at high temperatures for long periods daily (such as tire changing trucks), will accelerate corrosion from normal humidity, even when corrosive chemicals are not present. Mount compressor in a dry location that prevents heat build-up, and treat all exposed electrical components (motor brushes and motor terminals) with protective products such as DeoxIT or Fluid Film on a regular basis. **See note regarding corrosion in the Maintenance section.**

1. Temporarily position the compressor in the mounting location to ensure fit and adequate clearance. Be sure location can support compressor properly, **see note at the top of this page regarding mounting surface.**
2. Using the template, drill four 7/16" diameter holes.

3. Mount compressor using the four included 3/8" studs on the bottom of the compressor (**finger tight ONLY into compressor**), and secure with nuts and lock washers. **Do not exceed 25 ft/lbs of torque when tightening these nuts.**
4. Turn compressor switch off. Connect the black cable to the battery's negative terminal, and the red cable through an appropriate size fuse to the battery's positive terminal.
- ⚠ WARNING: Reverse polarity (red to negative and black to positive) WILL DAMAGE THE MOTOR CONTROLLER and void warranty!**
5. Install a pressure switch rated at 200 psi or less, on the tank (if using one) or air line (if not) coming from compressor, to automatically control the compressor as pressure is used from the system. A dash mounted switch may also be used to provide manual control as well. Refer to the wiring diagram for details.

Note: The compressor can be controlled by two methods: either by connecting terminal +C (positive control) on the motor controller to a positive battery source (12 or 24 volt) such as a dash mounted switch, or by connecting terminal -C (negative control) to a ground source such as the chassis, see wiring diagram.

6. Be sure all electrical connections are clean and secure. Loose or dirty connections will result in poor performance.
7. Install air filter into the suction port (the port on the right when viewed from the oil sight glass end). **Do not use Teflon tape! Pieces of tape can get sucked into the compressor valves.** Note that inside the suction port is a filter that has the appearance of metal shavings. **Do not remove it, it is supposed to be there!**
8. Compressor is shipped with oil. Check oil sight glass after compressor has been sitting level for at least one hour. Hold a spirit level next to the unit if necessary to ensure it is level. If no oil is visible in window, remove the oil plug from the side of compressor (the suction side). This will relieve the crankcase and allow oil in the overflow reservoir to drain back into the crankcase. If oil level is not visible within a few minutes, add oil until it is visible in window. Use a full synthetic 30 weight (ISO 100) air compressor oil.



Proper oil level in sight glass

9. Install a high temperature air line from discharge port in the head of the compressor to a tank or point of use fitting.

⚠ WARNING: Do not tighten fitting to more than 20 ft/lbs into the compressor head. Doing so may crack the head! We recommend the use of Loctite #567 high temp pipe sealant.

If you are unsure about any part of installation or operation, contact the manufacturer for clarification.

OPERATING INSTRUCTIONS

Turning the on/off switch to the “on” position will start the compressor. It may now be used to inflate tires, operate air tools, etc.

This equipment draws large amounts of current during operation. We recommend your vehicle engine be left running to prevent excessive discharge of your battery, and to maximize compressor performance.

Since this is an oil bath type compressor, some oil discharge is normal. If an application requires oil free air delivery, a coalescing air line filter may be required.

Occasionally a small amount of oil vapor (which looks like smoke) can be seen coming from the unit as it warms up. This is normal.

Note:

This unit is equipped with microprocessor motor control module. It monitors voltage level, motor current, and controller temperature. It will shut the compressor off if any of the following conditions exist: voltage too high or low, current too high or low, or controller too hot. If the controller goes into any of these protection modes, the lamp in the rocker switch will flash per the following chart. If multiple faults are present, there will be one long pause between each sequence. To reset the circuit, turn the rocker switch to the off position, then back to the on position. This circuit is designed to protect the compressor motor from damage due to stalling. **It is not designed to protect a battery!**

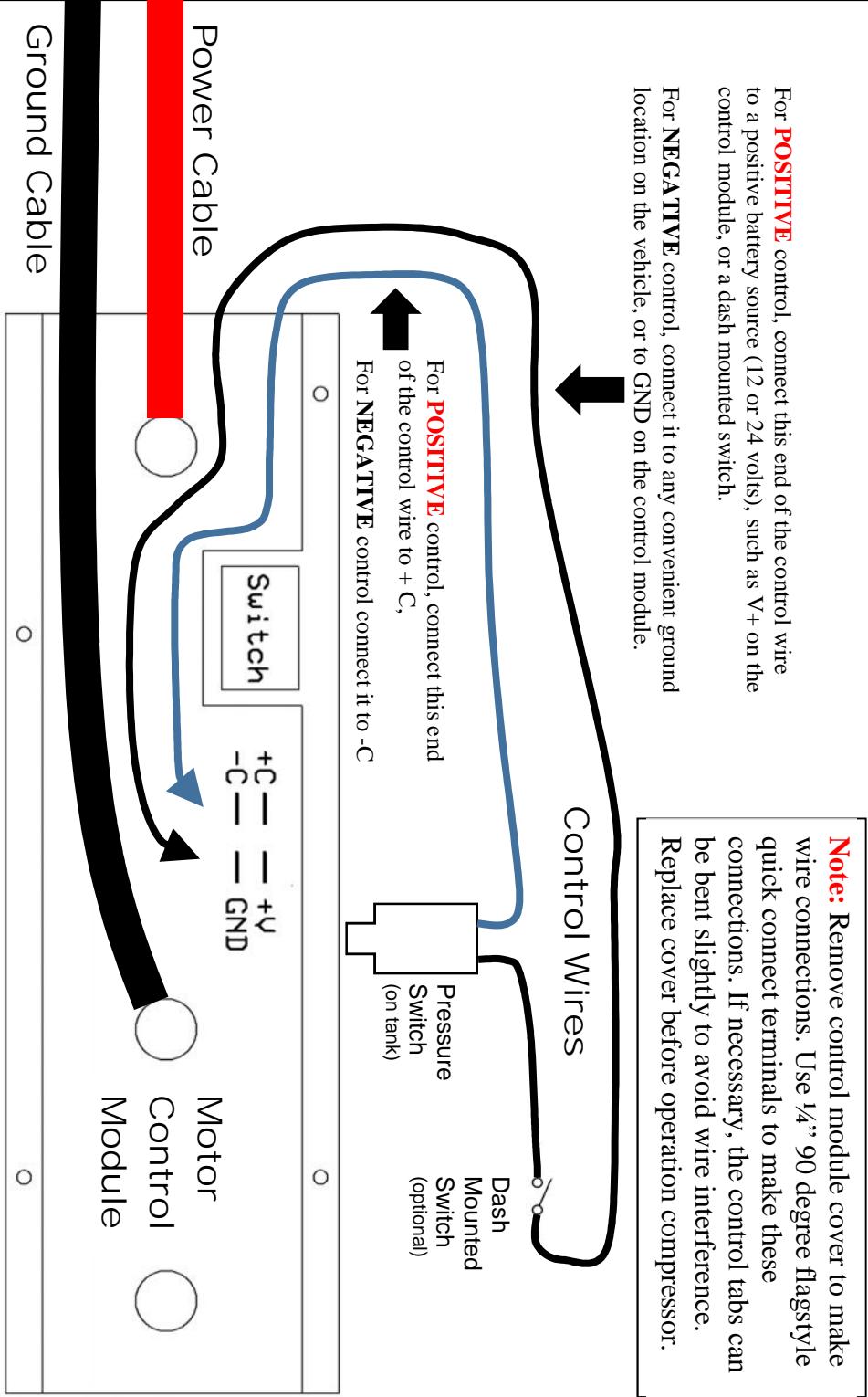
Condition	Fault	Flashes
On	None	Steady On
Open Load	Current less than 1A	1
Over Current	Current greater than 190A for more than 2 seconds	2
Short Circuit	Current greater than 750A	3
Under Voltage	Battery voltage under 9V (12V model) or 16V (24V model)	4
Over Voltage	Battery voltage over 16V (12V model) or 32V (24V model)	5
Over Temperature	Controller temperature over 120 deg C	6
Stuck On	Compressor is ON when it should be OFF	7

MAINTENANCE

Check oil level daily. If no oil is visible in window, remove the oil plug from the side of compressor (the suction side) and add oil until visible in window. Use a full synthetic 30 weight (ISO 100) air compressor oil.

Protect from corrosion - Exposure to de-icing chemicals used on winter roadways, marine environments, etc., will cause corrosion and failure if left unprotected. Heavy duty applications where the compressor runs at high temperatures will accelerate corrosion, even when corrosive chemicals are not present. Water sucked into the air intake filter will contaminate the oil and cause corrosion inside compressor. Mount compressor in a dry location that prevents heat build-up, and treat all exposed electrical components (motor brushes and motor terminals) with protective products such as DeoxIT or Fluid Film on a regular basis.

Check air filter element after every 10 hours of operation, or every 5 hours in dusty/dirty conditions, replace filter if necessary. Elements are available from the manufacturer.



TROUBLESHOOTING CHART

Symptom	Possible Cause	Corrective Action
Open Load indication	Motor brushes worn or not making contact with armature	Clean or replace brushes, be sure they move freely.
Over Current or Short Circuit indication	Power cable damaged	Check cables for nicks and cuts, repair if necessary
Under Voltage indication or unit runs slowly	Motor damaged	Contact manufacturer
	Battery voltage low	Check battery, alternator and regulator condition, repair if necessary.
	Dirty or loose connection	Check all electrical connections, clean and tighten if necessary.
	Low oil level	Check oil level. Fill if necessary.
Over Voltage indication	Compressor damaged or worn	Contact manufacturer
	Possible electrical system malfunction	Check battery, alternator and regulator condition, repair if necessary.
	Controller is too hot	Wait for unit to cool down Be sure compressor is well ventilated
	Motor controller failed	Disconnect power cables, and Contact manufacturer
Low discharge pressure	Air leaks	Tighten or replace any leaking connections.
	Restricted air intake	Replace air filter element
	Compressor damaged or worn	Contact manufacturer
Excessive noise	Loose hardware	Tighten hardware
	Low oil level	Check oil level. Fill if necessary.
	Compressor damaged or worn	Contact manufacturer
Oil in the discharge air	A small amount is normal, especially at initial start up.	Install an air line filter/separator.
	Output open	Do not run compressor with an open output and no back pressure.
	Restricted air intake	Replace air filter element.
	Excessive oil level	Drain oil to proper level.
	Compressor damaged or worn	Contact manufacturer

LIMITED WARRANTY:

This product is warranted against defects in workmanship or materials for the period of one year from the date of purchase by the original owner.

What is not covered under this Warranty:

1. Fitness for a particular purpose, including but not limited to the following examples: exposure to corrosive environments (such as saltwater, road de-icing chemicals, etc.), or extreme temperatures, or for use as an airlift water pump or pond aeration.
2. Any indirect, incidental or consequential loss, damage or expense that may result from any defect, failure or malfunction of this product.
3. Any failure that results from accident, abuse, corrosion, neglect, lack of maintenance, attempts to disassemble or repair, or failure to operate in accordance with instructions.
4. Items or service normally required to maintain the product: i.e. lubricants and filters.

⚠ WARNING: Failures due to lack of lubrication, corrosion, water ingestion, disassembly or modification are not covered under Warranty.

Oasis Mfg. will replace or repair at its discretion, products or components which have failed during the warranty period.

Purchaser shall contact Oasis Mfg. before sending any product back for warranty service for instructions. **KEEP YOUR ORIGINAL RECEIPT!**

Purchaser is responsible to deliver product to Oasis Mfg. at purchaser's own expense at the address below, via traceable carrier, package insured. Please include the following:

Contact information (name, return address, phone number)
Copy of receipt showing date of purchase
Model number and serial number
Description of compressor failure

This Limited Warranty gives you specific legal rights and you may also have other rights that vary from state to state.

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