MAXXAIR VENT CORP.

Installation Instructions

Turbo/Maxx 12 Volt
All Weather RV Ventilator Fans

P/N 00-965001 Deluxe Model 1200T
WITH THERMOSTAT
P/N 00-965007 Economy Model 3550
WITHOUT THERMOSTAT

Your Turbo/Maxx All Weather RV Ventilator Fan has been thoroughly tested prior to shipment. Following these instructions carefully will provide you continued satisfaction with your Turbo/Maxx.

You will need the following tools:

3/8 power drill
5/32, 1/16 and 3/8 drill bits
pencil & straight edge
phillips head screw driver
7/16 socket/driver or wrench
5/16 socket/driver or wrench

Your carton contains:

Turbo/Maxx Housing with fan blade, motor and wire harness (power cord)
Foam Gasket - Air Seal (weather stripping)
Control Console with PC Board, protective console cover
Owner Registration Card - Postage Paid
Hardware kit:

- 4 aluminum mounting brackets
- 4 1/4-20 stainless steel carriage bolts, nuts, flat washers, lock washers
- 7 #6 - 3/4" self tapping screws
- 2 1/4" disconnects (electrical terminals)
- 1 locking clip for wire harness (power cable)
- 8 #6 - 1/2" machine screws, nuts, flat washers, lock washers

Please note - Some of these items are located in the triangular carton compartment marked "CAUTION!! DO NOT DISCARD - THIS CARTON CONTAINS HARDWARE & WARRANTY INFORMATION"

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1. Choose a roof vent on your RV that will serve your ventilation needs and is strategically located for obtaining 12 volt DC power. Be certain the 12 volt RV circuit selected is capable of supporting the 4 additional amps generated by the Turbo/Maxx.

2. Open your roof vent 3” or 4”. Mark a 6” line on the roof surface with a straight edge from both vertical corners (**A**). Repeat this procedure for the front of the vent as show (**A**). This will aid in centering the Turbo/Maxx over the vent.

3. Place your Turbo/Maxx over the vent. Use the pencil lines to center the Turbo/Maxx by evenly locating the mounting feet between the pencil lines (**B**).

4. Mark the location of the holes in the mounting feet onto the surface of the roof (**C**). Remove the Turbo/Maxx and position the mounting brackets at each corner of the roof vent as shown. The mounting hole pencil marks should show through the slots in the mounting brackets (**C1**).

5. With each bracket positioned as above, mark the two small holes of each bracket onto the side wall of the vent (**C2**). Repeat this for all four brackets, then remove the brackets to drill these marked holes using a 5/32” dia. drill bit (**C3**).

Note: If your roof vent frame is plastic, and/or a more secure mounting installation is desired, you may perform the following:

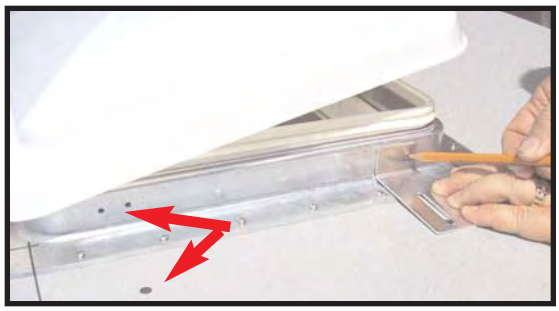
Additionally fasten the Turbo/Maxx bracket down to your roof surface using a #6 x 3/4” self-tapping screw (provided) in the hole located at the inboard end of the mounting bracket slot. Drill a 1/16” pilot hole. Drill only as deep as the screw length. Fill the hole with roof sealant and install the #6 screws

A

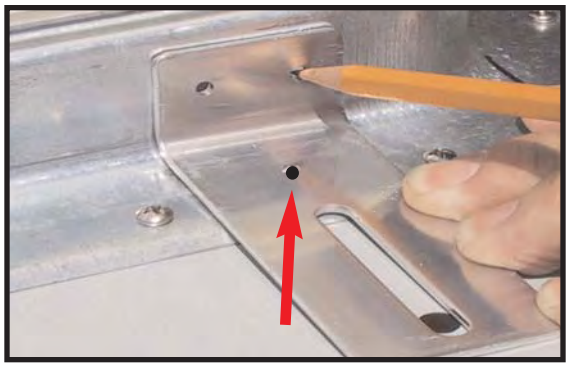
B

C

C1



C2



Install additional #6 screw here if desired

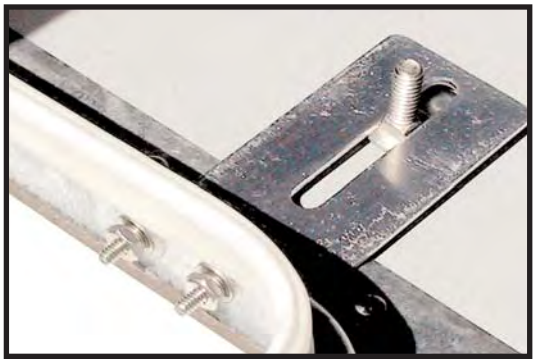
6. Install the brackets, this time placing the 1/4 - 20 carriage bolts through the slot in the bracket with the threads facing upward. Now fasten the bracket to the vent sidewall with the #6 x 1/2" machine screws provided. (**D**) Place the flat washers, lock washers and nuts inside the vent wall (**D1**).

7. The air-sealing foam gasket must be applied at this time of the installation. Avoid stretching the gasket as you remove the paper backing. Place the adhesive side down against the plastic flange of the Turbo/Maxx as shown in (**E**). If your gasket needs to be trimmed, cut it to size with ordinary household scissors. Be certain there are no gaps that may detract from the Turbo/Maxx's ability to pull air from the cabin. Gaps around the brackets after the installation is complete are acceptable. It is neither necessary nor is it recommended to apply caulking around this gasket area.

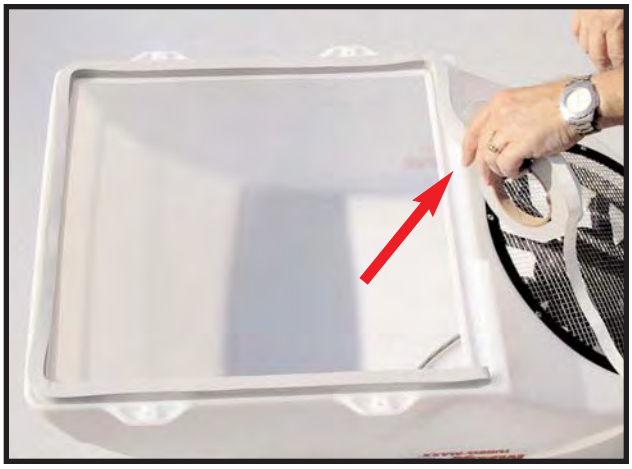
C3

D

D1



E



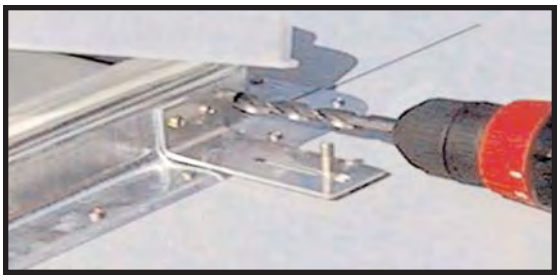
8. Drill a 3/8” hole for the fan’s power cord near the bracket at the front passenger side of the RV vent side wall (**F**). Drill as high as the vent lid will allow when it is in the closed position. Insert the four control wires (one at a time) into the 3/8” hole (**F1** and **F2**). Slide the locking clip provided in the hardware kit over the wires and press it firmly over the molded restraint (**F3** and **F4**). Slide the clip so that it fits tightly against the inside wall of the vent (**F5**).

9. Make certain the wires clear the vent lid as it closes and place the Turbo/Maxx over the 1/4-20 stainless steel carriage bolts previously installed in the mounting brackets. Fasten the Turbo/Maxx with the 1/4” lock washers, flat washers and hex nuts. You may need to press down on the housing to compress the foam gasket allowing more room to engage the nuts and washers (**G** and **G1**).

The outside installation is now complete.

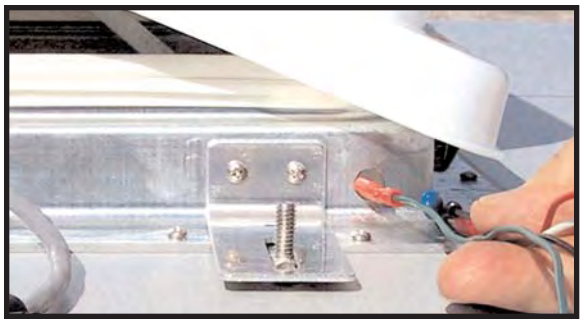
Move to the inside of the vehicle.....

F

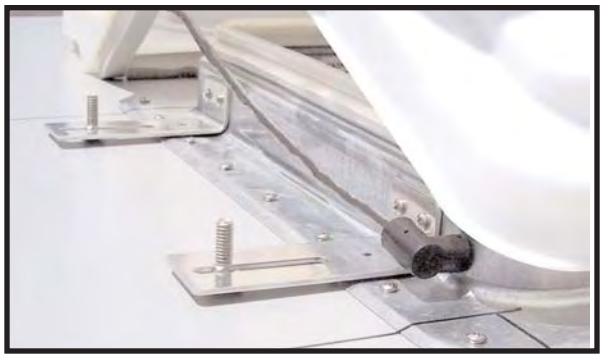


F1

F2

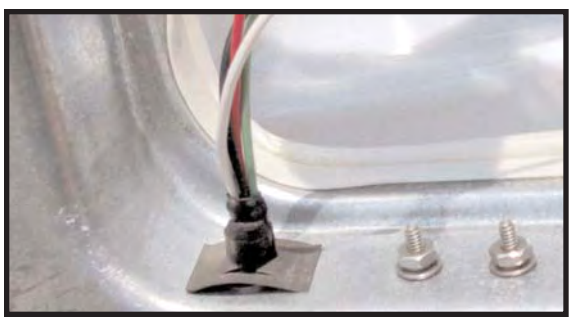


F3



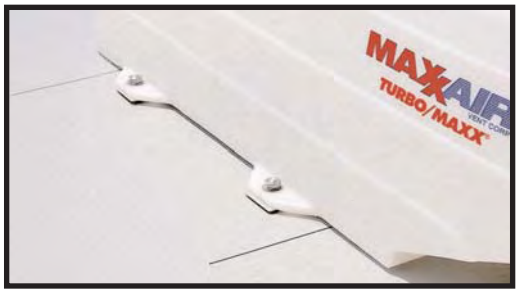
F4

F5



G

G1



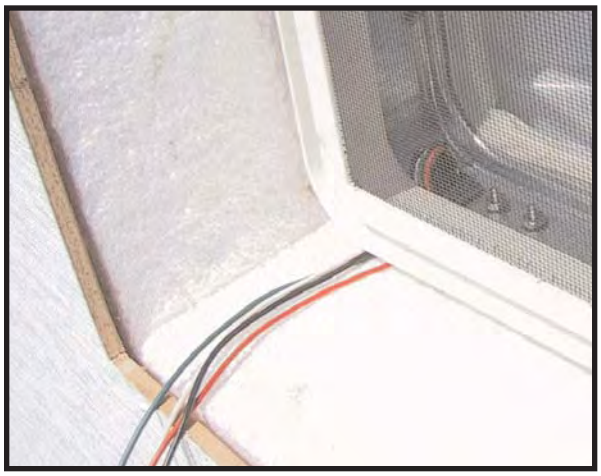
After making certain the power is turned off, provide a 12 volt DC power source to the front passenger side of the roof vent. This is the same corner that the Turbo/Maxx power cord enters the vent from the roof.

10. Drill a clearance hole or file a notch in the existing roof vent screen frame and pull the power cord from the Turbo/Maxx and the two 12 volt DC power wires to the inside of the vehicle. A notch may be preferred as it allows future removal of the screen. Some frames have enough clearance to allow wires to fit between the frame and the roof opening. In that event, a hole in the trim ring may be all that is required. (**H** and **H1**)

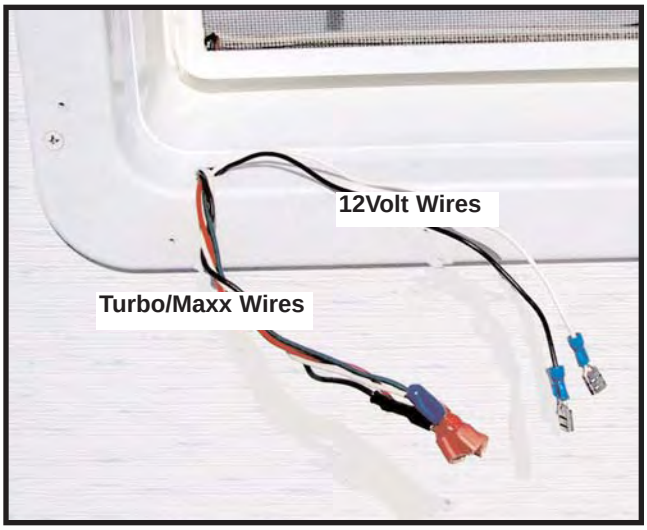
11. Before installing the control console you must be certain to identify your vehicle 12 volt positive (+) and 12 volt negative (-) power supply wires. If you are unsure how to use a volt meter to identify the polarity of the vehicle 12 volt power that you are connecting to the Turbo/Maxx control console, consult a qualified RV Technician.

Be sure your 12 Volt Power Supply wires are connected to the proper "pair" of terminals located at the edge of the PC Board!

H



H1



14. Connect the four wires from the Turbo/Maxx power cable to the PC board in the control box. These terminals marked FAN are located near the center of the board. Push the white wire (smaller female terminal) onto the horizontal male terminal labeled **WHITE COM.** Connect the green wire to the horizontal male terminal labeled **GREEN LOW**, the red wire to the horizontal male terminal labeled **RED MED** and the black wire to the horizontal male terminal labeled **BLACK HIGH**. (**I**)

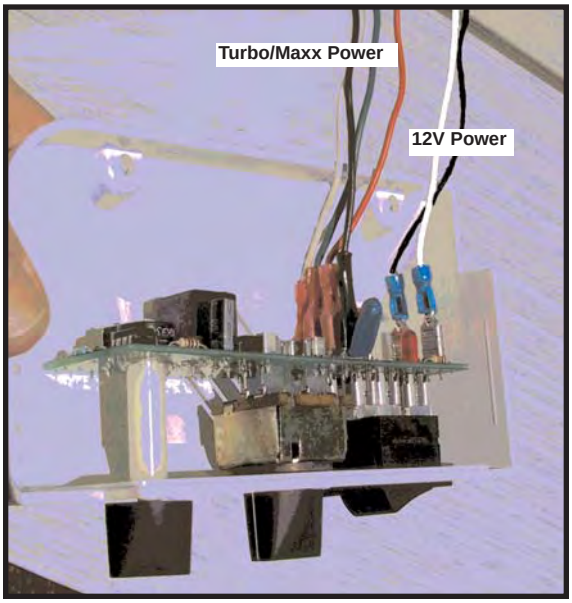
15. Prior to attaching the control console to the trim ring, test your Turbo/Maxx according to the following instructions:

Put the fan speed control knob in the **OFF position** and open your vent lid. Turn on the 12 volt power to the Turbo/Maxx. Note - If the red light inside your control console is lit, you have a reversed polarity condition. Turn off the power and re-attach the power leads to the correct terminals on the console. Turn on the power and the light should be off. Although reversed polarity will not harm this control, the motor will run backwards. If you have a Model 1200T with thermostat, turn the thermostat control fully clockwise. With the Air Direction intake/exhaust rocker switch in the **IN** position turn your Fan Speed control knob to position one (1), then two (2) and finally (3). At each setting, the fan speed should increase with the three (3) setting being the maximum speed attainable. Air should be blowing **INTO** your vehicle. Now turn the speed control knob to **OFF** and the rocker switch to **OUT.** Air should be drawn out of the vehicle at the various speeds. It is recommended that you operate the Turbo/Maxx with your vent lid open to allow for maximum ventilation.

WARNING!

WARNING!

I



If your fan speeds or other functions do not operate as described, review your wire connections and polarity assessment. If you have a thermostat model, refer to the attached operating guide for further information.

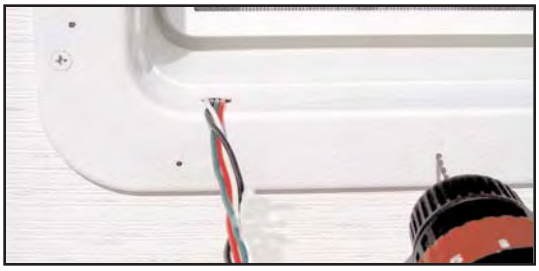
If you are satisfied that the control console is functioning properly, proceed to the installation on the vent trim ring.

16. Turn off the 12 volt power. Place the control console up against the forward passenger side of the trim ring so that the flange of the control console overlaps the flange of the trim ring (**J**). Mark the three hole positions with a pencil on to the trim ring flange. Allow the control console to hang free by the wires and carefully drill a 1/16" hole at each of your pencil marks. Install the control console protective shield into the control console housing as viewed in (**K**). Be certain the 12 volt +/- power wires run under the cover screw tab in that area. Bundle extra wire into the area shown. Hold the console in place per the photo (**L**) and attach it with the three #6 self-tapping screws provided. **DO NOT over-tighten them!** Your console should look like the photos in **L1** and **L2**. (Note the Thermostat Model 1200T is shown.)

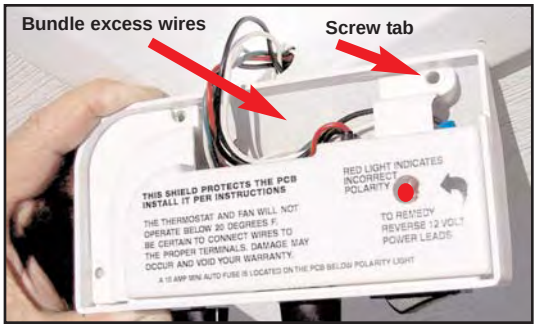
Note: If your vent has a shallow screen depth that will not accept the console wall; or should your screen be flush with the ceiling trim ring, make an outline of the console by holding it against the screen and carefully trace the shape onto the screen fabric. Using an appropriate tool, neatly cut the screen fabric to allow the console to pass tightly through the screen.

J

J1



K



L

L1

L2

17. Please be sure to complete the enclosed Postage Paid Owner Registration Card and mail it to us. If you did not receive a card, it is advisable to make note of your Serial Number for any warranty calls you may require. The Serial Number is located on the retail carton end flap, the motor bulkhead, and the right hand side wall of the control console (in addition to the Owner Registration Card). You may also register by phone or email if you desire.

You may call our Customer Service Dept.
800-780-9893

or email us
maxxair@maxxair.com
csrv@maxxair.com

You must reference your serial number on any communication. Please be assured that your personal data is intended solely for MaxxAir Vent Corp. warranty purposes and will not be distributed or sold.

THIS COMPLETES THE INSTALLATION OF YOUR TURBO/MAXX

Enjoy the Fresh Air!

For Full Warranty Information,
Operating and Trouble Shooting Guides
please refer to the attached pages

Turbo/Maxx Two Year Limited Warranty

MaxxAir Vent Corp. warrants this product to be free of defects due to faulty materials or workmanship for two years from the original date of purchase. MaxxAir shall promptly correct such defects by repair or replacement, at its option, without charge for materials or labor. Proof of purchase by the original consumer is required. Proof of purchase is for your protection in that certain products are serialized. These particular products may have been in your retailer's stock for some time prior to being sold.

This warranty does not apply to defects caused by or resulting from incorrect installation, misuse, accident, acts of God, neglect, improper operation, storage, transportation or mishandling of the product. Unless otherwise authorized by MaxxAir Vent Corp., this warranty does not cover any transportation costs for return of the product or for reshipment of any repaired or replaced product, or cost associated with the installation, removal or reinstallation of the product.

MaxxAir Vent Corp. shall have no responsibility for damage to persons or property or other loss or injury resulting from a defect in the product or from improper use or installation. Under no circumstances shall MaxxAir be liable for special or consequential damages. Any warranties implied by law, including those of merchantability and fitness for a particular purpose, are limited in duration to two years after the date of purchase. In no event shall MaxxAir's liability under this warranty exceed the cost of repair or replacing such defective product.. MaxxAir's maximum liability under any warranty is in lieu of all other warranties expressed or implied.

Some states do no allow the exclusion or the limitation of special or consequential damages or allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. This warranty gives you specific legal rights. You may also have other rights that vary from state to state.

If you feel you have a claim under this warranty, contact MaxxAir Customer Service Department for advice on handling your claim.

5513 West Sligh Avenue
Tampa, FL 33634
800-780-9893 813-882-8282 Fax 813-876-2550
email maxxair@maxxair.com
www.maxxair.com

Information and Operating Guide

The Customer Service phone number for MaxxAir is 800-780-9893, email is csrv@maxxair.com

Factory Tested

Every Turbo/Maxx ventilator is tested at the factory to ensure proper operation prior to shipment.

Power Consumption

The Turbo/Maxx draws less than 4 amps at high speed (#3 setting) using 13.8 volts DC of power and under 1.4 amps at the lowest speed (#1 setting).

Fuse Protection

The control console is protected by a factory-installed 10 amp non-reset replaceable mini-fuse (located on the PC Board under the polarity light), a non-resettable fuse on the resistor board and an overheat protection switch within the motor. The Turbo/Maxx must also be connected to power wires that are fuse protected within the RV. We recommend a maximum of 10 amps fuse protection to this device.

Air Flow Direction

The IN-OUT air direction switch is referred to as the "Rocker" switch. It changes the direction of the fan motor so that you may either pull air into the cabin or draw air out. It is imperative that the vent lid is open, and some other vent or window is also at least partially open to allow the powerful Turbo/Maxx motor to cool itself and to operate efficiently. Be sure to leave a window or other air vent open to give the Turbo/Maxx some fresh air to work with. This should be at a distance from the ventilator so that fresh air can travel through the entire living area before being exhausted by the Turbo/Maxx. Our Window/Maxx for sliding windows makes an ideal companion product for cross ventilation.

Minimize Wear

When changing fan direction, it is advisable to stop the fan by turning the three-speed knob to the OFF position and wait about ten seconds before restarting the fan in the opposite direction.

Thermostat Control (for Model 1200T only)

The overall temperature range of the thermostat on the 1200T model is set at the factory. Unless the Speed Control switch is in the "OFF" position, the Turbo/Maxx 1200T will be fully operable between 20 degrees F and 120 degrees F. To operate, set the fan to exhaust and turn the thermostat fully clockwise ("COOLER'). The fan should now be running. Slowly turn the thermostat counter clockwise until the fan just stops running. The thermostat has now "measured" the RV's existing temperature. The thermostat is designed to allow the RV interior temperature to rise approximately 5 degrees F from this setting before the fan will automatically restart and draw air into the RV from the outside. Turning the thermostat slightly more will increase this 5 degree range. When cooler air is drawn into the RV and the RV's interior temperature reaches its original setting the fan will automatically shut off. Positioning the thermostat knob fully clockwise ("COOLER") will allow the fan to run constantly.

CAUTION!

When working on a Turbo/Maxx (cleaning the screen or fan blade), be certain to turn the speed control knob to the OFF position to avoid accidental starting. It would be advisable to turn the 12 volt vehicle power to the Turbo/Maxx OFF to be sure you are safe.

Trouble Shooting Guide

The Customer Service phone number for MaxxAir is 800-780-9893, email is maxxair@maxxair.com

Any trouble shooting of the Turbo/Maxx should be carried out after the wires have been completely disconnected from the printed circuit board (pcb) for at least ten (10) minutes.

A sudden surge of power from another power source or the shorting or switching of two power wires connected at the PC board can severely damage it and jeopardize your own safety. Some system components run normally hot to the touch and should be allowed to cool prior to trouble shooting.

A circuit failure may appear to be the same as a blown fuse. Turn off your motor at the control box and your 12 volt power to the Turbo/Maxx. Check your fuses first. Resistor board components get hot even during normal operation. Do not put your hands in the motor/fan blade area withing ten (10) minutes of shutting the unit off. The control console contains an automotive 10 amp mini-fuse. To gain access to this fuse, the console must be removed from the ceiling. Lift the control circuit board cover to replace the fuse. Caution: a blown fuse may indicate a severe electrical problem in your RV. You may wish to contact an RV Technician for assistance.

Should your Turbo/Maxx run on the incorrect speed setting, you probably have an incorrect 12 volt wire hook-up. Call MaxxAir's Customer Service Dept. for guidance, or review previous wiring instructions and make corrections as needed.

If the fan motor does not run, check the following:

1. Reconfirm the 12 volt power source polarity has been correctly connected to the proper terminals.

2. Use a volt meter or 12 volt test light to confirm 12 volt power is available at the power supply wires.

3. Disconnect all wires from the control box PC board and connect the 12 volt supply directly to the black and white fan motor leads. If the fan runs, you may have a problem with the PC or resistor boards. If the fan motor does not run, check for loose terminal connections on the roof that are located inside the Turbo/Maxx housing. DO NOT CHANGE WIRES AROUND! Your Turbo/Maxx was tested at the factory.

The state-of-the-art resistor board that is attached to your housing is protected by a 10 amp non-resettable fuse that will cut all power to the unit in the event circuit failure is experienced by the board. Jamming of the fan blade or an abnormal electrical occurrence can over-tax the fan motor or resistor board, creating excessive heat that will shut down specific components. These are not user serviceable parts and we suggest you call Customer Service for further instructions.

Once you are satisfied you have corrected a problem, the fan speed control should be switched to the OFF position for a minimum of five (5) minutes before restarting the system. This will allow the circuit and thermal cut-out device in the motor to cool and automatically reset.