

# INSTALLATION INSTRUCTIONS

## ROOFTOP FAN

Read instructions thoroughly prior to installation. Installation should be performed by a qualified professional. Always practice proper usage of personal protective equipment when using power tools and always wear safety glasses.

FOR 12V VEHICLES ONLY



## PARTS LIST

- |                      |  |
|----------------------|--|
| 1. Cover             | 20. (10) Cable Ties                      |
| 2. Base              | 11. (4) #8 x 1" Phillips Pan HD Screw    |
| 3. Roof Adapter A    | 12. (10) #8 x 5/8" Phillips Pan HD Screw |
| 4. Roof Adapter B    | 13. (4) #8 x 3/4" Phillips Pan HD Screw  |
| 5. Control Panel     | 14. (4) #8 x 3/4" Phillips Oval HD Screw |
| 6. (4) Vents         | 15. Harness Adapter                      |
| 7. Convoluted Tubing | 16. Adhesive Tie Mount                   |
| 8. Wiring Harness    | 17. Filter                               |
| 9. Template          | 18. Harness Extension                    |

## REQUIRED TOOLS

- |                           |                            |
|---------------------------|----------------------------|
| 1. Variable Speed Jig Saw | 6. Marker or Pencil        |
| 2. 11 to 14 TPI Saw Blade | 7. Tape Measure            |
| 3. Sawhorses              | 8. Phillips HD Screwdriver |
| 4. Drill Motor            | 9. De-burring Tool         |
| 5. Drill Bit Size: (3/8") | 10. Cable Tie Cutter       |

## IMPORTANT

This product is made to be used on 12-volt gas-powered vehicles only. **Do not attempt to hookup the Rooftop Fan to a non-12 volt vehicle as damage to the unit may occur.**

Only operate the fan while the unit is securely installed on the vehicle.

Do not block fan's air intake around the cover and maintain at least a 3" clearance.

Do not operate this product in the rain.

Do not operate fan with an enclosure over the cover.

Possibility of personal injury when working on high voltage electrical circuitry and batteries. Use best safe practices and remove jewelry before hooking up to the battery to make sure that metal jewelry such as bracelets and rings do not come in contact with battery terminals and cause shorting.

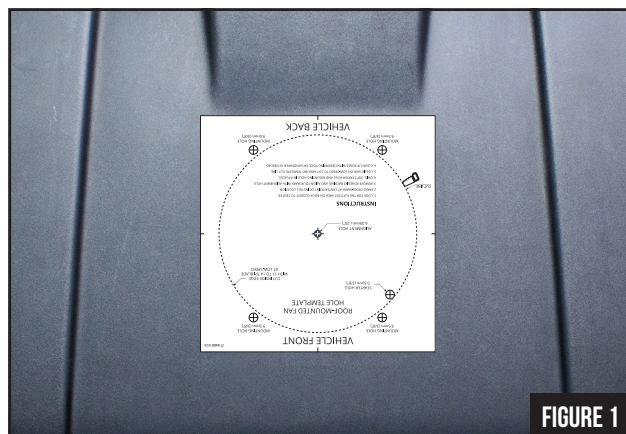
Shorting across battery terminals may cause explosion.

## INSTRUCTIONS

1. Remove the roof and place it onto sawhorses with the top side facing up.
2. Determine preferred install location by centering the unit and adjusting on all sides to clear any roof contours.

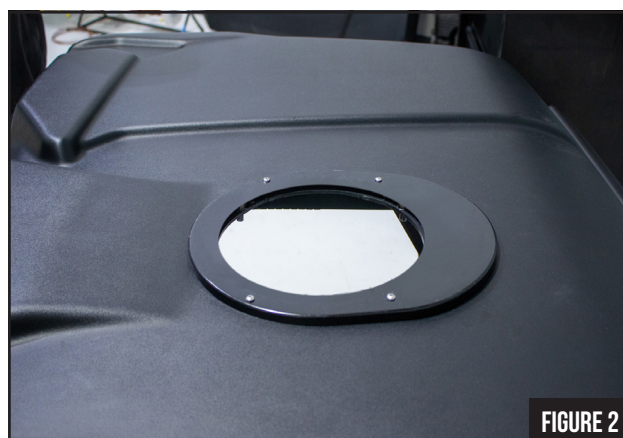
**NOTE:** Look for the flattest area on the roof while also considering fan control location for ease-of-use.

3. Make a crossmark at center point of install location.
4. Remove the adhesive backing of template (9) and align so that your mark is centered in the template alignment hole. (Figure 1)



**FIGURE 1**

5. Following the template, drill one 3/8" hole on the inner edge of the dotted circle for the starter hole, and then drill four 3/8" holes on the corners for the mounting holes.
6. Using a jig saw on a low-speed setting, begin cutting around the dotted circle of the template edge. Carefully cut all the way around, and clean up the hole edges with a deburring tool or sandpaper as needed.
7. Place roof adapter B (4) into main mounting hole, taking care to center within the hole and align with roof. Secure with screw (13) in four places. (Figure 2)



**FIGURE 2**

8. Secure the base (2) using screw (12) in 10 places. (Figure 3)



**FIGURE 3**



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9. Place filter (17) over base. Ensure filter flange sits flat on base. (Figure 4)



FIGURE 4

10. Secure cover (1) using screw (11) in four places. (Figure 5)



FIGURE 5

11. Flip the roof over so the underside faces up.

12. Set roof adapter A (3) onto base (2). Install control panel (5) to base by plugging in four connectors (LED, Light, Switch, ACC). Begin with either the far left or far right connector and work your way to the opposite end. (Figure 6A, Figure 6B)

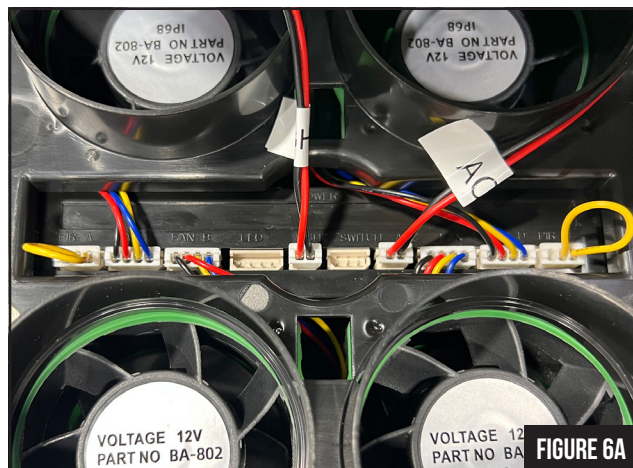


FIGURE 6A



FIGURE 6B

**NOTE:** While lowering the control panel, ensure no wire interference with the vent mount holes. Use fingers through vent holes to route wires into tracks.

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13. Secure the control panel to the base, through roof adapter A (3), using screw (14) in four places. Insert the four vents (6) into the control panel by pressing down and snapping into place. (Figure 7)

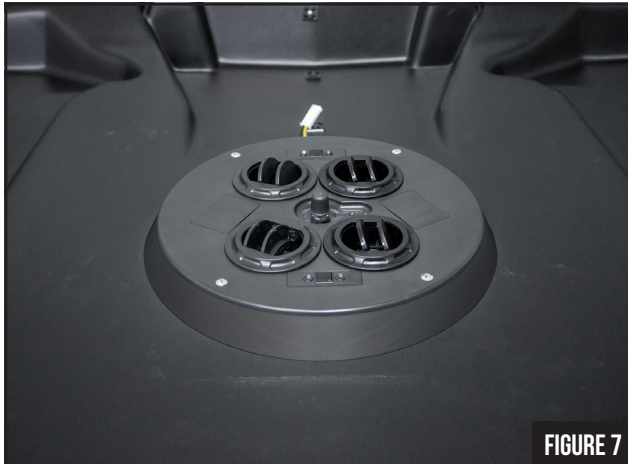


FIGURE 7

14. Reinstall the roof onto the vehicle.
15. Connect harness extension (18) to fan unit.
16. Run the wiring harness (8) from the battery compartment to driver side through roll bar exit through firewall and connect to harness extension (18).
17. Connect the red wiring harness cable to the positive battery terminal and the black wiring harness cable to the negative battery terminal. (Figure 8)

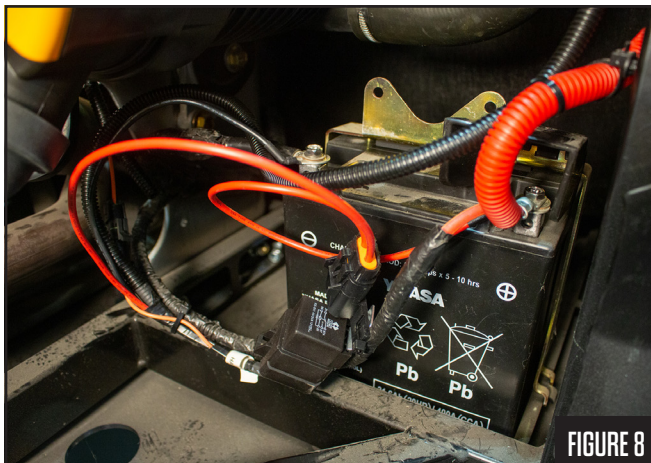


FIGURE 8

18. This step will vary depending on your vehicle model. Locate a switched power connection and connect using the harness adapter (15). (Figure 9)



FIGURE 9

**NOTE:** This is commonly located on a solenoid in the battery compartment or a designated accessory terminal behind the dash. Refer to your vehicle owner's manual to determine ideal switched power hook-up location.

19. Connect the power cable to the wiring harness (8) power connector and check system operation.
20. Cover exposed wiring at fan connector with convoluted tubing (7).
21. Secure wiring harness (8) to vehicle frame using cable ties (10), and secure to roof using adhesive tie mounts (16). (Figure 10)



FIGURE 10

22. Secure fuse, relay, and dress wires in battery compartment with cable ties.

✓ Installation complete. Verify fan functions properly.

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## OPERATING GUIDE

### 5 Fan Speeds

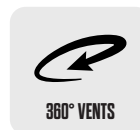
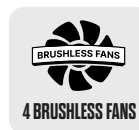
To power on the fan, turn on the key switch and then turn the Fan Speed Control knob from the off position to the desired mode. The LED Indicator will light up when the fan is powered on.

- 1 - Off
- 2 - Low Speed
- 3 - Medium Speed
- 4 - High Speed
- 5 - Turbo Mode\*

\* When Turbo Mode is engaged, all four fans will spin at maximum speed.

### Ultra-Bright LED Lighting

Can be toggled on and off by pressing the square button located between the LEDs. Only the key switch needs to be on for the lights to function.



## TROUBLESHOOTING

Problem: Unit will not power on.

Cause 1: The fan needs to be reset.

**Solution:** Reset the fan by turning key switch to the off position while ensuring the fan is set to mode 1 (off). Once both are off, turn the key switch on first, then power on the fan.

Cause 2: Inadequate power connection.

**Solution:** Ensure proper harness connections, including the power connector, harness adapter, and switched power connection.

Cause 3: Inadequate battery connection.

**Solution:** Check battery terminals to ensure a clean, proper connection to the positive and negative terminals.

Cause 4: Improper switched power connection.

**Solution:** Using a volt/ohm meter, ensure a proper 12v connection when key is turned off/on.

Cause 5: Battery fail-safe sensor.

**Solution:** Recharge the batteries. The fail-safe sensor will automatically shut the fan off when battery voltage drops below a preset threshold.