

Installation Instructions for the A700184 – 24V to 12V Power Converter

Operation

The 24V to 12V Power Converter kit allows a 24 volt DC source to run a 12 volt DC component that requires a maximum of 40 Amps. Whenever powered, the power converter's 12 volt DC output will be enabled.

This kit's power converter should be installed in a location where it is ventilated and protected from water/splash, i.e. in cab of vehicle.

Important Information

The information in this manual is intended for certified VMAC installers who have been trained in installation procedures and for people with mechanical trade certification who have the tools and equipment to properly and safely perform the installation. Do not attempt this installation if you do not have the appropriate mechanical training, knowledge and experience.

Follow all safety precautions for mechanical work. If you have difficulty with the installation, contact VMAC.

To order parts, contact your VMAC dealer. Your dealer will ask for the VMAC serial number, part number, description and quantity. To locate your nearest dealer, call 1-800-738-8622.

Notice: Manuals and products are subject to change without notice

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Installing the Power Converter for the Predatair

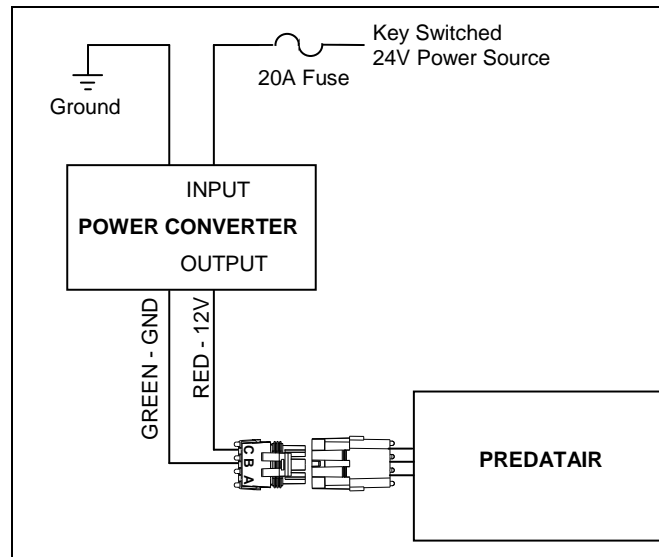


Figure 1 – Installing the power converter

1. Disconnect the battery/power source.
2. Find a suitable location to install the power converter where it is protected from the elements. Ensure it's a ventilated area to prevent the unit from overheating.
3. Measure the total length of wires that will be required to go from the power source to the power converter to the Predatair. Measure both the power and ground wire lengths, add them together, and select the correct wire size from Table 1.

Total length of Power wire PLUS Ground wire	Recommended Wire Gauge
Less than 5 ft.	12AWG
5 ft. to 8 ft.	10AWG
More than 8 ft.	8AWG

Table 1 - Wire guage size

4. Run wires of recommended gauge from the power source to the power converter.
5. Ensure the 24V power source is fused or place an inline 20A ATC/ATO fuse as close as possible to the battery/power source.



Note: Any length of wire unprotected by a fuse is a potential fire hazard.

6. Attach wires coming from the power source to the Input and Ground terminals using the unit's set screws. Use Loctite 425 and fasten firmly, but do not over-tighten set screws.
7. Using wire size based on Table 1, extend the Predatair interface cable's RED and GREEN wires to the power converter.

8. Attach the extended interface cables to the Output and Ground terminals using the unit's set screws. The RED wire (Pin C on connector) goes to the Output, and GREEN wire (Pin B on connector) goes to the Ground. Use Loctite 425 and fasten firmly, but do not over-tighten set screws.
9. Test the power converter as described below before connecting the interface cable to its mating connector on the Predatair.

Testing the Power Converter with the Predatair

1. Verify power converter wiring.
2. Re-attach battery/power source and verify voltage polarity on the interface cable connector with a multi-meter. RED/Pin C (+) to GREEN/Pin B (-) should be nominal 12V.
3. Connect the interface cable connector to its mating connecting on the Predatair.
4. The Predatair display screen will power on and perform SYSTEM CHECK followed by SYSTEM READY. The warning light on the display box should not be illuminated.



Note: Perform pre-operation checklist tasks. See Predatair Installation Manual for details on installation requirements, hydraulic system requirements, and pre-operation checklist tasks.

5. Enable PTO/hydraulic system. When temperatures are below -15°C, circulate the hydraulic fluid to warm it before activating the PREDATAIR.
6. Press the ON button. The Ready light should be illuminated. The warning light on the display box should not be illuminated.
7. Operate the system with an air tool for at least ½ hour. Ensure the Predatair fan powers on during the test.



Note: The fan powers on when compressor temperature rises above 88°C. It also powers on if hydraulic and compressor temperatures are both above 66°C and 77°C, respectively.

8. For the duration of the test, the Predatair should remain powered and the display box screen show text. (i.e. Predatair should not turn off by itself, nor should the display box screen go blank when the fan starts/turns-on.)
9. Press OFF on the Predatair's display box.



Review the Predatair Owners Manual before using the Predatair.