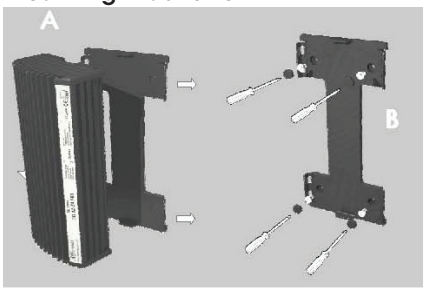
Step-Up DC Converters: Operates 24V Load from 12V Source
Installation/Operation Manual
Models: 12-24-16 & 12-24-25, Negative Ground

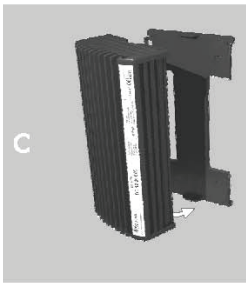
Packaging Contents
1 x DC-DC Converter
1 x Mounting Clip (attached to converter)
4 x Screws
4 x Screw Covers
4 x Mounting Spacers

Safety
- The converter must not be exposed to extreme temperature, direct sunlight or vigorous vibration.
- The converter is intended for use in a protected area. Do not expose to rain or spray.
- During operation the unit can be hot to touch. Therefore it must be positioned so that during operation it is not readily accessible.
- Do not install the converter on hot vehicle or engine room parts and ensure there is sufficient space around the unit for air circulation and cooling.
- The input and output wiring must be fused appropriately
- Observe the polarity of the input/output voltage when installing. Incorrect polarity or excess voltage could damage the circuit.
- Disconnect the circuit before you connect or remove the converter.
- Ensure that the output of the converter is not short-circuited.
- Never open the converter casing or attempt repair. The converter must be replaced if it is damaged.

Mounting & Wiring
1. Carefully remove the mounting clip from the converter using a slotted screwdriver (**A**).
2. Select a cool, dry and ventilated position to install the converter which is not exposed to direct sunlight and where the unit can be mounted vertically or horizontally.
3. Disconnect the power to the wiring before installation.
4. Using the mounting clip as a template, mark the four mounting holes.
5. Drill four 1/8" holes for the screws. Before you start, ensure that any cables or other lines cannot be damaged when drilling.
6. Attach the mounting clip with the screws provided. Use the additional mounting spacers if the clip is not level (Fig. 3).
7. Cover the screw heads with the protective caps (**B**).
8. Insert the converter in the mounting clip and press down until it clicks into place. When doing so, make sure that the guide piece on the mounting clip fits properly into the recess on the converter (**C**).
9. Prepare input and output wires by stripping 1/2" of protective insulation.
10. Connect input and output to the removeable terminal block. Terminal block can be secured to unit with captured screws. Note, input current requirement in specifications and size wire accordingly.
11. Connect power to the unit.

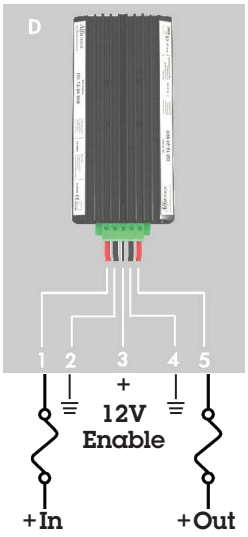
Mounting Illustration





Wiring
Isolate the circuit before you connect or disconnect the load. Connect the unit as shown in Figure D.

Wiring Illustration



1) Input (+) Positive (10-15V)*
2) Input (-) Negative (0V)
3) Enable (+12VDC)** (Active High)
4) Output (-) Negative (0V)
5) Output (+) Positive (27.2V)*

* Install fuse or circuit breaker on +12V input and +24V output.

** Enable terminal note: A +12 VDC connection to the 'Enable' terminal is required to turn the converter on. This terminal allows the converter to be turned OFF & ON via the vehicle/vessel wiring. If ignition switch control is not required, a SPST switch can be used to turn converter off & on. If the converter is to be left continuously running, place a small jumper wire (18 AWG) between +12V Input and Enable terminals.

Specifications

Model	12-24-16	12-24-25
Input Voltage	10 - 15 VDC	10 - 15 VDC
Max Input Current @ 12.0 VDC	37A	56A
Output Voltage	27.2 VDC	27.2 VDC
Output Current	16A, 22A Max.	25A, 30A Max.
Operating Temp.	-25 to +30˚ C, derate linearly from 30˚ to 0% 80˚ C	
Case Size (inches)	9.1 x 4.9 x 2.9	11.1 x 4.9 x 2.9
Weight (lbs.)	3.5	4.1

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