



CONVERTS 24 VOLT DC INTO 12 VOLT DC POWER

DC TO DC CONVERTER

SWITCHMODE



INSTRUCTION MANUAL

Please read user manual before use.



THIS PRODUCT IS SUITABLE USING DC ELECTRICAL APPLIANCES.

1. DESCRIPTION

FIG 1

FIG 1 (6000mA-10000mA)

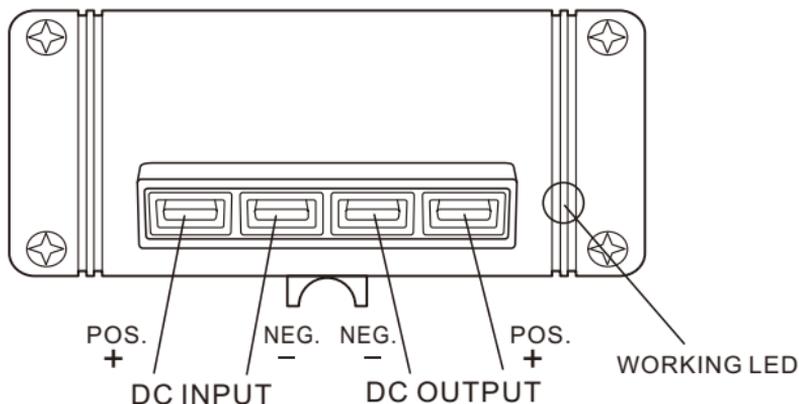


FIG 2

FIG 1 (20000mA-40000mA) Rear

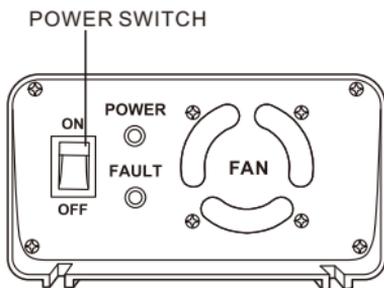
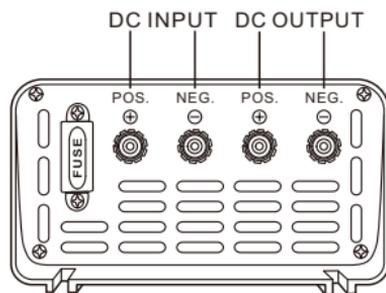


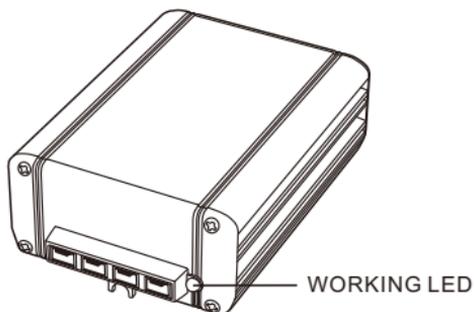
FIG 2 (20000mA-40000mA) Front



2. INDICATING SIGN

MODEL: PV2412-6、PV2412-10

LED LIGHT ILLUMINATES: THE PRODUCT IS UNDER WORKING.

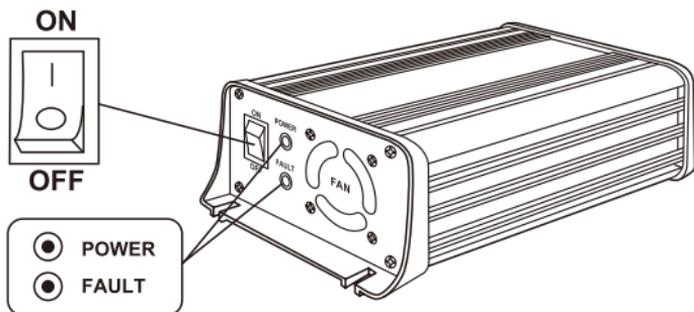


MODEL: PV2412-20、PV2412-30、PV2412-40

GREEN ILLUMINATED LED: POWER SWITCH "ON" CONVERTER STANDBY

GREEN UNILLUMINATED LED: POWER SWITCH "OFF"

WHEN RED ILLUMINATED ON: CONVERTER IS AT FAULT



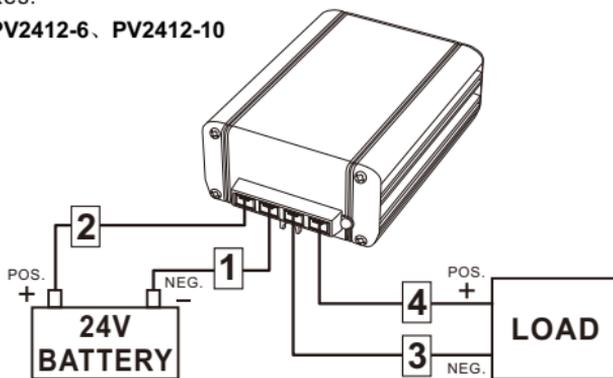
3. CONNECTION

- Please verify if you have chosen the right operating voltage for both input and output.
- Connect the red cable from the "+" terminal (red terminal) of the battery to the + binding post (red connection) of the converter and the black cable from the "-" terminal (black terminal) of the battery to the "-" binding post (black connection) of the converter.
- Be sure to tighten the screws in order to avoid loose connection.
- **WARNING: DO NOT REVERSE INPUT AND OUTPUT**

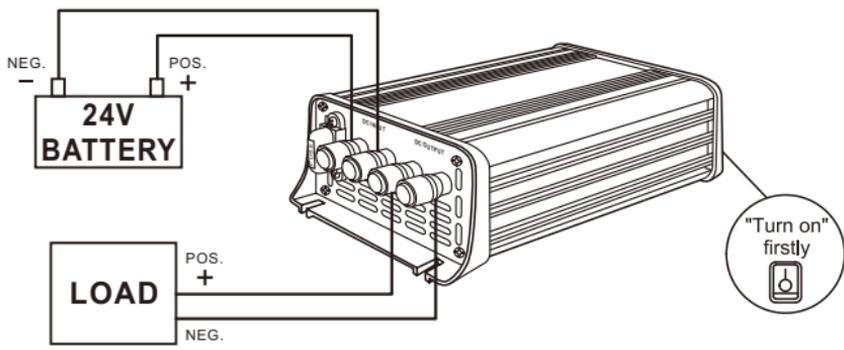
4. OPERATION

- A) When connected to an appliance, remember to turn on the converter before turning on the appliance. If the buzzer sounds during operation, this indicates that the battery voltage is very low and the converter will be disconnected in 5 minutes.

MODEL: PV2412-6、PV2412-10



MODEL: PV2412-20、PV2412-30、PV2412-40



- B) When connecting an electrical appliance to the converter, please make sure that the rating power of the appliance is not exceed the rating power of the converter.

5. OUTPUT CAPACITY

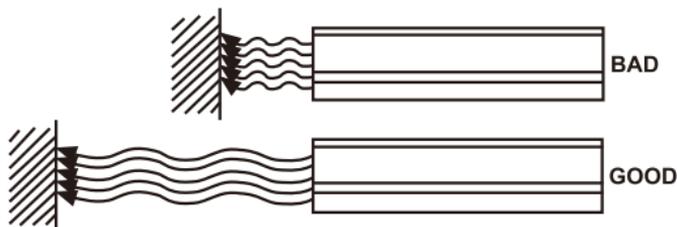
The converter will switch off automatically if the total wattage of the electrical appliances exceed the converter's output capacity. This will also happen if the temperature of the converter exceeds 65°C +/-10% due to prolonged use.

6. ADDING EXTENSION CORD

We recommend that the buyer refrain from using an extension cord between the DC power source and the converter's DC input. Connecting an extension cord to the DC input will create a voltage drop, entailing reduced efficiency and output.

7. VENTILATION

IMPORTANT! During operation, make sure the fan keeps revolving. Check the possible malfunctions if the fan does not work when this unit is being used. Make sure the fan is not blocked in order to avoid poor ventilation.



8. CAUTION

In case of trouble with the DC output, e.g. short-circuit, overload, etc... the protection circuit will automatically cut off the output.

In such cases:

- (A) switch off the power at once
- (B) disconnect all units
- (C) check the connected devices
- (D) use the units again unless the problems concerning the connected devices have been solved

When in use for a prolonged period of time, the DC output may suddenly be cut off although the battery voltage is still very strong. This may be caused by excessive temperatures.

If this happens. Please proceed as follows:

- (A) Switch off the converter at once
- (B) Disconnect some of the appliances or wait until the converter cools off
- (C) Switch the inverter back on

Always keep the converter in an environment which is:

- (A) Well-ventilated
- (B) Not exposed to direct sunlight or any other heat source
- (C) Inaccessible to children
- (D) Safe from water/moisture, oil or grease
- (E) Safe from any flammable substance

9. MAINTENANCE

Very little maintenance is required to keep your converter operating properly.

You should clean the exterior of the unit periodically with a damp cloth to prevent accumulation of dust and dirt. At the same time, tighten the screws on the DC input and DC output terminals.

10. NOTE

All specifications typical at nominal line, half load, and 25°C unless otherwise noted.

Specifications subject to change without notice.

**WARNING: DO NOT DISASSEMBLE THE UNIT. HAZARDOUS VOLTAGE!
DANGER!**

**PLEASE RETURN TO THE DEALER IF YOU FIND ANY PROBLEM WITH
THE UNIT.**

11. SUITABLE POWER SOURCE

- In order to operate the converter and supply power to an appliance, a suitable 24V DC power supply is required. This can be a vehicle or caravan battery, portable power pack or an independent 24V lead acid battery, For most applications, a deep cycle battery is recommended for best performance..
- The size of the battery used will determine how long the converter will supply power to an appliance and how well the converter will perform. Most batteries are marked with their size in Amp hours (AH) or Cold Cranking Amps.
- Because converter are capable of drawing high currents, the converter should only be connected to a suitable size battery, Connection to an undersized battery could damage the battery and will result in the converter shutting down within a short period due to low battery voltage.
- The amount of power dwn from the battery is proportional to the converter load.

12. SPECIFICATION

P/No.	PV2412-6	PV2412-10	PV2412-20	PV2412-30	PV2412-40
Input Voltage	20-30V ---	20-30V ---	20-30V ---	20-30V ---	20-30V ---
Output Voltage	12-13.8V ---	12-13.8V ---	12-13.8V ---	12-13.8V ---	12-13.8V ---
Output Power	6Amp (Continuous)	10Amp (Continuous)	20Amp (Continuous)	30Amp (Continuous)	40Amp (Continuous)
Output Power	10Amp(Max)	15Amp(Max)	30Amp(Max)	45Amp(Max)	60Amp(Max)
Standby Current	≤15mA	≤20mA	≤70mA	≤80mA	≤80mA
Input Fuse	7.5A	10A	20A	30A	40A
Output Fuse	NO	NO	NO	2x25A Internal	2x30A Internal
Efficiency	85~90%				
Thermal Protection	65°C+/-5 °C				
Connection Cable	1.5mm ² /900mm	2.0mm ² /900mm	2.5mm ² /900mm	4.0mm ² /900mm	6.0mm ² /900mm
Fuse Location Input	Internal		External		
Cooling Fan	No		Automatic temperature controlled		
Input Polarity Reverse	Diode Protection				
Output Polarity Reverse	Circuit Protection				
Output Short	Circuit Protection				
Over Heating	Circuit Protection				
Over Load	Circuit Protection				
Dimension (L x W x H)	88x87x42mm	126x87x42mm	175x110x60mm	215x110x60mm	215x110x60mm
Weight	0.25Kg	0.38Kg	0.71Kg	0.98Kg	1.0Kg

WARNING:

To prevent fire shock hazard do not expose this appliance to rain or moisture.

CAUTION:

ALWAYS PLACE THE CONVERTER IN AN ENVIRONMENT WHICH IS:

- (A) WELL VENTILATED.
- (B) NOT EXPOSED TO DIRECT SUNLIGHT OR HEAT SOURCE.
- (C) OUT OF REACH FROM CHILDREN.
- (D) AWAY FROM WATER/MOISTURE, OIL OR GREASE.
- (E) AWAY FROM ANY FLAMMABLE SUBSTANCE
- (F) SECURE AND NO RISK OF FALLING.

