

OPTI-Solar

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SOLAR INVERTER

**DC TO AC 2000W INVERTER
WITH BUILT-IN SOLAR CHARGER CONTROLLER**

DC12V or 24V to AC220V~240V Instruction Manual

Please read user manual before use.

INVERTER USEFUL APPLICATIONS

**RUN NOTEBOOK COMPUTERS, RADIOS, TVS, VCRS,
LAMPS, FANS, FAX, DRILL, ETC.**

INVERTER SPECIFICATION

INPUT VOLTAGE RANGE : DC 10~15V (12V) // DC 20~30V (24V)

INPUT FULL LOAD CURRENT : 200A (12V) // 100A (24V)

STANDBY INPUT CURRENT : <0.8A (12V) // <0.6A (24V)

OUTPUT VOLTAGE (AC) : 220V~240V

OUTPUT WAVEFORM : MODIFY SINEWAVE

OUTPUT FREQUENCY : 50Hz or 60Hz

CONTINUE OUTPUT POWER : 2000W

PEAK OUTPUT POWER : 4000W

EFFICIENCY : 85~90%

BATTERY LOW PRE-ALARM : $10.5 \pm 0.5V$ (12V) // $21 \pm 0.5V$ (24V)

BATTERY LOW SHUTDOWN : $10 \pm 0.5V$ (12V) // $20 \pm 0.5V$ (24V)

THERMAL PROTECT : $60 \pm 5^{\circ}C$ (MICROCONTROLLER)

AUTO-OPERATION FAN (TEMPERATURE OR LOAD)

OVERLOAD PROTECT : YES (MICROCONTROLLER)

OUTPUT SHORT PROTECT : YES (MICROCONTROLLER)

BATTERY EX. 12V / 24V PROTECT : YES (MICROCONTROLLER)

BATTERY POLARITY PROTECT : YES (BY FUSE)

FUSE : 15A*16PCS (12V) // 10A*16PCS (24V)

SOLAR CHARGER CONTROLLER SPECIFICATION

Standby current(A) : < 30 mA

CHARGER CURRENT : 30A (12V // 24V)

Max Solar Array Voc (volt) : 50V

Max Solar Array Current(A) : 30A

Charge stage : PWM → Float

Max Load Current(A) : 30A (12V // 24V)

Low Volt Protection : $10 \pm 0.5V$ (12V) // $20 \pm 1V$ (24V)

Low Volt Reset : $12.5 \pm 0.5V$ (12V) // $25 \pm 1 V$ (24V)

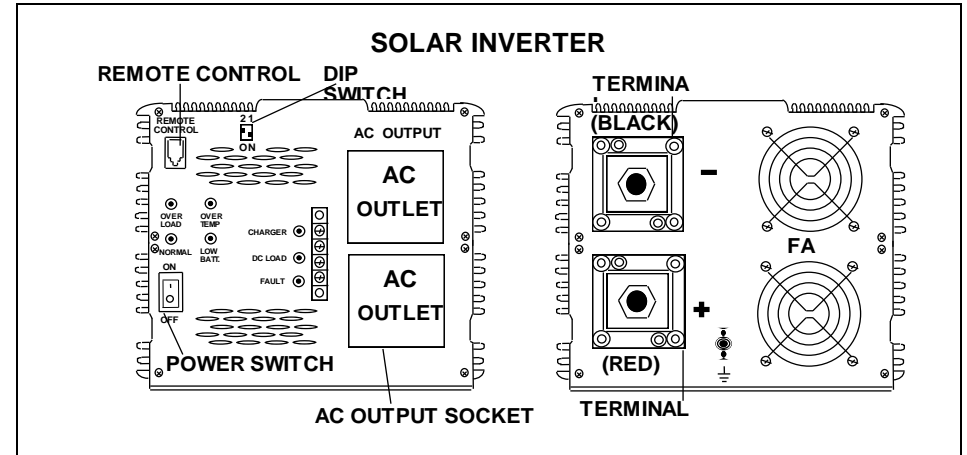
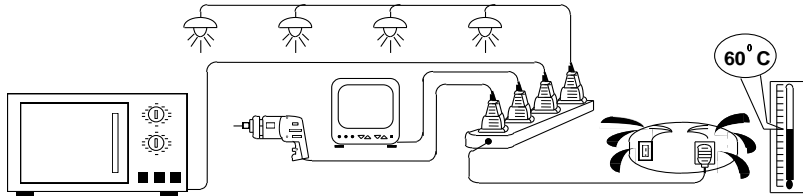
Over Load Protection : Yes (120% of rated current)

Efficiency : > 90%

DIMENTION (L*W*H) mm : 420*169*152

WEIGHT : 7.6Kg

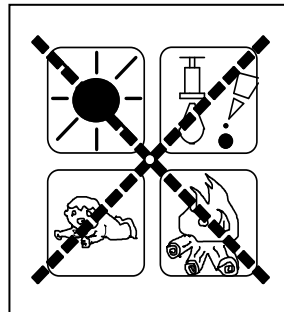
IF THE TOTAL WATTS OF ELECTRICAL APPLIANCES EXCEEDS THE OUTPUT CAPACITY OF INVERTER. OR AFTER OPERATING FOR A PERIOD OF TIME. IF THE TEMPERATURE OF THE INVERTER REACHES 60°C, THE INVERTER SHALL BE REDUCED AC OUTPUT BY THE PROTECTION CIRCUIT.



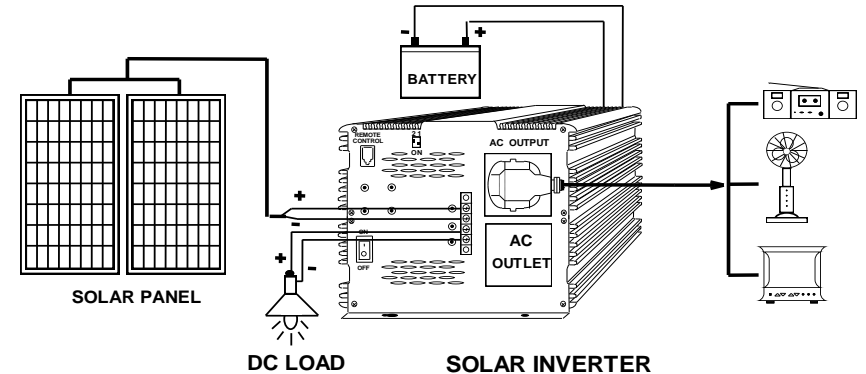
CAUTION

ALWAYS PLACE THE INVERTER IN AN ENVIRONMENT WHICH IS:

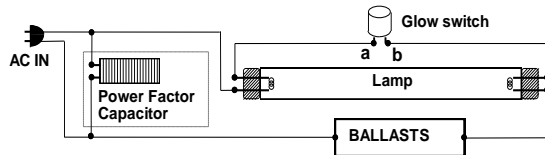
- (A) WELL VENTILATED
- (B) NOT EXPOSED TO DIRECT SUNLIGHT OR HEAT SOURCE
- (C) OUT OF REACH FROM CHILDREN
- (D) AWAY FROM WATER/MOISTURE, OIL OR GREASE
- (E) AWAY FROM ANY FLAMMABLE SUBSTANCE



CAUTION : DO NOT REVERSE Polarity of DC side. (+) of SOLAR PANEL and BATTERY and DC LOAD should be connected to (+) of terminal as per the printing of inverter . The connection of (-) is the same.



※WARNING※FLUORESCENT LAMP
DO NOT USE THIS DEVICE WITH FLUORESCENT LAMPS.

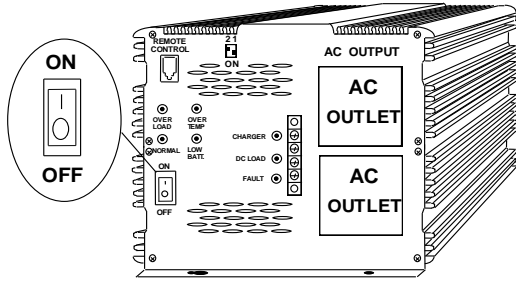


INVERTER WARNING SIGNAL

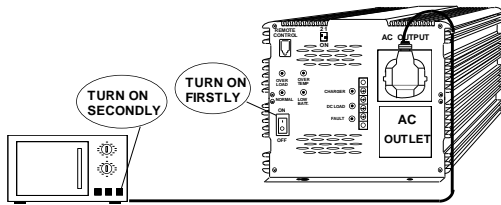
LOW BATTERY PRE-ALARM BI-----BI-----BI
 OVER HEATING PRE-ALARM BI---BI---BI---BI
 OVER LOAD PRE-ALARM BI-BI-BI-BI-BI-BI

❖ USE INVERTER

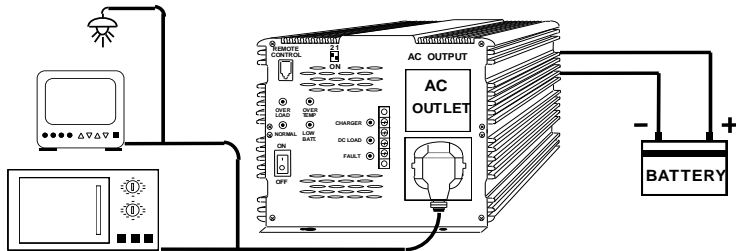
STEP1:
SET THE POWER SWITCH AT THE OFF



STEP2:
WHEN CONNECTED TO ANY APPLIANCE, BE SURE TO TURN ON INVERTER FIRST. AND THEN, TURN ON THE POWER SWITCH OF THE APPLIANCE.

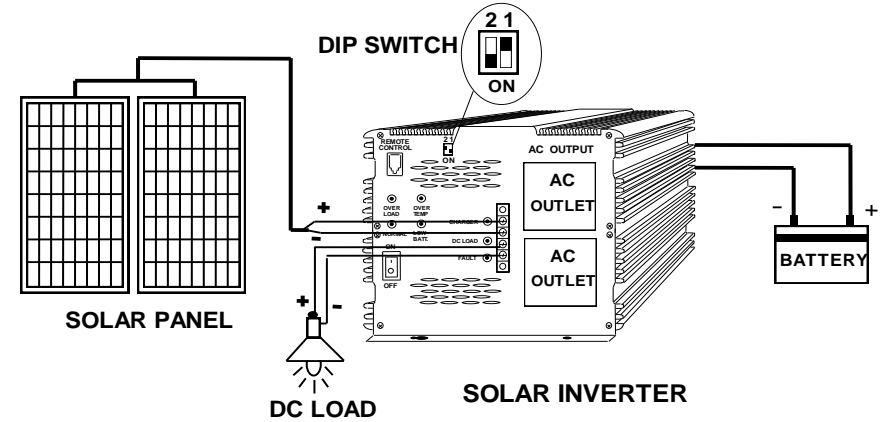


DO NOT USE THE INVERTER EXCEED ITS MAXIMUM OUTPUT POWER, WHEN CONNECTED TO ANY APPLIANCE. MAKE SURE THE TOTAL STARTING POWER CAPACITY DOES NOT EXCEED THE MAXIMUM OUTPUT POWER OF THE INVERTER.



❖ USE SOLAR CHARGER CONTROLLER

DON'T REVERSE POLARITY OF DC SIDE. PLEASE SET DIP SWITCH TO CORRECT LOCATION ACCORDING TO THE BATTERY. THE DC LOAD WHICH YOU CONNECTED CAN'T BE OVER THE RATING.



DIP SWITCH SETTING FOR BATTERY TYPE

DIP SWITCH	BULK	FLOAT	BATTERY TYPE
2 1	(12V // 24V)	(12V // 24V)	
OFF OFF	15V // 30V	14.5V // 29V	NI-CAD
ON OFF	14V // 28V	13.8V // 27.6V	GLE/AGM
OFF ON	14V // 28V	13.5V // 27V	FLOODED
ON ON	14V // 28V	13.2V // 26.4V	SEALED/WET

SOLAR CHARGING STAGES

