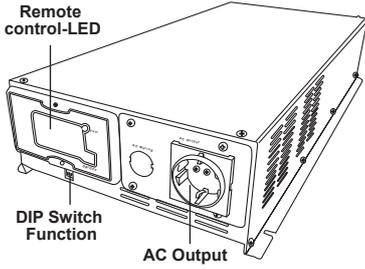
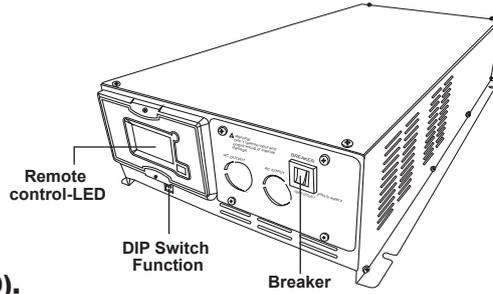


# DC to AC Power inverter manual

## No Bypass Function

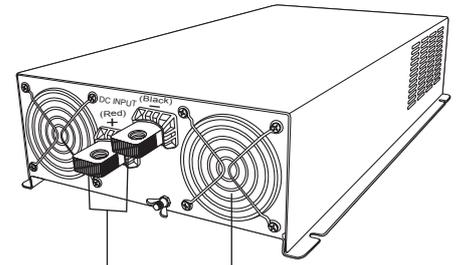


## With Bypass Function



# HT-S-1800

## Rear view



DC Input

### Battery terminals

Connect to battery or other power source.  
 "+" is positive (Red),  
 "-" is negative (Black).  
 Reverse polarity connection will blow internal fuse and may damage inverter permanently.

### Ventilation window

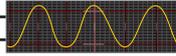
Do not obstruct, allow at least one inch for airflow.



- ⊙ Pure sine wave output (<2% THD).
- ⊙ Input & Output fully isolation design.
- ⊙ High surge in motor start capacity.
- ⊙ Thermal control fan.
- ⊙ Frequency 50/60HZ switchable.
- ⊙ Auto restart.
- ⊙ Power saving function ( <10W load )

Firstly, thank you for purchase our product. Please read this manual carefully before installing or using this product.

## SPECIFICATIONS

	Model No.	HT-S-1800-12	HT-S-1800-24	HT-S-1800-48
OUTPUT	AC Voltage	100VAC/120VAC/230VAC		
	Continuous Power	1800W		
	Surge Power	3600W		
	Waveform	PURE SINE WAVE 		
	Frequency	50/60HZ±3%		
	AC Regulation	±5%		
INPUT	Receptacles	YES, 1pc		
	DC Current	180A(12V) / 90A(24V) / 45A(48V)		
	DC noload current under normal mode.	1.0A(12V) / 0.5A(24V) / 0.25A(48V)		
	DC noload current under power saving mode.	0.12A(12V) / 0.06A(24V) / 0.03A(48V)		
	DC Voltage	12V/24V/48V		
	Voltage Range	10-16VDC(12V) / 20-32VDC(24V) / 40-61V(48V)		
	Efficiency (Typ.)	Cable*1pc		
PROTECTION	DC Connector	9pcs		
	Fuse	Pure Sine Wave		
	Battery low alarm	10.5±0.5V(12V) / 21±1V(24V) / 42±2V(48V)		
	Battery low shut down	10±0.5V(12V) / 20±1V(24V) / 40±2V(48V)		
	Over voltage	16±0.5V(12V) / 32±1V(24V) / 61±2V(48V)		
	Over Temperature	55°C±5°C		
	Short Circuit Protection	Shut-off		
	Battery polarity	Fuse Burn out		
	Over Load	re-start 1 time, shut down if failed		
	ENVIRONMENT	WORKING TEMP.	-15°C~+45°C	
WORKING HUMIDITY		20%~90% RH non-condensing		
STORAGE TEMP., HUMIDITY		-30°C~+70°C/-22°F~+158°F, 10~95% RH		
TEMP.COEFFICIENT		±0.05%/°C(0~55°C)		
SAFETY	EMI Conduction & Radiation	Compliance to EN55022 class B, 72/245/CEE, 95/54/CE		
	EMS Immunity	Compliance to EN61000-4-2, 3		
	LVD	Compliance to EN60950		
	UL	UL458		
OTHERS	Dimension (L*W*H)	570*274*105mm		
	NET. Weight	8.3kgs		
	Gross Weight (With Cable)	9.0kqs		
<b>Optional</b>				
EXTRA FUNCTION	Byass function	Yes		
	DC noload current under normal mode.	1.0A(12V) / 0.5A(24V) / 0.25A(48V)		
INPUT	DC noload current under power saving mode.	0.4A(12V) / 0.2A(24V) / 0.1A(48V)		
	Low AC input volt transfer to inverter mode.	90Vac+/-5% or 180Vac+/-5%		
	Low AC input volt recovery to AC mode.	95Vac+/-5% or 190Vac+/-5%		
	High AC input volt transfer to inverter mode.	132Vac+/-5% or 265Vac+/-5%		
Connector	High AC input volt recovery to AC mode.	125Vac+/-5% or 250Vac+/-5%		
	Input AC terminal	Yes, hard wiring.		
	Output AC Terminal	Yes, hard wiring.		
	Receptacles	No		

## Introduction

This model is used in a wide range of application including remote homes, RVs, sailboats and powerboats.

It will operate most televisions and VCR, personal computers, small appliances and tools such as drills, sanders, grinders, mixers and blenders. To get the most out of the power inverter, it must be installed and used properly.

Please read the instructions in this manual before installing and using this model.

## Quick hook – up and testing

If you would like to quick hook-up the power inverter and check its performance before going ahead with your installation, please follow these guidelines:

1. Unpack and inspect the power inverter, check to see that the power switch is in the OFF position.

2. Connect the cables to the power input terminals on the rear panel of power inverter. The red terminal is positive (+) and black terminal is negative (-). Connect the cables into the terminals and tighten the wing nut to clamp the wires securely.

3. Connect the cable from the negative terminal of the inverter to the negative terminal of the power source. Make a secure connection.

⚠ Loosely tightened connectors result in excessive drop and may cause overheated wires and melted insulation.

4. Before proceed further, carefully check that cable you have just connected connects from the negative terminal of inverter to the negative output terminal of the power source.

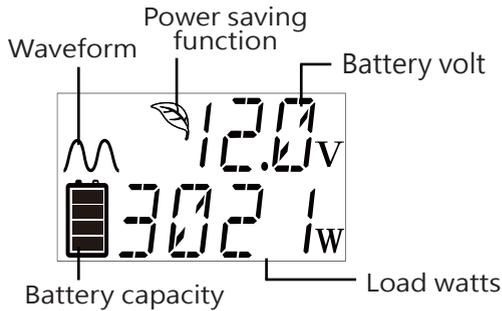
⚠ Reverse polarity connection will blow a fuse in inverter and may permanently damage the inverter. Damage caused by reverse polarity connection is not covered by our warranty.

5. Connect the cable from the positive terminal of inverter to the positive terminal of the power source. Make secure connection.

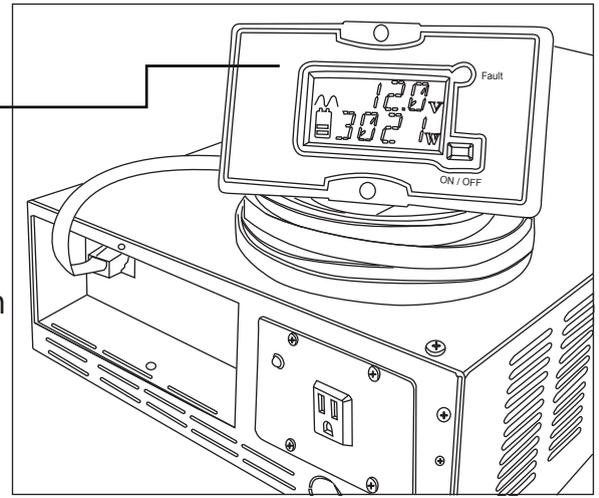
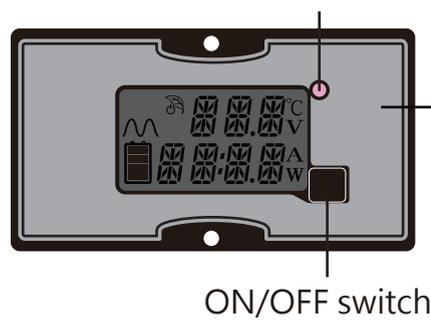
⚠ You may observe a spark when you make this connection since current may flow to charge capacitors in the power inverter. Do not make this connection in the presence of flammable fumes, explosions or fire may result.

6. Set the power switch to the ON position. Check the meters and indicators on the front panel of the inverter. If does not, check your power source and the connections to inverter. The other indicators should be off.
7. Set power inverter switch to the OFF position, the indicator lights may blink. Plug the test load into the AC receptacle on the front panel of the inverter. Please keep switch in off position.
8. Set power inverter switch to the ON

## Remote control-LCD



## fault LED Indicator



High battery  
volt protection.



Low battery  
volt protection.



Over temperature



Overload

position, the inverter should supply power to the load.

### Installation

#### 1. Where to install

The power inverter should be installed in a location that meets the following requirements:

- Dry - Do not allow water to drip or splash on the inverter.
- Cool - Ambient air temperature should be between -15°C and +45°C, the cooler the better.
- Ventilated - Allow at least one inch of clearance around the inverter for airflow. Ensure the ventilation openings on the rear and bottom of the unit are not obstructed.
- Safe - Do not install the inverter in the same compartment as batteries or in any compartment capable of storing flammable liquids such as gasoline.

#### 2. Cables

DC to AC inverters require high amperage/low voltage DC power to low amperage/high voltage AC power. To operate properly connect inverter DC input terminals direct to battery with heaviest wire available see chart below:

Max Watts Out	Approx. Amps	Req'd Wire Guage
150W	15A	#16
300W	30A	#12
600W	60A	#6 or 2×#10
1000W	100A	#4
1200W	120A	#4
1500W	150A	#4
1800W	180A	6 × #4
2500W	250A	2 × #4
3000W	300A	2 × #4

#### 3. Grounding

The power inverter has a lug on the rear panel chassis ground. This is to connect the chassis of the power inverter to the ground. The ground terminals in the AC outlets on the front panel of the inverter are also connected to the ground lug. The chassis ground lug must be connected to a grounding point, which will vary depending on where the power inverter is installed. In a vehicle, connect the chassis

ground to the chassis of the vehicle.

In a boat, connect to the boat's grounding systems. In a fixed location, connect the chassis ground lug to earth.



#### Warning!

Do not operate the power inverter without connecting it to ground. Electrical shock hazard may result.

#### Operation

To operate the power inverter, turn it on using the ON/OFF switch on the front panel. The power inverter is now ready to deliver AC power to your loads. If you are operating several loads from the power inverter, turn them on separately after the inverter has been turned on. This will ensure that the power inverter does not have to deliver the starting currents for all the loads at once.

#### Controls and indicators

The ON/OFF switch turns the control circuit in the power inverter on and off. It does not disconnect power from the power inverter.

#### Operating limits

##### 1. Overload / Auto re-start

The inverter would operate most AC loads within its power rating. If the load is over the specification, HT-S-1800 will auto re-start first, if not success, the inverter will shut down automatically.

##### 2. Overtemp

The buzz will be noisy if the temperature is too high, then the inverter will be shut down automatically. Please re-set it after the inverter got cooling.

##### 3. Input voltage

The power inverter will operate from input voltage range 10V-16V (12V spec.) or 20V-32V(24V spec.) or 40V-61V (48V spec.).

If the voltage drops too low(※1) or raise too high(※2), the inverter will shut down automatically. Before shut down, buzz noise will warn you.

※1:<10.0V (12V spec.) or <20V (24V spec.) or <40V (48V spec.)

※2:>16V (12V spec.) or >32V (24V spec.) or >61V (48V spec.)

#### Maintenance

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

#### Troubleshooting

Television interference :

Operation of the power inverter can interfere with television reception on some channels. If this situation occurs, the following steps may help to alleviate the problem.

-Make sure that the chassis ground lug on the back of the power inverter is solidly connected to the ground system of your vehicle, boat or home.

-Do not operate high power loads with the power inverter while watching television.

-Make sure that the antenna feeding your television provides an adequate (snow free) signal and that you are using good quality cable between the antenna and the television.

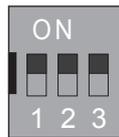
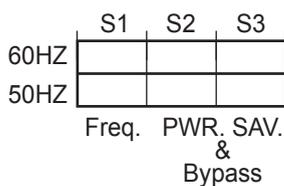
-Move the television as far away from the power inverter as possible.

-Keep the cables between the battery and the power inverter as short as possible and twist them together with about 2 to 3 twists per foot. This minimizes radiated interference from the cables.

# Troubleshooting guide

Problem	possible cause	solution
High input voltage alarm, protection (shutdown)	Battery voltage too high	Reduce input volts
Low input voltage alarm, protection (shutdown)	Battery voltage too low	Change battery or recharge battery
Overload protection (shutdown)	AC load watts is too high	Reduce load on the inverter./ Solve short circuit situation.
Overtemp alarm, protection (shutdown)	Inverter temperature is too high	Allow the inverter to cool. Roduce the load if continuous operation is required.

## DIP Switch Function 0:OFF



		S2	S3	
ON	ON			Power sav. count down time 30sec.
ON	OFF			Power sav. count down time 10sec.
OFF	ON			Bypass OFF      Power sav. OFF
OFF	OFF			Bypass ON      Power sav. OFF