

**General Product Specification**

**Input Voltage:** 11 to 15VDC

**Output Voltage:** 115VAC (RMS)+-10%

**Output Frequency:** 60Hz +- 1%

**Output Waveform:** Modified Sine Wave

**Output Power:** 125W max. 200W Surge

**Efficiency:** >90%

**No Load Input Current:** <100 mA

**Low Battery Alarm:** ~10.7 VDC

**Low Battery Shutdown:** ~10.3 VDC

**Protections :** Overload Shutdown , Over Temperature Shutdown , Low Battery Shutdown , Short Circuit Shutdown

**Indicators :** Operation Indicator , Battery Status Indicator

**Dimensions:** 130 x 132 x 57 mm

**Weight :** 780 Grams

**\*\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE\*\***

P/N: 481-322-9-001

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**B&K MODEL 1605  
AC POWER INVERTER**

**USER'S MANUAL**

## B&K MODEL 1605 AC POWER INVERTER

### OPERATING INSTRUCTIONS

#### 1. Introduction

The B&K 1605 Inverter is designed for use with small electric appliances when no AC source is available. This inverter can output 115VAC/60Hz to operate your appliances by using a 12VDC car battery. This is an indispensable automobile accessory and also can be used as a home emergency lighting unit.

#### 2. Installation

##### **2.1 Battery Supply**

The battery supplying the inverter must provide a DC voltage between 11 and 14.5 volts and must be able to supply sufficient current to operate the load, i.e. at 125W full load, current is around 13A.

Warning: The B&K 1605 Inverter only works on batteries with a nominal output voltage of 12VDC. It will not operate from a 6VDC battery and may cause damage to the unit if it is connected to a 24VDC battery.

##### **2.2 Powering up the B&K 1605 Inverter**

Clear all load connections to the inverter and connect supply terminals to the battery in correct polarity. For the cigarette lighter plug, the center tip of the plug is positive and for the spade connectors, the red line is positive. After the battery is connected, the Green (Good) LED of battery status indicator will light up and then the Orange(Operate) LED will light up to indicate the inverter is working properly. If the Red (Low) LED lights up, remove all connections and check the battery.

##### **2.3 Connection to load**

The inverter is equipped with standard AC receptacle. Plug the cord of the equipment you wish to operate into the receptacle.

#### 3. Cautions

- DO NOT connect the unit to AC distribution systems
- DO NOT operate the unit with 24VDC battery
- DO NOT use the unit to operate direct AC type chargers
- The unit must be placed on a flat surface with sufficient clearance for ventilation
- The unit will heat up when it is operating at high power level (above 100W) for extended period. Do

- Not place the unit close to materials that may be affected by high temperature.
- Never short the output terminals for an extended period of time
- To prevent electric shock do not open the unit
- There is no user serviceable parts inside the unit. Send the unit to B&K Precision for repairs
- DO NOT use the inverter near flammable materials or in any location which may accumulate flammable fumes or gases.

#### 4. PROTECTIONS

In order to assure safe operation, certain protections have been built into the inverter.

##### **4.1 Low Battery Protection**

In case the battery level drops below 11VDC, the low battery indicator will light up and an alarm will sound to attract your attention. This indicates that the battery requires recharging. The inverter should stop operation at this time, as the inverter will shut down when the battery level drops below 10.5VDC.

##### **4.2 Over temperature Protection**

When the unit is used at high power level for extended period, the unit will heat up and an internal sensor will monitor the situation. If the temperature exceeds the preset limit, the unit will shut down and the alarm will sound. The user should shut the unit off at this time.

##### **4.3 Over load Protection**

In case of overload the unit will shut down automatically. The protection can be cleared by removing the load.

##### **4.4 Special Note**

Using this inverter with some high surge current start up appliances, e.g. TV sets will trigger the overload protection during first turn on. In such cases, please turn off the appliance for a few seconds and turn it on again. For some models, it may require two to three cycles to start up the appliance.