

# BK 1692 SWITCH MODE POWER SUPPLY

## USER'S MANUAL

### INTRODUCTION

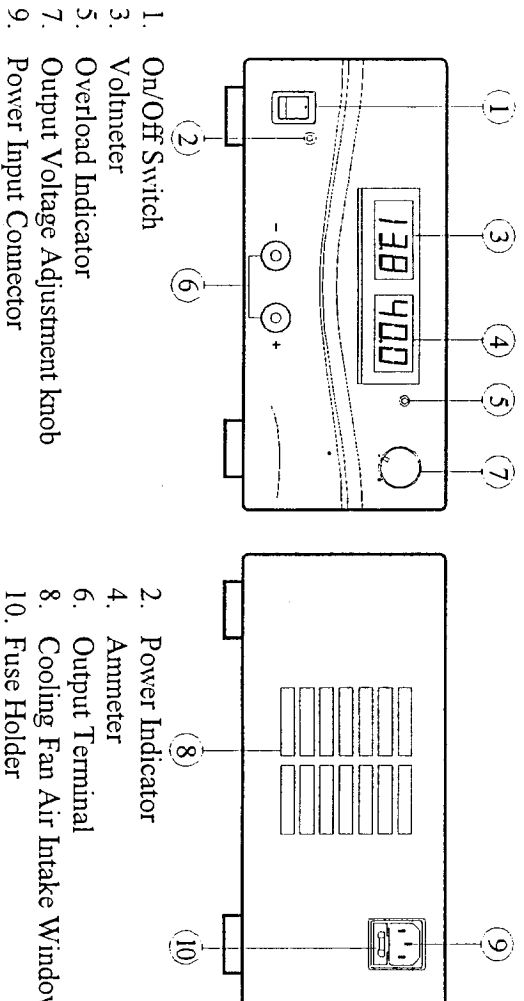
The BK 1692 Switching Mode DC Power Supply provides high power output with its small size and lightweight. It is suitable for a variety of uses, especially for powering DC operated radio equipment from an AC outlet and provides variable voltages from 3V to 15V at 40A continuous operation.

Please read through this operation instruction carefully and follow the instructions to prevent personal injury from misuse or damage to the unit. Please keep this manual for future reference.

### FEATURES

1. Lightweight and Small Size: The BK Precision switching mode power supply has the advantages of lightweight and small size. Compared with a linear mode power supply with the same power output, it is much lighter and smaller.
2. High Efficiency: The efficiency of this unit is over 80% under the best condition.
3. Overload Protection: Current foldback circuitry is adopted to prevent overloading the power supply. The overload indicator will be illuminated when this condition is present.
4. Over Temperature Protection: The over temperature circuitry is activated when the unit reaches a high temperature condition. When this condition is present the output voltage and current will drop down to a safety value and the overloaded indicator will be illuminated.
5. Over Voltage Protection: The over voltage circuitry protects the unit and the loading equipment from damage by abnormal high output voltage.
6. High RFI Stability: The high protection circuitry against RFI (Radio Frequency Interference) provides for a stable operation.
7. Variable Voltage Output: The output voltage is variable from 3V to 15V. A fixed 13.8V is also provided.

### PANEL DESCRIPTION



*Note: The fixed 13.8Vdc output selection switch is placed at the bottom of the unit. It is used to select the output voltage for fixed 13.8V or 3-15V adjustable output (controlled by adjustment knob • ).*

### INSTALLATION

1. Be certain the electrical outlet is properly earth grounded to prevent electric shock at high voltage caused by leakage or lightning.
2. **DO NOT** place the unit in high humid, dusty and/or direct sunlight.
3. Place the unit in a location that allows free air circulation.
4. **DO NOT** place the unit close to TV sets or CRT monitor.

- 5. Couple with an AC outlet directly, as source via distribution cables may heat plugs and cable.
  - 6. Place the unit horizontally for accurate meter readings.
- Note: For Indoor Use Only.*

**CAUTION**

- 1. **DO NOT** use the unit for equipment requiring higher current input than the designed value otherwise damage to unit will result
- 2. **DO NOT** use the unit for lamps or motorized equipment, which require high current input at starting as it may damage the unit.
- 3. **DO NOT** replace the fuse before correcting any problems and *the assigned value of fuse* must be used as a replacement.
- 4. If the external flexible cable or cord of this transformer is damaged, it should be replaced by the same type cord or assembly available from the manufacturer or his service agent.

**SAFETY PRECAUTIONS**

- 1. **NEVER** remove the metal cover of the power supply while AC power is connected.
- 2. **NEVER** touch the unit when your hands are wet.
- 3. **NEVER** operate the unit if foreign materials such as metallic objects, water, or other debris have fallen inside. Contact your dealer for repair.
- 4. **NEVER** operate a unit that has been damaged, as the voltage regulation circuitry may have been disabled. The resulting high voltage could damage your equipment.
- 5. **NEVER** allow foreign objects to touch the DC Power Output Terminals.
- 6. If you have the need to inspect the interior of the unit, let it to cool down completely, as some components may be hot enough to burn your hand in the event of component failure.
- 7. **NEVER** block the cooling fan air intake window.

**CONNECTION AND OPERATION**

- 1. Make sure the AC power source fits the input of voltage unit labeled and plug it into the AC outlet.
- 2. Turn ON the unit and adjust the output voltage to match with the input voltage of the equipment. Then turn OFF the unit.
- 3. Connect the equipment to the unit. Red (+) is connected to the positive polarity input of the equipment and Black (-) is connected to the negative polarity input of the equipment.
- 4. First turn ON the unit and then turn the equipment ON.
- 5. When finished, turn off the equipment first and then turn OFF the unit.

**SPECIFICATIONS**

	1692
OUTPUT VOLTAGE:	3-15Vdc Adjustable or Fixed 13.8Vdc (Selectable)
OUTPUT CURRENT:	40A
RIPPLE AND NOISE:	10mV <sub>rms</sub>
LINE REGULATION:	80mV (±10% Variation)
LOAD REGULATION:	230mV (0~100% Load)
POWER SOURCE:	120Vac/60Hz~
METER TYPE:	Digital LED
DIMENSION (W×H×D):	220 × 110 × 300 (mm)
WEIGHT:	Approx. 3.5Kg

**B & K Precision.**

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