

KJ RADIO LAB



1059

FT-817 / FT-818 Linear Power Protection

FT-817 / FT-818 LINEAR POWER PROTECTION

HOW IT WORKS

The KJ Radio Lab 1059 uses a high current linear voltage regulator as its main device. The regulator actively adjusts the incoming DC voltage to approximately 9.7 volts before applying it to your transceiver. This voltage has been proven to be the best voltage to allow your FT-817 / FT-818 to operate most efficiently. Any voltage in excess of 9.7 volts is wasted as excess heat. Power lost!

In addition to regulating the operating voltage, the 1059 protects itself and your radio against unusually high input current. Any current higher than 3.5 A will cause an automatically-resetting fuse in the 1059 to open.

The 1059 also protects your radio from damaging in-coming voltage over-shoots and spikes. Any voltage in excess of 16.0 volts is hard-limited. These voltages are usually caused by Electro-static Discharge (ESD) or unintentional misconnections.

INSTALLATION

Easy!

1. Just remove any ground connection to your radio.
2. Plug the coaxial connector into the power input on the back of your radio
3. Place the grounding threaded rod into the hole diagonally across from the LD indicator (Hand tighten only)
4. Tighten the washers and nut tight against the 1059 plastic case. See figures below.
5. Tighten the wing-nut with any external ground connection down against the washer See figures below.



INSTALALTION, CONTINUED

6. Connect incoming power to the Anderson Power Pole connectors. Red- Positive, Black- Negative

DONE!

OPERATION

1. A red LED indicates proper voltage connections

2. A slide switch is provided to bypass the voltage regulator if necessary. Switch toward the LED- Regulation active.

Note: Some heat on the surface of the enclosure is normal.

WHY VOLTAGE REGULATION IS IMPORTANT

Your FT-817 / FT-818 is designed to operate with supply voltages between 8.0 and 16.0 volts. Full output is realized at voltages in that range. It has been demonstrated that the FT-817 / FT-818 operates best when voltages between 9.5 and 9.9 volts are applied.

Any voltage, in excess of the minimum voltage necessary for proper operation, is wasted as heat inside of your radio. This excess heat has the potential to reduce the reliability and life-span of your radio.