

MTU Application Note 1

Battery Power for Your KIM-1

How often during a Hamfest or computer convention have you wished that you could power your KIM from batteries? A slight change in connections to the MTU model K-1000 power supply will allow the KIM to be powered from a 12 volt auto battery for up to 48 hours on a full charge. For greater portability, a 12 volt motorcycle battery can be used to operate the KIM for three or four hours.

As diagrammed in figure 1, the only change is to move the +12 volt input of the KIM to the +7.5 RAW output of the power supply and connect the auto battery between COM and the same +7.5 RAW terminal. With this connection, the KIM cassette circuitry sees the 12 volts from the battery and the 5 volt regulator inside the power supply reduces the 12 volt input to 5 volts for the logic circuitry of the KIM. Note that if the battery is connected to the electrical system of the car that the engine should be off while the KIM is in operation. Otherwise the uncertain and noisy output of the generator will interfere with proper operation of the cassette circuitry.

The MTU power supply can also be used to recharge the storage battery by use of the connection in figure 2. The 10 ohm resistor is required to limit the charging current to a safe value of about 1/2 amp. The KIM should be disconnected while charging the battery.

FIGURE 1

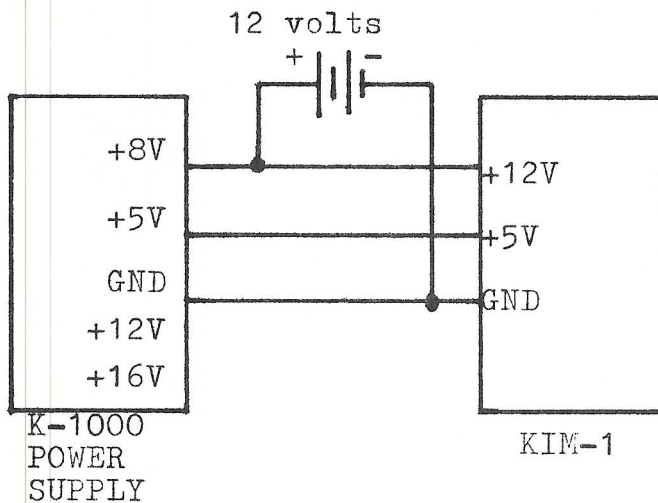


FIGURE 2

