Monicor Electronic Corporation Monicor (c)

APPLICATION NOTE 069 TITLE: Field Modification for adding Fuse to IC-100MES charge circuit.

Applying excessive charge current can damage an in internal diode in the charge circuit, which will necessitate returning the unit to Monicor for repair. This may occur when a non-approved charger is inadvertently connected to the charge connector on the radio. Alternatively, a fuse can be placed in series with the battery will result in blowing the fuse first, which can be replaced in the field without having to return the unit for repair.

Material Needed:

The recommended fuse is a Littelfuse, Pico II Very Fast Acting Subminiature fuse, 3/8 amp, Part number 251.375.

1-1/4" length of 1/8th inch heat shrink tubing.

Field Modification.

The modification is made by soldering the fuse in series with the positive lead (red) to the battery.

Disconnect and remove the battery.

Locate the red wire connected to the Molex connector. Cut the red wire at a point 5/8" from the end of the connector. Cut an additional 1/4" off the red wire that is still connected to the chassis. Trim 1/4" insulation from each end of the red wires and tin with solder.

Trim each lead of the fuse to 3/8". Tin each lead.

Cut 1 1/4" of 1/8" head shrink tubing.

Solder the fuse to the red wire that is connected to the chassis. Let lead cool down. Slide the heat shrink tubing over the fuse, and solder the other red lead to the other end of the fuse.

Slide the heat shrink over the fuse, centering it over the fuse. Apply heat from a heat gun to shrink the tubing. DO NOT OVERHEAT.

CAUTION!!! INSURE THAT ALL BARE LEADS ARE HIDDEN BY THE HEAT SHRINK TUBING. ANY SHORTING WILL CAUSE SERIOUS DAMAGE AND POSSIBLE INJURY.

Replace the battery.

If the fuse blows in the future, remove the heat shrink, and replace the fuse.