FT290/690/790 DC Power mod.

By G8MNY (new Graphics Feb 06)

(8 Bit ASCII Graphics use code page 437 or 850)

THE ORIGINAL CIRCUIT

+ve outer

Power

Switched

2.5mm

Rig supply

Jacked

Damn

Lamp

What's Wrong

1/ The original external power jack uses the dangerous +ve outer standard so that the when connected to other kit there is a risk of shorting.

2/ The jack switch is supposed to disconnect the +ve battery lead when the external power is applied. This depends very much on the make/type of plug used, & it is easy to draw high current though the battery pack & cook the cells & holder & possibly the rig!

3/ An reverse polarity idiot diode is provided, but the -ve connection. So if the rig is connected to other kit (e.g. a powered speech processor) the protection is negated, and the mic lead now carries the rig current!

4/ The Plugtop raw charging (hummy battery) is via a 2.5mm jack socket that shorts out the charger while being plugged in/out. There is no indication that the charger is not being shorted out!

Here is my circuit that solves most of these problems...

+ve centre

power Jack

Switch

unused

RE-MARKED

It uses most of the existing components. The fuse is just 1 cm of very fine relay wire in case of disaster. The lamp is a wire ended 12v fairy light that provides low trickle current when the rig is 10-14V powered.

Some rigs also include a small 1000uF 16v by the jacks. The 12V jack is
remarked with a +ve centre with a RED felt pen.

The disadvantage is that there is a diode in the battery supply lead to the rig, I feel this is a worth while loss for protecting the battery pack from damage.

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP
/EX