

Subject: 12V System Surge protection

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To : TECH@WW

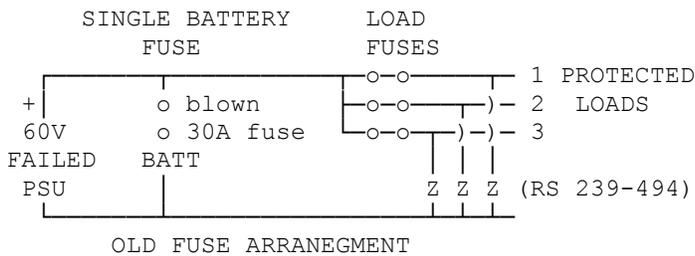
By G8MNY

(Updated Nov 03)

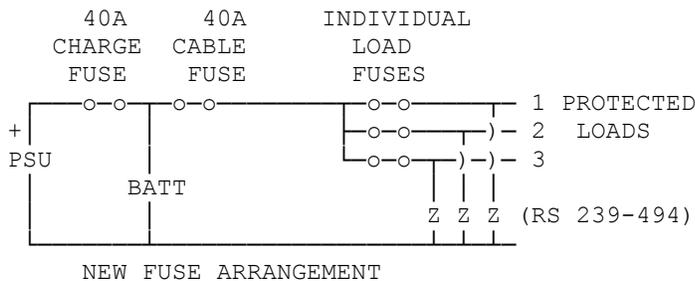
On 24cms ATV repeater GB3HV, we used the high current diode protectors from RS, part No RS 239-494 (old part No now! so you will need other suppliers) which is actually a special 15V zener diode, designed to always blow S/C when over-powered, they can handle pulse currents of 75A. This was used even though we had a 30AH car battery connected as well, as we were worried about lightening spikes to the mast on the hill top site.

THEY DID WORK

When our low voltage chopper PSU blew up some years ago, it put it's high current 60V DC secondary rail out to the battery, blowing the series 30A bolted in fuse, & applying 60V to all the 12V kit. The spike zeners did their job & blew all the individual unit fuses. Only the odd unprotected control transistor got zapped.



This protection certainly saved 300 pounds of expensive 23cm silicon from burning out!



A different design SMPSU (2x 7V 40A in series) is now in use with extra fuses so that there is a fuse between the PSU-Batt fuse, a another fuse battery to load wiring, & individual unit fuses.

Why Don't U send an interesting Bul?

73 De John, G8MNY @ GB7CIP