LED2 comes on when in active regulation range +34.5v

The Zeners bring it up to 48.1 and the LED adds another 1.2v.
The Zener diode string (D1-D5) should be checked on the curve tracer before soldering into the board.
At MAX shunt there is about 1 volt drop on the source resistor plus another half volt on the gate for about 6 volts at the gate MAX.
The six rectifier diodes add about 4 volts of adjustable range.
So it should run just a bit high so that some jumpers can be soldered to bring the bus voltage down to near 48 volts.
If necessary, one of the Zener diodes can be changed to put the bus voltage in the proper range.
R1 selected so that the FO link does not come on until regulator is at threshold.

Wednesday, April 27, 2005

The Zener diode string (D1-D5) should be checked on the curve tracer before soldering into the board.
Mid range should be 41 volts at 7.5 mA.
The MOSFET gate voltage will be about 4.5 volts at turn-on.
At MAX shunt there is about 1 volt drop on the source resistor plus another half volt on the gate for about 6 volts at the gate MAX.
The six rectifier diodes add about 4 volts of adjustable range.
The Zeners bring it up to 48.1 and the LED adds another 1.2v.
So it should run just a bit high so that some jumpers can be soldered to bring the bus voltage down to near 48 volts.
If necessary, one of the Zener diodes can be changed to put the bus voltage in the proper range.
R1 selected so that the FO link does not come on until regulator is at threshold.