

West Mountain Radio



Super PWRgate PG40S Backup Power System

- A Super PWRgate is a 12 volt backup power system that can supply up to 40 amperes continuously from either a Power Supply or a Battery, and can also charge the battery with its high performance charger.
- Connected equipment will instantly switch to battery during a power blackout or power supply failure. No glitches.
- The circuit uses two 80 ampere Schottky diodes as an OR-Gate to isolate the battery and power supply from each other. Forward voltage drop of less than 0.3 volts at 20 A.
- To keep the battery fully charged and ready for use, the Super PWRgate has a built-in four-stage battery charger with selectable current rates of 1, 4, 7 or 10 amperes.
- The circuit is optimized for use with GELLED & AGM type batteries, but will keep flooded lead acid and marine type batteries near full charge as well.
- The Super PWRgate and the power supply may also be used to charge a battery that is powering the radio, as described in December 2003 QST Page 41 titled "Emergency Power at W1ZR".

Specifications	
Maximum Voltage:	18 Volts DC
Maximum Current:	40 Amperes
Circuit:	Diode OR-Gate
Diodes:	Two Schottky 80 Ampere, 20 Volt
Voltage Drop:	0.25 Vdc at 1 Ampere 0.5 Vdc at 40 Ampere
Charging Circuit:	Charging regulator IC Field Effect Pass Transistor Schottky Diode Fuse switched for 1,4,7 or 10 Amperes (±5%) maximum Peak voltage limit: 13.8 (Gelled), 14.2 (AGM),(±2%) Peak voltage limit set via internal jumper to GELLED or AGM Peak voltage terminate point: 0.1 Maximum current Float Voltage: 13.5 volts (±2%)
LEDs:	Green - Indicates charger is "ON" Red - Indicates peak "PK" charge voltage Yellow - Indicates Float "FL" voltage
Connectors:	Anderson Powerpoles, 40A
Size:	5.25 x 3.90 x 1.65 in, 13.4 x 9.9 x 4.2 cm
Weight:	0.9 lbs, 0.4 kg
Mounting Holes::	Two, 0.175 in. d, at a distance 4.875 in., for #8 hardware