

# Backup Battery-WA2KJC

Here is a simple protection circuit for putting a deep cycle battery on your repeater or remote base. Use a standard bridge rectifier that has a metal case and mount it on a heat sink. The next slide shows an example. Just use the minus and plus connections.

The brake bulb was chosen because it will glow dimly when charging the battery at around 2amps so no need of extra circuitry for charging indicator. The idea is to block any current from the repeater power supply going to the battery when there is AC available and the repeater power supply is functioning normally but allow a little bit via the bulb to trickle charge the battery. When the AC is not available the battery will supply what ever the repeater needs through the heavy duty diode. This acts like a one way street for current. There is no need for any relays or switching of sorts because the battery is floating along side the power supply and is being trickle charged as needed. It will also prevent any damage from surges, or brownouts as it acts like a cushion.

When the AC has been off for some time and the battery is getting weak, then the AC returns, if you didn't block the current direction from the power supply on the repeater to the battery, the battery would take too much current and several things could happen, no current left for the repeater to operate, too much current charging the battery.

This is a simple easy system that I came up with back in the early 1980's and it works well.

Here is an example from eBay

**2 x KBPC5010 50A 1000V Bridge Rectifier +  
2grams of Heat Sink Compound SHIP FREE**

Price:  
US \$7.95



