

MODEL AV-108B-3-B-P-RWC

P2 & P5 ADJUSTMENTS

The "Optimal" P_2 & P_5 settings will differ depending on whether the unit is operating in the Pulse Mode (no Offset) or in the Pulse Mode with Offset. The calibration procedure is more of an art than a science but we recommend the following:

A) Pulse Mode (No Offset)

- Set:
- PRF at 100 Hz
 - PW at 100 us
 - Load resistance at 0.1 \square
 - V_{DC} at +23 Volts
 - Amp at zero (on LCD)
 - Offset at zero (on LCD)
 - Voltage probe on Load Resistor and Monitor Out set on 1 V/DIV, 20 us/DIV.

Now set the Pulse Amplitude Out on the LCD to 5.0 Amps. Adjust P_2 to eliminate any spurious DC output. Clockwise rotation of P_2 decreases the output amplitude. Note that P_2 is very sensitive and so only partial turns should be necessary. Now adjust P_5 to obtain about 500 mV pulse output. Counter clockwise rotation of P_5 reduces the output pulse amplitude and it is relatively insensitive. It may be necessary to make a minor adjustment to P_2 to obtain the 500 mV setting. Now increase the LCD Amp setting to 10 Amps. The pulser load voltage should increase to 1.0 Volt. Switch to 5 Volts/DIV and increase the setting to 50 Amps. You should display a load voltage of 5 Volts. The pulse mode calibration is now complete.

B) Pulse Mode With Offset

- Set:
- PRF at 10 Hz
 - PW at 1 ms
 - Load resistance at 0.1 \square
 - V_{DC} at +23 Volts
 - Amp at zero (on LCD)
 - Offset at zero (on LCD)
 - Voltage probes at 1 V/DIV

If the previous adjustment was for pulse only operation you will probably observe a pulsed load voltage of about 200 mV and this will jump to 1 Volt if the Offset setting is increased above zero. The procedure is to return the LCD Offset setting to zero (and Amp to zero). Adjust P_2 to get 0 Volts DC load voltage (normally a clockwise rotation). Now set the LCD offset value at 1.5 to 2.0 Amps. The DC load voltage should rise to about 150 to 200 mV. Now set the LCD pulse amplitude to 5.0 Amps and adjust P_5 to obtain a 500 mV pulsed load voltage. Now increase LCD pulse amplitude setting to 20 Amps. The pulsed load voltage should increase to 2 Volts. Note the key in this procedure is the setting of Offset at 1.5 to 2.0 Amps. Without this setting, a spurious jump on the pulse amplitude will be observed. Note that if returning to pulse only operation, it will be necessary to adjust P_2 CCW and P_5 CW.

C) Voltage to Current Mode

P_2 and P_5 adjustments are not necessary for this mode.

