Revision B

California Instruments

INSTRUCTION MANUAL
1251RP-5096

MANUAL ADDENDUM

FOR

1251RP- 5096

1. GENERAL

The 1251RP-5096 power source is identical to the standard 1251RP power source, except for the following:

- The front panel has been modified to accept the line sync board and also the power sockets have been removed.
- The rear panel has been modified to accept a BNC connector for Remote Programming Voltage.
- The Line Sync board has been modified to work with a sine wave input at 12V rms and it will sync to 50 and 60Hz input frequency.

2. SPECIFICATIONS

The specifications for the 1251RP-5096 AC source are identical to the standard 1251RP except for the following:

- The RPV function operates with 0 – 10VDC input for both output ranges. 10VDC provides 135V or 270V full scale output.
- The line sync BNC input works with a 10-12V rms sine wave from 50 – 60 Hz. The output will track the sync input within 2 degrees.
- The standard 115V, 230V front panel outlets have been removed.

3. FRONT PANEL OPERATION

This section covers differences in operation between the standard 1251RP as described in the standard RP User Manual P/N 5003-960 and the 125RP-5096.

Selecting Sync Mode:

The 1251RP-5096 is equipped with an external sync input. To enable the external sync mode, the power source has to be programmed to 60 Hz. Note that setting the power source to 60 Hz does not actually generate a 60 Hz output. Instead, it merely switches the power source to sync to whatever external sync frequency - within specified operating range of 50 to 60 Hz - is actually present at the EXT SYNC input BNC. The frequency display LCD will always display 60 Hz while in this mode which is the setting, not the actual frequency present on the output.

If any other frequency than 60.00 Hz is programmed or set (using either the remote control interface or the front panel Freq. knob), the power source will switch to internal frequency generation mode and generate the frequency set. In this mode, the output frequency will match the value displayed on the LCD.

Since the frequency LCD display serves no practical purpose when in external sync mode, the power source is shipped with power on default to display the Current instead of the frequency. This can be changed if needed.

RPV Amplitude mode:

The remote programming voltage (RPV) analog input is used to set the output voltage. This means the front panel voltage control knob serves no purpose in this mode. In this mode, the voltage LCD displays the measured output voltage. Note that the output must be on or the voltage read back will be near 0 V. The RPV mode is selected by a jumper (W4) on the power source controller board. To change operation to internal amplitude programming using the front panel or the bus, jumper W4 must be removed and installed in position W3. This requires the top cover to be removed and is not recommended. The 1251RP-5096 is shipped from the factory in RPV mode.