



SUPPORT

MASTER/SLAVE PARALLEL OPERATION

Master/slave parallel operation permits equal current sharing under all load conditions and allows complete control of output current from one master power supply.

Figure 1 illustrates the terminal connection for master/slave parallel operation and salient control circuitry. The control cable, along with resistors R1 through R4 integrated into the assembly, can be fabricated by the user or purchased as an option from the factory. These connections perform the following functions:

1. The current monitoring voltage, IO2, on the master power supply connects to the external current set point input on the slave power supply. This makes the slave power supply operate at the same current output as the master power supply.
2. The power output digital control line of the master power supply connects to the start digital control line of the slave power supply. This connection causes the slave unit to turn on when the master unit is turned on.
3. The standby/alm digital control line of the master power supply connects to the stop digital control line of the slave power supply. This connection causes the slave unit to turn off when the master unit is turned off or a diagnostic condition appears.
4. Resistor R3 and R4 connections set the voltage set point of the slave unit to approximately 2% above the voltage set point of the master unit. This ensures that the slave unit will operate as a current source with an output voltage not to exceed 2% that of the master unit under any steady state or transient condition.
5. Resistor R1 and R2 connections set over voltage trip and over current trip to set points just beyond full scale values. This forces the slave power supply to operate simply as a current source whose current set point is established by the master unit.

The slave power supply must be configured for external program input. The master unit can be configured for rotary, keypad, external program, or remote input. Configuration commands are discussed in the manual.

To add a second slave unit, connect the output terminals of the second slave in parallel with the other two power supplies. Furthermore, connect a second control cable between the second slave unit and the master unit.

MASTER/SLAVE SERIES OPERATION

Master/slave series operation permits equal voltage sharing under all load conditions and allows complete control of output voltage from one master power supply.

Figure 2 illustrates the terminal connection for master/slave series operation and salient control circuitry. The control cable, along with resistors R1 through R4 integrated into the assembly, can be fabricated by the user or purchased as an option from the factory. These connections perform the following functions:

1. The voltage monitoring voltage, VO2, on the master power supply connects to the external voltage set point input on the slave power supply. This makes the slave power supply operate at the same voltage output as the master power supply.
2. The power output digital control line of the master power supply connects to the start digital control line of the slave power supply. This connection causes the slave unit to turn on when the master unit is turned on.

3. The standby/alm digital control line of the master power supply connects to the stop digital control line of the slave power supply. This connection causes the slave unit to turn off when the master unit is turned off or a diagnostic condition appears.
4. Resistor R3 and R4 connections set the current set point of the slave unit to approximately 2% above the current set point of the master unit. This ensures that the slave unit will operate as a voltage source with an output current not to exceed 2% that of the master under any steady state or transient condition.
5. Resistor R1 and R2 connections set over voltage trip and over current trip to set points just beyond full scale values. This forces the slave power supply to operate simply as a voltage source whose voltage set point is established by the master unit.

The slave power supply must be configured for external program input. The master unit can be configured for rotary, keypad, external program, or remote input. Configuration commands are discussed in the manual.

To add a second slave unit, connect the output terminals of the second slave in series with the other two power supplies. Furthermore, connect a second control cable between the second slave unit and the master unit.

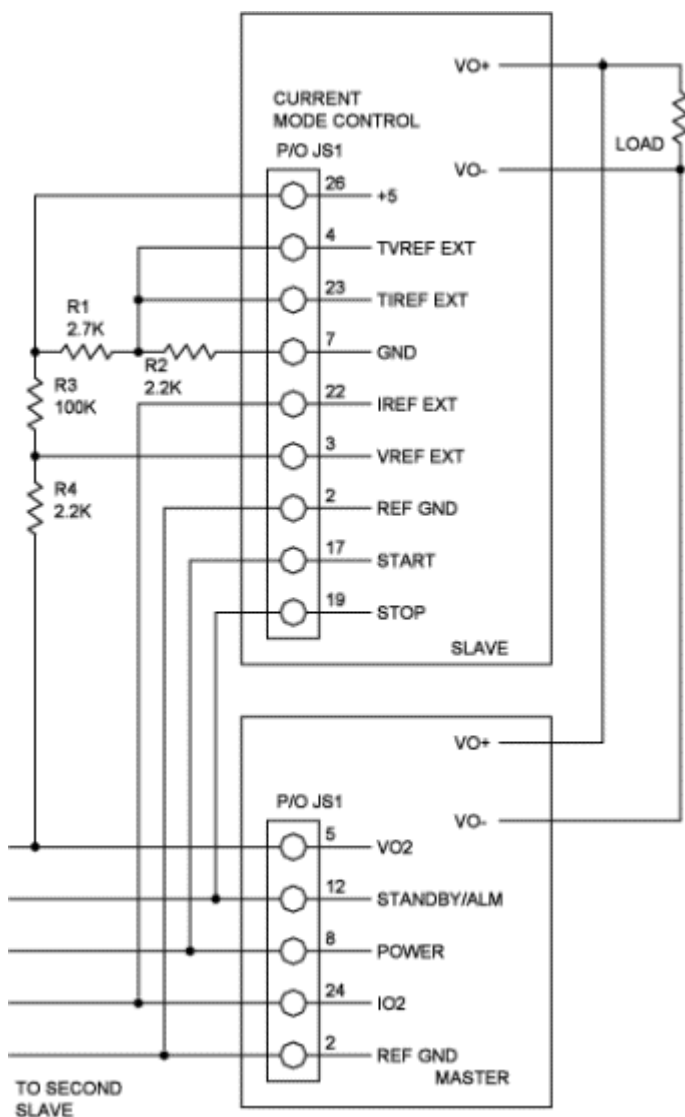


Figure 1. Master/slave parallel connection

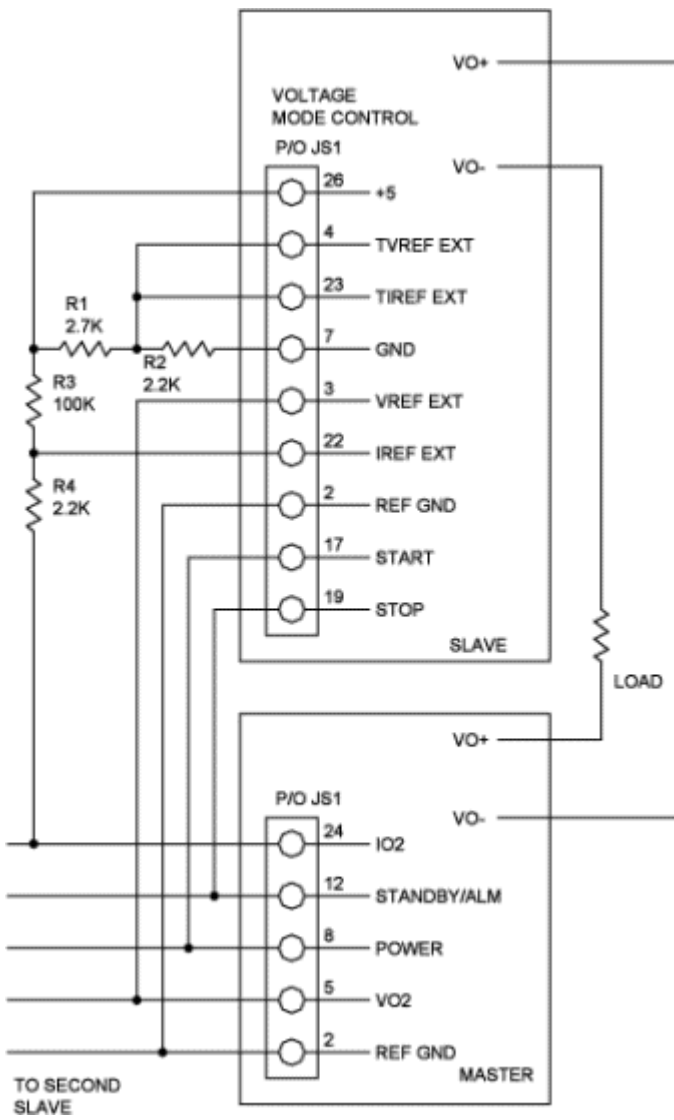


Figure 2. Master/slave series connection