NI SCXI™-1163R Jumpers

The NI SCXI-1163R has five user-configurable jumpers. You can configure the NI SCXI-1163R to operate in serial or parallel mode, and you can cable and control the NI SCXI-1163 with a multifunction I/O (MIO) E Series device, NI 4021, NI digital multimeter (DMM), or digital I/O (DIO) device.

Serial Mode

In serial mode, only one module per chassis is connected to the controller, which allows communication with all other modules. On the other modules, the jumper settings are irrelevant.

For a single chassis in serial mode, configure the jumpers as follows:

1. Set W2, W3, and W5 according to the controller.
2. Set W4 to A.
3. Set W6 to S.

For multiple chassis in serial mode, configure the jumpers as follows:

1. Set W2, W3, and W5 according to the controller.
2. Set W4 on one cabled module to A, and set W4 on all other cabled modules to B.
3. Set W6 to S.

Parallel Mode

In parallel mode, a DIO device can only be connected to one NI SCXI-1163R. Signals at the rear signal connector directly control the states of the solid-state relays. A logic low (or 0) on the rear connector closes the corresponding relay. Likewise, a logic high (or 1) opens the

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relay. In parallel mode, the controller cannot communicate with the SCXI chassis or with other SCXI modules. Hence, if multiple NI SCXI-1163R modules in an SCXI system are to be used in parallel mode, the rear signal connector of each must be connected to a separate DIO device.

In parallel mode, configure the jumpers as follows:

1. Set W2 and W3 to D.
2. Set W4 to A.
3. Set W5 to PAR.
4. Set W6 to P.

Jumper Settings

Table 1 summarizes the jumper settings, and Figure 1 indicates the jumper locations.

Table 1. NI SCXI-1163R Jumpers

| Jumper	Setting
W2	**D** (controller is DIO device) M (controller is E Series device, NI 4021, or National Instruments DMM)
W3	**D** (controller is DIO device) M (controller is E Series device, NI 4021, or National Instruments DMM)
W4	**A** (single chassis) B (multiple chassis)
W5	**DIO** (serial mode with DIO controller) MIO (controller is E Series device, NI 4021, or National Instruments DMM) PAR (parallel mode with DIO controller)
W6	**S** (sets primary mode of operation to serial) P (sets primary mode of operation to parallel)
Note: Factory settings of the NI SCXI-1163R jumpers are bold.	
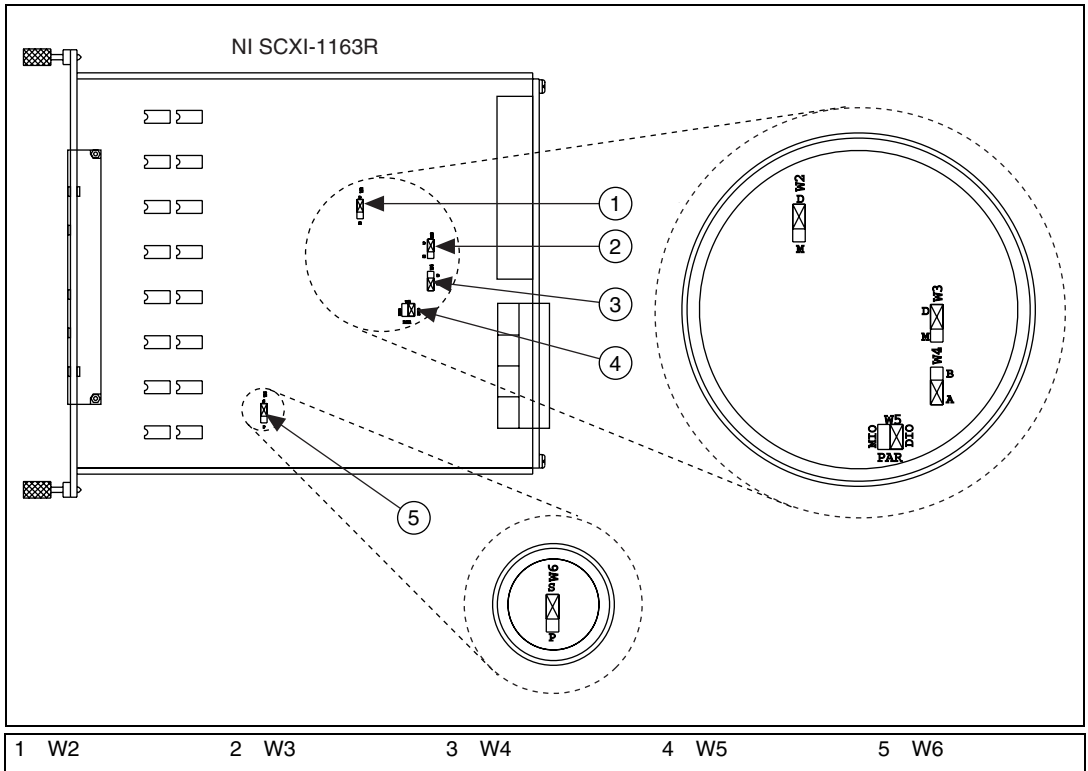
Figure 1. NI SCXI-1163R Jumper Locations (Default)

| 1 W2 | 2 W3 | 3 W4 | 4 W5 | 5 W6 |

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