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SCXI-1100



## SCXI-1341 LAB/1200 SERIES CABLE ASSEMBLY

This guide describes how to install the SCXI-1341 Lab/1200 Series cable assembly between an SCXI module and a DAQ board.

### Introduction

With the SCXI-1341 Lab/1200 Series cable assembly, you can connect your Lab/1200 Series DAQ board to an SCXI module. If you have a newly released module that is not included in the list below, contact National Instruments for cable information.

The SCXI-1341 cable assembly consists of a 50-conductor NB1 ribbon cable and an adapter board. The ribbon cable connects the I/O connector of the Lab/1200 Series board to the adapter board rear connector. The adapter board also has a female right-angle module connector that plugs into the rear of the SCXI module. In addition, the adapter board has an extra male breakout connector for the unmodified signals of the Lab/1200 Series board you can use with other accessories. You can connect an SCXI-1180 to this male breakout connector to bring the Lab/1200 Series board pinout to the front of your SCXI chassis.

### What You Need to Get Started

| An SCXI chassis                    |
|------------------------------------|
| One of the following SCXI modules: |
| SCXI-1100                          |
| SCXI-1102                          |
| SCXI-112x                          |
| SCXI-114x                          |
| SCXI-116x                          |
| SCXI-1181                          |

SCXI<sup>TM</sup> is a trademark of National Instruments Corporation. Product and company names are trademarks or trade names of their respective companies.

□ A computer
□ One of the following Lab/1200 Series DAQ boards:
 PCI-1200
 Lab-PC-1200
 Lab-PC-1200AI
 Lab-PC
 Lab-PC+
 Lab-NB
□ A small flathead screwdriver
□ 1.0 m NB1 cable
□ Two small screws
□ Adapter board
□ SCXI-1341 Lab/1200 Series Cable Assembly Installation Guide

#### **Installation Procedure**

Figure 1 illustrates the components of your SCXI system.

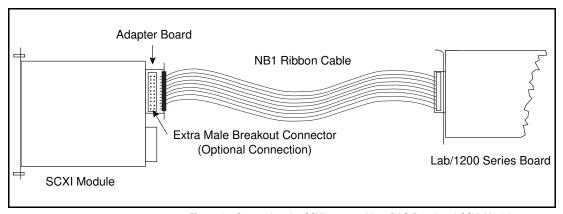


Figure 1. Connecting the SCXI-1341 to Your DAQ Board and SCXI Module

Perform the following steps to install the SCXI-1341 cable:

- 1. Turn off the power to your computer and the SCXI chassis.
- 2. Install your SCXI module in the SCXI chassis, following the instructions in your module user manual.

3. Set jumper W1 on the SCXI-1341 adapter board to the correct position for your system, as shown in Figure 2. When set to position A, the factory-default position, jumper W1 connects pin 43 of the Lab/1200 Series board to pin 46 of the module connector. Position B breaks this connection. Leave jumper W1 in position A unless you are using an SCXI-1140 module and are not supplying the HOLDTRIG signal to the module from the Lab/1200 Series board. See your SCXI-1140 User Manual for an explanation of the HOLDTRIG signal.

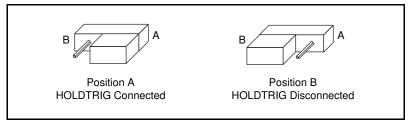


Figure 2. Jumper W1 Settings

- 4. Plug the female right-angle module connector of the SCXI-1341 adapter board into the rear signal connector of the SCXI module.
- 5. Secure the SCXI-1341 adapter board by screwing the two screws through the rear panel of the adapter board and into the threaded strips in the rear of the SCXI chassis.
- 6. Install your DAQ board in a slot in your computer, following the instructions in your DAQ board user manual.
- 7. Connect one end of the NB1 cable to the rear connector of the adapter board.
- 8. Connect the loose end of the NB1 cable to the I/O connector on the DAQ board as shown in Figure 3.

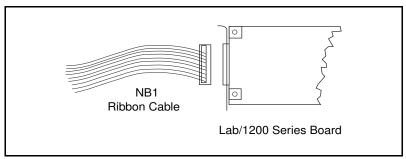


Figure 3. Cable to I/O Connector Connection

#### The finished installation should look like Figure 4.

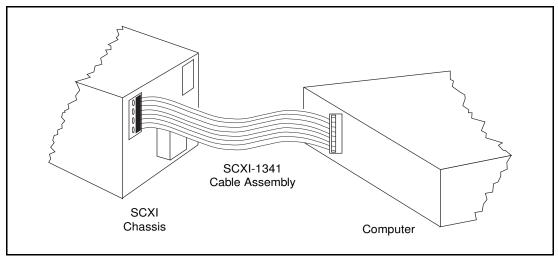


Figure 4. Installed Cable

# **SCXI-1341 Pin Equivalencies**

The following table lists the SCXI-1341 pin equivalencies for a Lab/1200 Series board and an SCXI module.

Table 1. SCXI-1341 Pin Equivalencies

| Rear<br>Connector Pin | Lab/1200 Series<br>Signal Name | Male Breakout<br>Connector Pin | Module<br>Connector Pin |
|-----------------------|--------------------------------|--------------------------------|-------------------------|
| 1                     | ACH0                           | 1                              | 3                       |
| 2                     | ACH1                           | 2                              | 5                       |
| 3                     | ACH2                           | 3                              | 7                       |
| 4                     | ACH3                           | 4                              | 9                       |
| 5                     | ACH4                           | 5                              | 11                      |
| 6                     | ACH5                           | 6                              | 13                      |
| 7                     | ACH6                           | 7                              | 15                      |
| 8                     | ACH7                           | 8                              | 17                      |
| 9                     | AIGND/AISENSE1                 | 9                              | 1, 2                    |
| 10                    | DAC0OUT <sup>2</sup>           | 10                             | 20                      |
| 11                    | AGND <sup>3</sup>              | 11                             | 23                      |
| 12                    | DAC1OUT <sup>2</sup>           | 12                             | 21                      |
| 13                    | DGND                           | 13                             | 24, 33                  |
| 14                    | PA0                            | 14                             | Not connected           |
| 15                    | PA1                            | 15                             | Not connected           |
| 16                    | PA2                            | 16                             | Not connected           |
| 17                    | PA3                            | 17                             | Not connected           |
| 18                    | PA4                            | 18                             | Not connected           |
| 19                    | PA5                            | 19                             | Not connected           |
| 20                    | PA6                            | 20                             | Not connected           |
| 21                    | PA7                            | 21                             | Not connected           |
| 22                    | PB0                            | 22                             | Not connected           |
| 23                    | PB1                            | 23                             | Not connected           |
| 24                    | PB2                            | 24                             | Not connected           |
| 25                    | PB3                            | 25                             | Not connected           |

Table 1. SCXI-1341 Pin Equivalencies (Continued)

| Rear<br>Connector Pin | Lab/1200 Series<br>Signal Name | Male Breakout<br>Connector Pin | Module<br>Connector Pin |
|-----------------------|--------------------------------|--------------------------------|-------------------------|
| 26                    | PB4                            | 26                             | 25                      |
| 27                    | PB5                            | 27                             | 27                      |
| 28                    | PB6                            | 28                             | 29                      |
| 29                    | PB7                            | 29                             | 37                      |
| 30                    | PC0                            | 30                             | Not connected           |
| 31                    | PC1                            | 31                             | 26                      |
| 32                    | PC2                            | 32                             | 28                      |
| 33                    | PC3                            | 33                             | Not connected           |
| 34                    | PC4                            | 34                             | Not connected           |
| 35                    | PC5                            | 35                             | Not connected           |
| 36                    | PC6                            | 36                             | Not connected           |
| 37                    | PC7                            | 37                             | Not connected           |
| 38                    | EXTTRIG                        | 38                             | Not connected           |
| 39                    | EXTUPDATE*2                    | 39                             | Not connected           |
| 40                    | EXTCONV*                       | 40                             | 36                      |
| 41                    | OUTB0                          | 41                             | Not connected           |
| 42                    | GATB0                          | 42                             | Not connected           |
| 43                    | OUTB1                          | 43                             | 46                      |
| 44                    | GATB1                          | 44                             | Not connected           |
| 45                    | CLKB1                          | 45                             | Not connected           |
| 46                    | OUTB2                          | 46                             | Not connected           |
| 47                    | GATB2                          | 47                             | Not connected           |
| 48                    | CLKB2                          | 48                             | Not connected           |
| 49                    | +5V                            | 49                             | 34, 35                  |
| 50                    | DGND                           | 50                             | 24, 33                  |

<sup>&</sup>lt;sup>1</sup> AIGND on the Lab-NB and Lab-PC. <sup>2</sup> Not connected on the Lab-PC-1200AI.

<sup>&</sup>lt;sup>3</sup> AOGND on the Lab-NB and Lab-PC.