
SCXI-1349 Shielded Cable

This guide describes how to install the SCXI-1349 shielded cable with an adapter board between an SCXI module and a DAQ board. In addition to the SCXI-1349 kit contents, you will also need an SCXI chassis, an SCXI module, a computer, an E Series multifunction I/O (MIO) board with a 68-pin SCSI type II connector, a small Phillips-head screwdriver, and a small flathead screwdriver.

Introduction

With the SCXI-1349 shielded cable, you can make a low-noise, long-distance connection between your SCXI chassis and your MIO board. You can use the SCXI-1349 with the AT-MIO-16E-2 and the NEC-MIO-16E-4 boards.

The SCXI-1349 shielded cable consists of a 1, 2, 5, or 10 m round cable that has a 68-pin female connector at each end. When plugged into the SCXI-1349 adapter board, the shielded cable brings the pinout of the MIO board I/O connector to the SCXI module and to a breakout connector you can use with other SCXI accessories, such as the SCXI-1180 and the SCXI-1351.

What Your Kit Should Contain

The SCXI-1349 shielded cable kit is available in four cable sizes: 1, 2, 5, and 10 m.

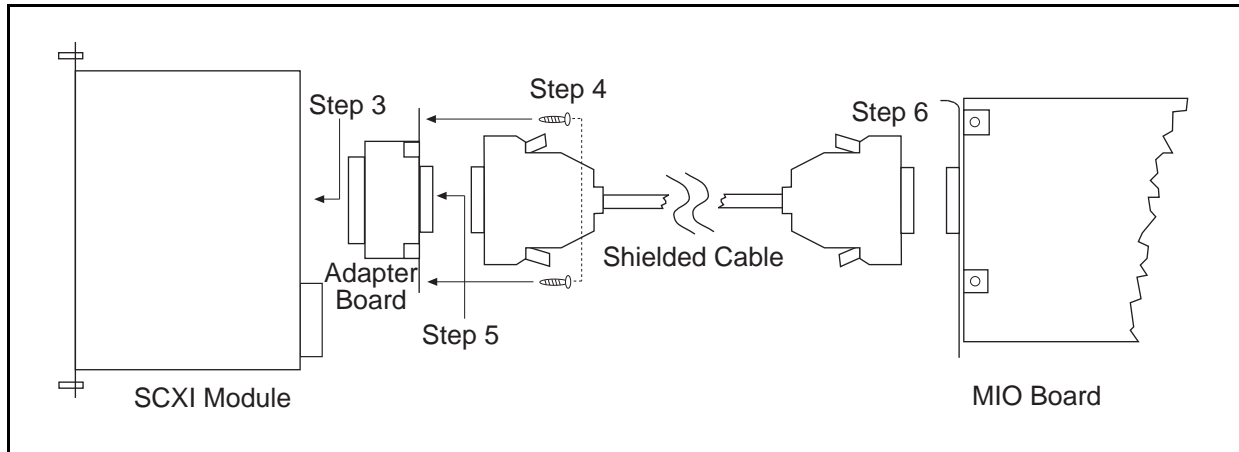
In addition, each version of the kit contains the following components:

- Cable adapter assembly
- Two small screws
- Two cable tie wraps
- *SCXI-1349 Shielded Cable Installation Guide*

If your kit is missing any components, or if you received the wrong version, contact National Instruments.

Installation Procedure

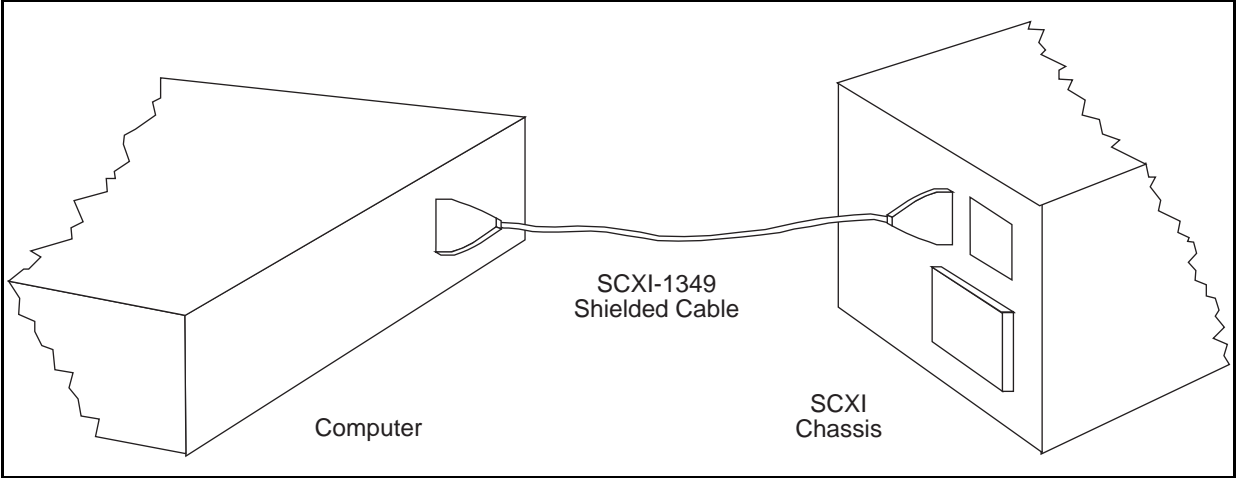
The following figure shows the components of your SCXI system and how to connect them.



Perform the following steps to install the SCXI-1349 cable:

1. Turn off the power to your computer and the SCXI chassis.
2. Install your SCXI modules in the SCXI chassis, following the instructions in your module user manuals.
3. Plug the socket connector of the SCXI-1349 adapter board into the rear signal connector of an SCXI module.
4. Secure the SCXI-1349 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.
5. Connect one end of the SCXI-1349 cable to the 68-pin connector of the SCXI-1349 adapter board.
6. Connect the other end of the cable to the I/O connector of the MIO board.
7. Secure the cable to a fixed object with the tie wraps to relieve the strain on the cable. Strain relief is desirable because the SCXI-1349 shielded cable has a long stiff backshell that can exert leverage on the MIO board connector.

The finished installation should look like the following figure.



Pin Designations

The following table lists the pin designations for a 50-pin and a 68-pin I/O connector.

50-Pin Connector Pin Numbers	E Series MIO Board Signal Names	68-Pin Connector Pin Numbers
1, 2	AIGND	24, 27, 29, 32, 56, 59, 64, 67
3	ACH0	68
4	ACH8	34
5	ACH1	33
6	ACH9	66
7	ACH2	65
8	ACH10	31
9	ACH3	30
10	ACH11	63
11	ACH4	28
12	ACH12	61
13	ACH5	60
14	ACH13	26
15	ACH6	25
16	ACH14	58
17	ACH7	57
18	ACH15	23
19	AISENSE	62
20	DAC0OUT	22
21	DAC1OUT	21
22	EXTREF	20
23	AOGND	54, 55
24, 33	DGND	4, 7, 9, 12, 13, 15, 18, 35, 36, 39, 44, 50, 53
25	DIO0	52
26	DIO4	19
27	DIO1	17
28	DIO5	51
29	DIO2	49
30	DIO6	16
31	DIO3	47
32	DIO7	48
34, 35	+5V	8, 14
36	SCANCLK	46
37	EXTSTROBE*	45
38	PFI0/TRIG1	11
39	PFI1/TRIG2	10
40	PFI2/CONVERT*	43
41	PFI3/GPCTR1_SOURCE	42
42	PFI4/GPCTR1_GATE	41
43	GPCTR1_OUT	40
44	PFI5/UPDATE*	6
45	PFI6/WFTRIG	5
46	PFI7/STARTSCAN	38
47	PFI8/GPCTR0_SOURCE	37
48	PFI9/GPCTR0_GATE	3
49	GPCTR0_OUT	2
50	FREQ_OUT	1