

INSTALLATION INSTRUCTIONS

NI TB-2631B

Terminal Block for the NI PXI-2530B

このドキュメントには、日本語ページも含まれています。

This guide describes how to install and connect signals to the National Instruments TB-2631B terminal block to configure your NI PXI-2530B switch module as one of the following:

- 1-wire 4×32 matrix
- 2-wire 4×16 matrix

This terminal block is a shielded accessory.

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Introduction

The NI TB-2631B terminal block installs in front of the NI PXI-2530B switch module. The NI TB-2631B has screw terminals to connect signals to the switch. Screw terminals for the trigger input and trigger output signals are also available. The NI TB-2631B is designed for use with the NI PXI-2530B and is not compatible with the NI PXI-2530.

1. Unpack the Terminal Block

To avoid damage when you handle the terminal block, take the following precautions:



Caution *Never* touch the exposed pins of connectors.

- Ground yourself using a grounding strap or by touching a grounded object.
- Touch the antistatic package to a metal part of the chassis before you remove the terminal block from the package.

Remove the terminal block from the package and inspect the terminal block for loose components or any sign of damage. Notify NI if the terminal block appears damaged in any way. Do *not* install a damaged terminal block on a switch module.

Store the terminal block in the antistatic package when not in use.

2. Verify the Components

Make sure you have the following:

- NI TB-2631B terminal block
- PXI chassis
- NI PXI-2530B switch module
- 1/8 inch flathead screwdriver

3. Connect Signals



Caution To ensure the specified EMC performance, operate this product only with shielded cables and accessories.

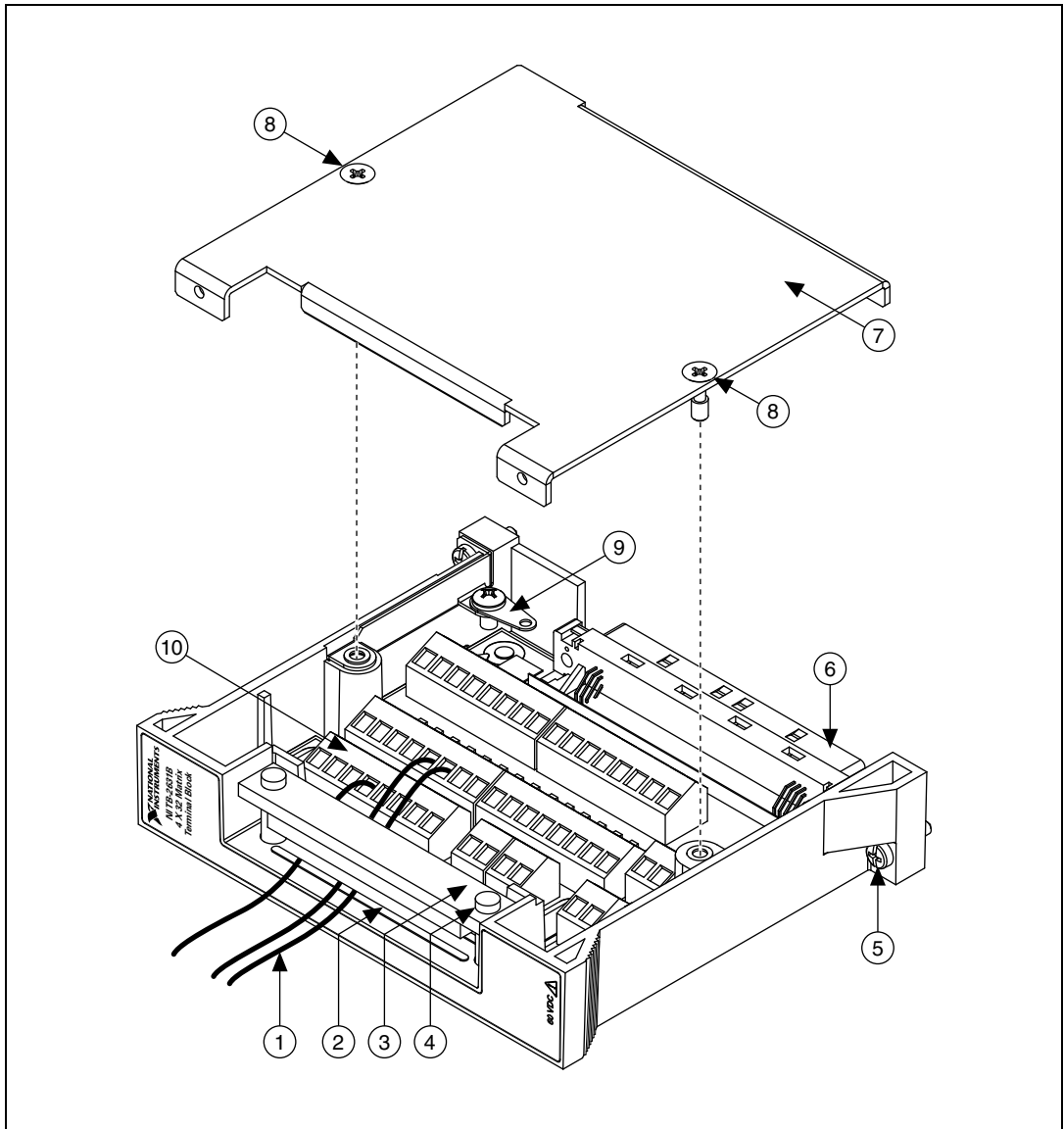
To connect signals to the terminal block, complete the following steps:

1. Remove the terminal block top cover screws with a flathead screwdriver.
2. Gently lift the terminal block top cover off the terminal block.
3. Loosen the two screws on the strain-relief bar, leaving plenty of space for the signal cables.
4. Prepare the signal cable by stripping the insulation no more than 3/16 of an inch.
5. Pull the signal cables through the strain-relief opening shown in Figure 1.
6. Connect the cables to the terminals by inserting the stripped end of the cable into the terminal. Secure the connection by tightening the screw for each terminal. When connecting the signals, refer to the connection diagram in Figure 2.



Note When connecting signals to the NI TB-2631B, refer to Tables 1 and 2 to determine where to connect signals for the chosen topology.

7. Connect the shield of the signal cable to the safety ground lug shown in Figure 1.
8. Tighten the two screws on the strain-relief bar, securing the signal cables.
9. Replace the terminal block top cover to the terminal block.
10. Secure the terminal block top cover with the top cover screws.



- | | |
|-------------------------|----------------------------|
| 1 Signal cables | 6 Rear connector |
| 2 Strain-relief opening | 7 Terminal block top cover |
| 3 Strain-relief bar | 8 Top cover screws |
| 4 Strain-relief screw | 9 Safety ground lug |
| 5 Chassis screws | 10 Screw terminals |

Figure 1. NI TB-2631B Terminal Block



NI TB-2631B Screw Terminal Reference

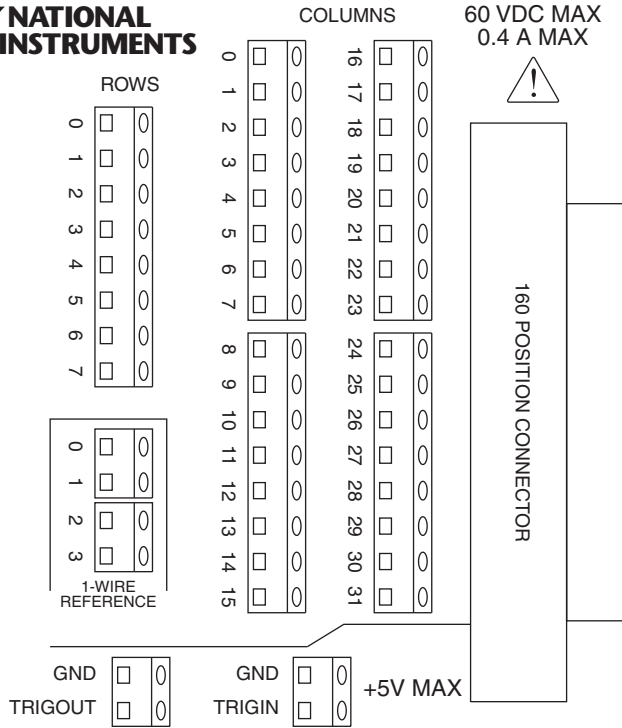


Figure 2. NI TB-2631B Terminal Reference

Table 1. 1-Wire 4x32 Topology Terminal Mapping

Software Name	Hardware Name
r0	ROW 0
r1	ROW 2
r2	ROW 4
r3	ROW 6
c0	COLUMN 0
c1	COLUMN 1
c2	COLUMN 2
c3	COLUMN 3
c4	COLUMN 4
c5	COLUMN 5
c6	COLUMN 6
c7	COLUMN 7
c8	COLUMN 8
c9	COLUMN 9
c10	COLUMN 10
c11	COLUMN 11
c12	COLUMN 12
c13	COLUMN 13

Software Name	Hardware Name
c14	COLUMN 14
c15	COLUMN 15
c16	COLUMN 16
c17	COLUMN 17
c18	COLUMN 18
c19	COLUMN 19
c20	COLUMN 20
c21	COLUMN 21
c22	COLUMN 22
c23	COLUMN 23
c24	COLUMN 24
c25	COLUMN 25
c26	COLUMN 26
c27	COLUMN 27
c28	COLUMN 28
c29	COLUMN 29
c30	COLUMN 30
c31	COLUMN 31

Table 2. 2-Wire 4×16 Topology Terminal Mapping

Software Name	Hardware Name	
	+	-
r0	ROW 0	ROW 1
r1	ROW 2	ROW 3
r2	ROW 4	ROW 5
r3	ROW 6	ROW 7
c0	COLUMN 0	COLUMN 16
c1	COLUMN 1	COLUMN 17
c2	COLUMN 2	COLUMN 18
c3	COLUMN 3	COLUMN 19
c4	COLUMN 4	COLUMN 20
c5	COLUMN 5	COLUMN 21

Software Name	Hardware Name	
	+	-
c6	COLUMN 6	COLUMN 22
c7	COLUMN 7	COLUMN 23
c8	COLUMN 8	COLUMN 24
c9	COLUMN 9	COLUMN 25
c10	COLUMN 10	COLUMN 26
c11	COLUMN 11	COLUMN 27
c12	COLUMN 12	COLUMN 28
c13	COLUMN 13	COLUMN 29
c14	COLUMN 14	COLUMN 30
c15	COLUMN 15	COLUMN 31

4. Install the Terminal Block

To connect the NI TB-2631B terminal block to the NI PXI-2530B front panel, complete the following steps (the NI PXI-2530B should already be installed in a PXI chassis):

1. Plug the NI TB-2631B on to the front connector of the NI PXI-2530B as shown in Figure 3.
2. Tighten the top and bottom chassis screws on the back of the terminal block rear panel to hold it securely in place.

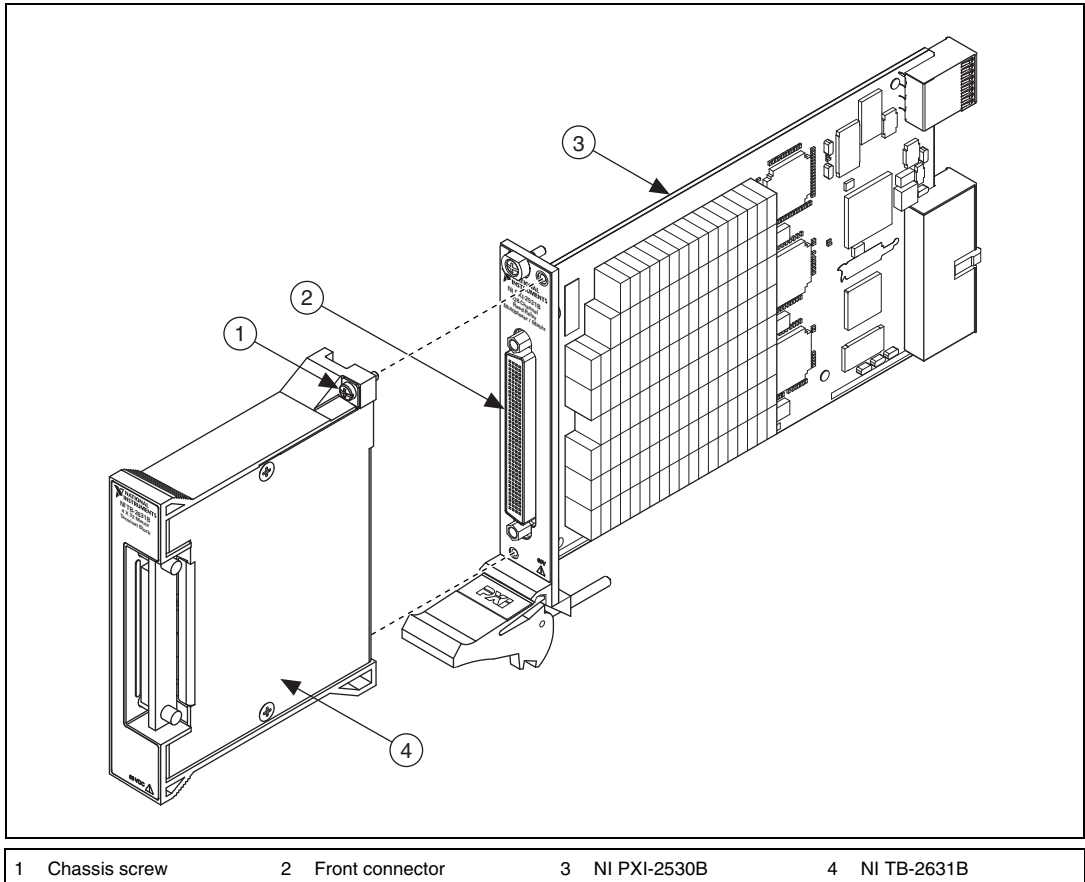


Figure 3. Installing the NI TB-2631B Terminal Block

Compliance and Certifications

Safety

This product meets the requirements of the following standards of safety for electrical equipment for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA 61010-1



Note For UL and other safety certifications, refer to the product label or the [Online Product Certification](#) section.

Electromagnetic Compatibility

This product meets the requirements of the following EMC standards for electrical equipment for measurement, control, and laboratory use:

- EN 61326-1 (IEC 61326-1): Class A emissions; Basic immunity
- EN 55011 (CISPR 11): Group 1, Class A emissions
- AS/NZS CISPR 11: Group 1, Class A emissions
- FCC 47 CFR Part 15B: Class A emissions
- ICES-001: Class A emissions



Note For EMC declarations and certifications, refer to the *Online Product Certification* section.

CE Compliance

This product meets the essential requirements of applicable European Directives as follows:

- 2006/95/EC; Low-Voltage Directive (safety)
- 2004/108/EC; Electromagnetic Compatibility Directive (EMC)

Online Product Certification

To obtain product certifications for this product, visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

Environmental Management

NI is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and to NI customers.

For additional environmental information, refer to the *NI and the Environment* Web page at ni.com/environment. This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

Waste Electrical and Electronic Equipment (WEEE)



EU Customers At the end of the product life cycle, all products *must* be sent to a WEEE recycling center. For more information about WEEE recycling centers, National Instruments WEEE initiatives, and compliance with WEEE Directive 2002/96/EC on Waste Electrical and Electronic Equipment, visit ni.com/environment/weee.

电子信息产品污染控制管理办法（中国 RoHS）



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