

Precaution for Compliance with UL Standards and CSA Standards

Notice to Users of NSJ series PTs (hereafter, "PTs") in the USA and Canada

When installing a PT in the USA or Canada, please follow the installation information provided in this document instead of the general information in the instruction manuals in order to use the product under the conditions for which it was certified by UL and CSA. These conditions are according to the National Electrical Code in the USA and the Canadian Electrical Code and may vary from information given in the product manuals or safety precautions.

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■ Installation in a Control Panel

The NSJ Controller is normally installed on a flat surface in an operation panel. Use an enclosure of the type shown in the following table for the operation panel. Install the NSJ Controller using the following procedure:

1,2,3...

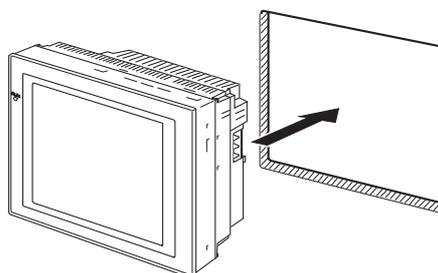
1. Create an opening in the panel as shown in the following table.

Panel board thickness: 1.6 to 4.8 mm

Model	Dimensions	Enclosure type
NSJ12	Width $302^{+1}/_{-0}$ x Height $228^{+1}/_{-0}$ mm	* Following enclosure types are recognized by UL. Outdoor use is not permitted by OMRON. Type 1, 12, 13, 4X indoor use only
NSJ10	Width $302^{+1}/_{-0}$ x Height $228^{+1}/_{-0}$ mm	Type 1, 12, 13, 4X indoor use only
NSJ8	Width $220.5^{+0.5}/_{-0}$ x Height $165.5^{+0.5}/_{-0}$ mm	Type 1, 12, 13
NSJ5	Width $184^{+0.5}/_{-0}$ x Height $131^{+0.5}/_{-0}$ mm	Type 1, 4X indoor use only

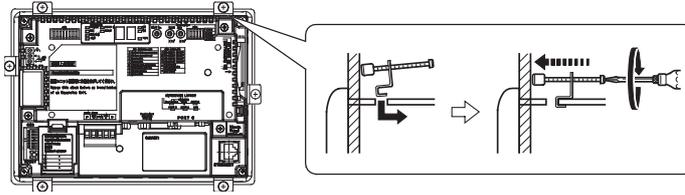
A diagram showing a rectangular opening in a panel. Two dimension lines are shown: a horizontal line at the bottom labeled "Width" and a vertical line on the right side labeled "Height".

2. Install the NSJ Controller from the front of the panel.

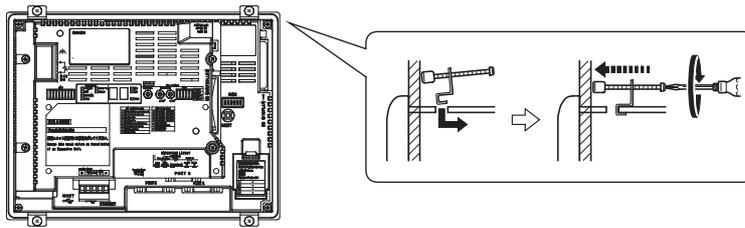


3. Secure the NSJ Controller to the panel using the enclosed Mounting Brackets. Tighten the Mounting Brackets evenly to the specified torque. Excessive tightening or insufficient tightening may deform the front sheet of the NSJ Controller.
- To maintain water-resistant performance, the tightening torque must be 4.4 to 5.3 lb-in (0.5 to 0.6 N·m).

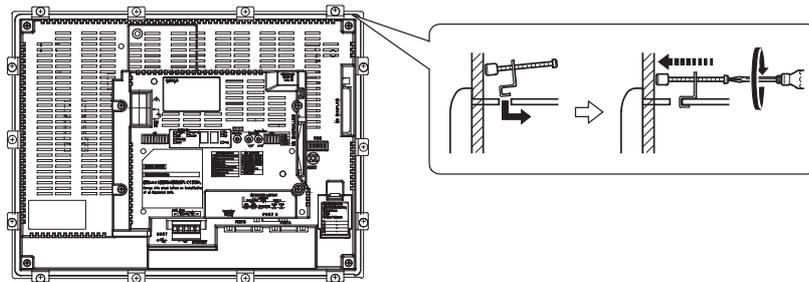
NSJ5 Mounting Diagram



NSJ8 Mounting Diagram



NSJ10 and NSJ12 Mounting Diagram

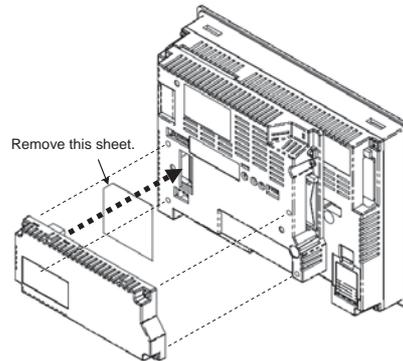


■ **NSJ Controller 24-V Power Supply Wiring**

1. Use an isolated DC power supply.
2. Do not use crimp terminals for the power supply terminals. Tighten the screws directly on the stranded wire.
3. Use wire of at least AWG 14-20 (2 mm² min.) for the power supply terminals and tighten the connectors using the appropriate torque.
Appropriate torque: 7 lb-in (0.8 N-m)

■ **Connecting the Expansion Unit**

Remove the sheet on the back of the NSJ Controller. Connect the Expansion Unit to the Expansion Unit connector and tighten the four screws.
The appropriate tightening torque is 3.5 lb-in (0.4 N-m).



■ **RS-232C Cable**

Use one of the recommended cables: XW2Z Series (e.g., XW2Z-200S-CV).

■ **USB Host Printer Cable**

Use one of the recommended cables: NS-US52 or NS-US22.

These cables are for Internal Wiring Only.

Separate the cables from live parts and all other wiring by a minimum of 6.4 mm (1/4 inch)

■ **Connecting a DeviceNet Cable**

1. Do not use crimp terminals. Tighten the screws directly on the stranded wire.
2. Do not insert more than one wire in one location.
3. Tighten the connectors using the following torque.
Cable mounting screws: 5 to 7 lb-in (0.56 to 0.79 N-m)
Connector mounting screws: 5 to 7 lb-in (0.56 to 0.79 N-m)
4. Use a special DeviceNet cable for the connection. A sticker matching the wire colors is attached to the connector. Check that the wiring is correct by matching the wire colors to the colors on the sticker.
5. The following colors are used:

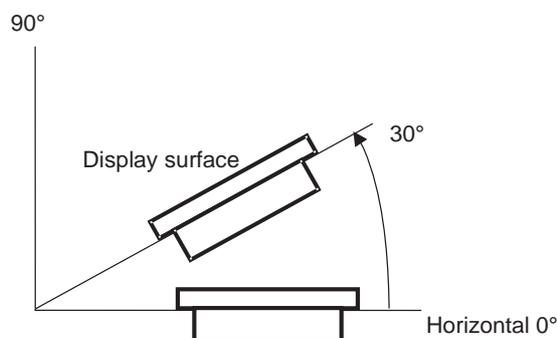
Color	Signal
Red	Power line, positive voltage (V+)
White	Communications line, high (CAN H)
-	Shield (DRAIN)
Blue	Communications line, low (CAN L)
Black	Power line, negative voltage (V-)

The diagram shows a DeviceNet connector with five terminals. Wires are inserted into the terminals and labeled as follows: Black (V-), Blue (CAN L), Shield, White (CAN H), and Red (V+).

■ Operating Temperature

The NSJ Controller must be used within the following operating temperature ranges.

	NSJ12	NSJ10	NSJ8	NSJ5
Surrounding air temperature according to angle of display off horizontal		60° to 90°: 0 to 50°C 30° to 60°: 0 to 45°C 0° to 30°: Not allowed		30° to 90°: 0 to 50°C 0° to 30°: 0 to 40°C



■ INSTALLATION AND OPERATING INSTRUCTIONS

Input and output wiring must be in accordance with Class I, Div. 2 wiring methods and in accordance with the authority having jurisdiction.

1. This equipment is suitable for use in Class I, Div.2, Group A, B, C, D or Non-Hazardous Locations Only.
2. WARNING: Explosion Hazard-Substitution of Components may Impair Suitability for Class I, Div.2.
3. WARNING: Explosion Hazard. Do not Disconnect Equipment Unless Power Has Been Switched off or the Area Is Known to Be Non-Hazardous.
4. This device is open-type and is required to be installed in an enclosure suitable for the environment and can only be accessed with the use of a tool or key.

1. Cet équipement convient à l'utilisation dans des emplacements de Classe I, Division 2, Groupes A, B, C, D, ou ne convient qu'à l'utilisation dans des endroits non dangereux.
2. AVERTISSEMENT - Risque d'explosion - La substitution de composants peut rendre ce matériel inacceptable pour les emplacements de Classe I, Division 2
3. AVERTISSEMENT - Risque d'explosion - Avant de débrancher l'équipement, couper le courant ou s'assurer que l'emplacement est désigné non dangereux.
4. Ce dispositif est de type ouvert et doit être installé dans un coffret adapté à l'environnement et auquel on ne pourra accéder uniquement au moyen d'un outil ou d'une cle.

■ Compliance with EN Standard

- Surrounding Air Temperature : 0 – 50 °C (Avoid freezing or condensation)
- Surrounding Air Humidity : Max. 85 %
- Indoor use only
- Altitude: Max. 2000 m
- Installation environment: Over Voltage Category II、Pollution Degree 2
- Operating Voltage Range: 85 to 115 % of the rated voltage
- Replaceable Battery: CJ1W-BAT01
- Use SELV Power Source for the DC main power source.