Installation Instructions

Allen-Bradley

PanelView 800 HMI Terminals

Catalog Numbers 2711R-T4T, 2711R-T7T, 2711R-T10T

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About This Publication

This document provides instructions on how to install, wire, ground, and troubleshoot PanelView™ 800 terminals. It does not provide information on how to configure or run applications on the following devices: 2711R-T4T, 2711R-T7T, 2711R-T10T

Important User Information

Solid-state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls (Publication SGI-1.1 available from your local Rockwell Automation sales office or online at http://www.rockwellautomation.com/literature/) describes some important differences between solid-state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid-state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

	**WARNING:** Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.
	**ATTENTION:** Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard and recognize the consequences.
	**SHOCK HAZARD:** Labels may be on or inside the equipment (for example, drive or motor) to alert people that dangerous voltage may be present.
	**BURN HAZARD:** Labels may be on or inside the equipment (for example, drive or motor) to alert people that surfaces may reach dangerous temperatures.
IMPORTANT	Identifies information that is critical for successful application and understanding of the product.

Environment and Enclosure



ATTENTION: This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC 60664-1), at altitudes up to 2000 m (6562 ft) without derating.

This equipment is not intended for use in residential environments and may not provide adequate protection to radio communication services in such environments.

This equipment is supplied as open-type equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The enclosure must have suitable flame-retardant properties to prevent or minimize the spread of flame, complying with a flame spread rating of 5VA or be approved for the application if nonmetallic. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

In addition to this publication, see the following:

- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1 for additional installation requirements.
- NEMA Standard 250 and IEC 60529, as applicable, for explanations of the degrees of protection provided by enclosures.

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations:	Informations sur l'utilisation de cet équipement en environnements dangereux:
Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.	Les produits marqués "CL I, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.
WARNING: EXPLOSION HAZARD • Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous. • Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product. • Substitution of components may impair suitability for Class I, Division 2. • If this product contains batteries, they must only be changed in an area known to be nonhazardous.	**AVERTISSEMENT: RISQUE D'EXPLOSION** • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement. • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit. • La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2. • S'assurer que l'environnement est classé non dangereux avant de changer les piles.

Prevent Electrostatic Discharge



ATTENTION: This equipment is sensitive to electrostatic discharge, which can cause internal damage and affect normal operation. Follow these guidelines when you handle this equipment:

- Touch a grounded object to discharge potential static.
- Wear an approved grounding wrist-strap.
- Do not touch connectors or pins on component boards.
- Do not touch circuit components inside the equipment.
- Use a static-safe workstation, if available.
- Store the equipment in appropriate static-safe packaging when not in use.



ATTENTION: This product is intended to be mounted to a well-grounded mounting surface such as a metal panel. Additional grounding connections from the power supply's mounting tabs or DIN rail (if used) are not required unless the mounting surface cannot be grounded. Refer to Industrial Automation Wiring and Grounding Guidelines, Rockwell Automation publication 1770-4.1, for additional information.



ATTENTION: If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment maybe impaired.



ATTENTION: Do not place the module in direct sunlight. Prolonged exposure to direct sunlight could degrade the LCD.



ATTENTION: The USB device port is not intended for Customer use. The USB host port cable is not to exceed 3.0 m (9.84 ft).

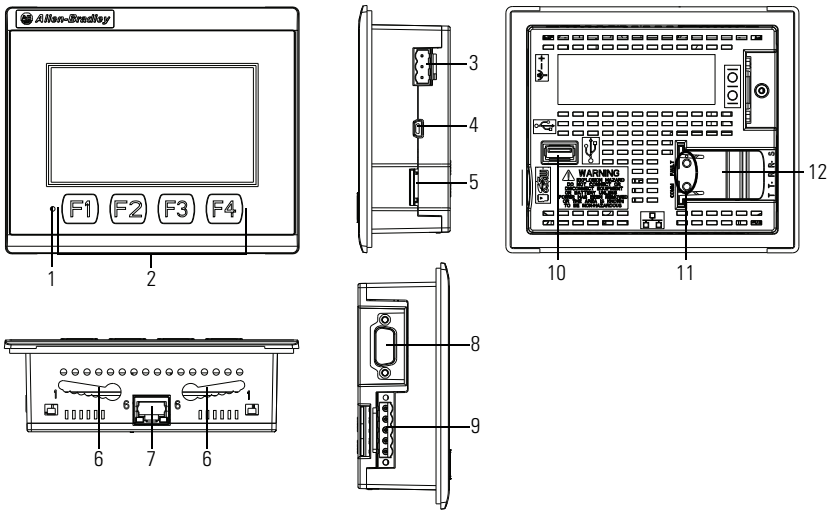
Catalog Number Explanation

Catalog No.	Operator Input	Size	Display Type
2711R-T4T	Touch screen and function keys	4 in.	Color TFT
2711R-T7T	Touch screen	7 in.	
2711R-T10T	Touch screen	10 in.	

About the Terminals

PanelView 800 terminals are operator interface devices for monitoring and controlling devices attached to a controller. HMI applications are created using Connected Components Workbench software, then downloaded to the terminal.

PanelView 800 Terminal – 2711R-T4T

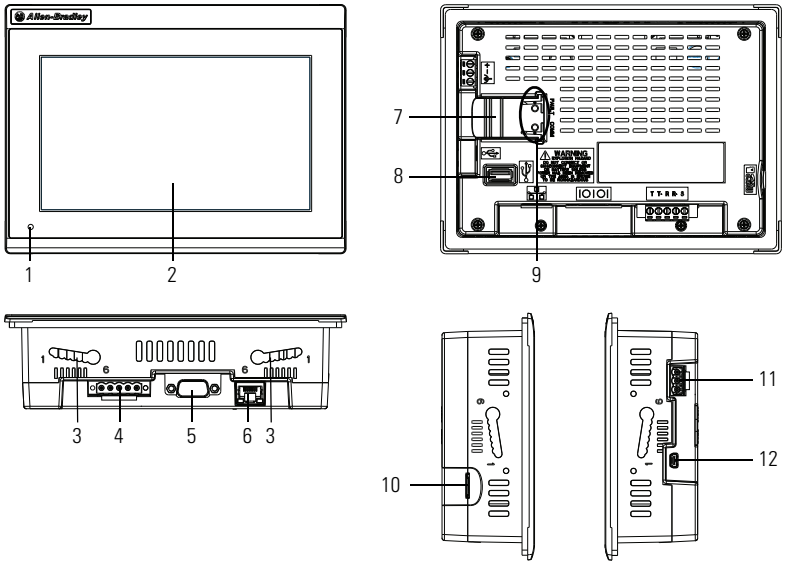


Item	Description	Item	Description
1	Power status LED[1]	7	10/100 Mbit Ethernet port
2	Touch display, function keys	8	RS-232 port
3	24V DC power input	9	RS-422 and RS-485 port
4	USB device port[2]	10	USB host port
5	Micro-SD (Secure Digital) card slot	11	Diagnostic status indicator
6	Mounting slots	12	Replaceable real-time clock battery

(1) The Power Status LED is red when in screen saver or dimmer mode and green when in normal (operational) mode.

(2) The USB device port is not intended for Customer use.

PanelView 800 Terminal – 2711R-T7T

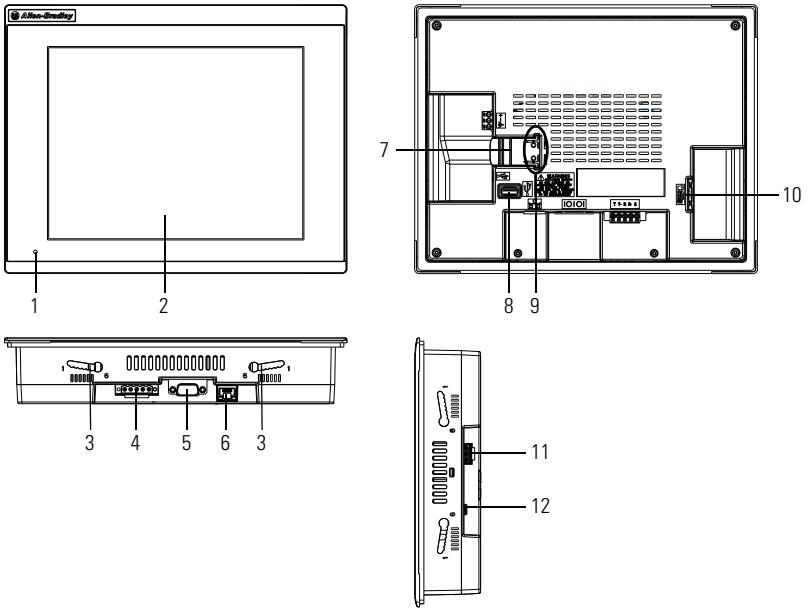


Item	Description	Item	Description
1	Power status LED[1]	7	Replaceable real-time clock battery
2	Touch display	8	USB host port
3	Mounting slots	9	Diagnostic status indicator
4	RS-422 and RS-485 port	10	Micro-SD (Secure Digital) card slot
5	RS-232 port	11	24V DC power input
6	10/100 Mbit Ethernet port	12	USB device port[2]

(1) The Power Status LED is red when in screen saver or dimmer mode and green when in normal (operational) mode.

(2) The USB device port is not intended for Customer use.

PanelView 800 Terminal – 2711R-T10T



Item	Description	Item	Description
1	Power status LED[1]	7	Replaceable real-time clock battery
2	Touch display	8	USB host port
3	Mounting slots	9	Diagnostic status indicator
4	RS-422 and RS-485 port	10	Micro-SD (Secure Digital) card slot
5	RS-232 port	11	24V DC power input
6	10/100 Mbit Ethernet port	12	USB device port[2]

(1) The Power Status LED is red when in screen saver or dimmer mode and green when in normal (operational) mode.

(2) The USB device port is not intended for Customer use.

Parts List

PanelView 800 terminals ship with these items:

- Power terminal block
- RS-422/RS-485 5-pin terminal block
- Lithium battery for real-time clock (pre-installed)
- Panel cutout template
- Mounting levers (4 for 2711R-T4T, 6 for 2711R-T7T, and 8 for 2711R-T10T)

Install the Terminal

Before installing the terminal in a panel, review minimum clearances, panel guidelines, panel cutout dimensions, and product dimensions.

Minimum Spacing

Plan for adequate space around the terminal, inside the enclosure, for ventilation and cabling. Consider heat produced by other devices in the enclosure.

The ambient temperature around the terminal must be 0...50 °C (32.. 122 °F).

Catalog No.	Top	Bottom	Sides	Back
2711R-T4T	51 mm (2 in.)	51 mm (2 in.)	51 mm (2 in.)	51 mm (2 in.)
2711R-T7T	51 mm (2 in.)	51 mm (2 in.)	25 mm (1 in.)	51 mm (2 in.)
2711R-T10T	51 mm (2 in.)	25 mm (1 in.)	25 mm (1 in.)	51 mm (2 in.)



WARNING: When you insert or remove the micro-SD Card while power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.

TIP The minimum spacing requirements are sufficient for connecting cables and inserting or removing a memory card. Plan for additional clearance if using the USB host port on the back of the unit.

Mounting Angle

You can mount the terminal vertically against the panel, or tilted forward or backwards, up to a 60° angle. For mounting angles greater than 60°, the operating temperature is restricted to 40 °C (104 °F).

Panel Guidelines

Supporting panels must be at least 16 gauge to provide proper sealing against water and dust and to provide proper support. The panel surface must be flat and free of imperfections to maintain an adequate seal and NEMA Type ratings.

Panel Cutout Dimensions

Use the template shipped with your terminal to mark the cutout dimensions.

Catalog No.	Height, Approx., mm (in.)	Width, Approx., mm (in.)
2711R-T4T	99.0 ±0.5 (3.89 ±0.02)	119.0 ±0.5 (4.68 ±0.02)
2711R-T7T	125.0 ±0.5 (4.92 ±0.02)	179.0 ±0.5 (7.05 ±0.02)
2711R-T10T	206.0 ±0.5 (8.11 ±0.02)	269.0 ±0.5 (10.59 ±0.02)

Mount the PanelView 800 Terminal in a Panel

Mounting levers secure the PanelView 800 terminal to the panel.



ATTENTION: Follow these guidelines when mounting the terminal in a panel.

- Disconnect all electrical power from the panel before making the panel cutout.
- Make sure the area around the panel cutout is clear.
- Take precautions so metal cuttings do not enter any components already installed in the panel.
- Failure to follow these instructions may result in personal injury or damage to panel components.



WARNING: If you connect or disconnect the serial cable with power applied to this module or the serial device on the other end of the cable, an electrical arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.



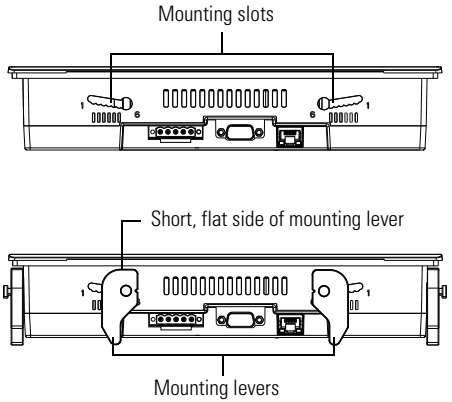
WARNING: When used in a Class I, Division 2, hazardous location, this equipment must be mounted in a suitable enclosure with proper wiring method that complies with the governing electrical codes.

Follow these steps to mount the terminal in a panel.

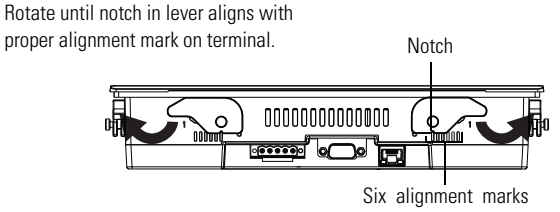
1. Cut an opening in the panel using the template shipped with the terminal.
2. Make sure the sealing gasket is properly positioned on the terminal.
   This gasket forms a compression type seal. Do not use sealing compounds.
3. Place the terminal in the panel cutout.

IMPORTANT The terminal temperature must be greater than 0 °C (32 °F) during panel installation.

4. Insert all mounting levers into the mounting slots on the terminal.
   Slide each lever until the short, flat side of lever touches the surface of the panel.



5. When all levers are in place, slide each lever an additional notch or two until you hear a click.
6. Rotate each lever in direction indicated until it is in the final latch position.
   Follow the latching sequence for the optimum terminal fit.



Latching sequence for 2711R-T4T



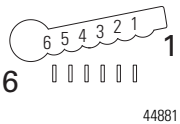
Latching sequence for 2711R-T7T



Latching sequence for 2711R-T10T



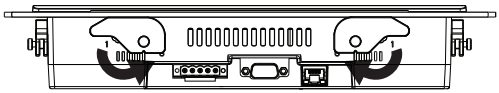
Use this table as a guide to provide an adequate gasket seal between the terminal and the panel.

Terminal Markings for Alignment	Lever Position	Panel Thickness Range	Typical Gauge
	1	1.52…2.01 mm (0.060…0.079 in.)	16
	2	2.03…2.64 mm (0.08…0.104 in.)	14
	3	2.67…3.15 mm (0.105…0.124 in.)	12
	4	3.17…3.66 mm (0.125…0.144 in.)	10
	5	3.68…4.16 mm (0.145…0.164 in.)	8/9
	6	4.19…4.75 mm (0.165…0.187 in.)	7

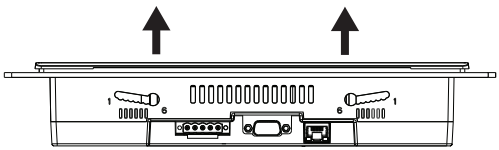
Remove the PanelView 800 Terminal from the Panel

Follow these steps to remove the terminal from the panel.

1. Disconnect power to the terminal.
2. Release the mounting lever by rotating it in the direction indicated, slide it to the bottom of the mounting slot, and remove it.

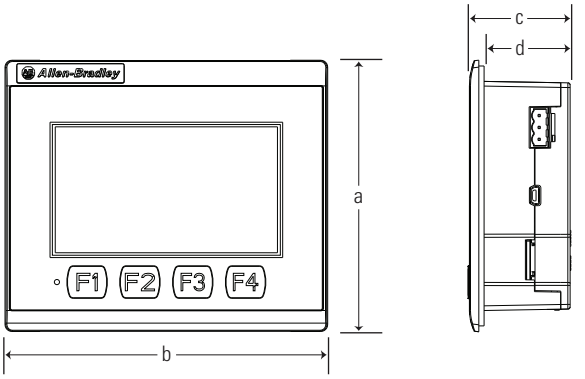


3. Grip the sides of the bezel and gently pull the terminal out of the panel opening.

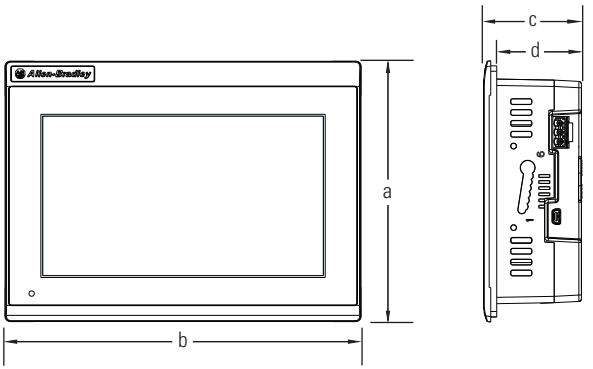


Product Dimensions

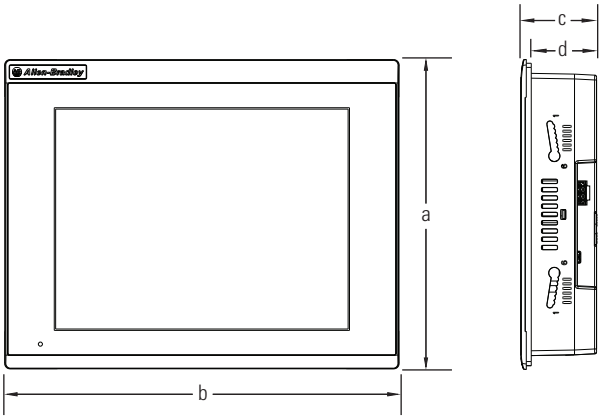
PanelView 800 Terminal – 2711R-T4T



PanelView 800 Terminal – 2711R-T7T



PanelView 800 Terminal – 2711R-T10T



PanelView 800 Dimensions

Catalog No.	Height, Approx.	Width, Approx.	Overall Depth, Approx.	Mounted Depth, Approx.
	a	b	c	d
2711R-T4T	116 mm (4.57 in.)	138 mm (5.43 in.)	43 mm (1.69 in.)	39 mm (1.54 in.)
2711R-T7T	144 mm (5.67 in.)	197 mm (7.76 in.)	54 mm (2.13 in.)	50 mm (1.97 in.)
2711R-T10T	225 mm (8.86 in.)	287 mm (11.30 in.)	55 mm (2.17 in.)	51 mm (2.01 in.)

USB Ports

You can power USB peripherals directly from the PanelView 800 terminal. If the USB peripheral is not powered directly from the PanelView USB port either:

- install the USB peripheral in the same enclosure as the PanelView terminal and make sure it is connected to the same ground system.
- connect to the USB peripheral through a galvanically isolated hub.

WARNING: If you connect or disconnect the communications cable with power applied to this module or any device on the network, an electrical arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.

WARNING: If you connect or disconnect the USB cable with power applied to this module or any device on the USB network, an electrical arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.

Choose a Power Supply

Use a dedicated 24V DC, Class 2 Safety Extra-low Voltage (SELV) or Protective Extra-low Voltage (PELV) power supply to power each PanelView Terminal.

ATTENTION: Use a Class 2, Safety Extra-low Voltage (SELV), or Protective Extra-low Voltage (PELV) power supply as required by local wiring codes for your installation. These power supplies provide protection so that under normal and single-fault conditions, the voltage between the conductors, and between conductors and functional earth, does not exceed a safe value.

WARNING: When you insert or remove connection(s) while power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding. Repeated electrical arcing causes excessive wear to contacts on both the module and its mating connector. Worn contacts may create electrical resistance that can affect module operation.

WARNING: Do not connect directly to line voltage. Line voltage must be supplied by a suitable, approved isolating transformer or power supply having short circuit capacity not exceeding 100 VA maximum or equivalent.

PanelView 800 devices have been tested to operate with 1606-XLP power supplies. To use another power supply, review the criteria in the table.

Power Supply Criteria

If the PanelView 800 terminal	Use a	Description
Connects to equipment with isolated communication ports	SELV or PELV power supply	Other equipment can share this power supply with the PanelView 800 device provided that no ground loops are created. A PELV power source internally connects the negative power terminal to chassis ground.
Does not connect to other equipment		
Connects to equipment with nonisolated communication ports	Dedicated, isolated, and ungrounded SELV source to power each terminal	This prevents ground loops from damaging the devices.

Remove the Power Terminal Block

PanelView 800 terminals ship with a power terminal block installed. You can remove the power terminal block for ease of installation, wiring, and maintenance.

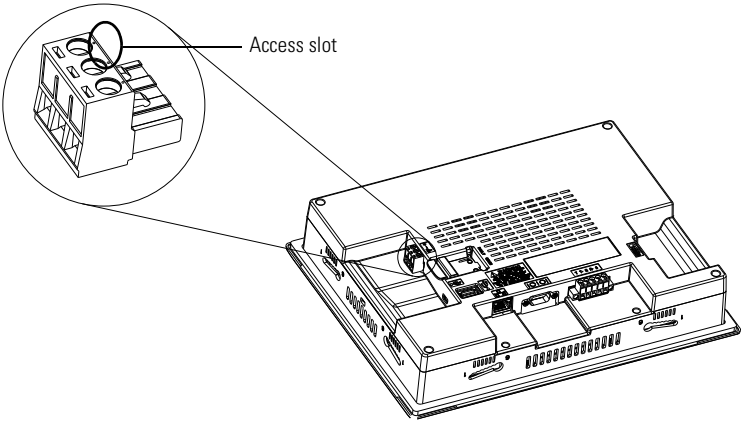
ATTENTION: Disconnect all power before installing or replacing components. Failure to disconnect power may result in electrical shock or damage to the terminal.

WARNING: When you connect or disconnect the Removable Power Terminal Block (RTB) while the module is powered, an electrical arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.

Follow these steps to remove the terminal block.

1. Insert the tip of a small, flat-blade, screwdriver into the terminal block access slot.
2. Gently pry the terminal block away from the terminal to release the locking mechanism.



Follow these steps to replace the terminal block.

1. Press the terminal block base in first with the block leaning outward.
2. Gently push the top of the terminal block back to a vertical position to snap in the locking tab.

Connect Power

All PanelView 800 terminals connect to a 24V DC power source. The table shows the power ratings for each device.

Power Ratings

Catalog No.	Input Voltage Range	Power Consumption, Max
2711R-T4T	18…32V DC (24V DC nom)	9 W (0.39 A)
2711R-T7T		11 W (0.40 A)
2711R-T10T		14 W (0.48 A)

The internal, nonisolated power supply is protected against reverse polarity of the DC+ and DC- connections.

ATTENTION: Connecting DC+ or DC- source to the functional earth terminal may damage the device. Miswiring the DC+ source to the DC- input while connected to other equipment through nonisolated ports may cause a ground loop current and damage the device.

WARNING: Use supply wires suitable for 30 °C (86 °F) above surrounding ambient.

WARNING: If you connect or disconnect wiring while the power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.

The input power terminal block supports these wire sizes.

Wire Specifications for Input Power Terminal Block

Wire Type		Dual-wire Gauge (1)	Single-wire Gauge	Terminal Screw Torque
Stranded or solid	Cu 90 °C (194 °F)	0.33…1.31 mm^2 (22…16 AWG)	0.33…2.08 mm^2 (22…14 AWG)	0.45…0.56 Nm (4…5 lb-in.)

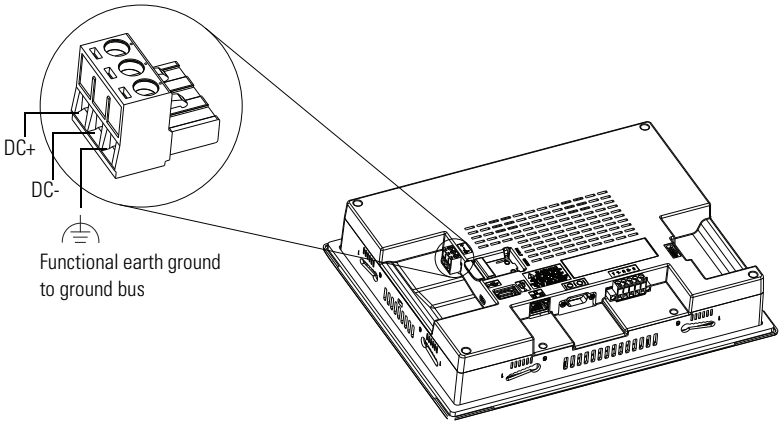
(1) Two-wire maximum per terminal.

ATTENTION: Disconnect all power before installing or replacing components. Failure to disconnect power may result in electrical shock or damage to the terminal.

ATTENTION: Do not wire more than 2 conductors on any single terminal.

Follow these steps to connect power.

1. Verify that the terminal is not connected to a power source.
2. Secure the 24V DC power wires to the terminal block.
3. Secure the functional earth ground wire to the functional earth ground terminal screw on the terminal block.
4. Apply 24V DC power to the terminal.



Ground the Terminal

PanelView 800 terminals have a functional earth terminal that you must connect to a low-impedance earth ground. The functional earth connection is on the power input terminal block. The negative power terminal is not internally connected to earth ground.

ATTENTION: The functional earth connection to ground is mandatory. This connection is required for noise immunity, reliability, and Electromagnetic Compliance (EMC) with the European Union (EU) EMC directive for CE-mark conformance.

The functional earth terminal wiring requires a minimum wire gauge.

Functional Earth Wire Specifications

FE Symbol	Wire Type		Wire Gauge	Terminal Screw Torque
⏚	Stranded or solid	Cu 90 °C (194 °F)	2.08…3.31 mm^2 (14…12 AWG)	0.45…0.56 Nm (4…5 lb-in)

Connect Devices

Use these cables for connecting devices to PanelView 800 terminals.

Cables for PanelView 800 Terminals

Cat. No.	Description
2711P-CBL-EX04	Ethernet crossover CAT5 cable 4.3 m (14 ft)
1747-CP3	Serial 9-pin D-shell to 9-pin D-shell null modem cable
1761-CBL-PM02	Serial 9-pin D-shell to 8-pin mini DIN cable, 2 m (6.56 ft)
2711C-CBL-AB03	RS-485 5-pin to RJ45 cable

RS-422/RS-485 Port

The RS-422/RS-485 port is an isolated port that supports point-to-point communications. RS-422 supports both Full-Duplex and Half-Duplex mode. RS-485 only supports Half-Duplex mode.

- In Full-Duplex mode, both devices can transmit and receive simultaneously. The transmit and receive pair are wired individually.
- In Half-Duplex mode, only one device can transmit at a time while the other device receives. A single differential, twisted pair connects to both receive and transmit pairs (R and T and on one wire, R- and T- on the other).

RS-422/RS-485 Connector Pinout

Pin	Signal
1	T
2	T–
3	R
4	R–
5	S (Shield)

The RS422/485 port has integrated 120 ohm termination between the R and R- signal pair. This value is compatible with RS422 and RS485 electrical specifications. Additional termination on the PanelView 800 terminal end of communication cables is not required.

Troubleshooting

If your terminal does not start up correctly, check for adequate power and indicator states during powerup.

Check for Adequate Power

A terminal that does not receive adequate power could cause unpredictable behavior.
Verify the power requirements in the Specifications table.

Interpret the LED Indicators at Startup

The PanelView 800 terminals have indicators to isolate operating problems. They can be seen through the battery cover on the back of the unit.

- Comm indicator for communications
- Fault indicator for hardware faults

At startup, the Fault indicator is off, except for a few brief flashes, and the Comm indicator is on. If the indicators remain off, check the power cable. After a successful startup, both indicators are off and controlled by the application running on the terminal.

The table shows the indicator states if the terminal stops during startup.

Fault Indicator States During Startup

Fault (Red) Indicator State	Comm (Green) Indicator State	Description	Recommended Action
Potentially recoverable errors			
Blinking	Off	Last firmware download failed.	Reload the firmware.
Blinking	Blinking	EBC boot loader firmware failed or is missing.	Reload the firmware.
Blinking	On	Windows CE OS firmware failed or is missing.	Reload the firmware.
Nonrecoverable or fatal errors			
On	Off	Fatal hardware error.	Replace the terminal.

Battery Replacement

The PanelView 800 terminals contain a lithium battery that is intended to be replaced during the life of the product. The battery provides battery backup for the real-time clock.
It is not used for application backup or retention.

WARNING: Verify that power has been removed from the terminal prior to replacing the battery. Work in a static free environment and wear a properly grounded electrostatic discharge (ESD) wristband. Be careful when touching any of the exposed electronic components to prevent damage from ESD.

WARNING: To avoid the danger of explosion, only replace the battery with 2711P-RY2032 or a manufacturer's equivalent such as the Matsushita or Duracell DL2032.

For safety information on the handling of lithium batteries, see the Guidelines for Handling Lithium Batteries, publication AG 5-4.

Do not dispose of battery in a fire or incinerator. Dispose of used batteries in accordance with local regulations.

WARNING: When you connect or disconnect the battery an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that the area is nonhazardous before proceeding.

For Safety information on the handling of lithium batteries, including handling and disposal of leaking batteries, see Guidelines for Handling Lithium Batteries, publication AG 5-4.

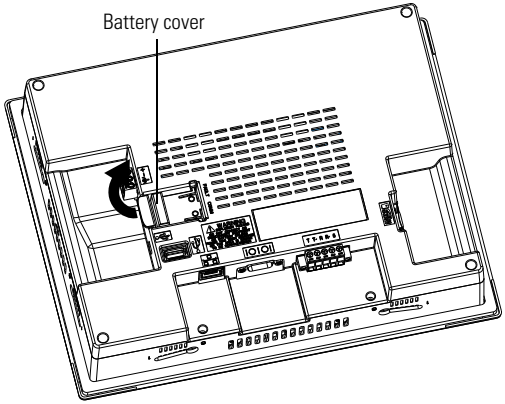
Battery Removal



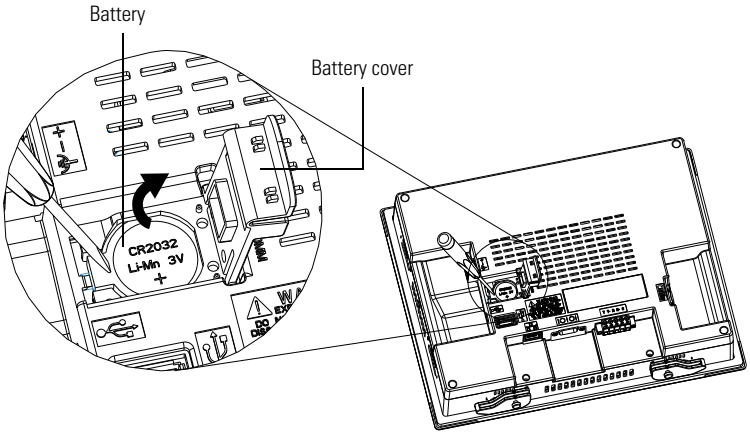
This product contains a lithium battery that may need to be replaced during the life of the product. At the end of its life, the battery contained in this product should be collected separately from any unsorted municipal waste. The collection and recycling of batteries helps protect the environment and contributes to the conservation of natural resources as valuable materials are received.

ATTENTION: Battery contains Perchlorate Material – Special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate.
This perchlorate warning only applies to primary Lithium Manganese Dioxide (LiMnO2) cells or batteries, and products containing these cells or batteries, sold or distributed in California, USA.

The battery is on the back of the terminals. No special tools are required to remove the battery cover, but a flat-tip screwdriver may be required to remove the battery.



This equipment is sensitive to electrostatic discharge (ESD)
Follow ESD prevention guidelines when handling this equipment.



This equipment is sensitive to electrostatic discharge (ESD)
Follow ESD prevention guidelines when handling this equipment.

Specifications

PanelView 800 - 2711R-T4T, 2711R-T7T, 2711R-T10T

Attribute	Value		
	2711R-T4T	2711R-T7T	2711R-T10T
Display type	Color transmissive TFT active matrix LCD, widescreen format		
Display size	4 in.	7 in.	10 in.
Display area	95 x 53.9 mm (3.74 X 2.12 in.)	153.6 x 86.6 mm (6.05 x 3.41 in.)	211.2 x 158.4 mm (8.31 x 6.24 in.)
Resolution (pixels)	480 x 272	800 x 480	800 x 600
Backlight lifespan, min.	40,000 hours		
Operator input	Analog touch and function keys	Analog touch	
External memory storage	USB port and micro-SD (Secure Digital) card – Industrial grade micro-SD cards recommended. Supports SDSC and Class 6 & Class 10 SDHC micro-SD cards, FAT32/16 formats, up to 32 GB maximum size.		
Programming port	Ethernet port		
Battery lifespan, min.	5 years at 25 °C (77 °F)		
Real-time clock	Yes		
Input voltage range	18…32V DC (24V DC nom)		
Power consumption, max	9 W (0.39 A @ 24V DC)	11 W (0.40 A @ 24V DC)	14 W (0.48 A @ 24V DC)
Weight, approx.	0.333 kg (0.73 lb)	0.651 kg (1.44 lb)	1.64 kg (3.62 lb)
Dimensions (HxWxD), approx.	116 x 138 x 43 mm (4.56 x 5.43 x 1.69 in.)	144 x 197 x 54 mm (5.67 x 7.75 x 2.13 in.)	225 x 287 x 55 mm (8.86 x 11.3 x 2.16 in.)

General Specifications

Attribute	Value
Wire size	Input Power Terminal Block Stranded or solid, Cu 90 °C (194 °F) Single-Wire Gauge: 0.33…2.08 mm^2 (22...14 AWG) Dual-wire Gauge: 0.33…1.31 mm^2 (22…16 AWG)
Wire type	Copper
Wiring category[1]	3 – on power ports 2 – on communication ports
Enclosure type ratings	Meets NEMA/UL Type 4X (indoor) 12, 13, and IP65
North American Temp Code	T4A

(1) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.

Environmental Specifications

Attribute	Value
Temperature, operating	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): 0…50 °C (32…122 °F)
Temperature, nonoperating	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): -25…70 °C (-13…158 °F)
Temperature, surrounding air, max	50 °C (122 °F)
Heat dissipation 2711R-T4T 2711R-T7T 2711R-T10T	 23 BTU/hr 34 BTU/hr 61 BTU/hr
Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5…95% noncondensing
Vibration	IEC 60068-2-6 (Test Fc, Operating): 2 g @ 10…500 Hz
Shock, operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 15 g
Shock, nonoperating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 30 g
Emissions	IEC 61000-6-4
ESD Immunity	IEC 61000-4-2: 4 kV contact discharges 8 kV air discharges
Radiated RF Immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80% AM from 80…2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 1890 MHz 10V/m with 1 kHz sine-wave 80% AM from 2000…2700 MHz
EFT/B Immunity	IEC 61000-4-4: ±2 kV @ 5 kHz on power ports ±1 kV @ 5 kHz on communication ports
Surge Transient Immunity	IEC 61000-4-5: ±500V line-line(DM) and ±500V line-earth(CM) on DC power ports ±1 kV line-earth(CM) on communication ports
Conducted RF Immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80% AM from 150 kHz…80 MHz

Certifications

Certifications (when product is marked) [1]	Value
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E322657. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E334470.
CE	European Union 2004/108/EC EMC Directive, compliant with: EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions
RCM	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of Radio Waves Act, Clause 3

[1] See the Product Certification link at http://www.ab.com for Declarations of Conformity, Certificates, and other certification details.

Additional Resources

You can view or download publications at http://www.literature.rockwellautomation.com.
To order paper copies of technical documentation, contact your local Rockwell Automation distributor or sales representative.

Notes:

Notes:

Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products. At http://www.rockwellautomation.com/support/, you can find technical manuals, a knowledge base of FAQs, technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools.

For an additional level of technical phone support for installation, configuration and troubleshooting, we offer TechConnect support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit http://www.rockwellautomation.com/support/.

Installation Assistance

If you experience a problem within the first 24 hours of installation, please review the information that's contained in this manual. You can also contact a special Customer Support number for initial help in getting your product up and running.

United States or Canada	1.440.646.3434
Outside United States or Canada	Use the Worldwide Locator at http://www.rockwellautomation.com/rockwellautomation/support/overview.page, or contact your local Rockwell Automation representative.

New Product Satisfaction Return

Rockwell Automation tests all of its products to ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning and needs to be returned, follow these procedures.

United States	Contact your distributor. You must provide a Customer Support case number (call the phone number above to obtain one) to your distributor to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for the return procedure.

Documentation Feedback

Your comments will help us serve your documentation needs better. If you have any suggestions on how to improve this document, complete this form, publication RA-DU002, available at http://www.rockwellautomation.com/literature/.

Rockwell Automation maintains current product environmental information on its website at http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page.

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