

2711P and 2711PC PanelView Plus Terminals

IMPORTANT This document contains important information related to agency certifications for the PanelView Plus terminals. The product is marked with all agency approvals and certifications.

This document is **not intended for installing, configuring, or operating these products**. Do not install these products until you have first read this document and the appropriate documents under Additional Resources. For product information, use these resources:

- To view or download product publications, go to <http://www.rockwellautomation.com/literature> and search documents under Operator Interface.
- To order paper copies of technical documentation, contact your local Rockwell Automation distributor or sales representative.
- For declarations of conformity, certificates, and other certification details, visit the Product Certifications page at <http://www.ab.com>.

Important User Information

Solid-state equipment has operational characteristics that differ from 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 important differences between solid-state equipment and hard-wired electromechanical devices. Because of these differences and 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.

This document uses these symbols 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. Attention statements help you identify a hazard, avoid a hazard, and recognize the consequences.

Additional Resources

Resource

PanelView Plus 700 to 1500 Terminals User Manual, publication [2711P-UM006](#) supports FactoryTalk View Machine Edition software, version 6.0 or later
Cat. Nos. 2711P-xxxx8, 2711P-xxxx9

PanelView Plus 700 to 1500 Terminals Installation Instructions, publication [2711P-IN029](#) supports FactoryTalk View Machine Edition software, version 6.0 or later
Cat. Nos. 2711P-xxxx8, 2711P-xxxx9, 2711P-RP8x, 2711P-RP9x, 2711P-RDxx

PanelView Plus Terminals User Manual, publication [2711P-UM001](#) supports FactoryTalk View Machine Edition software, version 5.1 or earlier
Cat. Nos. 2711P-x4xxx, 2711P-x6xxx, 2711P-xxxx1, 2711P-xxxx2, 2711P-xxxx6, 2711P-xxxx7

PanelView Plus Compact Terminals User Manual, publication [2711PC-UM001](#) supports FactoryTalk View Machine Edition software, version 5.1 or later
Cat. Nos. 2711PC-x4xxx, 2711PC-x6xxx, 2711PC-x10xxx

PanelView Plus 700 to 1500, PanelView Plus Compact 1000 Terminals and Display Modules Installation Instructions, publication [2711P-IN001](#) FactoryTalk View Machine Edition software, version 5.1 or earlier - Cat. Nos. 2711P-xxxx1, 2711P-xxxx2, 2711P-xxxx6, 2711P-xxxx7, 2711PC-x10xxx

PanelView Plus and PanelView Plus Compact 400 and 600 Installation Instructions, publication [2711P-IN002](#) supports FactoryTalk View Machine Edition software, version 5.1 or earlier - Cat. Nos. 2711P-x4xxx, 2711P-x6xxx, 2711PC-x4xxx, 2711PC-x6xxx

Wiring and Grounding Guidelines for PanelView Plus Terminals Technical Data, publication [2711P-TD001](#)

Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#)

Product Ratings

Attribute	Value
Temperature, operating	0...55 °C (32...131 °F)
Enclosure rating	NEMA Type 12, 13, 4X (indoor only) and IEC IP54, IP65 only when terminal is mounted in an enclosure with equivalent rating
Mounting torque 700 to 1500 panel installation	0.09...1.1 N•m (8...10 lb•in)

Wiring Specifications

Power Wiring

Terminal	Input Voltage ⁽¹⁾		Wire Type	Dual-wire Size ⁽³⁾ Min...Max	Single-wire Size Min...Max	Terminal Screw Torque
400 and 600	85...264V AC	18...30V DC	Cu 90 °C (194 °F) ⁽²⁾ stranded or solid	0.3...1.3 mm ² 22...16 AWG	0.3...2.1 mm ² 22...14 AWG	AC/DC: 0.45...0.56 N•m (4...5 lb•in) DC: 0.45...0.56 N•m (4...5 lb•in)
700 to 1500, 3-terminal	85...264V AC	18...32V DC				AC: 0.56 N•m (5 lb•in) DC: 0.23...0.34 N•m (2...3 lb•in)
700 to 1500, 2-terminal	—	18...32V DC				DC: 0.56 N•m (5 lb•in)

(1) See label on product for power or current requirements.

(2) Minimum required insulation temperature rating.

(3) Two wire maximum per terminal.

Protective Earth/Functional Earth Wiring

Terminal	Input Voltage	Protective Earth	Functional Earth	Wire Type	Wire Size	Terminal Screw Torque	
400 and 600	85...264V AC		—	Cu 90 °C (194 °F) ⁽³⁾ stranded or solid	2.1...3.3 mm ² 14...12 AWG	0.45...0.56 N•m (4...5 lb•in)	
700 to 1500 ^{(1) (2)}			—		GND	2.1...5.3 mm ² 14...10 AWG	0.56 N•m (5 lb•in)
400 to 600	18...30V DC	—		Cu 90 °C (194 °F) ⁽³⁾ stranded or solid	2.1...3.3 mm ² 14...12 AWG	0.45...0.56 N•m (4...5 lb•in)	
700 to 1500 ⁽²⁾	18...32V DC	—	GND		2.1...5.3 mm ² 14...10 AWG	1.13...1.36 N•m (10...12 lb•in)	

(1) 700 to 1500 terminals with an AC power input, require to connect both the protective earth and functional earth to ground.
 (2) The functional earth connection is on the back of the display.
 (3) Minimum required insulation temperature rating.

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations.	Les informations suivantes s'appliquent pour les équipements utilisés dans des environnements dangereux.
<p>When marked, these products are suitable for use in Class I, Division 2, Groups A, B, C, D; Class I, Zone 2, Group IIC, Class II, Division II, Groups F, G; Class III 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.</p>	<p>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.</p>
<p> WARNING: EXPLOSION HAZARD</p> <ul style="list-style-type: none"> 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. Substitution of components may impair suitability for Class I, Division 2. Peripheral equipment must be suitable for the location in which it is used. The battery or real-time clock module in this product must only be changed in an area known to be nonhazardous. All wiring must be in accordance with Class I, Division 2, Class II, Division 2, or Class III, Division 2 wiring methods of Articles 501, 502 or 503, as appropriate, of the National Electrical Code and/or in accordance with Section 18-1J2 of the Canadian Electrical Code, and in accordance with the authority having jurisdiction. 	<p> AVERTISSEMENT : RISQUE D'EXPLOSION</p> <ul style="list-style-type: none"> 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. La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2 Les équipements périphériques doivent s'adapter à l'environnement dans lequel ils sont utilisés. La batterie ou le module de l'horloge en temps réel de ce produit doit être changé(e) uniquement dans un environnement classé sans risque. Tous les systèmes de câblage doivent être de Classe I, Division 2, Classe II, Division 2, ou Classe III, Division 2, conformément aux méthodes de câblage indiquées dans les Articles 501, 502 ou 503 du National Electrical Code (Code Electrique National) et/ou conformément à la Section 18-1J2 du Canadian Electrical Code (Code Electrique Canadien), et en fonction de l'autorité de juridiction.

Environment and Enclosure Information

<p> ATTENTION:</p> <p>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 (6561 ft) without derating.</p> <p>The terminals are intended for use with programmable logic controllers. Terminals that are AC powered must be connected to the secondary of an isolating transformer. Terminals that are DC Class 2 powered may be supplied from an isolated DC source when used with the indicated fuse kit.</p> <p>This equipment is considered Group 1, Class A industrial equipment according to IEC CISPR 11. Without appropriate precautions, there may be difficulties ensuring electromagnetic compatibility in residential and other environments due to conducted or radiated disturbances.</p> <p>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 interior of the enclosure must be accessible only by the use of a tool. The terminals meet specified NEMA Type and IEC ratings only when mounted in a panel or enclosure with the equivalent rating. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.</p> <p>In addition to this publication, see:</p> <ul style="list-style-type: none"> Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for additional installation requirements. NEMA Standards 250 and IEC 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosure.

USB Ports

The PanelView Plus terminals contain universal serial bus (USB) ports that comply with hazardous location requirements. The PanelView Plus 700 to 1500 terminals have two USB host ports; the PanelView Plus 400 and 600 terminals have one USB host port. Field-wiring compliance requirements are provided in compliance with the National Electric Code, Article 500.

Figure 1 - PanelView Plus Terminals Control Drawing - Associated Nonincendive Field-wiring Apparatus

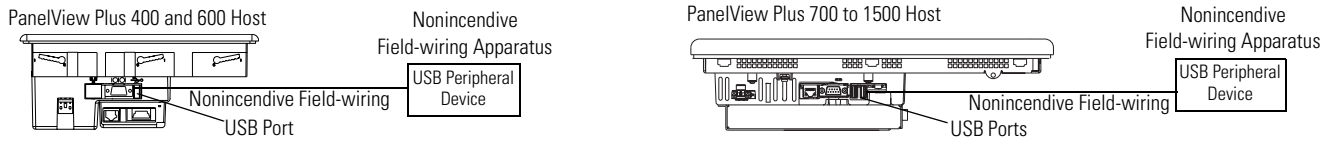


Table 1 - PanelView Plus USB Port Circuit Parameters

PanelView Plus Terminal Type	V_{oc}	I_{sc}	C_a		L_a	
			Groups A and B	Groups C and D	Groups A and B	Groups C and D
PanelView Plus 400 and 600, Series A and B	5.25V DC	1.68 A	10 μ F	10 μ F	15 μ H	15 μ H
PanelView Plus 400 and 600, Series C or later	5.25V DC	1.68 A	10 μ F	10 μ F	3.5 μ H	15 μ H
PanelView Plus 700 to 1500	5.25V DC	1.68 A	10 μ F	10 μ F	15 μ H	15 μ H

Selected nonincendive field wiring apparatus must have nonincendive circuit parameters conforming with Table 2.

Table 2 - Required Circuit Parameters for the USB Peripheral Device

V_{max}	\geq	V_{oc}	$C_i + C_{cable}$	\leq	C_a
I_{max}	\geq	I_{sc}	$L_i + L_{cable}$	\leq	L_a

Application Information

The circuit parameters of the PanelView Plus 700 to 1500 USB port are given in Table 1. The USB peripheral device and its associated cabling shall have circuit parameters with the limits given in Table 2 for them to remain nonincendive when used with the PanelView Plus 700 to 1500 USB port. If cable capacitance and inductance are not known, the following values from ANSI/ISA-RP 12.06.01-2003 may be used:

$$C_{cable} = 197 \text{ pF/m (60 pF/ft)}$$

$$L_{cable} = 0.7 \text{ } \mu\text{H/m (0.20 } \mu\text{H/ft)}$$

Nonincendive field wiring must be wired and separated in accordance with 501.10(B)(3) of the National Electrical Code (NEC) ANSI/NFPA 70 or other local codes as applicable. This associated nonincendive field-wiring apparatus has not been evaluated for use in combination with another associated nonincendive field-wiring apparatus.

Table 3 - Symbol Definitions

V_{oc}	Open circuit voltage of the host USB port.
I_{sc}	Maximum output current of the host USB port.
V_{max}	Maximum applied voltage rating of the USB peripheral device. V_{max} shall be greater than or equal to V_{oc} in Table 1 ($V_{max} \geq V_{oc}$).
I_{max}	Maximum current to which the USB peripheral device can be subjected. I_{max} shall be greater than or equal to I_{sc} in Table 1 ($I_{max} \geq I_{sc}$).
C_i	Maximum internal capacitance of the USB peripheral device.
C_a	Maximum allowed capacitance of the USB peripheral device and its associated cable. The sum of C_i of the USB peripheral device and C_{cable} of the associated cable shall be less than or equal to C_a ($C_i + C_{cable} \leq C_a$).
L_i	Maximum internal inductance of the USB peripheral device.
L_a	Maximum allowed inductance of the USB peripheral device and its associated cable. The sum of L_i of the USB peripheral device and L_{cable} of the associated cable shall be less than or equal to L_a ($L_i + L_{cable} \leq L_a$).

Battery Removal



This product contains a sealed lithium battery. For the 700 to 1500 terminals, you may need to replace the battery during the life of the product. For the 400 and 600 terminals, the battery is permanently connected and should be removed only by trained professionals at the end of product life. At the end of its life, the battery in these products 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 recovered.



WARNING: There is a danger of explosion if the lithium battery or real-time clock module in these products is incorrectly replaced. Replace the battery only with the indicated type. Do not replace the battery or real-time clock module unless power has been removed and the area is known to be nonhazardous.

Do not dispose of the lithium battery or real-time clock module in a fire or incinerator. Dispose of the battery in accordance with local disposal regulations. For safety information on handling lithium batteries, including handling and disposal of leaking batteries, see Guidelines for Handling Lithium Batteries, publication [AG-5.4](#).

PanelView Plus 700 to 1500 Terminals

Follow these steps to remove the battery from the 700 to 1500 terminals during or at the end of product life.

1. Disconnect power from the terminal.
2. Detach the communication module, if attached, from the logic module by removing the four screws.
3. Loosen the captive screws that attach the logic module to the display module.
4. Carefully lift the logic module away from the terminal and flip over to expose the circuit board.
5. Remove the battery by lifting up the side of the battery.
6. Insert the replacement battery, catalog number 2711P-RY2302.
7. Attach the logic module by aligning the two connectors on the bottom of the module with the connectors on the terminal.
8. Push down to firmly seat the logic module, then tighten the captive screws to a torque of 0.58 N•m (5...7 lb•in).
9. Attach the communication module (if used) and tighten the four screws to a torque of 0.58 N•m (5...7 lb•in).

PanelView Plus 400 and 600 Terminals

Follow these steps to remove the permanently connected battery from the 400 and 600 terminals at the end of product life.

1. Disconnect power from the terminal.
2. Detach the communication module, if attached, from the logic module by removing the three screws.
3. Unlatch the eight retaining tabs (two on each side) on the back cover and remove cover.
4. Locate the yellow battery on the logic board.
5. Remove the battery.

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