Overview

About the PanelView Plus 7 Standard Terminals

The PanelView™ Plus 7 Standard terminals are operator interface devices. They monitor and control devices that are attached to ControlLogix® 5570 and CompactLogix™ 5370 controllers on an EtherNet/IP network. Animated graphic and text displays provide operators a view into the operating state of a machine or process. Operators interact with the control system by using touch screen input.
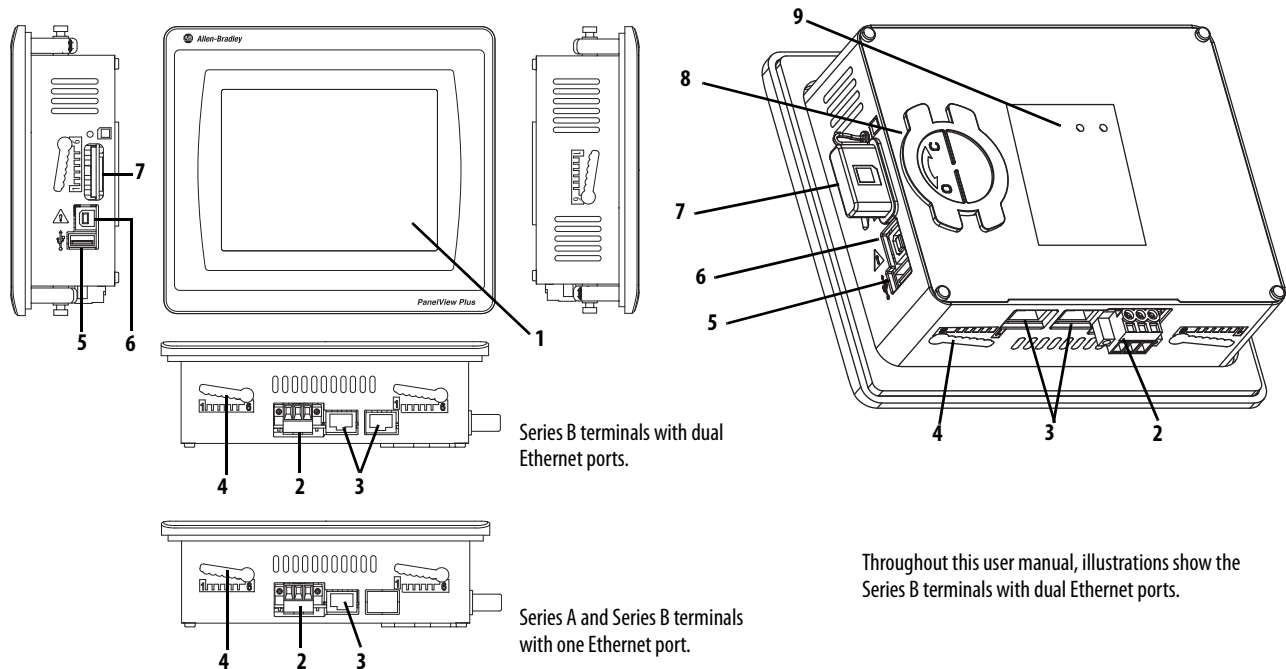
The PanelView Plus 7 Standard terminals include these features:

- Terminal functionality permits connection to 1 controller, up to 25 screens, and up to 200 alarms.
- FactoryTalk® View Machine Edition software provides a familiar environment for creating HMI applications.
- Windows CE operating system with desktop access for configuration and third-party applications.
- Ethernet communication that supports Device Level Ring (DLR), linear, and star network topology.
- PDF viewer to access PDF files that are stored on the terminal.
- More screen options including 4-in., 6-in., 7-in., 9-in., 10-in., 12-in., and 15-in. terminals.

- Widescreen on three sizes, 4-in., 9-in., and 12-in. terminals.
- Greater screen resolution.
- Terminals are available with Allen-Bradley® branding, or with no branding for customers that want to put their own branding around the terminal.
- Certifications including Class I, Div. 2; Class II, Div. 2; Class III; ATEX and INMETRO Zones 2 and 22.

Hardware Features

The PanelView Plus 7 Standard terminal features fixed-hardware configurations in a range of display sizes with touch screen input.

Series B terminals with dual Ethernet ports.

Series A and Series B terminals with one Ethernet port.

Throughout this user manual, illustrations show the Series B terminals with dual Ethernet ports.

Table 1 - Hardware Features

Item	Feature	Description
1	Display/Touch screen	TFT color graphic display with a touch screen in a range of sizes: • 4.3-in. wide screen touch (WQVGA) • 5.7-in. touch (VGA) • 6.5-in. touch (VGA) • 9.0-in. wide screen touch (WVGA) • 10.4-in. touch (SVGA) • 12.1-in. wide screen with touch (WXGA) • 15.0-in. touch (XGA)
2	Power	24V DC nom (18…30V DC) nonisolated power input
3	Ethernet port (1 or 2)	• One 10/100Base-T, Auto MDI/MDI-X, Ethernet port for controller communication and IEEE 1588 support for synchronization of network-connected devices (Series A and Series B terminals). • Two 10/100Base-T, Auto MDI/MDI-X, Ethernet ports for controller communication that supports Device Level Ring (DLR) network topology (Series B terminals).
4	Mounting slots	Mounting levers insert into the slots to mount device in a panel or enclosure. The number of slots varies by terminal size.
5	Universal serial bus (USB) host port	One USB 2.0 high-speed (type A) host port.
6	USB device port	One USB 2.0 high-speed (type B) device port for connecting a host computer.

Table 1 - Hardware Features

Item	Feature	Description
7	SD card slot and protective cover	• One SD card slot supports catalog number 1784-SD*x* hot-swappable SD cards for external storage. • IMPORTANT: ATEX and INMETRO installations: – Protective cover secures the SD card in the slot, and is required for ATEX, INMETRO, and hazardous location installations. – See <u>Insert an SD Card on page 121</u> for hot-swapping, ATEX, INMETRO, and hazardous location warnings.
8	Battery	Battery cover provides access to the lithium battery for replacement.
9	Status indicators	Status indicators on the back of the terminal provide status and fault conditions.

Operator Control

All terminals have a color display with a touch screen for operator control. The resistive touch screen provides accurate, reliable, and durable touch control for industrial applications.

> ⚠️ **ATTENTION:** The touch screen accepts input from a finger, stylus, or gloved hand for operation in dry or wet environments.
>
> The plastic stylus must have a minimum tip radius of 1.3 mm (0.051 in.). Any other object or tool can damage the touch screen.
>
> Do not conduct multiple operations simultaneously; it can result in unintended operation. Touch only one operating element on the touch screen with one finger, at one time.

> **TIP** At runtime, a virtual keyboard or numeric keypad opens on terminal screens for data entry.

The touch screen supports touch gestures to interact with screen elements during runtime. Use only these touch gestures on the touch screen:

- **Tap** – Briefly touch the target on the terminal screen with your fingertip.
- **Double-tap** – Touch the target on the terminal screen twice quickly with your fingertip.
- **Drag** – Touch the target on the terminal screen and move your fingertip across the screen.
- **Long press** – Touch and hold the target on the terminal screen for several seconds.

For a list of actions you can perform by using touch gestures, refer to the FactoryTalk View ME help.

Software Support

> **IMPORTANT** It is the responsibility of the customer to be sure that any third-party software, updates, patches, or firmware that is installed is free of malicious bugs, spyware, and so on.

Table 2 - PanelView Plus 7 Standard Software Support

Software	Description	Version
FactoryTalk View ME Station	Runtime environment of terminal: • Runs FactoryTalk View ME applications. • Provides options to view and configure terminal settings. Machine Edition Station is preloaded on each terminal and does not require activation.	7.0 or later
FactoryTalk View Studio for Machine Edition	Software for developing the HMI applications that run on terminal. This software does not run on the terminal. The HMI applications that are created in this software are loaded onto the terminal.	7.0 or later
FactoryTalk ViewPoint	A web server application that lets remote users access and control the HMI application that runs on a terminal by using an internet browser. A license is embedded with each terminal that supports a client connection to a terminal.	1.2 or later

PanelView Plus 7 Standard Applications

PanelView Plus 7 Standard Machine Edition applications are restricted to these applications:

- Maximum of 25 screens.
- Maximum of 200 alarm messages.
- One connection or shortcut to a controller by using either RSLinx® Enterprise or KEPServer Enterprise software.
- Only Ethernet communication is supported.

  If RSLinx Enterprise software is used, then Ethernet drivers are supported.

Windows CE Operating System

The terminals run the Windows CE operating system. These devices run HMI applications and offer a desktop with these capabilities:

- File transfer protocol (FTP) server
- Virtual network computing (VNC) client and server
- ActiveX controls – Refer to View FactoryTalk View ME Station Information on page 72 to view a list of ActiveX controls installed on terminal.

  > **TIP** For a complete list of ActiveX controls, go to http://www.rockwellautomation.com/knowledgebase and search the Knowledgebase for keywords 'ActiveX Support for PanelView Plus Terminals'.

- PDF reader
- Third-party device support

Open Versus Closed System

You can configure a terminal to run an open or closed desktop environment:

- An open system launches the Windows desktop on startup.
- A closed system launches a FactoryTalk View ME application or FactoryTalk View ME Station on startup. Desktop access is restricted.

All terminals are shipped as closed systems.

Desktop Access

You can allow or restrict access to the Windows desktop on the terminal. From the desktop, you can perform system and control panel operations or run third-party applications. You can even allow access temporarily to perform specific tasks, then disable desktop access to prevent unauthorized changes.

> **TIP** All terminals are shipped with desktop access disabled.

Refer to <u>Desktop Access on page 46</u> for details on how to modify desktop access.

Start-up Options

The terminal can perform one of three actions at startup:

- Launch a FactoryTalk View ME HMI application.
- Launch FactoryTalk View ME Station in Configuration mode. This mode lets you configure terminal settings and start-up options, load applications to run, and enable or disable desktop access.
- Launch the Windows desktop.

The factory default state and start-up option after a firmware update is to launch the terminal in Configuration mode. Refer to <u>Configure Start-up Options on page 51</u> for details on how to change the start-up option.

EtherNet/IP Communication

PanelView Plus 7 Standard terminals communicate with ControlLogix 5570 and CompactLogix 5370 controllers over an EtherNet/IP connection.

Typical Configuration

Traditional DLR, linear, and star network topologies are supported. See these topics for examples:

- <u>Device Level Ring Network Topology on page 37</u>
- <u>Linear Network Topology on page 38</u>
- <u>Star Network Topology on page 39</u>

Catalog Number Explanation

See the table for an explanation of the terminal catalog number.

Bulletin	Input Type	Display Size	Display Type	Network	Power	Operating System	Model	-	Option
2711P-	**T** = Touch	**4** = 4.3-in.	**C** = Color	**21** = Single Ethernet port	**D** = DC	**8** = Windows CE	**S** = Standard[1]	-	**B =** No brand label
		6 = 5.7-in.	**W** = Wide aspect-ratio color	**22** = Embedded switch/DLR					
		7 = 6.5-in.							
		9 = 9.0-in.							
		10 = 10.4-in.							
		12 = 12.1-in.							
		15 = 15.0-in.							

(1)   The standard models support the Windows CE version 6.0 operating system with an FTP server, VNC client server, ActiveX controls, and PDF reader.

Product Selections

provides a description of the product selections.

Table 3 - PanelView Plus 7 Standard Terminals Product Selections

Cat. No.[1]	Display					Input Power	Ethernet Ports		Memory	
Touch Screen	Size	Type	Aspect Ratio	Pixels (W x H)			Single	DLR	RAM	Nonvolatile
2711P-T4W21D8S	4.3-in.	WQVGA TFT color	16:9	480 x 272		DC	•		512 MB	512 MB nonvolatile memory (Approx. 80 MB free user memory)
2711P-T4W22D8S								•		
2711P-T6C21D8S	5.7-in.	VGA TFT color	4:3	640 x 480			•			
2711P-T6C22D8S								•		
2711P-T7C21D8S	6.5-in.	VGA TFT color	4:3	640 x 480			•			
2711P-T7C22D8S								•		
2711P-T9W21D8S	9.0-in.	WVGA TFT color	5:3	800 x 480			•			
2711P-T9W22D8S								•		
2711P-T10C21D8S	10.4-in.	SVGA TFT color	4:3	800 x 600			•			
2711P-T10C22D8S								•		
2711P-T12W21D8S	12.1-in.	WXGA TFT color	16:10	1280 x 800			•			
2711P-T12W22D8S								•		
2711P-T15C21D8S	15.0-in.	XGA TFT color	4:3	1024 x 768			•			
2711P-T15C22D8S								•		

(1)   Add -B to the end of a catalog number to order a terminal without the Allen-Bradley logo and product identification; for example, 2711P-T9W21D8S-B.

Accessories

Table 4 through Table 9 list accessories for the PanelView Plus 7 Standard terminals.

Table 4 - Protective Overlays

Cat. No.	Display Size	Touch Input	Quantity
2711P-RGT4S	4.3-in.	•	3
2711P-RGT6S	5.7-in.	•	3
2711P-RGT7SP	6.5-in.	•	3
2711P-RGT9SP	9.0-in.	•	3
2711P-RGT10SP	10.4-in.	•	3
2711P-RGT12SP	12.1-in.	•	3
2711P-RGT15SP	15-in.	•	3

Table 5 - Power Supplies and Power Terminal Blocks

Cat. No.	Description	Quantity
1606-XLP95E	DIN-rail power supply, 24…28V DC output voltage, 95 W	1
1606-XLP100E	DIN-rail power supply, 24…28V DC output voltage, 100 W	1
2711P-RSACDIN	DIN-rail power supply, AC-to-DC, 85…265V AC, 47…63 Hz	1
2711P-RTBDSP	3-pin DC power terminal block (black with white labels for +, −, and GND)	10

Table 6 - Mounting Hardware

Cat. No.	Description	Quantity
2711P-RMCS[1]	Mounting levers (gray)	12

(1)   Catalog number 2711P-RMCS mounting levers are for use only with PanelView Plus 7 Standard terminals. Do not use these mounting levers with any other PanelView Plus terminals. Do not use black mounting levers; they are not compatible with PanelView Plus 7 Standard terminals.

Table 7 - SD Cards [1]

Cat. No.	Description	Quantity
1784-SD1	1-GB SD card	1
1784-SD2	2-GB SD card	1
2711C-RCSD	USB to SD adapter for SD card	1
2711P-RCKS	SD cover replacement	3

(1)   To reduce the chance of corruption when using SD Cards or USB drives with the terminal, Rockwell Automation recommends that you use SD Card catalog numbers 1784-SD1 or 1784-SD2.

Table 8 - USB Programming Cable

Cat. No.	Description	Length
6189V-USBCBL2	Programming cable that connects the device port of the terminal to a USB host port of a computer	1.8 m (5.9 ft)