PanelView Plus 7 Performance

Series B Release

Rockwell Automation

expanding **human possibility**

PanelView Plus 7 Performance

- **The driver for Series B**
  - Series A runs on Windows® CE 6.0 operating system, which is no longer fully supported
  - Series A uses aging hardware with a shrinking supply chain
- **Major Improvements with Series B:**
  - Updated to run a modern operating system
  - Updated hardware with improved long-term supply chain support
  - Enhanced product security
  - Support for modern peripherals
  - Significantly increased user storage
  - Firmware update process is consistent with other Allen-Bradley® products
  - Improved support for customer resolution of firmware corruption issues

**With Series B, Rockwell Automation is protecting your investment
in PanelView™ Plus hardware and FactoryTalk® View Machine Edition software**

PanelView Plus 7 Performance Series B

- Hardware features
  - Operating system: Windows 10 IoT Core
  - Software: FactoryTalk View Machine Edition Station
  - CPU: Intel x86, 1.46 Ghz, dual core
  - RAM: 4 GB
  - System storage: 19.87 GB (~2GB available for user storage)
  - Web browser: Microsoft® Edge (HTML5 compatible)
- Stays consistent with Series A versions
  - Certifications
  - Panel cutouts
  - Accessories
  - Catalog numbers
  - List prices

Runs applications developed on Series A without modifications!

PanelView Plus 7 Performance

Series B

Standard and widescreen aspect ratios available

Touch only and keypad/touch options available

Mobile ready with VNC* and FactoryTalk ViewPoint software

Modern web browsing and video playback with Microsoft Edge

Microsoft Office viewers pre-installed*

Optional Products Include:
- Brandless terminals
- Conformally coated terminals
- Stainless steel terminals – 9" & 12"
- On-Machine™ terminals (ArmorView™ Plus 7 terminal)

With the embedded PDF Viewer*, show:
- User manuals
- Installation manuals
- SOPs (Standard Operating Procedures)

Faceplates and Add-On Instructions available that can save 50–90% of complex screen development time

* not available on initial release
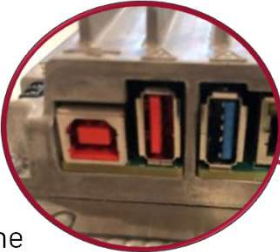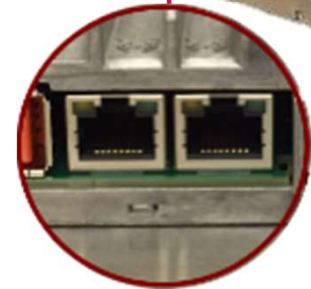
PanelView Plus 7 Performance

Series B

Hardware button to restore terminal to the factory default condition (New for Series B)

Installation clamps provide fast and simple Toolless terminal installation and removal
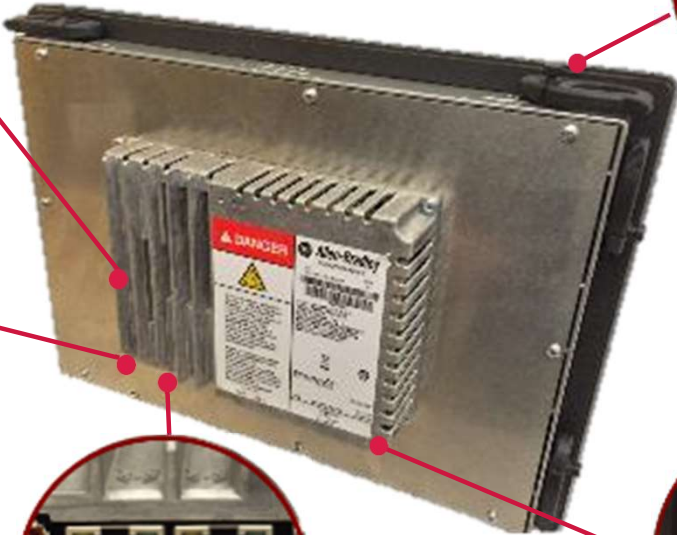
USB Ports for quick upload and download to the terminal (Series B updates one USB port to USB 3.0)

SD storage card slot for data storage, data logging, recipe management and terminal replication

Embedded dual Ethernet port with DLR connectivity

PanelView Plus 7 Performance series comparison

Product Features	PanelView Plus 7 Performance Series A	PanelView Plus 7 Performance Series B
Operating System	Microsoft Windows® CE 6.0	Microsoft Windows® 10 IoT Core
CPU	Intel x86, Single Core, 1.6 Ghz	Intel x86, Dual Core, 1.46 Ghz
Memory RAM / System Storage	512 MB / 512 MB (80 MB available for user storage)	4 GB / 19.87 GB (~2GB available for user storage)
FactoryTalk Machine Edition	Y (Supports v8+ MER files)	Y (Supports v8+ MER files)
Firmware Update Utility	Firmware Upgrade Wizard	ControlFLASH™ / ControlFLASH Plus™
USB Devices	Minimal support, CE devices only	Support for most Windows 10 IoT Devices
Printer support	Windows CE 6.0 Print Drivers	AirPrint & Internet Printing Protocol (IPP)
FactoryTalk ViewPoint	Y	Y
PDF Viewer	Y (Foxit)	Y (Foxit & MS Edge)
Active X Controls (Email, Datastore Plus, Recipe)	Y	Y (except for Web Browser Active X)
Remote Terminal Control Available	Y - VNC	Y - VNC with SSH Encryption (Not in initial release, to be added later)
FTP Server	Y (CE 6.0 FTP Server)	Y (Win10 IoT Core FTP Server)
Web Browser	Y (MS Internet Explorer)	Y (MS Edge) – full-screen only
Video Playback	Y (MS Media Player)	Y (MS Edge) – remote files only
Microsoft Office Viewers	Y	Y (Not in initial release, to be added later)
Ethernet Connectivity	Y (DLR Capable)	Y (DLR Capable)
Hazardous Location Rated	Y (UL Class 1 Div 2) (Excluding ArmorView)	Y (UL Class 1 Div 2) (Excluding ArmorView)
Power	AC or DC	DC Only
Screen Sizes	6.5", 9"W, 10.4", 12"W, 19"	6.5", 9"W, 10.4", 12"W, 19" (No Change)
Application Limits (Screen count/controllers/alarms)	No limits (based on memory & CPU)	No limits (based on memory & CPU) (No Change)
Catalog numbers	2711P-xxxxx9P	2711P-xxxxx9P (No Change)

Updated user interface

Series B terminals have many of the same functions as Series A terminal, with an updated user interface

- Firmware updates
  - Greater consistency with other Rockwell Automation® products
  - Load over network or from USB via ControlFLASH™/ControlFLASH Plus™ software
- Control panel
  - Improved experience with a Windows 10 IoT Core menu
- Maintenance mode
  - Open with new button on the terminal back to view additional functionality
  - No need for external keyboard
- Restore factory defaults
  - Hold down a new button when rebooting to reset to factory settings
- Printer setup
  - AirPrint & Internet Printing Protocol (IPP) for greater compatibility with modern printers

- File transfers
  - Accessed through Services menu in Windows 10 IOT Core LTSC
  - Requires Administrator credentials
- Calibration
  - Accessed through new Maintenance menu
  - Improved accuracy
  - Not affected by firmware updates

Functional differences from Series A

Below is list of functional differences in initial Series B release as well as related workarounds and planned firmware updates to provide equivalent capabilities

Series A capability	Series B Change / Impact	Workarounds / Notes	Series B Update Planned?
Virtual Network Computing (VNC) server	Absence helps prevent remote viewing of the current display using VNC client and ThinManager® "Shadowing"	Use FactoryTalk® ViewPoint, included at no charge Plan is to add VNC in future release	Y
Embedded Web Browser ActiveX control	Embedded browsers are no longer supported. Rather they are replaced at runtime with a non-functional button	None. Plan is to make the button open Edge full-screen in a future release	Y
Playback of local media files through web browser	Configurations attempting to play locally stored video files will generate an error	None. Plan is to support playing locally stored video files through web browser in a future release	Y
Third-party apps / executables (.EXE files)	Cannot be installed	Plan to support of Universal Windows Platform (UWP) applications from Microsoft app store in a future release	Y
Print to PDF	Not supported. Was primary used in Series A as a workaround	Move to modern printer with supported IPP or AirPrint	N
PanelView Plus Performance supported sound through USB or audio port	Not supported in initial release	None. Plan is to add support in a future release	Y
Secure ViewPoint Protocol (HTTPS)	ViewPoint runs, but without the HTTPS support	Plan is to add HTTPS in a future release	Y
Access to Network Shares (Ex: data log and recipe storage)	Configurations attempting to store files will generate an error	Store data locally on removable media	N
Microsoft Office Viewers (Excel, PowerPoint, Word, etc.)	The viewers are not included in the Windows 10 IOT Core LTSC operating system	Plan to support with UWP applications (full-screen only)	Y
Screen capture	Screen capture function is not included in the Windows 10 IOT Core LTSC operating system	Modify application in FactoryTalk View Studio to provide user access to Printscreen function in user application	N
Screensaver	Screen saver function is not included in the Windows 10	Configure the terminal to dim the screen when idle in	N

Security features

- Windows 10 IoT Core LTSC Operating System fully supported by Microsoft
  - Windows 10 IoT Core LTSC is an adaption of Windows 10 Enterprise for the embedded market space
  - It shares the security advancements of Windows 10 Enterprise, along with regular security updates and patches.
  - Security updates and patches will be fully reviewed/tested by Rockwell Automation before release for use on PanelView Plus 7 Performance

- Closed system
  - Add-On software must be reviewed, approved, and signed by Rockwell Automation in order to be installed on the terminal
  - Windows Desktop is no longer available as it is on Series A terminals

- Secure File Transfer Protocol (SFTP)*
  - Transfer files to/from your PC to PanelView Plus 7 terminals, including alarm logs, data logs, CSV Recipe Files, PDF manuals and videos

- Firewall
  - Firewall rules adjust automatically based on services that are enabled/disabled. It is not possible to completely turn off the firewall

- Sandboxed environments for applications
  - Terminal integrity is maintained by running applications unique, sandboxed environments
  - Any abnormal behavior in one application will not affect other applications or the Windows 10 IoT Core operating system

- Password requirements
  - Password is required to exit the Machine Edition environment
  - Admin password is required to make critical system changes

- Updated modern web browser
  - Internet Explorer web browser on Series A is updated to Microsoft Edge Browser running in a sandboxed environment on Series B

- Protection from autorun programs
  - Autorun programs will not run on Series B terminals

- Future capabilities
  - UWP Apps: Allow UWP apps from the Microsoft Store to be installed on the terminal. These apps are approved by Microsoft and are known to be secure
  - VNC with SSH encryption

* Not available at introduction

Removable storage

Quick and easy backup and restore

- Use a USB storage device to quickly create 'snapshot' copies of a terminal to reduce your time to market or restore a terminal

- Backup 'Snapshot' Includes:
  - Operating system
  - Network configuration and terminal settings
  - FactoryTalk View Machine Edition (ME) runtime file
  - Datalogs and Recipe files
  - Personal Files
  - User Accounts

Mobility tools

- FactoryTalk ViewPoint software
  - Extend visualization and real-time decision capabilities to browser-based remote users
  - On-demand web access from anywhere
  - Supports multiple browsers/client devices
- Secure File Transfer Protocol (SFTP)
  - Transfer files to/from your PC to PanelView Plus 7 terminals, including alarm logs, data logs, CSV Recipe Files, PDF manuals and videos
- Future: VNC
  - Extends graphical desktop sharing of a PanelView Plus 7 terminals and its content to remote users
  - Enables "screen shadowing" by ThinManager® software

Productivity tools

- Datastore Plus
  - Log data to identify and adjust process variation
  - View and analyze in Microsoft Excel
- Configure email notifications for critical equipment alarms
- Video playback support provides advanced "user help" capability*
- Load maintenance manuals directly on terminal
  - Bookmark important pages and tie them to critical alarms
  - Identify and fix fault codes quickly

* Playback of local video files not available in initial release. Will be added in a future release.

ArmorView
on-machine version

- NEMA 4/12/13 & IP66 ingress protection
- 12" touch-sensitive wide screen display
- Mount on swing arm, pedestal or fixed surface
- Embedded Ethernet I/O block connects to pilot devices
- Hard-wired Emergency Stop button
- Purchase with pre-configured devices, or mount them yourself

Saves space, time and cost

Stainless steel version

- 9" and 12" sizes, both wide-screen

- Brandless and conformally coated, meets DIN 42 115 Part 2 – chemical resistivity

- 316 stainless steel bezel

- IP69K rating with replaceable food-grade gasket meets FDA 21 CFR 177.2600

- Meets NSF hygienic design guidelines 169, 14159 and EN 1672-2

Great for hygienic environments!