Allen-Bradley 2711-T9C1X

ENGINEERING GUIDE / field replacement and commissioning

Allen-Bradley 2711-T9C1X is a PanelView 900 Color touch-screen operator terminal using Remote I/O controller communication and a separate RS-232 peripheral port. Its application and network settings must be retained for the installed machine.

01 Job scope and safe-work boundary

Offer the exact 2711-T9C1X touch terminal as confirmed by its nameplate. The application file, controller network settings and external cables require separate review.

Project archive	Retain the installed application, firmware identity and controller addressing before removing the terminal.
Supply isolation	Verify AC input and protective earth using the approved electrical procedure before energizing.
Network wiring	Check Remote I/O cable, termination, interface settings and controller status against the installed drawing.
Panel fit	Compare the terminal bezel, panel cutout and depth with the actual enclosure before mounting.
Screen mapping	Verify every used touch cell, navigation path, alarm and acknowledgement after project restoration.
Peripheral separation	Treat the RS-232 printer/transfer lead as distinct from the controller network.

Before work starts

Record the complete marking, installed host configuration, connected interfaces and the as-found operating result. Follow the approved site isolation and maintenance procedure before changing the unit.

Environmental and configuration limits

Input supply	85–264 V AC, 47–63 Hz; no L1 DC suffix
Maximum AC consumption	110 VA maximum for AC 900 color family
Operating ambient	0 to +55 °C
Storage ambient	−25 to +70 °C
Relative humidity	5–95%, non-condensing, over operating range
Front protection	NEMA Type 12/13 and 4X indoors; IP54/IP65, when correctly installed

02 Readiness and fit

Operator terminal family	PanelView 900 Color
Operator input	Touch screen
Display technology	Color active-matrix TFT with CCF backlight
Active display area	171 x 130 mm
Pixel resolution	640 x 480
Touch-cell matrix	384 cells, 24 columns x 16 rows

Touch-cell footprint	26 x 30 pixels
Controller interface	Remote I/O
Separate peripheral interface	RS-232 printer and application transfer
Engineering software	PanelBuilder32
Application flash	1008 KB for 900 color family

Why these checks matter

Project identity
The PanelBuilder32 application defines screens, touch cells, alarm behavior and controller addresses.

Network selection
This base order code selects Remote I/O; the separate RS-232 port is for peripheral and transfer duties.

Power selection
The absence of L1 identifies the AC supply selection; verify against the actual nameplate.

Controller configuration
Record the installed node or rack allocation and configured network speed before replacement.

Display service
Distinguish a screen or backlight fault from an independent communications fault using status indicators.

Touch mapping
Prove every used cell and controller permissive with the restored application.

Memory boundary
Keep the original project and firmware identity with the terminal maintenance record.

Peripheral path
Check RS-232 printing or transfer only where used in the installed application.

X suffix
Preserve the complete nameplate suffix; the user confirmed the physical offered condition separately.

03 Replacement sequence

01	**Record the baseline**	Save the installed marking, host/project configuration and current operating result.
02	**Verify the offered identity**	Compare the offered assembly and its supplied components with the installed unit.
03	**Prepare the interface**	Inspect connectors, routes, mounting and the documented host allocation.
04	**Fit and reconnect**	Use the approved site procedure and restore each documented connection in order.
05	**Restore configuration**	Load or retain the approved project and node assignments as applicable.
06	**Prove operation**	Test the used functions, status and diagnostics under an approved machine state.
07	**Keep the as-left record**	Record the new identity, changes, test results and remaining exceptions.

Installed-system relationship

Allen-Bradley 2711-T9C1X identifies a PanelView 900 Color touch terminal with a color TFT screen. The 640 x 480 display and 24-by-16 touch-cell grid are the operator interface; the installed PanelBuilder32 application determines which cells become controls and what values appear.

The selected controller communication path is Remote I/O, with a distinct RS-232 port for printer or application-transfer duties. The Remote I/O application must agree with rack allocation and PLC block-transfer logic. Restoring the screen file alone does not prove controller data exchange; preserve the network configuration and verify a live read/write path after installation.

The unsuffixed catalog selection uses AC input. For a replacement, compare the exact 2711-T9C1X nameplate and series, panel cutout, supply wiring, installed application and peripheral cable. Record the as-found alarm and touch behavior, then commission each used function against the approved machine sequence.

04 Commissioning and acceptance

Identity and fit	Confirm exact order code, supplied scope and host position against the approved record.
Power and protection	Verify operating supply, enclosure, grounding and environmental boundary.
Connection continuity	Trace every used connector, cable or optical/network path end to end.
Configuration restore	Restore the documented project, controller setup and node mapping.
Dynamic proof	Test the used functions and diagnostics with the machine in an approved test state.
Handover	Retain marked-up drawings and as-left test evidence with maintenance records.

Acceptance by application

Operator process view

Present controller values, status and alarm objects assigned by the saved PanelBuilder32 project.

Remote I/O controller station

Exchange project-mapped values through the installed Remote I/O network and its configured node or rack.

Touch command entry

Send project-defined touch-screen actions only after validating the controller permissives.

Maintenance recommissioning

Restore the approved project and test display, controller transactions and any used RS-232 peripheral.

Engineering questions

What evidence is needed before reusing a stored application on 2711-T9C1X?	Match terminal family, firmware, project revision, communications selection and controller tag or address map. Compare a test screen and an approved live transaction before release.
How should a dark but otherwise communicating 2711-T9C1X be investigated?	Check display brightness and backlight condition while observing COMM and fault indications. Confirm input power under load and follow the applicable backlight maintenance procedure for the actual series.
What does a 661–663 communication message mean on 2711-T9C1X?	For a Remote I/O terminal these messages indicate missing block-transfer write, read or both requests. Check the controller ladder logic, rack addressing and controller status before disturbing terminal hardware.

05 Fault isolation and handover

Dark display	Measure the terminal AC input under load; inspect backlight and fault status.
Static values	Check Remote I/O controller mode, node or rack addressing, cable and application map.

Wrong touch action	Check active screen, touch calibration, project assignment and PLC permissive.
Transfer failure	Check the RS-232 cable, transfer settings and PanelBuilder32 target.
Alarm absent	Compare controller alarm bit, project trigger and terminal acknowledgement state.
Network interruption	Read the terminal diagnostic code and compare Remote I/O wiring and settings with the installed drawing.
Intermittent reset	Measure AC input during startup and check cabinet temperature and wiring.

Additional engineer questions

How should the application on 2711-T9C1X be preserved before a terminal change?	Archive the PanelBuilder32 project and its revision, record firmware and network settings, and capture representative screens and alarms. Restore the approved file before proving machine operation.
Why can 2711-T9C1X show its project yet fail to update live controller values?	The display can run independently of a healthy Remote I/O connection. Check controller state, cable, network addressing and the project data map before replacing the terminal.
What should be checked if a touch target on 2711-T9C1X selects the wrong function?	Compare the active screen and programmed touch-cell assignment with the loaded project. Inspect touch calibration and controller permissives; test in an approved machine state.
How can the RS-232 port on 2711-T9C1X be distinguished from its controller link?	Trace the cable to the printer or transfer computer and review port settings. The controller data path is Remote I/O; an RS-232 peripheral connection does not replace its network configuration.

Evidence and applicability

Rockwell Automation PanelView Standard Operator Terminals User Manual, 2711-UM014G-EN-P, September 2008. T9C1 base interface and 900C technical values are documented; preserve the X suffix from the user-confirmed nameplate and verify the supplied series.

Additional installation context: Rockwell Automation PanelView Standard Terminal Specifications, 2711-TD007A-EN-P.

Variant boundary

PanelView Standard terminals vary by screen size, communication port, supply and series. Preserve this exact complete nameplate and the installed application; do not treat a nearby order code as an electrical replacement.

Discuss the complete marking with Apter Power.
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