Allen-Bradley 2711-B5A10

ENGINEERING GUIDE / field replacement and commissioning

Allen-Bradley 2711-B5A10 is a PanelView 550 monochrome operator terminal with keypad and touch input, DeviceNet communication and an RS-232 printer/transfer port. It is configured with PanelBuilder32 for its installed control application.

01 Job scope and safe-work boundary

Offer the 2711-B5A10 terminal; the installed application, DeviceNet node configuration and external accessories must be reviewed separately.

Application archive	Save the installed application and its version before removing the terminal.
Network identity	Record DeviceNet node address and bus arrangement, then verify termination and link state.
Power verification	Confirm the installed AC feed and protective arrangement for the unsuffixed order code.
Operator mapping	Test each used key, touch target, screen transition and command in an approved machine state.
RS-232 role	Reconnect a printer or transfer lead only according to the installed wiring record.
Alarm validation	Prove alarm display and acknowledgement against the controller and operator procedure.

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

Supply for 2711-B5A10	85–264 V AC, 47–63 Hz
Input power	45 VA maximum, PanelView 550 AC family
Operating ambient	0 to +55 °C, PanelView 550 family
Storage ambient	−20 to +70 °C, PanelView 550 family
Real-time clock	Battery-backed
External memory	ATA memory card support

02 Readiness and fit

Display family	PanelView 550 monochrome LCD
Visible display area	120 x 60 mm
Display resolution	256 x 128 pixels
Operator input	Keypad and touch screen
Function keys	10 programmable keys, F1–F10
Touch matrix	128 touch cells
Controller network	DeviceNet

Auxiliary port	RS-232 for printer or application transfer
Nonvolatile application memory	240 KB
RAM	170 KB
Engineering software	PanelBuilder32

Why these checks matter

Dual operator input
The installed application maps both ten function keys and 128 touch cells; prove the used controls individually.

DeviceNet identity
Preserve node addressing and the controller data map before changing the terminal.

RS-232 separation
The printer and application-transfer connection is distinct from the DeviceNet controller path.

AC supply selection
The unsuffixed 2711-B5A10 is the AC catalog selection; L1 identifies a separate DC order code.

Project retention
Save the PanelBuilder32 application before removing the existing terminal.

Memory boundary
The listed 240 KB nonvolatile and 170 KB RAM apply to this published 550 selection.

Display verification
Use a known test screen to compare the 256 x 128 monochrome image with operator expectations.

Alarm behavior
Test configured alarm annunciation, acknowledgement and any installed print function.

Acceptance evidence
Retain full marking, terminal project, node settings and used input-test results.

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

The complete 2711-B5A10 order code identifies a PanelView 550 terminal that combines a monochrome 256 x 128 LCD with keypad and touch operation. Its ten function keys and touch cells are assigned by the loaded application, so a replacement must preserve the original navigation and command mapping.

This order code uses DeviceNet for controller communication. Its separate RS-232 connection is assigned to printing and application transfer; it is not a second DeviceNet channel. The catalog specifies 240 KB nonvolatile application memory and 170 KB RAM for this selection, while PanelBuilder32 provides the engineering environment.

The unsuffixed 2711-B5A10 is the AC-powered selection in the published table. During service, record the installed application, DeviceNet configuration, terminal hardware marking and active alarm behavior before removal. Commission the replacement by checking controller data, operator commands, alarm handling and the RS-232 accessory only where used.

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

Machine operator interface

Display machine values and execute project-assigned keypad or touch actions.

DeviceNet control station

Exchange application data with the installed controller over the configured DeviceNet node.

Alarm and status review

Use the programmed terminal screens to acknowledge and inspect machine conditions.

Maintenance replacement

Restore the saved PanelBuilder32 application and verify each active interface after installation.

Engineering questions

Which transfer paths can restore a 2711-B5A10 application?	The DeviceNet port can transfer an application over the network; the separate RS-232 port supports a direct computer-to-terminal transfer. Select the method supported by the installed wiring and PanelBuilder32 procedure.
How can 2711-B5A10 be reset without cycling its AC supply?	For a PanelView 550 keypad-and-touch terminal, press Left arrow, Right arrow and Enter simultaneously. The terminal restarts its power-up sequence; record the application state and follow the approved machine procedure first.
How should alarms be verified after a 2711-B5A10 replacement?	Exercise an approved test alarm, compare its display and acknowledgement with controller status, and check the retained alarm history or print path if those functions are used by the application.

05 Fault isolation and handover

Blank terminal	Measure the AC supply at the terminal under load, then inspect startup and backlight condition.

Live screen, stale values	Check DeviceNet power, node address, network health and the project data map.
One key fails	Check that F-key assignment in the active screen and its corresponding PLC permissive.
Touch selection differs	Inspect the loaded screen target and touch calibration before replacing hardware.
Printer inactive	Check the RS-232 print configuration, cable and application event that generates output.
Application transfer fails	Confirm the serial-transfer procedure, cable and PanelBuilder32 target selection.
Alarm not displayed	Compare the controller alarm bit, project trigger and terminal acknowledgement state.

Additional engineer questions

How should the application be preserved before replacing 2711-B5A10?	Upload or archive the installed PanelBuilder32 application, record its version and retain the current DeviceNet node settings. After restoring it, compare screens and command behavior with the as-found record.
Why might 2711-B5A10 display screens but show no live controller values?	The terminal application may be present while DeviceNet communication is absent or mapped to the wrong node. Check node addressing, network power, cable, termination and controller diagnostics in the installed design.
How can a nonresponsive key on 2711-B5A10 be diagnosed?	Compare the affected F1–F10 assignment with the loaded application and the corresponding controller tag. Verify the physical key, screen context and controller permissive before attributing the fault to the terminal.
What should be checked when touch targets on 2711-B5A10 do not select the intended action?	Confirm the loaded screen and touch-cell mapping, then check calibration and the condition of the touch surface. Test the action with the machine in an approved safe state.

Evidence and applicability

Rockwell Automation PanelView Standard Terminal Specifications, publication 2711-TD007A-EN-P, October 2010. The order-code table identifies the offered DeviceNet/AC configuration; LCD and environmental figures are PanelView 550 family data.

Additional installation context: Rockwell Automation PanelView Standard User Manual, publication 2711-UM014G-EN-P.

Related product references

Catalog navigation only; these items are not identified as substitutes.

Allen-Bradley 2711P-RN6	Other product reference; confirm the complete installed model.
Allen-Bradley 2711P-T10C21D8S	Other product reference; confirm the complete installed model.
Allen-Bradley 2711P-RDT7CM	Other product reference; confirm the complete installed model.

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