Siemens 6AV6545-0CC10-0AX0

ENGINEERING FIELD GUIDE / replacement and commissioning

Siemens 6AV6545-0CC10-0AX0 is a SIMATIC TP270 10-inch touch operator panel for machine visualization, alarm handling and operator input through a 10.4-inch STN color display.

01 Work scope and pre-work evidence

Complete identity	6AV6545-0CC10-0AX0
Product role	10.4-inch STN Touch Operator Panel
Supported family	SIMATIC HMI TP 270
Lifecycle position	End Product Lifecycle; no direct replacement identified

Pre-work controls

Back up the project
Save the installed ProTool or WinCC flexible project, communication settings and CF-card content before removal.

Verify the 24 V DC supply
Measure the panel supply under load and keep it within the documented 20.4 to 28.8 V DC range.

Respect IF1A and IF1B selection
Use either IF1A RS232 or IF1B RS422/485 as documented; do not operate both alternatives simultaneously.

Preserve mounting conditions
Confirm the panel cutout, sealing surface, 2.5 to 6 mm panel thickness, ventilation clearance and permitted inclination.

Required archive

Project	Approved ProTool or WinCC flexible project and version
Service data	CF-card content, recipes, alarm text and settings
Communications	PLC driver, node address, IF1A or IF1B selection and cable pinout
Baseline	Startup state, touch operation, screen navigation, live tags and alarms

Power and communication limits

Rated supply	24 V DC
Supply range	20.4 to 28.8 V DC
Rated current	0.9 A
Typical power input	15 W
Engineering software	ProTool V6 SP3 or later; WinCC flexible Standard 2004 or later
Serial interfaces	2 x RS232; 1 x RS422; 1 x RS485

02 Interface map and controlled replacement

PLC interface selection	IF1A RS232 or IF1B RS422/485; not simultaneous
Removable storage	1 x CompactFlash card slot
USB interface	1 x USB; connected load max. 500 mA
Backlight MTBF	60,000 h at 25 deg C
Backup battery	Optional 3.6 V; minimum backup duration 3 years
Real-time clock	Hardware clock; battery-backed and synchronizable
Mounting panel thickness	2.5 to 6 mm
Permitted inclination	Up to +/-35 deg from vertical

Interface acceptance map

IF1A RS232	Use the project-assigned serial path; verify the interface selection, cable pinout, PLC node and baud rate.
IF1B RS422/485	Use only when the installed project and wiring assign IF1B; do not operate IF1A and IF1B simultaneously.
USB service port	Keep the connected load at or below 500 mA and use only a supported engineering or service workflow.
CompactFlash workflow	Archive the installed card content, recipes and service data before replacement or project transfer.

Controlled replacement sequence

01	**Capture the installed baseline**	Record the complete label, project version, PLC node, interface assignment, screen behavior and alarm state.
02	**Back up service data**	Save the HMI project, CF-card content, recipes, alarm text and communication parameters.
03	**Isolate and inspect**	Use the approved site procedure; inspect the cutout, seal, wiring, protective earth and ventilation path.
04	**Match the replacement**	Verify order identity, 24 V DC boundary, interface hardware and engineering-software compatibility.
05	**Restore configuration**	Load the approved project and data, then restore PLC communication, clock and operator settings.
06	**Prove the station**	Test startup, full touch area, screens, live values, alarms, commands and data retention.
07	**Record as left**	Retain the restored project, photographs, test results, deviations and release approval.

Touchscreen and mounting controls

Protect the touchscreen

Operate with a finger or approved touchscreen pen and keep sharp or hard tools away from the touch surface.

Complete functional acceptance

After restoration, prove startup, project loading, touch calibration, PLC communication, alarms and every used operator function.

03 Application, fault isolation and commissioning

Machine visualization and alarm operation
Display process values, alarm messages and operator screens defined by the installed HMI project.

Serial PLC operator station
Exchange project tags through the documented RS232, RS422, RS485, MPI or PROFIBUS path supported by the installed configuration.

Recipe and service-data handling
Use the CompactFlash slot for supported project, backup or recipe workflows defined by the engineering environment.

Installed-base TP270 maintenance
Restore an existing TP270 station only after matching the panel cutout, 24 V DC supply, interface allocation and saved project.

Fault isolation

Panel does not start	Measure 24 V DC under load, inspect protection and wiring, then observe the loader or transfer dialog.
Blank or dim display	Separate power, backlight and project-loading causes; compare the startup sequence with the known-good baseline.
Touch position is wrong	Run the approved calibration and test the full active area before replacing the panel.
PLC values do not update	Check project driver, IF1A or IF1B selection, node address, cable pinout and PLC operating state.
Alarms differ from the machine	Compare the restored project, alarm text, PLC tags and time synchronization with the archived record.
Clock loses time	Check the optional 3.6 V backup battery and the approved clock-synchronization method.

Engineer questions

What should be backed up before removing Siemens 6AV6545-0CC10-0AX0?	Retain the ProTool or WinCC flexible project, CF-card content, recipe data, alarm configuration, PLC interface selection, node settings and a photographic record of the installed wiring.
How should an IF1A or IF1B communication fault be isolated on Siemens 6AV6545-0CC10-0AX0?	Confirm which interface the project assigns, verify its switch setting and cable pinout, then check the PLC address, baud rate and driver without using IF1A and IF1B simultaneously.
What checks apply when Siemens 6AV6545-0CC10-0AX0 has a blank screen?	Measure the 24 V DC supply under load, observe startup indications, check backlight condition and determine whether the panel reaches the loader, transfer dialog or configured project.
How is touch operation accepted after replacing Siemens 6AV6545-0CC10-0AX0?	Run the approved touch calibration, test the full active area, navigate every used screen and prove alarms and commands with the machine in an approved test state.

Release evidence

Identity and project	Complete marking, HMI project version and communication driver are recorded.
Power and fit	24 V DC supply, panel cutout, sealing surface and ventilation are accepted.
Interface proof	The documented IF1A or IF1B path, PLC address and field cable are verified.
Functional proof	Startup, touch area, screen navigation, alarms, live tags and used commands are accepted.
Handover	As-left project, CF-card content, clock state and test record are retained.

Lifecycle position

Complete order identity	Siemens 6AV6545-0CC10-0AX0 is in End Product Lifecycle.
Replacement position	No direct replacement product is identified for the complete order code; migration requires independent hardware and project engineering review.
Support planning	Preserve the HMI project, panel image, PLC communication settings and installed interface allocation before planning a replacement.
Supply boundary	Apter Power availability is confirmed separately from the manufacturer lifecycle phase.

04 Unit details, technical decisions and handover

Offered hardware	One Siemens SIMATIC TP270 10-inch touch operator panel with the complete order identity shown on the page.
Installed data to retain	HMI project, CF-card content, PLC node and interface settings, touch calibration record and alarm configuration.
Separate items	Programming cable, PLC network hardware, CompactFlash card and panel wiring are separate unless itemized in the quotation.
Acceptance scope	Confirm panel fit, 24 V DC supply, project restoration, serial communication, touch response and used operator functions.

Additional engineer questions

How is PLC communication proved after installing Siemens 6AV6545-0CC10-0AX0?	Verify the project driver, node address, interface selection and field wiring, then compare live tags, alarm updates and command acknowledgements with the PLC state.
What is the effect of the optional backup battery in Siemens 6AV6545-0CC10-0AX0?	The 3.6 V battery supports the hardware clock during loss of panel power; record the clock behavior and replace the battery only under the approved service procedure.
Which mounting checks are required for Siemens 6AV6545-0CC10-0AX0?	Confirm the panel cutout and sealing surface, keep the mounting sheet within 2.5 to 6 mm, preserve ventilation clearance and keep the installed inclination within +/-35 degrees.
Which engineering-software checks apply to Siemens 6AV6545-0CC10-0AX0?	Confirm the archived project version and required ProTool or WinCC flexible environment before transfer, then document the restored project, communication result and functional acceptance.

Verified related product references

Siemens 6AV2124-1GC01-0AX0	Related Siemens HMI reference; verify the complete installed order identity.
Siemens 6AV2124-0GC01-0AX0	Related Siemens HMI reference; verify the complete installed order identity.
Siemens 6AV6647-0AH11-3AX0	Related Siemens HMI reference; verify the complete installed order identity.
Siemens 6AV6648-0EC11-3AX0	Related Siemens HMI reference; verify the complete installed order identity.

Discuss the exact HMI project and installed interface with Apter Power.
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Handover record

Delivered identity	Photograph and record the complete order code, serial data and visible revision markings.
Installed asset	Record the machine, panel, PLC station and drawing references for the operator station.
Saved configuration	Identify the archived project, engineering-software version, CF-card backup and restore date.
As-left interface	Record IF1A or IF1B selection, PLC address, communication result and supply voltage.
Release evidence	Retain touch-area test, screen and alarm proof, command checks, reviewer and release date.