B&R X20BB22

01 Assembly checks

1 Identify the compact CPU assembly

Record the CPU and compact supply module mounted on the base. The replacement base must preserve this arrangement; changing the backplane does not authorize changing the CPU program or substituting a different supply function.

2 Retain both end locking plates

Check the left and right X20 locking plates before dismantling the assembly. Restore the mechanical restraint and module engagement so the controller and supply module remain properly seated on the base.

Assembly	Compact CPU plus compact supply
Mechanical restraint	Left and right locking plates
Base role	Backplane and connection infrastructure

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02 I/O routing checks

1 Isolate the routed 24 V supply

Remove power through the approved cabinet isolation procedure before moving modules. The base routes nominal 24 V I/O power, so treat its contacts as supply conductors rather than as signal-only connections.

2 Check the contact-current budget

Compare the connected supply loading with the 10 A permissible contact load. Retain the original protective arrangement and inspect contacts for damage instead of assuming that a new base increases the allowable supply current.

I/O routing	24 V DC nominal
Contact load	10 A maximum
Service isolation	Supply removed before module handling

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03 Serial connection checks

1 Review serial reference potentials

The bus is not isolated from RS232. Check the reference potential of the connected serial equipment and preserve the established grounding arrangement before reconnecting the cable to the replacement assembly.

2 Inspect the serial connector path

Examine the RS232 connection and mating cable for bent contacts or mechanical strain. Verify communication with the intended device after the controller is restored; a seated connector alone does not demonstrate a valid serial exchange.

Serial connection	RS232
Isolation boundary	Not isolated from bus
Functional test	Exchange with intended device

04 Horizontal limit checks

1 Apply the orientation temperature limit

Use the actual installed orientation when assessing cabinet temperature. Horizontal operation allows up to 60°C, while vertical operation allows up to 50°C; measure near the controller rather than at a remote room sensor.

2 Account for installation elevation

For installations above 2000 m, reduce the ambient limit by 0.5°C per additional 100 m. Combine this correction with the applicable mounting-orientation limit before returning the cabinet to service.

Horizontal limit	60°C upper ambient
Vertical limit	50°C upper ambient
Elevation correction	0.5°C per 100 m above 2000 m

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05 Protection checks

1 Confirm a dry protected enclosure

The base is IP20 and requires non-condensing conditions. Investigate moisture, contamination or damaged enclosure protection before fitting the replacement, since replacing the base alone will not remove an environmental cause of failure.

2 Verify the restored controller station

Check module seating, supply status and the configured RS232 exchange after controlled energization. Retain the CPU and supply identities, mounting orientation and any altitude correction with the final service record.

Technical basis: B&R X20BB22 Data sheet V2.22.

Related product navigation

B&R 5AP1130.185C-000

B&R 5MP050.0653-03

These are related references, not confirmed substitutes or an automatically approved assembly.