B&R 3IF771.9

01 Host and node

Identify the aPCI position

Record the host controller and aPCI slot before removal. Preserve the controller project and network configuration so the replacement interface can be checked against the same bus role and address assignment.

Stop CAN-controlled motion

Place equipment influenced by this CAN network in its maintenance state. Determine the expected response to communication loss before disconnecting the module; a silent CAN bus must not leave an uncontrolled actuator enabled.

CAN interfaces	1
CAN controller	SJA1000

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02 CAN wiring

Capture both address switches

Read and record both hexadecimal switch positions. Compare the resulting node identity with the application project and the other network participants, then reproduce the intended assignment on the replacement.

Verify the four-pin wiring

Trace CAN_H, CAN ground, CAN_L and shield individually. Do not infer pin function from conductor color alone; compare the connector's numbered positions with the retained circuit diagram before insertion.

Host interface	aPCI
Maximum CAN bit rate	500 kbit/s

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03 Network reach

Check network-end termination

Locate the two physical ends of the CAN trunk and verify the intended termination positions. Fit the supplied 120-ohm resistor between pins 1 and 3 only where the network design calls for it.

Coordinate speed and reach

Measure or establish the installed cable route and select the documented speed/length combination. If the network exceeds the 60 m allowance at 500 kbit/s, correct the design rather than relying on intermittent successful traffic.

Cable length at 500 kbit/s	60 m maximum
Cable length at 250 kbit/s	200 m maximum

04 Runtime and data

Inspect the connector type

Use the compatible terminal plug and conductor size for that plug. Check that the shield treatment and strain relief remain effective after servicing, without placing mechanical load on the interface connection.

Restart with the retained runtime

Restore the approved Automation Runtime project and restart according to the controller procedure. In an SG4 installation, allow the runtime-managed interface firmware loading to complete before evaluating application communications.

Cable length at 50 kbit/s	1000 m maximum
CAN termination	120 Ω

05 Communication acceptance

Trace an actual data exchange

Observe TXD/RXD activity and compare a known transmitted value with its destination. Check the return path as well; this distinguishes basic bus activity from correct application mapping and node selection.

Record the final CAN state

Retain the node address, bit rate, termination locations and successful data-test result. Resolve error counters or unstable communication before returning the connected equipment to its operating state.

Technical basis: B&R 3IF771.9 Data Sheet, version 1.0.

Related product navigation

B&R X20SLX910

B&R X20CP1486

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