B&R X20HB8884

01 Redundant POWERLINK path identification

1 Label both network connections

Label network 1 and network 2 at both ends before disconnecting the selector. Record which X20HB2880 or X20HB2885 expansion modules are fitted, the X20PS8002 supply and the bus-base type. Photograph S/E and link indicators during normal operation.

2 Check the fitted hub expansion arrangement

Compare the installed expansion with the permitted arrangement of one X20HB2880 or two X20HB2885 modules. Keep the two network identities separate when recording the assembly and its supply module.

Record	Complete marking and installed position
Comparison	Field labels agree with application assignments
Device type	POWERLINK compact link selector
Network interfaces	2 shielded RJ45 ports

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02 Selector supply and cabinet conditions

1 Inspect the X20PS8002 power assembly

Inspect the X20PS8002 supply arrangement and its terminal block before fitting the selector. The selector consumes 2 W and isolates its supply from POWERLINK IF1 and IF2. Check cabinet environmental conditions against the plain X20HB8884 rating.

2 Keep supply isolation and cable identity distinct

The selector supply is isolated from POWERLINK IF1 and IF2. Verify the actual supply and bus-base arrangement without treating that isolation as permission to interchange the two network cable labels.

Supply evidence	Measured at the device connection
Work condition	Power isolated while wiring is handled
Physical layer	100BASE-TX
Transfer rate	100 Mbit/s

03 Dual Ethernet cable restoration

1 Reconnect IF1 and IF2 to their recorded routes

Restore both shielded RJ45 paths without interchanging their labels. Keep each station-to-station segment within 100 m and retain the intended redundant routing. Check connector latches, shield continuity and cable strain relief at the cabinet entry.

2 Inspect the complete 100 m segment

Check the full station-to-station length, including cabinet patch leads. A securely latched RJ45 connector does not establish that the shielded cable route and permitted segment length are correct.

Wiring record	Connection-by-connection comparison
Physical inspection	Shield, connector and strain relief checked
Duplex mode	Half-duplex
Autonegotiation	Supported

04 POWERLINK link negotiation

1 Confirm 100 Mbit/s half-duplex operation

Confirm that the assembly returns to the intended 100 Mbit/s half-duplex POWERLINK operation. Autonegotiation and Auto-MDI/MDIX are supported. The front number switches have no operating function, so retain configuration in the actual network controller.

2 Avoid assigning a network role to unused switches

The front number switches have no operating function on this selector. Restore the network-controller configuration and assess the link indicators instead of attempting to set the selector address with these switches.

Configuration	Approved settings restored
Diagnostic condition	Normal recognition before functional testing
Auto-MDI/MDIX	Supported
Segment length	100 m maximum between stations

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05 Single-path failure and recovery

1 Interrupt each redundant route separately

Observe both paths active, then interrupt network 1 and network 2 separately under an approved test. Verify communication survives the single-path interruption and recovers when restored. Distinguish single or double flashing S/E indications from a red indication of both networks failed.

2 Distinguish one failed path from both failed paths

Record the indication and communication result for each single-path interruption. Restore the first route before testing the second, then verify the healthy indication returns; a both-networks-failed indication is a different fault condition.

Technical basis: B&R X20(c)HB8884 Data sheet V2.31.

Related product navigation

B&R X20CP1485

B&R X20CP1484-1

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