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01 CEX segmentation and keyed baseplate

1 Map both CEX segments

Record which interfaces belong to each segment and how they connect to the processor pair. The BC810 boundary should match the actual redundant communication design.

2 Verify TP857 compatibility

Check the baseplate type and mechanical keying before fitting a replacement unit. Do not alter the coding to force an incompatible module onto the baseplate.

CEX segments	2 independent segments
Baseplate	TP857, mechanically keyed

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02 External DC input and supply paths

1 Identify both power paths

Trace processor-side CEX power and the optional external redundant input. Distinguish an unpowered external input from a failure of the CEX power path.

2 Measure external input voltage

Check L+ and L− polarity and voltage against 19.2 to 30 V DC. Account for the complete segment load when investigating a supply drop.

External supply	24 V DC nominal; 19.2–30 V DC
Current consumption	50 mA typical; 70 mA maximum
Power dissipation	1.2 W typical
Power terminal	2-pin screw connector, L+ and L−

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03 Live-unit versus baseplate servicing

1 Separate unit and baseplate work

Determine whether the task concerns only the removable unit or also the baseplate. The supported hot-swap procedure must not be extended to powered baseplate changes.

2 Secure the segment for baseplate work

For baseplate replacement, place the system in its approved maintenance condition and remove the CEX modules on that segment. Retain their order and termination arrangement.

Unit hot swap	Supported under the applicable procedure
Baseplate servicing	Not permitted while powered and running

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04 Segment reconnection and indicators

1 Restore the interconnection

Reconnect the intended CEX segment and external power connections without changing their designed redundancy roles. Inspect seating and mechanical retention before service restoration.

2 Interpret individual indicators

Check Run, Error, external Power OK and both traffic indicators separately. A lit power indication does not by itself confirm that communication is passing through both segments.

Status indication	Error, Run, external Power OK, 2 traffic LEDs
Protection	IP20

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05 Communication continuity and handover

1 Verify communication availability

Test the relevant controller/interface paths using the site's supported redundancy procedure. Confirm communication health on both sides of the interconnection before releasing the segment.

2 Record the serviced boundary

Retain the BC810/TP857 identities, segment topology, supply measurements and redundancy-test results. These records distinguish a module replacement from a change to the CEX architecture.

Technical basis: ABB AC 800M 5.1 Controller Hardware Product Guide, 3BSE036352-510 A.

Related product navigation

ABB AI830 3BSE008518R1

ABB AI845 3BSE023675R1

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