Allen-Bradley 80190-560-01-R

01 Capture the correct rectifier arrangement

1 Establish the board identity

Record the full 80190-560-01-R marking and visible revision, then compare the installed drive frame and ForGe architecture. Keep the 18-pulse reference distinct from the non-18-pulse ACB.

2 Preserve the operating configuration

Save the available drive configuration before disturbing the processor stack. Record process modes, scaling, PLC links and interlock assignments relevant to the work.

Retain	Board and connector photographs, frame identification and drive drawings
Match	18-pulse ACB and the installed control generation
Release prerequisite	Authorized maintenance isolation and a recoverable configuration

Isolation boundary

Input-channel isolation does not make the non-isolated voltage outputs floating. External instrument grounding must follow the output circuit design.

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02 Map connections before board removal

1 Separate the feedback groups

Trace J2/J3/J4 to their CT groups and record J5 motor, J6 DC-link and J7 ground-fault/neutral circuits. Label both sides of each detachable connection.

2 Access the stack correctly

Use the specified DPM and encoder-interface removal sequence after isolation. Protect multiway connector alignment and board supports; retain hardware separately for restoration.

J2 / J3 / J4	CT2 / CT3 / CT4 line-current groups
J8 / J9 / J10	Customer analog / pressure / meter and speed-pot functions
Before reassembly	No unidentified harness, damaged pin or loose support

Terminal numbering

Analog connection numbers in the IFM diagrams refer to IFM terminals. They are not ACB test-point numbers or connector pin labels.

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03 Validate analog range and burden

1 Prove current-loop headroom

Include input burden and cable resistance when checking the source. At 20 mA the 100 Ω receiver needs 2 V. For the output loop, compare the full resistance with 12.5 V available compliance.

2 Check source and load impedance

For voltage inputs, compare the source resistance with 75 kΩ. For non-isolated voltage outputs, respect the 600 Ω minimum load and the external isolation requirement.

Input test	Configured mode agrees with the physical transmitter
Output test	Actual connected load reaches the demanded upper endpoint
Record	Applied signal, observed value, load and reference/common

Supply diagnosis

D7 checks +5 V presence and D9 checks the ±15 V OK condition. A lit pair cannot prove the remaining supply rails, feedback sensors or communication links.

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04 Restore diagnostic and control paths

1 Use named test references

Choose the appropriate AGND, DGND or supply common for each measurement. Review D7 and D9 together with the specific supply and feedback observations needed for the fault.

2 Exercise the complete interface

Verify restored terminal/DPI/XIO communications and the configured interlocks. A healthy display or one analog value does not prove that all external control paths were reconnected.

Diagnostic nodes	Test-point identity and correct common recorded
Communications	Required device paths restored and status checked
Interlocks	Approved test demonstrates correct status and response

Assembly scope

Drive parameters and processor firmware belong to the DPM. Replacing or disturbing that assembly requires its own backup and restoration procedure.

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05 Release under the drive test procedure

1 Progress through controlled tests

Complete the approved low-voltage system checks before the authorized medium-voltage tests. Use qualified drive-service personnel and the installed project procedure.

2 Close temporary changes

Remove test sources and temporary overrides, restore the production parameters and verify required feedback direction, scaling and alarm response. Preserve the final results with the board identity.

Configuration	Restored settings agree with the retained project
Signal proof	Test results include connected load and the process reference
Handover	No unresolved connector, interlock, supply or feedback discrepancy

Automation references

Foxboro FBM232 P0926GW

Honeywell 10302/2/1

Honeywell 900B08-0202

Separate references; no substitution or compatibility is implied.