Allen-Bradley 80190-560-02-R

01 Establish the feedback baseline

1 Confirm the converter arrangement

Identify the installed non-18-pulse drive and its ACB revision before the outage. Compare the board marking with the approved cabinet parts information. Preserve the existing converter configuration and do not use the 18-pulse ACB as an assumed substitute.

2 Capture the analog evidence

Record the exact startup self-test or conversion fault and its diagnostic words before clearing the queue. Identify which channels are implicated and compare their last credible readings. This baseline helps distinguish a field circuit problem from a board or processor-transfer problem.

Converter	Non-18-pulse configuration
Hardware	ACB marking and revision
Evidence	Fault queue and diagnostic words

80190-560-02-R / Record and protect the wiring

02 Record and protect the wiring

1 Make feedback connections traceable

With the drive isolated under its prescribed procedure, label the IFM and feedback connections before removal. Photograph connector positions and inspect for poor seating, contamination or mechanical damage. Use the approved ESD method and avoid touching calibration or signal-conditioning components.

2 Keep the original signal mapping

Reinstall each connection in its assigned position using the drive drawings. Separate sensor wiring from the converter identification check: the correct part number does not itself prove that every analog channel is wired correctly. Verify the connector mapping before applying control power.

IFM path	Retained connection identity
Feedback wiring	No channel interchange
Connector condition	Seated and undamaged

80190-560-02-R / Evaluate startup self-tests

03 Evaluate startup self-tests

1 Localize the offset indication

Read the inverter or rectifier diagnostic words associated with the reported self-test. Use the implicated channel to direct a qualified inspection of the feedback circuit. Do not bypass the self-test or declare the new board defective before the connected signal path is evaluated.

2 Compare stopped-drive feedback

Under the manufacturer test procedure, compare analog readings with the expected stopped-drive condition. An excessive offset should be traced to its channel and circuit. Record the result of any authorized control-power cycle and whether the same self-test returns.

Inverter test	Diagnostic channel localization
Rectifier test	Diagnostic channel localization
Repeatability	Record the same or changed result

80190-560-02-R / Trace process and conversion faults

04 Trace process and conversion faults

1 Check the process loop upstream

Where a process-variable input is configured, confirm the correct sensor output and IFM input mode. Trace the signal through the field wiring and IFM-to-ACB connection. A valid sensor output at the source does not prove that the same signal reaches the control board.

2 Distinguish transfer from offset

A conversion-transfer fault concerns delivery of sampled data to the processor; it is different from a high-offset self-test. Retain that distinction in the service record and inspect the appropriate ACB/DPM path. Follow the fault-specific sequence instead of applying a generic board-swap remedy.

Sensor output	Matches the configured loop
IFM connection	Verified signal continuity
Conversion transfer	Specific code retained

80190-560-02-R / Confirm the restored control chain

05 Confirm the restored control chain

1 Prove the intended operation

Compare channel readings and configured interlocks with the approved baseline, then perform the required drive functional tests in the authorized machine state. The release decision must include both signal plausibility and correct protection response, not just absence of an ACB fault.

2 Record the service result

Retain the fitted board revision, connection record, final diagnostic words and the test outcome. Document any remaining feedback instability and its disposition. Keep the non-18-pulse configuration explicit so a future spare selection cannot be confused with the neighboring ACB variant.

Technical basis: Rockwell Automation PowerFlex 7000 Troubleshooting Guide, 7000-TG002L-EN-P.

Related product navigation

- Allen-Bradley 80190-320-23-R
- Allen-Bradley 80190-780-01-R
- Allen-Bradley 80190-299-01/9

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