Allen-Bradley 80190-580-01-R

01 Function and selected configuration

Product function

In a PowerFlex 7000 control platform, Allen-Bradley 80190-580-01-R coordinates processing and stored drive configuration. Its relationship with the Drive Identity Module is central to restoring the correct settings after control-board service.

Selected configuration

The DPM is the main control board in the drive and contains the processors, memory and intelligent peripherals. It works with the analog control hardware and the drive communication interfaces. The board is a control assembly inside the PowerFlex 7000 cabinet; motor voltage or converter power ratings describe the complete drive, not a stand-alone DPM rating.

Functional path

Drive inputs	ACB conversion	DPM processing	Configured drive control

Control function	Drive Processor Module (DPM)
Configuration retention	NVRAM with Drive Identity Module support
Service diagnostic	RAM Battery Low warning 166

The Drive Identity Module holds drive-specific factory defaults and a mirror of the parameters saved to NVRAM. That stored image supports restoration when NVRAM is corrupt and transfer to replacement control hardware. Preserve the correct drive identity and the latest verified parameter set rather than commissioning with unreviewed defaults.

80190-580-01-R / Technical operating envelope

02 Technical operating envelope

Control-board function	Drive Processor Module (DPM)
Coating	Conformal coating
Configuration storage	NVRAM; saved image supported by the DIM
DPM service battery reference	346567-Q01

Drive warning 96	NVRAM Cleared
Drive warning 97	Parameter Range; offending parameter in P597
Drive warning 166	RAM Battery Low
Drive adapter-loss codes	17 through 22; adapters 1 through 6

The numbered entries above are drive diagnostics, not independent board voltage or speed ratings. The exact drive topology and firmware determine their applicability.

Memory recovery

A DIM image is meaningful only when it belongs to the same drive and agrees with the intended parameter baseline. Restoring data removes a memory symptom but does not by itself validate motor, converter or protection settings.

Communication boundary

Adapter loss identifies a communication path. Analog conversion faults identify a different interface between the ACB and processors. Keep these diagnostic categories separate when deciding whether a processor replacement is justified.

80190-580-01-R / System integration and applications

03 System integration and applications

Control-board renewal

Restore the processor position while retaining the drive-specific identity, motor data and verified parameter image.

Configuration recovery

Reconcile terminal or engineering backups with the DIM image after NVRAM corruption or an interrupted upgrade.

Communication diagnosis

Separate adapter 1-6 connection failures from local DPM memory and analog-conversion faults.

Planned firmware maintenance

Record the old firmware, configuration and alarm queue before an authorized upgrade and verify restored settings afterward.

System and supply context

This assembly serves the processor position of a compatible PowerFlex 7000 drive. The ACB, HMI board, DIM and service battery are separate items unless included in the quotation.

Application boundary

Use it in drive-control maintenance with the original firmware and configuration boundaries preserved. Diagnostic-code interpretation depends on the drive release and installed options.

Why can warning 96 appear after work on Allen-Bradley 80190-580-01-R?

The drive parameters have been cleared or found corrupt and initialized to defaults, for example after an upgrade or low battery condition. Restore the verified parameter set before operation.

80190-580-01-R / Engineering selection decisions

04 Engineering selection decisions

What configuration does the DIM preserve for Allen-Bradley 80190-580-01-R?

It preserves drive-specific factory defaults and a mirror of the parameter set saved to NVRAM, allowing configuration transfer to replacement control hardware.

Where is an invalid parameter identified when Allen-Bradley 80190-580-01-R reports warning 97?

The offending parameter number is stored in Parameter Error P597. Correct its value and save the approved configuration rather than retaining an unintended default.

How are adapter-loss codes 17-22 relevant to Allen-Bradley 80190-580-01-R?

They identify loss of communication between the DPM and adapters 1 through 6. Check the affected connection and adapter before assigning the cause to the DPM.

What must remain consistent when Allen-Bradley 80190-580-01-R is exchanged?

The drive identity, compatible firmware, board revision and approved parameter set must remain consistent with the installed converter and motor.

Handle the board	Use the approved ESD method and protect connector contacts and conformal coating.
Review defaults	Investigate warnings 96 and 97 instead of accepting default values as commissioned settings.

80190-580-01-R / Configuration boundary and references

05 Configuration boundary and references

Lifecycle and support

The current manufacturer lifecycle phase for this exact part number is unconfirmed. Production and repair availability require model-specific confirmation.

Replacement assessment

Match the DPM revision, drive firmware, DIM and retained parameters. A cleared parameter set must be restored and checked before the drive is released.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains configuration and selection boundaries. The independent installation guide organizes preparation, connection, testing and handover. It does not replace the applicable manufacturer installation instructions.

Technical basis

Rockwell Automation PowerFlex 7000 Troubleshooting Guide, 7000-TG002L-EN-P; HMI User Manual, 7000-UM201D-EN-P.

Related product navigation

- Allen-Bradley 80190-300-01-R
- Allen-Bradley 80190-320-03-R
- Allen-Bradley 80190-560-01-R

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

Product enquiries