General Electric DS200FSAAG1ABA

Technical Reference | exact-model engineering dossier

GE DS200FSAAG1ABA is a DC2000 FSAA single-phase field-supply gate amplifier board for a non-reversing plugging (NRP), with conditional NRX capability field bridge.

Exact offered identity	DS200FSAAG1ABA
Engineering role	Field Supply Gate Amplifier Board
Installed-system reference	GE DC2000 drive field supply

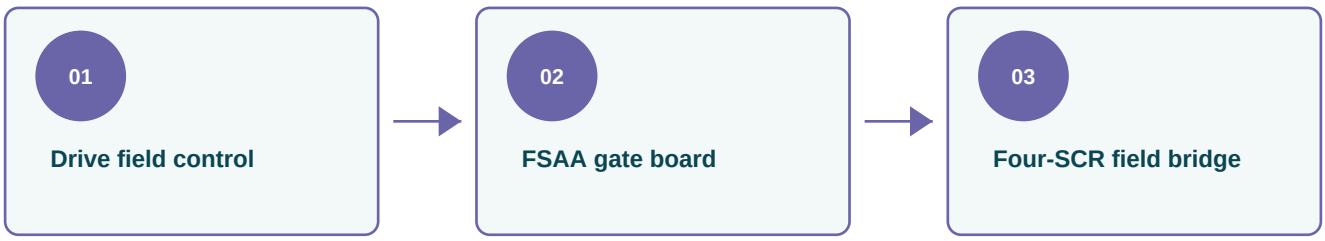
Functional identity

GEI-100186 covers the DS200FSAAG1__ hardware group. Its group-level functions apply to this complete marking, while the ABA suffix and installed bridge assembly must be matched directly before exchange.

Engineering decision points

Match the complete marking	Include DS200FSAAG1ABA and every visible revision or serial identity in your enquiry. Keep the same complete reference on the quotation.
Check the offered item before ordering	Request available label and connector photos. Have your maintenance team compare the offered DS200FSAAG1ABA with the installed equipment and applicable GE documentation.

Engineering path



Source basis

GE Drive Systems FSAA Single-phase Field Supply Gate Amplifier Board Replacement Instructions, GEI-100186, October 1994

02 System position and boundaries

Field bridge firing

Drive the four-SCR field-supply arrangement in the documented G1 mode; verify the firing leads and bridge terminals against the original wiring schedule.

Motor field excitation

Coordinate field current with the DC2000 drive controls and the motor field circuit during controlled start and stop tests.

Fuse-coordinated supply

Retain L2/L3 onboard fuse protection and establish whether the actual field rating requires external fuses for the field feed.

Replacement and fault review

Use complete board marking, bridge hardware, MOV placement and recorded wiring to investigate field loss, fuse operation or unstable excitation.

Installed system

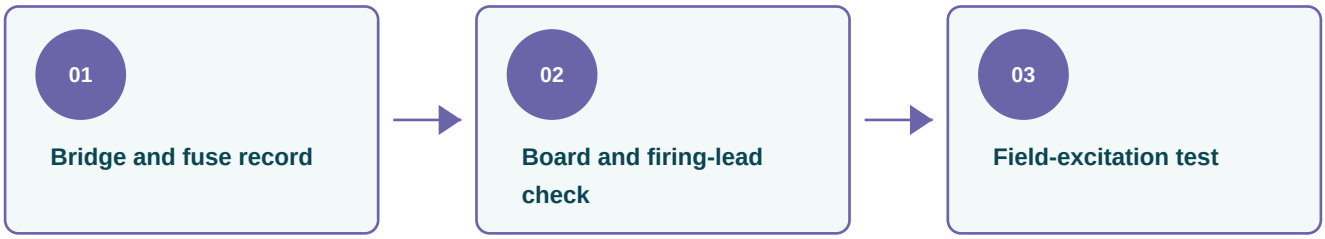
Confirm the board, fuses and the matching field-bridge/MOV assembly in the quotation; the drive, SCR bridge and external fuses are separate unless listed.

The board is mounted on a four-SCR full-wave field bridge. In the G1 circuit, all four SCRs are phase-controlled. Keep the original bridge, firing leads and MOV arrangement with the installed drive configuration.

03 Verified technical data

Board family	DC2000 FSAA field supply gate amplifier
Hardware group	G1: non-reversing plugging (NRP), with conditional NRX capability
Bridge arrangement	Four-SCR full-wave field supply bridge
SCR control	all four SCRs are phase-controlled
AC MOV placement	separate MOV subassembly
Input fuse positions	L2 and L3
Onboard fuse rating	30 A each
Protected field load	Up to 24 A via onboard fuses; larger fields need external fusing
Mode hardware	JP1-JP6 configuration positions
Board identification	Complete DS200FSAAG1ABA edge marking
Revision marking	ABA suffix

Review sequence



04 Integration and diagnostic review

Field-supply relationship

The board is mounted on a four-SCR full-wave field bridge. In the G1 circuit, all four SCRs are phase-controlled. Keep the original bridge, firing leads and MOV arrangement with the installed drive configuration.

Protection and handling

L2/L3 input fuses are rated 30 A. The original instructions distinguish fields up to 24 A from larger applications that require external field fusing; isolate and discharge the equipment before board handling.

Make the field circuit safe

Apply the site lockout procedure to incoming power and the field supply. Verify stored energy is discharged before touching the board or bridge.

Control static discharge

Handle the printed board by its edges using grounded ESD protection; protect connectors and components during transport and insertion.

Acceptance sequence

STEP	ACTION	ACCEPTANCE
01	Preserve mode hardware	Record JP1–JP6 configuration positions. Do not transfer settings from a neighboring group or assume board appearance defines the operating mode.
02	Test controlled excitation	After wiring verification, prove field voltage/current response, relevant drive alarms and protective operation at a safe test point before normal operation.
03	Record the functional result	Verify isolation is removed deliberately, check bridge connections and fuse continuity, then observe controlled field excitation and drive protection indications under a site-approved test plan.

05 Engineering questions and source record

Why must the field bridge be reviewed together with DS200FSAAG1ABA during replacement?	DS200FSAAG1ABA drives SCR firing in a four-SCR full-wave motor-field bridge; the board alone is not the complete excitation circuit. Compare bridge identity, wiring, field-current arrangement and drive controls before fitting the replacement, then prove controlled excitation under the site test plan.
How does the G1 hardware group constrain use of DS200FSAAG1ABA?	G1 is used for non-reversing plugging and has conditional NRX capability. Confirm the installed field mode, JP1-JP6 configuration and bridge record; the complete suffix does not by itself establish how the drive is wired.
What bridge-firing difference must be checked before substituting DS200FSAAG1ABA?	G1 phase-controls all four SCRs. Compare that behavior with the installed bridge and mode hardware; G2 instead phase-controls P1/N1 while P2/N2 turn on with positive anode voltage, so a visually similar board is not automatically interchangeable.
How should the AC surge-protection path be checked when fitting DS200FSAAG1ABA?	For G1, the AC MOV is a separate subassembly. Confirm that it is present and connected in the installed bridge, and inspect the L2/L3 protection path before energizing; a G2 board carries its AC MOV onboard.
When does the field-current arrangement of DS200FSAAG1ABA require external fuse review?	The board's L2/L3 onboard fuses are 30 A each. GE describes onboard protection for field loads up to 24 A; higher-current applications require external field fusing while the onboard fuses protect the MOV path. Verify the actual field load and cabinet fuse scheme against the drive drawing.
Can DS200FSAAG1ABA replace the other FSAA G group directly?	Do not treat the G1 and G2 groups as direct substitutes. Their SCR firing behavior, MOV placement and mode hardware differ; use the drive and bridge record to evaluate any proposed change.

Document identity

Apter Power technical reference based on GE Drive Systems FSAA Single-phase Field Supply Gate Amplifier Board Replacement Instructions, GEI-100186, October 1994. The exact offered code and installed revision govern applicability.

Discuss the complete model and fitted revision with Apter Power.
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Other General Electric references

Catalog navigation only; confirm each complete model for its own installation.

General Electric DS200FSAAG1A	View product reference
General Electric DS200FSAAG2ABA	View product reference
General Electric 531X307LTBAKG1	View product reference