SF412024 517-0224-16A-504376 820-0297

Circuit Board Assembly

A product-specific engineering reference for functional architecture, diagnostic isolation and controlled acceptance.

01 Functional architecture and interface path

Complete reference

SF412024 517-0224-16A-504376 820-0297

Product type

Circuit Board Assembly

Documented family

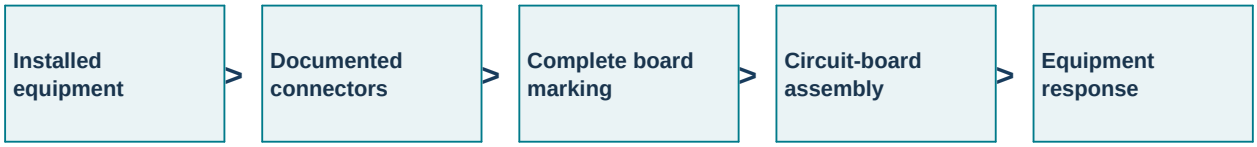
GE SF-series hardware

Installed context

GE industrial electronic assembly

Functional role

Provides the fitted circuit-board assembly identified by the complete multi-part marking.



Engineering path responsibilities

Incoming relationship	Installed equipment is the upstream condition or equipment segment to be retained in the service record.
Interface boundary	Documented connectors defines the connection area to photograph and label before disconnection.
Functional center	Complete board marking is handled as the controlled replaceable identity; adjacent assemblies are not treated as equivalents.
Observation layer	Circuit-board assembly provides the product-specific check point used during isolation and recommissioning.
System result	Equipment response is the downstream response that must be demonstrated before release.

Interface-control record

Before removal	Capture installed position, cable dressing, supports and every mating point in one continuous record.
During isolation	Preserve the upstream-to-downstream relationship shown in the functional path.
During installation	Restore the recorded orientation, mechanical support and connection sequence without improvisation.
Before energization	Verify that every photographed interface is reconciled and independently checked.

02 Diagnostic isolation and observation plan

The checks below focus on the documented function and installed signal path rather than repeating the product-page specification table.

Product-specific diagnostic decisions

Observed condition	Technical check
Board response is absent	Verify all three identity strings, installed connectors and the equipment drawing position.
Connector map differs	Do not transpose cables; compare every plug and terminal with the pre-removal photographs.
Revision cannot be matched	Hold installation until SF412024, 517-0224-16A-504376 and 820-0297 are reconciled as one reference.

Measurement and evidence capture

As-found state	Record the active indication, diagnostic state and operating condition before the assembly is disturbed.
Physical correlation	Tie every observed connector and control point to a photograph and the installed equipment position.
Isolation result	Record which upstream, board-level or downstream check changed the observed condition.
Post-install state	Repeat the same observation sequence after controlled energization and compare it with the retained baseline.
Deviation control	Quarantine any mismatch in identity, connector map, adjustment or system response until engineering review.

Interpretation boundaries

Circuit boundary

Do not attribute an upstream supply or downstream load fault to the assembly without isolation evidence.

Configuration boundary

Do not change settings merely to clear a symptom; compare against the retained installed record.

Revision boundary

Do not infer interchangeability from family naming when the complete execution differs.

Acceptance boundary

A cleared diagnostic alone is insufficient; prove the affected system response under control.

Reference basis

General Electric equipment documentation and complete multi-part assembly marking. This reference limits its conclusions to the documented functional relationship and observed installed evidence.

03 Controlled acceptance and support

Use the installed evidence to separate board, wiring, configuration and companion-hardware causes before release.

1 - Identify	Match the complete product and revision marking to the approved record.
2 - Document	Capture installed position, connector map, settings and healthy baseline.
3 - Inspect	Check contacts, terminals, supports, contamination and protective-earth condition.
4 - Install	Restore the documented physical execution without transposing connections.
5 - Energize	Apply energy in the approved sequence while observing diagnostics.
6 - Prove	Exercise the affected function and retain the as-left result.

Acceptance evidence

Identity record	SF412024 517-0224-16A-504376 820-0297, secondary labels and installed-position reference
Interface record	Connector, terminal, cable and protective-earth map
Configuration record	Fitted adjustments, switches, firmware and revision-dependent settings
As-found / as-left	Baseline, diagnostics and controlled functional response

Engineering release gates

Installation gate

Identity, interface and configuration agree with the approved installation.

Diagnostic gate

No unexpected fault remains after controlled energization.

Functional gate

The affected equipment response agrees with the accepted baseline.

Record gate

Photographs, readings, deviations and approval are filed together.

Verified related product references

Recommended product	General Electric DS200DTBCG1AAA
Recommended product	General Electric DS200TBCAG1AAB
Recommended product	General Electric DS200TBQBG1ACB
Recommended product	General Electric DS200TBQCG1ABB

Discuss the exact marking and installed relationship with Apter Power.
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