FIELD GUIDE / 01

GE IC693MDL753

Installation & Commissioning Guide

Document purpose A field sequence for identity control, isolation, connector preservation, wiring checks and controlled output acceptance.	**Installed-system role** Thirty-two sourcing outputs in four isolated eight-point groups for a Series 90-30 PLC baseplate.
Critical boundary Field load power is user supplied; output commands are carried in 32 discrete %Q bits.	**Primary source** Exact-model pages 7-49 through 7-53 of GFK-0898F.

SYSTEM POSITION

PLC CPU Executes logic and controls the output table.	→	**%Q DATA** Thirty-two discrete output-command bits.	→	**IC693MDL753** Four isolated positive-logic output groups.	→	**FIELD LOADS** User-powered 12/24 VDC devices.

Release principle

Do not treat an illuminated point LED as proof of the complete field circuit. Commissioning must verify command, terminal, wiring, supply and load response as one path.

DOCUMENT CONTROL

Nameplate Record IC693MDL753 and the physical revision before removal.	**Rack position** Retain the Series 90-30 baseplate and slot assignment.
Logic map Back up the complete 32-bit %Q allocation.	**Field record** Capture group supplies, commons, cables and driven loads.

CONTROLLED RELEASE OUTPUTS

Identity record Catalog number, revision and physical condition.	**Configuration record** Baseplate, slot and 32-point %Q assignment.
Wiring record Connector side, group supply/common and cable method.	**Acceptance record** Command, LED, voltage and field-response evidence.

PRE-INSTALLATION / 02

Readiness and identity control

Record the as-found state before disconnecting either 24-pin interface.

Readiness item	Acceptance evidence
Identity	Confirm GE IC693MDL753 on the module label and the intended Series 90-30 slot.
Output map	Record the 32 %Q points assigned to groups A, B, C and D.
Field supplies	Record each group supply and common; groups may serve different 12 VDC or 24 VDC loads.
Connector orientation	Right-front connector = groups A/B; left-front connector = groups C/D.
Current plan	Confirm each point, group and common-pin current against the exact limits.
Cable method	Identify direct cable pair IC693CBL327/IC693CBL328 or the installed TBQC arrangement.

ELECTRICAL LIMITS TO RECORD

Field range 10.2 to 28.8 VDC; positive-logic sourcing outputs	**Per point** 0.5 A maximum; 5.4 A inrush for 10 ms
Per group 4 A maximum across each eight-point group	**Common pin** 3 A maximum per common pin
Isolation 1500 V field-to-logic; 250 V between groups	**Response** 0.5 ms maximum ON and OFF

POWER AND CABLING RECORD

Record	Verified requirement
Backplane	260 mA maximum from the 5 V bus
User supply at 24 VDC	16.5 mA maximum per group with all eight outputs ON
User supply at 12 VDC	9.6 mA maximum per group with all eight outputs ON
Direct cable method	IC693CBL327 and IC693CBL328 pre-wired cable pair, or an application-built equivalent

INSTALLATION / 03

Controlled installation sequence

Maintain connector identity and group boundaries throughout the work.

1	Stop the process safely, place every driven load in a safe condition and isolate user field power.
2	Verify IC693MDL753, the intended rack position and the approved 32-point %Q assignment.
3	Label both 24-pin field connectors and record that the right side serves A/B while the left side serves C/D.
4	Inspect connector housings, pins, cable strain relief and group supply/common conductors before transfer.
5	Install the module in the documented I/O slot of the 5-slot or 10-slot Series 90-30 baseplate.
6	Reconnect the right A/B and left C/D interfaces without crossing connectors or group supplies.
7	For any group above 3 A total current, connect both group supply pins as shown in the exact wiring diagram.
8	Before energization, check polarity, absence of shorts, common continuity and load-current limits.

Connector map

RIGHT FRONT

A1-A8 and B1-B8, with AVIN/BVIN and separate commons.

→

MODULE

Two male Fujitsu FCN-365P024-AU connectors.

→

LEFT FRONT

C1-C8 and D1-D8, with CVIN/DVIN and separate commons.

GROUP CONNECTION CHECK

Check	Installation record
A / B connector	Right-front interface; retain AVIN/BVIN and the two group commons
C / D connector	Left-front interface; retain CVIN/DVIN and the two group commons
Supply conductors	Use both supply pins where the documented group current requires them
Point labels	Match A1-A8, B1-B8, C1-C8 and D1-D8 to the approved field record

COMMISSIONING / 04

Staged energization and acceptance

Prove each part of the command-to-load path before release.

Stage	Expected evidence
1. Logic-side check	Power the rack under the approved procedure and verify the configured 32-point output slot.
2. Field-supply check	Confirm each group receives the intended user-supplied voltage with correct polarity.
3. Command check	Command one point at a time from the controlled test plan; verify the corresponding %Q bit.
4. Indication check	Confirm the correct A/B/C/D point LED follows the command.
5. Terminal check	Measure the commanded output at the correct field connector pin and common.
6. Load check	Confirm the connected device changes state and returns safely when the command is removed.
7. Group-load check	Confirm point, group and common-pin currents remain within documented limits.
8. CPU-stop check	Under an approved safe test, verify all outputs are forced OFF when the CPU is stopped.

DIAGNOSTIC BOUNDARY

Front LEDs Show the ON/OFF status of each output point.	**Module reporting** No special fault or alarm diagnostics are reported.
Field verification Measure terminal voltage and observe the controlled field response.	**Stop behavior** All 32 outputs are forced OFF when the CPU is stopped.

FAULT-ISOLATION DECISIONS

Observed condition	Next controlled check
%Q bit changes, LED remains OFF	Recheck slot configuration, commanded point and the module/CPU operating state.
LED changes, no connector voltage	Recheck the exact point pin, group supply, polarity and group common.
Connector voltage is correct, load is idle	Inspect the field conductor, interlock and load circuit under the approved test plan.
Only one group is affected	Check that group's VIN pins, common conductors, connector side and total group current.

HANDOVER / 05

Handover record and related portfolio

Retain the exact model, slot, mapping, connector and test evidence with the maintenance record.

Identity retained GE IC693MDL753, module revision and the inspected physical label.	**Configuration retained** Rack, slot and the complete 32-point %Q assignment.
Wiring retained A/B right and C/D left connector records, group supplies and commons.	**Acceptance retained** Point-by-point commands, LED observations, measurements and field responses.

FINAL RELEASE GATE

Gate	Release criterion
Configuration	No unresolved rack, slot or %Q mapping differences
Electrical	All group supplies, commons and current limits verified
Functional	All 32 points checked through command, indication, terminal and load
Documentation	Updated drawings, test record and source reference retained

RELATED GENERAL ELECTRIC PRODUCTS

General Electric IC693MDL741G	Series 90-30 16-point negative-logic DC output module
General Electric IC693MDL740	Series 90-30 16-point positive-logic DC output module
General Electric IC693CHS397	Series 90-30 5-slot modular CPU baseplate
General Electric IC693CPU374 PLUS	Series 90-30 CPU with built-in Ethernet

SOURCE CONTROL

GE Fanuc Automation, Series 90-30 PLC I/O Module Specifications, GFK-0898F, July 2000, pp. 7-49 to 7-53

CONTACT APTER POWER

Industrial automation parts support

WhatsApp: +86 180 3023 5313

Email: sales13@apterpower.com

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