MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

GENERAL ELECTRIC

IC200GBI001

GENIUS NETWORK INTERFACE UNIT

Used with the applicable VersaMax configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

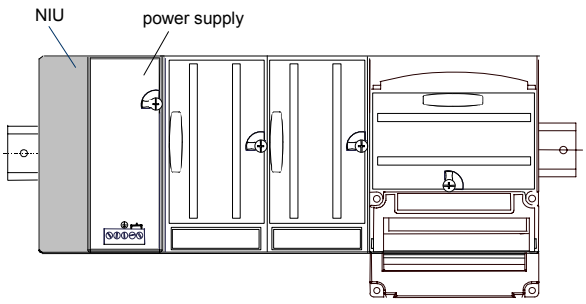
Selected official manufacturer pages follow this cover.

Source: GE Fanuc GFK-1551Q, VersaMax Genius Network Interface Unit

VersaMax® Genius® Network Interface Unit

May 8, 2009 GFK-1551Q

The Genius Network Interface Unit acts as controller for a set of I/O modules. Power for module operation is provided by a power supply that installs directly on the NIU



Specifications

Number of modules	8 per rack, up to eight racks.
Network inputs per bus scan	128 bytes
Network outputs per bus scan	128 bytes
Discrete Input Memory	1024 points
Discrete Output Memory	1024 points
Analog Input Memory	128 bytes
Analog Output Memory	128 bytes
Power Consumption	+5V@250mA, +3.3V@10mA
Serial Bus Address	0 to 31
Network data rate	153.6 Kbaud extended, 153.6 Kbaud standard, 76.8 Kbaud, or 38.4 Kbaud.

Product Description

Revision Letters:	GL
Firmware version:	3.20
Firmware upgrades:	44A748000-G10

Compatibility

Any type of PLC or computer capable of controlling the bus can be used as the host. This Network Interface Unit is compatible with:

1. When a Genius NIU (all versions) is on a Genius bus controlled by a Series 90-70 or PACSystems RX7i, the Series 90-70 Genius Bus Controller must have firmware version 5.4 or greater. Upgrading the 90-70 Genius Bus Controller firmware to version 6.0 (or higher) is strongly recommended.
2. When a Genius NIU (all versions) that has one or more expansion racks is on a Genius bus controlled by an Rx3i PLC, the PLC must use CPU firmware version 2.90 or higher.
3. When a Genius NIU (all versions) that has one or more expansion racks is on a Genius bus controlled by a Series 90-30 PLC, the PLC must use one of the following CPU models:
   - CPU366, 367, or 374 (any version) or
   - CPU350, 352, 360, 363, or 364 with firmware release 10.0 or higher.

   If any of the following are used, either a Loss of rack or Addition of rack fault will cause the CPU to go to Stop/Fault mode:
   - CPU350, 352, 360, 363, or 364 with firmware version 9.11 or lower; or
   - CPU311, 313, 321, 323, 331, 340, 341, or 351 (all versions).
4. VersaMax analog I/O modules IC200ALG320, 321, 322, and 432 that are used on Genius NIU expansion racks must be revision B or greater. VersaMax analog I/O modules IC200ALG430 and 431 that are used in Genius NIU expansion racks must be revision C or greater.
5. When a Genius NIU (version –GJ or later) is used in a control loop that is seeking SIL2 or SIL3 status, Proficy Machine Edition version 5.60 plus SIM 8 (or later) is required to configure Enhanced Diagnostics mode.
   - The Series 90-70 PLCs must be the IC697CPM790. Hardware version -Cx or higher of the CPM790 is required. Firmware version 6.04 (-xD) or higher of the CPM790 is required.
   - The Series 90-70 Genius Bus Controller can be either:

     IC687BEM731 (single-width): Version –AB (or higher) is required (Mgr firmware release 6.0; Comm firmware release 4.8).

     IC697BEM713 (standard-width): Version -BZ (or higher) is required (Mgr firmware release 6.0; Comm firmware release 4.8).
   - GMR Software IC641SWP745 version C (or higher) is required (GMR System Software version 4.05; GMR Configurator version 8.06)
   - The safety-certified versions of the VersaMax power supply and I/O carriers must be used. See the TUV website for specifics (http://www.tuv-fs.com/).
6. To assure that the host PLC will display the correct reference addresses for Loss and Addition of I/O Faults reported by the Genius NIU, the host controller must be one of the following:
   - IC697CPM790: firmware version 6.04 or higher
   - Other Series 90-70 controllers: Future.
   - PACSystems RX7i controllers: Firmware version 5.50 or higher.
7. To use Enhanced Diagnostics mode in any GMR System, version 4.05 of the GMR System Software is required.

   Do not enable Enhanced Diagnostics Mode on a Genius NIU that is part of a GMR system that is using GMR System Software version 4.04 or earlier.
8. To use the GMR CPU Redundancy mode in any GMR system, version 4.05 of the GMR System Software is required. Do not set the CPU Redundancy parameter to GMR on a Genius NIU that is part of a system that is using GMR System Software version 4.04 or earlier.
9. VersaMax analog input modules IC200ALG240, IC200ALG620 and IC200ALG630 installed in Genius I/O stations must be upgraded to firmware version 1.20 or later. Previous versions of analog input module firmware may produce unexpected Loss of I/O Module faults when used with any Genius NIU firmware version. See “Problems Resolved for Release 3.20” for more information.