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FS-8705-60 – Gamewell FCI NGA Serial Driver

DATASHEET – Rev 1

DESCRIPTION

This serial (RS232) driver can be used to monitor the status of virtual devices/points programmed into the Gamewell-FCI E3 Series NGA Network Graphic Annunciator.

Driver is a passive client driver in that it listens for unsolicited messages from the NGA. The driver does not send messages to the NGA.

The driver can be configured as a manual operation in the same way that all QuickServer's are configured. An additional semi-automatic process is provided.

CONNECTION FACTS

This table summarizes the number of connections this driver supports for each of its modes.

FIELDSERVER MODE	NODES	COMMENTS
Passive Client	1	The QuickServer connects to a single NGA RS232 port
Server	0	Not supported or documented. Use for Chipkin QA testing.

FORMAL DRIVER TYPE

Serial
Client

COMPATIBILITY

FIELDSERVER MODEL	COMPATIBLE
QuickServer FS-QS-1xx1	Yes
QuickServer FS-QS-2xx0-F	Yes
QuickServer FS-QS-3xx0-F	Yes

BAUD RATES, PARITY

Parity Even, Odd or None (Default)
Baud Rates 9600, 19200, 38400, 57600, 76800
1 Stop Bit

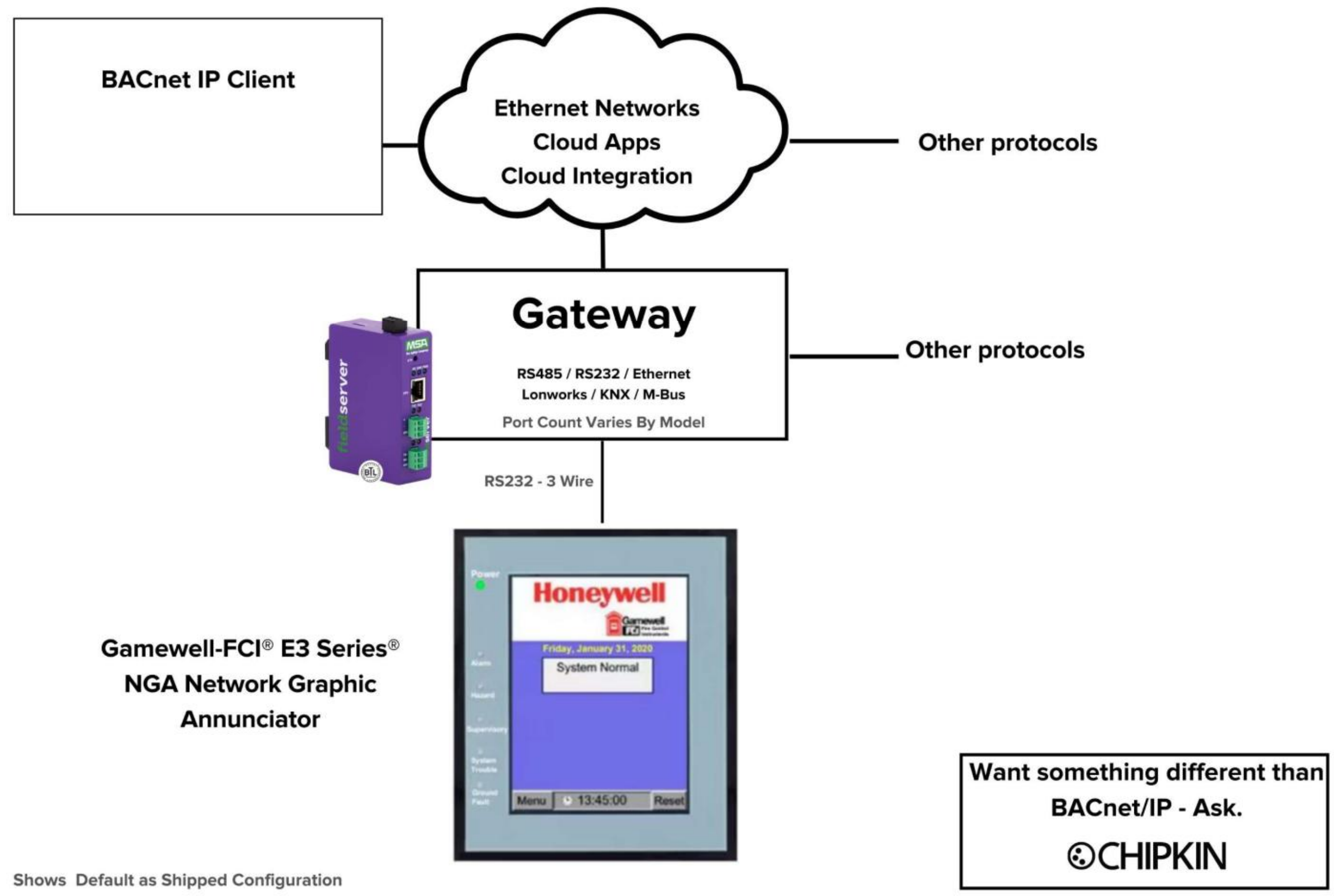
DEVICES TESTED

These tables summarize the devices that have been tested. Other devices may be supported.

DEVICE	TESTED (FACTORY/SITE)
Gamewell- FCI NGA Graphic Annunciator	Factory

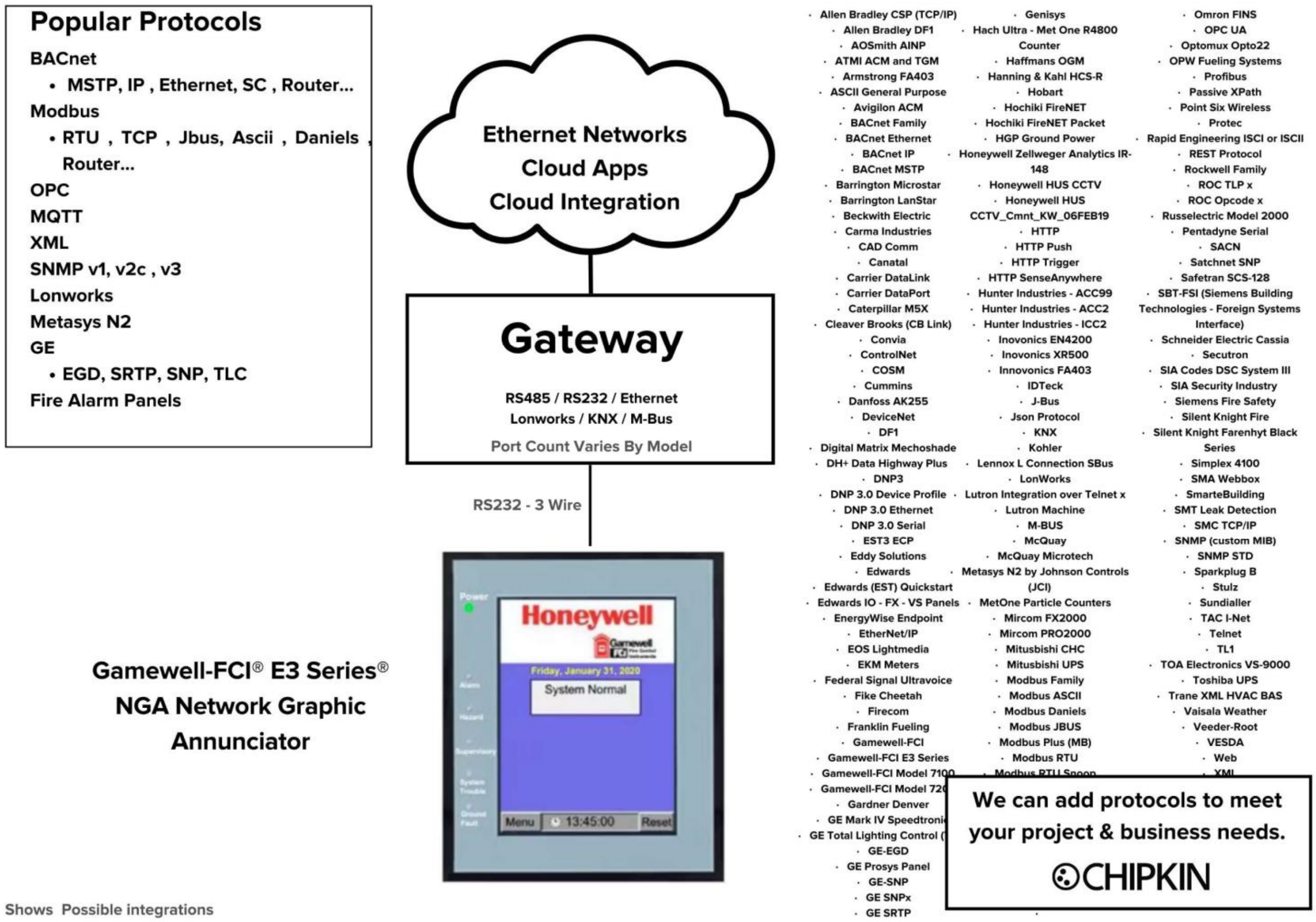
CONNECTION CONFIGURATIONS

Multiple upstream protocols and connection supported. See list of QuickServer Drivers.



Full Capability

Multiple upstream protocols and connection supported. See list of QuickServer Drivers.



CONNECTION DIAGRAM

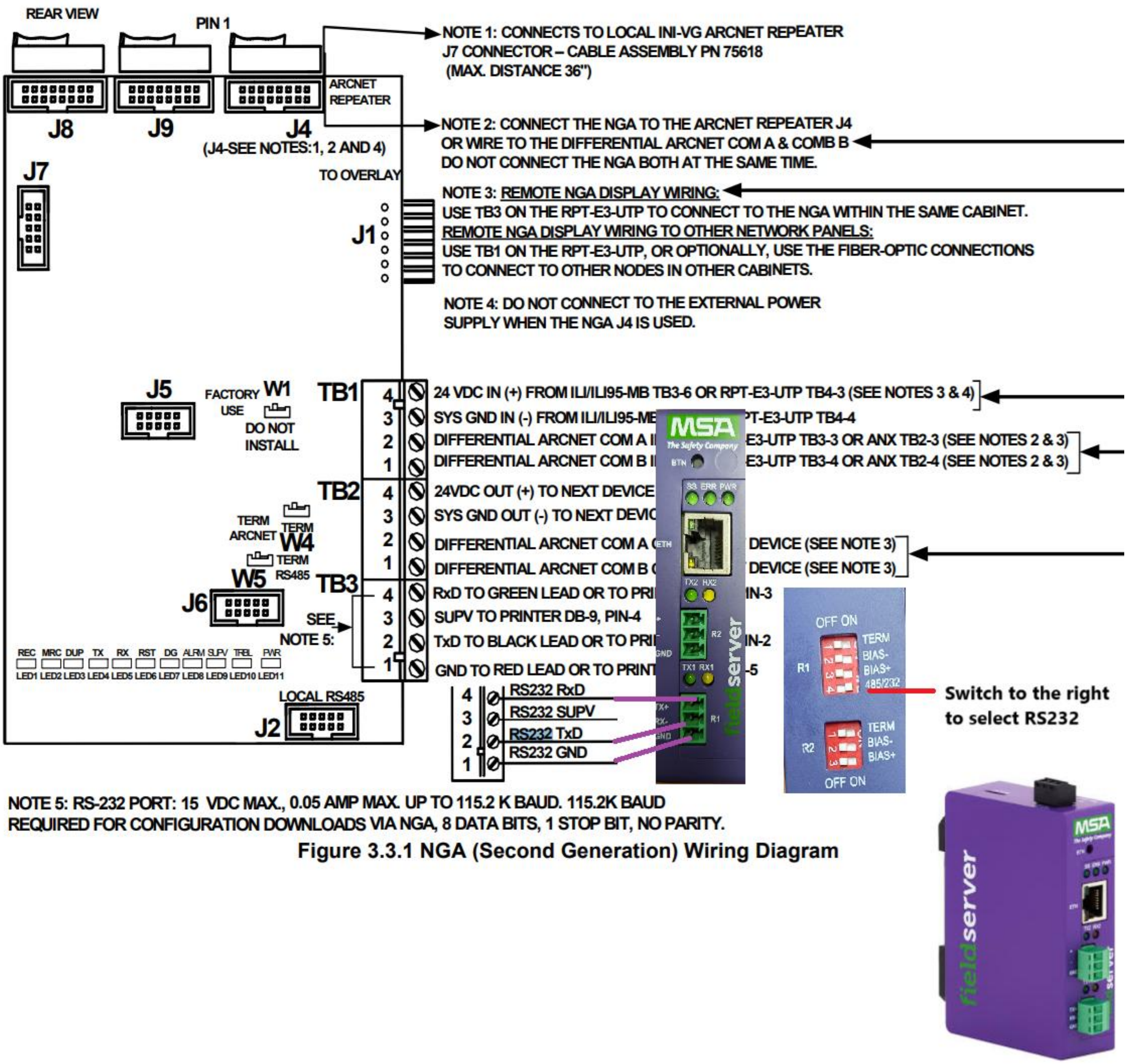


Figure 3.3.1 NGA (Second Generation) Wiring Diagram

DRIVER FUNCTIONALITY & CONFIGURATION

This driver is for application with a Gamewell-FCI E3 Series NGA Network Graphic Annunciator. A separate and different driver is used to connect to the FACP itself.

The driver listens passively for messages from the NGA. Each message consists of 2 lines of ascii text. Each line is CRLF terminated.

The driver does not support auto discovery or self-configuration. This means that the QuickServer configuration may need to be changed if there are changes made to the NGA programming such as the changing of a point name or bit number allocations.

Each message contains a label on line 1 and a status on line 2. The label is used in the same way as an address is used, in that each label is a point / object each of which can be in an active or restored state.

1. That a data array in the driver configuration is defined for each panel and each addressable device and sub-addressable component is defined.
2. An object of the other protocol (eg BACnet) is configured to report the status of this data to the BMS.

Configuration will require the definition of Data Arrays with a specific naming convention

QuickServer Synchronization with the NGA System

Synchronization in this context means that the QuickServer has no knowledge of the status of any point / object prior to being connected and prior to its last reset or restart.
Synchronization will require manual intervention. When the NGA has all objects in an inactive state the operator should restart the gateway.

As an alternative – Issue a RESET command on the NGA.

QuickServer Configuration

Semi-Automatic Configuration. The person performing the configuration installs a CSV file onto the QuickServer. The CSV contains a column of Bit Numbers and a column of text messages.

A choice of whether the BACnet objects will be Binary Inputs or Multistate inputs is made. The configuration process is initiated and the QuickServer generates a new configuration and restarts to apply the new configuration.

The text field will be used as a point / object identifier as well as the name of the BACnet object. There is a limitation of 37 characters for the text field. The Bit Number will be used as the BACnet object ID.

Binary objects will have a value of 0 for the inactive state and a value of 1 for the active state. BACnet multistate objects are not permitted to have a value of zero. They will have a value of 1 for the inactive state and a value of 2 for the active state.

At the current time the semi-automatic process is only available for generating NGA to BACnet/IP and BACnet MSTP configurations.

Manual configuration is also available in the same way as all FieldSever can be configured.

Message Formats

The driver expects that only messages formatted like this will be sent from the NGA. This is a different format as from the Main FACP itself.

They consist of
1) the reporting node
2) a description. Each of which will have a corresponding bacnet object
3) an event / status word
4) a fixed text element which can be used to separate these types of messages fr

Local: SF-1 Damper Closed
MESSAGE [NGA CAM Text] 12:03:40 11/20/24

Local: SF-1 Damper Closed
MESSAGE RSTRD [NGA CAM Text] 12:03:42 11/20/24

The Node Number will be used to determine the Bacnet object ID

Object_ID = Node*10000 + Bit Number

Node=Local - Means Node 0

CUSTOMER SUPPORT

Hochiki TCP/IP Driver for QuickServer was developed by Chipkin, and we are proud to provide support for our products. For technical support, sales and customer service, please call us at 1 (866) 383-1657

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REVISION HISTORY

This table summarizes the update history for this protocol data sheet. Please contact Chipkin by phone or email for an updated version of this document.

DATE	RESP.	DRIVER VERSION	DOCUMENT REVISION	COMMENTS
2025Jan15	PMC	0	0	Issued as scope of work sign off by customer.
2025Feb24	PMC		1	Minor corrections