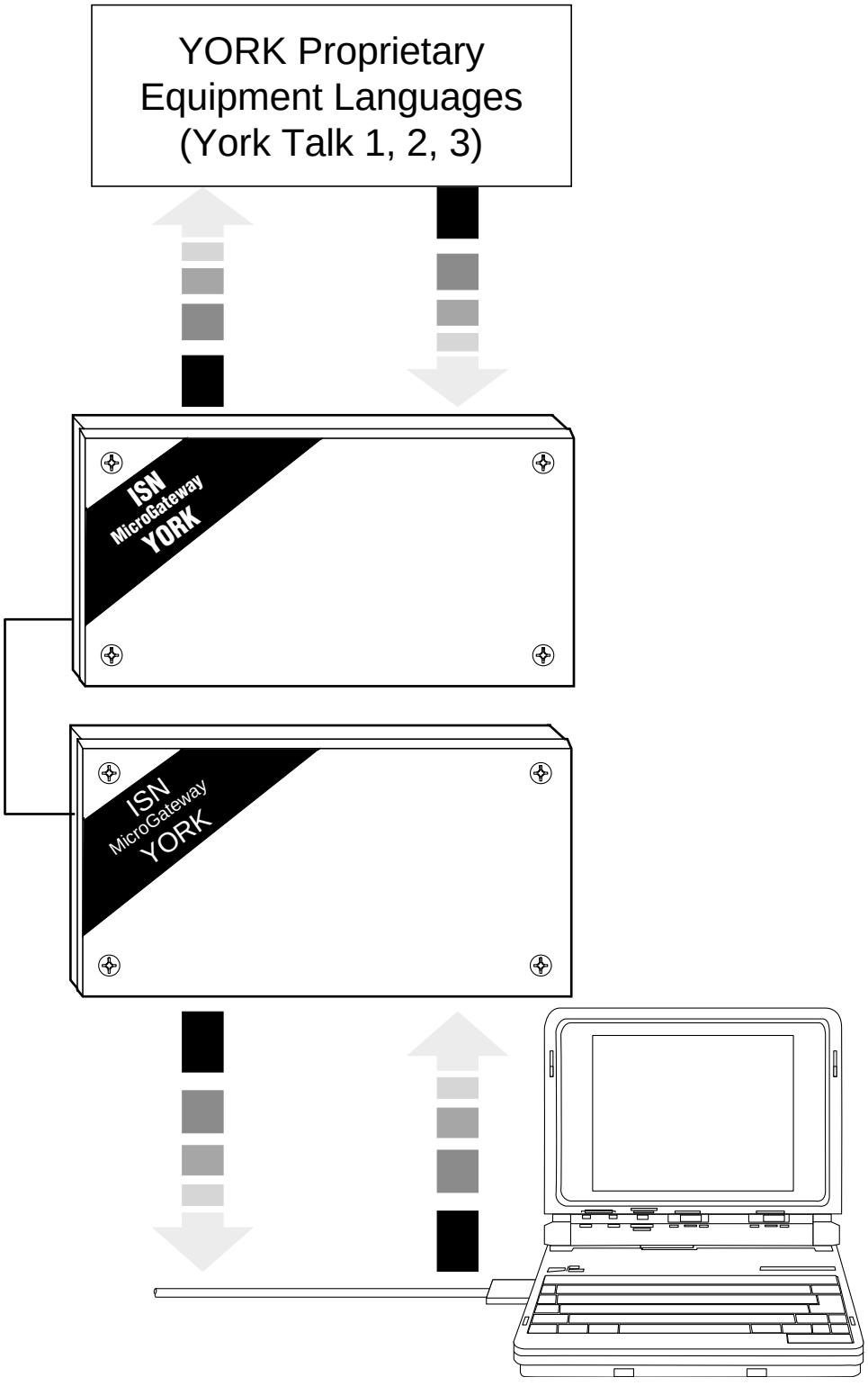
YORK®	ASCII MICROGATEWAY	
OPERATIONS MANUAL	NEW RELEASE	Form 450.20-O3 (601)

371-03609-004 ASCII MicroGateway OptiView Kit
371-02592-104 ASCII MicroGateway in an Enclosure (110 VAC)
371-02592-204 ASCII MicroGateway in an Enclosure (220 VAC)



IMPORTANT!

READ BEFORE PROCEEDING!

GENERAL SAFETY GUIDELINES

This equipment is a relatively complicated apparatus. During installation, operation, maintenance or service, individuals may be exposed to certain components or conditions including, but not limited to: refrigerants, oils, materials under pressure, rotating components, and both high and low voltage. Each of these items has the potential, if misused or handled improperly, to cause bodily injury or death. It is the obligation and responsibility of operating/service personnel to identify and recognize these inherent hazards, protect themselves, and proceed safely in completing their tasks. Failure to comply with any of these requirements could result in serious damage to the equipment and the property in which it is situated, as well as severe personal injury or death to themselves and people at the site.

This document is intended for use by owner-authorized operating/service personnel. It is expected that this individual possesses independent training that will enable them to perform their assigned tasks properly and safely. It is essential that, prior to performing any task on this equipment, this individual shall have read and understood this document and any referenced materials. This individual shall also be familiar with and comply with all applicable governmental standards and regulations pertaining to the task in question.

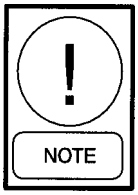
SAFETY SYMBOLS

The following symbols are used in this document to alert the reader to areas of potential hazard:

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

CAUTION identifies a hazard which could lead to damage to the machine, damage to other equipment and/or environmental pollution. Usually an instruction will be given, together with a brief explanation.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



NOTE is used to highlight additional information which may be helpful to you.

CHANGEABILITY OF THIS DOCUMENT

In complying with YORK's policy for continuous product improvement, the information contained in this document is subject to change without notice. While YORK makes no commitment to update or provide current information automatically to the manual owner, that information, if applicable, can be obtained by contacting the nearest YORK Engineered Systems Group office.

It is the responsibility of operating/service personnel as to the applicability of these documents. If there is any question in the mind of operating/service personnel as to the applicability of these documents, then, prior to working on the equipment, they should verify with the owner whether the equipment has been modified and if current documentation is available.

REFERENCE INSTRUCTIONS

DESCRIPTION	FORM NO.
ASCII MicroGateway Specification	450.20-S23
ASCII MicroGateway Installation	450.20-N15

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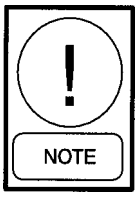
SECTION 1

GENERAL INFORMATION

Overview

The ASCII MicroGateway is a communications device that allows any York chiller that supports one of the three York Talk protocols to be connected together as a network using the ISN protocol. The ISN network can then communicate to a third-party Building Automation System (BAS) using an additional ASCII MicroGateway connected to the BAS ASCII translator.



NOTE: When communicating to an ASCII device, the ASCII MicroGateway replaces the function of an XL Translator to act as a point-of-connection to third-party systems. When communicating to a chiller micro panel, the ASCII MicroGateway replaces the function of a LINC Translator.

There are three variations of the ASCII MicroGateway, differing in required input voltage and type of mounting arrangement.

For chillers using an OptiView micro panel, the ASCII MicroGateway consists of a single circuit board attached to four studs inside the micro panel. The 12 volt DC input power is drawn directly from the OptiView micro panel, eliminating the need for an external power supply.

For other types of chillers and point-of-connection use, the ASCII MicroGateway comes with its own enclosure. In addition to the MicroGateway circuit board, a power board is included inside the enclosure to convert input line voltage (110 or 220 volts AC) to 12 volt DC power.

A series of LEDs provide information about the ASCII MicroGateway's communication and operating status. Each of the two ports have a red transmission LED (TX) and a green receiving LED (RX). Between the two sets of port LEDs is a STATUS LED. The STATUS LED provides information to verify proper setup selection, as well as indicating normal operation and the presence of errors.

Quick Start

The ASCII MicroGateway uses a feature referred to as "Quick Start" to provide a simple configuration method to set parameters for popular chillers. Quick Start is implemented by simply setting the node switch. The node switch loads a profile and the communications settings for a particular chiller type or sets the communications when operating as a point-of-connection.

Quick Start also allows a technician to select Configuration Mode for computer communications, select metric or imperial units and run a basic "loop back" communications test.

The Quick Start profile is stored in the nonvolatile electrically erasable memory of the MicroGateway called E^2. The nonvolatile data will stay in E^2 until overwritten by a different Quick Start selection. If the new Quick Start profile invoked does not overwrite a particular attribute in a given feature, the attribute from the previous Quick Start setting remains.

Changing the node switch to the network address will not remove the Quick Start information from the E^2 memory.

When the node switch is in a Quick Start address, the STATUS LED flashes the appropriate number of times to signify that the selection has been made. The STATUS LED will continue to flash as long as the node address remains set for the Quick Start selection.

Firmware

The firmware is designated as ADC88*nn* (where *nn* defines the version number).

When configured as a point-of-connection device, the ASCII MicroGateway operates as a SERVER that responds to ASCII terminal commands. The terminal commands may be from either a BAS ASCII translator device from the third-party or from a computer connected as a terminal.

When configured to translate chiller data, the software is able to connect to any of York's chiller types using York Talk 1, 2, or 3 protocols.

Port Configuration

The software is port specific. Port 1 is always connected to the ISN network.

ISN R6 (19.2 kbaud) – RS485 connection (TB1)

ISN R7 (50 kbaud) – RS485 connection (TB1)

Port 2 connects to the chillers using the York Talk protocols (LINC translator) or connects to the BAS ASCII translator (point-of-connection device).

York Talk 1 – RS232 connection (TB4)

York Talk 2 – RS485 connection (TB2)

York Talk 3 – RS232 connection (TB4)

ASCII – RS232 connection (TB4)

Connecting in this manner eliminates the possibility of connecting directly from a chiller micro panel to an ASCII device, which is not supported.

Summary of Functionality

When communicating to a micro panel, the communications is dictated by the capabilities of the York Talk version. Refer to the table titled Quick Start for information on recommended communication speeds. Refer to the chiller documentation for additional capabilities if required.

As a point-of-connection device the ASCII MicroGateway can communicate to a single device. This foreground communications session takes precidence over any other communications which may be occurring simultaneously.

The ISN protocol supports addresses from 1 to 98. Each ISN subnetwork allows for a maximum of 92 nodes with a maximum of 91 subnetworks. Addresses 128 and 201 to 255 are reserved for Quick Start configuration purposes.

Theory of Operation

The ASCII MicroGateway is a microprocessor-based communications device that translates between two serial protocols. It uses a memory organization that allows data to be stored according to the functional needs of the system. The base operating program, the operating system and all associated routines that cannot be altered by the user or by the system during normal operation are stored in the EPROM.

EPROM (Electrically Programmable Read Only Memory) – This module stores the software code. All options for communications and all tables are stored in the EPROM. The information is “burned” into the module at the factory and is not editable.

A qualified York engineer may sometimes be provided with a HEX or BIN file that contains upgraded software. The upgraded software may be loaded in the EPROM by first using an UV eraser to remove the current data and then burning the new file into the EPROM.

SRAM (Static Random Access Memory) – The SRAM can be partitioned into two parts; the VRAM and CRAM. VRAM is the systems “scratch pad” and its contents are reset every time the MicroGateway is reset or powered up. CRAM is backed up by a capacitor and maintains its contents for approximately 72 hours in the event of loss of power. CRAM is used to maintain any user or system entered parameters.

While CRAM provides a time limited nonvolatile storage environment, in many cases this is not sufficient. To address this issue, E^2 is provided.

E^2 or EEPROM (Electrically Erasable Programmable Read Only Memory) – This memory device stores certain program parameters, such as Quick Start settings.

Information is electrically written to E^2 and can only be edited if the software calls for a different configuration to be written.

When the system is powered up or after a system reset, the ASCII MicroGateway determines its mode of operation. There are two modes of operation; Configuration Mode and Operation Mode. Both modes are monitored by a Watchdog Circuit that resets the system if any unusual errors are detected.

Configuration Mode

The Configuration Mode is entered if the node switch is set to any number 128 or between 200 and 255. This allows the MicroGateway to be configured using either the Quick Start features via the node switch or using a VT100 terminal interface. The VT100 terminal interface requires the node switch to set to 255.

When invoked, a Quick Start feature configures the MicroGateway for a specific type of chiller. The parameters selected include the communications protocol, baud rate, parity, etc. required by the type of Quick Start selected. In addition, the Quick Start preloads any other parameters needed for a particular configuration, such as scaling and micro-objects (as used by York Talk 3), etc.

Besides the Quick Start features, the MicroGateway may be setup using the terminal interface. A terminal interface is more flexible, allowing for functionality to be added that is not contained within the Quick Start features.

While in the Configuration mode, the MicroGateway continues to collect and process data from any micro panel that it is connected to. This continues unless overwritten by a new setting, either through a Quick Start or terminal command.

When operating as a point-of-connection to a third-party translator, the MicroGateway operates in the Configuration mode. The point-of-connection ASCII interface is the same as the terminal interface.

Operation Mode

The Operation Mode uses two asynchronous tasks to expose chiller data to a ASCII client. One task interfaces directly with the chiller micro panel using the York Talk protocol. It is responsible for retrieving information from the chiller micro panel and sending any newly received commands to the chiller micro panel.

The other task services and processes ASCII queries, accepting any new requests and sending requested data.

In the Operation Mode, the MicroGateway continuously updates a data lookup table with current data from the “York Talk” task. This table has an index which correlates to the ASCII address embedded within the ASCII message. This address is used to uniquely identify the data required in the ASCII Response message.

SECTION 2

COMMUNICATION

General

Communications to the ASCII MicroGateway are provided through two ports. Each port has two connectors, one for RS232 and one for RS485. Port 1 is always connected to the ISN network and Port 2 is connected to either the chiller micro panel or an ASCII device/terminal.

Port 1

Port 1 is always connected to the ISN network, whether operating as a point-of-connection device or LINC translator. It is connected using RS485 (TB1). TB3 is not used.

Port 2

Port 2 is connected to the chiller and communicates using one of the York Talk protocols when operating as a LINC translator. Several variants of York Talk are available. Each chiller model requires a specific type of York Talk (1, 2 or 3) protocol, the selection of a physical driver (RS232 or RS485), and a communication baud rate. For Port 2, TB2 supports RS485 and TB4 supports RS232.

Port 2 may also be connected to ASCII devices, such as a third-party BAS ASCII translator or VT100 terminal. ASCII typically uses RS232 (TB4) at 9600 baud and a parity of None. The data format should be set to 8 bits, 1 stop bit.

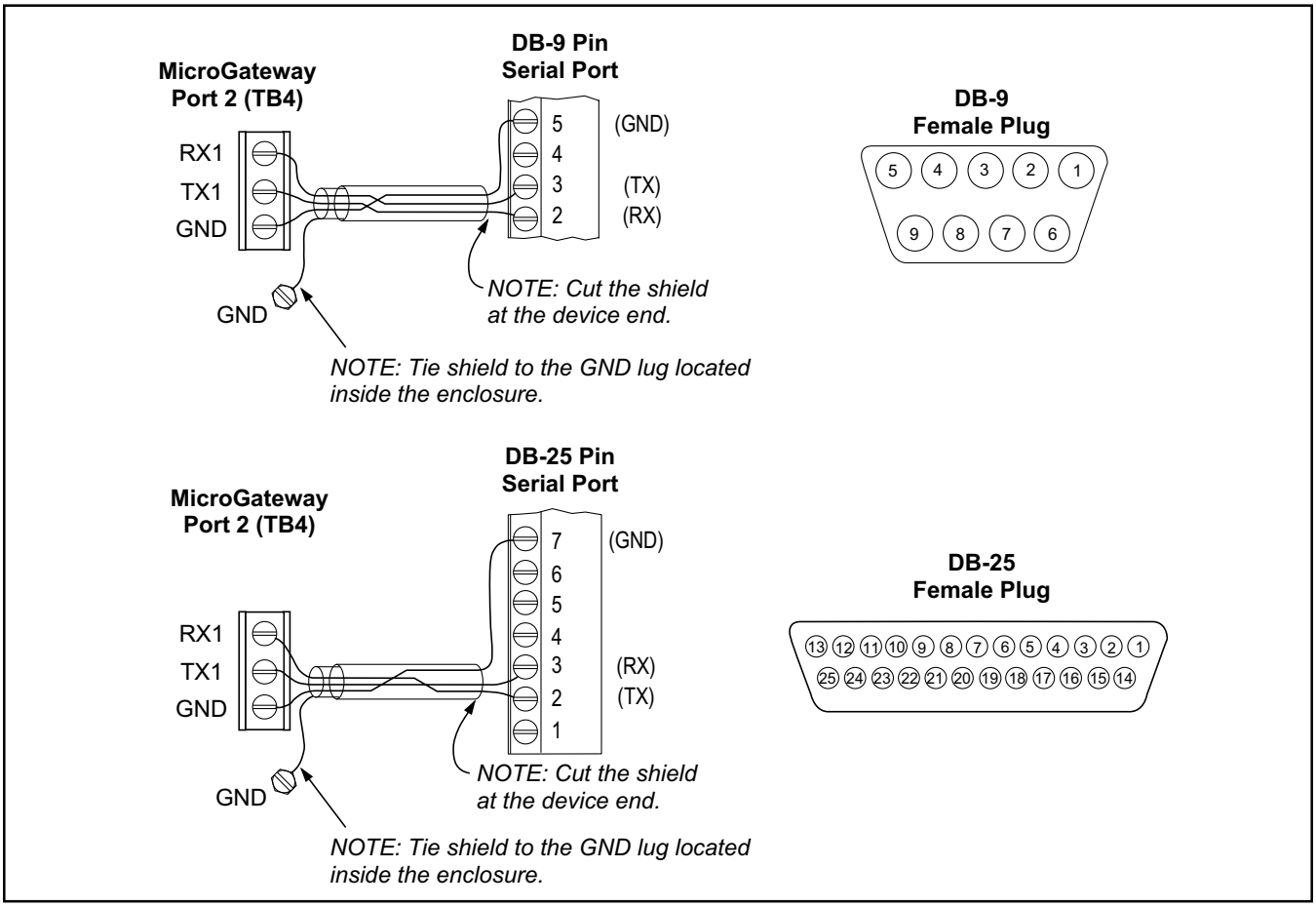


Figure 2 – MicroGateway to Computer Cable

Accessing the Firmware

To access the firmware a computer or VT100 terminal is required. The computer must be capable of emulating a VT100 terminal.

The MicroGateway Configurator (ISNtools), available from YORK, emulates a VT100 terminal and allows access to most YORK control products using Windows 95® or Windows 98®. Other third-party programs are available but may require special setup.

NOTE: For additional information regarding VT100 emulation software, contact the local YORK Building Automation Services Group.

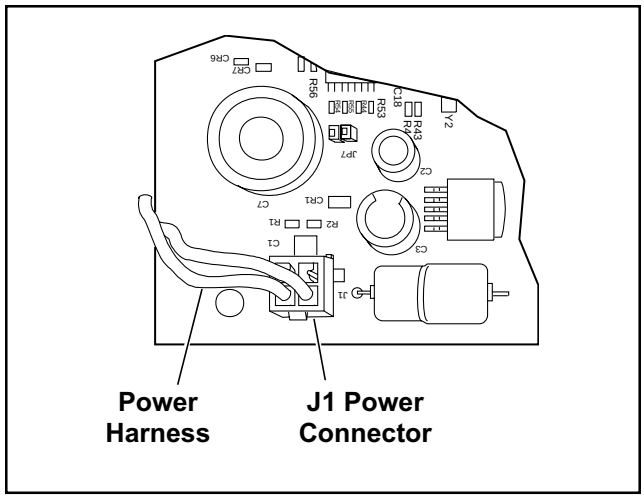


Figure 3 – Power Harness at J1

Connecting the Computer

The computer is connected to Port 2 (TB4) via a 3-wire cable. Typically the computer uses COM 1 or COM 2 to communicate with serial devices similar to the MicroGateway. Most computers use a DB-9 or DB-25 connector to provide the RS232 serial connection.

Wire the cable as shown in Figure 2 using either the DB-9 or DB-25 connector, as appropriate for the computer.

Logon Procedure

Once the computer and ASCII MicroGateway are connected, the terminal emulation software must be set to the following:

Baud rate = 9600

Parity = None

Data format = 8 bits, 1 stop bit

The following procedure provides specific instructions for connecting to the MicroGateway using the MicroGateway Configurator (ISNtools) which should be installed on the computer. For other types of emulation software, refer to the specific documentation for that software.

1. On the MicroGateway remove the power harness from **J1** to disconnect power.

NOTE: If a network address is already chosen, make a note of the node address before making changes.

2. Set the node switch on the MicroGateway to **255**.

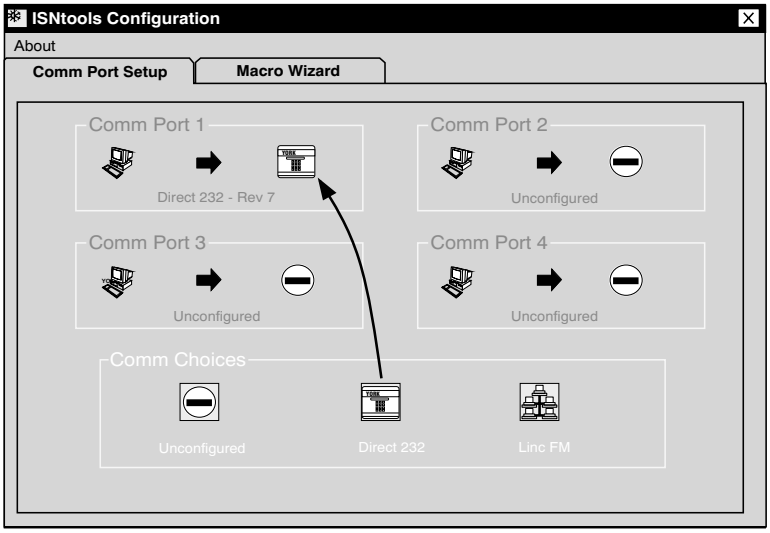
NOTE: Setting the node switch to 255 on the MicroGateway places the MicroGateway in Configuration Mode, setting Port 2 to terminal, 9600 baud with 8 data bits, No parity.

3. Reconnect the power harness to **J1** to connect power. The MicroGateway will power up in Configuration Mode (terminal emulation).

4. After about 10 seconds, remove the power harness from **J1** to disconnect power.

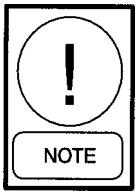
5. Set the node switch to the ISN network address noted prior to step 2. If an address has not been selected, it should be chosen at this time.

6. Reconnect the power harness to **J1** to connect power. The MicroGateway will remain in Configuration Mode during power up.



Drag "Direct 232" icon to correct port

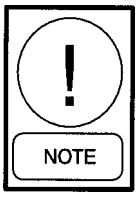
Figure 4 – Configure ISNtools Screen



NOTE: If a Quick Start address is inadvertently selected, any saved configurations may be overwritten.

CAUTION: Always remove power to the MicroGateway before changing the node switch.

7. On the computer, point to **Start, Programs** and select **ISNtools**. A **Sunflake** icon appears on the lower right side of the task bar.



NOTE: Steps 8 through 13 are only required to configure the computer communication port at initial setup. After initial setup, proceed to step 14.

8. Right-click on the **Sunflake** icon next to the clock on the taskbar. Click **Configure PC Port** on the pop-up menu.

9. Drag the **Direct 232** icon over the appropriate computer port.

10. The Port Parameters box appears at the bottom of the screen to verify the communication settings. From the **Protocol** drop-down menu, select **7**.

11. For an advanced user, additional communication settings may be chosen at this time.

12. After all protocol options have been selected, click the **Accept Port Parameters** button. The PC port is now configured.

13. Click the X (close button) in the upper right corner of the window to close the configuration module of the program.

14. Right-click on the **Sunflake** icon. Click **Run Configurator** on the pop-up menu.

15. Follow the information that appears in the pop-up window. Repeat steps 4 through 6 if necessary. Click **OK** to close the pop-up window.

16. When the Network Selection Screen appears, click **Rev. 7 Direct**. It is not necessary to enter a value in the NET field.

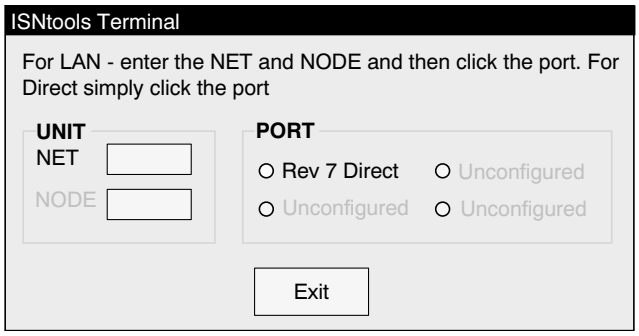


Figure 5 – Network Selection Screen

NOTE: Commands may be typed into the Command field. Refer to the figure titled ISNtools Screen. Always use lower case when entering commands into the MicroGateway. Use upper case when typing labels for text fields.

17. Click **Logon** or, in the Command field, type

    logon <Return>

    The following appears on the screen:

    PLEASE ENTER PASSWORD

18. Click **Password** or, in the Command field, type

    5555

    The device name and date appears on the screen, similar to the following:

    LINC 0000 SAT 01-JAN-2000 00:01

After successfully logging on to the MicroGateway, a user may navigate through the firmware using the standard YORK ISN Feature-Section-Page methodology. The configurations and data may be viewed and any editable field may be changed.

Refer to Section 3 – Software for information on the Features available within the ASCII MicroGateway firmware and how to use the Feature-Section-Page navigation method.

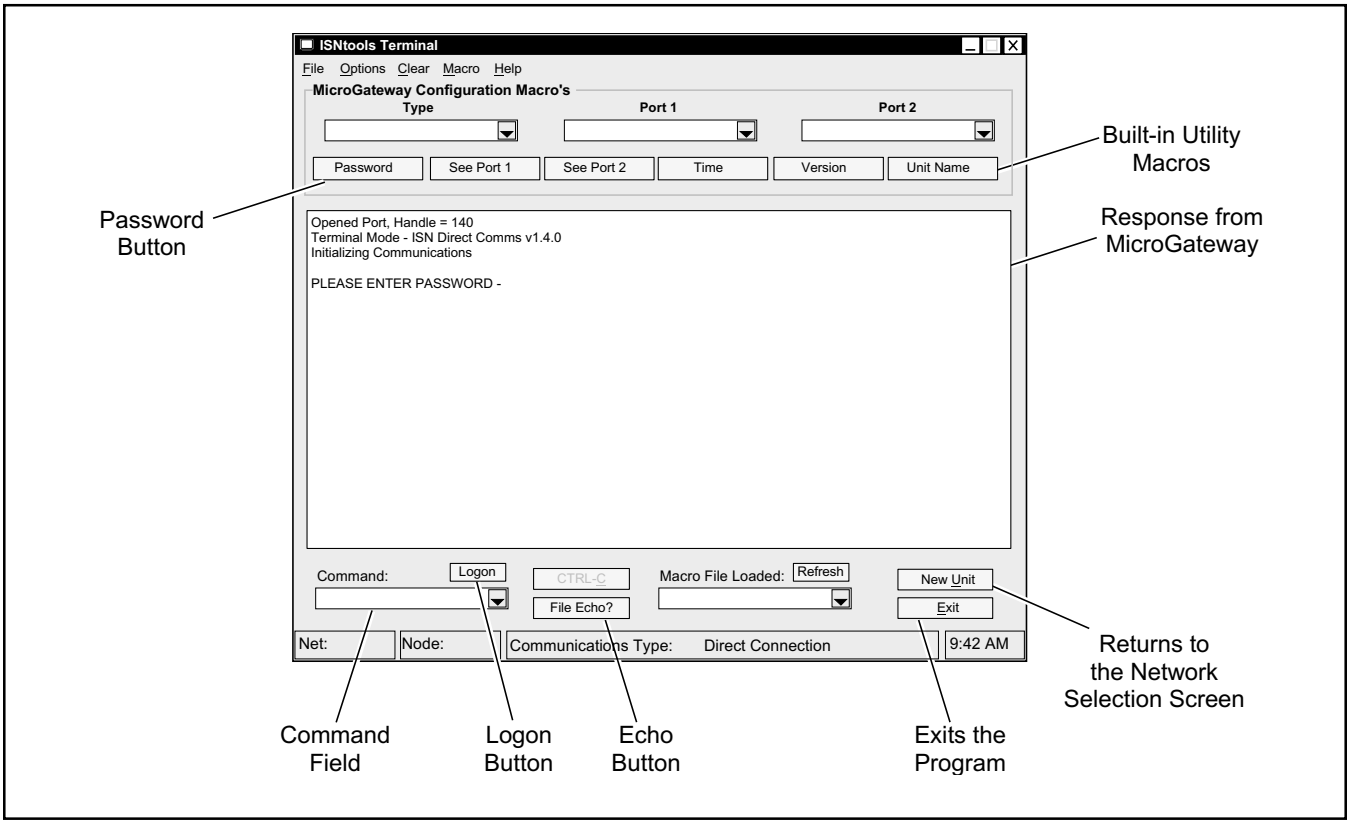


Figure 6 – ISNtools Screen

Changing to Operation Mode

To return the MicroGateway to an operational mode:

1. Set the node switch to the required York Talk network address if not already selected.
2. Access Feature 70 Page 04. Type

   f70p04

   The following appears on the screen:

   P04 PORT 2 PROTOCOL: TERMINAL

3. Enter the edit mode of the page by typing

   e <Return>

   The following appears on the screen:

   P04 PORT 2 PROTOCOL: mmmmmmm

   where mm..m signifies a menu list.

4. Select the desired York Talk protocol from the available choices. To cycle through the choices type

   m <Enter>

   Each choice appears on the screen, similar to the following:

   P04 PORT 2 PROTOCOL: YORK TALK 2 V4 4800

   When the desired choice appears type

   e <Enter>

   to select a particular option. As this command changes the communications for Port 2, the terminal session ends and communications to the computer is stopped.

Refer to Section 3 – Software for details on the different types of protocols.

If necessary to re-enter the software, the logon process is required.

Operating mode may also be entered using the appropriate Quick Start feature. When this is invoked the terminal session is also terminated.

SECTION 3

SOFTWARE

Default Settings

When shipped from the factory, the ASCII Micro-Gateway is configured as shown in Table 2.

Table 2 – Default Settings

	PROTOCOL	COMMUNICATION
PORT 1	ISN R7	50 kbaud and odd parity
PORT 2	Terminal VT100 Interface	9600 baud and no parity

These standard settings are changed in one of two ways:

- Enter a Quick Start address via the Node switch.
- Modify the program using a VT100 terminal emulation program.

Quick Start

The Quick Start feature provides a user with an easy way to configure the ASCII MicroGateway for compatibility with many standard YORK chillers or as a point-of-connection to a third-party BAS. The feature does not require a VT100 interface and is completely self-contained within the MicroGateway's hardware. No additional tools are required.

A Quick Start feature is selected using the node switch. The user selects one of the reserved addresses of 128 and from 200 to 255 (although profiles may not be currently allocated for all reserved addresses) and the selected "profile" is loaded.

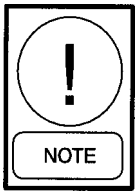
A profile is a list of configuration parameters that make a particular application unique. The standard profile is stored in EPROM but written to E^2 once selected by the user.

As an example F81 (York Talk 3) may be configured to communicate with a YK or YT OptiView chiller micro panel. The difference is essentially the type of micro-objects assigned to a given page within the feature. In the case of a YK chiller, micro-objects A, B and C may be stored in E^2. For a YT chiller micro objects D, E and F may be stored in the same location. The selected profile stays in E^2 until overwritten by a new Quick Start selection or the user manually changing the page contents via a computer.

The Quick Start feature is selected by setting the node switch to a specific address and following the Power Up/Power Down sequence.

Quick Start Settings Table

The table titled Quick Start Settings, along with the tables in the appendix, summarizes the parameters invoked with each Quick Start feature. Along with the protocol and communication settings, the number of STATUS LED flashes is shown.



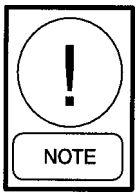
NOTE: The number of STATUS LED flashes is based on a cycle. A cycle consists of the number of flashes, followed by a 3.5 second period of no flashes.

For Quick Start 255, no changes are made to the Port 1 protocol. The parameters previously selected remain in place.

Power Up/Power Down Sequence

To select a Quick Start feature the following process must be followed:

1. Remove the power harness from **J1** to disconnect power.
2. Note the ISN network address of the Micro-Gateway.



NOTE: Note the OPEN (off) label on the switch versus the ON (closed) label on the board to ensure the correct address is set. Refer to the figure titled Setting the Node Switch.

3. Change the node switch to the desired Quick Start address.
4. Connect the power harness to **J1** to reconnect power.
5. Observe the STATUS LED to verify that it flashes the correct number of times per cycle for the selected address (refer to the appropriate

Table 3 – Quick Start Settings

Quick Start (NODE Address)	Port 1				Port 2			No. of STATUS LED Flashes	Appendix Table***
	Protocol	Transfer Rate*	Parity*	Protocol	Type	Transfer Rate*	Parity**		
Setting	f70p03	f70p06	f70p08	f70p04		f70p07	f70p08		
255	Unchanged	Unchanged	Unchanged	Terminal		9600 baud	None	4	
254†	ISN R7	50 kbaud	Odd	York Talk 3	YK SSS	19.2 kbaud	Even	5	A-1
253†	ISN R7	50 kbaud	Odd	York Talk 3	YK VSD	19.2 kbaud	Even	6	A-2
252†	ISN R7	50 kbaud	Odd	York Talk 3	YT SSS	19.2 kbaud	Even	7	A-3
251†	ISN R7	50 kbaud	Odd	York Talk 3	YT VSD	19.2 kbaud	Even	8	A-4
250†	ISN R7	50 kbaud	Odd	York Talk 3	YS SSS	19.2 kbaud	Even	9	A-5
249††	ISN R7	50 kbaud	Odd	York Talk 2 Version 6	York Talk 2 w/ Section 1	1200 baud	Even	10	A-6
248††	ISN R7	50 kbaud	Odd	York Talk 1	York Talk 1	1200 baud	Even	11	A-9
247††	ISN R7	50 kbaud	Odd	York Talk 2 Version 6	York Talk 2 w/ Section 1	4800 baud	Even	12	A-7
246††	ISN R7	50 kbaud	Odd	York Talk 2 Version 6	York Talk 2 w/ Sections 1 & 2	4800 baud	Even	13	A-8
241†††	ISN R7	50 kbaud	Odd	ASCII		9600 baud	None	18	
245	Selects Metric Units on the OptiView micro panel.							14	
244	Selects Imperial Units on the OptiView micro panel.							15	
243	Runs a Loop Back Communications Test.							1	
242	Sets Port 1 to operate at a transfer rate of 19.2 kbaud for Rev 6 software.							17	
128	Updates the E^2.							3	

* *Default selected according to protocol and type. May be edited by user.*

** *Default selected according to protocol and type. Cannot be overridden by user.*

*** *References the applicable Table in the Appendix.*

† *Configures York Talk 3 f81p01 field 1 to **ENABLE,** field 2 to **800 msec** and field 3 to **Imperial.** Sets f81p02 to **3**.*

†† *Configures York Talk 2 f80p01 field 1 to **1** and field 2 to **30** and f80p02 field 1 to **3**.*

††† *Configures the unit as a point-of-connection device with f71p01 set to YORK TALK XL and f71p15 field 1 set to **1**.*

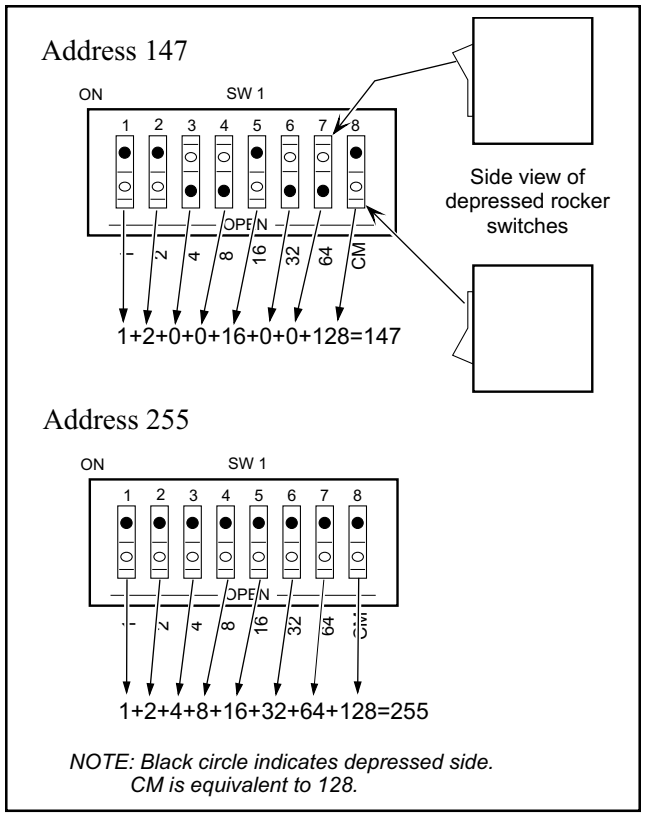


Figure 7 – Setting the Node Switch

Quick Start description for the correct number of flashes).

6. Remove the power harness from **J1** to disconnect power.
7. Reset the node switch to the ISN network address noted in step 2.
8. Connect the power harness to **J1** to reconnect power.

Quick Start 245

When Quick Start 245 is invoked the OptiView data is returned as Metric units. This is only applicable when using York Talk 3 (f81p01). The attribute is sent to the OptiView micro panel when power is first applied or if the MicroGateway is reset. If the micro panel does not acknowledgement receipt of the request, the ASCII MicroGateway continues to make the request until a satisfactory result is achieved. During this period the communications with the micro panel are suspended.

The STATUS LED flashes 14 times per cycle, indicating that the user has correctly invoked the Metric units selection.

Quick Start 244

When Quick Start 244 is invoked the OptiView data is returned as Imperial units. This is only applicable when using York Talk 3 (f81p01). The attribute is sent to the OptiView micro panel when power is first applied or if the MicroGateway is reset. If the micro panel does not acknowledgement receipt of the request, the ASCII MicroGateway continues to make the request until the correct result is achieved. During this period the communications with the micro panel are suspended.

The STATUS LED flashes 15 times per cycle, indicating that the user has correctly invoked the Imperial units selection.

Quick Start 243

Selecting this Quick Start feature begins a “loop-back” communication test between Port 1 and Port 2 of the ASCII MicroGateway. The objective of this test is to verify the functionality of the hardware. Specifically the processor’s two USARTs and associated transceivers.

When this function is invoked, the software sends a test message from Port 1 to Port 2 and expects to receive a predefined acknowledgement. If the expected reply is received, the STATUS LED flashes once per second. If the expected reply is not received the STATUS LED is set to “off.” The test remains active as long as the node switch is set to 243.

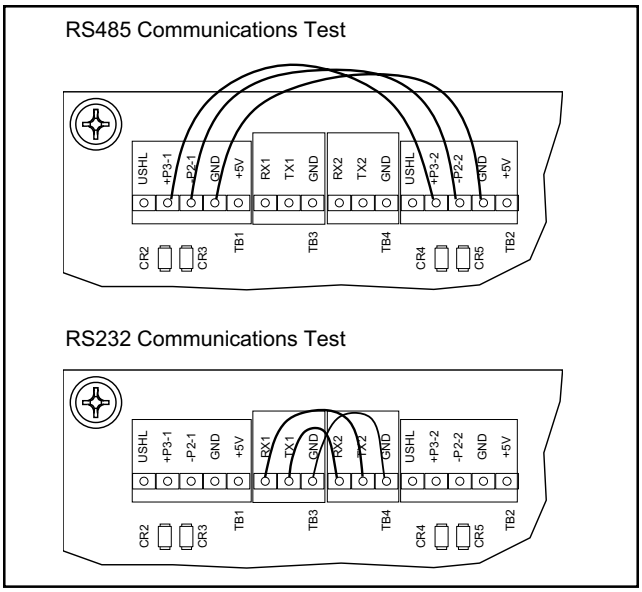


Figure 8 – Communications Test Connections

To verify operation of both types of transceivers (RS232 and RS485) two different connections must be made.

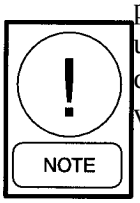
To start the communications test:

1. Remove the power harness from **J1** to disconnect power.
2. Set the node switch to address 243.
3. To verify proper operation of the RS485 hardware, connect Port 1 (TB1) and Port 2 (TB2) using a 3-core cable as shown in the figure titled Communications Test Connections.
3. Connect the power harness to **J1** to reconnect power. The TX and RX LEDs should flash as communications are attempted.
    a. If the STATUS LED does not flash once per second after approximately 15 seconds, the communication hardware is faulty. (The problem could be a bad transceiver or a bad USART).
    b. If the STATUS LED flashes once per second, the communication hardware is functioning correctly.
4. Remove the power harness from **J1** to disconnect power.
5. To verify proper operation of the RS232 hardware, repeat steps 2 through 4 for Port 1 (TB3) and Port 2 (TB4) as shown in the figure titled Communications Test Connections.

Quick Start 242

Selecting Quick Start 242 sets the communications rate for Port 1 to communicate with a Rev. 6 network. This communication rate operates at 19.2 kbaud. The Power Down/Power Up process must be followed to allow the unit to reset.

When connecting to a Rev. 6 network, the chiller profile should be selected first. This loads the parameters for Port 2 to communicate to the chiller micro panel. After the chiller profile is configured, Quick Start 242 may be invoked to change the Port 1 parameters to the Rev. 6 values.



NOTE: Do not invoke Quick Start 128 before selecting Quick Start 242 or the chiller profile will be overwritten.

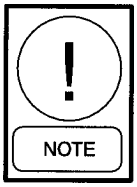
Quick Start 128

Selecting Quick Start 128 allows the user to re-configure the MicroGateway for either the original factory defaults or to ensure that the applications of a newly installed EPROM are copied to E^2.

The STATUS LED flashes 3 times per cycle until all the configuration data is copied to E^2. When complete, the STATUS LED flashes normally at once per second.

To invoke Quick Start 128:

1. Remove the power harness from **J1** to disconnect power.
2. Corrupt the SRAM by removing the capacitor enable jumper from location **JP7** for a minimum of 10 seconds.
3. Install the jumper at **JP7**.
4. Set the node switch to address 128.
5. Connect the power harness to **J1** to reconnect power.
6. Observe the STATUS LED. While data is transferring, the STATUS LED flashes at a rate of 3 times per cycle. When the data transfer is complete, it flashes at a rate of one flash per cycle.



NOTE: Only data that has been changed is transferred. If few changes have been made, the transfer may take less than a second and the 3 flashes per cycle will not be observed.

7. Remove the power harness from **J1** to disconnect power.
8. Setup the required configuration by selecting a Quick Start feature. If terminal emulation is required for configuring the MicroGateway, set the node switch to 255 and follow the Logon Procedure in Section 2.
9. Connect the power harness to **J1** to reconnect power.
10. Follow the standard configuration practices outlined in the installation manual for selecting a Quick Start feature or logon using a VT100 terminal.

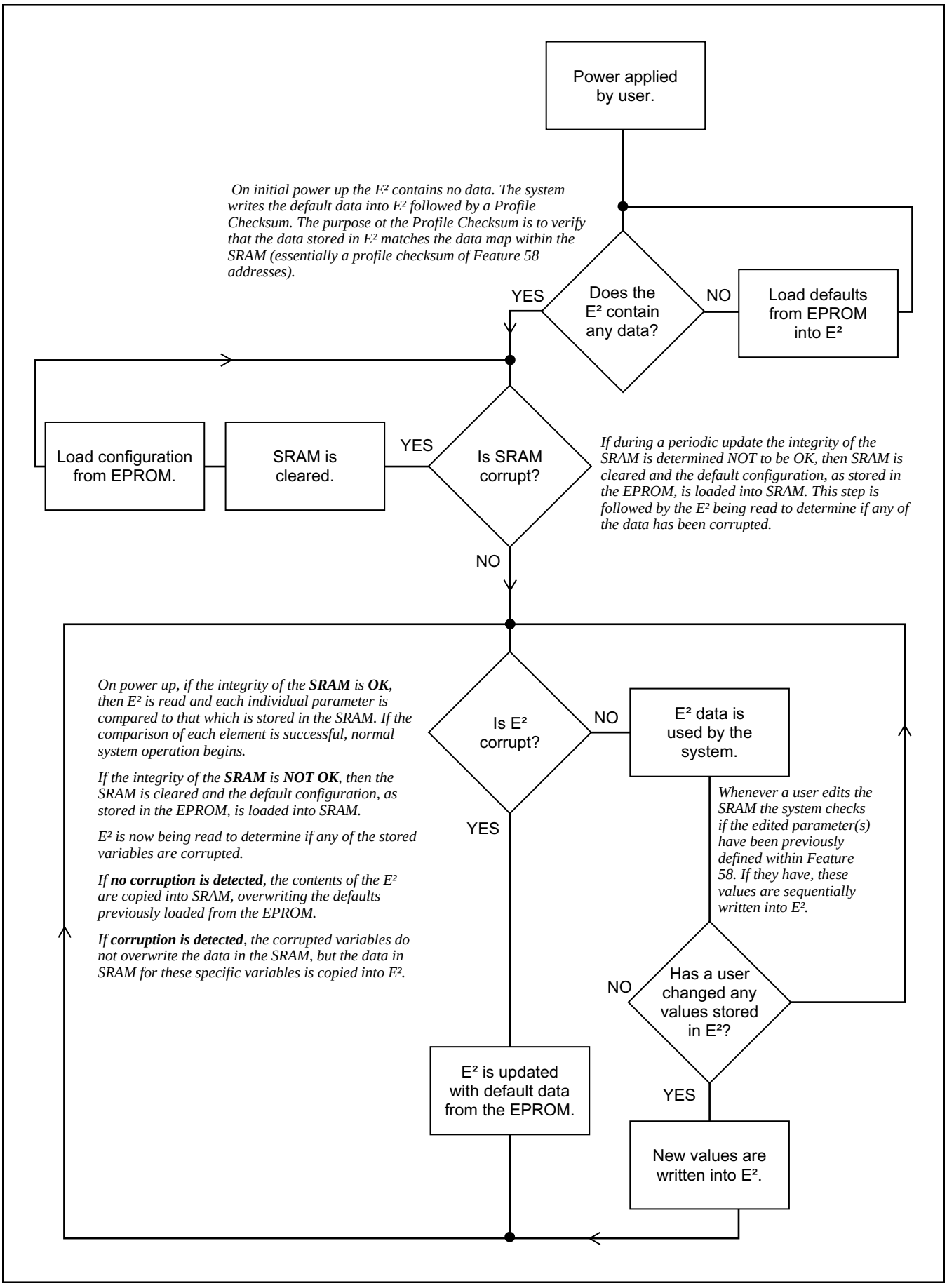


Figure 9 – E² Operational Theory

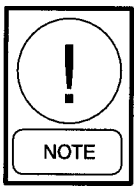
E² Default Settings

When power is first applied the operating system downloads all the features from the EPROM into SRAM. Features are modules of functionality that may be modified by a user as required for a specific application. However, if power is removed from the MicroGateway for more than 72 hours, SRAM loses any stored data and all modifications must be re-loaded.

To prevent losing setup information in power loss situations, certain data is written to E². If a feature stored in E² is modified from the defaults loaded into the EPROM, a copy of the edited information from E² replaces the default data after power up. The data stored in E² enables a previously modified feature to be recalled after a prolonged (greater than 72 hour) power outage.

When power is applied to the MicroGateway after data loss, the system reloads the features from the EPROM into SRAM.

The following lists the fields and the default values (shown in bold) stored in E². These values are only stored in E² after the appropriate Quick Start is invoked. If a Quick Start is not used, this data must be manually entered and is then stored in E² as the new default.



NOTE: If a Quick Start is later invoked, E² is overwritten with the Quick Start defaults.

Feature 70 Port Setup

P03 PORT 1 PROTOCOL:**ISN R7**
P04 PORT 2 PROTOCOL:**TERMINAL**
P06 PORT 1 BAUD RATE: **50K**
P07 PORT 2 BAUD RATE: **9600**
P09 YT3 POLL DELAY TIMER **1000** MSEC
P10 LIST DELAY TIME **50 MS**

Feature 71 Statistics Setup

P01 UNIT NAME **LINC**
P15 PASSWORD5 **5555**

Feature 79 York Talk 1

P01 CHILLER ID **1** POLL TIME **30**
P02 RETRIES **3**

Feature 80 York Talk 2 Section 1

P01 CHILLER ID **1** POLL TIME **30**
P02 RETRIES **3**

Feature 80 York Talk 2 Section 2

P01 CHILLER ID **0** POLL TIME **30**
P02 RETRIES **3**

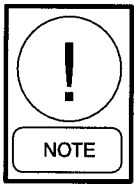
Feature 81 York Talk 3 Section 1

P01 MODE **ENABLED** TIME OUT **800** MSEC **IM**
P02 RETRIES=**3**
P85 SET YM TIME AND DATE **0** s
P86 GET YM TIME AND DATE **0** s

Feature 81 York Talk 3 Section 2

P01 MODE **DISABLED** TIME OUT **800** MSEC **IM**
P02 RETRIES=**3**
P85 SET YM TIME AND DATE **0** s
P86 GET YM TIME AND DATE **0** s

For additional data stored in E² refer to the appendix.



NOTE: Sections 3 and 4 in Feature 81 do not store any information in E² as defaults.

Customizing the EPROM

If an application is customized and needs to be made permanent, an application-specific EPROM may be created. This ensures that, if a power loss occurs for more than 72 hours, all the entered application is reloaded into the SRAM.

To create an EPROM several items are required.

1. The application must be complete.
2. An EPROM programmer must be available. This “burns” the program into the EPROM.
3. A conversion utility must be used to convert configuration file into a hex file. YORK HEX is an MS-DOS program available from the YORK Controls Group.

CAUTION: YORK HEX requires a knowledge of MS-DOS and its file naming and directory structure. If not familiar with MS-DOS, do not attempt to create EPROMs.

To “burn” an EPROM:

1. Connect the MicroGateway to a PC (refer to Section 2 for details).
2. Logon to the MicroGateway in Configuration Mode (refer to Section 2 for details). Utilizing the MicroGateway Configurator (ISNTools) establish communications with the ASCII MicroGateway.
3. Complete the procedure for editing data to create an application (see Section 2 for details). The edited application is now stored in the MicroGateway’s SRAM.
4. Exit the MicroGateway Configurator window. Do not exit the program.
5. Right click on the MicroGateway Configurator icon and select **Run Save/Restore**.
6. In the dialog box enter the network number (set to **0**) and node address number for the Micro-Gateway and select **Save**.
7. In the file name combo box type the name for the new file. Be sure to locate the file in a directory which can be accessed by YORK HEX. The file name is limited to 8 characters, followed by the file name extension **.cnf** with no spaces.

   Example (mdcapp.cnf)
8. When the save configuration box appears, verify that the data is correct. Select **OK** to save the file.
9. When the save is complete close the Micro-Gateway Configurator.
10. Select **Start** and **Run** to bring up the Run dialog window. In the box type

    yorkhex c:\xxx\mdcapp.cnf mdcapp.hex <Return>

    where xxx is the directory where the cnf file was stored. This opens the YORK HEX program, loads the configuration file and names the new hex file.

    The following appears on the screen (with the x used to indicate parameters specific to each file:

YORK CONTROLS BRAM FILE TO INTEL HEX FORMAT CONVERSION UTILITY - YORKHEX V3.00

Configuration to convert:

Unit identification: ASCII 0000

Software Product No. :ISN B B01 R88 T01 02-Mar-2001

Number of bytes to transfer = xxxx

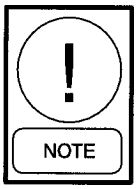
Base segment address = F100

Xxxxxx Bytes converted

Conversion complete : No Errors

CONVERSION FINISHED

11. Close the MS-DOS window.
12. Clear the buffers on the EPROM programmer before loading the file.
13. Select the device type (272001) and programming speed (80 ns) of the EPROM to be programmed.
14. Set the offset to **C0000**.



NOTE: This assumes a Stag or similar type of EPROM Programmer. Refer to the programmer documentation for proper settings for other types of programmers.

15. Load the base firmware into the programmer’s buffer.
16. Overlay the application firmware in the programmer buffer. Record the **Check Sum** for the base and application firmware.
17. Place the EPROM in the socket of the programmer and select program.
18. When the program is finished remove the EPROM. Place a label on the EPROM which must include the firmware version, check sum and date.

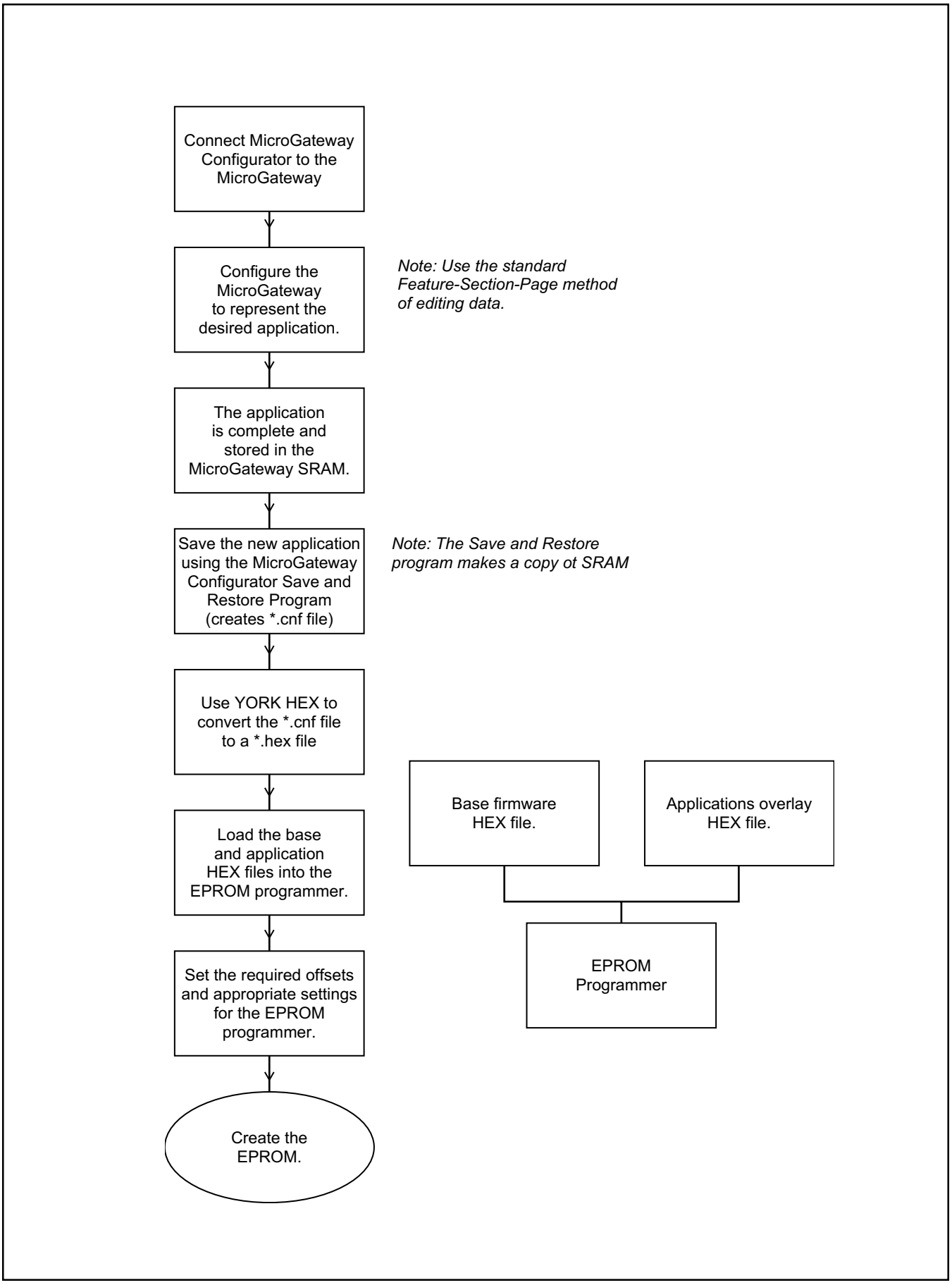


Figure 10 – EPROM Creation

Feature Set

To customize the ASCII MicroGateway beyond the applications provided by the Quick Start features, YORK's "Feature-Section-Page" methodology is used. The features and number of sections available in the ASCII MicroGateway is summarized in Table 4.

The ASCII MicroGateway's software is organized into discreet functional modules called features. Each feature is a self-contained set of routines that are designed to perform a specific task or set of tasks. For example, F81 (York Talk 3) is used to exchange data between the ASCII MicroGateway and the OptiView micro panel. F70 (Port Setup) is used to assign different protocols to the MicroGateway's ports.

Some features use sections to increase the number of items. Each section is another set of the same functions. For example, F80 (York Talk 2) has two sections. Section 1 is used to connect chillers that only have enough data to populate one section. Section 2 is an identical functional copy of Section 1 used by applications that require greater data capacity.

Table 4 – Feature List

Feature Number	Description	Number of Sections
01-47	Unavailable	–
48	Report Configuration	3
49	User Type	12
50-57	Unavailable	–
58	E² Setup	20
59	E² Data	20
60-69	Unavailable	–
70	Port Setup	1
71	Statistics Setup	1
79	York Talk 1	1
80	York Talk 2	2
81	York Talk 3	4
82	ASCII Range	1

Every feature is further subdivided into pages. A page represents a finite attribute or set of attributes for a specific aspect of the features function. For example, page 4 of F70 (Port Setup) displays the type of York Talk protocol configured on Port 2.

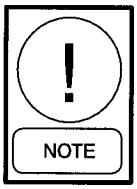
To build a unique application a user edits the required features, sections and pages. The edited features collectively represent the application for a specific need. (This is sometimes referred to as the Application Overlay.)

To build and modify the application use a VT100 terminal emulation program, such as the MicroGateway Configurator (ISNtools). The language syntax used is expressed as

f*nn* – Represents a feature, such as f70, where *nn* represents a number.

s*nn* – Represents a section, such as s01, where *nn* represents a number.

p*nn* – Represents a page, such as p04, where *nn* represents a number.



NOTE: Always use lower case when typing commands into the MicroGateway Configurator (ISNtools). Use upper case when typing labels into text fields.

To edit a field within a page, "open" the page for editing by typing

e <Return>

To proceed to each subsequent field type

e <Return>

If a field requires a number variable to be entered, it is indicated by *vvv*. A text field is indicated by *tt...t* and a menu selections is indicated by *mm...m.*

To toggle through the menu items type

m <Return>

Once the desired item is shown on the screen, confirm the choice by typing

e <Return>

to select it.

A help screen can be accessed by typing **help** <Return> at the prompt after logging on to the MicroGateway.

Example

The following example shows how to view and edit the communications settings on Port 1.

1. Connect to the MicroGateway and logon. Refer to the instructions in Section 2 for details.
2. Type

   f70p03 <Return>

   Screen response
   P03 PORT 1 PROTOCOL: YORK TALK 3

   The unit enters Feature 70, Page 3 and responds with the current setting.
3. To change the setting, type

   e <Return>

   Screen response
   mmmmmmmm

   The field is "opened" for editing. When *mm...m* is displayed it indicates the field has a menu list of choices.

   For other fields *vv...v* may be displayed, which indicate a value must be entered. When *tt...t* is displayed, text may be typed into the field.
4. To cycle through the menu type

   m <Return>

   Screen response:
   P03 PORT 1 PROTOCOL: YORK TALK 2 V4 1200

   which is the next choice on the menu. Continue cycling through the list until the desired choice appears on the screen. When the desired choice appears close the edit by typing

   e <Return>

   Screen response:
   P03 PORT 1 PROTOCOL: YORK TALK 2 V4 4800

For pages with multiple fields, each subsequent *e* <Return> selects the next field.

The following describes the features, attributes and functionality in detail.

F48 – Report Configuration

F48 REPORT CONFIGURATION

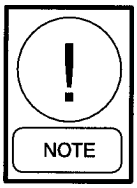
The Report Configuration is used to load the data into a format which can be exported. This data is then accessed as ASCII code and downloaded to the third-party BAS. Feature 48 configures the report in a standard arrangement.

F58 – E² (EEPROM) Setup

```
P01  Fvv  Svv  Pvv  Dvv  OKAY
```

Feature 58 allows a user to specify the address of any user-editable data located in the SRAM which is required to be stored in E². This data is then maintained during a power failure in the event of the SRAM being corrupted.

If a system de-configures, the data stored in the E² is reloaded into SRAM, ensuring the application's program is not affected. A system reset does not have any effect on the operation of the E².



NOTE: On-line changes made to F58 are stored in SRAM only. For permanent changes, a new EPROM must be burned.

The E² Setup Feature is an engineering Feature consisting of 20 Sections each with 60 Pages per section.

Fvv (Feature Number) – This is the address of the Feature where the variable is located.

Svv (Section Number) – This is the address of the Section number where the variable is located.

Pvv (Page Number) – This is the address of the Page number where the variable is located.

Dvv (Data Field) – This is the field number on the Page whose data is to be saved. This must be greater than 0.

Status Information – The Status Information is generated by the system and indicates the condition of the data in E².

OKAY indicates the Field Data defined will fit into E².

OVERFLOW indicates the Field Data defined will not fit into the E².

CALCULATING will appear while the system is calculating the number of bytes required. When finished, either OKAY or OVERFLOW will appear.

F59 – E² (EEPROM) Data

```
P01  Fvv  Svv  Pvv  Dvv
```

Feature 59 is used to display the Feature, Section, Page and Field references which point to the data stored in E². The structure is identical to F58, with 20 Sections and 60 Pages per section.

F70 Port Setup

```
F70  PORT SETUP
```

Feature 70 (F70) allows the user to configure the ports for the various protocols and communication metrics. The user may also configure the keyboard timeout and view port status.

```
P01  KEYBOARD TIMEOUT v MINUTES
```

v – Defines the number of minutes before the keyboard times out. This is only applicable when a VT100 terminal is attached. When the computer is inactive for the given time, the Micro-Gateway returns to operating mode.

To return to the edit mode from the advisory mode, the password must be entered.

The default keyboard timeout is set to **5** minutes.

```
P02 STATUS: PORT 1 BUSY PORT 2 BUSY
```

Page 2 displays the status of the two communication ports. The status can be either **BUSY** or **FREE**. If a port is transmitting or receiving data, the status is **BUSY**. All other times, **FREE** is displayed.

Page 2 is system-generated and not editable by a user.

P03 PORT 1 PROTOCOL:mm

Page 3 allows the user to select the communications protocol used on Port 1. The available menu choices are shown in Table 5.

When a new protocol is selected:

1. The default baud rate and parity for the new selection is automatically set on P06 and P08.
2. The watchdog update function is suspended, allowing the hardware timer to timeout (requires approximately 1.6 seconds) and causes the system to be reset. A reset requires the user to log back on if connected via a terminal.

Table 5 – Port 1 Protocols

PORT 1 PROTOCOLS
ISN R6
ISN R7

P04 PORT 2 PROTOCOL:mm

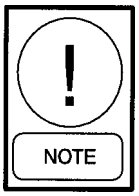
Page 4 allows the user to select the protocol for Port 2. The available menu choices are shown in Table 6.

When a new protocol is selected:

1. The default baud rate and parity for the new selection is automatically set on P07 and P08.
2. The watchdog update function is suspended, allowing the hardware timer to timeout (requires approximately 1.6 seconds) and causes the system to be reset. A reset requires the user to log back on if connected via a terminal.

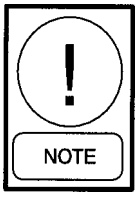
Table 6 – Port 2 Protocols

PORT 2 PROTOCOLS
ASCII/Terminal
York Talk 2 V4 1200
York Talk 2 V4 4800
York Talk 2 V6 1200
York Talk 2 V6 4800
York Talk 1
York Talk 3



NOTE: Always change the node switch to select an address from 1 to 98 before changing Page 4 from ASCII/Terminal mode or the MicroGateway will return to ASCII/Terminal mode upon power up.

Once the ASCII/Terminal protocol for Port 2 is no longer selected, user communications between the terminal and MicroGateway are stopped, provided the node switch is not set for 255. The MicroGateway is no longer in edit mode. To make further changes, the logon sequence must be repeated. Refer to the "Section 2 – Communications."



NOTE: If the MicroGateway is functioning as a point-of-connection device, the protocol for Port 2 remains set to ASCII/Terminal. When functioning as a chiller interface, change the node switch to select an address from 1 to 98 before changing Page 4 from terminal mode.

P05 NODE NO: nn ACTUAL NODE NO: nnn

Page 5 displays node information.

nn – Indicates the setting of the node switch but is truncated when a number greater than 99 is selected. This is system-generated.

nnn – Displays the actual address of the node switch. This is system-generated.

P06 PORT 1 BAUD RATE: mm

P07 PORT 2 BAUD RATE: mm

Pages 6 and 7 set the data transfer rate for Port 1 and Port 2, respectively. A default baud rate is automatically set when the protocol selection is made.

mm – Indicates the selected baud rate. This is system-generated.

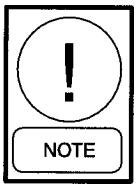
Not all protocol options support all baud rates. If an unsupported baud rate is chosen, the previous selection is retained. When the node switch is set to 255, the transfer rate for Port 2 is always 9600 baud.

P08 PARITY PORT 1: mm PORT 2: mm

Page 8 displays the parity for Port 1 and Port 2.

mm – Indicates the chosen parity. This is system-generated.

The parity for Port 1 is set automatically according to the ISN protocol selected in P03. The parity for Port 2 can be chosen but is only active when in Configuration Mode (using the terminal). Once a Port 2 protocol is selected, the parity is determined by the settings in P04.



NOTE: When the node switch is set for 255, the parity is always NONE. To change the parity, the node switch must be set to the ISN network address.

P09 YT3 POLL DELAY TIMER vvvvMSEC

Page 9 is only valid when using York Talk 3 protocol.

vvvv – Defines the amount of the idle time for York Talk 3 communication requests.

This parameter sets the idle time for the York Talk 3 task. During this time no communication requests are sent. This time delay lessens the communications load received by the OptiView micro panel.

Enter a variable in the field to set the polling rate in milliseconds.

P10 LIST DELAY TIME mm MS

Page 10 sets the delay time for a List command.

mm – Indicates the menu item entered for the delay time.

This minimizes the possibility of buffer overruns by delaying the responses. The available menu choices are shown in Table 7.

Table 7 – List Delay Times

LIST DELAY TIME
0 ms
50 ms
100 ms
150 ms
200 ms
250 ms
300 ms
350 ms
400 ms
450 ms

3

F71 – Statistics Setup

F71 STATISTICS SETUP

Feature 71 (F71) provides information on the operation and integrity of the MicroGateway. The passwords and unit name may be edited but no other fields are user-editable.

P01 UNIT NAME tttt

Page 1 defines the unit name.

tttt – Enters the text which defines the unit name. The field accepts up to 13 characters.

This is a standard name used to identify the function of the MicroGateway. When a chiller profile is invoked using Quick Start (Quick Start 246 to 254), the unit name LINC is loaded. If Quick Start 241 is invoked the unit name XL TRANSLATOR is loaded.

Since some third-party software is programmed to search for a specific unit name, this text field may require editing to match that software.

P02 SOFTWARE PRODUCT :ISN ADC 88nn

Page 2 displays the code and firmware descriptor.

nn – Indicates the revision level of the firmware. This is system-generated.

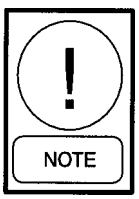
For the ASCII MicroGateway, the product number is ISN ADC 88nn.

P03 RELEASE TYPE :mm

Page 3 indicates the type of release for the software.

mm – Indicates the release type of software as either FULL or BETA. This is system-generated.

The release type indicates whether the software is a beta version or full release.



NOTE: This should always indicate FULL. If not, contact the YORK Controls Group Service Dept. for updated firmware.

P04 TEMPLATE NAME :

Page 4 displays the template name. Templates are used by the York Engineering Software (YES) to create unique applications for ISN software. It is included with this software but not valid for the ASCII MicroGateway. Therefore, this field is always blank.

P05 MEMORY MAP VERSION: vv

Page 5 is the memory map version, which relates to the design level. This is an internal design reference.

vv – Indicates the memory map version. This is system-generated.

P06 RELEASE DATE :dd-mmm-yy

Page 6 shows the release date of the software for troubleshooting and tracking purposes.

dd – Indicates the date.

mmm – Indicates the month.

yy – Indicates the year.

These fields are system-generated.

P07 HARDWARE TYPE: UG REVISION: nn

Page 7 indicates that the hardware type is the MicroGateway. Revision indicates the design level of the hardware.

nn – Indicates the revision level of the software. This is system-generated.

P08 CURRENT SYSTEM LOAD: vv

Page 8 provides an indication of the amount of time (as a percentage) the processor is spending to process data within a system cycle.

vv – Indicates the current system load as a percentage. This is system-generated.

If the number rises above 75%, various tasks within the system will be intermittently suspended.

P09 PEAK SYSTEM LOAD: vv

Page 9 provides an indication of the maximum peak load used by the system since the last reset of the MicroGateway.

vv – Indicates the peak system load as a percentage. This is system-generated.

P10 BRAM CHECKWORD vvvv

Page 10 displays the checksum value of all the configured data in SRAM.

vvvv – Displays the checksum value. This is system-generated.

This is used by the software during power up and normal operation to determine the integrity of the memory modules.

P11 RECONFIGURE SYSTEM

Reconfigures the system to the default settings. E^2 is not replaced or overwritten, retaining application data. To reconfigure the system the user enters the field and enters the current password.

P12 RESET SYSTEM

Resets the system, starting the software cycle over. To reset the system the user enters the field and enters the current password.

P13 MEMORY UTILISATION: vv

Page 13 provides an indication of the percentage of the memory currently being used by the application.

vv – Indicates the memory utilization as a percentage. This is system-generated.

P14 CHILLER TYPE: mmmm

This is the type of chiller that is attached to Port 2 if Quick Start has been utilized.

mmmm – Indicates the chosen chiller type. This is system-generated.

If a Quick Start is not loaded, this field displays VOID.

The options shown are shown in Table 8.

Table 8 – Chiller Types

CHILLER TYPE OPTIONS
Void
YK with SSS
YK with VSD
YT with SSS
YT with VSD
YS with SSS
York Talk 2 1200 Section 1
York Talk 2 1200 Section 1 & 2
York Talk 2 4800 Section 1
York Talk 2 4800 Section 1 & 2

P15 PASSWORD5 tttt FEATURE EXTENT vv

Page 15 displays the current active password and number of features.

tttt – Allows the user to type a password. Up to 8 characters are accepted.

vv – Displays the number of features that are effected by the password. This is system-generated.

The password consists of up to eight alphanumeric characters. When a chiller profile is invoked using Quick Start (Quick Start 246 to 254), the password is set to 5555. When Quick Start 241 is invoked, the password is set to 1 to accommodate the ASCII command “OPEN LINK.”

The Feature Extent lists the number of features which are accessible using the listed password. As an example, if the Feature Extent listed is 82, features from 0 to 82 may be accessed using that particular password. Features above 82 are not editable.

F79 – York Talk 1 and F80 – York Talk 2

General

The ASCII MicroGateway firmware contains three different types of York Talk protocols; F79 (York Talk 1), F80 (York Talk 2) and F81 (York Talk 3). Only one of these York Talks can be configured to communicate with a micro panel at any one time. All of these features are organized into data blocks that may be characterized in the following way; **Input**, or **Output**, **Analog** or **Digital**.

Every section within any of the York Talk features is an exact duplicate of the structure shown in Table 9.

Table 9 – York Talk Point Types

ASCII Page No.	York Talk Page No:	Type of Point	Direction of Data flow
1-4	3 to 6	Analog	Inputs to the Chiller
5-8	7 to 10	Binary	Inputs to the Chiller
9-33	11 to 35	Analog	Outputs from the chiller
34-53	36 to 55	Binary	Outputs from the chiller
54-63	56 to 65	Analog (Codes)	Outputs from the chiller
64-77	66 to 79	Analog	Outputs from the chiller
78-82	80 to 84	Binary	Outputs from the chiller

Feature 79 and Feature 80 share the same data structure and type of user interface. While the protocol used to pass data between the MicroGateway and the micro panel is different, the configuration parameters offered to the user are identical in both cases.

The description of the attributes of each of the pages that follows is valid for both F79 and F80 and are therefore not listed separately. The F81 descriptions are different and listed in the next section.

F79 YORK TALK 1

F80 YORK TALK 2

Only the one protocol is usable at a time. If York Talk 1 has been selected in Feature 70 Page 3, use F79. If York Talk 2 has been selected in Feature 70 page 3, use F80.

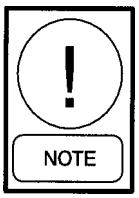
An up-to-date York Talk Points List is available for all chillers at

http://intranet.york.com/web0147/

P01 CHILLER ID n POLL TIME vv

Page 1 allows the user to set the chiller ID and poll time.

n – Defines the chiller ID number.



NOTE: When a rotary switch is used, the York Talk Chiller ID is the switch position + 1.

vv – Defines the poll time.

Normally the chiller ID is set to 1. This must match the ID set on the chiller micro panel's rotary switch. The chiller ID is determined by adding 1 to the address set on the micro panel's rotary switch.

The poll time is the amount of time allocated for the MicroGateway to poll and then to receive a response back from the micro panel. This may be modified to reflect the expected network traffic. The default poll time is 30 seconds.

P02 RETRIES n COMMS mm

Page 2 sets the number of times the MicroGateway requests information from the micro panel before determining that communications are faulty.

n – Sets the number of retries.

mm – Indicates the status of the York Talk communications as either GOOD or BAD. This is system-generated.

P03-P06 Analog Inputs to the Chiller

P03 tt...t vv

Pages 3 to 6 configure analog input points to control the chiller from the ISN network. These are specific to the chiller per the applicable York Talk Points List.

tt...t – Describes the point in a generic text format. This is system-generated.

vv – Displays the current value. This is set in Feature 82.

P07-P10 Digital Inputs to the Chiller

P07 tt...t mmmm

Pages 7 to 10 configure digital input points to control the chiller from the ISN network. These are specific to the chiller per the applicable York Talk Points List.

tt...t – Describes the point in a generic text format. This is system-generated.

mmm – Displays the current statue. This is set in Feature 82.

P11-P35/P66-P79 Analog Outputs from the Chiller

P11 tt...t vv

Pages 11 to 35 and 66 to 79 configure the analog output points that make chiller data available to the ISN network. These are specific to the chiller per the applicable York Talk Points List.

tt...t – Describes the point in a generic text format. This is system-generated.

vv – Displays the current value. This field is system-generated.

P36-P55/P80-P84 Digital Outputs from the Chiller

P36 tt...t mmmm

Pages 36 to 55 and 80 to 84 configure digital output points from the chiller to the ISN network specific to the chiller.

tt...t – Describes the point in a generic text format. This is system-generated.

mmm – Displays the current status. This field is system-generated.

P56-P65 Coded Outputs from the Chiller

P56 tt...t vv

Pages 56 to 65 configure chiller codes to specific points on the network.

tt...t – Describes the point in a generic text format. This is system-generated.

vv – Displays the current value. This field is system-generated.

P85 to P89 Not Used

P90 FIRST POLL COUNT v

v – Displays the number of first poll counts. This is system-generated.

P91 MESSAGE FAILURE COUNT v

v – Displays the number of failures since the system was last reset. This is system-generated.

P92 POLL RESPONSE TIME v

v – Displays the time between poll requests from the third-party BAS. This is system-generated.

P93 RETRY COUNT v

v – Displays the number of communication errors that have occurred since the system was last reset. This is system-generated.

This counts the number of times the micro panel did not respond on the first communications attempt. An unusually high number may indicate faulty wiring or other network interference.

P94 PRESS ENTER TO RESET YT *n* TABLE

Page 94 resets the retry counter to 0 and is used in conjunction with page 93 for troubleshooting.

P95 to P98 Not Used

P99 YORK TALK COMMS v

v – Displays the condition of the York Talk Communications. If 1 is displayed, communications are good. If 0 is displayed, communications are bad.

F81 – York Talk 3

F81 YORK TALK 3

Feature 81 (F81) uses the same memory organization as Feature 79 and Feature 80 but includes the extra capability of York Talk 3. York Talk 3 uses a full duplex communications arrangement to allow a fast interface with the micro panel.

Data, organized as objects, may be individually addressed and read or written to. These objects are referred to as micro-objects. Different micro-objects represent different aspects of the chiller's functionality. For example, **AI.1** as displayed on page 11 of the York Talk Points List represents Leaving Chilled Liquid Temperature. The micro-objects for the different OptiView chiller types are loaded using the Quick Starts as listed in the Appendix.

An up-to-date list of micro-objects is available for all chillers at

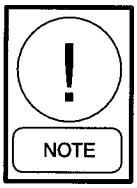
http://intranet.york.com/web0147/

P01 MODE mmmm TIME OUT vvvv MSEC mm

Page 1 enables York Talk 3, sets the time out and units.

mmmm – Sets the mode to either enabled or disabled.

vvvv – Defines the communication timeout to be configured. This field allows a user to set the amount of time between transmitting data.



NOTE: The default time out is 800 msec and should not be set to any value less than 800 msec.

mm – Defines the engineering units. All data returned from the micro panel will be expressed in the selected measurement system. Available options are IM (Imperial) or SI (Metric). The default is IM.

P02 RETRIES=vv COMMS mmmm

Page 2 defines the number of times the MicroGateway sends a message to a micro-object in an OptiView micro panel which is not responding. After the defined number of failed attempts, a status flag in field 2 changes from GOOD to BAD.

vv – Defines the number of retries before the failure flag is changed to BAD.

mmmm – Displays the condition of the communications. This is system-generated.

P03-P06 Analog Inputs to the Chiller

P03 MM vv tt...t VV mm

Pages 3 to 6 configure analog input points to control the chiller from the ISN network. These are specific to the chiller per the applicable York Talk Points List.

MM – Indicates the type of micro-object that represents the data in the micro panel. The available choices are AO or AV.

vv – Indicates the particular instance of the defined micro-object.

tt...t – Describes the point in a generic text format. This is system-generated.

VV – Displays the current value of the micro-object. This is set in Feature 82.

mm – Sets the amount of time between write requests from the MicroGateway on a per page basis. Refer to Table 10 for the available choices.

Table 10 – York Talk 3 Poll Rates

MENU	POLL RATE
0s	No Poll Initiated
1s	1 second
2s	2 second
5s	5 second
1m	1 minute
2m	2 minutes
5m	5 minutes
1h	1 hour
2h	2 hours

P07-P10 Digital Inputs to the Chiller

P07 MM vv tt...t mmmm mm

Pages 7 to 10 configure digital input points to control the chiller from the ISN network. These are specific to the chiller per the applicable York Talk Points List.

MM – Indicates the type of micro-object that represents the data in the micro panel. The available choices are BV or BO.

vv – Indicates the particular instance of the defined micro-object.

tt...t – Describes the point in a text format. This is system-generated.

mmmm – Displays the current status of the micro-object as either OPEN or MADE. This is set in Feature 82.

mm – Sets the amount of time between write requests from the MicroGateway on a per page basis. Refer to Table 10 for the available choices.

P11-P35/P66-P79 Analog Outputs from the Chiller

P11 MM vv tt...t VV mm

Pages 11 to 35 and 66 to 79 configure analog output points from the chiller to the ISN network per the applicable York Talk Points List. See the Appendix for the standard point listings for a specific chiller.

MM – Indicates the type of micro-object that represents the data in the micro panel. The available choices are 1, AI, AV, SC, or AO.

vv – Indicates the particular instance of the defined micro-object.

tt...t – Describes the point in a generic text format. This is system-generated.

VV – Displays the current value of the micro-object. This is system-generated.

mm – Sets the amount of time between read requests from the MicroGateway on a per page basis. Refer to Table 10 for the available choices.

P36-P55/P80-P84 Digital Outputs from the Chiller

P36 MM vv tt...t mmmm mm

Pages 36 to 55 and 80 to 84 configure digital output points from the chiller to the network specific to the chiller per the applicable York Talk Points List.

MM – Indicates the type of micro-object that represents the data in the micro panel. The available choices are BI, BV or BO.

vv – Indicates the particular instance of the defined micro-object.

tt...t – Describes the point in a generic text format. This is system-generated.

mmmm – Displays the current status of the micro-object. This is system-generated.

mm – Sets the amount of time between read requests from the MicroGateway on a per page basis. Refer to Table 10 for the available choices.

P56-P65 Coded Outputs from the Chiller

P56 MM vv tt...t VV mm

Pages 56 to 65 configure chiller codes to specific points on the ISN network.

MM – Indicates the type of micro-object that represents the data in the micro panel. The available choices are blank, AI, AV, SC, or AO.

vv – Indicates the particular instance of the defined micro-object.

tt...t – Describes the point in a generic text format. This is system-generated.

VV – Displays the current code of the micro-object. This is system-generated.

mm – Sets the amount of time between read requests from the MicroGateway on a per page basis. Refer to Table 10 for the available choices.

P85 SET YM TIME AN DATE mm

mm – Sets the amount of time between sending the time and date to the chiller micro panel.

Page 85 sets how often the MicroGateway sends the time and date to the chiller micro panel and indicates the communications status. If mm is set to 0s no updates occur. Refer to Table 10 for the available menu choices.

P86 GET YM TIME AN DATE mm

mm – Sets the amount of time between sending the time and date to the chiller micro panel.

Page 86 sets how often the MicroGateway retrieves the time and date from the chiller micro panel and indicates the communications status. If mm is set to 0s no updates occur. Refer to Table 10 for the available mm choices.

P87-P89 Not Used

P90 OVERRUN ERRORS nnn

nnn – Indicates the number of serial communication overrun errors. This is system-generated.

Page 90 indicates the number of York Talk communication overrun errors which have occurred since the system was reset.

P91 MESSAGE FAILURE COUNT nnn

nnn – Indicates the number of serial communication failures. This is system-generated.

Page 91 indicates the number of York Talk message failures which have occurred since the system was reset.

P92 POLL RESPONSE TIME nn MAX nnn

nn – Indicates the average time for a response from the micro panel.

nnn – Indicates the maximum time for a response from the micro panel.

Page 92 indicates the average time for a response from the micro panel and the maximum time for a response since the last reset of the MicroGateway.

P93 RETRY COUNT nn EXTRA ACK nnn

nn – Indicates the number of retries attempted before returning an error.

nnn – Indicates an extra acknowledgement has been recieved.

P94 PRESS ENTER TO RESET YT3 TABLE

Page 94 resets the retry counter to 0.

P95 WATCHDOG nn WAIT nnn

Page 95 is used for internal troubleshooting.

P96-P98 Not Used

P99 YORK TALK COMMS v

v – Displays the condition of the York Talk Communications. If 1 is displayed, communications are good. If 0 is displayed, communications are bad.

F82 – ASCII Range

The ASCII Range configures the default output values on initial power up when the MicroGateway is operating as a point-of-connection. These values, either analog or digital, remain in memory until overwritten by new data received from the third-party translator.

P01-P04 Analog Defaults

P01 ANALOG OUTPUT 1 vvvv

Pages 1 to 4 allows a user to select a default analog value which is stored in E^2.

vvvv – Sets the default analog value.

This value is the initial value sent to the micro panel before the third-party interface has an opportunity to update the value. All the micro panels controlled by the third-party are set by this default value.

Page 1 corresponds to Page 3 of the selected York Talk protocol, i.e. F80P03 is set by F82P01, etc. (all corresponding pages are offset by 2).

P05-P08 Digital Defaults

P05 DIGITAL OUTPUT 1 OFF mmmm

Pages 5 to 8 allow a user to select a default state for digital outputs which is stored in E^2.

mmmm – Sets the default digital status.

This state is the initial state sent to the micro panel before the third-party interface has an opportunity to update the status. All the micro panels controlled by the third-party are set by this default status.

Typically, the page which sets the chiller to run is set to OPEN. This ensures that the chiller is only commanded to run when instructed to do so by the third-party BAS.

Page 5 corresponds to Page 7 of the selected York Talk protocol, i.e. F81P07 is set by F82P05, etc. (all corresponding pages are offset by 2).

P09 COMMS STATUS nnn

nnn – Indicates the status of the York Talk communications from the MicroGateway to the micro panel.

The possible flag indications are:

NOR – Normal communications

FLT – Faulty communications

SECTION 4

HARDWARE

GENERAL

The ASCII MicroGateway has five LEDs that are used as indicators of communication and operating status. Two LEDs are associated with each communication port and indicate when the MicroGateway is receiving or transmitting information. The STATUS LED serves three purposes:

1. Indicates proper operation of the ASCII MicroGateway.
2. Indicates a unit failure.
3. Verifies selection of the Quick Start configurations.

STATUS LED

Normal Operation

When the ASCII MicroGateway is in Operation Mode and working properly, the STATUS LED flashes continuously once per second. The transmit and receive LEDs flash when information is transferred to or from each port.

The STATUS LED also verifies the correct selection of a Quick Start feature. Refer to Table 11 for the number of flashes for each Quick Start selection.

However, if the STATUS LED flashes several times within a cycle (a cycle is a number of flashes and a 3.5 second off time) and no Quick Starts are selected, an advisory condition is present. This cycle will continue to indicate the advisory condition until the cause of the condition is removed.

Advisory Conditions

Two (2) flashes of the STATUS LED indicate a York Talk communication failure between the chiller micro panel and the ASCII MicroGateway. The condition could be due to faulty wiring, incorrect setup of the chiller or simply an unplugged network cable. For any York Talk features enabled in Feature 70 but not operational, i.e. sending and receiving messages correctly, the STATUS LED flashes 2 times per cycle.

When the Quick Start is set to 128, the STATUS LED flashes 3 times per cycle, indicating that the E^2 is being updated with data from the EPROM. Once the update is complete, the STATUS LED flashes once per cycle indicating the update cycle is complete.

Failures

If the MicroGateway's hardware seriously malfunctions, the watchdog circuit will not be updated and the STATUS LED flashes in unison with the processor reset signal. This is typically once every 1.5 seconds. The STATUS LED continues to flash until the watchdog circuit once again starts to be updated by the system.

A serious hardware malfunction would be characterized by the failure of the processor, SRAM, E^2 or EPROM (or the removal of the EPROM).

A catastrophic hardware failure may leave the STATUS LED either in the ON or OFF state. This situation could be caused by the above mentioned hardware malfunctions, a malfunctioning power supply, system error condition or communications test failure (when using Quick Start 243). System errors can result from an intermittent hardware failure (the result of electrical noise) which can corrupt the system's memory, resulting in unpredictable behavior.

A user usually cannot determine the difference between a system error and a catastrophic failure. If the STATUS LED is observed to be either permanently ON or OFF, the user should de-configure the MicroGateway by disabling the capacitor to clear out the contents of the SRAM and performing the Power Down/Power Up. This may cure the problem if it was due to a hardware glitch. Otherwise, the MicroGateway may need to be replaced.

Port LEDs

Each communication port is supported with two diagnostic LEDs. The red LEDs show transmissions while the green LEDs show data reception.

Port 1 LEDs

The ISN network is connected to Port 1 and is responsible for polling the MicroGateway. Every poll from the Master results in green RX LED flashes on the MicroGateway. When the MicroGateway responds, the red TX LED flashes. The polling frequency (LED flash rate) is totally dependent on the configuration of the ASCII client.

If a communication error occurs between the ASCII MicroGateway and a network device, it is not registered by the MicroGateway. The ASCII Master does not receive the correct response to its request indicating that it is not communicating with the MicroGateway. Refer to the ASCII device documentation for additional information.

Port 2 LEDs

When a York Talk Feature is enabled using Quick Start, Port 2 begins transmitting requests to the micro panel. Even if there is no micro panel actually connected to the MicroGateway, the MicroGateway attempts to communicate. The types of exchanges are listed below:

York Talk 1 Connection (RS232) – The red TX LED flashes for a couple of seconds and then the whole process will be repeated every Poll Time, (currently this defaults to 30 seconds). If a micro panel is connected to the MicroGateway it responds with a reply message causing the green RX LED to flash for about 10 seconds, although this depends upon the type of chiller.

York Talk 2 Connection (RS485) – The red TX LED and the green RX LED flashes together for a couple of seconds and then the whole process is repeated every Poll Time, (the Poll Time default is 30 seconds). If a micro panel is connected to the MicroGateway it responds with a reply causing the green RX LED to flash for about 20 seconds, although this depends upon the type of chiller.

The TX and RX LEDs flash together because TX and RX lines are connected through the RS485 transceiver. When the MicroGateway transmits a message it also receives it.

York Talk 3 Connection (RS232) – The LED pattern is very much dependent if an OptiView micro panel is connected or not.

Table 11 – LED Flash Rates

FLASHES	INDICATES	FLASHES	INDICATES
OFF	Communications Test Failure (Node Switch=243 only)	8	Node Switch 251 Selected
Steady OFF or ON	Hardware Errors, EPROM Failure or E^2 Failure*	9	Node Switch 250 Selected
Steady OFF or ON	System Errors	10	Node Switch 249 Selected
1	Node Switch 243 Selected	11	Node Switch 248 Selected
2	York Talk Communication Failure	12	Node Switch 247 Selected
3	Updating the Software to EPROM Defaults	13	Node Switch 246 Selected
4	Node Switch 255 Selected	14	Node Switch 245 Selected
5	Node Switch 254 Selected	15	Node Switch 244 Selected
6	Node Switch 253 Selected	17	Node Switch 242 Selected
7	Node Switch 252 Selected	18	Node Switch 241 Selected

* *Indicates a Fatal Hardware error which requires the hardware to be replaced.*

a. On power up the ASCII MicroGateway requests the time from the OptiView micro panel. The user can observe the red TX LED flashing during this process. If the micro panel responds with the time, indicated by green LED flashes, the MicroGateway assumes the communication link is established. The MicroGateway then proceeds to send the engineering units to the micro panel and wait for a positive acknowledgement. Once this is received the MicroGateway proceeds with normal operation.

b. If no acknowledgement is received after three attempts, the MicroGateway assumes the communication link is bad and starts requesting the time from the micro panel. Simultaneous red and green LED flashes characterize normal communications.

Dimly Lit LEDs

Sometimes the green RX LED on the MicroGateway monitoring an RS485 transceiver may appear to be dimly illuminated, even if there is no activity on the network. This is an indication that the bias of the transceiver is being affected. There are usually two reasons for this type of problem; a constant electrical coupling onto the network wires or a defective RS485 transceiver.

To ensure that the problem is not related to an installation problem:

- Ensure that no high voltage electrical signals are in close proximity to the MicroGateway.
- Provide a good ground connection for the MicroGateway.

If a defective transceiver requires replacement refer to the procedure shown later in this section.

Communications During Quick Start

If the node switch is set for a value between 201 and 255 or 128, the LEDs process this request first and ignore any other advisory conditions which may exist. Within these reserved addresses a system advisory condition takes lower priority over all flash rates.

Once the node switch is reset to the network address (between 0 and 99) other conditions, such as a York Talk failure, can be registered.

Updating Firmware

Occasionally, it may be necessary to upgrade the firmware in the MicroGateway or reset the configuration to the default, factory setting. A routine can be selected by setting the node switch to 128 (similar to a Quick Start) which forces the MicroGateway to use the default configuration stored in EPROM.

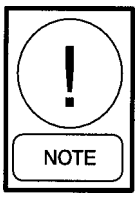
Normally the current settings are retrieved from E^2 each time the MicroGateway is started. When node address 128 is selected the priority of the information which is loaded in SRAM is changed. Information is retrieved from the EPROM first and then the information stored in E^2 is overwritten by the EPROM defaults.

A STATUS LED flash rate of 3 flashes per cycle indicates the MicroGateway is transferring data from the EPROM. When complete, the STATUS LED flashes at a once per cycle rate.

WARNING: Personnel should always be grounded before touching the MicroGateway. An Anti-Static Ground Strap is recommended. As a minimum, firmly grasp grounded metal before working on the unit.

To update the firmware:

1. Remove the power to the MicroGateway by pulling the power harness from **J1**.
2. Remove the Capacitor Enable jumper at **JP7** for a minimum of 10 seconds. This corrupts the SRAM memory.
3. Install the Capacitor Enable jumper at **JP7**.
4. If necessary, remove the EPROM using a removal tool. Carefully install the new EPROM, making sure pin 1 is located properly.
5. Set the node switch to **128**.
6. Insert the power harness into connector **J1**. The STATUS LED should flash **3** times per cycle.



NOTE: If the update process is short (not much data to transfer) the 3 flashes may not be visible.

7. When the STATUS LED begins to flash once per cycle, the MicroGateway can be configured using either a Quick Start address or connecting a computer terminal.

Part Replacement

Certain items can be replaced if found to be malfunctioning. Typical items are the RS485 drivers (transceivers), EPROM Circuit Board or Power Board.

Chip Replacement

DANGER: Always disconnect the line voltage to the MicroGateway before removing any components.

WARNING: Personnel should always be grounded before touching the MicroGateway. An Anti-Static Ground Strap is recommended. As a minimum, firmly grasp grounded metal before working on the unit.

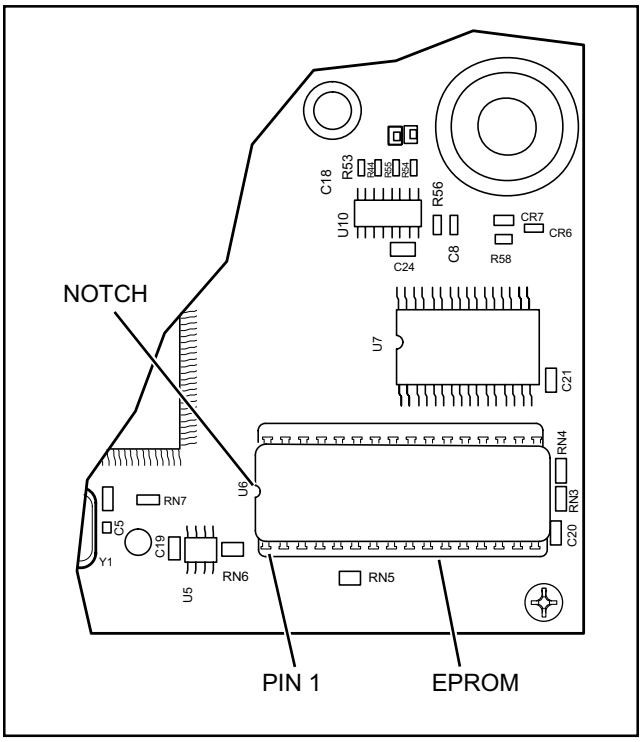
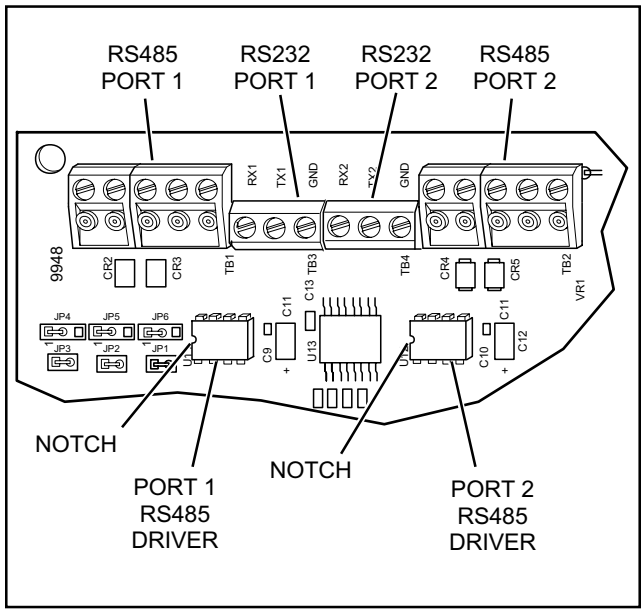


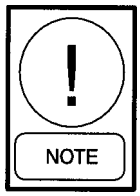
Figure 12 – EPROM Orientation



NOTE: If upgrading the software to a new version, refer to the section on UPDATING FIRMWARE.

To replace either the EPROM or the RS485 drivers (transceivers):

1. Disconnect the line voltage power supply to the MicroGateway.
2. Note the position of the notch in the chip. Using a chip removal tool, remove the chip from the MicroGateway card.
3. On the replacement chip, locate the notch. Carefully install the replacement chip in the socket with the notch in the same location as noted during removal.



NOTE: The notch indicates the location of pin 1 on the chip.

4. Reconnect the line voltage power supply. If necessary, reconfigure the MicroGateway using Quick Start or a computer terminal.

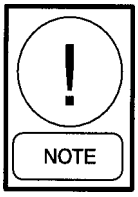
Figure 13 – RS485 Drivers

Fuse Replacement

For MicroGateways within their own enclosure (non-OptiView units) the Power Board is protected by two fuses. The fuse in location FU1 is a 5 x 20 Fast-Blow, 1.25 A, 250 volt fuse. It protects the board against circuit overload on the low voltage side of the Power Board. The fuse in location FU2 is a 5 x 20 Fast-Blow, 150 mA, 250 volt fuse. It protects the Micro-Gateway transformer from overload.

DANGER: Always disconnect the line voltage to the MicroGateway before removing any components.

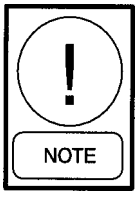
WARNING: Personnel should always be grounded before touching the MicroGateway. An Anti-Static Ground Strap is recommended. As a minimum, firmly grasp grounded metal before working on the unit.



NOTE: Inserting a replacement fuse with no power connected may cause the LED to illuminate momentarily due to the energy stored by capacitor on the Power Board.

If the Power Board is suspected of malfunctioning:

1. Disconnect the line voltage power supply to the MicroGateway.
2. Remove the power harness from **J1** to disconnect power.
3. Place probes from a voltmeter into the power harness plug.
4. Reconnect the line voltage power supply to the MicroGateway. Note the voltage at the power harness connector. Voltage should be in the range of 12 to 30 volts DC.
   a. If the voltage measures within this range, the Power Board is functioning properly.
   b. If not proceed to step 5.
5. Disconnect the line voltage power supply to the MicroGateway.
6. Reconnect the power harness to connector J1. This will discharge any stray voltage remaining on the Power Board capacitor.
7. Remove the fuse covers and fuses on the Power Board. Install new fuses of the appropriate size.



NOTE: It is recommended that both fuses be replaced if either is questionable.

8. Reconnect the line voltage power supply to the MicroGateway.

If the MicroGateway fails to work, proceed to the Power Board Replacement procedure.

Power Board Replacement

DANGER: Always disconnect the line voltage to the MicroGateway before removing any components.

WARNING: Personnel should always be grounded before touching the MicroGateway. An Anti-Static Ground Strap is recommended. As a minimum, firmly grasp grounded metal before working on the unit.

For MicroGateways with their own enclosure (non-OptiView units) the Power Board can be replaced if it is determined to be faulty. Before replacing the board, check the two fuses located on the board.

To replace the board:

1. Disconnect the line voltage power supply to the MicroGateway.
2. Remove connector **TB1** (line voltage supply) from the Power Board.
3. Remove the power harness from **J1** on the circuit board to disconnect power.
4. Remove the four screws and washers securing the Power Board to the enclosure. Note that

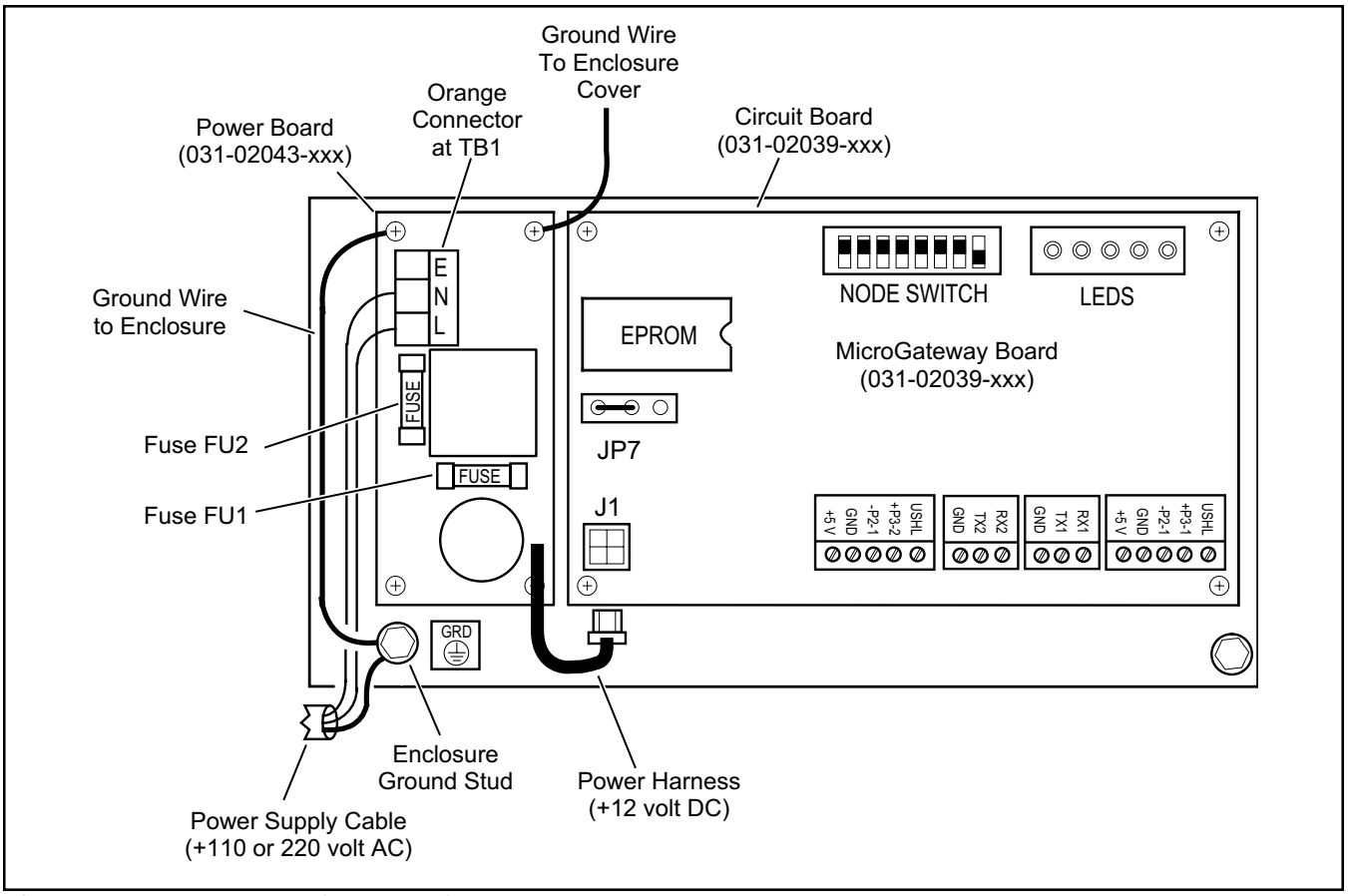


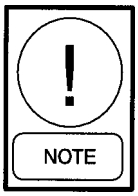
Figure 14 – Power Board Connections

two of the screws also secure ground wires to the board. Remove the board.

5. Position the replacement board in the enclosure and secure with the two screws and washers which did not also secure ground wires.
6. Insert and tighten the screws and washers which secured the ground wires to the enclosure and enclosure cover.
7. Connect the line voltage supply cable to **TB1** on the Power Board.
8. Apply the normal line voltage supply to the Power Board. Check to make sure operation seems normal.
9. Place the power connector into J1 on the circuit board. Check to make sure operation seems normal.

Circuit Board Replacement

If the circuit board is found to be faulty, it can be replaced. It is recommended that the EPROM be removed from the faulty board and reinstalled into the new, replacement board.



NOTE: If the circuit board is faulty, the EPROM may still function properly. By removing the EPROM, the original version of the software can be retained.

If the EPROM is found to be faulty, refer to the section on upgrading firmware.

To replace the circuit board:

1. Disconnect the line voltage power supply and network cables to the MicroGateway.

2. Remove the connector **J1** from the circuit board or from the OptiView micro panel power source.
3. Using a chip removal tool, remove the EPROM from socket **U6**.
4. Remove the four screws securing the board to the enclosure or OptiView micro panel.
5. Position the replacement circuit board in the enclosure or OptiView micro panel. Secure with four washers and screws.
6. Install the EPROM previously removed.
7. Connect the power to connector **J1**.
8. Turn on the line voltage supply and check for proper operation.
9. Reinstall any covers removed to gain access to the circuit board.

NOTE

NOTE: If a new EPROM is to be installed, refer to Upgrading the Firmware.

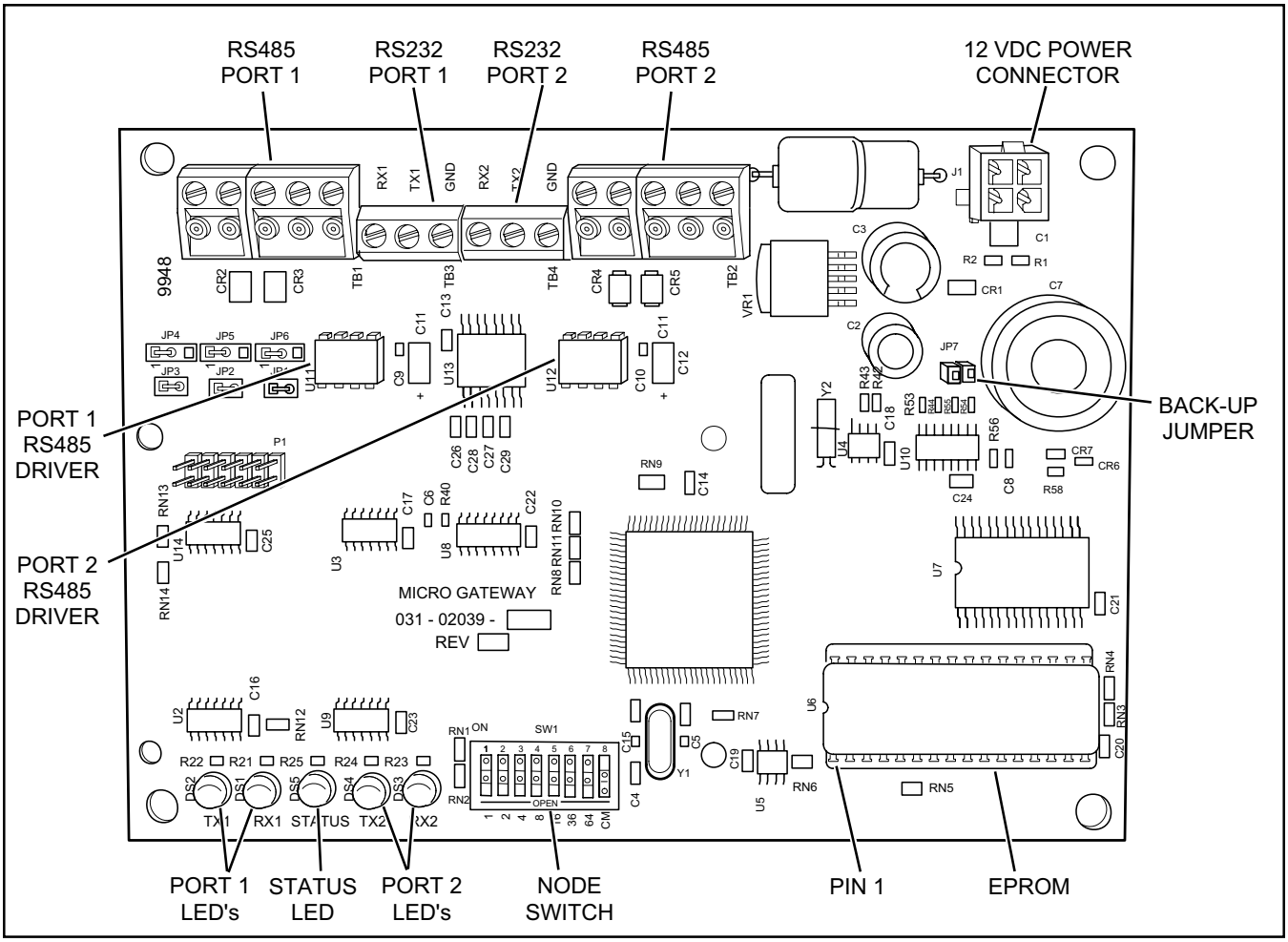


Figure 15 – Circuit Board Components

SECTION 5

TROUBLESHOOTING

This section provides a guide for troubleshooting should a problem develop. A chart has been created to help in diagnosis of faults. To use the chart, locate the appropriate symptom and review the possible causes for that symptom. After the most likely cause is determined, follow the suggestions listed in the solutions column.

While this Troubleshooting Guide does not claim to include all possible symptoms or solutions, it can simplify troubleshooting and assist in determining the causes of a malfunctioning device.

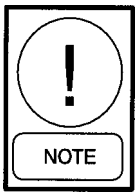
SYMPTOM	PROBABLE CAUSE	SOLUTION
STATUS LED does not light.	No power to the unit.	Check power supply for correct voltage (110 or 220 v AC).
		Ensure line voltage power supply is turned “on.”
	Blown fuse.	Replace both fuses.
	Malfunctioning Power Board.	Check for 12 volts DC at J1. Replace defective components.
	EPROM removed from board	Install EPROM.
Chiller TX1/RX1 LEDs do not flash (observe for a minimum of 30 seconds).	Port not setup correctly.	Use Quick Start to ensure port settings are correct.
	Chiller micro panel not communicating.	Ensure chiller is configured correctly. Refer to chiller documentation.
	Malfunctioning RS485 driver (applies to RS485 communications only).	Replace RS485 driver.
	Incorrect wiring at connector.	Ensure wires are installed properly.
	RX and TX swapped.	Ensure wires are installed properly.
Third party TX2/RX2 LEDs do not flash.	Port not set correctly.	Use Quick Start to ensure port settings are correct.
	Third-party device not communicating.	Ensure third party device is configured correctly. Refer to the third-party documentation.
	Malfunctioning RS485 driver (applies to RS485 communications only).	Replace RS485 driver.
	Incorrect wiring at connector.	Ensure wires are installed properly.
	RX and TX swapped.	Ensure wires are installed properly.
Third party is communicating but some values are suspected to be incorrect.	Third party attributes not set correctly.	Third party address and object attributes are not set correctly. Refer to third party documentation.
Exception status returned.	Query request out of range.	Check query for number of points requested.

SYMPTOM	PROBABLE CAUSE	SOLUTION
York Talk 3 TX (red) LED blinks continuously.	Incorrect wiring to OptiView micro panel.	Correct the wiring.
	Jumper not installed in JP27 on micro panel.	Install jumper. Refer to Installation Manual.
	OptiView micro panel is not configured for ISN communication.	Configure micro panel to use ISN as the source.
	Faulty OptiView micro panel.	Replace micro panel.
	Faulty MicroGateway.	Replace MicroGateway.
STATUS LED flashes once every 2 seconds.	Low input supply voltage.	Measure voltage at J1 to ensure it is greater than 12 volt DC. If not, replace Power Board or power source at micro panel.
	No EPROM.	Replace or install EPROM.
	Faulty MicroGateway.	Replace MicroGateway.
Unable to establish terminal or chiller communications with the MicroGateway.	E^2 is corrupt.	Deconfigure E^2 using Quick Start 128.

APPENDIX

The following tables show the items which are loaded when a Quick Start Feature is invoked. If the Quick Start is set for a specific OptiView chiller model, the applicable micro objects are also listed. For York Talk 1 and York Talk 2 no micro objects are loaded and, therefore, are not shown. In all cases, the ISN address and relevant scale is shown on a per page basis.

Also on the tables are the ASCII Interface Address for each page. This address is the location of the chiller data as viewed from the third-party network as viewed through an ASCII device.



NOTE: These tables are included to provide information on the applicable Quick Start features. Always use the York Talk Points List when providing information to a third-party integrator or end user.

The tables included are current at the time this manual was printed. From time to time it may be necessary to change the points listings for a particular chiller or to add a new chiller model. A current points listing for the chiller models listed here, as well as any additional models, is maintained at

http://intranet.york.com/web0147

If a problem arises where the chiller points list is suspected of being incorrect, refer to this website.

The Quick Start feature simplifies the setup required by many of the different types of YORK chillers by assigning a specific scale to each page.

The chiller types supported by Quick Start are:

- All York Talk 3 OptiView chillers.
- All York Talk 2 chillers @ 1200 baud
- York Talk 2 chillers @ 4800 baud with 1 section
- York Talk 2 chillers @ 4800 baud with 2 sections (master/slave)

Table A-1 – Quick Start 254 (OptiView Model YK with SSS)

F81S01 Page No	ASCII Interface Address	Micro Object	Default Initial Value	Poll Interval	ASCII Text String	Description (Refer to current York Talk Points List)
3	F02S01P01	**AV.1**	**0.0**	**5**	-AO_01_S01--	Leaving Chilled Liquid Setpoint-Selected
4	F02S01P02	**AV.2**	**0.0**	**5**	-AO_02_S01--	Motor Current Limit Setpoint
5	F02S01P03		**0.0**	**5**	-AO_03_S01--	
6	F02S01P04		**0.0**	**5**	-AO_04_S01--	
7	F02S01P05	**BV.1**	**OPEN**	**5**	-BO_01_S01--	Remote Start/Stop [Stop / Start]
8	F02S01P06		**OPEN**	**5**	-BO_02_S01--	
9	F02S01P07		**OPEN**	**5**	-BO_03_S01--	
10	F02S01P08		**OPEN**	**5**	-BO_04_S01--	
11	F02S01P09	**AI.1**		**5**	-AI_01_S01--	Leaving Chilled Liquid Temperature
12	F02S01P10	**AI.2**		**5**	-AI_02_S01--	Return Chilled Liquid Temperature
13	F02S01P11	**AI.5**		**5**	-AI_03_S01--	Evaporator Pressure
14	F02S01P12	**AI.6**		**5**	-AI_04_S01--	Condenser Pressure
15	F02S01P13	**AV.14**		**5**	-AI_05_S01--	Oil Pressure Differential
16	F02S01P14	**AI.4**		**5**	-AI_06_S01--	Return Condenser Liquid Temperature
17	F02S01P15	**AI.3**		**5**	-AI_07_S01--	Leaving Condenser Liquid Temperature
18	F02S01P16	**AI.11**		**5**	-AI_08_S01--	Motor Current Percent FLA
19	F02S01P17	**AI.16**		**5**	-AI_09_S01--	Solid State Starter Phase A Current
20	F02S01P18	**AI.17**		**5**	-AI_10_S01--	Solid State Starter Phase B Current
21	F02S01P19	**AI.18**		**5**	-AI_11_S01--	Solid State Starter Phase C Current
22	F02S01P20	**AI.13**		**5**	-AI_12_S01--	Solid State Starter Phase A Voltage
23	F02S01P21	**AI.14**		**5**	-AI_13_S01--	Solid State Starter Phase B Voltage
24	F02S01P22	**AI.15**		**5**	-AI_14_S01--	Solid State Starter Phase C Voltage
25	F02S01P23	**AV.1**		**5**	-AI_15_S01--	Leaving Chilled Liquid Setpoint-Selected
26	F02S01P24	**AV.20**		**5**	-AI_16_S01--	Motor Current Limit Setpoint-Selected
27	F02S01P25	**AV.6**		**5**	-AI_17_S01--	Evaporator Saturation Temp
28	F02S01P26	**AV.7**		**5**	-AI_18_S01--	Condenser Saturation Temp
29	F02S01P27	**AI.7**		**5**	-AI_19_S01--	Discharge Temperature
30	F02S01P28	**AI.32**		**5**	-AI_20_S01--	Oil Sump Temperature
31	F02S01P29	**AI.35**		**5**	-AI_21_S01--	Refrigerant Level Position
32	F02S01P30	**AV.15**		**5**	-AI_22_S01--	Unit Operating Hours
33	F02S01P31	**AV.16**		**5**	-AI_23_S01--	Unit System Starts
34	F02S01P32	**AI.30**		**5**	-AI_24_S01--	Oil Sump Pressure
35	F02S01P33	**AI.31**		**5**	-AI_25_S01--	Oil Pump Pressure
36	F02S01P34	**BO.1**		**5**	-BI_01_S01--	Motor Run Contacts
37	F02S01P35	**BO.14**		**5**	-BI_02_S01--	Liquid Line Solenoid
38	F02S01P36	**BO.2**		**5**	-BI_03_S01--	Chilled Liquid Pump
39	F02S01P37	**BI.4**		**5**	-BI_04_S01--	Panel Stop Switch [Start enabled / Stop]
40	F02S01P38	**BI.1**		**5**	-BI_05_S01--	Chilled Liquid Flow Switch
41	F02S01P39			**5**	-BI_06_S01--	
42	F02S01P40			**5**	-BI_07_S01--	
43	F02S01P41			**5**	-BI_08_S01--	
44	F02S01P42			**5**	-BI_09_S01--	
45	F02S01P43			**5**	-BI_10_S01--	
46	F02S01P44			**5**	-BI_11_S01--	
47	F02S01P45			**5**	-BI_12_S01--	
48	F02S01P46			**5**	-BI_13_S01--	
49	F02S01P47			**5**	-BI_14_S01--	
50	F02S01P48			**5**	-BI_15_S01--	
51	F02S01P49			**5**	-BI_16_S01--	
52	F02S01P50			**5**	-BI_17_S01--	
53	F02S01P51			**5**	-BI_18_S01--	
54	F02S01P52			**5**	-BI_19_S01--	
55	F02S01P53			**5**	-BI_20_S01--	
56	F02S01P54	**AV.19**		**5**	-AI_26_S01--	Anti-Recycle Time Remaining
57	F02S01P55	**SC.4**		**5**	-AI_27_S01--	Unit Warning Fault Code
58	F02S01P56	**SC.1**		**5**	-AI_28_S01--	Operation Code
59	F02S01P57	**SC.2**		**5**	-AI_29_S01--	Unit Safety Fault Code
60	F02S01P58	**SC.3**		**5**	-AI_30_S01--	Unit Cycling Fault Code
61	F02S01P59			**5**	-AI_31_S01--	
62	F02S01P60			**5**	-AI_32_S01--	
63	F02S01P61	**AI.50**		**5**	-AI_33_S01--	Pre Rotation Vanes Position
64	F02S01P62			**5**	-AI_34_S01--	
65	F02S01P63	**AV.42**		**5**	-AI_35_S01--	Refrigerant Level Set Point
66	F02S01P64	**AI.33**		**5**	-AI_36_S01--	High Speed Thrust Bearing Proximity Position
67	F02S01P65	**AV.40**		**5**	-AI_37_S01--	High Speed Thrust Bearing Proximity Reference
68	F02S01P66			**5**	-AI_38_S01--	
69	F02S01P67			**5**	-AI_39_S01--	
70	F02S01P68			**5**	-AI_40_S01--	
71	F02S01P69			**5**	-AI_41_S01--	
72	F02S01P70			**5**	-AI_42_S01--	
73	F02S01P71			**5**	-AI_43_S01--	
74	F02S01P72			**5**	-AI_44_S01--	
75	F02S01P73			**5**	-AI_45_S01--	
76	F02S01P74			**5**	-AI_46_S01--	
77	F02S01P75			**5**	-AI_47_S01--	
78	F02S01P76			**5**	-AI_48_S01--	
79	F02S01P77			**5**	-AI_49_S01--	
80	F02S01P78			**5**	-BI_21_S01--	
81	F02S01P79			**5**	-BI_22_S01--	
82	F02S01P80			**5**	-BI_23_S01--	
83	F02S01P81			**5**	-BI_24_S01--	
84	F02S01P82			**5**	-BI_25_S01--	

Bold *indicates items stored in E². For Section 2 the same fields are stored in E² but fields are blank.*

Table A-2 – Quick Start 253 (OptiView Model YK with VSD)

F81S01 Page No	ASCII Interface Address	Micro Object	Default Initial Value	Poll Interval	ASCII Text String	Description (Refer to current York Talk Points List)
3	F02S01P01	**AV.1**	**0.0**	**5**	-AO_01_S01--	
4	F02S01P02	**AV.2**	**0.0**	**5**	-AO_02_S01--	Motor Current Limit Set Point
5	F02S01P03		**0.0**	**5**	-AO_03_S01--	
6	F02S01P04		**0.0**	**5**	-AO_04_S01--	
7	F02S01P05	**BV.1**	**OPEN**	**5**	-DO_01_S01--	Remote Start/Stop [Stop / Start]
8	F02S01P06		**OPEN**	**5**	-DO_02_S01--	
9	F02S01P07	**BV.10**	**OPEN**	**5**	-DO_03_S01--	Variable Speed Drive Fixed Speed (Auto / Fixed)
10	F02S01P08		**OPEN**	**5**	-DO_04_S01--	
11	F02S01P09	**AI.1**		**5**	-AI_01_S01--	Leaving Chilled Liquid Temperature
12	F02S01P10	**AI.2**		**5**	-AI_02_S01--	Return Chilled Liquid Temperature
13	F02S01P11	**AI.5**		**5**	-AI_03_S01--	Evaporator Pressure
14	F02S01P12	**AI.6**		**5**	-AI_04_S01--	Condenser Pressure
15	F02S01P13	**AV.14**		**5**	-AI_05_S01--	Oil Pressure Differential
16	F02S01P14	**AI.4**		**5**	-AI_06_S01--	Return Condenser Liquid Temperature
17	F02S01P15	**AI.3**		**5**	-AI_07_S01--	Leaving Condenser Liquid Temperature
18	F02S01P16	**AI.11**		**5**	-AI_08_S01--	Motor Current Percent FLA
19	F02S01P17	**AI.53**		**5**	-AI_09_S01--	Variable Speed Drive Phase A Current
20	F02S01P18	**AI.54**		**5**	-AI_10_S01--	Variable Speed Drive Phase B Current
21	F02S01P19	**AI.55**		**5**	-AI_11_S01--	Variable Speed Drive Phase C Current
22	F02S01P20			**5**	-AI_12_S01--	
23	F02S01P21			**5**	-AI_13_S01--	
24	F02S01P22			**5**	-AI_14_S01--	
25	F02S01P23	**AV.1**		**5**	-AI_15_S01--	Leaving Chilled Liquid Set Point-Selected
26	F02S01P24	**AV.20**		**5**	-AI_16_S01--	Motor Current Limit Set Point-Selected
27	F02S01P25	**AV.6**		**5**	-AI_17_S01--	Evaporator Saturation Temp
28	F02S01P26	**AV.7**		**5**	-AI_18_S01--	Condenser Saturation Temp
29	F02S01P27	**AI.7**		**5**	-AI_19_S01--	0Discharge Temperature
30	F02S01P28	**AI.32**		**5**	-AI_20_S01--	Oil Sump Temperature
31	F02S01P29	**AI.35**		**5**	-AI_21_S01--	Refrigerant Level Position
32	F02S01P30	**AV.15**		**5**	-AI_22_S01--	Unit Operating Hours
33	F02S01P31	**AV.16**		**5**	-AI_23_S01--	Unit System Starts
34	F02S01P32	**AI.30**		**5**	-AI_24_S01--	Oil Sump Pressure
35	F02S01P33	**AI.31**		**5**	-AI_25_S01--	Oil Pump Pressure
36	F02S01P34	**BO.1**		**5**	-BI_01_S01--	Motor Run Contacts
37	F02S01P35	**BO.14**		**5**	-BI_02_S01--	Liquid Line Solenoid
38	F02S01P36	**BO.2**		**5**	-BI_03_S01--	Chilled Liquid Pump
39	F02S01P37	**BI.4**		**5**	-BI_04_S01--	Panel Stop Switch [Start enabled / Stop]
40	F02S01P38	**BI.1**		**5**	-BI_05_S01--	Chilled Liquid Flow Switch
41	F02S01P39			**5**	-BI_06_S01--	
42	F02S01P40			**5**	-BI_07_S01--	
43	F02S01P41			**5**	-BI_08_S01--	
44	F02S01P42			**5**	-BI_09_S01--	
45	F02S01P43			**5**	-BI_10_S01--	
46	F02S01P44			**5**	-BI_11_S01--	
47	F02S01P45			**5**	-BI_12_S01--	
48	F02S01P46	**BV.42**		**5**	-BI_13_S01--	Adaptive Capacity Control Valid Surge Map [False/True]
49	F02S01P47	**BV.43**		**5**	-BI_14_S01--	Adaptive Capacity Control New Surge Point [False/True]
50	F02S01P48	**BO.30**		**5**	-BI_15_S01--	Variable Speed Drive Water Pump Relay
51	F02S01P49	**BV.46**		**5**	-BI_16_S01--	Harmonic Filter Installed [False/True]
52	F02S01P50	**BV.44**		**5**	-BI_17_S01--	Adaptive Capacity Control Surge Type [Delta P/Current]
53	F02S01P51			**5**	-BI_18_S01--	
54	F02S01P52			**5**	-BI_19_S01--	
55	F02S01P53			**5**	-BI_20_S01--	
56	F02S01P54	**AV.19**		**5**	-AI_26_S01--	Anti-Recycle Time Remaining
57	F02S01P55	**SC.4**		**5**	-AI_27_S01--	Unit Warning Fault Code
58	F02S01P56	**SC.1**		**5**	-AI_28_S01--	Operation Code
59	F02S01P57	**SC.2**		**5**	-AI_29_S01--	Unit Safety Fault Code
60	F02S01P58	**SC.3**		**5**	-AI_30_S01--	Unit Cycling Fault Code
61	F02S01P59	**AI.58**		**5**	-AI_31_S01--	Variable Speed Drive Internal Ambient Temperature
62	F02S01P60	**AI.59**		**5**	-AI_32_S01--	Variable Speed Drive Converter Heatsink Temperature
63	F02S01P61	**AI.50**		**5**	-AI_33_S01--	Pre Rotation Vanes Position
64	F02S01P62	**AV.78**		**5**	-AI_34_S01--	ACC Map Output Frequency
65	F02S01P63	**AV.42**		**5**	-AI_35_S01--	Refrigerant Level Set Point
66	F02S01P64	**AI.33**		**5**	-AI_36_S01--	High Speed Thrust Bearing Proximity Position
67	F02S01P65	**AV.40**		**5**	-AI_37_S01--	High Speed Thrust Bearing Proximity Reference
68	F02S01P66	**AI.34**		**5**	-AI_38_S01--	
69	F02S01P67	**AV.79**		**5**	-AI_39_S01--	ACC Map PRV Position
70	F02S01P68	**AI.51**		**5**	-AI_40_S01--	Variable Speed Drive Output Voltage
71	F02S01P69	**AV.71**		**5**	-AI_41_S01--	Variable Speed Drive Input Power
72	F02S01P70	**AV.72**		**5**	-AI_42_S01--	Variable Speed Drive Kilowatt Hours
73	F02S01P71	**AI.56**		**5**	-AI_43_S01--	Variable Speed Drive DC Bus Voltage
74	F02S01P72	**AI.57**		**5**	-AI_44_S01--	Variable Speed Drive Inverter Link Current
75	F02S01P73	**AV.75**		**5**	-AI_45_S01--	ACC Surge Count
76	F02S01P74	**AI.52**		**5**	-AI_46_S01--	Variable Speed Drive Output Frequency
77	F02S01P75	**AV.83**		**5**	-AI_47_S01--	Harmonic Filter Maximum Voltage Total Harmonic Distortion
78	F02S01P76	**AV.84**		**5**	-AI_48_S01--	Harmonic Filter Maximum Current Total Demand Distortion
79	F02S01P77	**AV.82**		**5**	-AI_49_S01--	Harmonic Filter Total Supply KVA
80	F02S01P78			**5**	-BI_21_S01--	
81	F02S01P79			**5**	-BI_22_S01--	
82	F02S01P80			**5**	-BI_23_S01--	
83	F02S01P81			**5**	-BI_24_S01--	
84	F02S01P82			**5**	-BI_25_S01--	

Bold *indicates items stored in E². For Section 2 the same fields are stored in E² but fields are blank.*

Table A-3 – Quick Start 252 (OptiView Model YT with SSS)

F81S01 Page No	ASCII Interface Address	Micro Object	Default Initial Value	Poll Interval	ASCII Text String	Description (Refer to current York Talk Points List)
3	F02S01P01	**AV.1**	**0.0**	**5**	-AO_01_S01--	Leaving Chilled Liquid Set Point
4	F02S01P02	**AV.2**	**0.0**	**5**	-AO_02_S01--	Motor Current Limit Set Point
5	F02S01P03		**0.0**	**5**	-AO_03_S01--	
6	F02S01P04		**0.0**	**5**	-AO_04_S01--	
7	F02S01P05	**BV.1**	**OPEN**	**5**	-DO_01_S01--	Remote Start/Stop [Stop / Start]
8	F02S01P06		**OPEN**	**5**	-DO_02_S01--	
9	F02S01P07		**OPEN**	**5**	-DO_03_S01--	
10	F02S01P08		**OPEN**	**5**	-DO_04_S01--	
11	F02S01P09	**AI.1**		**5**	-AI_01_S01--	Leaving Chilled Liquid Temperature
12	F02S01P10	**AI.2**		**5**	-AI_02_S01--	Return Chilled Liquid Temperature
13	F02S01P11	**AI.5**		**5**	-AI_03_S01--	Evaporator Pressure
14	F02S01P12	**AI.6**		**5**	-AI_04_S01--	Condenser Pressure
15	F02S01P13	**AV.14**		**5**	-AI_05_S01--	Oil Pressure Differential
16	F02S01P14	**AI.4**		**5**	-AI_06_S01--	Return Condenser Liquid Temperature
17	F02S01P15	**AI.3**		**5**	-AI_07_S01--	Leaving Condenser Liquid Temperature
18	F02S01P16	**AI.11**		**5**	-AI_08_S01--	Motor Current Percent FLA
19	F02S01P17	**AI.16**		**5**	-AI_09_S01--	Solid State Starter Phase A Current
20	F02S01P18	**AI.17**		**5**	-AI_10_S01--	Solid State Starter Phase B Current
21	F02S01P19	**AI.18**		**5**	-AI_11_S01--	Solid State Starter Phase C Current
22	F02S01P20	**AI.13**		**5**	-AI_12_S01--	Solid State Starter Phase A Voltage
23	F02S01P21	**AI.14**		**5**	-AI_13_S01--	Solid State Starter Phase B Voltage
24	F02S01P22	**AI.15**		**5**	-AI_14_S01--	Solid State Starter Phase C Voltage
25	F02S01P23	**AV.1**		**5**	-AI_15_S01--	Leaving Chilled Liquid Set Point-Selected
26	F02S01P24	**AV.20**		**5**	-AI_16_S01--	Motor Current Limit Set Point-Selected
27	F02S01P25	**AV.6**		**5**	-AI_17_S01--	Evaporator Saturation Temp
28	F02S01P26	**AV.7**		**5**	-AI_18_S01--	Condenser Saturation Temp
29	F02S01P27	**AI.7**		**5**	-AI_19_S01--	Discharge Temperature
30	F02S01P28	**AI.32**		**5**	-AI_20_S01--	Oil Sump Temperature
31	F02S01P29	**AI.36**		**5**	-AI_21_S01--	Purge Pressure
32	F02S01P30	**AV.15**		**5**	-AI_22_S01--	Unit Operating Hours
33	F02S01P31	**AV.16**		**5**	-AI_23_S01--	Unit System Starts
34	F02S01P32			**5**	-AI_24_S01--	
35	F02S01P33			**5**	-AI_25_S01--	
36	F02S01P34	**BO.1**		**5**	-BI_01_S01--	Motor Run Contacts
37	F02S01P35	**BO.14**		**5**	-BI_02_S01--	Liquid Line Solenoid
38	F02S01P36	**BO.2**		**5**	-BI_03_S01--	Chilled Liquid Pump
39	F02S01P37	**BI.4**		**5**	-BI_04_S01--	Panel Stop Switch [Start enabled / Stop]
40	F02S01P38	**BI.1**		**5**	-BI_05_S01--	Chilled Liquid Flow Switch
41	F02S01P39			**5**	-BI_06_S01--	
42	F02S01P40			**5**	-BI_07_S01--	
43	F02S01P41			**5**	-BI_08_S01--	
44	F02S01P42			**5**	-BI_09_S01--	
45	F02S01P43			**5**	-BI_10_S01--	
46	F02S01P44			**5**	-BI_11_S01--	
47	F02S01P45			**5**	-BI_12_S01--	
48	F02S01P46			**5**	-BI_13_S01--	
49	F02S01P47			**5**	-BI_14_S01--	
50	F02S01P48			**5**	-BI_15_S01--	
51	F02S01P49			**5**	-BI_16_S01--	
52	F02S01P50			**5**	-BI_17_S01--	
53	F02S01P51			**5**	-BI_18_S01--	
54	F02S01P52			**5**	-BI_19_S01--	
55	F02S01P53			**5**	-BI_20_S01--	
56	F02S01P54	**AV.19**		**5**	-AI_26_S01--	Anti-Recycle Time Remaining
57	F02S01P55	**SC.4**		**5**	-AI_27_S01--	Unit Warning Fault Code
58	F02S01P56	**SC.1**		**5**	-AI_28_S01--	Operation Code
59	F02S01P57	**SC.2**		**5**	-AI_29_S01--	Unit Safety Fault Code
60	F02S01P58	**SC.3**		**5**	-AI_30_S01--	Unit Cycling Fault Code
61	F02S01P59			**5**	-AI_31_S01--	
62	F02S01P60			**5**	-AI_32_S01--	
63	F02S01P61	**AI.50**		**5**	-AI_33_S01--	Pre Rotation Vanes Position
64	F02S01P62			**5**	-AI_34_S01--	
65	F02S01P63			**5**	-AI_35_S01--	
66	F02S01P64			**5**	-AI_36_S01--	
67	F02S01P65			**5**	-AI_37_S01--	
68	F02S01P66			**5**	-AI_38_S01--	
69	F02S01P67			**5**	-AI_39_S01--	
70	F02S01P68			**5**	-AI_40_S01--	
71	F02S01P69			**5**	-AI_41_S01--	
72	F02S01P70			**5**	-AI_42_S01--	
73	F02S01P71			**5**	-AI_43_S01--	
74	F02S01P72			**5**	-AI_44_S01--	
75	F02S01P73			**5**	-AI_45_S01--	
76	F02S01P74			**5**	-AI_46_S01--	
77	F02S01P75			**5**	-AI_47_S01--	
78	F02S01P76			**5**	-AI_48_S01--	
79	F02S01P77			**5**	-AI_49_S01--	
80	F02S01P78			**5**	-BI_21_S01--	
81	F02S01P79			**5**	-BI_22_S01--	
82	F02S01P80			**5**	-BI_23_S01--	
83	F02S01P81			**5**	-BI_24_S01--	
84	F02S01P82			**5**	-BI_25_S01--	

Bold *indicates items stored in E². For Section 2 the same fields are stored in E² but fields are blank.*

Table A-4 – Quick Start 251 (OptiView Model YT with VSD)

F81S01 Page No	ASCII Interface Address	Micro Object	Default Initial Value	Poll Interval	ASCII Text String	Description (Refer to current York Talk Points List)
3	F02S01P01	**AV.1**	**0.0**	**5**	-AO_01_S01—	Leaving Chilled Liquid Set Point
4	F02S01P02	**AV.2**	**0.0**	**5**	-AO_02_S01—	Motor Current Limit Set Point
5	F02S01P03		**0.0**	**5**	-AO_03_S01—	
6	F02S01P04		**0.0**	**5**	-AO_04_S01—	
7	F02S01P05	**BV.1**	**OPEN**	**5**	-DO_01_S01—	Remote Start/Stop [Stop / Start]
8	F02S01P06		**OPEN**	**5**	-DO_02_S01—	
9	F02S01P07	**BV.10**	**OPEN**	**5**	-DO_03_S01—	Variable Speed Drive Fixed Speed (Auto / Fixed)
10	F02S01P08		**OPEN**	**5**	-DO_04_S01—	
11	F02S01P09	**AI.1**		**5**	-AI_01_S01—	Leaving Chilled Liquid Temperature
12	F02S01P10	**AI.2**		**5**	-AI_02_S01—	Return Chilled Liquid Temperature
13	F02S01P11	**AI.5**		**5**	-AI_03_S01—	Evaporator Pressure
14	F02S01P12	**AI.6**		**5**	-AI_04_S01—	Condenser Pressure
15	F02S01P13	**AV.14**		**5**	-AI_05_S01—	Oil Pressure Differential
16	F02S01P14	**AI.4**		**5**	-AI_06_S01—	Return Condenser Liquid Temperature
17	F02S01P15	**AI.3**		**5**	-AI_07_S01—	Leaving Condenser Liquid Temperature
18	F02S01P16	**AI.11**		**5**	-AI_08_S01—	Motor Current Percent FLA
19	F02S01P17	**AI.53**		**5**	-AI_09_S01—	Variable Speed Drive Phase A Current
20	F02S01P18	**AI.54**		**5**	-AI_10_S01—	Variable Speed Drive Phase B Current
21	F02S01P19	**AI.55**		**5**	-AI_11_S01—	Variable Speed Drive Phase C Current
22	F02S01P20			**5**	-AI_12_S01—	
23	F02S01P21			**5**	-AI_13_S01—	
24	F02S01P22			**5**	-AI_14_S01—	
25	F02S01P23	**AV.1**		**5**	-AI_15_S01—	Leaving Chilled Liquid Set Point-Selected
26	F02S01P24	**AV.20**		**5**	-AI_16_S01—	Motor Current Limit Set Point-Selected
27	F02S01P25	**AV.6**		**5**	-AI_17_S01—	Evaporator Saturation Temp
28	F02S01P26	**AV.7**		**5**	-AI_18_S01—	Condenser Saturation Temp
29	F02S01P27	**AI.7**		**5**	-AI_19_S01—	Discharge Temperature
30	F02S01P28	**AI.32**		**5**	-AI_20_S01—	Oil Sump Temperature
31	F02S01P29	**AI.35**		**5**	-AI_21_S01—	Refrigerant Level Position
32	F02S01P30	**AV.15**		**5**	-AI_22_S01—	Unit Operating Hours
33	F02S01P31	**AV.16**		**5**	-AI_23_S01—	Unit System Starts
34	F02S01P32			**5**	-AI_24_S01—	
35	F02S01P33			**5**	-AI_25_S01—	
36	F02S01P34	**BO.1**		**5**	-BI_01_S01—	Motor Run Contacts
37	F02S01P35	**BO.14**		**5**	-BI_02_S01—	Liquid Line Solenoid
38	F02S01P36	**BO.2**		**5**	-BI_03_S01—	Chilled Liquid Pump
39	F02S01P37	**BI.4**		**5**	-BI_04_S01—	Panel Stop Switch [Start enabled / Stop]
40	F02S01P38	**BI.1**		**5**	-BI_05_S01—	Chilled Liquid Flow Switch
41	F02S01P39			**5**	-BI_06_S01—	
42	F02S01P40			**5**	-BI_07_S01—	
43	F02S01P41			**5**	-BI_08_S01—	
44	F02S01P42			**5**	-BI_09_S01—	
45	F02S01P43			**5**	-BI_10_S01—	
46	F02S01P44			**5**	-BI_11_S01—	
47	F02S01P45			**5**	-BI_12_S01—	
48	F02S01P46	**BV.42**		**5**	-BI_13_S01—	Adaptive Capacity Control Valid Surge Map [False/True]
49	F02S01P47	**BV.43**		**5**	-BI_14_S01—	Adaptive Capacity Control New Surge Point [False/True]
50	F02S01P48	**BO.30**		**5**	-BI_15_S01—	Variable Speed Drive Water Pump Relay
51	F02S01P49	**BV.46**		**5**	-BI_16_S01—	Harmonic Filter Installed [False/True]
52	F02S01P50	**BV.44**		**5**	-BI_17_S01—	Adaptive Capacity Control Surge Type [Delta P/Current]
53	F02S01P51			**5**	-BI_18_S01—	
54	F02S01P52			**5**	-BI_19_S01—	
55	F02S01P53			**5**	-BI_20_S01—	
56	F02S01P54	**AV.19**		**5**	-AI_26_S01—	Anti-Recycle Time Remaining
57	F02S01P55	**SC.4**		**5**	-AI_27_S01—	Unit Warning Fault Code
58	F02S01P56	**SC.1**		**5**	-AI_28_S01—	Operation Code
59	F02S01P57	**SC.2**		**5**	-AI_29_S01—	Unit Safety Fault Code
60	F02S01P58	**SC.3**		**5**	-AI_30_S01—	Unit Cycling Fault Code
61	F02S01P59	**AI.58**		**5**	-AI_31_S01—	Variable Speed Drive Internal Ambient Temperature
62	F02S01P60	**AI.59**		**5**	-AI_32_S01—	Variable Speed Drive Internal Ambient Temperature
63	F02S01P61	**AI.50**		**5**	-AI_33_S01—	Pre Rotation Vanes Position
64	F02S01P62	**AV.78**		**5**	-AI_34_S01—	Adaptive Capacity Control Map Output Frequency
65	F02S01P63			**5**	-AI_35_S01—	
66	F02S01P64			**5**	-AI_36_S01—	
67	F02S01P65			**5**	-AI_37_S01—	
68	F02S01P66			**5**	-AI_38_S01—	
69	F02S01P67	**AV.79**		**5**	-AI_39_S01—	Adaptive Capacity Control Map PRV Position
70	F02S01P68	**AI.51**		**5**	-AI_40_S01—	Variable Speed Drive OutputVoltage
71	F02S01P69	**AV.71**		**5**	-AI_41_S01—	Variable Speed Drive Input Power
72	F02S01P70	**AV.72**		**5**	-AI_42_S01—	Variable Speed Drive Killowatt Hours
73	F02S01P71	**AI.56**		**5**	-AI_43_S01—	Variable Speed Drive DC Bus Voltage
74	F02S01P72	**AI.57**		**5**	-AI_44_S01—	Variable Speed Drive Inverter Link Current
75	F02S01P73	**AV.75**		**5**	-AI_45_S01—	Adaptive Capacity Control Surge Count
76	F02S01P74	**AI.52**		**5**	-AI_46_S01—	Variable Speed Drive Output Frequency
77	F02S01P75	**AV.83**		**5**	-AI_47_S01—	Harmonic Filter Maximum Voltage Total Harmonic Distortion
78	F02S01P76	**AV.84**		**5**	-AI_48_S01—	Harmonic Filter Maximum Current Total Demand Distortion
79	F02S01P77	**AV.82**		**5**	-AI_49_S01—	Harmonic Filter Total Supply KVA
80	F02S01P78			**5**	-BI_21_S01—	
81	F02S01P79			**5**	-BI_22_S01—	
82	F02S01P80			**5**	-BI_23_S01—	
83	F02S01P81			**5**	-BI_24_S01—	
84	F02S01P82			**5**	-BI_25_S01—	

Bold *indicates items stored in E². For Section 2 the same fields are stored in E² but fields are blank.*

Table A-5 – Quick Start 250 (OptiView Model YS with SSS)

F81S01 Page No	ASCII Interface Address	Micro Object	Default Initial Value	Poll Interval	ASCII Text String	Description (Refer to current York Talk Points List)
3	F02S01P01	**AV.1**	**0.0**	**5**	-AO_01_S01—	Leaving Chilled Liquid Set Point
4	F02S01P02	**AV.2**	**0.0**	**5**	-AO_02_S01—	Motor Current Limit Set Point
5	F02S01P03		**0.0**	**5**	-AO_03_S01—	
6	F02S01P04		**0.0**	**5**	-AO_04_S01—	
7	F02S01P05	**BV.1**	**OPEN**	**5**	-DO_01_S01—	Remote Start/Stop [Stop / Start]
8	F02S01P06		**OPEN**	**5**	-DO_02_S01—	
9	F02S01P07		**OPEN**	**5**	-DO_03_S01—	
10	F02S01P08		**OPEN**	**5**	-DO_04_S01—	
11	F02S01P09	**AI.1**		**5**	-AI_01_S01—	Leaving Chilled Liquid Temperature
12	F02S01P10	**AI.2**		**5**	-AI_02_S01—	Return Chilled Liquid Temperature
13	F02S01P11	**AI.5**		**5**	-AI_03_S01—	Evaporator Pressure
14	F02S01P12	**AI.6**		**5**	-AI_04_S01—	Condenser Pressure
15	F02S01P13	**AV.14**		**5**	-AI_05_S01—	Oil Pressure Differential
16	F02S01P14	**AI.4**		**5**	-AI_06_S01—	Return Condenser Liquid Temperature
17	F02S01P15	**AI.3**		**5**	-AI_07_S01—	Leaving Condenser Liquid Temperature
18	F02S01P16	**AI.11**		**5**	-AI_08_S01—	Motor Current Percent FLA
19	F02S01P17	**AI.16**		**5**	-AI_09_S01—	SSS Phase A Current
20	F02S01P18	**AI.17**		**5**	-AI_10_S01—	SSS Phase B Current
21	F02S01P19	**AI.18**		**5**	-AI_11_S01—	SSS Phase C Current
22	F02S01P20	**AI.13**		**5**	-AI_12_S01—	SSS Phase A Voltage
23	F02S01P21	**AI.14**		**5**	-AI_13_S01—	SSS Phase B Voltage
24	F02S01P22	**AI.15**		**5**	-AI_14_S01—	SS Phase C Voltage
25	F02S01P23	**AV.1**		**5**	-AI_15_S01—	Leaving Chilled Liquid Set Point-Selected
26	F02S01P24	**AV.20**		**5**	-AI_16_S01—	Motor Current Limit Set Point-Selected
27	F02S01P25	**AV.6**		**5**	-AI_17_S01—	Evaporator Saturation Temp
28	F02S01P26	**AV.7**		**5**	-AI_18_S01—	Condenser Saturation Temp
29	F02S01P27	**AI.7**		**5**	-AI_19_S01—	Discharge Temperature
30	F02S01P28	**AI.41**		**5**	-AI_20_S01—	Oil Temperature
31	F02S01P29	**AI.54**		**5**	-AI_21_S01—	Filter Pressure Differential
32	F02S01P30	**AV.15**		**5**	-AI_22_S01—	Unit Operating Hours
33	F02S01P31	**AV.16**		**5**	-AI_23_S01—	Unit System Starts
34	F02S01P32	**AV.56**		**5**	-AI_24_S01—	Minimum Load Control Motor FLA Limit
35	F02S01P33	**AI.37**		**5**	-AI_25_S01—	Slide Valve Position
36	F02S01P34	**BO.1**		**5**	-BI_01_S01—	Motor Run Contacts
37	F02S01P35	**BO.12**		**5**	-BI_02_S01—	Oil Return Solenoid
38	F02S01P36	**BO.2**		**5**	-BI_03_S01—	Chilled Liquid Pump
39	F02S01P37	**BI.4**		**5**	-BI_04_S01—	Panel Stop Switch [Start enabled / Stop]
40	F02S01P38	**BI.1**		**5**	-BI_05_S01—	Chilled Liquid Flow Switch
41	F02S01P39			**5**	-BI_06_S01—	
42	F02S01P40	**BI.35**		**5**	-BI_07_S01—	Low Separator Oil Switch
43	F02S01P41			**5**	-BI_08_S01—	
44	F02S01P42			**5**	-BI_09_S01—	
45	F02S01P43			**5**	-BI_10_S01—	
46	F02S01P44			**5**	-BI_11_S01—	
47	F02S01P45			**5**	-BI_12_S01—	
48	F02S01P46			**5**	-BI_13_S01—	
49	F02S01P47			**5**	-BI_14_S01—	
50	F02S01P48			**5**	-BI_15_S01—	
51	F02S01P49			**5**	-BI_16_S01—	
52	F02S01P50			**5**	-BI_17_S01—	
53	F02S01P51			**5**	-BI_18_S01—	
54	F02S01P52			**5**	-BI_19_S01—	
55	F02S01P53	**BV.26**		**5**	-BI_20_S01—	Ice Storage Mode [Disabled/Enabled]
56	F02S01P54	**AV.19**		**5**	-AI_26_S01—	Anti-Recycle Time Remaining
57	F02S01P55	**SC.4**		**5**	-AI_27_S01—	Unit Warning Fault Code
58	F02S01P56	**SC.1**		**5**	-AI_28_S01—	Operation Code
59	F02S01P57	**SC.2**		**5**	-AI_29_S01—	Unit Safety Fault Code
60	F02S01P58	**SC.3**		**5**	-AI_30_S01—	Unit Cycling Fault Code
61	F02S01P59			**5**	-AI_31_S01—	
62	F02S01P60			**5**	-AI_32_S01—	
63	F02S01P61			**5**	-AI_33_S01—	
64	F02S01P62			**5**	-AI_34_S01—	
65	F02S01P63			**5**	-AI_35_S01—	
66	F02S01P64	**AV.4**		**5**	-AI_36_S01—	Leaving Chilled Liquid Restart Temperature
67	F02S01P65	**AV.55**		**5**	-AI_37_S01—	Seal Pressure Differential
68	F02S01P66			**5**	-AI_38_S01—	
69	F02S01P67			**5**	-AI_39_S01—	
70	F02S01P68			**5**	-AI_40_S01—	
71	F02S01P69			**5**	-AI_41_S01—	
72	F02S01P70			**5**	-AI_42_S01—	
73	F02S01P71			**5**	-AI_43_S01—	
74	F02S01P72			**5**	-AI_44_S01—	
75	F02S01P73			**5**	-AI_45_S01—	
76	F02S01P74			**5**	-AI_46_S01—	
77	F02S01P75			**5**	-AI_47_S01—	
78	F02S01P76			**5**	-AI_48_S01—	
79	F02S01P77			**5**	-AI_49_S01—	
80	F02S01P78			**5**	-BI_21_S01—	
81	F02S01P79			**5**	-BI_22_S01—	
82	F02S01P80			**5**	-BI_23_S01—	
83	F02S01P81			**5**	-BI_24_S01—	
84	F02S01P82			**5**	-BI_25_S01—	

Bold *indicates items stored in E². For Section 2 the same fields are stored in E² but fields are blank.*

Table A-6 – Quick Start 249 (York Talk 2 Version 6 Section 1 1200 baud)

York Talk F80 Page No.	ASCII Interface Address	Default Initial Value	ASCII Text String
3	F02S01P01	**0.0**	-AO_01_S01--
4	F02S01P02	**0.0**	-AO_02_S01--
5	F02S01P03	**0.0**	-AO_03_S01--
6	F02S01P04	**0.0**	-AO_04_S01--
7	F02S01P05	**OPEN**	-DO_01_S01--
8	F02S01P06	**OPEN**	-DO_02_S01--
9	F02S01P07	**OPEN**	-DO_03_S01--
10	F02S01P08	**OPEN**	-DO_04_S01--
11	F02S01P09		-AI_01_S01--
12	F02S01P10		-AI_02_S01--
13	F02S01P11		-AI_03_S01--
14	F02S01P12		-AI_04_S01--
15	F02S01P13		-AI_05_S01--
16	F02S01P14		-AI_06_S01--
17	F02S01P15		-AI_07_S01--
18	F02S01P16		-AI_08_S01--
19	F02S01P17		-AI_09_S01--
20	F02S01P18		-AI_10_S01--
21	F02S01P19		-AI_11_S01--
22	F02S01P20		-AI_12_S01--
23	F02S01P21		-AI_13_S01--
24	F02S01P22		-AI_14_S01--
25	F02S01P23		-AI_15_S01--
26	F02S01P24		-AI_16_S01--
27	F02S01P25		-AI_17_S01--
28	F02S01P26		-AI_18_S01--
29	F02S01P27		-AI_19_S01--
30	F02S01P28		-AI_20_S01--
31	F02S01P29		-AI_21_S01--
32	F02S01P30		-AI_22_S01--
33	F02S01P31		-AI_23_S01--
34	F02S01P32		-AI_24_S01--
35	F02S01P33		-AI_25_S01--
36	F02S01P34		-BI_01_S01--
37	F02S01P35		-BI_02_S01--
38	F02S01P36		-BI_03_S01--
39	F02S01P37		-BI_04_S01--
40	F02S01P38		-BI_05_S01--
41	F02S01P39		-BI_06_S01--
42	F02S01P40		-BI_07_S01--
43	F02S01P41		-BI_08_S01--
44	F02S01P42		-BI_09_S01--
45	F02S01P43		-BI_10_S01--
46	F02S01P44		-BI_11_S01--
47	F02S01P45		-BI_12_S01--
48	F02S01P46		-BI_13_S01--
49	F02S01P47		-BI_14_S01--
50	F02S01P48		-BI_15_S01--
51	F02S01P49		-BI_16_S01--
52	F02S01P51		-BI_17_S01--
53	F02S01P52		-BI_18_S01--
54	F02S01P53		-BI_19_S01--
55	F02S01P54		-BI_20_S01--
56	F02S01P55		-AI_26_S01--
57	F02S01P56		-AI_27_S01--
58	F02S01P57		-AI_28_S01--
59	F02S01P58		-AI_29_S01--
60	F02S01P59		-AI_30_S01--
61	F02S01P60		-AI_31_S01--
62	F02S01P61		-AI_32_S01--
63	F02S01P62		-AI_33_S01--
64	F02S01P63		-AI_34_S01--
65	F02S01P64		-AI_35_S01--
66	F02S01P65		-AI_36_S01--
67	F02S01P66		-AI_37_S01--
68	F02S01P67		-AI_38_S01--
69	F02S01P68		-AI_39_S01--
70	F02S01P69		-AI_40_S01--
71	F02S01P70		-AI_41_S01--
72	F02S01P71		-AI_42_S01--
73	F02S01P72		-AI_43_S01--
74	F02S01P73		-AI_44_S01--
75	F02S01P74		-AI_45_S01--
76	F02S01P75		-AI_46_S01--
77	F02S01P76		-AI_47_S01--
78	F02S01P77		-AI_48_S01--
79	F02S01P78		-AI_49_S01--
80	F02S01P79		-BI_21_S01--
81	F02S01P80		-BI_22_S01--
82	F02S01P81		-BI_23_S01--
83	F02S01P82		-BI_24_S01--
84	F02S01P83		-BI_25_S01--

Bold *indicates items stored in E². For Section 2 the same fields are stored in E² but fields are blank.*

Table A-7 – Quick Start 247 (York Talk 2 Version 6 1 Section 4800 baud)

York Talk F80 Page No.	ASCII Interface Address	Default Initial Value	ASCII Text String	
3	F02S01P01	**0.0**	-AO_01_S01--	
4	F02S01P02	**0.0**	-AO_02_S01--	
5	F02S01P03	**0.0**	-AO_03_S01--	
6	F02S01P04	**0.0**	-AO_04_S01--	
7	F02S01P05	**OPEN**	-DO_01_S01--	
8	F02S01P06	**OPEN**	-DO_02_S01--	
9	F02S01P07	**OPEN**	-DO_03_S01--	
10	F02S01P08	**OPEN**	-DO_04_S01--	
11	F02S01P09		-AI_01_S01--	
12	F02S01P10		-AI_02_S01--	
13	F02S01P11		-AI_03_S01--	
14	F02S01P12		-AI_04_S01--	
15	F02S01P13		-AI_05_S01--	
16	F02S01P14		-AI_06_S01--	
17	F02S01P15		-AI_07_S01--	
18	F02S01P16		-AI_08_S01--	
19	F02S01P17		-AI_09_S01--	
20	F02S01P18		-AI_10_S01--	
21	F02S01P19		-AI_11_S01--	
22	F02S01P20		-AI_12_S01--	
23	F02S01P21		-AI_13_S01--	
24	F02S01P22		-AI_14_S01--	
25	F02S01P23		-AI_15_S01--	
26	F02S01P24		-AI_16_S01--	
27	F02S01P25		-AI_17_S01--	
28	F02S01P26		-AI_18_S01--	
29	F02S01P27		-AI_19_S01--	
30	F02S01P28		-AI_20_S01--	
31	F02S01P29		-AI_21_S01--	
32	F02S01P30		-AI_22_S01--	
33	F02S01P31		-AI_23_S01--	
34	F02S01P32		-AI_24_S01--	
35	F02S01P33		-AI_25_S01--	
36	F02S01P34		-BI_01_S01--	
37	F02S01P35		-BI_02_S01--	
38	F02S01P36		-BI_03_S01--	
39	F02S01P37		-BI_04_S01--	
40	F02S01P38		-BI_05_S01--	
41	F02S01P39		-BI_06_S01--	
42	F02S01P40		-BI_07_S01--	
43	F02S01P41		-BI_08_S01--	
44	F02S01P42		-BI_09_S01--	
45	F02S01P43		-BI_10_S01--	
46	F02S01P44		-BI_11_S01--	
47	F02S01P45		-BI_12_S01--	
48	F02S01P46		-BI_13_S01--	
49	F02S01P47		-BI_14_S01--	
50	F02S01P48		-BI_15_S01--	
51	F02S01P49		-BI_16_S01--	
52	F02S01P51		-BI_17_S01--	
53	F02S01P52		-BI_18_S01--	
54	F02S01P53		-BI_19_S01--	
55	F02S01P54		-BI_20_S01--	
56	F02S01P55		-AI_26_S01--	
57	F02S01P56		-AI_27_S01--	
58	F02S01P57		-AI_28_S01--	
59	F02S01P58		-AI_29_S01--	
60	F02S01P59		-AI_30_S01--	
61	F02S01P60		-AI_31_S01--	
62	F02S01P61		-AI_32_S01--	
63	F02S01P62		-AI_33_S01--	
64	F02S01P63		-AI_34_S01--	
65	F02S01P64		-AI_35_S01--	
66	F02S01P65		-AI_36_S01--	
67	F02S01P66		-AI_37_S01--	
68	F02S01P67		-AI_38_S01--	
69	F02S01P68		-AI_39_S01--	
70	F02S01P69		-AI_40_S01--	
71	F02S01P70		-AI_41_S01--	
72	F02S01P71		-AI_42_S01--	
73	F02S01P72		-AI_43_S01--	
74	F02S01P73		-AI_44_S01--	
75	F02S01P74		-AI_45_S01--	
76	F02S01P75		-AI_46_S01--	
77	F02S01P76		-AI_47_S01--	
78	F02S01P77		-AI_48_S01--	
79	F02S01P78		-AI_49_S01--	
80	F02S01P79		-BI_21_S01--	
81	F02S01P80		-BI_22_S01--	
82	F02S01P81		-BI_23_S01--	
83	F02S01P82		-BI_24_S01--	
84	F02S01P83		-BI_25_S01--	

Bold *indicates items stored in E².*

Table A-8 – Quick Start 246 (York Talk 2 Version 6 Section 2 4800 baud)

York Talk F80 Page No.	ASCII Interface Address	Default Initial Value	ASCII Text String
3	F02SO2P01	**0.0**	-AO_01_S02--
4	F02S02P02	**0.0**	-AO_02_S02--
5	F02S02P03	**0.0**	-AO_03_S02--
6	F02S02P04	**0.0**	-AO_04_S02--
7	F02S02P05	**OPEN**	-DO_01_S02--
8	F02S02P06	**OPEN**	-DO_02_S02--
9	F02S02P07	**OPEN**	-DO_03_S02--
10	F02S02P08	**OPEN**	-DO_04_S02--
11	F02S02P09		-AI_01_S02--
12	F02S02P10		-AI_02_S02--
13	F02S02P11		-AI_03_S02--
14	F02S02P12		-AI_04_S02--
15	F02S02P13		-AI_05_S02--
16	F02S02P14		-AI_06_S02--
17	F02S02P15		-AI_07_S02--
18	F02S02P16		-AI_08_S02--
19	F02S02P17		-AI_09_S02--
20	F02S02P18		-AI_10_S02--
21	F02S02P19		-AI_11_S02--
22	F02S02P20		-AI_12_S02--
23	F02S02P21		-AI_13_S02--
24	F02S02P22		-AI_14_S02--
25	F02S02P23		-AI_15_S02--
26	F02S02P24		-AI_16_S02--
27	F02S02P25		-AI_17_S02--
28	F02S02P26		-AI_18_S02--
29	F02S02P27		-AI_19_S02--
30	F02S02P28		-AI_20_S02--
31	F02S02P29		-AI_21_S02--
32	F02S02P30		-AI_22_S02--
33	F02S02P31		-AI_23_S02--
34	F02S02P32		-AI_24_S02--
35	F02S02P33		-AI_25_S02--
36	F02S02P34		-BI_01_S02--
37	F02S02P35		-BI_02_S02--
38	F02S02P36		-BI_03_S02--
39	F02S02P37		-BI_04_S02--
40	F02S02P38		-BI_05_S02--
41	F02S02P39		-BI_06_S02--
42	F02S02P40		-BI_07_S02--
43	F02S02P41		-BI_08_S02--
44	F02S02P42		-BI_09_S02--
45	F02S02P43		-BI_10_S02--
46	F02S02P44		-BI_11_S02--
47	F02S02P45		-BI_12_S02--
48	F02S02P46		-BI_13_S02--
49	F02S02P47		-BI_14_S02--
50	F02S02P48		-BI_15_S02--
51	F02S02P49		-BI_16_S02--
52	F02S02P51		-BI_17_S02--
53	F02S02P52		-BI_18_S02--
54	F02S02P53		-BI_19_S02--
55	F02S02P54		-BI_20_S02--
56	F02S02P55		-AI_26_S02--
57	F02S02P56		-AI_27_S02--
58	F02S02P57		-AI_28_S02--
59	F02S02P58		-AI_29_S02--
60	F02S02P59		-AI_30_S02--
61	F02S02P60		-AI_31_S02--
62	F02S02P61		-AI_32_S02--
63	F02S02P62		-AI_33_S02--
64	F02S02P63		-AI_34_S02--
65	F02S02P64		-AI_35_S02--
66	F02S02P65		-AI_36_S02--
67	F02S02P66		-AI_37_S02--
68	F02S02P67		-AI_38_S02--
69	F02S02P68		-AI_39_S02--
70	F02S02P69		-AI_40_S02--
71	F02S02P70		-AI_41_S02--
72	F02S02P71		-AI_42_S02--
73	F02S02P72		-AI_43_S02--
74	F02S02P73		-AI_44_S02--
75	F02S02P74		-AI_45_S02--
76	F02S02P75		-AI_46_S02--
77	F02S02P76		-AI_47_S02--
78	F02S02P77		-AI_48_S02--
79	F02S02P78		-AI_49_S02--
80	F02S02P79		-BI_21_S02--
81	F02S02P80		-BI_22_S02--
82	F02S02P81		-BI_23_S02--
83	F02S02P82		-BI_24_S02--
84	F02S02P83		-BI_25_S02--

Quick Start 246 configures 2 sections. This table represents the Section 2. For Section 1 refer to the Table for Quick Start 247.

Bold *indicates items stored in E².*

Table A-9 – Quick Start 248 (York Talk 1 at 1200 baud)

York Talk F79 Page No.	ASCII Interface Address	Default Initial Value	ASCII Text String	
3	F02S01P01	**0.0**	-AO_01_S01--	
4	F02S01P02	**0.0**	-AO_02_S01--	
5	F02S01P03	**0.0**	-AO_03_S01--	
6	F02S01P04	**0.0**	-AO_04_S01--	
7	F02S01P05	**OPEN**	-DO_01_S01--	
8	F02S01P06	**OPEN**	-DO_02_S01--	
9	F02S01P07	**OPEN**	-DO_03_S01--	
10	F02S01P08	**OPEN**	-DO_04_S01--	
11	F02S01P09		-AI_01_S01--	
12	F02S01P10		-AI_02_S01--	
13	F02S01P11		-AI_03_S01--	
14	F02S01P12		-AI_04_S01--	
15	F02S01P13		-AI_05_S01--	
16	F02S01P14		-AI_06_S01--	
17	F02S01P15		-AI_07_S01--	
18	F02S01P16		-AI_08_S01--	
19	F02S01P17		-AI_09_S01--	
20	F02S01P18		-AI_10_S01--	
21	F02S01P19		-AI_11_S01--	
22	F02S01P20		-AI_12_S01--	
23	F02S01P21		-AI_13_S01--	
24	F02S01P22		-AI_14_S01--	
25	F02S01P23		-AI_15_S01--	
26	F02S01P24		-AI_16_S01--	
27	F02S01P25		-AI_17_S01--	
28	F02S01P26		-AI_18_S01--	
29	F02S01P27		-AI_19_S01--	
30	F02S01P28		-AI_20_S01--	
31	F02S01P29		-AI_21_S01--	
32	F02S01P30		-AI_22_S01--	
33	F02S01P31		-AI_23_S01--	
34	F02S01P32		-AI_24_S01--	
35	F02S01P33		-AI_25_S01--	
36	F02S01P34		-BI_01_S01--	
37	F02S01P35		-BI_02_S01--	
38	F02S01P36		-BI_03_S01--	
39	F02S01P37		-BI_04_S01--	
40	F02S01P38		-BI_05_S01--	
41	F02S01P39		-BI_06_S01--	
42	F02S01P40		-BI_07_S01--	
43	F02S01P41		-BI_08_S01--	
44	F02S01P42		-BI_09_S01--	
45	F02S01P43		-BI_10_S01--	
46	F02S01P44		-BI_11_S01--	
47	F02S01P45		-BI_12_S01--	
48	F02S01P46		-BI_13_S01--	
49	F02S01P47		-BI_14_S01--	
50	F02S01P48		-BI_15_S01--	
51	F02S01P49		-BI_16_S01--	
52	F02S01P51		-BI_17_S01--	
53	F02S01P52		-BI_18_S01--	
54	F02S01P53		-BI_19_S01--	
55	F02S01P54		-BI_20_S01--	
56	F02S01P55		-AI_26_S01--	
57	F02S01P56		-AI_27_S01--	
58	F02S01P57		-AI_28_S01--	
59	F02S01P58		-AI_29_S01--	
60	F02S01P59		-AI_30_S01--	
61	F02S01P60		-AI_31_S01--	
62	F02S01P61		-AI_32_S01--	
63	F02S01P62		-AI_33_S01--	
64	F02S01P63		-AI_34_S01--	
65	F02S01P64		-AI_35_S01--	
66	F02S01P65		-AI_36_S01--	
67	F02S01P66		-AI_37_S01--	
68	F02S01P67		-AI_38_S01--	
69	F02S01P68		-AI_39_S01--	
70	F02S01P69		-AI_40_S01--	
71	F02S01P70		-AI_41_S01--	
72	F02S01P71		-AI_42_S01--	
73	F02S01P72		-AI_43_S01--	
74	F02S01P73		-AI_44_S01--	
75	F02S01P74		-AI_45_S01--	
76	F02S01P75		-AI_46_S01--	
77	F02S01P76		-AI_47_S01--	
78	F02S01P77		-AI_48_S01--	
79	F02S01P78		-AI_49_S01--	
80	F02S01P79		-BI_21_S01--	
81	F02S01P80		-BI_22_S01--	
82	F02S01P81		-BI_23_S01--	
83	F02S01P82		-BI_24_S01--	
84	F02S01P83		-BI_25_S01--	

Bold *indicates items stored in E². York Talk 1 must be set in Feature 70*

NOTES

NOTES

NOTES

YORK® Controls Group

P.O. Box 1592, York, Pennsylvania USA 17405-1592
Tele. 800-861-1001 website: www.york.com

Unit 1, Red Shute Hill, Hermitage, Newbury, Berks RG18 9QL United Kingdom
Tele: +44 (0)1635 202200 e-mail: controls.sales@uk.york.com

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