Hardware User's Guide

6" QuickPanel View

IC754VSI06STD
IC754VBI06STD
IC754VSI06MTD
IC754VBI06MTD

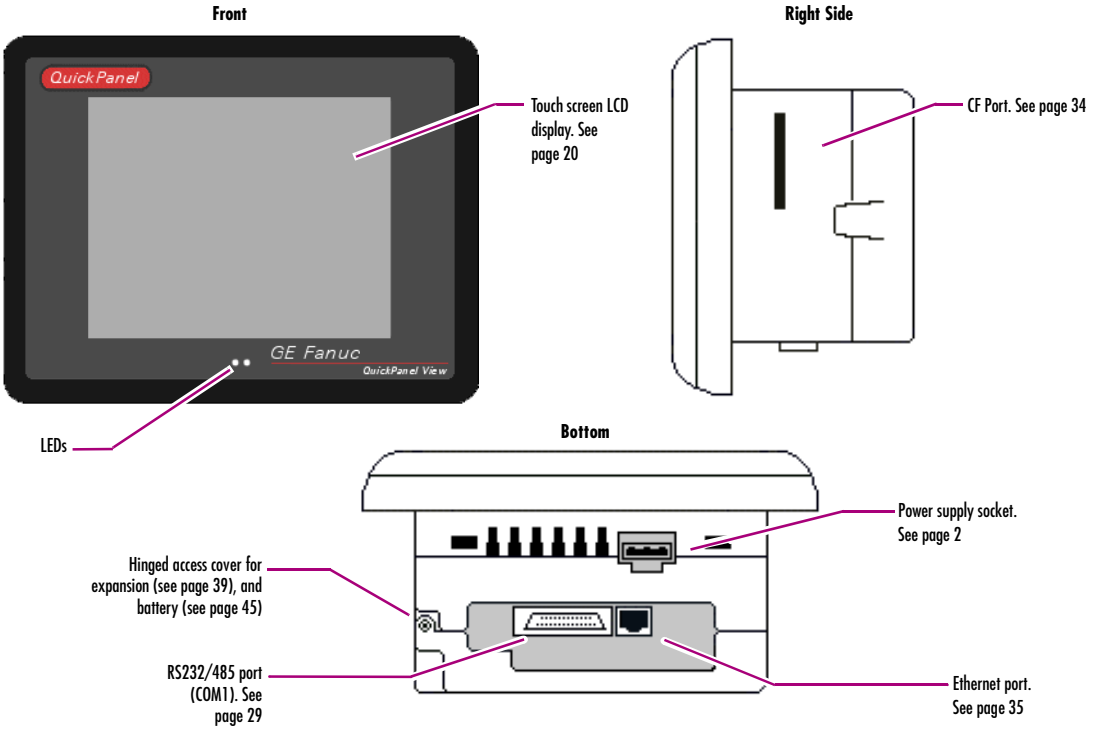
May 2004
GFK-2325

QUICKPANEL VIEW HARDWARE

Layout Diagram

In addition to the primary touch screen interface, the 6" QuickPanel View supports a variety of communication ports including an expansion bus to allow great flexibility in application. The following diagram shows the physical layout of the QuickPanel View and the locations of ports and connections

The left LED below the display is green when power is applied and amber if the backlight fails;[1] the right LED is tricolor (green, red, or amber) and programmable.



Note: On color STN models (IC754VxI06STD), the LEDs are located on the right side of the LCD display, with the bottom LED indicating power.

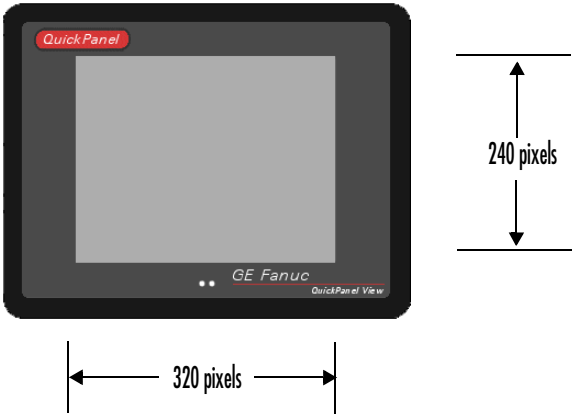
[1] Backlight is not field replaceable.

TOUCH SCREEN DISPLAY

The QuickPanel View has an integrated flat-panel color or monochrome display, depending on model. The color model (IC754VxI06STD) is backlit, measures 5.7" diagonally, and uses passive STN technology. The monochrome model (IC754VxI06MTD) is backlit, measures 5.7" diagonally, and uses passive FSTN technology.

The resolution of the color display is 320 x 240 pixels with 65,536 colors; the resolution of the monochrome display is 320 x 240 pixels with 256 shades of gray.

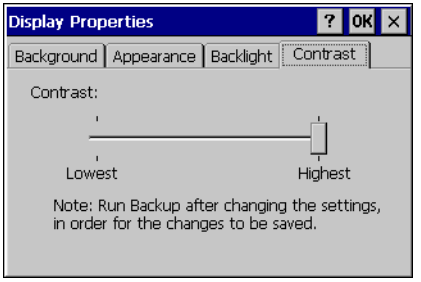
A backlight timer is featured on all models, extending backlight life by turning it off automatically.



To adjust the display contrast

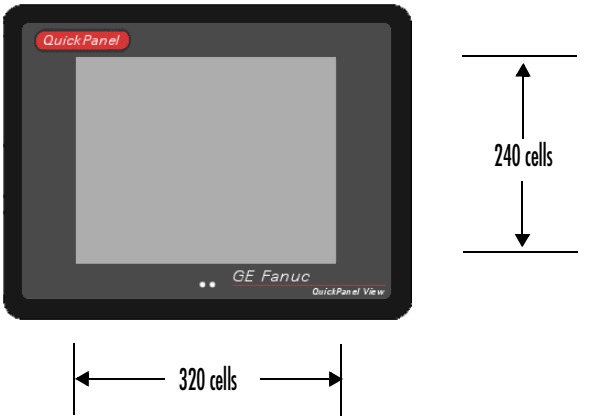
1. In the Control Panel, double-tap **Display** and choose the **Contrast** tab.

   The **Contrast** dialog box appears.



Touch Screen

The QuickPanel View display is coupled to a resistive touch panel with 12-bit resolution. When the QuickPanel View is properly calibrated, this translates into a grid of touch cells on the face of the display. Although you can use your finger to actuate the touch screen, use of a blunt stylus is recommended.



To calibrate the touch screen

1. In the Control Panel, double-tap **Stylus**.

   The **Stylus Properties** dialog box appears.



2. Choose the **Calibration** tab
3. Tap the **Recalibrate** button.

   A cross hair target is displayed.

COMMUNICATION PORT

The QuickPanel View has one serial data communication port (COM1).

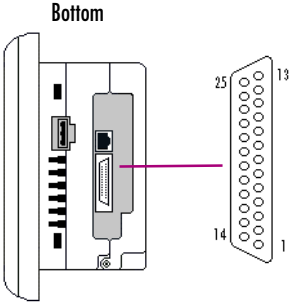
COM1- Serial

The COM1 port is a general purpose bidirectional serial data channel that supports the EIA232C and EIA485 electrical standards. The COM1 port can be accessed and configured:

- as a direct or dial-up remote networking connection.
- from a user-created application program.

A connection can be configured to reside on a network supporting a TCP/IP protocol.

A DB25S (female) connector, mounted on the side of the enclosure, provides standard signals as described in the following table.



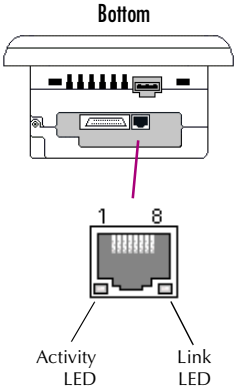
1	GND - Frame Ground	14	VCC - 5VDC, 0.5A
2	TX - (EIA232C)	15	TXB (EIA485)
3	RX - (EIA232C)	16	RXB (EIA485)
4	RTS - (EIA232C)	17	n/c
5	CTS - (EIA232C)	18	CSB (EIA485)
6	DSR - (EIA232C)	19	ERB (EIA485)
7	SG - Signal Ground	20	DTR (EIA232C)
8	DCD - (EIA232C)	21	CSA (EIA485)
9	TRMRXB (EIA485)	22	ERA (EIA485)
10	RXA (EIA485)	23	n/c
11	TXA (EIA485)	24	n/c
12	n/c	25	n/c
13	n/c		

Notes:

- Pin 14 is fused with a field-replaceable, 1A fast-blow fuse.
- Twisted pair cabling is required when using EIA485 communications.
- When using in EIA485 mode, RXA/RXB termination should be used if the unit is the last node on the 485 network. A termination resistor is included and is used by connecting pin 9 to pin 10.
- When using in EIA485 mode, pin 7 (ground) should not be used.

ETHERNET

The QuickPanel View is equipped with a 10/100BaseT auto-negotiate Ethernet port (IEEE802.3), and you can connect an Ethernet network cable (unshielded, twisted pair, UTP CAT 5) to the unit via the RJ45 connector on the bottom of the enclosure. LED indicators on the port indicate channel status. Access to the port is possible either by Windows CE network communications, or by your custom application. The following diagram shows the location, orientation, and pin out of the Ethernet port.



1	TX_D1 +
2	TX_D1 -
3	RX_D2 +
4	B1_D3 +
5	B1_D3 -
6	RX_D2 -
7	B1_D4 +
8	B1_D4 -

There are two methods for setting an IP address on the QuickPanel View:

- **DHCP (Dynamic Host Configuration Protocol).** This is the default method that is carried out automatically.

  Note: There must be a DHCP server on the connected network for a valid IP address to be assigned. Contact your network administrator to ensure correct DHCP server configuration.

- **Manual method.** The user uniquely specifies the numeric addresses for the QuickPanel View, the Subnet Mask (if applicable), and the Default Gateway.

  Note: Use a crossover cable to connect the QuickPanel View to a PC directly; when connecting to a LAN HUB, use a straight through cable. Contact your network administrator if you require further information.

MEMORY

The QuickPanel View supports a variety of memory subsystems to ensure the requirements of your application are met. All system memory is tied directly to the microprocessor's address and data busses for fastest access. To increase DRAM by up to 64 MB, a 100-pin DIMM memory expansion slot is also included.

Flash Memory

This 32 MB block of non-volatile memory is the main long-term program storage for the QuickPanel View, operating like a virtual hard drive from the point of view of Windows CE. It is divided into two areas, of which only one is accessible from Windows CE Explorer. The **Flash Storage** folder represents a 16 MB block of memory available for long-term storage of user application programs. The other 16 MB is used to store the Windows CE operating system, and is not directly accessible from Windows CE Explorer.

The operating system and all user application programs are transferred from Flash to DRAM for execution. Any user additions to the **Windows** folder are retained in **Flash Storage** when the **Backup** utility is run.

FLASH memory has a limited write-cycle lifetime. That is, the physical memory devices wear out after approximately 100,000 cycles (minimum), so it is advisable to limit file operations such as copy, delete, etc.

The write cycle is much slower for FLASH than it is for other portions of RAM, therefore FLASH is not recommended for the storage of program variables, or any data items whose values are dynamic.

Flash memory can optionally be added with a CF Card, which will appear as the **PCFlash Storage** folder.

To add Flash memory with a CF Card

- Insert a Compact Flash card into CF Port (see page 34).

The unit immediately reads the new secondary storage. If the disk requires formatting, you will be prompted to do so.

New memory appears in Windows CE Explorer as **PCFlash Storage**.

Memory

FLASH	32 MB
SRAM	512KB (Battery Backed)
DRAM	32 MB
ROM	512 KB (Boot loader)

Memory Expansion Slot

Form Factor	100 pin DIMM
Memory Type	SDRAM
Maximum DRAM	64 MB
Maximum Devices/Module	4
Bus Width	32 bits
Bus Speed	100 MHz or faster
Voltage	3.3 VDC
CAS Latency	CL=3
Refresh Cycle Time	64 ms maximum
Error Correction	Non-ECC
Error Detection	No parity
Buffering	None
Device Row Addressing	12 Address Lines (A0 to A11)
Expansion Memory Catalog Number	32MB - IC754ACC32MEM 64MB - IC754ACC64MEM

Expansion Ports

Compact Flash Memory	One slot (type 2)
Expansion Bus	One slot