

GOT-F900

F930GOT-BBD-K-E

Installation Manual

JY997D02501D

This manual contains text, diagrams and explanations which will guide the reader in the correct installation, safe use and operation of the F930GOT-BBD-K-E and should be read and understood before attempting to install or use the unit. Further information can be found in the associated manuals list below. Specifications are subject to change without notice

Guidelines for the Safety of the User and Protection of the F930GOT-BBD-K-E

This manual has been written to be used by trained and competent personnel. The definition of such a person or persons is as follows:

- Any engineer using the product associated with this manual, should be of a competent nature, trained and qualified to the local and national standards. These engineers should be fully aware of all aspects of safety with regards to automated equipment.
- Any commissioning or service engineer must be of a competent nature, trained and qualified to the local and national standards.
- All operators of the completed equipment should be trained to use that product in a safe and co-ordinated manner in compliance to established safety practices.

Note: The term 'completed equipment' refers to a third party constructed device which contains or uses the product associated with this manual.

Note's on the Symbols Used in this Manual

At various times through out this manual certain symbols will be used to highlight points of information which are intended to ensure the users personal safety and protect the integrity of equipment.



- 1) Indicates that the identified danger **WILL** cause physical and property damage.



- 2) Indicates that the identified danger could **POSSIBLY** cause physical and property damage.

- Under no circumstances will Mitsubishi Electric be liable or responsible for any consequential damage that may arise as a result of the installation or use of this equipment.
- All examples and diagrams shown in this manual are intended only as an aid to understanding the text, not to guarantee operation. Mitsubishi Electric will accept no responsibility for actual use of the product based on these illustrative examples.
- Owing to the very great variety in possible application of this equipment, you must satisfy yourself as to its suitability for your specific application.

Associated Manuals

	Manual Name	Manual Number	Description
○	F930GOT-BBD-K-E Installation Manual	JY997D02501	Describes the specifications, wiring, and installation of F930GOT-BBD-K-E graphic operation terminal. (hardware)
⊙	GOT-F900 OPERATION MANUAL (describes GT Designer2)	JY997D09101 (separate volume)	Describes the operation and use of the GOT-F900 Series graphic operation terminals and GT Designer2.
⊙	GOT-F900 Series Operation Manual	JY992D94701 (separate volume)	Describes the operation and use of the GOT-F900 Series graphic operation terminals, GT Designer and FX-PCS-DU/WIN-E.
⊙	GOT-F900 Series Hardware Manual (connection diagram)	JY992D94801 (separate volume)	Describes wiring and installation of the GOT-F900 Series graphic operation terminals.
○	GT Designer2 Version1 Operating Manual	(PDF files on CD-ROM included with product)	Describes the operation of GT Designer2 (SW*D5C-GTD2-E) and data transfer to the GOT-900 Series.
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○	FX-PCS-DU/WIN-E SOFTWARE MANUAL	JY992D68301 (included with the screen creation software)	Describes the operation of FX-PCS-DU/WIN-E screen creation software.

⊙ Indispensable manual

○ Either manual is necessary.

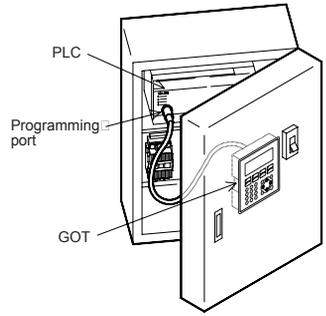
Refer to the Programming manual (II) or relevant hardware manuals for details concerning the applicable PLC.

1. Introduction

The F930GOT-BBD-K-E (hereafter called "GOT") is to be mounted on the face of a control panel or operations panel, and connected to the programming port (CPU port) or the communication port (communication port) of a PLC.

Various devices can be monitored and PLC data changed via the GOT screens. Several display screens are built-in to the GOT, and additional personalized screens can be created by the user.

- 1) The GOT can connect to MELSEC FX, A, QnA and Q PLCs as well as a host of third party manufactured units. Further information can be found in GOT-F900 Series Hardware Manual.
- 2) PLC user programs can be downloaded, uploaded and monitored using programming software GX-Developer or FX-PCS/WIN-E on a personal computer via the GOT. Further information can be found in the GOT-F900 Series Operation Manual.
- 3) Display screens are created using the following software:



Software Name	Version
GT Designer2 SW□D5C-GTD2-E (□ indicates version)	GOT-F900 and GOT-A900 Series (for Windows) screen creation software.
GT Designer SW□D5C-GOTR-PACKE (□ indicates version)	GOT-F900 and GOT-A900 Series (for Windows) screen creation software. SW5-26 edition of SW5D5C-GOTR-PACKE (version 5.26C) or later
FX-PCS-DU/WIN-E	GOT-F900 Series (for Windows) screen creation software. SW0PC-FXDU/WIN-E version 2.70 or later

1.1 Product Lists

Production Name	Description
F930GOT-BBD-K-E	Graphic operation terminal main unit
FX-50DU-CAB0	Communication cable (GOT ↔ CPU port in FX0s, FX1s, FX0N, FX1N, FX2N or FX2NC series PLC) The connector on the GOT side is wired straight through. Cable length is 3m (9' 10").
FX-50DU-CAB0/EN	Communication cable (GOT ↔ CPU port in FX0s, FX1s, FX0N, FX1N, FX2N or FX2NC series PLC) The connector on the GOT side is wired straight through. Cable length is 3m (9' 10"). Use the FX-50DU-CAB0/EN for compliance with EC EMC.
FX-50DU-CAB0-**M	Communication cable (GOT ↔ CPU port in FX0s, FX1s, FX0N, FX1N, FX2N or FX2NC series PLC) The connector on the GOT side is wired straight through. ** M is cable length. 1M: 1m (3' 3"), 10M: 10m (32' 9"), 20M: 20m (65' 7"), 30M: 30m (98' 5")
FX-40DU-CAB	Communication cable (GOT ↔ CPU port in A or QnA series PLC) The connector on the GOT side is wired straight through. Cable length is 3m (9' 10").
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QC30R2	Communication cable (GOT ↔ CPU port in Q series PLC) The connector on the GOT side is wired straight through. Cable length is 3m (9' 10").
FX-232CAB-1	Data exchange cable (GOT ↔ Personal computer <9-pin D-sub>)
FX2NC-32BL	Battery for Alarm history and current time data retention.
F9GT-30PSC	Transparent protection sheet for F930GOT (5 pieces)



Caution

During abnormal communication (including cable breakages) when monitoring within the GOT, communication between the GOT and programmable controller CPU is interrupted. It is then impossible to operate switches or devices in the PLC via the GOT. Communication and normal operation resumes when the GOT system is correctly configured. DO NOT configure emergency stop or safety features to operate through the GOT, and be sure that there is no adverse consequences in the event of a GOT - PLC communications malfunction.



Note:

- Do not lay signal cables near high voltage power cables or allow them to share the same trunking duct, otherwise, effects of noise or surge induction are likely to occur. Keep a safe distance of more than 100 mm from these wires.
- Operate touch switches on the display screen by hand.
DO NOT use excessive force, or attempt to operate them with hard or pointed objects. The tip of a screw driver, pen or similar object for example may break the screen.

1.2 Dimensions and Each Part Name

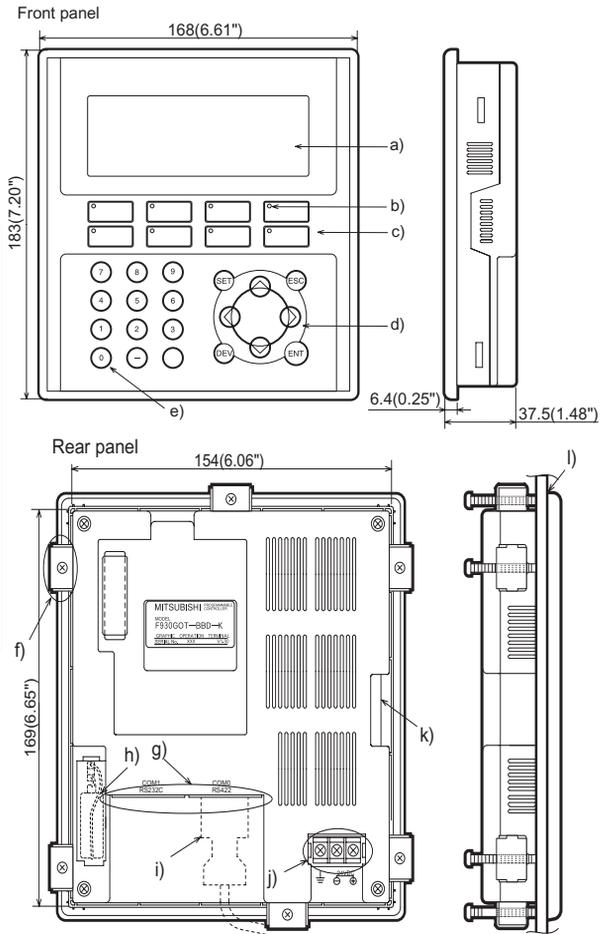
Dimensions: mm (inches) Mass (Weight): 0.6 kg (1.32 lbs)

Accessory: Mounting brackets, Tightening bolt (M3, 4 bolts),
Packing seal for dust and water resistance

- a) Display
- b) LED (green)
- c) Function keys
- d) Cursor keys
- e) 0 to 9 keys
- f) Mounting bracket and tightening bolt (accessory)
- g) Communication ports

Port	Description
COM0 (RS- 422)	RS-422 port for connecting PLC (including 1:N connection) or communication (computer link) unit <9-pin D-sub>
COM1 (RS- 232C)	RS-232C port for connecting either a personal computer, printer, bar-code reader or 1:N connection <9-pin D-sub>

- h) FX2NC-32BL battery
- i) Communication cable (optional)
- j) DC power supply terminal (M3)
- k) Label insert
- l) Packing seal (accessory)



2. Specifications

2.1 General Specifications

Item	Specifications
Operating Temperature	0 ~ 50 °C (32 ~ 122 °F)
Storage Temperature	-20 ~ 60 °C (-4 ~ 140 °F)
Humidity	35 ~ 85% Relative Humidity, No condensation
Operating atmosphere	Must be free of lamp black, corrosive gas, flammable gas, or excessive amount of electroconductive dust particles and must be no direct sunlight. (Same as for saving)
Vibration Resistance - intermittent vibration	10 ~ 57 Hz: 0.075 mm Half Amplitude 57 ~ 150 Hz: 9.8 m/s ² Acceleration Sweep Count for X, Y, Z: 10 times (80 min. in each direction)
Vibration Resistance - Continuous vibration	10 ~ 57 Hz: 0.035 mm Half Amplitude 57 ~ 150 Hz: 4.9 m/s ² Acceleration Sweep Count for X, Y, Z: 10 times (80 min in each direction)
Shock Resistance	147m/s ² Acceleration, 3 times in each direction X, Y, and Z
Noise Immunity	1000 Vp-p, 1micro second, 30 ~ 100 Hz, tested by noise simulator
Dielectric Withstand Voltage	500 V AC > 1 min, tested between power terminals and ground
Insulation Resistance	5 MΩ > at 500 V DC, tested between power terminals and ground
Ground	Grounding resistance of 100 Ω or less.
Protection	IP65f level

2.2 Power Supply Specifications

Items	Specifications
Power Supply Voltage	24V DC, +10% -15%
Power Supply Ripple	200 mV or less
Current Consumption	Ratings: 220 mA at 24V DC (120 mA at 24 V DC when backlight is turned OFF)
Fuse	Fuse built-in GOT (impossible to change)
Max. Allowable Momentary Power Supply Failure period	5 ms; If less than 5 ms, the GOT will continue operation. If 5 ms or more, the GOT will shut down.
Battery	Built-in, FX2NC-32BL type lithium battery. (Approximately 3 years battery life)

2.3 Screen Hardware Specifications

Items	Specifications
Display Device	STN monochrome liquid crystal
Resolution	240 × 80 (dot), 30 characters × 5 lines
Dot Pitch	0.47 mm (0.019") Horizontal × 0.47 mm (0.019") Vertical.
Effective Display Size	117 mm (4.61") × 42 mm (1.65"); 4 (4.4 inch) type
Number of Colours	2 colours (White and Blue)
Life of liquid crystal	Approximately 50,000 hours (Operating temperature: 25 °C/77°F)
Backlight	Cold cathode tube
Life of Backlight	50,000 hours or more (Operating temperature: 25 °C/77°F)
Touch Keys	Maximum 50 touch keys / screen, 15 × 4 matrix
Keypad	28 keys(0 to 9 keys, Cursor keys, Function keys, SET key, DEV key, ESC key, ENT key)
Interface	RS-422 RS-422 (COM0)
	RS-232C RS-232C (COM1)
Number of Screens	User screen: 500 screens or less System screen: Allocated screens No. 1001-1030.
User Memory	Flash memory 256 KB (built-in)

- Bright dots (always lit) and dark dots (unlit) may appear on a liquid crystal display panel. It is impossible to completely avoid this symptom, as the liquid crystal display comprises of a great number of display elements. Flickers may be observed depending on the display color. Please note that these dots appear due to its characteristic and are not caused by product defect.
- When the same screen is displayed for a long time, an incidental color or partial discoloration is generated on the screen due to heat damage, and it may not disappear.
- Using the GOT Backlight OFF function can prolong the life of the backlight.
For details on the Backlight OFF function, refer to the following.
GOT-F900 Series OPERATION MANUAL/GOT-F900 Series OPERATION MANUAL [GT Designer2 Version]

3. Installation



Note;

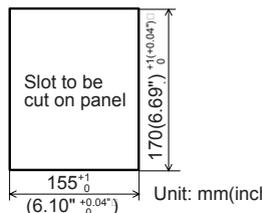
- Do not mount the GOT in an environment that contains dust, soot corrosive or conductive dust, corrosive or flammable gas, or expose the unit to high temperatures, dew condensation, direct sunlight, rain, wind or impact and vibration.
If the GOT is used in such a place, electrical shock, fire, malfunction, damages or deterioration may occur.
- Never drop cutting chips or electric wire chips into the ventilation window of the GOT when drilling screw holes or performing wiring. Such chips may cause fire, failure or malfunction.
- Turn off the power before securely connecting any cables. Poor connection may cause malfunction.

The GOT is designed to be mounted in a panel. Install it using the following procedure:

1) Preparing the panel surface.

On the panel surface, cut a rectangular mounting slot with the dimensions shown on the right.

At this time, a space of 10 mm is required at each of the top and the bottom sides of the slot, inside the panel for metal fixtures as shown in "4) Dimensions required inside the panel for installation".



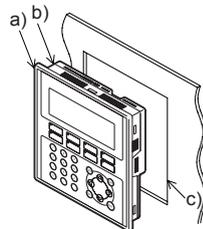
Note

Make sure that the thickness of the panel surface is no more than 5 mm (0.20").

2) Inserting the GOT into the panel surface

Attach the packing seal to the GOT, and insert the GOT from the front face of the panel surface.

- Packing seal
- GOT
- Mounting slot

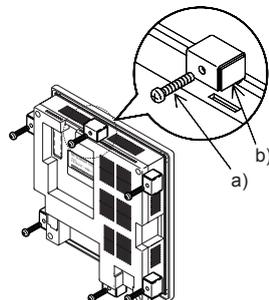


3) Fixing the GOT

Put hooks of the mounting brackets (supplied) in to the mounting holes of the GOT. Tighten mounting bolts (also supplied) until the GOT is securely fixed.

Fix mounting bolts in all four positions, above and below the GOT.

- Clamping bolt
- Mounting bracket



**Note:**

Make sure to tighten the clamping bolts with a torque of 0.3 ~ 0.5 N·m.

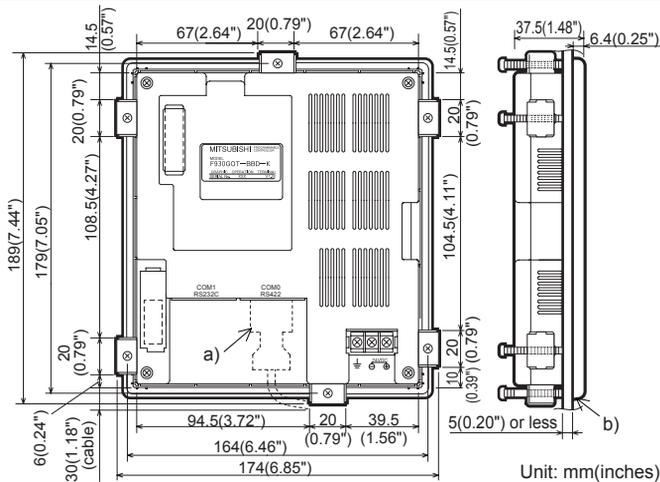
4) Peeling of protective sheet

Make sure to peel off the protective sheet on the surface of the product before use.

Dimensions required inside the panel for installation.

When installing the GOT, make sure that the inner dimensions shown on the right are available.

- a) PLC connection cable
- b) Packing seal

**4. Power Supply Wiring****Caution:**

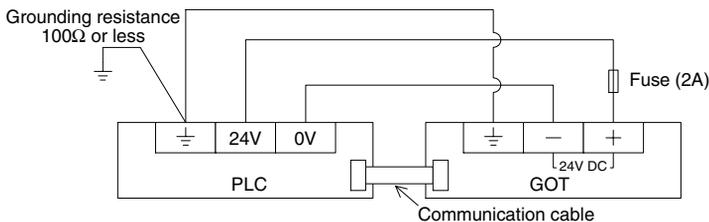
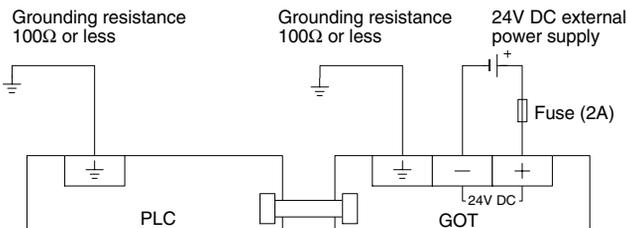
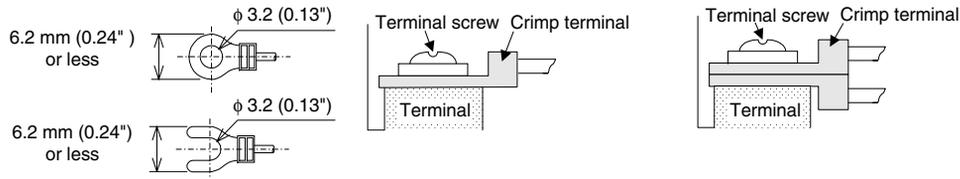
Cut OFF all external phases of power before installation or wiring to avoid electric shock or serious damage to the product.

**Note:**

- Wire the power supply using electric wires of 0.75 mm² or more so that voltage drop will not occur. Use M3 size crimp style terminals. Securely tighten crimp-style terminals with a torque of 0.5 ~ 0.8 N·m so that errors can be avoided.
- Insure correct termination of the DC power source, incorrect connection may result in unit failure or serious damage to the GOT.
- Attach a 2 A fuse to the 24V DC power supply.
- Perform grounding (100Ω or less) with an electric wire of at least 1.25 mm². Never perform common grounding of the GOT and a strong power system.

**Note:**

- Use an external power supply to provide 24V DC. The service power supply of the programmable controller cannot be used. (Confirm the service power supply capacity of the main unit or extension unit is more than the total value of the current consumption of the GOT, extension blocks and special function blocks.)
- Even if instantaneous power interruption of less than 5 ms occurs, the GOT continues to operate. When power interruption for a considerable period of time or voltage drop occurs, the GOT stops its operation. However, when the power supply is recovered, the GOT automatically restarts its operation. (The screen displayed just after recovery is determined by the working environment originally set.)

4.1 Using Service Power Supply of PLC**4.2 Using External Power Supply****Crimp Terminal**

5. Maintenance



Cautions:

- Correctly connect the battery for memory backup. Never charge, disassemble, heat, burn or short-circuit the battery. If the battery is handled in such a way, or fire may be caused.
- Always power OFF and remove the GOT from the panel before starting the replacement of the backlight and battery. If this is not the case, the backlight may be dropped and subsequently cause injury, or electrical shock may be sustained.
- Never disassemble or modify the GOT. Disassembly or modification may cause failure, malfunction or fire. For repair, please, contact a service representative.



Note:

Turn OFF the power, before connecting/disconnecting cables. Connecting/disconnecting cables while the power is turned on will cause failure or malfunction.

When repairing the liquid crystal screen, please, contact a service representative.

5.1 Battery Replacement

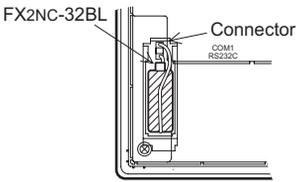
When the battery voltage drops, a control device (system information) set by the screen design software turns ON. The control device interlocks with an auxiliary relay in the PLC. It is recommended to provide a lamp while utilizing the output of the PLC so that voltage drop can be monitored outside the GOT. For details of control devices, refer to the GOT-F900 Series Operation Manual.



Note:

For approximately one month after the control device for battery voltage drop turns ON, the battery will back up the alarm history, sampling and the current time. When the control device (system information) turns ON, replace the battery (FX2NC-32BL) as soon as possible. The screen data is stored in the flash memory, therefore, the screen data will remain even after severe battery voltage loss.

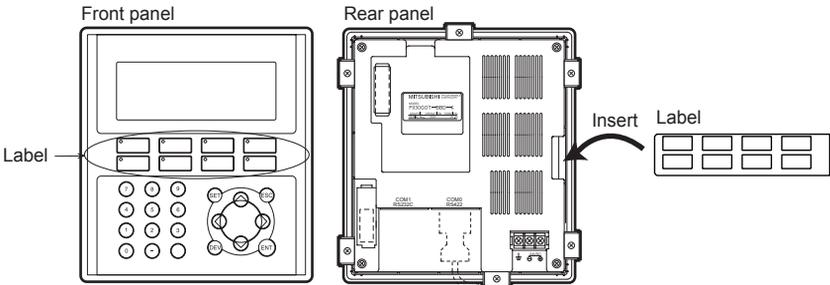
5.1.1 Replacement Procedure



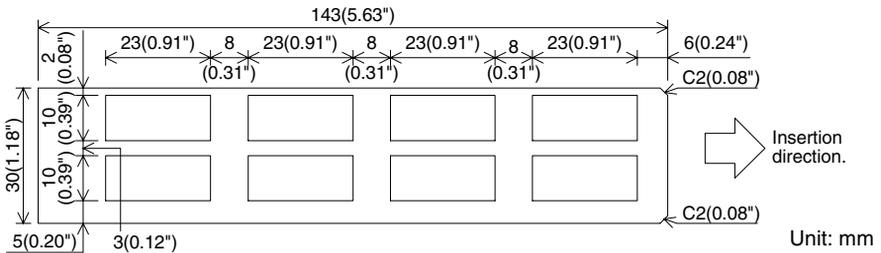
- 1) Turn off the power to the GOT and remove the battery holder cover.
- 2) Remove the existing battery from the battery holder, and disconnect.
- 3) Within 30 seconds, connect a new battery.
- 4) Insert the new battery into the battery holder, and attach the cover.

6. Label Insert

The clear plastic sheet for labeling Function keys can be replaced from the rear of the GOT. Clarify the user defined key name and operation by using this label.



Label dimensions



Warranty

Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; opportunity loss or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

For the detailed warranty, refer to the GOT-F900 Series HARDWARE MANUAL [CONNECTION].

Manual number : JY997D02501

Manual revision : D

Date : Sep. 2008



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HIMEJI WORKS : 840, CHIYODA CHO, HIMEJI, JAPAN

GOT-F900

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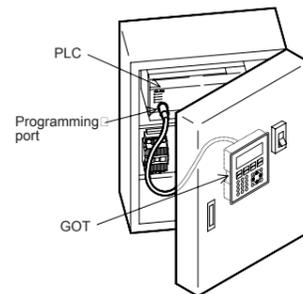
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- Operate touch switches on the display screen by hand. DO NOT use excessive force, or attempt to operate them with hard or pointed objects. The tip of a screw driver, pen or similar object for example may break the screen.

1.2 Dimensions and Each Part Name

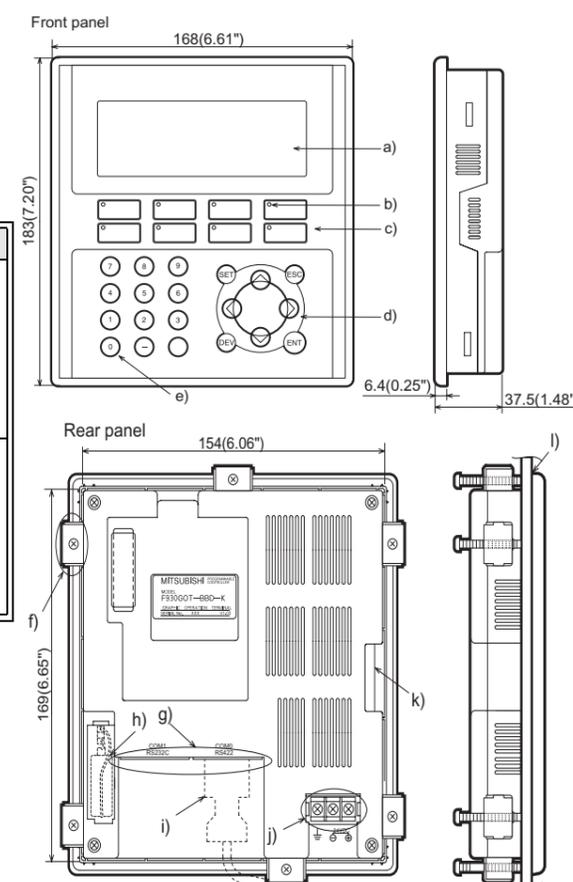
Dimensions: mm (inches) Mass (Weight): 0.6 kg (1.32 lbs)

Accessory: Mounting brackets, Tightening bolt (M3, 4 bolts), Packing seal for dust and water resistance

- Display
- LED (green)
- Function keys
- Cursor keys
- 0 to 9 keys
- Mounting bracket and tightening bolt (accessory)
- Communication ports

Port	Description
COM0 (RS-422)	RS-422 port for connecting PLC (including 1:N connection) or communication (computer link) unit <9-pin D-sub>
COM1 (RS-232C)	RS-232C port for connecting either a personal computer, printer, bar-code reader or 1:N connection <9-pin D-sub>

- FX2NC-32BL battery
- Communication cable (optional)
- DC power supply terminal (M3)
- Label insert
- Packing seal (accessory)



2. Specifications

2.1 General Specifications

Item	Specifications
Operating Temperature	0 ~ 50 °C (32 ~ 122 °F)
Storage Temperature	-20 ~ 60 °C (-4 ~ 140 °F)
Humidity	35 ~ 85% Relative Humidity, No condensation
Operating atmosphere	Must be free of lamp black, corrosive gas, flammable gas, or excessive amount of electroconductive dust particles and must be no direct sunlight. (Same as for saving)
Vibration Resistance - intermittent vibration	10 ~ 57 Hz: 0.075 mm Half Amplitude 57 ~ 150 Hz: 9.8 m/s ² Acceleration Sweep Count for X, Y, Z: 10 times (80 min. in each direction)
Vibration Resistance - Continuous vibration	10 ~ 57 Hz: 0.035 mm Half Amplitude 57 ~ 150 Hz: 4.9 m/s ² Acceleration Sweep Count for X, Y, Z: 10 times (80 min in each direction)
Shock Resistance	147m/s ² Acceleration, 3 times in each direction X, Y, and Z
Noise Immunity	1000 Vp-p, 1micro second, 30 ~ 100 Hz, tested by noise simulator
Dielectric Withstand Voltage	500 V AC > 1 min, tested between power terminals and ground
Insulation Resistance	5 MΩ > at 500 V DC, tested between power terminals and ground
Ground	Grounding resistance of 100 Ω or less.
Protection	IP65f level

2.2 Power Supply Specifications

Items	Specifications
Power Supply Voltage	24V DC, +10% -15%
Power Supply Ripple	200 mV or less
Current Consumption	Ratings: 220 mA at 24V DC (120 mA at 24 V DC when backlight is turned OFF)
Fuse	Fuse built-in GOT (impossible to change)
Max. Allowable Momentary Power Supply Failure period	5 ms; If less than 5 ms, the GOT will continue operation. If 5 ms or more, the GOT will shut down.
Battery	Built-in, FX2NC-32BL type lithium battery. (Approximately 3 years battery life)

2.3 Screen Hardware Specifications

Items	Specifications
Display Device	STN monochrome liquid crystal
Resolution	240 × 80 (dot), 30 characters × 5 lines
Dot Pitch	0.47 mm (0.019") Horizontal × 0.47 mm (0.019") Vertical.
Effective Display Size	117 mm (4.61") × 42 mm (1.65"); 4 (4.4 inch) type
Number of Colours	2 colours (White and Blue)
Life of liquid crystal	Approximately 50,000 hours (Operating temperature: 25 °C/77°F)
Backlight	Cold cathode tube
Life of Backlight	50,000 hours or more (Operating temperature: 25 °C/77°F)
Touch Keys	Maximum 50 touch keys / screen, 15 × 4 matrix
Keypad	28 keys(0 to 9 keys, Cursor keys, Function keys, SET key, DEV key, ESC key, ENT key)
Interface	RS-422 RS-422 (COM0)
	RS-232C RS-232C (COM1)
Number of Screens	User screen: 500 screens or less System screen: Allocated screens No. 1001-1030.
User Memory	Flash memory 256 KB (built-in)

- Bright dots (always lit) and dark dots (unlit) may appear on a liquid crystal display panel. It is impossible to completely avoid this symptom, as the liquid crystal display comprises of a great number of display elements. Flickers may be observed depending on the display color. Please note that these dots appear due to its characteristic and are not caused by product defect.
- When the same screen is displayed for a long time, an incidental color or partial discoloration is generated on the screen due to heat damage, and it may not disappear.
- Using the GOT Backlight OFF function can prolong the life of the backlight. For details on the Backlight OFF function, refer to the following.
GOT-F900 Series OPERATION MANUAL/GOT-F900 Series OPERATION MANUAL [GT Designer2 Version]

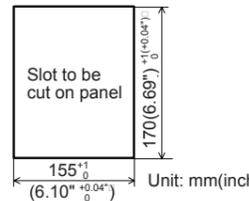
3. Installation

- Note:**
- Do not mount the GOT in an environment that contains dust, soot corrosive or conductive dust, corrosive or flammable gas, or expose the unit to high temperatures, dew condensation, direct sunlight, rain, wind or impact and vibration. If the GOT is used in such a place, electrical shock, fire, malfunction, damages or deterioration may occur.
 - Never drop cutting chips or electric wire chips into the ventilation window of the GOT when drilling screw holes or performing wiring. Such chips may cause fire, failure or malfunction.
 - Turn off the power before securely connecting any cables. Poor connection may cause malfunction.

The GOT is designed to be mounted in a panel. Install it using the following procedure:

1) Preparing the panel surface.

On the panel surface, cut a rectangular mounting slot with the dimensions shown on the right. At this time, a space of 10 mm is required at each of the top and the bottom sides of the slot, inside the panel for metal fixtures as shown in "4) Dimensions required inside the panel for installation".

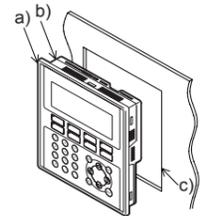


- Note:** Make sure that the thickness of the panel surface is no more than 5 mm (0.20").

2) Inserting the GOT into the panel surface

Attach the packing seal to the GOT, and insert the GOT from the front face of the panel surface.

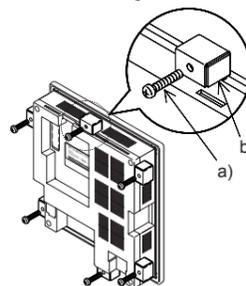
- Packing seal
- GOT
- Mounting slot



3) Fixing the GOT

Put hooks of the mounting brackets (supplied) in to the mounting holes of the GOT. Tighten mounting bolts (also supplied) until the GOT is securely fixed. Fix mounting bolts in all four positions, above and below the GOT.

- Clamping bolt
- Mounting bracket



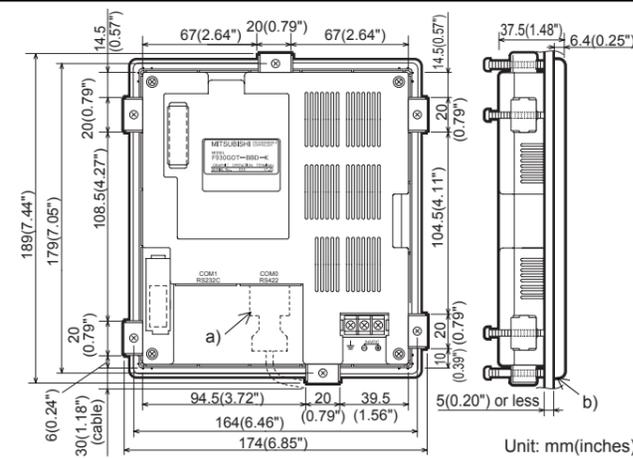
Note: Make sure to tighten the clamping bolts with a torque of 0.3 ~ 0.5 N·m.

- Peeling of protective sheet
Make sure to peel off the protective sheet on the surface of the product before use.

Dimensions required inside the panel for installation.

When installing the GOT, make sure that the inner dimensions shown on the right are available.

- PLC connection cable
- Packing seal



4. Power Supply Wiring



Caution: Cut OFF all external phases of power before installation or wiring to avoid electric shock or serious damage to the product.

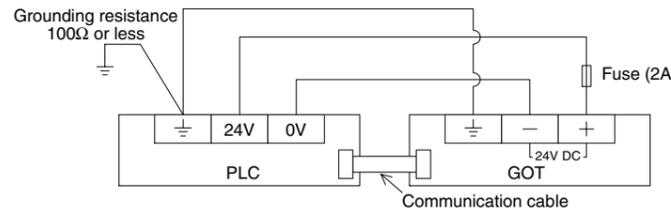


- Note:**
- Wire the power supply using electric wires of 0.75 mm² or more so that voltage drop will not occur. Use M3 size crimp style terminals. Securely tighten crimp-style terminals with a torque of 0.5 ~ 0.8 N·m so that errors can be avoided.
 - Insure correct termination of the DC power source, incorrect connection may result in unit failure or serious damage to the GOT.
 - Attach a 2 A fuse to the 24V DC power supply.
 - Perform grounding (100Ω or less) with an electric wire of at least 1.25 mm². Never perform common grounding of the GOT and a strong power system.

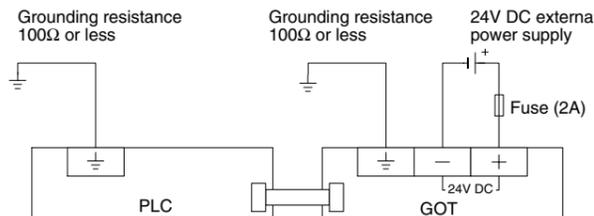


- Note:**
- Use an external power supply to provide 24V DC. The service power supply of the programmable controller cannot be used. (Confirm the service power supply capacity of the main unit or extension unit is more than the total value of the current consumption of the GOT, extension blocks and special function blocks.)
 - Even if instantaneous power interruption of less than 5 ms occurs, the GOT continues to operate. When power interruption for a considerable period of time or voltage drop occurs, the GOT stops its operation. However, when the power supply is recovered, the GOT automatically restarts its operation. (The screen displayed just after recovery is determined by the working environment originally set.)

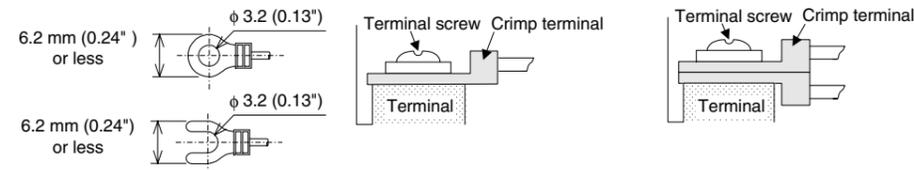
4.1 Using Service Power Supply of PLC



4.2 Using External Power Supply



Crimp Terminal Installing 1 wire Per Terminal Installing 2 wires Per Terminal



5. Maintenance



- Cautions:**
- Correctly connect the battery for memory backup. Never charge, disassemble, heat, burn or short-circuit the battery. If the battery is handled in such a way, or fire may be caused.
 - Always power OFF and remove the GOT from the panel before starting the replacement of the backlight and battery. If this is not the case, the backlight may be dropped and subsequently cause injury, or electrical shock may be sustained.
 - Never disassemble or modify the GOT. Disassembly or modification may cause failure, malfunction or fire. For repair, please, contact a service representative.



Note: Turn OFF the power, before connecting/disconnecting cables. Connecting/disconnecting cables while the power is turned on will cause failure or malfunction.

When repairing the liquid crystal screen, please, contact a service representative.

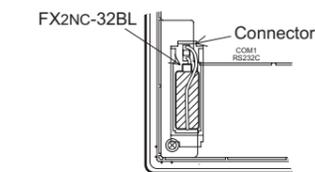
5.1 Battery Replacement

When the battery voltage drops, a control device (system information) set by the screen design software turns ON. The control device interlocks with an auxiliary relay in the PLC. It is recommended to provide a lamp while utilizing the output of the PLC so that voltage drop can be monitored outside the GOT. For details of control devices, refer to the GOT-F900 Series Operation Manual.



Note: For approximately one month after the control device for battery voltage drop turns ON, the battery will back up the alarm history, sampling and the current time. When the control device (system information) turns ON, replace the battery (FX2NC-32BL) as soon as possible. The screen data is stored in the flash memory, therefore, the screen data will remain even after severe battery voltage loss.

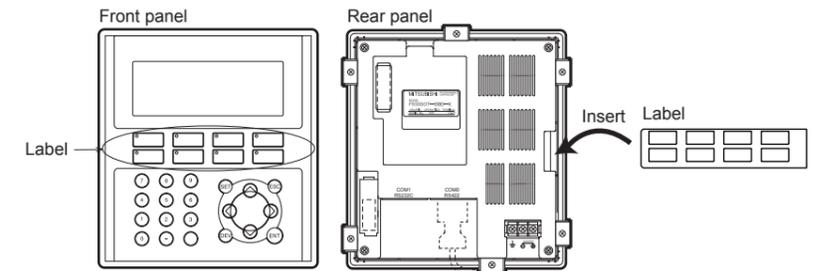
5.1.1 Replacement Procedure



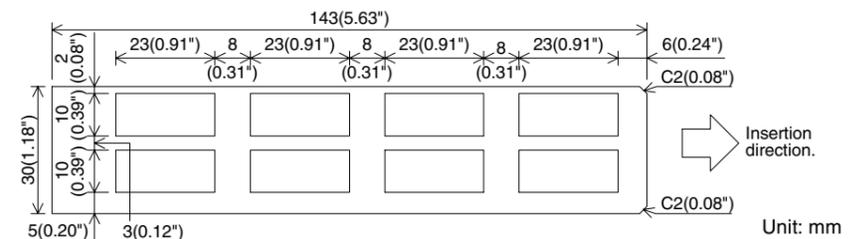
- Turn off the power to the GOT and remove the battery holder cover.
- Remove the existing battery from the battery holder, and disconnect.
- Within 30 seconds, connect a new battery.
- Insert the new battery into the battery holder, and attach the cover.

6. Label Insert

The clear plastic sheet for labeling Function keys can be replaced from the rear of the GOT. Clarify the user defined key name and operation by using this label.



Label dimensions



Warranty

Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; opportunity loss or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties. For the detailed warranty, refer to the GOT-F900 Series HARDWARE MANUAL [CONNECTION].

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