## 1. Introduction

1. The F920GOT-BBD5-K-E and F920GOT-BBD-K-E (hereafter called "GOT") are to be face of a control or operations panel, and connected to the programming port (CPU port) of a PLC.
2. Various devices can be monitored and PLC data changed through the screens in the GOT.
3. Using PLC programming software, FX Series PLC user programming can be uploaded, downloaded and monitored via the GOT.
4. The F920GOT-BBD5-K-E is driven by 5V DC power supply (from the PLC through a communication cable). The F920GOT-BBD-K-E is driven by a 24V DC power supply.
5. The F920GOT-BBD-K-E can be connected to the FX, A, QnA and Q Series PLCs. The F920GOT-BBD5-K-E can be connected to the FX, A, QnA and Q Series PLCs, PLC operated by manufacturers and micro computer board. For further details concerning applicable PLCs and connections to the PLC, refer to the GOT-F900 Series Hardware Manual (Connection Diagram) offered as a separate volume.

## 2. Specifications

### 2.1 General Specifications

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>0 ~ 50°C (32 ~ 122 °F)</td>
<td>0 ~ 50°C (32 ~ 122 °F)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20 ~ 60°C (4 ~ 140 °F)</td>
<td>-20 ~ 60°C (4 ~ 140 °F)</td>
</tr>
<tr>
<td>Humidity</td>
<td>35 ~ 85%, Relative Humidity, No condensation</td>
<td>35 ~ 85%, Relative Humidity, No condensation</td>
</tr>
<tr>
<td>Operating atmosphere</td>
<td>Dust free of lamp black, corrosive gas, flammable gas, excessive amount of electrostatic discharge and must be free of direct sunlight.</td>
<td>Dust free of lamp black, corrosive gas, flammable gas, excessive amount of electrostatic discharge and must be free of direct sunlight.</td>
</tr>
<tr>
<td>Vibration Resistance</td>
<td>- intermittent vibration</td>
<td>- intermittent vibration</td>
</tr>
<tr>
<td>Vibration Strength</td>
<td>10 ~ 57 Hz, 0.075 mm Half Amplitude</td>
<td>10 ~ 57 Hz, 0.075 mm Half Amplitude</td>
</tr>
<tr>
<td>Shock Resistance</td>
<td>14G (Acute), 3 times in each direction, X, Y, Z</td>
<td>14G (Acute), 3 times in each direction, X, Y, Z</td>
</tr>
<tr>
<td>Noise</td>
<td>1000 Vpp, 1 second, 30 ~ 100 Hz, Immune by noise simulator</td>
<td>1000 Vpp, 1 second, 30 ~ 100 Hz, Immune by noise simulator</td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>1967 ~ at 500 V DC, tested between power terminals and ground</td>
<td>1967 ~ at 500 V DC, tested between power terminals and ground</td>
</tr>
</tbody>
</table>

### 2.2 Power Supply Specifications

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>5V DC ±5% (supplied from PLC through communication cables)</td>
<td>5V DC ±5% (supplied from PLC through communication cables)</td>
</tr>
<tr>
<td>Current consumption</td>
<td>25mA AVG DC while backlight is ON, 18mA AVG DC while backlight is OFF</td>
<td>32mA AVG DC while backlight is ON, 18mA AVG DC while backlight is OFF</td>
</tr>
<tr>
<td>Power supply</td>
<td>220V, 50/60 Hz</td>
<td>220V, 50/60 Hz</td>
</tr>
<tr>
<td>Current consumption</td>
<td>80mA AVG DC while backlight is ON, 73mA AVG DC while backlight is OFF</td>
<td>80mA AVG DC while backlight is ON, 73mA AVG DC while backlight is OFF</td>
</tr>
<tr>
<td>Fuse</td>
<td>5mm x 20mm (cannot be replaced)</td>
<td>5mm x 20mm (cannot be replaced)</td>
</tr>
<tr>
<td>Allowable instantaneous power interruption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grounding</td>
<td>Less than 5 ms (Continuous operation is assured)</td>
<td>Grounding: Grounding resistance 10Ω or less</td>
</tr>
</tbody>
</table>
1. Introduction

1.1 Product Lists

### Specifications

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Model Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>SW0PC-FXDU/WIN-E Version 2.70 or later</td>
<td>Software for GOT-F900 and GOT-A900 Series (for Windows) creation software)</td>
</tr>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>GT Designer2 SWDSCG-T2D2-J</td>
<td>Software for GOT-F900 and GOT-A900 Series (for Windows)</td>
</tr>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>SWDSCG-T2D2-J (version 2.52 or later)</td>
<td>Software for GOT-F900 and GOT-A900 Series (for Windows)</td>
</tr>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>SWDSCG-T2D2-J (version 2.0 or later)</td>
<td>Software for GOT-F900 and GOT-A900 Series (for Windows)</td>
</tr>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>SWDSCG-T2D2-J (version 2.0 or later)</td>
<td>Software for GOT-F900 and GOT-A900 Series (for Windows)</td>
</tr>
</tbody>
</table>

### Note

- Both P920GOT-BBD5-K-E and F920GOT-BBD5-K-E are driven by 5V DC power supply (from the PLC through a communication cable). The F920GOT-BBD5-K-E is driven by a 24V DC power supply.
- The F920GOT-BBD5-K-E can be connected to the FX, A, QnA and Q Series PLCs manufactured by another manufacturers and micro computer boards. Further details concerning connectable equipment and communication cables, refer to the GOT-F900 Series Hardware Manual (Connection Diagram) offered as a separate volume.

### Associated Manuals

- **Installation Manual**
  - GOT-F900 Series Hardware Manual (Connection diagram)
  - GOT-F900 Series Operation Manual
  - GOT-F900 Series Operators Manual
  - GT Designer2 Version 1 Operating Manual
  - GT Designer2 Version 1 Reference Manual
  - SWDSCG-T2D2-J PACK Operation Software Manual

- **Describes the operation of the system and the GOT-F900 Series graphic operation terminals, GT Designer and FX-PCs-DU-W" |

### Caution

- During abnormal communication (including cable breakage) when monitoring within the GOT, communication between the GOT and programmable control system is interrupted and it is impossible to operate keys or devices in the PLC via the GOT. Communication and operation resumes when the system is correctly configured. Do NOT change the emergency stop or safety features through the GOT, and be sure that there will be no adverse consequences (for PLC communications malfunction).
- Do not lay signal cables near high voltage power lines or allow them to share the same bundling duct. Otherwise effects of noise or surge induction are likely to occur. Keep a safe distance of more than 100 mm away from these areas.
- Effects on the panel by hand. Do NOT use excessive force, or attempt to operate them with hard or pointed objects. Apply the tip of a screw driver, pen or similar objects for example may break the screen. Replaceable PLC units differ for the P920GOT-BBD5-K-E and the F920GOT-BBD5-K-E. Further information can be found in GOT-F900 Series Hardware Manual (Connection).
1. Introduction

1) The F920GOT-BBD5-K-E and F920GOT-BBD-K-E (hereafter called "GOT") are to be mounted on the face of a control or operations panel, and connected to the programming port (CPU port) of a PLC.

2) Various devices can be monitored and PLC data changed through the screens in the GOT.

3) Using PLC programming software, FX series PLC user programming can be uploaded, downloaded and monitored via the GOT.

4) The F920GOT-BBD5-K-E is driven by 5V DC power supply (from the PLC through a communication cable). The F920GOT-BBD-K-E is driven by a 24V DC power supply.

5) The F920GOT-BBD-K-E can be connected to the FX, A, QnA and Q Series PLCs. The F920GOT-BBD5-K-E can be connected to the FX, A, QnA and Q Series PLCs via PLC communication port. For further details concerning applicable PLCs and connections to the PLC, refer to the GOT-F900 Series Hardware Manual (Connection Diagram) offered as a separate volume.

1.1 Product Lists

**GOT Main Unit**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Model Name</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>F920GOT-BBD5-K-E</td>
<td>Graphic operation terminal main unit</td>
</tr>
</tbody>
</table>

**Optional communication cables**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Classification</th>
<th>Model Name</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>3m (10')</td>
<td>FX-50DU-CAB0</td>
<td>Communication cable (GOT + CPU port in FX, FX-Plc, FX-A, Plc, FX-A in FX or FX series PLC)</td>
</tr>
</tbody>
</table>

**Screen data transfer cable**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Model Name</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>FX-233CAB-1</td>
<td>3m (10') Data exchange cable (GOT + Personal computer d-in-f-D+)</td>
</tr>
</tbody>
</table>

**Optional screen creation software**

- GT Designer 2 (SWDCGTS-GT2D-E, indicates the version) Software for GOT-F900 and GOTAXIO Series (For Window) F920GOT-BBD5-K-E, SWDCGTS-GT2D-E Version 1.02 or later is available.
- GT Designer 2 (SWDCGTS-GT2D-J, indicates the version) Software for F920GOT-BBD5-K-E, SWDCGTS-GT2D-J Version 1.02 or later is available.

**Caution**

- During abnormal communication (including cable breakage) when monitoring within the GOT, communication between the GOT and programmable controller is interrupted and it is impossible to operate keys or devices in the PLC via the GOT.

- Communication is not carried out safely even if the communication port is interrupted. Be sure to have no adverse consequence from taking the "Off" - PLC communications malfunction.

**1.2 Dimensions and Each Part Name**

- Dimensions: mm (inches) (height x width x depth) 300x200x15 (11.8x7.9x0.6 inches)

**Accessories**

- Mounting brackets, Tightening bolt (M4, 4 bolts), Packing for dust and water resistance

1) Front panel
2) Rear panel (with mounting bracket and tightening bolt)
3) Display
4) Function keys
5) Cursor keys
6) 0 to 9 keys
7) D-Port
8) Programming port
9) Communication port (option)
10) Communication cable (option)
11) Packing seal (accessory)
12) Mounting bracket and tightening bolt
13) Display, function keys, cursor keys and the necessary manual.

**2. Specifications**

**2.1 General 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 atmospheric conditions:
  - No dust, no metallic dust particles, no electroconductive dust particles and must be no direct sunlight. (Same as for saving)

- Vibration Resistance:
  - Interruption of operation:
    - 10 ~ 57 Hz: 0.075 mm Half Amplitude
    - Sweep Count for X, Y, Z: 10 times (80 min in each direction)
    - Sweep Count for X, Y, Z: 10 times (80 min in each direction)

- Vibration Resistance:
  - Continuous vibration:
    - 10 ~ 57 Hz: 0.075 mm Half Amplitude
    - Sweep Count for X, Y, Z: 10 times (80 min in each direction)

- Shock Resistance:
  - 140m/s² Acceleration, 3 times in each direction, X, Y, and Z

- Noise Immunity:
  - 1000 Vrms up to 2 seconds, 100 Hz, tested by noise simulator

- Electromagnetic Environment:
  - 200 V A.C. or less, tested between power terminals and ground

- Insulation Resistance:
  - 1 GΩ or more at 500 V DC, measured between power terminals and ground

**2.2 Power Supply Specifications**

- Supply voltage: 24V DC or less, 45±% (supplied from PLC through communication cables)
- Current consumption: 220mA/AVC DC while background is ON, 18mA/AVC DC while background is OFF
- Power supply: 220V AC or less
- Current consumption: 80mA/AVC DC while background is ON, 70mA/AVC DC while background is OFF
- Fuse: Button (if cannot be replaced)
- Insulation resistance: 5 MΩ (Continuously operation assured)

- Grounding:
  - Grounding resistance: 100Ω or less
3. Installation

**Note**
- Do not mount the GOT in an environment that contains dust, corrosive gas, conductive dust, corrosive or inflammatory gas, or expose the top to high humidity, dew condensation, direct sunlight, rain and wind or impact and vibration.
- If the GOT is used in a place, such as electrical shock, fire, malfunction, damage 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.
- Make sure that the power is turned off before securely connecting any cables. Poor connections may cause malfunction.

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

1. **Prepare the panel surface.** (See Figure A)
   - On the panel surface, cut a rectangular mounting slot with the dimensions shown below.
   - A space of 10 mm is required for the right and left sides of the slot and inside the panel for metal fittings as shown in "3. Inner panel installation dimensions."

2. **Attach the packing seal to the GOT, and insert the GOT from the front face of the panel surface.**
   - a) Packing seal
   - b) GOT
   - c) Mounting slot
   - d) Fixing the GOT (See Figure C)
   - e) Fixing the GOT (also supplied) until the GOT is securely fixed.
   - Fitting mounting bolts in all four positions, right and left of the GOT.
   - a) Clamping bolt
   - b) Mounting bracket

3. **Note**
   - Tighten the clamping bolts with a torque of 0.18 to 0.22 N·m.

4. **Protective sheet**
   - Peel off the protective sheet on the surface of the product before use.

5. **Inner panel installation dimensions** (See A)
   - When installing the GOT, make sure the inner dimensions shown below are available.
   - a) PLC connection cable
   - b) Packing seal
   - e) PCB connector
   - f) Latching screw
   - g) Inner panel installation dimensions

**4. Power Supply Wiring**

**Note**
- Cut OFF all external phases of the power supply before installation or wiring to avoid electric shock or serious damage to the product.
- Wire the DC power supply to the dedicated terminals as described in this manual. Wiring an AC power supply may cause serious damage to the product.
- Attach a 2A fuse to the 24V DC power supply. Correctly connect the *+* and *-* terminals of the DC power supply as described in this manual.
- Reverse connection of the power supply may cause failure.
- **Perform grounding (100Ω or less) with an electric wire of 1.25 mm² or more to the ground terminal of the GOT.**
- Never perform common grounding of the GOT and a strong power system.
- The power for the F920GOT-BBD-K-E is externally supplied through the power terminals provided on the rear face.
- The power for the F920GOT-BBD-K-E is supplied from the PLC or an external power supply.

**Cautions on connection**
- The current consumption of the equipment is 80mA/24V DC (while the backlight is ON). When supplying power from the 24V DC service power supply of the FX Series PLC main unit or extension unit, consider the capacity of the service power supply of the base or extension unit and the total current supplied to proximity switches, extension blocks and special blocks. If the total current including the power supplied to the GOT exceeds the capacity of the service power supply, supply the power to the GOT from the external power supply.
- **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 may stop its operation. However, if 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.)
- When wiring the power supply, use electric wires of 0.75 mm² or more to avoid voltage drop. Use crimp-style terminal for M5 and securely tighten them with a tightening torque of 0.5 to 0.8 N·m to avoid troubles.

**5. Maintenance**

**Caution**
- Never disassemble or modify the GOT. Disassembly or modification may cause failure, malfunction or fire.
- For repair, please, contact a service representative.

**Note**
- Make sure to turn OFF the power, before connecting/disconnecting cables.
- If you connect/disconnect cables while the power is turned on, failure or malfunction may occur.

A backdoor lithium battery is not supplied with the GOT. The Liquid Crystal Display has a service life of approximately 50,000 hours. When replacing the Liquid Crystal Display, please, contact a service representative.

---

**Notification of CE marking**

The following products have shown compliance through direct testing (to the identified standards) and design analysis (forming a technical construction file) to the European Directive for Electromagnetic Compatibility (2004/108/EC) when used as directed by the appropriate documentation.

- This product is designed for use in industrial applications.
- Manufactured by: Mitsubishi Electric Corporation
- 2-7-3 Marunouchi, Chiyoda-ku, Tokyo 100-8310 Japan
- Manufactured at: Mitsubishi Electric Corporation Hime Works
  840 Chiyoda-cho, Himeji, Hyogo 670-8877 Japan
- Authorized Representative in the European Community: Mitsubishi Electric Europe B.V.
  Gotthard Str. 8, 40880 Ratingen, Germany

**Type** : Programmable Controller (Open-Type Equipment)

**Models** : MELSEC GOT series products, identified here, manufactured from December 1st, 2009

F920GOT-BBD5-K-E
F920GOT-BBD4-K-E
F920GOT-BBD3-K-E

**Standard**
- EN131-2 : 2007
- EM1 Compliance with all relevant aspects of the standard.
- Radiated Emissions
- Programmable controllers
  - Equipment, requirement and tests
  - Compliance with all relevant aspects of the standard
  - (ESD, RF electromagnetic field, EFTB, Surge, RF conducted disturbances and Power frequency magnetic field)

**Notes Regarding the Use of GOT Units**

General notes on the use of Communication Cables

Any device which utilizes a communication function is susceptible to the wider effects of local EMC noise. Therefore, when installing any communication cables care should always be taken with the routing and location of those cables. The GOT units identified on the previous page are compliant with the EMC requirement when the following communication cables are used:

**When using the FX-50DU-CAB0 cable the Earth Strap must be connected to a suitable earth point.**

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**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 F920GOT HARDWARE MANUAL [CONNECTION].
Specifications

- **Display Device**: STN monochrome liquid crystal display
- **Resolution**: 128 x 64 dots, 16 characters x 4 lines
- **Dot Pitch**: 0.37 mm (0.015") horizontal x 0.47 mm (0.019") vertical.
- **Effective Display Size**: 60 mm (2.36") x 30 mm (1.18")

Types of Cables

- **Existing Cables**
- **User Made Cables**

<table>
<thead>
<tr>
<th>Items</th>
<th>Unit</th>
<th>mm</th>
<th>inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.5</td>
<td>1.40</td>
<td>134</td>
<td>5.28</td>
</tr>
<tr>
<td>24</td>
<td>0.94</td>
<td>24VDC</td>
<td></td>
</tr>
</tbody>
</table>

**User Memory**

- **Flash memory**: 128 KB (built-in)

**Backlight LED** (White and Red)

- **Keypad**: 26 keys (0 to 9 keys, Cursor keys, Function keys, SET key, DEV key, ESC key, ENT key)

**System screen**

- Allocated screens No. 1001-1030.

4. **Power Supply Wiring**

**Cautions**

- Wire the DC power supply to the dedicated terminals as described in this manual. An AC power supply may cause serious damage to the product.
- Attach a 24 V DC power supply. Correctly connect the + and - terminals of the DC power supply as described in this section. Reverse connection of the power supply may cause failure.
- Perform grounding (resistance: 100Ω or less) with an electric wire of 1.25 mm² or more to the ground terminal of the GOT. Never perform common grounding of the GOT and a strong power source. (The power for the F920GOT-BBD-K-E is supplied from the PLC through a communication cable.)
- Connect the power terminals provided on the rear face of the GOT to the 24 V DC power service supply of the PLC base unit or extension unit.

**Note**

- Do not mount the GOT in an environment that contains dust, corrosive dust, conductive dust, corrosive or flammable gas, or expose to the high temperature, dew condensation, direct sunlight, rain and wind or impact and vibration.
- If the GOT is used in a place, electrical shocks, fire, malfunction, damage or deterioration may occur.
- Never drop cutting chips or electric wire chips into the ventilation window of the GOT when drilling screen holes or performing etching. Such chips may cause fire, malfunction or failure.
- Make sure that the power is turned off before securing any connecting cables. Poor connection may cause malfunction.

**3. Installation**

**Note**

1) **Preparation of the panel surface** (See Figure A)
   - On the panel surface, cut a rectangular mounting slot with the dimensions shown below.
   - A space of 10 mm is required for the right and left sides of the slot and inside the panel for metal fixtures as shown in "4. Inner panel installation dimensions".

2) **Mounting the GOT into the panel surface** (See Figure B)
   - Attach the packing seal to the GOT, and insert the GOT from the front face of the panel surface.
   - a) Packing seal
   - b) GOT
   - c) Mounting bolt
   - d) Mounting bracket

3) **Fixing the GOT** (See Figure C)
   - Align the hooks of the mounting brackets (supplied) in the mounting holes of the GOT. Tighten mounting bolts (also supplied) until the GOT is securely fixed.
   - Fix mounting bolts in all four positions, right and left of the GOT.
   - a) Clamping bolt
   - b) Mounting bracket

**Note**

- Tighten the clamping bolts with a torque of 0.18 to 0.22 Nm.

4) **Securing the protective sheet**
   - Peel off the protective sheet on the surface of the product before use.

5) **Inner panel installation dimensions** (See A)
   - When installing the GOT, make sure the dimensions shown below are available.
   - a) PLC connection cable
   - b) Packing seal

6) **Cautions on connection**

   - The current consumption of the GOT is 80mA/24V DC (while the backlight is ON). When supplying power from the 24 V DC service power supply of the FX Series PLC main unit or extension unit, consider the capacity of the service power supply of the base or extension unit and the total current supplied to proximity switches, extension blocks and special blocks. If the total current including the power supplied to the GOT exceeds the capacity of the power supply, supply the power to the GOT from the external power supply. 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, if the power supply is recovered, the GOT automatically restarts its operation. (The screen displayed just after recovery is determined by the operating environment immediately before.)
   - When the GOT receives a power supply, use electric cable that has a section area of 0.5 or more and make sure voltage drop. Use crimp-style terminals for M5 and securely tighten them with a tightening torque of 0.5 to 0.8 Nm to avoid troubles.

5. **Maintenance**

**Note**

- Make sure to turn OFF the power, before connecting/disconnecting cables.
- If you connect/disconnect cables while the power is turned on, failure or malfunction may occur. A battery lithium battery is not supplied with the GOT. The Liquid Crystal Display has a service life of approximately 50,000 hours. When replacing the Liquid Crystal Display, please contact a service representative.

**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].
4. Power Supply Wiring (F920GOT-BBDK-E)

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

Note
- Wire the DC power supply to the dedicated terminals as described in this manual. Wiring an AC power supply may cause serious damage to the product.
- Attach a 2X4 to the 2X4 DC power supply. Correctly connect the + and - terminals of the DC power supply as described in this manual.
- Reverse connection of the power supply may cause failure.
- Perform grounding (resistance: 100Ω or less) with an electric wire of 1.25 mm² or more to the ground of the GOT.
- Never perform common grounding of the GOT and a strong power supply.

4) When supplying the power from the FX Series PLC
Connect the power supplied on the rear face of the GOT to the 24V DC service power supply of the PLC base or extension unit.

5) When supplying the power from an external power supply
Connect the power terminals provided on the rear face of the GOT to the 24V DC terminals of the external power supply.

5. Maintenance

Caution
- Never disassemble or modify the GOT. Disassembly or modification may cause failure, malfunction or fire.
- For repair, please, contact a service representative.

Note
- Make sure to turn OFF the power, before connecting/disconnecting cables.
- If you connect/disconnect cables while the power is turned on, failure or damage may be caused.

A back-up lithium battery is not supplied with the GOT. The Liquid Crystal Display has a service life of approximately 50,000 hours. When replacing the Liquid Crystal Display, please, contact a service representative.
1. Introduction

1. The F200GOT-BBD5-K-E and F200GOT-BBD-K-E (hereafter called "GOT") are to be used as a part of a control or operations panel, and connected to the programming port (CPU port) of a PLC.
2. Various devices can be monitored and PLC data changed through the screens in the GOT.
3. Using PLC programming software, the F200GOT series PLC user programming can be uploaded, downloaded and monitored via the GOT.
4. The F920GOT-BBD5-K-E is driven by 5V DC power supply (from the PLC through a communication cable). The F920GOT-BBD-K-E is driven by a 24V DC power supply.
5. The F920GOT-BBD-K-E can be connected to the FX, QnA and Q Series PLCs. The F920GOT-BBD5-K-E can be connected to the FA, QnA and Q Series PLCs via computer link to a PLC manufactured by Mitsubishi, PLC manufactured by another manufacturer and micro computer based.

For further details concerning applicable PLCs and connections to the PLC, refer to the GOT-F900 Series Hardware Manual (Connection Diagram) offered as a separate volume.

1.1 Product Lists

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Model Name</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>F920GOT-BBD5-K-E</td>
<td>Graphic operation terminal main unit</td>
<td>F920GOT-BBD5-K-E Graphic operation terminal main unit</td>
</tr>
<tr>
<td>F920GOT-BBD-K-E</td>
<td>Graphics operation terminal main unit</td>
<td>F920GOT-BBD-K-E Graphic operation terminal main unit</td>
</tr>
</tbody>
</table>

1.2 Dimensions and Each Part Name

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>Mass (Weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50.5 (2&quot;) x 40 (1.56&quot;)</td>
<td>0.3 kg (0.66 lbs)</td>
</tr>
</tbody>
</table>

Accessories:
- Mounting brackets, Tightening bolt (M4, 4 bolts), Packing for dust and water resistance

Front panel:
- Rear panel (with mounting bracket and tightening bolt)

Note:
- During abnormal communication (including cable breakage) when monitoring within the GOT, communication between the GOT and program controller is interrupted and it is impossible to operate keys or devices in the PLC via the GOT.
- Communication and operation resumes when the GOT system is correctly configured.
- Do not change the emergency stop or safety features through the GOT, and be sure that there will be no adverse consequences that might occur, such as damage to "I - 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 100mm away from these wires.
- BE careful when working on the panel by hand. DO NOT use excessive force, or attempt to operate them with hard or pointed objects.
- The tip of a screwdriver, pen, or similar objects for example may break the screen.
- Mounting brackets for fan shall be used in the GOT-BBD5-K-E and the GOT-BBD-K-E.
- Additional information can be found in GOT-F900 series Hardware Manual (Connection).
Specifications

GOT

+ COM

Existing Cables

Items

Notification of CE marking

109(4.29")

5(0.20")

7(0.28")

10(0.39")

86(3.39")

64 (dot), 16 characters

× 0.47 mm (0.019") Vertical.

The following products have shown compliance through direct testing (to the identified standards) and design analysis (forming a technical construction file) to the European Directive for Electromagnetic Compatibility (2004/108/EC) when used as directed by the appropriate documentation.

- This product is designed for use in industrial applications.
- Manufactured by: Mitsubishi Electric Corporation
  2-7-3 Marunouchi, Chiyoda-ku, Tokyo 100-8310 Japan
- Manufactured at: Mitsubishi Electric Corporation HiMec Works
  840 Chiyoda-machi, Himeji, Hyogo 670-8677 Japan
- Authorized Representative in the European Community: Mitsubishi Electric Europe B.V.
  Gothaer Str. 8, 40880 Ratingen, Germany

Standard

EMI Compliance with all relevant aspects of the standard.
(Radiated Emissions)

Compliance with all relevant aspects of the standard.
(ESD, RF electromagnetic field, EFTB, Surge, RF conducted disturbances and Power frequency magnetic field)

Programmable controllers

Equipment, requirement and tests

EMI

Programmable controllers

For more details please contact the local Mitsubishi Electric sales office.

Effective representatives of the Got Units

General notes on the use of Communication Cables

Any device which utilizes a data communication function is susceptible to the wider effects of local EMC noises. Therefore, when installing any communication-cables care should always be taken with the routing and location of those cables. The Got units identified on the previous page are compliant with the EMC requirement when the following communication cables are used:

- FX-50DU-CAB0
- FX-50DU-CAB0-E

When using the FX-50DU-CAB0 cable the Earth Strap must be connected to a suitable earth point.

Ex. 1

Unit: mm (inches)

E = Additional earth strap connected to the cables shield. Free end of the earth strap must be connected to an earth point.

Ex-1: E0kain - ESD-R-17S or similar

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, accidental 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: JY997D02201

Manual revision: G

Date : Aug. 2010

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BUILDING 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
HIMEJI WORKS : 841, CHIYODA-CHO, HIMEJI, JAPAN

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