Graphic Operation Terminal
GOT SIMPLE Series
Simple, high functioning, and user friendly model for a reliable system.

GOT simple

10 inch GS2110-WTBD

Superior performance

- Beautiful high resolution display
  Resolution WVGA 800×480 dots
- Rich, vivid colors
  TFT 65536 colors
- Plentiful data capacity
  User memory 9MB
- Industrial environment tolerance
  IP65F front face protection

7 inch GS2107-WTBD
Reduce design, setup, and maintenance cost! Increase production efficiency with Mitsubishi.

Add value to your installation and machine! Utilize superior functionality to increase system value.

Streamlined screen design! Intuitive operation is easy even for beginners.

[ Standard interfaces ]

- **Ethernet port**
  For connection with various equipment

- **RS-232, RS-422 Communication ports**

- **USB device**
  For connection with PC

- **SD memory card slot**
  For carrying data
- **Reduce mass production installation setup costs**

   **Start from SD memory card**

   Transfer the screen data and all the necessary system data to make a GOT operate to a SD memory card in advance. Then the GOT can be used just by inserting the SD memory card. Useful for replacement or maintenance of GOT.

- **Device data collection**

   **Logging function**

   GOT manages the data of all connected industrial devices. The data can be collected at any arbitrary timing and can be used for data analysis and feedback.

- **Backup of important programs**

   **Backup/Restore**

   Using backup/restore function, PLC program can be replaced even without a PC. When PLC program is backed up to GOT*, PLC program and machine operation can instantly be restored even if an unexpected failure occurs.

*1: Separate SD memory card required
Setup and modification on-site

FA transparent function

Set up and modify devices without changing cable connections.

The GOT acts as a transparent gateway to enable programming, start up, and adjustment of Mitsubishi industrial devices.

Remote maintenance

Ethernet connection

Office PC can connect to GOT on the factory floor for maintenance via Ethernet.

With Ethernet, it is possible to connect a system of mixed vendors and models, expanding the possibilities at the factory floor.

[Connection example]
Use GOT SIMPLE to control industrial devices!

Multi-channel function

Up to 2 channels of industrial device can be controlled with one GOT. The data can be easily transferred between devices with just simple settings in GT Works3.

Inverter connection

Inverter can be directly connected to GOT. Just by connecting them together, communication parameters can automatically be set. GOT can also monitor PLC function devices, and even when multiple inverters are connected, one GOT can manage them all.

Servo connection

Easy setup, monitoring, adjusting alarms, diagnosis, parameter settings, and test operation.

MODBUS® communication also supported

MODBUS communication

As a master station, GOT can communicate with a MODBUS/RTU slave device. 1 device can be connected for monitoring of production line, etc.
**Convenient for frequent changeover**

**Recipe function**

Recipe information such as material blend and machine conditions can be saved in the GOT. This information can be written from the GOT to the PLC, enabling changeover without changing the PLC program. Adjusted data can also be read and stored in the GOT.

![Recipe function diagram](image)

**Monitor device value and set values for timer, etc.**

**Device monitor function**

Monitor and change FX/L/Q series internal device ON/OFF status, word values, timer and counter values.

![Device monitor function diagram](image)

**Program change without a PC on-site**

**MELSEC-FX list editor**

Convenient for minor on-site program changes.

![MELSEC-FX list editor diagram](image)

**Alarm status identification**

**Alarm function**

Alarm functions such as alarm display, alarm history, and alarm pop up display are included, and display settings can be made on each screen. Language switching functionality is also supported.
**Strengthened security with operator based authorization**

Operator authentication function

Setting the level (authority) of operation and display for each operator can strengthen security and prevent operation errors. There are two methods for operator authentication at startup or when changing screens.

**Method 1**

Input operator name and password to log in

**Method 2**

Log in with ID card or ID tag

- **Verify**
  - **OK**

One touch

Log in OK

Make settings for switch operability according to operator

- **Operator A**
  - Authorized
  - Unauthorized
- **Operator B**
  - Authorized
  - Unauthorized

**Easily installed on compact equipment**

Vertical display

By using a GOT vertically, it can be easily installed on compact equipment and can neatly display vertical letters. Less scrolling is needed when displaying lists.

**Setting multiple functions with one switch**

Multi-action switch

Multiple functions can be set to one switch, so there is no need for multiple switches for separate functions. By setting execution sequence and conditions, delay, repeat, interlock settings can be combined, reducing the burden of PLC programming.

Setting the level (authority) of operation and display for each operator can strengthen security and prevent operation errors. There are two methods for operator authentication at startup or when changing screens.

**Language change according to country of the operator**

Language switching

Screen can be easily made for switching between Japanese, Chinese, English, etc. 30 languages can be set for each comment. Screens, not only languages, can be switched based on purpose.

**Saving energy when operator is not present**

Screen saver

Screen save time can be set from 1 to 60 minutes. By setting the backlight ON/OFF, energy can be saved when no operator is present. PLC can also control the ON/OFF status, so the backlight will turn ON and alarm screen will display when an alarm occurs.

**GOT SIMPLE function list**

- **Screen design**
  - Figure/object functions
    - Figure
    - Logo text
    - Touch switch
    - Lamp
    - Numerical display, Numerical input
    - Text display, Text input
    - Date display, Time display
    - Comment display
    - Parts display
    - Parts movement
    - Simple alarm display
    - Alarm display (user)
    - Level
  - Panel meter
  - Line graph
  - Trend graph
  - Bar graph
  - Statistic bar graph
  - Statistic pie graph
  - Scatter graph
  - Historical trend graph
  - Historical data list display
  - Functions performed on background of GOT
    - Logging
    - Recipe
    - Device data transfer
    - Trigger action

**GOT functions**

- Base screen
  - Base screen
  - Superimpose window
  - Dialog window
  - Key window

**Debug functions**

- Device monitor
  - MELSEC-FX list editor
- Language switching
  - System information
  - Operator authentication
  - Startup logo
  - FA transparent
  - Multi-channel function
  - Station No. switching
  - Backup/Restore

Add value to your installation and machine
**Streamlined screen design**

**Screen design software**

**GOT Screen Design Software**

**MELSOFT GT Works3 plus**

Streamlined efficiency and screen management
Creative freedom with intuitive operation

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**Pick and place intuitive screen design is easy even for beginners**

1. Click the part you want to use
2. Click anywhere to place the part
3. Drag and drop to register frequently used parts!

Using parts is simple. Just select a part and place on the screen! Design your screen with intuitive pick and place operation.

Reduce design time by registering frequently used parts to ‘My Favorites’ or ‘My Library’. Import/export is also possible.

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**Required installation before using GOT SIMPLE**

1. Double click the GS Installer (GS Installer.exe) in the folder of GT Works3 Ver. 1.105K or later. Operate the personal computer in accordance with instructions given on the screen.
2. When the completion screen appears, click the [Finish] button to finish installing the GS Installer.

* The functions described here are available in GT Designer3 Version 1.118Y and later.

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**Variety of fonts full of expression**

All kinds of fonts can be used, from standard font to Windows® fonts. All fonts support Unicode 2.1, displayed clearly on the screen in any language.

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**Complete parts library**

Lamp, switch, and other objects can be selected from the library. Library images are available in several colors, so screens can easily be made with a sense of unity.

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For more details, please refer to the included manual.

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[Storage place]
DVD-ROM: <Root>\Disk1\Tool\GS\GS Installer.exe

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* Template screens are different from the GOT screen size, so resizing may be necessary.
Interaction with various industrial devices

In addition to various built-in functions, direct connection between Mitsubishi industrial devices will improve productivity and reduce costs.

Connection to PLCs

A cable is required to connect GOT and PLC. Please prepare the appropriate cable.

Options

Cables

<table>
<thead>
<tr>
<th>Product name</th>
<th>Model</th>
<th>Cable length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS-422 Cable</td>
<td>FXCPU direct connection cable</td>
<td>GT01-C10R4-8P</td>
<td>1m</td>
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<tr>
<td></td>
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<td>GT01-C10R4-8P</td>
<td>3m</td>
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<td>GT01-C10R4-8P</td>
<td>10m</td>
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<td></td>
<td>GT01-C10R4-8P</td>
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<td></td>
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<td>GT01-C10R4-8P</td>
<td>30m</td>
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<td></td>
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<td>3m</td>
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<td>GT01-C30R4-6C</td>
<td>30m</td>
</tr>
<tr>
<td>RS-232 Cable</td>
<td>QnCPU direct connection cable</td>
<td>GT01-C10R2-6P</td>
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<td></td>
<td></td>
<td>GT01-C10R2-6P</td>
<td>3m</td>
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<tr>
<td></td>
<td>FXCPU expansion board connection cable, FXCPU special adapter connection cable</td>
<td>GT01-C10R2-9S</td>
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<td>Computer link connection cable</td>
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<td>3m</td>
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Other options

<table>
<thead>
<tr>
<th>Product name</th>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>SD memory card</td>
<td>L1MEM-2GBSD</td>
<td>SD memory card 2GB</td>
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<tr>
<td></td>
<td>L1MEM-4GBSD</td>
<td>SDHC memory card 4GB</td>
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</table>

Connectable third-party PLCs

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Series/model name</th>
<th>Computer link connection</th>
<th>CPU direct connection</th>
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<tbody>
<tr>
<td>Omron</td>
<td>SYSMAC C1</td>
<td>RS-422 RS-232 RS-422 RS-232</td>
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</tr>
<tr>
<td></td>
<td>C1J1</td>
<td></td>
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<td>C1J2</td>
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<td>○</td>
</tr>
<tr>
<td></td>
<td>SYSMAC C2</td>
<td>RS-422 RS-232 RS-422 RS-232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C2J1</td>
<td></td>
<td>○</td>
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<tr>
<td></td>
<td>C2J3</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>SYSMAC CP1</td>
<td>RS-422 RS-232 RS-422 RS-232</td>
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<tr>
<td></td>
<td>CP1</td>
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<td></td>
<td>CP1E [N type]*</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Keyence</td>
<td>KV-700</td>
<td>RS-422 RS-232 RS-422 RS-232</td>
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<td>KV-1000</td>
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<td>KV-5500</td>
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</table>

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Series/model name</th>
<th>Computer link connection</th>
<th>CPU direct connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panasonic</td>
<td>FP0</td>
<td>RS-422 RS-232 RS-422 RS-232</td>
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<tr>
<td></td>
<td>FP-1</td>
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<td>FP-X</td>
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<td>○</td>
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<tr>
<td>Siemens AG*</td>
<td>SIMATIC S7-200 series</td>
<td>RS-422 RS-232 RS-422 RS-232</td>
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</tr>
<tr>
<td></td>
<td>SIMATIC S7-300 series</td>
<td>RS-422 RS-232 RS-422 RS-232</td>
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<tr>
<td></td>
<td>SIMATIC S7-400 series</td>
<td>RS-422 RS-232 RS-232 RS-232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SIMATIC S7-1200 series</td>
<td>RS-422 RS-232 RS-232 RS-232</td>
<td></td>
</tr>
</tbody>
</table>

For connection details, see the GOT2000 series connection manuals below.

- Mitsubishi Product (SH-081107ENG)
- Non Mitsubishi Product 1 (SH-081198ENG)
- Non Mitsubishi Product 2 (SH-081199ENG)
- Microcomputer, MODEBUS Products, Peripherals (SH-0811200ENG)
Specifications

- **General Specifications**

  **Operating ambient temperature**: 0 to 50°C
  **Storage ambient temperature**: -20 to 60°C
  **Operating ambient humidity**: 10 to 90%RH, non-condensing (The wet bulb temperature is 0°C)
  **Pollution degree**: Category II or less
  **Installation location**: Inside control panel

- **Power Supply Specifications**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input power supply voltage</strong></td>
<td>24VDC (±10%, ±15%), ripple voltage 200mV or less</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>7.6W (317mA/24V) or less</td>
</tr>
<tr>
<td><strong>Input power supply voltage</strong></td>
<td>24VDC (+10%, -15%), ripple voltage 200mV or less</td>
</tr>
<tr>
<td><strong>Maximum load</strong></td>
<td>17A or less (6ms, 25℃ ambient temperature)</td>
</tr>
<tr>
<td><strong>Insulation resistance</strong></td>
<td>500VDC across power terminals and earth, 10 MΩ or more by an insulation resistance tester</td>
</tr>
<tr>
<td><strong>Shock resistance</strong></td>
<td>Conforms to IEC 61141-2 (247Gm/s², 3 times each in X, Y, and Z directions)</td>
</tr>
<tr>
<td><strong>Vibration resistance</strong></td>
<td>Conforms to IEC 60721-3-2 (5 to 8.4Hz − 1.75mm, 8.4 to 150Hz 4.9m/s²)</td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>10 to 90%RH, non-condensing (The wet bulb temperature is 39°C)</td>
</tr>
<tr>
<td><strong>Operating altitude</strong></td>
<td>2000m (6562ft) max.</td>
</tr>
</tbody>
</table>

- **Function Specifications**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display</strong></td>
<td>TFT color liquid crystal display</td>
</tr>
<tr>
<td><strong>Screen size</strong></td>
<td>10”</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>800 x 480 [dot]</td>
</tr>
<tr>
<td><strong>Display size</strong></td>
<td>W222 (8.74”) x H135.2 (5.22”) [mm] (inch)</td>
</tr>
<tr>
<td><strong>Connector</strong></td>
<td>RS-232 (1ch), RS-422 (1ch)</td>
</tr>
<tr>
<td><strong>Connectors</strong></td>
<td>D-sub 9 pins (Female)</td>
</tr>
<tr>
<td><strong>Transmission speed</strong></td>
<td>115200/57600/38400bps</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>For communication with controllers, terminating resistor: 100Ω</td>
</tr>
</tbody>
</table>

- **External Dimensions**

  - **Serial Interface**
    - **Ethernet** | 100BASE-TX, 10BASE-T, 1ch (Data Transfer speed: 1000BASE-TX, 100BASE-TX, 10BASE-T) |
    - **USB** | (Full Speed 12Mbps) 1ch, 1ch (For PC connection) |
    - **Memory** | C-drive: (Flash memory) (Internal) (9Mbytes), for storing project data, OS |
    - **Life** | 1 million times (operating force 0.8N max.) |
    - **Touch panel** | Analog-resistive (5 wire type) |
    - **Number of points touched simultaneously** | Minimum 2 x 2 [dot] (per key) |
    - **Buzzer output** | Single tone, LONG/SHORT/SHORT (adjustable) |

- **Panel Cutting Dimensions**

  - **GS2110-WTBD** | W206 (8.11) x H155 (6.11) x D50 (1.97) [mm] (inch) |
  - **GS2107-WTBD** | W206 (8.11) x H155 (6.11) x D50 (1.97) [mm] (inch) |

- **Compliant software package**

  - **Version of GT Designer3** | Version 1.105 or later* |

* - Installation of GS installer is required. The functions described here are available in GT Designer3 Version 1.105 or later.