

MITSUBISHI

# GT15 Fingerprint Unit User's Manual

GT15-80FPA

Thank you for purchasing the GOT1000 Series.

Prior to use, please read both this manual and detailed manual thoroughly to fully understand the product.

MODEL	GT15M-80FPA-U
MODEL CODE	1D7M91
IB(NA)-0800439-B(0901)MEE	

GRAPHIC OPERATION TERMINAL  
**GOT1000**

## SAFETY PRECAUTIONS

(Always read these precautions before using this equipment.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.

The precautions given in this manual are concerned with this product.

In this manual, the safety precautions are ranked as "DANGER" and "CAUTION".

**DANGER** Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.

**CAUTION** Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injury or physical damage.

Note that the CAUTION level may lead to a serious accident according to the circumstances. Always follow the precautions of both levels because they are important to personal safety. Please save this manual to make it accessible when required and always forward it to the end user.

## DESIGN PRECAUTIONS

**CAUTION**

- Do not bunch the control wires or communication cables with the main circuit or power wires, or lay them close to each other. As a guide, separate the lines by a distance of at least 100 mm (3.94 inch). Otherwise malfunctions may occur due to noise.

## INSTALLATION PRECAUTIONS

**DANGER**

- Be sure to shut off all phases of the external power supply used by the system before mounting or removing this unit to/from the GOT. Not doing so can cause a unit failure or malfunction.

**CAUTION**

- Use this unit in the environment given in the general specifications of this manual and GT16 User's Manual or GT15 User's Manual. Not doing so can cause an electric shock, fire, malfunction or product damage or deterioration.
- Do not drop the unit or subject it to string shock. A unit damage may result.
- When installing this unit to the GOT, fit it to the connection interface of the GOT and tighten the mounting screws in the specified torque range. Undertightening can cause a drop, failure or malfunction. Overtightening can cause a drop, failure or malfunction due to screw or unit damage.

## WIRING PRECAUTIONS

**DANGER**

- Be sure to shut off all phases of the external power supply used by the system before wiring. Failure to do so may result in an electric shock, product damage or malfunctions.

**CAUTION**

- Exercise care to avoid foreign matter such as chips and wire offcuts entering the unit. Not doing so can cause a fire, failure or malfunction.
- Make sure to securely connect the cable to the connector of unit. Incorrect connection may cause malfunctions.

## STARTUP AND MAINTENANCE PRECAUTIONS

**DANGER**

- Before starting cleaning, always shut off GOT power externally in all phases. Not doing so can cause a unit failure or malfunction. Undertightening can cause the GOT to drop, short circuit or malfunction. Overtightening can cause a short circuit or malfunction due to the damage of the screws or unit.
- Do not disassemble or modify the unit. Doing so can cause a failure, malfunction, injury or fire.
- Do not touch the conductive areas and electronic parts of this unit directly. Doing so can cause a unit malfunction or failure.

**CAUTION**

- Always secure the cables connected to the unit, e.g. run them in conduits or clamp them. Not doing so can cause unit or cable damage due to dangling, moved or accidentally pulled cables or can cause a malfunction due to a cable contact fault.
- Do not hold the cable part when unplugging any cable connected to the unit. Doing so can cause unit or cable damage or a malfunction due to a cable contact fault.
- Always make sure to touch the grounded metal to discharge the electricity charged in the body, etc., before touching the unit. Failure to do so may cause a failure or malfunctions of the unit.

**DISPOSAL PRECAUTIONS**

**CAUTION**

- Dispose of this product as industrial waste.

**TRANSPORTATION PRECAUTIONS**

**CAUTION**

- Make sure to transport the GOT main unit and/or relevant unit(s) in the manner they will not be exposed to the impact exceeding the impact resistance described in the general specifications of this manual and GT16 User's Manual or GT15 User's Manual, as they are precision devices. Failure to do so may cause the unit to fail. Check if the unit operates correctly after transportation.

**Manuals**

The following shows manuals relevant to this product.

Manual name	Manual number (Model code)
GT16 User's Manual (Sold separately)	SH-080778ENG (1D7M88)
GT15 User's Manual (Sold separately)	SH-080528ENG (1D7M23)
GOT1000 Series Connection Manual (1/3 to 3/3) (Sold separately)	SH-080532ENG (1D7M26)
GT Designer2 Version2 Screen Design Manual (For GOT1000 Series) (1/3 to 3/3) (Sold separately)	SH-080530ENG (1D7M25)

**Relevant Manuals**

For relevant manuals, refer to the PDF manuals stored in the GT Designer2 CD-ROM.

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**Packing List**

After unpacking the box, check that the following products are included.

Model	Product	Quantity
GT16-80FPA	Fingerprint unit	1
	Cover (For 12")	1
	Double-sided tape (Spare)	1
	Cable clamp	2
	Installation fitting	2

## 1. OVERVIEW

This User's Manual describes GT15 fingerprint unit (hereinafter referred to as the fingerprint unit). This unit distinguishes the fingerprint of the user who registered by connecting it with GT16 or GT15, and can limit other users' operations.

## 2. SPECIFICATIONS

### 2.1 General Specifications

The general specifications of the fingerprint unit are the same as those of the GOT except the following three items. Refer to GT16 User's Manual or GT15 User's Manual for the general specifications of the GOT.

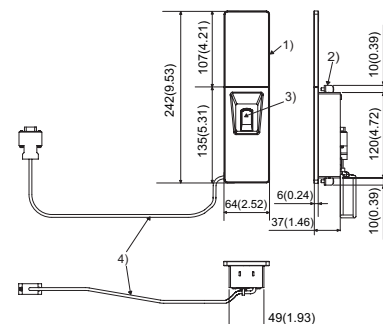
Item	Specifications
Operating ambient temperature	0 to 40 °C
Operating ambient humidity	10 to 85%RH, non-condensing
Storage ambient humidity	10 to 85%RH, non-condensing

### 2.2 Performance Specifications

Items	Specifications
External light	5000Lx or less
Protective structure	IP4X
Internal current consumption (5.0VDC)	0.22A
Weight	0.28kg(0.62lb)

The general specifications and performance specifications of the fingerprint unit shown above differ from those of the GOT. Use the fingerprint unit in the above environment.

## 3. PART NAMES AND EXTERNAL DIMENSIONS

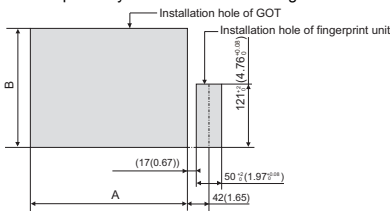


No.	Name	Description
1)	Cover For 12"	Decorative cover that is attached to the upper side of the fingerprint unit
2)	Installation fitting	Fixing the fingerprint unit
3)	Fingerprint reader	Part to put a finger for recognizing a fingerprint
4)	Cable(0.6m)	Connection cable for the RS-232 interface of the GOT (Connected to the unit)

## 4. INSTALLATION PROCEDURE

### 4.1 Before Installation

To install the fingerprint unit on the control panel, make installation holes on the control panel with the dimensions shown below. The space of 10mm is required above and below the hole respectively for the installation fittings.



\*Panel thickness: 2 to 4 mm or less

GOT	A[mm](inch)	B[mm](inch)
GT1695, GT1595	383.5(15.1) (+2(0.08),0(0))	282.5(11.12) (+2(0.08),0(0))
GT1685, GT1585	302(11.89) (+2(0.08),0(0))	228(8.98) (+2(0.08),0(0))
GT1675, GT1575	289(11.38) (+2(0.08),0(0))	200(7.87) (+2(0.08),0(0))
GT1665, GT1565	227(8.94) (+2(0.08),0(0))	176(6.93) (+2(0.08),0(0))
GT1555	153(6.02) (+2(0.08),0(0))	121(5) (+2(0.08),0(0))

Unit : mm(inch)

### 4.2 Precautions for Installation

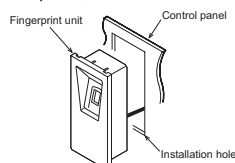
- To make installation holes on the control panel, remove the GOT from the control panel.
- The recommended position to install the fingerprint unit is the right side of the GOT. (For right hand) With the exception, the fingerprint unit can be installed by making the installation hole of the unit on the left side of the GOT. (For left hand) For the installation, do not give stress, including an incorrect bending radius of the cable, on the connection cable.
- Install the fingerprint unit with a distance of 3mm or more around the GOT. (A distance of 17mm or more is required between the installation hole of the GOT and that of the fingerprint unit.) When the fingerprint unit is used with other extension units, the fingerprint unit cannot be installed in some areas because the cables of the other extension units contact the fingerprint unit. For prohibited areas when using other extension units, refer to GT16 User's Manual or GT15 User's Manual.

### 4.3 Unit Installation

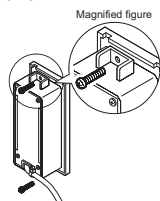
The following shows how to install the fingerprint unit on GT1685 as an example.

- Turn off the GOT. Install the fingerprint unit in a installation hole for the control panel.

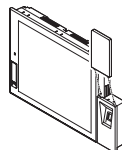
- Through the cable in the installation hole of the control panel, and then install the fingerprint unit.



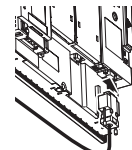
- Place the mounting fixtures on the mounting fixture attaching part of the fingerprint unit, and fix them by tightening the mounting screws in the torque range of 0.36 to 0.48 N·m.



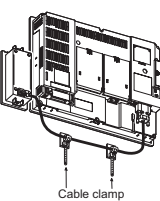
- Attach the cover to the fingerprint unit. (Attach the cover as required.) Position the tabs of the cover to the holes of the upper side of the unit. Paste the unit on the control panel using the double-sided tape without spaces between the unit and the panel.



- Connect the cable to the RS-232 interface of the GOT.



- To eliminate the looseness of the wiring, bundle it with cable clamps.

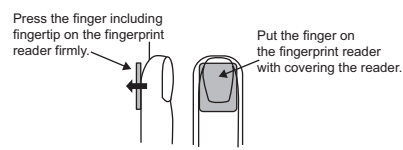


**POINT**

Set to [ON] by [5V supply] at [Communication settings] of the utility.

## 5. PRECAUTIONS FOR USE

- The fingerprint unit complies with the protective structure IP4X. The unit cannot be used with wet fingers or oil fingers. The protective structure of the fingerprint unit differs from that of the GOT (IP67). When using the GOT, do not use with wet fingers or oil fingers.
- Do not pull the cable. Doing so can cause malfunction or failure of the module.
- The fingerprint unit is a consumable product. Check the unit for scratch, damage or dirt at regular intervals, and replace with new one if necessary.
- To be recognized as a fingerprint, put the finger including fingertip on the fingerprint reader firmly with covering the reader as shown in the following figure.



- The following shows corrective actions when the fingerprint unit operates incorrectly.

Troubles	Causes	Corrective actions
When the fingerprint is registered, the fingerprint reader does not light brightly even when the finger is put on the reader.	Dry finger	Moisten the finger with breath and put the finger again.
	Dirty finger	Remove stains and put the finger again.
When the fingerprint is registered, the fingerprint reader remains lit brightly.	The finger is not put on firmly.	Press the finger on the fingerprint reader firmly.
	Thin finger	Change the registered finger to the middle finger or first finger.
When the fingerprint is recognized, the fingerprint is not recognized by the fingerprint reader unless the finger is put on the reader a number of times.	The unclear fingerprint image is registered.	Change the registered fingerprint.

**Warranty**

Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; machine damage 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 safe use**

- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi.
- This product has been manufactured under strict quality control. However, when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

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