## **GOT2000 Series Multimedia Unit**

# User's Manual

### GT27-MMR-Z

Set of GT16M-MMR-Z and GT27-IF2000

Thank you for choosing Mitsubishi Electric Graphic Operation Terminal (GOT).

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



MODEL	GT27-MMR-Z-U-JE				
MODEL CODE	1D7ML3				
IB(NA)-0800518-G(2307)MEE					

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#### ●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 "WARNING" and "CAUTION".



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

Indicates that incorrect handling may cause hazardous

conditions, resulting in medium or slight personal injury or physical damage.

Note that the A CAUTION level may lead to a serious accident according to the Always follow the precautions of both levels because they are important to

Please save this manual to make it accessible when required and always forward it

## **IDESIGN PRECAUTIONS**

## **⚠** CAUTION

Do not bundle the control and communication cables with main-circuit, power or other Run the above cables separately from such wiring and keep them a minimum of 100mm apart. Not doing so noise can cause a malfunction.

#### **IMOUNTING PRECAUTIONS**

#### **∆WARNING**

- Be sure to shut off all phases of the external power supply used by the system beformounting or removing this unit to/from the GOT. Not doing so can cause a unit failure or malfunction.
- Before connecting the Bus connection cable to this unit, always shut off GOT power and PLC CPU power externally in all phases. Not doing so can cause a malfunction.

# **⚠ CAUTION**

- Use this unit in the environment that satisfies the general specifications described in the User's Manual for the GOT used.

  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 require
- 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 (0.36N·m to 0.48N·m) with a Phillips-head screwdriver No. 2.

  Underlightening can cause a drop, failure or malfunction.

  Overtightening can cause a drop, failure or malfunction due to screw or unit damage.

[WIRING PRECAUTIONS]

# **∆WARNING**

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]

### **MARNING**

Before starting cleaning or mounting screw retightening, always shut off GOT power externally in all phases. Not doing so can cause a unit failure or malfunction. Tighten the mounting screws in the specified torque range (0.36N·m to 0.48N·m) with a Phillips-head screwdriver No. 2. Undertightening can cause the GOT to drop, short circuit or malfunction. Overtightening can cause a drop, short circuit or malfunction due to the damage of the screws or unit.

# **⚠** CAUTION

- Do not disassemble or modify the unit.
  Doing so can cause a failure, malfunction, injury or fire.
  Do not touch the conductive and electronic parts of this unit directly.
  Doing so can cause a unit malfunction or failure.
  The cables connected to the unit must be run in ducts or clamped.
  Not doing so can cause the unit or cable to be damaged due to the dangling, motion or accidentalpulling of the cables or can cause a malfunction due to a cable connection fault.
- Connection raunt.

  When unplugging the cable connected to the unit, do not hold and pull from the cable
- portion.

  Doing so can cause the unit or cable to be damaged or can cause a malfunction due to a cableconnection fault.

  Do not drop the module or subject it to strong shock.

  A module damage may result.

- Amountain the unit, lalways touch grounded metals, etc. to discharge static electricity from human body, etc.

  Not doing so can cause the unit to failure or malfunction.

### [PRECAUTIONS WHEN THE DATA STORAGE IS IN USE] **⚠** CAUTION

- When installing a CF card into this unit, insert it into the card slot of this unit until the CF card eject button pops out.

  Failure to do so may cause a malfunction due to poor contact.
- Before inserting or removing a CF card into/from this unit, turn the CF card
- access switch off.
  Failure to do so may corrupt data on the CF card.
- When removing a CF card from the GOT, support it by hand, as it may pop Failure to do so may cause the CF card to drop from the unit, resulting in a

### [DISPOSAL PRECAUTIONS]

damage or failure

## **⚠** CAUTION

When disposing of this product, treat it as industrial waste

### **ITRANSPORTATION 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 the User's Manual for the GOT used, as they are precision devices. Failure to do so may cause the unit to fail
- Check if the unit operates correctly after transportation
- When furnigants that contain halogen materials such as fluorine, chlorine, bromine, and iodine are used for disinfecting and protecting wooden packaging from insects, they cause malfunction when entering our products Please take necessary precautions to ensure that remaining materials from furnigant do not enter our products, or treat packaging with methods other than furnigating thest methods. than fumigation (heat method). Additionally, disinfect and protect wood from insects before packing product

### <u>Manual</u>

The following shows manuals relevant to this product.

Manual name	Manual number (Model code)
GOT2000 Series User's Manual (Hardware) (Sold separately)	SH-081194ENG (1D7MJ5)
GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1	SH-081200ENG

For the latest e-Manuals and PDF manuals, consult your local sales office

### Compliance with the EMC and Low Voltage **Directives**

To configure a system meeting the requirements of the EMC and Low Voltage Directives when incorporating the Mitsubishi GOT (EMC and Low Voltage Directives compliant) into other machinery or equipment, refer to "EMC AND LOW VOLTAGE DIRECTIVES" of the General Description included with the GOT used. The CE mark, indicating compliance with the EMC and Low Voltage Directives, is

Compliance with the new China RoHS directive

'电器电子产品有害物质限制使用管理办法"



printed on the rating plate of the GOT.

Note: This symbol mark is for China only.

含有有害 6 物质的名称、含有量、含有部件 本产品中所含有的有害 6 物质的名称、含有量、含有部件如下表所示。 产品中有害物质的名称及含量

				有害物质		
部件名称	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电路板组件	X	0	0	0	0	0
对脂壳体、电缆、膜材	0	0	0	0	0	0
<b>扳金部件、螺丝等金属部件</b>	X	0	0	0	0	0

- 本表格依据 SJ/T11364 的规定编制。 〇:表示该有害物质在该部件所有均质材料中的含量均在 GB/T26572 规定的限量要 求以下、 ×:表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T26572规定的限

#### Referenced Standard: GB/T15969.2 (Requirement of Chinese standardized law)

### Packing List

The following items are included

4.3 Unit Removal

sound input or output.

and null out the hand

sections of the Multimedia unit.

the cables are fixed with the cable clamp

Point

Cable clamp

(arrow A).

Model	Product	Quantity
	Multimedia unit GT16M-MMR-Z	1
	Video Interface Converter Unit GT27-IF1000	1
GT27-MMR-Z	Mounting screw set for Multimedia unit (4 screws (40mm), 4 stickers)	1
	Mounting screw set for Video Interface Converter Unit (2 screws (26mm), 2 stickers)	2
	Cable clamp (for sound I/O)	1
	GOT2000 Series Multimedia Unit User's Manual (This manual)	1

For removing the Multimedia unit, reverse the procedure of the installation

Precautions for connecting sound I/O devices
• Do not connect or disconnect the cables of the sound I/O sections during

Do not connect devices other than sound I/O devices to the sound I/O

Cable clamp

(1) Removing cable clamp band
The cable clamp band can be removed after the cables are fixed.
Press the tab of the cable clamp upward using a screwdriver and others,

(2) Removing cables from the Multimedia unit
The cables of the sound I/O devices can be removed from the unit even if

Remove the cables by pressing the cable clamp from both directions

5. CF CARD INSTALLATION/REMOVAL

#### 1. OVERVIEW

This user's manual describes the GOT2000 Series Multimedia unit (hereinafter referred to as the Multimedia unit).
The Multimedia unit is configured with the GT16 Multimedia unit and the Video Interface Converter Unit.

- onverter onlt. ng functions are available by mounting the Multimedia unit on the GT27.

- The GOT displays a video image taken by a video camera, or the GOT stores the video image as a video file in a CF card and plays the file. When an error occurs, a video image as a video file in a CF card and plays the file. When an error occurs, a video image taken 120 seconds before and after the error (up to 240 seconds) can be stored as a video file in a CF card. With the Ethernet connection, the GOT sends a video file to the personal computer using the FTP server function.

- \*11: To store video files in the personal computer, the FTP server function of the GOT and the multimedia interaction tool are required.

  \*22: Power on the GOT simultaneously with the video camera.

  \*33: Depending on the video camera type, noise from the power supply cable of the video camera may cause malfunction of the GOT or a programmable controller. In this case, attach the following line filter to the power supply line of the video camera.

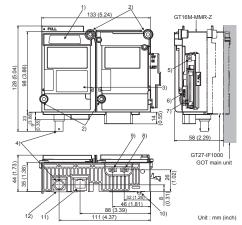
#### 2. SPECIFICATIONS

For the general specifications of the GOT, refer to the GOT2000 Series User's Manual (Hardware).

	Item		Specifications
	Input	Color	NTSC format, PAL format (interlaced format)
Video input	format	Monochrome	EIA format, CCIR format (interlaced format)
	Number of	channels	1 channel
	Video inpu	t signal	IVp-p, 75 Ω, composite signal
section	Display size (dot)		640x480 768x576 <sup>*1</sup>
	Connector	for external	BNC connector
	Number of	channels	1 channel
Sound input	Sound inpu		1 Vrms
section	Connector	for external	$\phi$ 3.5 stereo mini jack, straight type
	Number of	channels	1 channel
Sound output	Sound output signal		1 Vrms (Rated load 10k Ω)
section	Connector for external connection		$\phi$ 3.5 stereo mini jack, straight type
CF Card I/F	Slot		Compact flash Slot (TYPE1) 1 channel
section	Mode		True-IDE mode
	Number of channels		1 channel
Ethernet I/F section	Connector for external connection		RJ-45 (modular jack)
	Data transfer method		100BASE-TX/10BASE-T
	File format		3GP, MP4
Video file	Video coding/decoding format		MPEG-4 Part.2 SP@LV4
	Resolution/maximum frame rate		VGA/15fps, QVGA/30fps
Internal current consumption 3.3VDC 5.0VDC			0.51A
		5.0VDC	0.49A accompanied with the GT27-IF1000
Weight			0.41kg accompanied with the GT27-IF1000

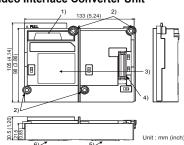
### 3. PART NAMES AND EXTERNAL **DIMENSIONS**

# 3.1 Multimedia Unit



No.	Name	Description
1)	Extension connector	Connector for connecting an extension unit
2)	Mounting screw	Screw for fixing the Video Interface Converter Unit
3)	Rating plate	-
4)	Connector for video input	Connector for connecting a coaxial cable
5)	CF card access switch	Switch for enabling or disabling access to the CF card ON: CF card accessed OFF: CF card not accessed
6)	CF card access LED	LED lamp lit when the CF card is accessed
7)	CF card interface	Interface for inserting a CF card
8)	Sound input terminal	Terminal for connecting the cable of the sound input device
9)	Sound output terminal	Terminal for connecting the cable of the sound output device
10)	Video connector	Video connector connected to the Video Interface Converter Unit
11)	Ethernet interface	Connector for Ethernet communication
12)	Interface connector	Connector connected to the Video Interface Converter

# 3.2 Video Interface Converter Unit

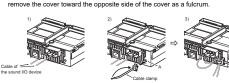


No.	Name	Description
1)	Extension connector	Connector for connecting the Multimedia unit
2)	Mounting screw	Screw for fixing the RGB output unit
3)	Rating plate	-
4)	Video connector	Video connector for connecting the Multimedia unit
5)	Auxiliary extension connector	Auxiliary extension connector connected to the GOT
6)	Interface connector	Connector connected to the COT

# 4. INSTALLATION AND REMOVAL

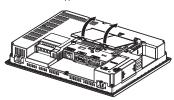
# 4.1 Cable Connection

- 1) Connect the cables of the sound I/O devices to the Multimedia unit. 2) Attach the cable clamp to the Multimedia unit.
- Position the cable clamp band outside, and insert the cable clamp to section A shown in the following figure until it clicks.
- 3) Pull up the two hooks in the extension unit cover (two covers) of the GOT to

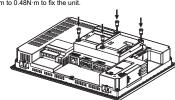


# 4.2 Unit Installation

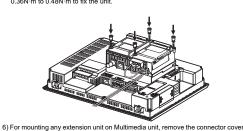
The installation procedure for the Multimedia unit is explained using the GT2712.



and the extension interface on the GOT 0.36N·m to 0.48N·m to fix the unit.



4) Fit the Multimedia unit in the Video Interface Converter Unit cas Tighten four mounting screws (40mm) of Multimedia unit with a torque of 0.36N·m to 0.48N·m to fix the unit.



For mounting no extension unit on the Multimedia unit, cover over four mounting screws with the accessory stickers to the Multimedia unit or the Video Interface Converter Unit to avoid static electricity.

Keep the connector cover fixed.

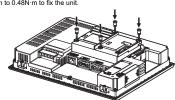
Keep all the stickers fixed.

# **PROCEDURE**

For the band inserting direction, refer to the arrow. (The cable clamp is the RSG-130-V0 of KITAGAWA INDUSTRIES CO.,LTD. or



3) Connect the Video Interface Converter Unit to the auxiliary extension interface



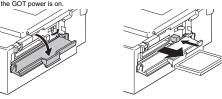
2) Insert a CF card into the CF card interface with the front side facing up

**PROCEDURE** 

5.1 Installation

# 5.2 Removal

 Open the CF card cover.
 Turn off the CF card access switch, and check that the CF card access LED (When the CF card access LED is off, the CF card can be removed even while



2) Press the CF card eject button to pop out the CF card, and remove the card.

## Warranty

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

- 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 Electric.

  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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Specifications subject to change without notice. Printed in Japan, July 2023.

camera. Recommended line filter: TDK-Lambda RSHN-2003 (or equivalent products) To use the Multimedia unit, set the controller settings. For the settings and system configurations, refer to GOT2000 Series Connection Manual (Microcomputer, MODBUS Products, Peripherals) for GT Works3 Version

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Video input section	format	Monochrome	EIA format, CCIR format (interlaced format)
	Number of channels		1 channel
	Video inpu	t signal	IVp-p, 75 Ω, composite signal
	Display siz	e (dot)	640x480 768x576*1
	Connector	for external	BNC connector
	Number of	channels	1 channel
Sound input	Sound inpo		1 Vrms
section	Connector	for external	$\phi$ 3.5 stereo mini jack, straight type
Sound output	Number of		1 channel
	Sound out	out signal	1 Vrms (Rated load 10k Ω)
section	Connector for external connection		$\phi$ 3.5 stereo mini jack, straight type
CF Card I/F	Slot		Compact flash Slot (TYPE1) 1 channel
section	Mode		True-IDE mode
	Number of	channels	1 channel
Ethernet I/F section	Connector for external connection		RJ-45 (modular jack)
	Data transfer method		100BASE-TX/10BASE-T
	File format		3GP, MP4
Video file	Video coding/decoding format		MPEG-4 Part.2 SP@LV4
	Resolution frame rate		VGA/15fps, QVGA/30fps
Internal current consumption		3.3VDC	0.51A
	onaumpuom	5.0VDC	0.49A accompanied with the GT27-IF1000
Weight			0.41kg accompanied with the GT27-IF1000

other duties. ♠ For safe use This product has been manufactured as a general-purpose part for

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For the details of the multimedia function, refer to GT Designer3 (GOT2000) Help

item			Specifications
Input		Color	NTSC format, PAL format (interlaced format)
	format	Monochrome	EIA format, CCIR format (interlaced format)
	Number of	channels	1 channel
Video input	Video inpu	t signal	IVp-p, 75 Ω, composite signal
section	Display siz	e (dot)	640x480 768x576 <sup>*1</sup>
	Connector	for external	BNC connector
	Number of	channels	1 channel
Sound input	Sound inpo		1 Vrms
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		fer method	100BASE-TX/10BASE-T
	File format		3GP, MP4
Video file	format	ng/decoding	MPEG-4 Part.2 SP@LV4
	Resolution frame rate		VGA/15fps, QVGA/30fps
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5.0VDC		5.0VDC	0.49A accompanied with the GT27-IF1000
Weight			0.41kg accompanied with the GT27-IF1000