

**MITSUBISHI ELECTRIC**

# GOT2000 Series Ethernet communication unit User's Manual

**GT25-J71E71-100**

Thank you for purchasing the GOT2000 Series.

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

MODEL	GT25-J71E71-U-JE
MODEL CODE	1D7MR6
IB(NA)-0800562-A(1608)MEE	

**GOT2000**

**[DESIGN PRECAUTIONS]**

**WARNING**

- If a communication error (including cable disconnection) occurs during monitoring, the communication between the GOT and programmable controller CPU may be interrupted and the GOT may be inoperative. When configuring a system including the GOT, the possibility of GOT communication error must be considered; make sure the operation significant for the system will be performed by switches on devices other than the GOT. Failure to do so may cause mis-outputs or malfunctions, resulting in accidents.

**CAUTION**

- Do not bunch the control wires or 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 100mm (3.94 inches) otherwise malfunctions may occur due to noise.

**[INSTALLATION PRECAUTIONS]**

**WARNING**

- 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.
- 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 result.
- When mounting this unit on 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. Undertightening 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**

- Use crimp-contact, pressure-displacement or soldering to wire the connectors for external connections properly using the manufacturer-specified tools. If the connection is incomplete, it may cause the module to short circuit, catch fire, or malfunction.
- 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]**

**WARNING**

- 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 and the CF card. Doing so can cause a failure, malfunction, injury or fire.

**CAUTION**

- Do not touch the conductive areas and electronic parts of this unit directly. Doing so can cause a unit malfunction or failure.
- 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 the GOT2000 Series User's Manual (Hardware), as they are precision devices. Failure to do so may cause the unit to fail. Check if the unit operates correctly after transportation.
- When fumigants 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 fumigant do not enter our products, or treat packaging with methods other than fumigation (heat method). Additionally, disinfect and protect wood from insects before packing products.

**Manual**

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)
GT Designer3 (GOT2000) Screen Design Manual (Sold separately)	SH-081220ENG (1D7ML9)
GOT2000 Series Connection Manual (Mitsubishi Products) For GT Works3 Version1 (Sold separately)	SH-081197ENG (1D7MJ8)
GOT2000 Series Connection Manual (Non-Mitsubishi Products 1) For GT Works3 Version1	SH-081198ENG
GOT2000 Series Connection Manual (Non-Mitsubishi Products 2) For GT Works3 Version1	SH-081199ENG
GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1	SH-081200ENG

For detailed manuals or relevant manuals, refer to the e-Manual or the PDF manuals stored in the DVD-ROM for the drawing software used. The latest manuals are also available from MITSUBISHI ELECTRIC FA Global Website (<http://www.mitsubishielectric.com/fa/>).

© 2016 MITSUBISHI ELECTRIC CORPORATION

**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 printed on the rating plate of the GOT.

**Compliance with the new China RoHS directive**

GOT 相关的基于“电器电子产品有害物质限制使用管理办法”要求的表示方法

Note: This symbol mark is for China only.

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

部件名称	有害物质					
	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	×	○	○	○	○	○
树脂壳体、电缆、线材	○	○	○	○	○	○
钣金部件、螺栓等金属部件	×	○	○	○	○	○

本表格依据 SJ/T11364 的规定编制。  
○：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 规定的限量要求。

**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".

**WARNING** 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]**

**WARNING**

- If a communication fails in data link, the faulty station holds the data link data generated before the communication error. Create an interlock circuit in the sequence program using the communication status information in order that the system will operate safely. Failure to do so may cause mis-outputs or malfunctions, resulting in accidents. Check the faulty station and the operation status during communication error by referring to the relevant manuals.
- Some failures of cable or the unit may cause the GOT to keep the outputs on or off. Create an external circuit for monitoring output signals that may lead to serious accidents. Failure to do so may cause mis-outputs or malfunctions, resulting in accidents.

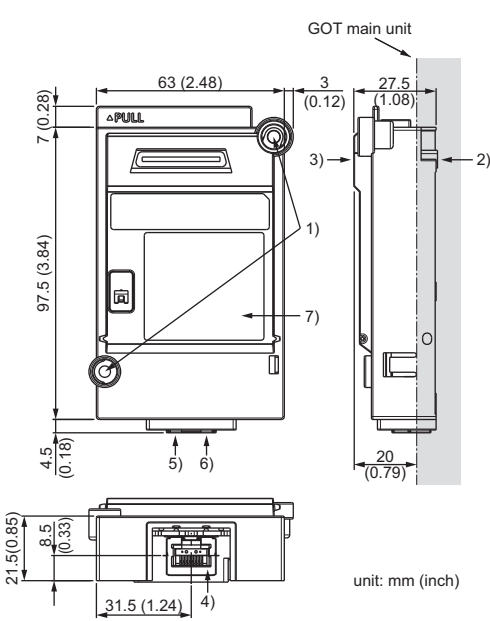
**2.2 Specifications of the related devices**

Use the connection cable and the hub which meet the IEEE802.3 100BASE-TX/10BASE-T standard.

Item	Specifications	
	100BASE-TX	10BASE-T
Cable	Category 5 or higher (shielded, STP) straight cable, category 5 or higher (shielded, STP) cross cable	Category 3 or higher (shielded, STP) straight cable, category 3 or higher (shielded, STP) cross cable
Connector	RJ45jack	RJ45jack
Hub	100Mbps hub	10Mbps hub

See the "List of valid devices applicable for GOT2000 series" (GOT-A-0064) for information about models whose operations have been confirmed. For technical documents, please contact your local Mitsubishi representative. When using any model not mentioned in the "List of valid devices applicable for GOT2000 series", the model may not work normally. If you need the Technical News, consult your local Mitsubishi representative or branch office.

**3. PART NAMES AND EXTERNAL DIMENSIONS**



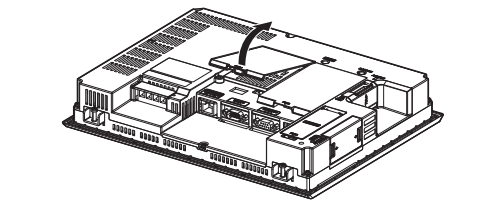
No.	Name	Description
1)	Mounting screw	Mounting screws fixed with a front extension unit or GOT
2)	Interface connector	Extension connector installed to a front extension unit or the GOT
3)	Extension connector	Extension connector to which a back extension unit is installed
4)	Ethernet connector	Connector to which Ethernet cable is connected
5)	SPEED LED	ON : Communicating at 100 Mbps OFF: Communicating at 10 Mbps or disconnected
6)	SD/RD LED	ON : Data sent or received OFF: Data not sent or received
7)	Rating plate	-

**4. INSTALLATION AND REMOVAL PROCEDURE**

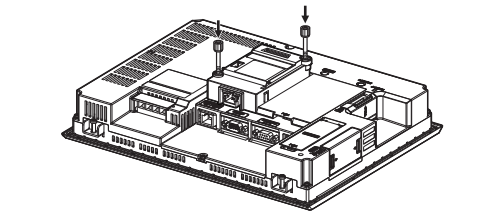
**4.1 Installation**

The following shows how to install the Ethernet communication unit on GT2712 as an example.

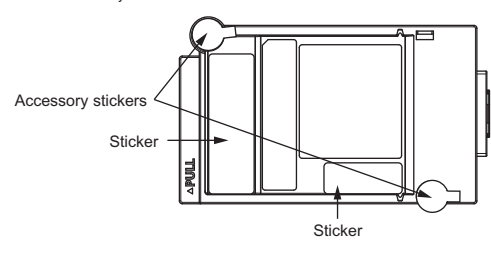
- Turn off the GOT.
- Pull up the hooks of the GOT extension unit cover to remove the cover.



- Mount the Ethernet communication unit on the extension interface of the GOT. Tighten two mounting screws (26 mm) with a torque of 0.36 N·m to 0.48 N·m to fix the unit.



- Attach the accessory stickers, or remove the stickers from the Ethernet communication unit as necessary. When connecting no extension unit to the extension connector: Leave the stickers on the Ethernet communication unit. Cover two mounting screws with the accessory stickers to avoid static electricity. When connecting an extension unit to the extension connector: Remove the stickers from the Ethernet communication unit, and connect the extension unit. The accessory stickers are not used.



**4.2 Removal**

Remove the Ethernet communication unit in the reverse of the installation procedure.

- Point**
- Grounding work for the 100BASE-TX and 10BASE-T requires appropriate safety measures. Consult professionals for work details including terminal of connection cables and other plant work such as laying of main cables.
  - If you remove the Ethernet communication unit, detach it from specified direction (shown PULL) so as not to break a connector.

Ethernet is a registered trademark of Xerox Corporation in the United States. Other business or product names mentioned herein are a trademark or registered trademark of each company.

**Packing List**

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

Model	Product	Quantity
GT25-J71E71-100	GOT2000 Series Ethernet communication unit	1
	Mounting screw set (2 screws (26 mm), 2 stickers)	1
	GOT2000 Series Ethernet communication unit User's Manual (This manual)	1

**1. OVERVIEW**

This user's manual describes the GOT2000 series Ethernet communication unit (hereinafter referred to as the Ethernet communication unit). The Ethernet communication unit is required for some operations with the GOT, such as the Ethernet connection and the gateway function. For the applicable GOTs, refer to the GOT2000 Series User's Manual (Hardware). To communicate with a PLC by using the Ethernet connection, configure the controller settings. For the controller settings, refer to the GT Designer3 (GOT2000) Screen Design Manual. For the details of the system configuration and communication driver for the Ethernet connection, refer to the relevant GOT2000 Series Connection Manual according to the controller used.

**2. SPECIFICATIONS**

**2.1 Performance Specifications**

The performance specifications of the Ethernet communication unit are indicated below. The general specifications of the Ethernet communication unit are the same as those of the GOT. Refer to GOT2000 Series User's Manual (Hardware) used for the general specifications of the GOT.

Item		Specification	
Transmission specifications	Data transfer method	100BASE-TX	10BASE-T
	Transmission method	Base band	Base band
	Maximum node to mode distance	200m	200m
	Maximum segment length	100m	100m
	Maximum number of cascade connection*1	2 steps	4 steps
Number of units mounted to GOT	Only 1 unit can be mounted to the extension unit interface.		
Connecting condition	Number of GOTs connected	128 (Recommend 16 or less)*2*3	
	GOT placing distance	100m*2	
Internal current consumption (5VDC)	0.14A		
Weight	0.07kg (0.15lb)		

- \*1 Maximum number of connectable nodes when a repeater hub is used. For the details, refer to the manual of Ethernet module of connected PLC.
- \*2 This depends on the specifications of the Ethernet network system to which the GOT is connected. For the details, refer to the manual of Ethernet module of connected PLC.
- \*3 If multiple network equipments (including GOT) are connected within a segment, the network load would increase. In such condition, the communication performance between GOT and PLC may be declined. The decline of the communication performance may be improved by the following measures.
  - Using switching hubs.
  - Reducing the number of monitoring devices of the GOT.

**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.

Country/Region	Sales office/Tel
USA	Mitsubishi Electric Automation, Inc. 500 Corporate Woods Parkway, Vernon Hills, IL 60061, U.S.A. Tel: +1-847-478-2100
Brazil	Mitsubishi Electric do Brasil Comercio e Servicos Ltda. Rua Jussara, 1750- Bloco B Anexo, Jardim Santa Cecilia, CEP 06465-070, Barueri - SP, Brasil Tel: +55-11-4689-3000
Mexico	Mitsubishi Electric Automation, Inc. Mexico Branch Mariano Escobedo #69, Col. Zona Industrial, Tlalnepantla Edo. Mexico, C.P. 54030 Tel: +52-55-3067-7511
Germany	Mitsubishi Electric Europe B.V. German Branch Mitsubishi-Electric-Platz 1, 40882 Ratingen, Germany Tel: +49-2102-488-0
UK	Mitsubishi Electric Europe B.V. UK Branch Travelers Lane, Hatfield, Hertfordshire, AL10 8XB, U.K. Tel: +44-1707-28-8780
Italy	Mitsubishi Electric Europe B.V. Italian Branch Centro Direzionale Colleoni - Palazzo Sirio, Viale Colleoni 7, 20864 Agrate Brianza (Milano), Italy Tel: +39-039-60531
Spain	Mitsubishi Electric Europe B.V. Spanish Branch Carretera de Rubi 76-80 Apdo 420, 08190 Sant Cugat del Valles (Barcelona), Spain Tel: +34-935-65-3131
France	Mitsubishi Electric Europe B.V. French Branch 25, Boulevard des Bouvets, 92741 Nanterre Cedex, France Tel: +33-1-55-68-55-68
Czech	Mitsubishi Electric Europe B.V. Czech Branch Avenit Business Park, Radlicka 7511/13e, 158 00 Praha 5, Czech Republic Tel: +420-251-551-470
Turkey	Mitsubishi Electric Turkey A.S. Urmaniyer Branch Serifali Mahallesi Nuh Sokak No:5, TR-34775 Urmaniyer / Istanbul, Turkey Tel: +90-216-526-3990
Poland	Mitsubishi Electric Europe B.V. Polish Branch ul. Krakowska 50, 32-083 Balice, Poland Tel: +48-12-347-65-00
Russia	Mitsubishi Electric (Russia) LLC St. Petersburg Branch Piskarevsky pr. 2, bld 2, lit "Sch", BC "Benusa", office 720; RU-195027 St. Petersburg, Russia Tel: +7-812-633-3497
South Africa	Adroit Technologies 20 Waterford Office Park, 189 Witkoppen Park, Fourways, Johannesburg, South Africa Tel: +27-11-658-8100
China	Mitsubishi Electric Automation (China) Ltd. No. 1386 Hongqiao Road, Mitsubishi Electric Automation Center, Shanghai, China Tel: +86-21-2122-3030
Taiwan	SETSUYO ENTERPRISE CO., LTD. 6F, No. 105, Wugong 3rd Road, Wugu District, New Taipei City 24889, Taiwan Tel: +886-2-2299-2499
Korea	Mitsubishi Electric Automation Korea Co., Ltd. 7F-9F, Gangseo Hangang Xi-tower A, 401, Yangcheon Gangseo-Gu, Seoul 07528, Korea Tel: +82-2-3660-9530
Singapore	Mitsubishi Electric Asia Pte. Ltd. 307 Alexandra Road, Mitsubishi Electric Building, Singapore 159943 Tel: +65-6473-2308
Thailand	Mitsubishi Electric Factory Automation (Thailand) Co., Ltd. 12th Floor, Siv City Building, Office Tower 1, No. 899/19 and 20 Rama 3 Road, Kwaeng Bangpoongang, Khet Yannawa, Bangkok 10120, Thailand Tel: +66-2682-6522 to 31
Indonesia	PT. Mitsubishi Electric Indonesia Gudang Jaya 11th Floor, Jl. MH. Thamrin No.12, Jakarta Pusat 10340, Indonesia Tel: +62-21-2122-6461
Vietnam	Mitsubishi Electric Vietnam Co., LTD. Ho Chi Minh Head Office Unit 01-04, 10th Floor, Vincom Center, 72 Le Thanh Ton Street, District 1, Ho Chi Minh City, Vietnam Tel: +84-8-3910-5945
India	Mitsubishi Electric India Pvt. Ltd. Pune Branch Emerald House, EL-3, J. Block, M.I.D.C., Bhosari, Pune - 411026, Maharashtra, India Tel: +91-20-2710-2000
Australia	Mitsubishi Electric Australia Pty. Ltd. 348 Victoria Road, P.O. Box 11, Rydalmere, N.S.W. 2116, Australia Tel: +61-2-9684-7777

**MITSUBISHI ELECTRIC CORPORATION**

HEAD OFFICE: TOKYO BUILDING, 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN  
NAGOYA WORKS: 1-14, YADA-MINAMI 5-CHOME, HIGASHI-KU, NAGOYA, JAPAN

When exported from Japan, this manual does not require application to the Ministry of Economy, Trade and Industry for service transaction permission.

Specifications subject to change without notice. Printed in Japan, August 2016.