

# MITSUBISHI

## GT15 BUS CONNECTION UNIT

### User's Manual

GT15-75QBUSL  
GT15-75QBUS2L  
GT15-75ABUSL  
GT15-75ABUS2L

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                     | GT15-75BUSL-U |
| MODEL CODE                | 1D7M04        |
| IB(NA)-0800298-E(0610)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

- Before mounting or dismantling this unit to or from the GOT, always shut off GOT power externally in all phases. Not doing so can cause a unit failure or malfunction.

##### CAUTION

- Use this unit in the environment given in the general specifications of the GT15 User's Manual. Not doing so can cause an electric shock, fire, malfunction or product damage or deterioration.
- 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

- 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

- Insert and fit the bus connection cable into the connector of the unit to be connected until it "clicks". After fitting, check for lift which can cause a malfunction due to a connection fault.

#### 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.

##### CAUTION

- Do not disassemble or modify any unit. This will cause failure, malfunction, injuries, or fire.
- 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 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.

##### Detailed Manual

| Manual name                               | Manual Number (Type code) |
|---|---------------------------|
| GT15 User's Manual (Option)               | SH-080528ENG (1D7M23)     |
| GOT1000 Series Connection Manual (Option) | SH-080532ENG (1D7M26)     |

##### Relevant Manuals

For relevant manuals, refer to the PDF manual stored within the drawing software used.

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

When incorporating the Mitsubishi GOT into other machinery or equipment and keeping compliance with the EMC and low voltage directives, refer to "EMC AND LOW VOLTAGE DIRECTIVE" of the GT15 User's Manual.

The CE logo is printed on the rating plate of the GOT, indicating compliance with the EMC and low voltage directives.

By making this product conform to the EMC directive and low voltage instruction, it is not necessary to make those steps individually.

#### Product Components

The bus connection unit consists of the following items.

| Product name  | Quantity |
|---|----------|
| Any one of GT15-75QBUSL, GT15-75QBUS2L, GT15-75ABUSL, GT15-75ABUS2L | 1        |
| Seals   | 12       |

## 1. Overview

This User's Manual describes the GT15 bus connection unit (hereafter abbreviated to the bus connection unit). There are the following bus connection unit types. Refer to the GT15 User's Manual for the applicable GOT.

| Product name        | Model name    | Description   |
|---------------------|---------------|---|
| Bus connection unit | GT15-75QBUSL  | QCPU (Q Mode) bus connection<br>Number of connectors: 1 |
|                     | GT15-75QBUS2L | QCPU (Q Mode) bus connection<br>Number of connectors: 2 |
|                     | GT15-75ABUSL  | QnA/ACPU bus connection<br>Number of connectors: 1      |
|                     | GT15-75ABUS2L | QnA/ACPU bus connection<br>Number of connectors: 2      |

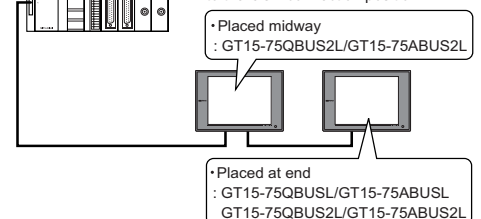
Use the bus connection unit for making bus connection of the GOT. Select the used bus connection unit according to the connection target and connection position.

#### Bus connection unit selection example

- (1) Select the bus connection unit according to the connection target.

- QCPU (Q Mode), motion controller Q series  
: GT15-75QBUSL/GT15-75QBUS2L
- ACPU, QnACPU, motion controller A series  
: GT15-75ABUSL/GT15-75ABUS2L

- (2) Select the bus connection unit according to the GOT connection position.



When using the bus connection, make the communication settings to perform communication between the GOT and PLC. Refer to the GOT1000 Series Connection Manual for details of bus connection.

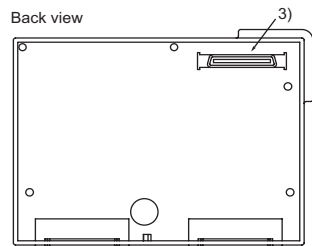
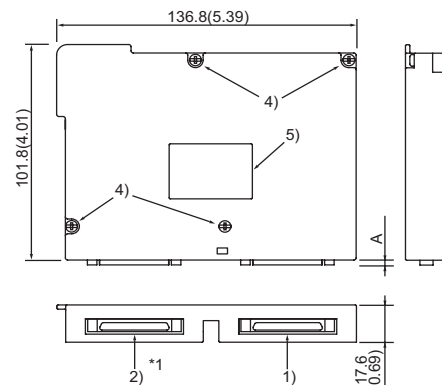
## 2. Specifications

The performance specifications of the bus connection unit are indicated below. Refer to the used GT15 User's Manual for the general specifications of the bus connection unit.

| Item                              | GT15-75QBUSL                                      | GT15-75QBUS2L                                 | GT15-75ABUSL | GT15-75ABUS2L |
|-----------------------------------|---|---|--------------|---------------|
| I/O occupied points               | 16 points (I/O assignment: 16 intelligent points) | 32 points (I/O assignment: Special 32 points) |              |               |
| Internal consumed current (DC5V)* | 0.44A   | 0.44A   | 0.12A        | 0.12A         |
| Weight                            | 0.13kg  | 0.14kg  | 0.13kg       | 0.14kg        |

\* When the GOT power is on, the internal current consumption is included in the current consumption of the GOT. When the GOT power is off, the internal current is supplied from the power supply of the PLC system.

## 3. Part Names and External Dimensions



| MODEL         | A         |
|---------------|-----------|
| GT15-75QBUSL  | 2.3(0.09) |
| GT15-75QBUS2L | 2.3(0.09) |
| GT15-75ABUSL  | 3.9(0.15) |
| GT15-75ABUS2L | 3.9(0.15) |

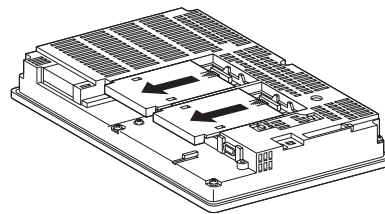
Unit: mm (inch)

\*1 When the GT15-75QBUSL/GT15-75ABUSL is used, only the IN side connector is available.

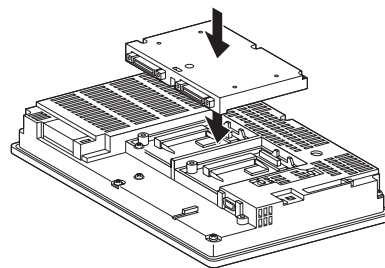
| No. | Name                     | Description  |
|-----|--------------------------|--|
| 1)  | Bus connector (IN side)  | Connector for connecting the bus connection cable (IN side)  |
| 2)  | Bus connector (OUT side) | Connector for connecting the bus connection cable (OUT side) |
| 3)  | Extended connector       | Extension connector mounted to the GOT                       |
| 4)  | Mounting screw           | Screw (M3 screw) for fixing the unit to the GOT              |
| 5)  | Rating plate             | -  |

## 4. Installation Procedure

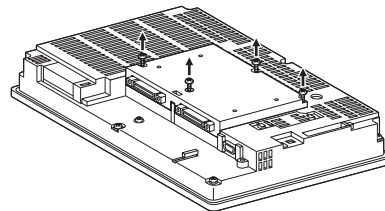
- Power off the GOT.
- Remove the two expansion unit covers of the GOT.



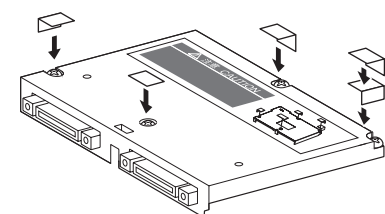
- Fit the bus connection unit along the groove of the GOT case.



- Fasten the bus connection unit by tightening its mounting screws (4 places) with tightening torque 0.36 to 0.48 N·m.



- After tightening screws, attach the supplied seals to avoid receiving electrostatic.



#### 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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