



TECHNICAL BULLETIN

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[Issue No.] GOT-A-0085-F

[Title] List of SLMP-compatible Equipment Validated to Operate with the GOT2000 Series for Japanese Market

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[Relevant Models] GOT2000 Series

Thank you for your continued support of Mitsubishi Electric Graphic Operation Terminal (GOT). This bulletin provides information on SLMP-compatible equipment validated to operate with the GOT2000 series. For the production status and specifications of each product, contact the relevant manufacturer.

Recommended Product

Products that are compliant with Mitsubishi Electric standards.
Use Recommended Products according to their specifications.

Compatible Product

Products that are connectable to Mitsubishi Electric products.
(Note that compatibility is not verified by Mitsubishi Electric.)
Use Compatible Products according to their specifications.
Some Compatible Products may not be connected because their specifications have changed depending on the date of manufacture.
Verify Compatible Products, and determine whether or not to use the products.

Discontinued Product

Recommended Products or Compatible Products that have been mentioned in the bulletin before, but may be difficult to procure because they have been discontinued.

Incompatible Product

Products that are not connectable to Mitsubishi Electric products.
Use Compatible Products.

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1. Overview

The GOT2000 series can communicate with SLMP-compatible equipment by using the Ethernet(SLMP) communication driver.

The GOT2000 series operates as a client and is connectable to SLMP-compatible equipment operating as a server.

Table 1-1 below shows the status of support for the Ethernet(SLMP) communication driver according to the GOT2000 series models.

Table 1-1 Status of support for the communication driver according to the GOT models

Connection type	Communication type	Communication driver	GT27	GT25	GT21	GT SoftGOT2000
SLMP connection	Ethernet *1	Ethernet(SLMP), Gateway	Supported	Supported	Supported	-
		-	-	-	-	Supported

*1 TCP and UDP are supported.

For the settings to connect the GOT2000 series to SLMP-compatible equipment, refer to the following manual.

- GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1 (SH-081200ENG)
- GT SoftGOT2000 Version1 Operating Manual (SH-081201ENG)

2. Precautions

The maximum number of devices that can be processed by the GOT in one communication varies depending on the monitoring target equipment. In the communication detail settings, set [Device read points(Points)], [Device write points(Points)], [Device read random points(Points)], and [Device write random points(Points)] according to the equipment specifications.

If the GOT cannot monitor a device properly, check the equipment specifications and change the settings. Table 2-1 below shows the maximum number of devices settable for each setting item.

Table 2-1 Maximum number of devices settable for each setting item

Setting item	Maximum number of devices	Remarks
[Device read points(Points)]	960	The number indicates the maximum number of word devices. To obtain the maximum number of bit devices, multiply the number by 16. For double-word access, the number is half of the set value (rounded down after the decimal point). (Minimum number: 1)
[Device write points(Points)]	960	The number indicates the maximum number of word devices. To obtain the maximum number of bit devices, multiply the number by 16. For double-word access, the number is half of the set value (rounded down after the decimal point). (Minimum number: 1)
[Device read random points(Points)]	192	The number indicates the maximum number of word devices. For double-word access, the number is half of the set value (rounded down after the decimal point). (Minimum number: 1) * Reading data from separate bit devices is not supported.
[Device write random points(Points)]	160	The number indicates the maximum number of word devices. To obtain the maximum number of bit devices, multiply the number by 16. For double-word access, the number is half of the set value (rounded down after the decimal point). (Minimum number: 1)

The maximum number of devices varies depending on the following settings: [Communication data code] (ASCII code or binary code) in the communication detail settings and [Communication] (TCP or UDP) in the Ethernet setting. If you set the number of devices beyond the maximum limit, the set value is automatically adjusted. Table 2-2 below shows the maximum number of devices after the automatic adjustment.

Table 2-2 Maximum number of devices after the automatic adjustment

Setting item	Setting value	Maximum number of devices after the automatic adjustment							
		Word device *1				Bit device			
		TCP		UDP		TCP		UDP	
		ASCII code	Binary code	ASCII code	Binary code	ASCII code	Binary code	ASCII code	Binary code
[Device read points(Points)]	960	960	960	344	680	3584	7168	344	680
[Device write points(Points)]	960	960	960	344	680	3584	7168	344	680
[Device read random points(Points)]	192	192	192	110	160	-	-	-	-
[Device write random points(Points)]	160	160	160	110	160	188	188	110	160

*1 For double-word access, the number is half of the set value.

To connect the GOT to Mitsubishi Electric SLMP-compatible equipment, it is recommended to set the values shown in the [Setting value] column in table 2-2.

3. List of validated SLMP-compatible equipment

Table 3-1 below shows SLMP-compatible equipment validated to operate with the GOT2000 series.

Table 3-1 Validated SLMP-compatible equipment (Compatible Product)

Manufacturer	Model	Setting method
Mitsubishi Electric Corporation	Refer to Section 3.1.	Refer to Section 3.1.1.
KEYENCE	Refer to Section 3.2.	Refer to Section 3.2.1.

3.1 Mitsubishi Electric equipment

Table 3-2 below shows Mitsubishi Electric SLMP-compatible equipment validated to operate with the GOT2000 series.

Table 3-2 Validated SLMP-compatible equipment (Recommended Product)

Series name	Communication module	Communication type	Connection cable
MELSEC iQ-R series	Ethernet port built in the CPU	Ethernet	*4
	RJ71EN71		
MELSEC-Q	QJ71E71-100 *1		
MELSEC-L	LJ71E71-100 *2		
MELSEC iQ-F series	Ethernet port built in the CPU		
FR-A800 series (FR-A8□0-E, FR-A8□2-E, FR-A8□6-E)	Ethernet port built in the inverter *3		
FR-F800 series (FR-F8□0-E, FR-F8□2-E)			
FR-E800 series (FR-E8□0-E)			
CNC M800/M80 series	Ethernet port built in the CNC *5		
CC-Link IE Field Network Ethernet adapter module NZ2GF-ETB	Ethernet port of the Ethernet part		

*1 The serial number must include "15042" in the first five digits, and the function version must be D or later.

TCP Maximum Segment Size Option transmission is unsupported in communication between the GOT and the module.

*2 The serial number must include "15042" in the first five digits, and the function version must be A or later.

*3 Enable the PLC function in the inverter side setting.

*4 For the connection cable, refer to the following manual.

- GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1 (SH-081200ENG)
- GT SoftGOT2000 Version1 Operating Manual (SH-081201ENG)

*5 The system software version must be C6 or later.

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3.1.1 Setting method

(1) MELSEC iQ-R series and MELSEC iQ-F series

Set the MELSEC iQ-R series or MELSEC iQ-F series with GX Works3.

For the details, refer to the following manuals.

- MELSEC iQ-R Ethernet User's Manual (Application) (SH-081257ENG)
- MELSEC iQ-F FX5 User's Manual (Ethernet Communication) (JY997D56201)

(2) MELSEC-Q and MELSEC-L (Ethernet interface module)

Set the MELSEC-Q or MELSEC-L Ethernet interface module with GX Works2.

For the details, refer to the following manuals.

- Q Corresponding Ethernet Interface Module User's Manual (Basic) (SH-080009)
- MELSEC-L Ethernet Interface Module User's Manual (Basic) (SH-081105ENG)

(3) CC-Link IE Field Network Ethernet adapter module

Set the CC-Link IE Field Network Ethernet adapter module with the Ethernet adapter module configuration tool.

For the details, refer to the following manual.

- CC-Link IE Field Network Ethernet Adapter Module User's Manual (SH-080939ENG)

(4) FR-A800 series, FR-F800 series, and FR-E800 series

Set the FR-A800 series, FR-F800 series, or FR-E800 series with FR Configurator2.

For the details, refer to the following manual.

- FR Configurator2 SW1DND-FRC2-E INSTRUCTION MANUAL (IB-0600516ENG)

(5) CNC M800/M80 series

For the setting method of the CNC M800/M80 series, refer to the following manuals.

- M800/M80/C80 Series Alarm/Parameter Manual (IB-1501279)
- M800/M80 Series PLC Programming Manual (IB-1501271)

3.2 KEYENCE

Table 3-3 below shows SLMP-compatible equipment validated to operate with the GOT2000 series.

Table 3-3 Validated SLMP-compatible equipment (Recommended Product)

Series name	Communication module	Communication type	Connection cable
KV-8000 series	Ethernet port built in the CPU	Ethernet	*1
	KV-LE21V, KV-LE20V, KV-EP21V		
KV-7000 series	Ethernet port built in the CPU		
	KV-LE21V, KV-LE20V, KV-EP21V		

*1 For the connection cable, refer to the following manual.

- GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1 (SH-081200ENG)
- GT SoftGOT2000 Version1 Operating Manual (SH-081201ENG)

3.2.1 Setting method

For the details of the KEYENCE PLC, refer to the following manual.

- KEYENCE PLC user's Manual

3.2.2 Precautions

For a TCP connection, according to Table 3-4 shown below, set the (specified) values to the setting item.

Table 3-4 Setting values for a TCP connection

Setting item	Setting value	
	ASCII code	Binary code
Device read points(Points)	335	680

4. Appendices

4.1 Commands issued by the GOT

Table 4-1 below shows the commands issued by the GOT.

Table 4-1 Commands issued by the GOT

Command	Subcommand *1	Command name	Description
0401	00□1	Reading data from consecutive bit devices	Read data from consecutive bit devices in 1-point units.
	00□0	Reading data from consecutive word devices	Read data from consecutive word devices in 1-point units.
	00□2		
1401	00□1	Writing data to consecutive bit devices	Write data to consecutive bit devices in 1-point units.
	00□0	Writing data to consecutive word devices	Write data to consecutive word devices in 1-point units.
	00□2		
0403	00□0	Reading data from separate word devices	Read data from separate word devices in 1-point units.
	00□2		
1402	00□1	Writing data to separate bit devices	Write data to separate bit devices in 1-point units.
	00□0	Writing data to separate word devices	Write data to separate word devices in 1-point units.
	00□2		

*1 □ in the subcommand depends on the specified device.

For the details of the commands, refer to the following manual.

→ SLMP Reference Manual (SH-080956ENG)

4.2 Operating the GOT as an SLMP server

To operate GT27, GT25, or GT21 as an SLMP server, use the Ethernet(MICROCOMPUTER) communication driver.

In the communication detail settings for the Ethernet(MICROCOMPUTER) communication driver, set [Format] to 6 or 7 (4E frame), or 8 or 9 (QnA compatible 3E frame).

For the setting details, refer to the following manual.

→ GOT2000 Series Connection Manual (Microcomputers, MODBUS/Fieldbus Products, Peripherals) For GT Works3 Version1 (SH-081200ENG)

Do not specify the subcommand (00□2 or 00□3) to the GOT operated as an SLMP server.

Doing so will cause erroneous read or write

For the details of the commands, refer to the following manual.

→ SLMP Reference Manual (SH-080956ENG)

REVISIONS

Version	Print Date	Revision
-	July 2015	- First edition
A	February 2016	- FR-A800 series has been added as SLMP-compatible equipment.
B	November 2016	- GT SoftGOT2000 supports the SLMP connection.

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Version	Print Date	Revision
C	November 2017	- FR-F800 series has been added as SLMP-compatible equipment. - CNC M800/M80 series has been added as SLMP-compatible equipment.
D	April 2019	- A note that TCP Maximum Segment Size Option transmission is unsupported in communication with QJ71E71-100 has been added.
E	January 2020	- FR-E800 series has been added as SLMP-compatible equipment.
F	May 2020	- The number of devices for double-word access has been added. - KEYENCE PLC has been added as SLMP-compatible equipment.