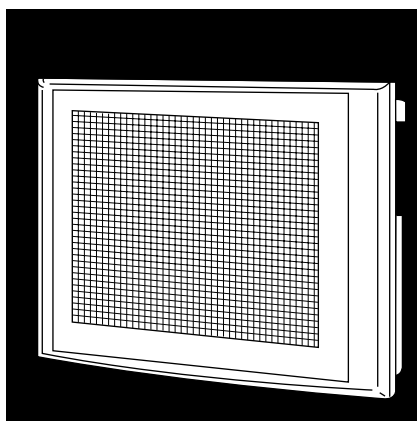


MITSUBISHI

Other's Programmable Controller • Bar-code Connection

System Manual



GRAPHIC OPERATION TERMINAL

800

Series



Mitsubishi Graphic Operation Terminal

Precautions Regarding Safety

(Please read carefully before using your equipment)

When using the Graphic Operation Terminal, please read the manuals that are supplied with each of the products, as well as any related manuals available as supplementary manuals. Make sure careful attention is paid to safety, and that the equipment is handled correctly.

In this manual, safety precautions concerning more hazardous items are labeled "DANGER", and those concerning more general safety items are labeled "CAUTION".




DANGER

Improper handling could cause hazardous conditions resulting in severe injury or death.



CAUTION

Improper handling could cause hazardous conditions resulting in moderate or light injury, or in physical damage.

Items marked with an exclamation point in a triangle  could also cause severe consequences, depending on the circumstances, if not handled properly. They indicate information that should be taken seriously and observed conscientiously.

Manuals supplied with the products should be stored carefully where they can be accessed whenever necessary, and should always be passed on to the end user along with the equipment.

[Precaution Regarding Design]



DANGER

- Some faults of the GOT main unit or communication cable may keep outputs on or off.
Provide an external circuit which will check for output signals that may lead to a serious accident.
Otherwise, misoutput or malfunction could cause an accident.
- Any communication fault (including cable disconnection) that occurs during monitoring using the GOT will stop communication between the GOT and programmable controller CPU, disabling the GOT.
For bus connection: The CPU becomes faulty and the GOT inoperative.
For other than bus connection: The GOT becomes inoperative.
In a system configuration where the GOT is used, configure the system to provide significant system operation switches on a device other than the GOT, on the assumption that a GOT communication fault will occur.
Otherwise, false output or malfunction can cause an accident.
- Communications cables should not be bundled with main circuits and power lines, or installed in the vicinity of these.
As a rule, there should be at least 100 mm (4inch) of space between communications cables and main circuits or power lines, as noise malfunctioning.

[Precautions Regarding Assembly]

DANGER

- Before mounting or dismounting the GOT main unit to or from a panel, always switch off the GOT power externally in all phases.
A failure to do so could cause the unit to break down or malfunction.
- Before fitting or removing the power supply module, communication module or memory cassette to or from the GOT main unit, always switch off the GOT power supply in all phases externally.
A failure to do so can cause a module fault or malfunction.
- Before connecting the communication cable, always switch off the GOT and programmable controller CPU powers externally in all phases.
A failure to do so could cause a malfunction.

CAUTION

- Use the GOT in the environment given in the general specifications of the GOT User's Manual.
A failure to do so could cause an electric shock, fire, malfunction, product damage or deterioration.
- When mounting the GOT main unit on a panel, tighten the mounting screws to the specified torque range.
Undertightening could cause a drop, short or malfunction.
Overtightening could cause a drop, short or malfunction due to damaged screws or unit.
- When fitting the power supply module, communication module or bus connection module to the GOT main unit, fit it to the connection interface of the GOT and tighten the module fixing screws to the specified torque.
When mounting the GOT main unit to an enclosure, tighten the mounting screws in the specified torque range.
Overtightening can result in screw or module damage, causing a drop, short circuit or malfunction.
- When loading the memory cassette or memory card, insert it into its corresponding connector until it "clicks".
Overtightening can result in screw or module damage, causing a drop, short circuit or malfunction.
After loading, check that it has been inserted snugly.
Otherwise, a contact fault can cause malfunction.
- Before loading or unloading the memory card to or from the GOT, set the memory card access switch to the OFF position.
A failure to do so can cause the memory card data to be corrupted.

[Precautions Regarding Wiring]

DANGER

- Before starting wiring, always switch off the GOT power externally in all phases.
A failure to do so could an electric shock, product damage or malfunction.

[Precautions Regarding Wiring]

CAUTION

- Always use the class 3 or higher grounding method to connect the FG terminal of the GOT.
Failing to ground these terminals sufficiently could cause electrical shock and /or malfunctioning.
- Wire the GOT power supply correctly after making sure that the rated voltage and terminal layout of the product are correct.
Connecting a power supply that differs from the rated voltage, or wiring it incorrectly, could cause fire and /or breakdowns.
- Tighten the terminal screws in the GOT power supply to the specified torque range.
Undertightening could cause a drop, short or malfunction.
Overtightening could cause a drop, short or malfunction due to damaged screws or unit.
- When wiring the GOT, exercise care to avoid foreign matter such as shield and wire offcuts entering the GOT main unit, power supply module, communication module and optional module.
Otherwise, a fire, fault or malfunction can occur.
- Plug the communication cable into the connectors of the GOT main unit, communication module and PLC CPU and tighten the connector fixing screws in the specified torque range.
Undertightening of the connector fixing screws can result in a contact fault, causing false inputs and outputs.
Overtightening of the connector fixing screws can result in screw or module damage or a contact fault, causing false inputs and outputs.
- The communication and power cables connected to the module must be run in ducts or clamped.
A failure to do so can cause module or cable damage due to the dangling, motion or accidental pulling of the cables or can cause malfunction due to a cable connection fault.

[Precautions Regarding Test Operation]

DANGER

- Before performing the test operation (bit device on/off, word device's current value changing, timer/counter's set value and current value changing, buffer memory's current value changing) of a user-created monitor screen or system monitor, read the manual carefully to fully understand how to operate the equipment.
During test operation, never change the data of the devices which perform significant operation for the system.
Misoutput or malfunction could cause an accident.

[Precautions Regarding Startup and Maintenance]

DANGER

- When power is on, do not touch the terminals.
Otherwise, you may get an electric shock or malfunction can occur.
- Before starting cleaning or retightening the terminal screws, always switch off the GOT power supply in all phases externally.
A failure to do so may cause an electric shock.
Undertightening of the terminal screws can cause a drop, short circuit or malfunction.
Overtightening of the terminal screws can result in screw or module damage, causing a drop, short circuit or malfunction.

CAUTION

- Do not disassemble or modify the GOT main unit, power supply module, communication module, memory cassette and memory card.
Otherwise, a fault, malfunction, injury or fire can take place.
- Do not touch the conductive and electronic parts of the GOT main unit, power supply module, communication module and memory cassette directly.
Otherwise, the modules can malfunction or fail.
- Do not subject the GOT main unit, power supply module, communication module and memory cassette to a drop or hard impact as they are made of resin.
Otherwise, a fault can occur.
- When disconnecting the communication cable or power cable connected to the module, do not hold and pull the cable portion.
When disconnecting the cable with connector, hold the connector connected to the module.
When disconnecting the cable without connector, loosen the screws connected to the module.
A failure to do so can cause module or cable damage or malfunction due to a cable connection fault.
- Always make sure to touch the grounded metal to discharge the electricity charged in the body, etc., before touching the module.
Failure to do so may cause a failure or malfunctions of the module.

[Precautions Regarding Product Disposal]

CAUTION

- When disposing of the product, handle it as industrial waste.

Revisions

*The manual number is noted at the lower left of the back cover.

Print date	*Manual Number	Revision
Sep., 1997	IB-(NA)-66797-A	First printing
Feb., 1998	IB-(NA)-66797-B	<div style="border: 1px solid black; display: inline-block; padding: 2px;">Partial addition</div> Chapter 6
Jun., 2004	IB-(NA)-66797-C	<div style="border: 1px solid black; display: inline-block; padding: 2px;">Partial corrections</div> SAFETY PRECAUTIONS, About the Manuals <div style="border: 1px solid black; display: inline-block; padding: 2px;">Addition</div> WARRANTY

Japanese Manual Version IB-68918-D

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses. Mitsubishi Electric Corporation cannot be held responsible for any problems involving industrial property rights which may occur as a result of using the contents noted in this manual.

Introduction

Thank you for purchasing the Mitsubishi Graphic Operation Terminal.
Before using the equipment, please read this manual carefully to develop full familiarity with the functions and performance of the graphic operation terminal you have purchased, so as to ensure correct use.
Please forward a copy of this manual to the end user.

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About the Manuals

The following product manuals are available. Please use this table as a reference to request the appropriate manual as necessary.

Related Manuals

Manual Name	Manual No. (Model Code)
<p>A870GOT Graphic Operation Terminal User's Manual This manual describes the specifications and performance of the A870 GOT main unit as well as the hardware configuration, procedures for installing optional units, operation in off-line mode, error codes, and troubleshooting guidelines. (Sold separately)</p>	<p>IB-66628 (1DM050)</p>
<p>A850GOT Graphic Operation Terminal User's Manual This manual describes the specifications and performance of the A850 GOT main unit as well as the hardware configuration, procedures for installing optional units, operation in off-line mode, error codes, and troubleshooting guidelines. (Sold separately)</p>	<p>IB-66669 (1DM038)</p>
<p>A852GOT Graphic Operation Terminal User's Manual This manual describes the specifications and performance of the A852 GOT main unit as well as the hardware configuration, procedures for installing optional units, operation in off-line mode, error codes, and troubleshooting guidelines. (Sold separately)</p>	<p>IB-66767 (1DM042)</p>
<p>A853GOT Graphic Operation Terminal User's Manual This manual describes the specifications and performance of the A853 GOT main unit as well as the hardware configuration, procedures for installing optional units, operation in off-line mode, error codes, and troubleshooting guidelines. (Sold separately)</p>	<p>IB-66785 (1DM044)</p>
<p>SW3NIW-A8GOTP Graphic Settings Software Package Operating Manual (Introductory Manual) This manual is designed for the first-time user of the GOT. It describes how to create monitor screens with the A8GOTP, how to send monitor data to the GOT, and what the various screen displays mean. (Sold separately)</p>	<p>IB-66792 (1DM177)</p>
<p>SW3NIW-A8GOTP Graphic Settings Software Package Operating Manual (Startup Manual) This describes the configuration of the A8GOTP system, precautions regarding the configuration, and the specifications of the various functions, as well as the installation procedures, startup procedures, screen configurations, and basic operation procedures. (Sold separately)</p>	<p>IB-66791 (1DM179)</p>
<p>SW3NIW-A8GOTP Graphic Settings Software Package Operating Manual (Monitor Screen Creation Manual) This describes procedures for creating monitor screens, monitor functions that can be used with the GOT, procedures for setting the monitor functions, precautions to be observed when creating monitor screens, and precautions to be observed when appropriating conventional GOT monitor data for use with the GOT. (Sold separately)</p>	<p>IB-66793 (1DM176)</p>
<p>SW3NIW-A8GOTP Graphic Settings Software Package Operating Manual (Data Transmission/Debugging/Document Creation Manual) This manual describes the following items. 1) Procedures for downloading project data to the A870GOT and uploading data from the A870GOT 2) Procedures for installing the operating system in the A870GOT 3) Procedures for using the A8GOTP as a virtual sequencer and for debugging the A870GOT 4) Procedures for outputting created monitor data as a completed document (Sold separately)</p>	<p>IB-66794 (1DM175)</p>

Manual Name	Manual No. (Model Code)
GOT800 Series Operating Manual (Expanded Functions Manual) This manual describes the operation procedures for using system monitor functions, monitor functions for special function units, and the dedicated monitor screens used with the circuit monitor functions. (Sold separately)	IB-66796 (1DM181)
SW3NIW-A8GOTP Graphic Settings Software Package Operating Manual (Report Function Manual) This manual describes how to create report screens, how to set report data, and precautions for use of the report function. (Sold separately)	IB-66795 (1DM178)
A8GT-RS4 Serial Communication Module User's Manual This manual provides the specifications, names of parts, mounting method, outline drawings and other information for use of the module. (Sold separately)	IB-66635 (1DM090)
A8GT-RS2 Serial Communication Module User's Manual This manual provides the specifications, names of parts, mounting method, outline drawings and other information for use of the module. (Sold separately)	IB-66786 (1DM084)

1. Overview

This manual provides the system configuration, setting method, connection cables and other information for connection of the A810/A850/A851/A852/A853/A870GOT Graphic Operation Terminal with the other's programmable controller, microprocessor board or the like.

The connection form described in this manual can be used by installing the SW3NIW-A8SYSP in the GOT.

1.1 Structure of This Manual

This manual is made up of Chapters 1 to 6.

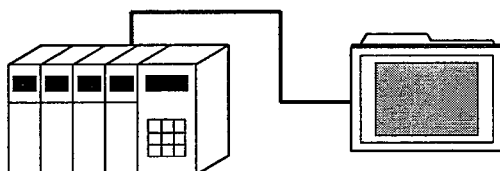
The following information is provided in each chapter.

"Chapter 1" Describes the contents and usage of this manual and abbreviations used.

"Chapter 2" Explains an OMRON programmable controller connection system. The GOT can be connected with OMRON's PLC to monitor it.

- Models that may be monitored

C200H,C200HS,C200H α ,CQM1,C1000H,C2000H,CV1000

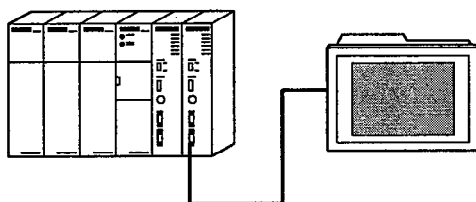


Can be monitored through RS-422/RS-232C communication.

"Chapter 3" Explains a Yaskawa Electric programmable controller connection system. The GOT can be connected with Yaskawa Electric's PLC to monitor it.

- Models that may be monitored

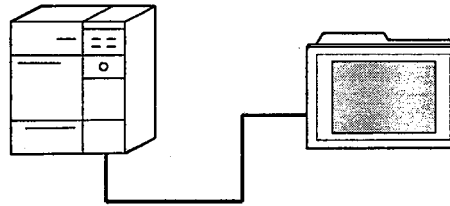
GL60S,GL60H,GL70H,GL120,GL130



Can be monitored through RS-422/RS-232C communication.

"Chapter 4" Explains an Allen-Bradley programmable controller connection system. The GOT can be connected with Allen-Bradley's PLC to monitor it.

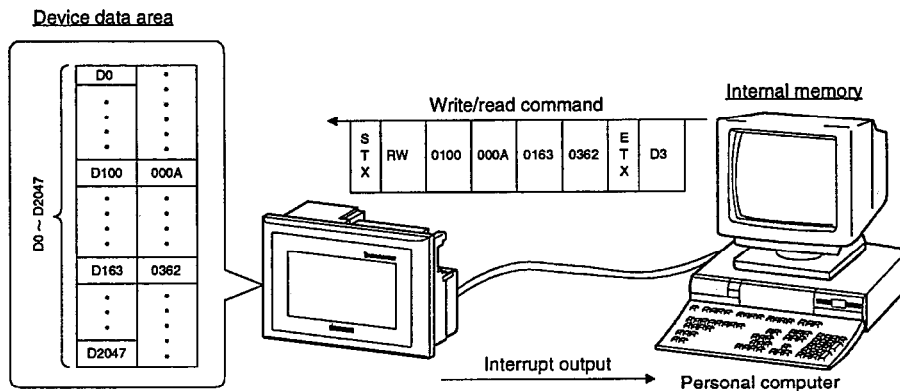
- Models that may be monitored.
SLC 5/03, SLC 5/04



Can be monitored through RS-232C communication.

"Chapter 5" Describes a microprocessor connection system.

As a connection form, the GOT can be connected with a microprocessor board or personal computer to monitor it. In a microprocessor connection system, the expansion functions are unavailable.

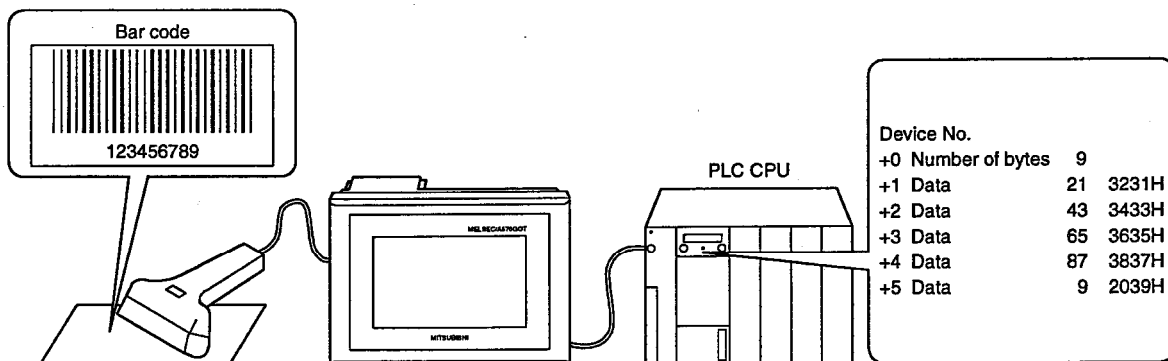


Can be monitored through RS-422/RS232C communication.

"Chapter 6" Describes a bar-code reader connection system.

The GOT can be connected with a bar-code reader to write data read by the bar-code reader to the PLC CPU.



Note that this connection system is only available when the SW3NIW-A8GOTP and SW3NIW-A8SYSP version B or later are used.



1.2 Structure of This Manual

The following abbreviations, terms and symbols are used in this manual:

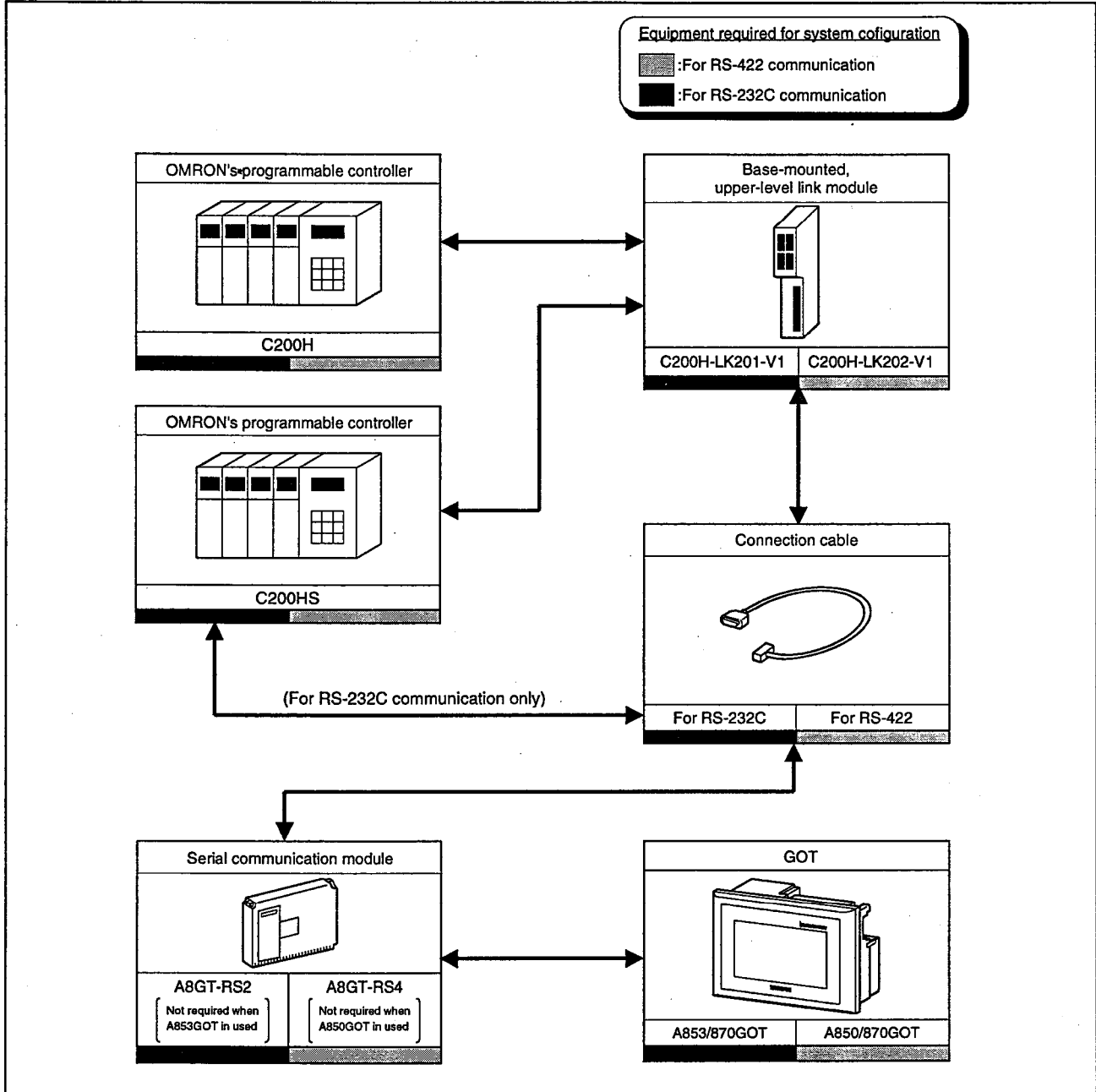
Abbreviation/Term	Description
A870GOT	Abbreviation for the A870GOT Graphic Operation Terminal.
A850GOT	Abbreviation for the A850GOT(-M3) Graphic Operation Terminal.
A852GOT	Abbreviation for the A852GOT(-M3) Graphic Operation Terminal.
A853GOT	Abbreviation for the A853GOT(-M3) Graphic Operation Terminal.
A85□GOT	General term for the A850GOT, A851GOT, A852GOT and A853GOT.
GOT	General term for the A870GOT and A85□GOT.
A8GT-RS4	Abbreviation for the A8GT-RS4 Serial Communication Module.
A8GT-RS2	Abbreviation for the A8GT-RS2 Serial Communication Module.
Graphics software	Abbreviation for the SW3NIW-A8GOTP Graphic Settings Software Package.
OMRON PLC connection system	Abbreviation for the system where the GOT is connected with OMRON's programmable controller.
Yaskawa Electric PLC connection system	Abbreviation for the system where the GOT is connected with Yaskawa Electric's programmable controller.
Allen-Bradley's PLC connection system	Abbreviation for the system where the GOT is connected with Allen-Bradley's programmable controller.
Microprocessor connection system	Abbreviation for the system where the GOT is connected with a microprocessor board or personal computer.
Bar-code reader connection system	Abbreviation for the system where the GOT is connected with a bar-code reader.

Symbol	Description
	Command name on a menu
[]	Dialog box name displayed
" "	Item in a dialog box for which a setting can be entered
	Command button in a dialog box

2. OMRON PLC Connection System

2.1 System Configuration for Connection with the C200H or C200HS Series

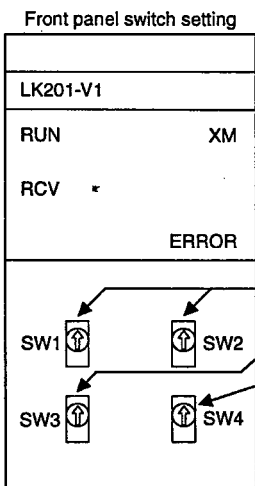
2.1.1 System Configurations



2.1.2 Switch Settings for the Upper-level Link Module

When using upper-level link module(C200H-LK201-V1/C200H-LK202-V1), perform the following switch settings.

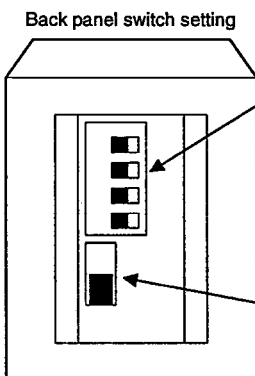
(1) For use of the C200H-LK201-V1



1) Setting for SW1 and SW2 (Device No. setting)
Set as follows.
SW1: 0, SW2: 0 (Set to device No. 00.)

2) Setting for SW3 (Transmission speed setting)
Set as follows.
SW3: 6 (Set to 19.2kBPS.)

3) Setting for SW4 (Command level / parity / transmission code setting)
Set as follows.
SW4: 2 (Parity: even, transmission code: ASCII 7-bit, stop bit: 2)

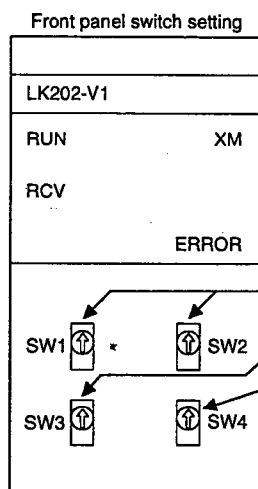


4) Setting for 5V supply switch
When using the Z3RN-A-5 optical interface, set this switch to the ON (5V supplied) position.
When not using the optical interface, always set it to the OFF position.

SW No.	ON	OFF
1	Not used.(Set to OFF)	
2		
3	1:N procedure	1:1 procedure
4	5V supplied	5V not supplied

5) CTS select switch
Set this switch in the 0V position to keep CTS on or in the external position to receive external signals.
Normally, set it in the 0V position.

(2) For use of the C200H-LK202-V1



1) Setting for SW1 and SW2 (Device No. setting)

Set as follows.

SW1: 0, SW2: 0 (Set to device No. 00.)

2) Setting for SW3 (Transmission speed setting)

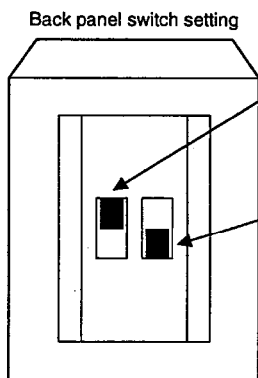
Set as follows.

SW3: 6 (Set to 19.2kBPS.)

3) Setting for SW4 (Command level / parity / transmission code setting)

Set as follows.

SW4: 2 (Parity: even, transmission code: ASCII 7-bit, stop bit: 2)



4) Setting for Terminal resistor connection /no connection select switch

Set as follows.

ON (connection) position.

5) Setting for 1 procedure/N procedure select switch

Set as follows.

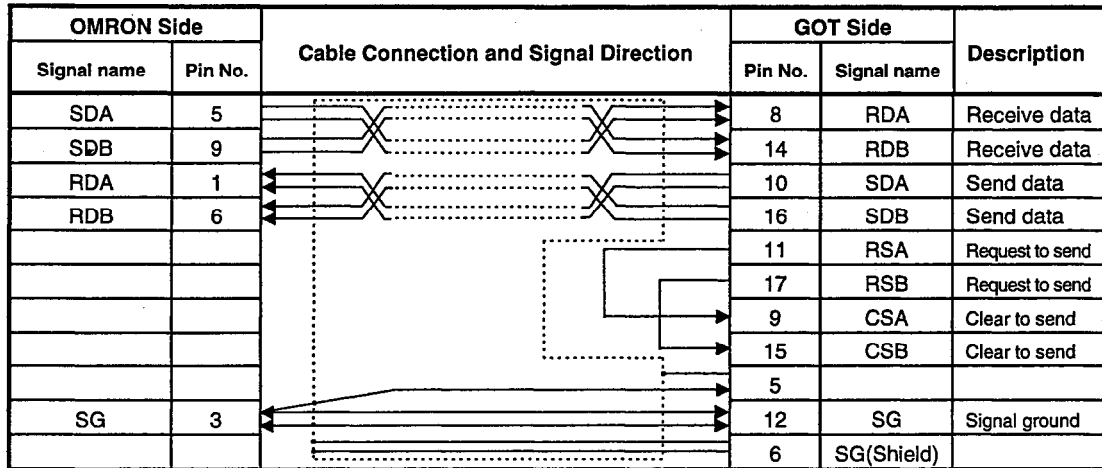
OFF (N Procedure) position.

2.1.3 About the Connection Cable

Use the following connection diagram and connectors to connect the cable between the upper-level link module and GOT.

(1) For RS-422 communication (Max. cable length: 200m(61feet))

(a) Connection diagram



(b) Connectors and connector covers used

- GOT side connector

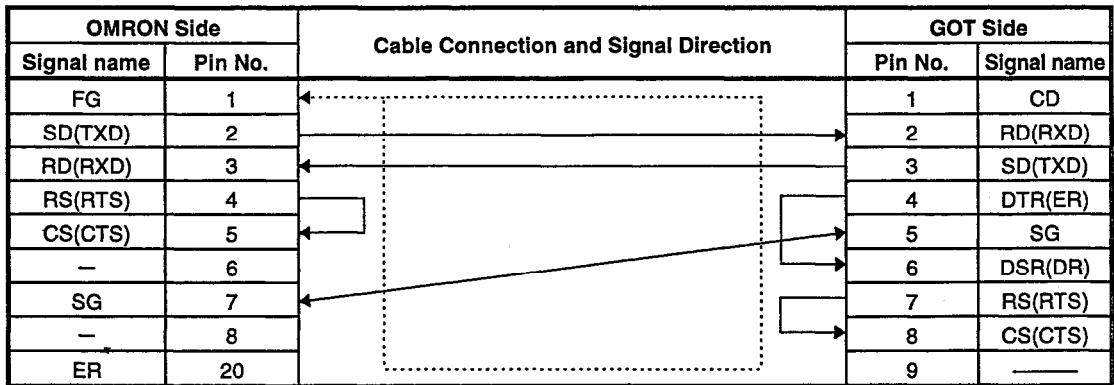
Name	Type	Manufacturer
Connector cover	P1620A-CA(20)	Hirose Electric Co.,Ltd.
Housing	SC-1620	
Contact	SC-1600-11	

- OMRON side connector

Use the connector supplied with the upper-level link module.

(2) For RS-232C communication (Max. cable length: 15m(4.58feet))

(a) Connection diagram



(b) Connectors and connector covers used

- GOT side connector

The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector. Use a mating connector which matches this connector.

9-pin D-sub (male) inch screw fixing type

Daiichi Electronic Industry make

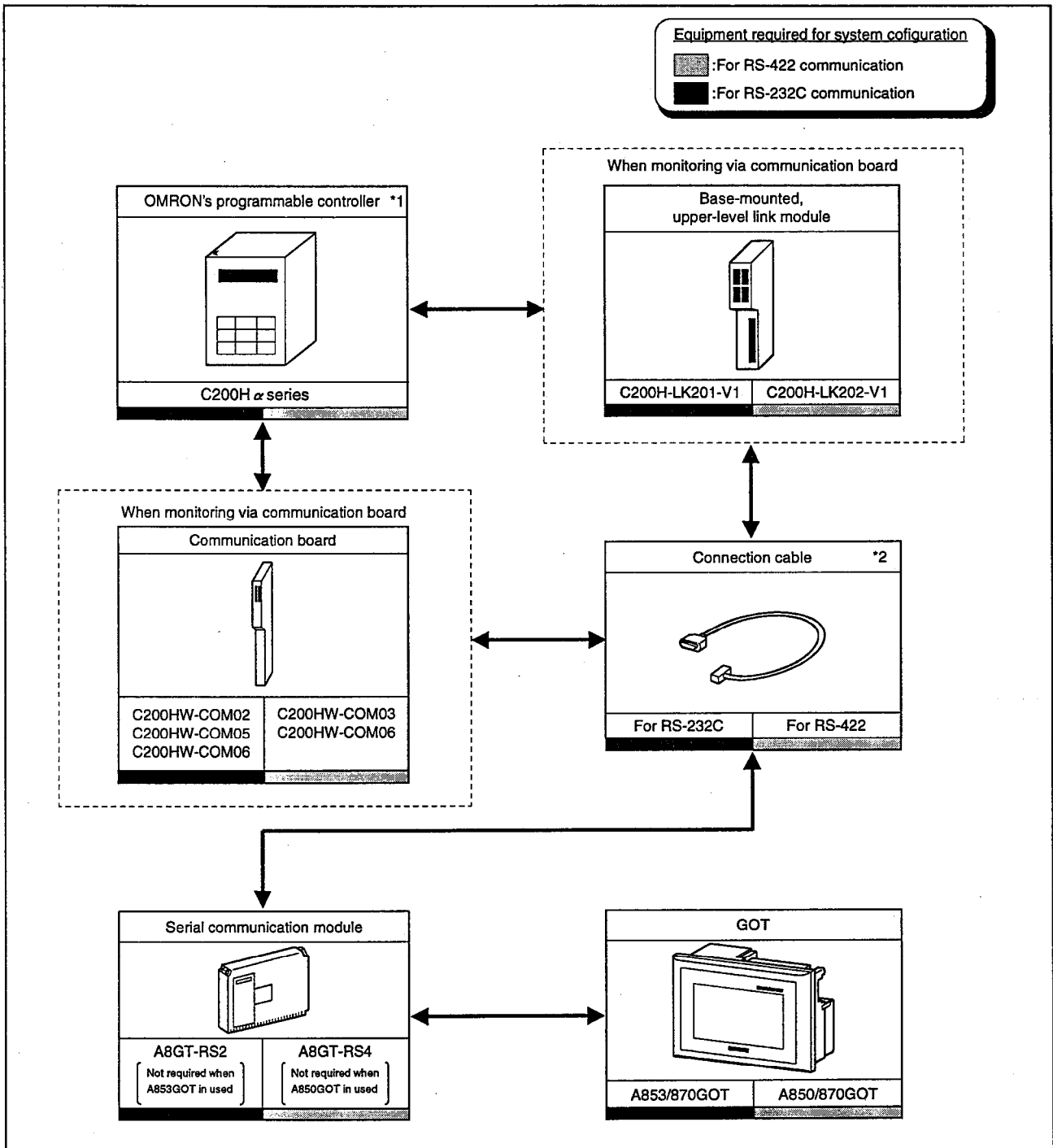
17LE-23090-27(D3CC)

- OMRON side connector

Use the connector supplied with the upper-level link module.

2.2 System Configuration When Connecting to the C200H α Series

2.2.1 System Configurations



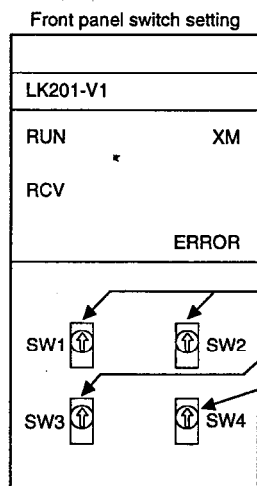
*1 The communication board cannot be installed to the C200HE-CPU11. Install the board via upper-level link module.

*2 The pin assignment of the connection cable is different for the communication board and for upper-level link module.

2.2.2 Switch Settings for the Upper-Level Link Module

The cable shown in the internal connections drawing below, or a cable with the model name noted below, is required.

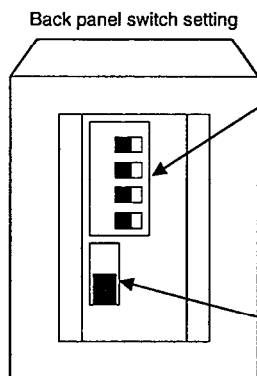
(1) For use of the C200H-LK201-V1



1) Setting for SW1 and SW2 (Device No. setting)
Set as follows.
SW1: 0, SW2: 0 (Set to device No. 00.)

2) Setting for SW3 (Transmission speed setting)
Set as follows.
SW3: 6 (Set to 19.2kBPS.)

3) Setting for SW4 (Command level / parity / transmission code setting)
Set as follows.
SW4: 2 (Parity: even, transmission code: ASCII 7-bit, stop bit: 2)

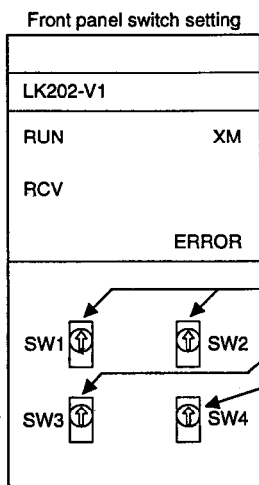


4) Setting for 5V supply switch
When using the Z3RN-A-5 optical interface, set this switch to the ON (5V supplied) position.
When not using the optical interface, always set it to the OFF position.

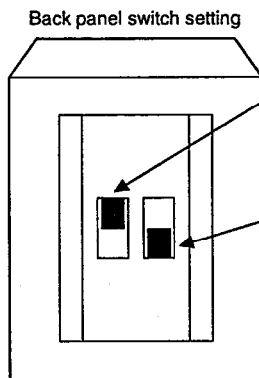
SW No.	ON	OFF
1	Not used.(Set to OFF)	
2		
3	1:N procedure	1:1 procedure
4	5V supplied	5V not supplied

5) CTS select switch
Set this switch in the 0V position to keep CTS on or in the external position to receive external signals.
Normally, set it in the 0V position.

(2) For use of the C200H-LK202-V1



- 1) Setting for SW1 and SW2 (Device No. setting)
Set as follows.
SW1: 0, SW2: 0 (Set to device No. 00.)
- 2) Setting for SW3 (Transmission speed setting)
Set as follows.
SW3: 6 (Set to 19.2kBPS.)
- 3) Setting for SW4 (Command level / parity / transmission code setting)
Set as follows.
SW4: 2 (Parity: even, transmission code: ASCII 7-bit, stop bit: 2)



- 4) Setting for Terminal resistor connection /no connection select switch
Set as follows.
ON (connection) position.
- 5) Setting for 1 procedure/N procedure select switch
Set as follows.
OFF (N Procedure) position.

2.2.3 Communication Board Initialization Program

When using the communication board, write the following values to the following device and perform initialization for port A of the communication board.

For device applications and initialization program refer to the manual of the communication board used.

Device Name	Value to Be Written	Device Name	Value to Be Written
DM6550 to DM6554	No need to write	DM6555	0001H
DM6556	0304H	DM6557	0000H
DM6558	0000H	DM6559	0000H

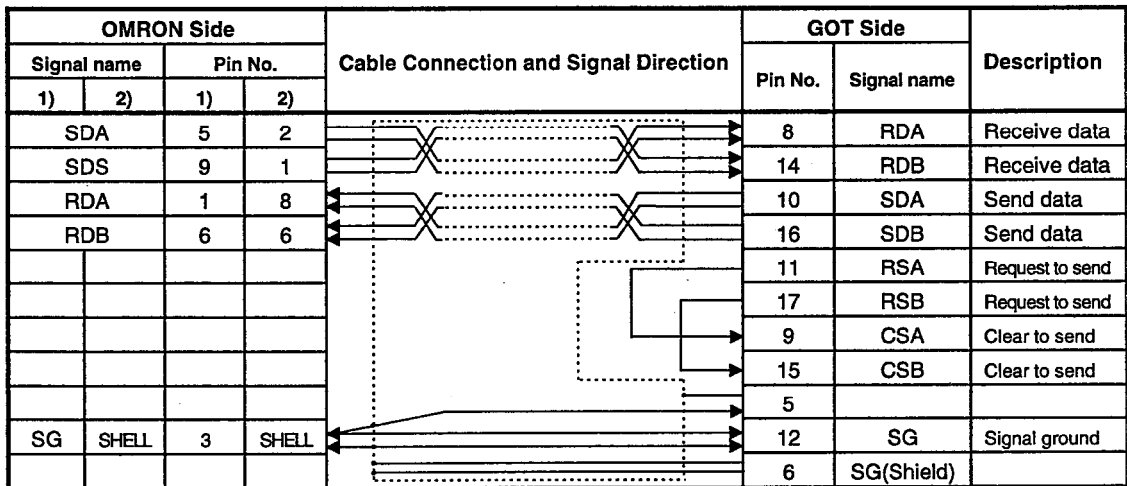
2.2.4 About the Connection Cable

Use the following connection diagrams and connectors to connect the cable between the GOT and programmable controller via the upper-level link module or communication board.

(1) For RS-422 communication (Max. cable length: 200m(61feet))

(a) Connection diagram

- 1) Upper-level link module
- 2) Communication board



(b) Connectors and connector covers used

- GOT side connector

Name	Type	Manufacturer
Connector cover	P1620A-CA(20)	Hirose Electric Co.,Ltd.
Housing	SC-1620	
Contact	SC-1600-11	

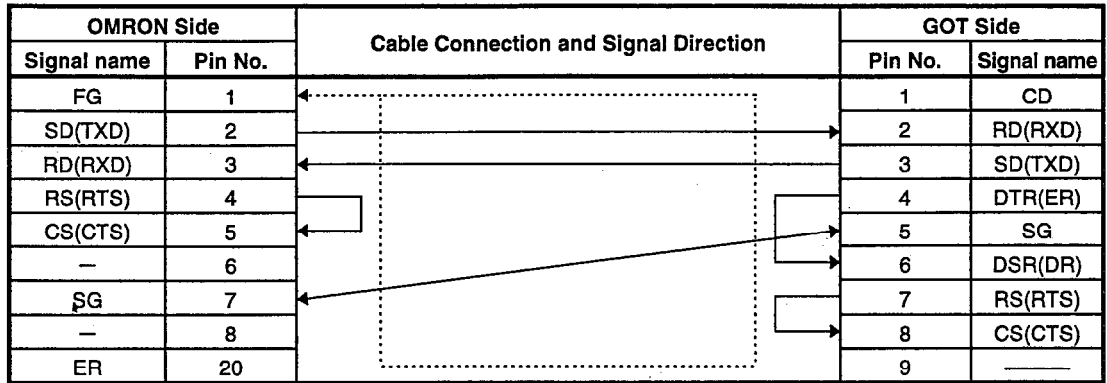
- OMRON side connector

Use the connector supplied with the upper-level link module.

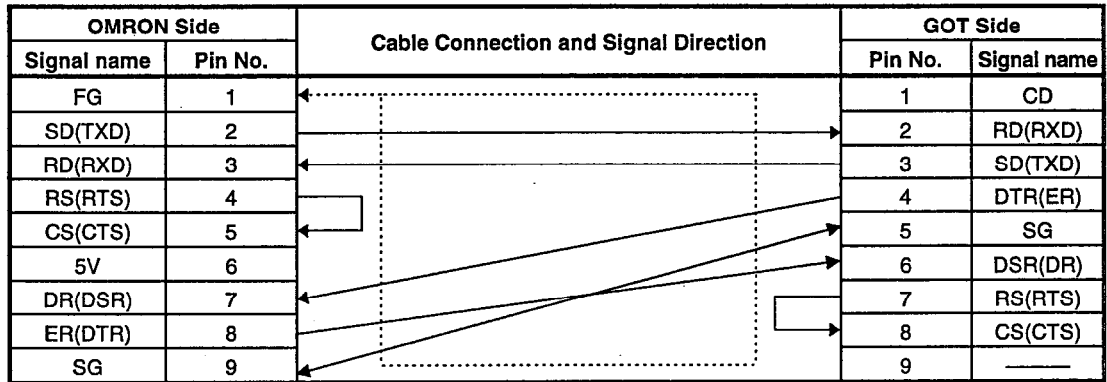
(2) For RS-232C communication (Max. cable length: 15m(4.58feet))

(a) Connection diagram

1) Upper-level link module



2) Communication board



(b) Connectors and connector covers used

- GOT side connector

The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector. Use a mating connector which matches this connector:

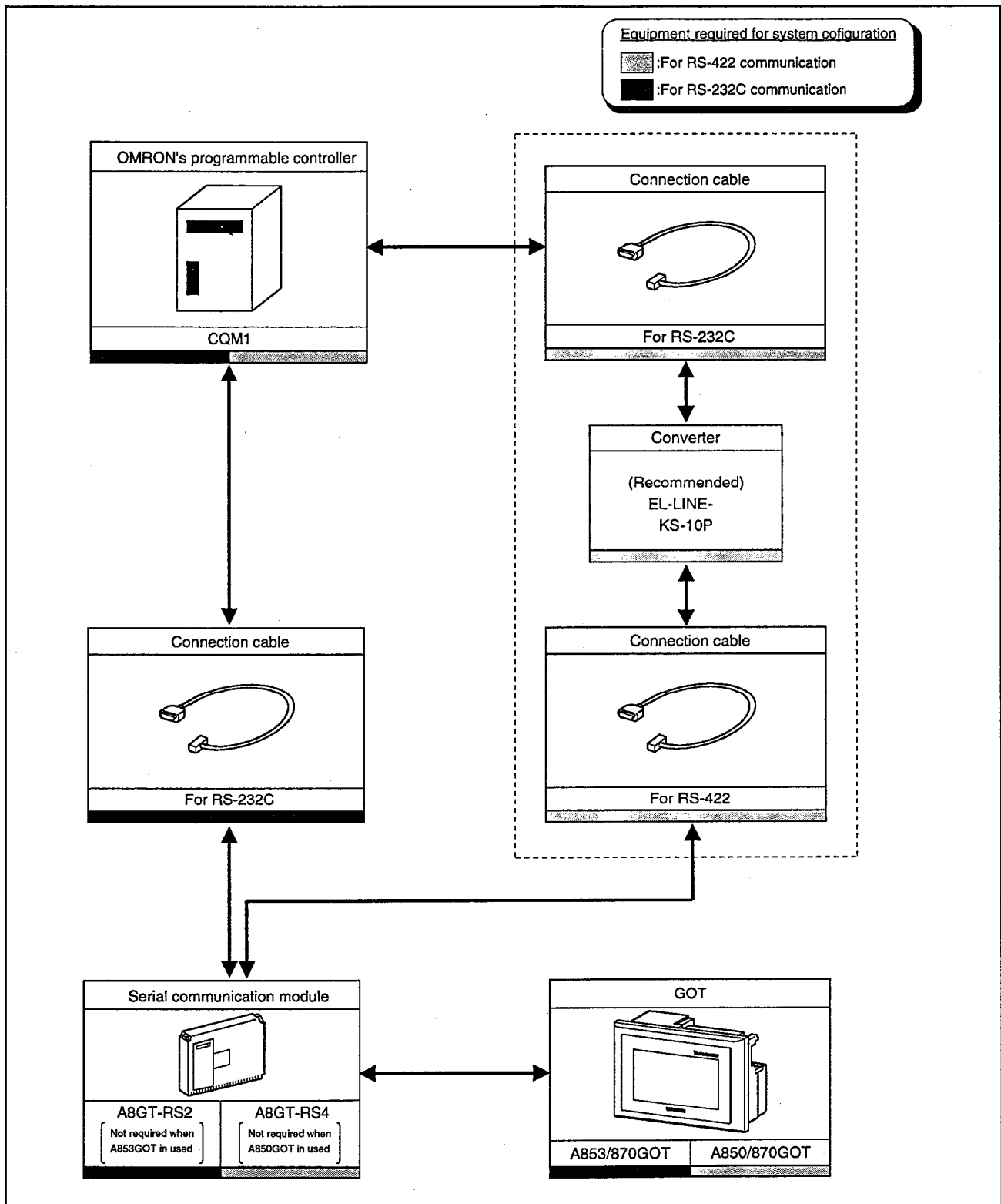
- 9-pin D-sub (male) inch screw fixing type
- Daiichi Electronic Industry make
- 17LE-23090-27(D3CC)

- OMRON side connector

Use the connector supplied with the upper-level link module or communication board.

2.3 System Configuration for Connection with the CQM1

2.3.1 System Configurations



Note 1: The CQM1-CPU11 does not have an RS-232C interface and cannot be connected.

2.3.2 Initialization of the CQM1

When using the RS232C port of the CQM1, write the following values to the following devices and perform initialize for the RS232C port of the CQM1 using the peripheral tool or DM monitor. For full information, refer to the CQM1 manual.

Device Name	Value to Be Written	Device Name	Value to Be Written
DM6645	0001H	DM6646	0304H
DM6647	0000H	DM6648	0000H
DM6649	0000H		

2.3.3 About the Connection Cable

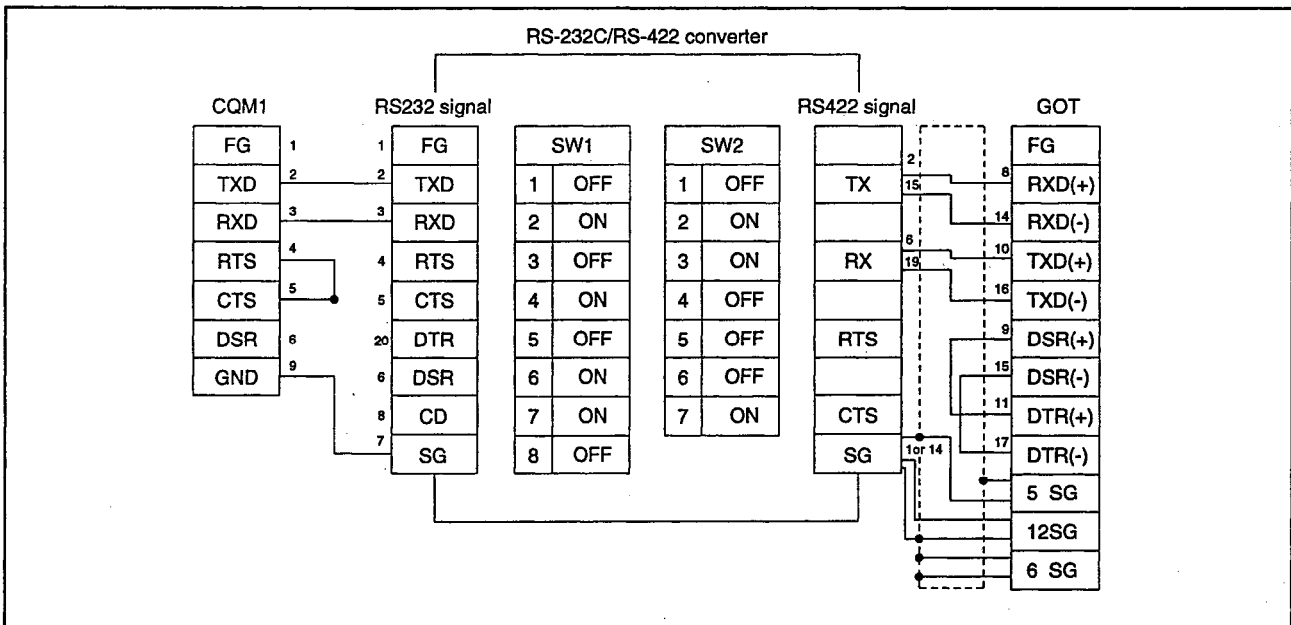
Use the following converter (recommended one), connectors and wiring to connect the cable between the CQM1 and GOT.

(1) For RS-422 communication (Max. cable length: 200m(61feet))

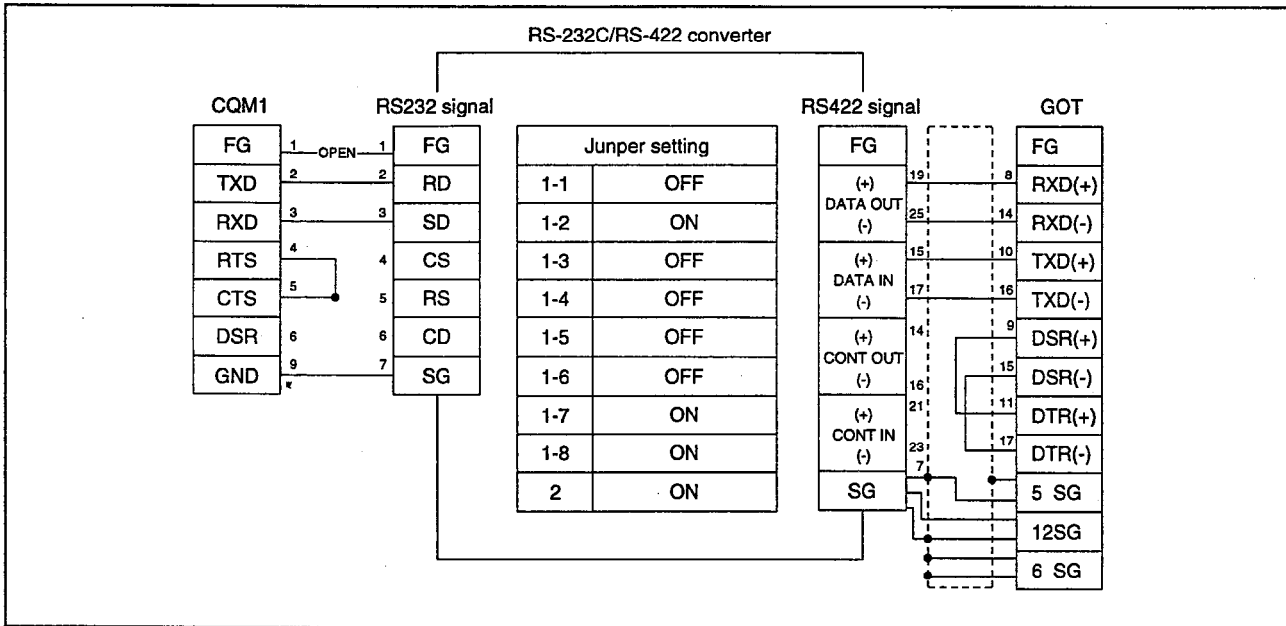
(a) Connection diagram

Model	Manufacturer
EL-LINE-II	EL Engineering
KS-10P	System Sacom

(b) Wiring for use of the EL-LINE-II



(c) Wiring for use of the KS-10P



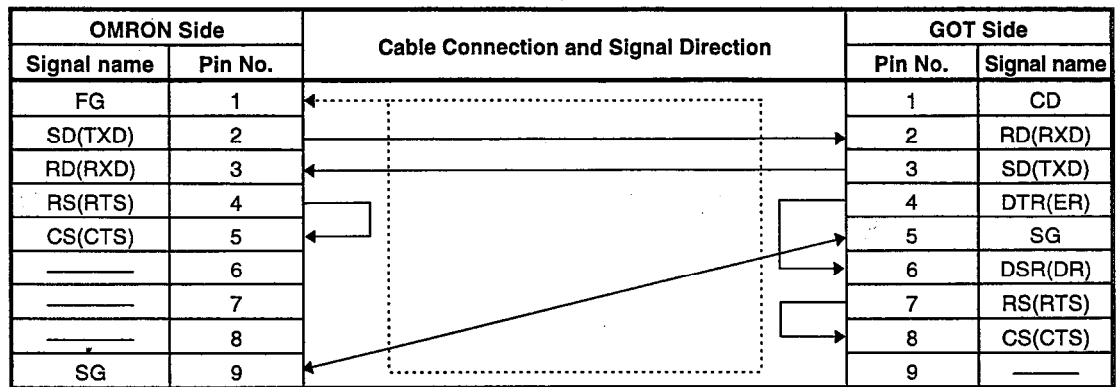
(d) Connectors and connector covers used

- CQM1 side connector
Use the connector supplied with the CQM1.
- Connector for use of the EL-LINE-II
RS-232C connector: 25-pin D-sub (male) screw fixing type
RS-422 connector: 25-pin D-sub (female) screw fixing type
- Connector for use of the KS-10P
RS-232C connector: 9-pin D-sub (male) screw fixing type
RS-422 connector: 25-pin D-sub (female) screw fixing type
- GOT side connector

Name	Type	Manufacturer
Connector cover	P1620A-CA(20)	Hirose Electric Co., Ltd.
Housing	SC-1620	
Contact	SC-1600-11	

(2) For RS-232C communication (Max. cable length: 15m(4.58feet))

(a) Connection diagram



(b) Connectors and connector covers used

- GOT side connector

The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector. Use a mating connector which matches this connector.

9-pin D-sub (male) inch screw fixing type

Daiichi Electronic Industry make

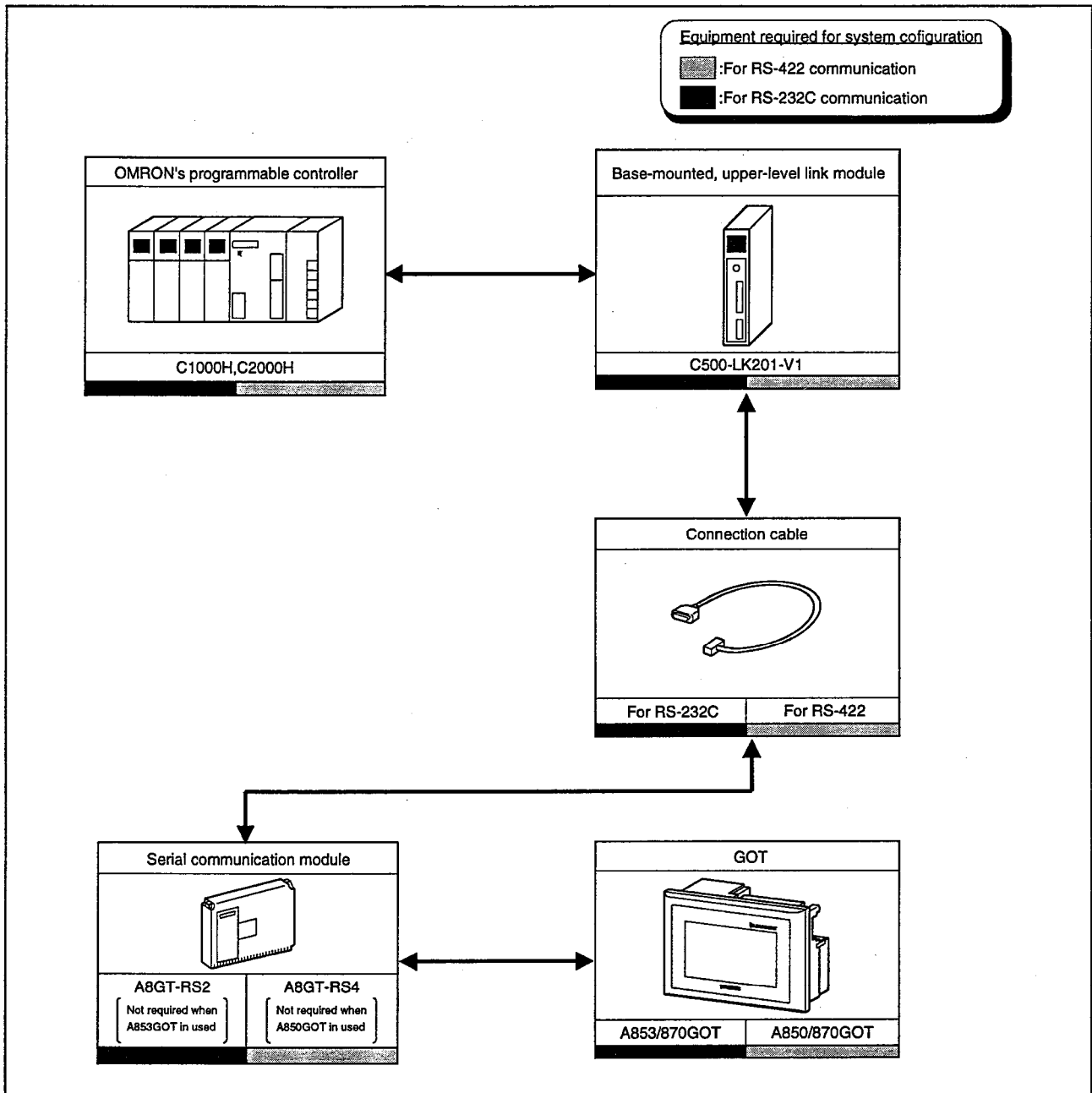
17LE-23090-27(D3CC)

- OMRON side connector

Use the connector supplied with CQM1.

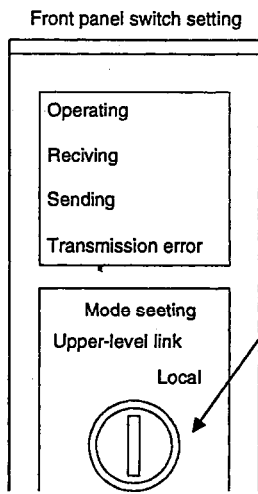
2.4 System Configuration for Connection with the C1000H or C2000H

2.4.1 System Configurations

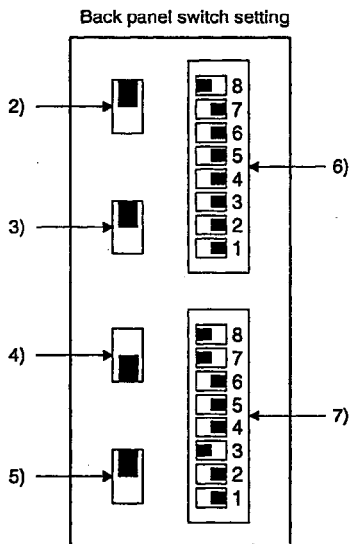


2.4.2 Switch Settings for the Upper-Level Link Module

Perform the following switch settings for the upper-level link module (C500H-LK201-V1):



- 1) Upper-level link/local setting
Set to upper-level link.
- 2) Setting for RS-232C/RS-422 select switch.
Set to the RS-422 (upper) position for RS-422 communication or the RS-232C (lower) position for RS-232C communication.
- 3) Setting for internal clock/external clock select switch
Set to the internal (upper) position.
- 4) Setting for terminal resistor connection/no connection setting switch.
Set to the connection (lower) position.



- 5) Setting for CTS select switch
Set to the 0V (upper) position.
- 6) Setting for SW1 (Device No., run/stop setting)
Set as follows:

1	2	3	4	5	6	7	8
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON

Device No. 00 Run

- 7) Setting for SW2 (transmission speed, 1 procedure / N procedure, level setting)

1	2	3	4	5	6	7	8
OFF	OFF	ON	OFF	OFF	OFF	ON	ON

19.2kBPS Level 1, 2, 3 valid

1:N procedure

2.4.3 About the Connection Cable

Use the following connection diagrams and connectors to connect the cable between the upper-level link module and GOT.

(1) For RS-422 communication (Max. cable length: 200m(61feet))

(a) Connection diagram

OMRON Side		Cable Connection and Signal Direction	GOT Side		Description
Signal name	Pin No.		Pin No.	Signal name	
SDA	5		8	RDA	Receive data
SDB	9		14	RDB	Receive data
RDA	1		10	SDA	Send data
RDB*	6		16	SDB	Send data
			11	RSA	Request to send
			17	RSB	Request to send
			9	CSA	Clear to send
			15	CSB	Clear to send
			5		
SG	3		12	SG	Signal ground
		6	SG(Shield)		

(b) Connectors and connector covers used

- GOT side connector

Name	Type	Manufacturer
Connector cover	P1620A-CA(20)	Hirose Electric Co.,Ltd.
Housing	SC-1620	
Contact	SC-1600-11	

- OMRON side connector

Use the connector supplied with the upper-level link module.

(2) For RS-232C communication (Max. cable length: 15m(4.58feet))

(a) Connection diagram

OMRON Side		Cable Connection and Signal Direction	GOT Side	
Signal name	Pin No.		Pin No.	Signal name
FG	1		1	CD
SD(TXD)	2		2	RD(RXD)
RD(RXD)	3		3	SD(TXD)
RS(RTS)	4		4	DTR(ER)
CS(CTS)	5		5	SG
—	6		6	DSR(DR)
SG	7		7	RS(RTS)
—	8		8	CS(CTS)
ER	20		9	—

(b) Connectors and connector covers used

- GOT side connector

The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector. Use a mating connector which matches this connector.

9-pin D-sub (male) inch screw fixing type

Daiichi Electronic Industry make

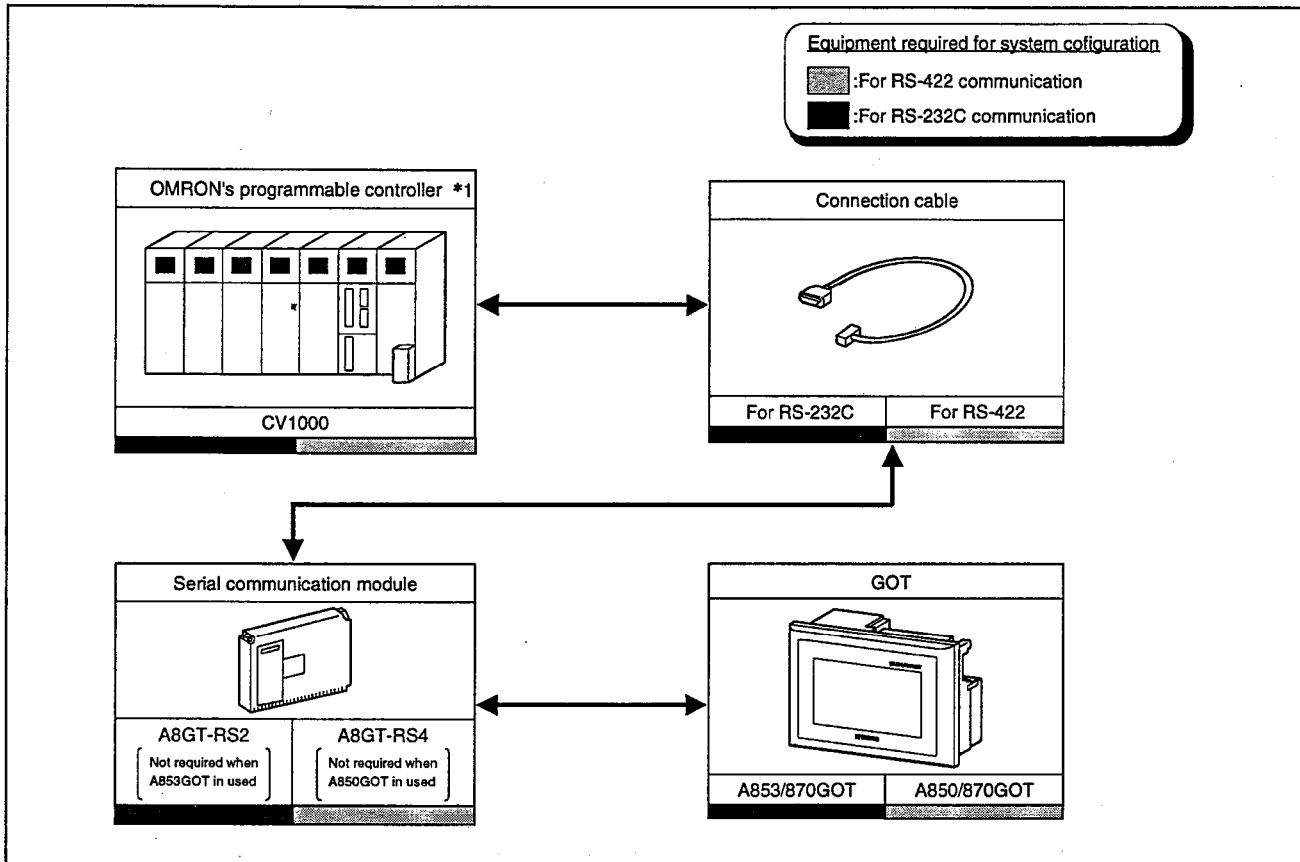
17LE-23090-27(D3CC)

- OMRON side connector

Use the connector supplied with the upper-level link module.

2.5 System Configuration for Connection with the CV1000

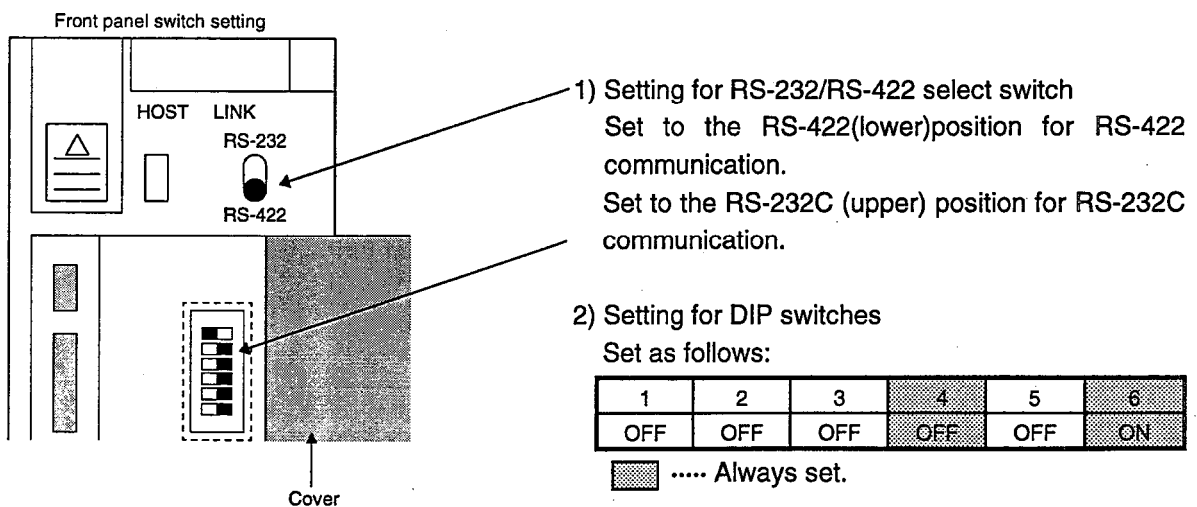
2.5.1 System Configurations



*1: Use the CV1000 of version V1 or later.

2.5.2 Switch Setting for the CPU

Perform the following switch settings for the CPU (CV1000):



2.5.3 Setting for CPU with the Peripheral Tool

Using the peripheral tool, perform the following settings for the CPU (CV1000):

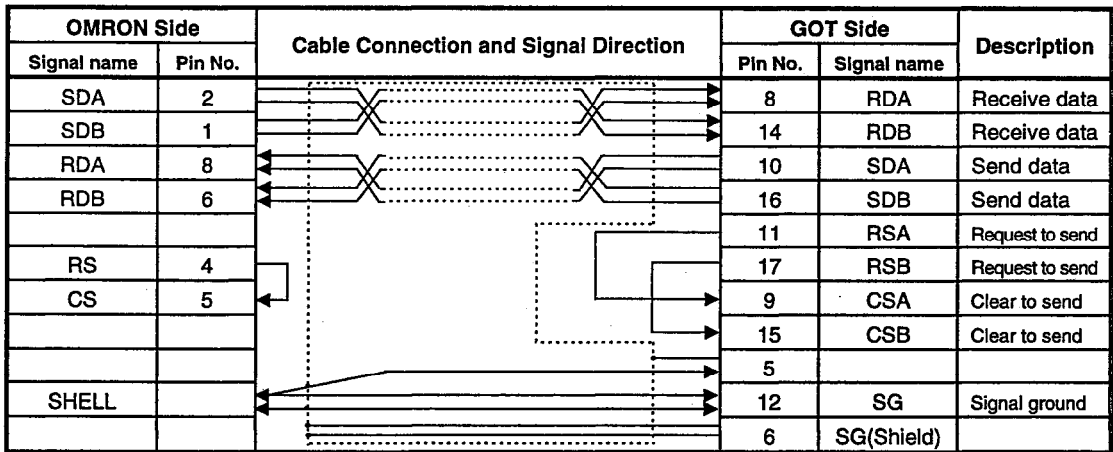
Item	Setting
Transmission speed	19200BPS
Stop bit	2 stop bits
Parity	Even
Data length	7 bits
Device No.	Device No. 00

2.5.4 About the Connection Cable

Use the following connection diagrams and connectors to connect the cable between the CPU (CV1000) and GOT.

(1) For RS-422 communication (Max. cable length: 200m(61feet))

(a) Connection diagram



(b) Connectors and connector covers used

- GOT side connector

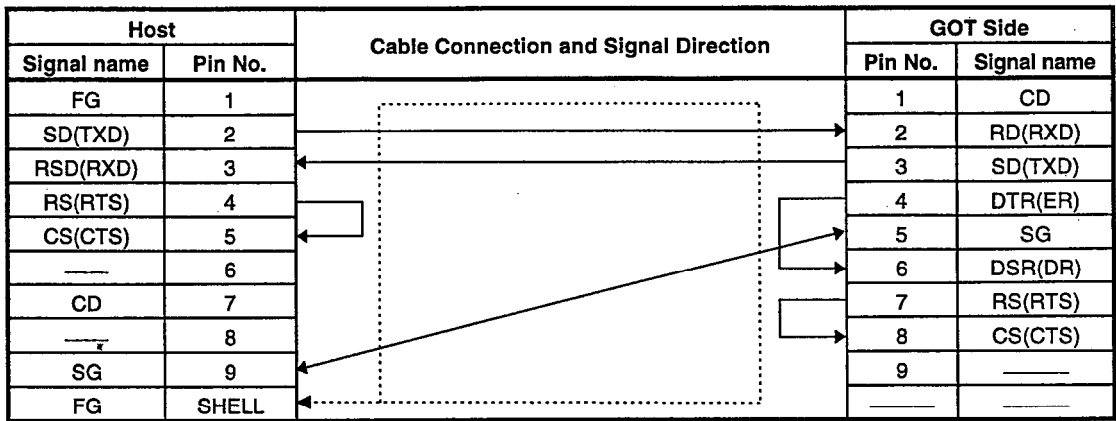
Name	Type	Manufacturer
Connector cover	P1620A-CA(20)	Hirose Electric Co.,Ltd.
Housing	SC-1620	
Contact	SC-1600-11	

- OMRON side connector

Use the connector supplied with CPU(CV1000).

(2) For RS-232C communication(Max. cable length:15m(4.58feet))

(a) Connection diagram



(b) Connectors and connector covers used

• GOT side connector

The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector. Use a mating connector which matches this connector:

9-pin D-sub (male) inch screw fixing type

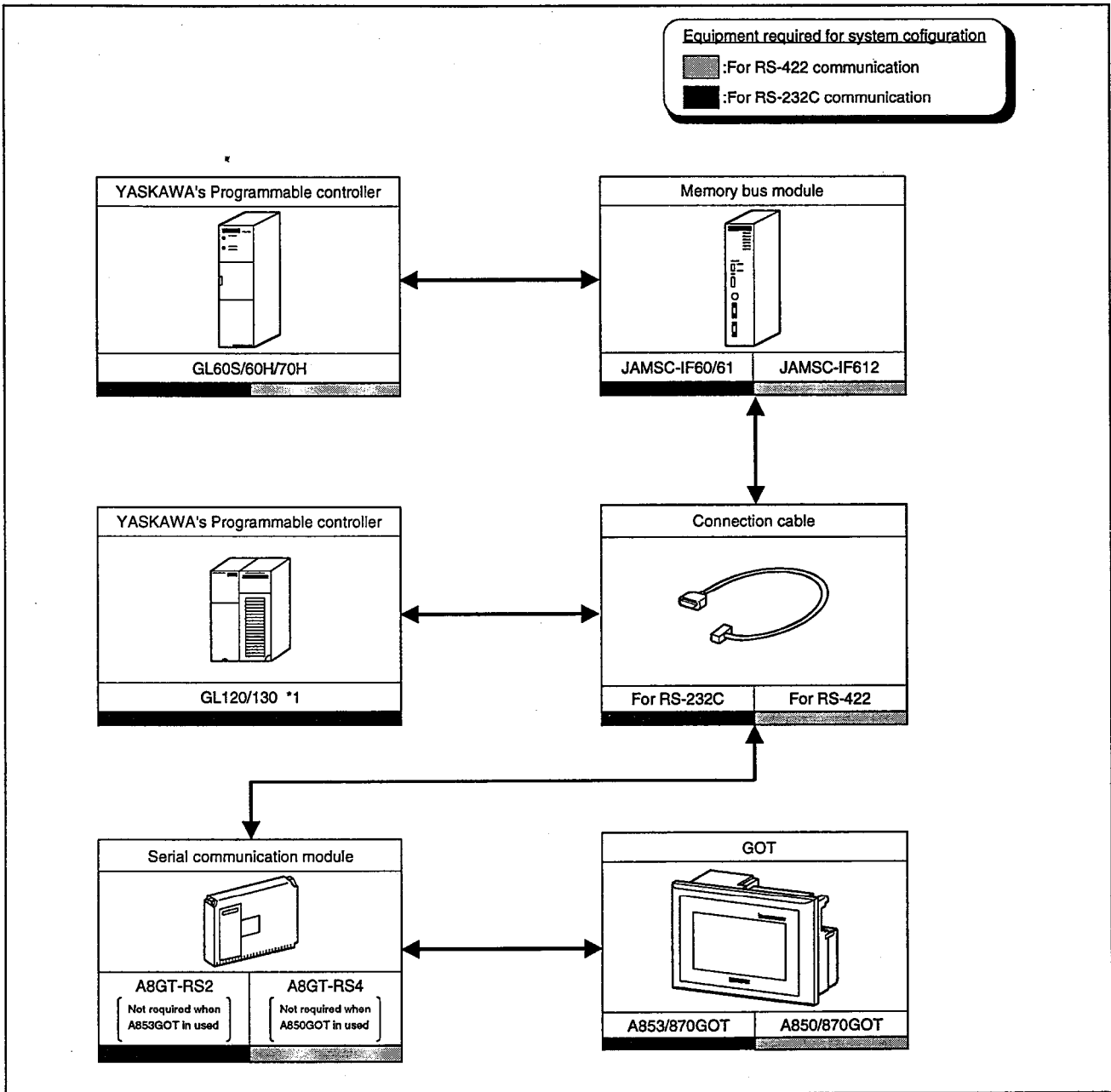
Daiichi Electronic Industry make

• OMRON side connector

Use the connector supplied with the CPU (CV1000).

3. YASKAWA ELECTRIC PLC Connection System

3.1 System Configurations



*1: The GL120 and GL130 are only designed for use in BCD code.

3.2 Communication Settings for the Memory Bus Module

When the memory bus module is connected with the GOT to monitor the PLC, perform the following communication and port settings using the peripheral tool.

For full information, refer to the manual of the memory bus modul

Item	Setting
Address	1
Protocol	MEMOBUS
Mode	RTU
Data length	8
Parity	EVEN
Stop	1
Communication speed	19200bps

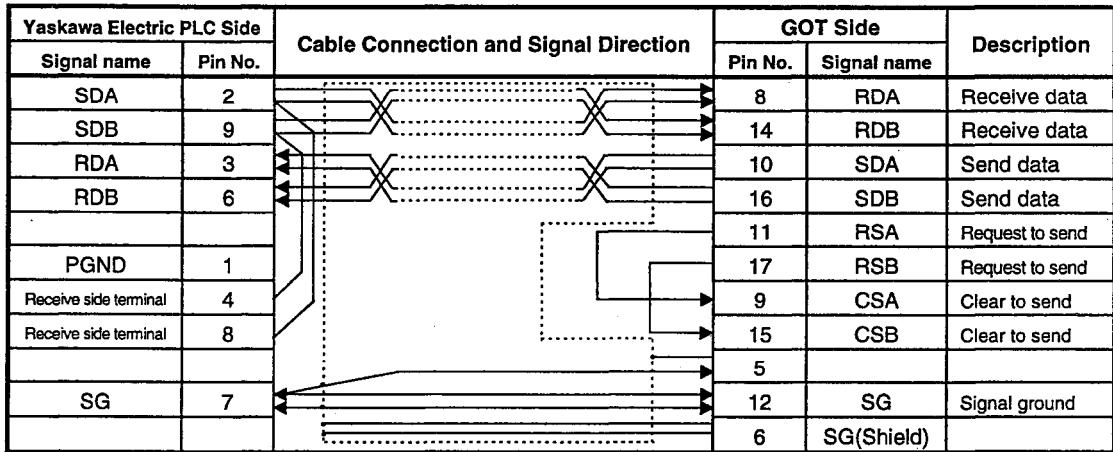
3.3 About the Connection Cable

Use the following connection diagrams and connectors to connect the cable between the PLC and GOT via the memory bus module.

(Max. cable length: depends on the memory bus module specifications.)

(1) For RS-422 communication

(a) Connection diagram



(b) Connectors and connector covers used

- GOT side connector

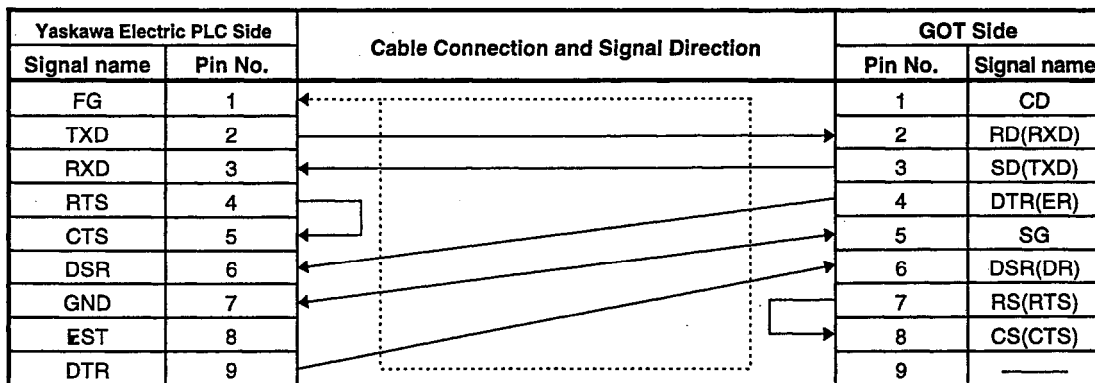
Name	Type	Manufacturer
Connector cover	P1620A-CA(20)	Hirose Electric Co.,Ltd.
Housing	SC-1620	
Contact	SC-1600-11	

- Yaskawa Electric PLC side connector

Use the connector compatible with the memory bus module.

(2) For RS-232C communication

(a) Connection diagram



(b) Connectors and connector covers used

- GOT side connector

The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector. Use a mating connector which matches this connector:

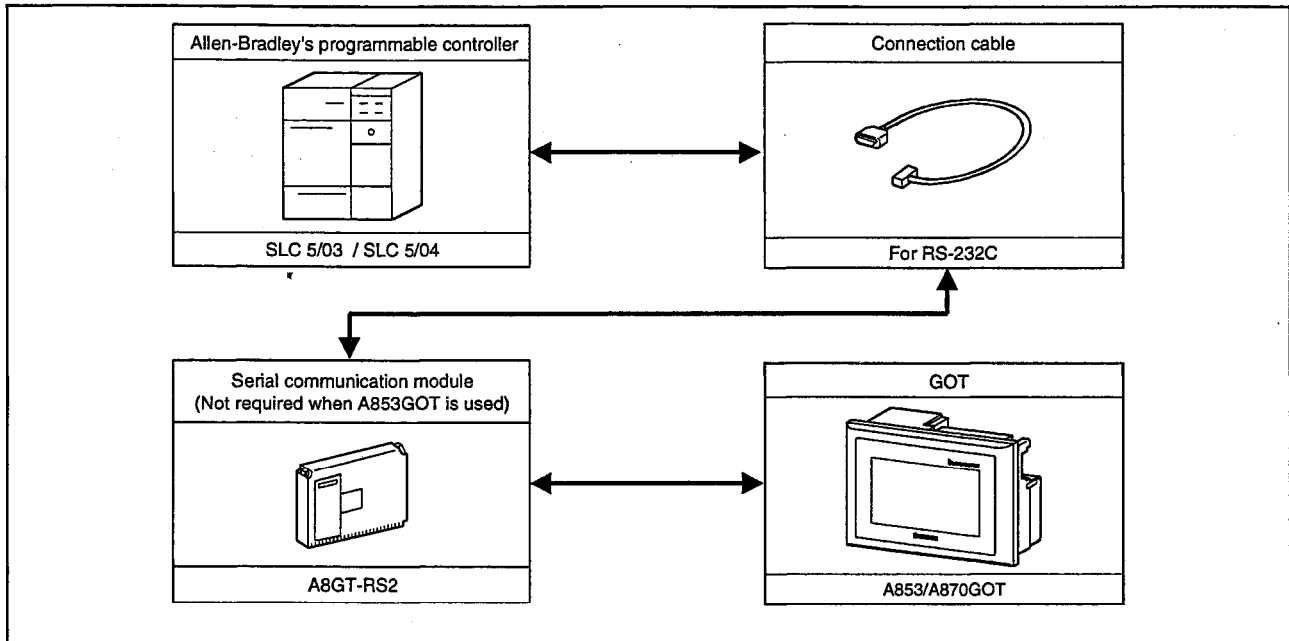
- 9-pin D-sub (male) inch screw fixing type
- Daiichi Electronic Industry make

- Yaskawa Electric PLC side connector

Use the connector compatible with the memory bus module or GL120/130.

4. Allen-Bradley PLC Connection System

4.1 System Configuration



4.2 Communication Setting for the Allen-Bradley's PLC

When the PLC is connected with the GOT for monitoring, perform the following communication and port settings using the peripheral tool.
 For full information, refer to the manual of the Allen-Bradley's PLC.

Allen-Bradley PLC Settings	
Band Rate	19200bps
Parity	EVEN
Communication Driver	DF1 HALF-DUPLEX SLAVE
Duplicate Packet Detection	DISABLE
Error Detection	BCC
Control Line	NO HANDSHAKING
Station Address	0

4.3 Transmission Specifications

The transmission specifications for communication between the GOT and Allen-Bradley's PLC are as follows:

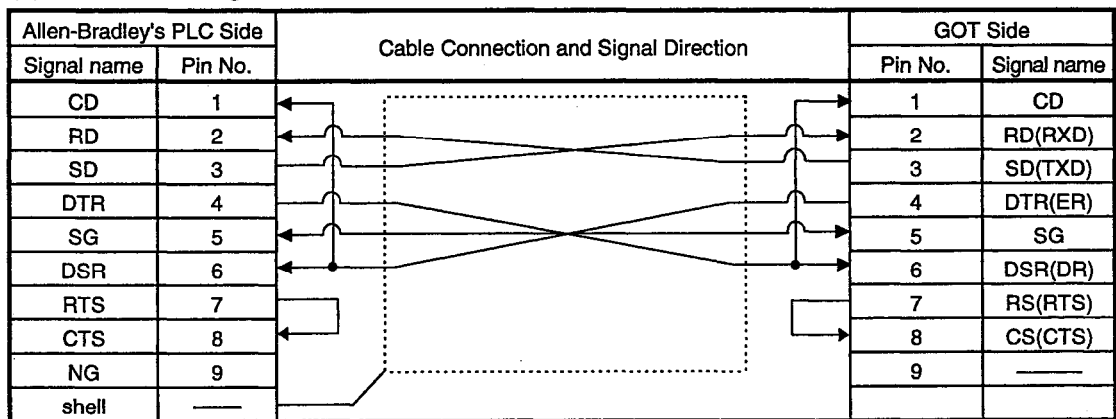
Transmission speed	19200bps
Data length	8 bits
Stop bit	1 bit
Parity bit	EVEN
Control mode	None

4.4 About the Connection Cable

Use the following connection diagrams and connectors to connect the cable between the Allen-Bradley's PLC and GOT.

(Max. cable length: depends on the Allen-Bradley PLC specifications.)

(1) Connection diagram

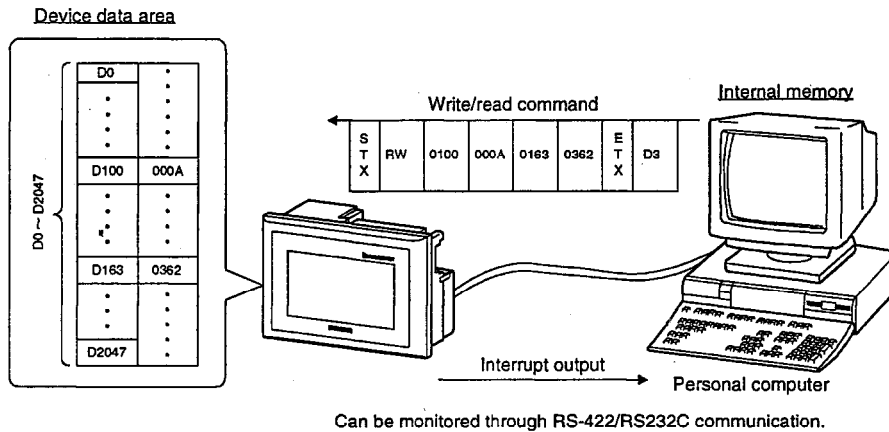


(2) Connectors and connector covers used

- GOT side connector
 The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector.
 Use a mating connector which matches this connector.
 9-pin D-sub (male) inch screw fixing type
 Daiichi Electronic Industry make
 17LE-23090-27(D3CC)
- Allen-Bradley PLC side connector
 Use the connector compatible with the Allen-Bradley's PLC.

5. Microprocessor Connection System

The virtual devices (D) of the GOT can be monitored from a personal computer, microprocessor board, PLC or the like (referred to as the host) through data communication.

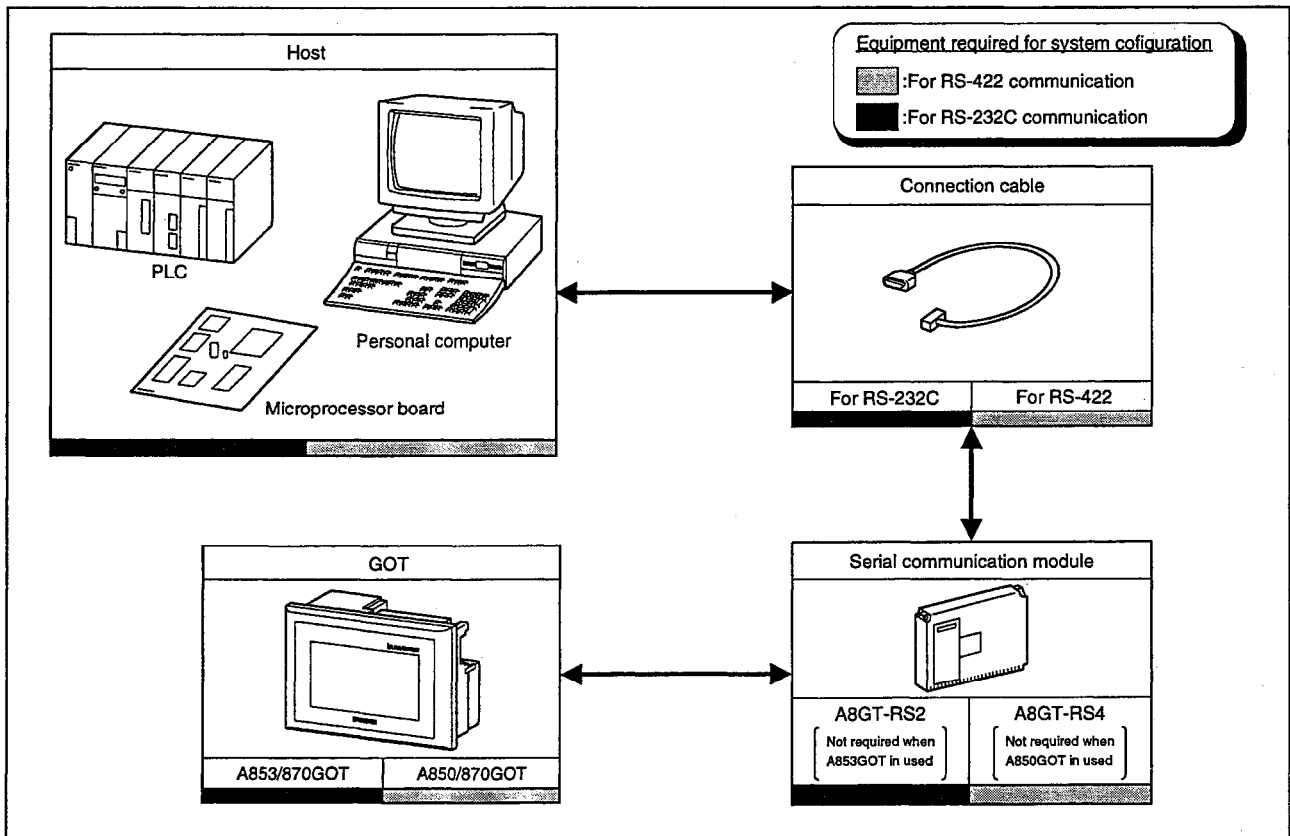


*When installing the operating system in the GOT, install the communication driver "microprocessor connection".

POINT

- In the microprocessor connection system, the expansion functions (system, ladder and special module monitoring functions) cannot be used.

5.1 System Configurations



5.2 About the Connection Cable

5.2.1 When DTR is connected

When the DTR signal is connected, use the following connection diagrams and connectors to connect the cable between the host and GOT.

(1) For RS-422 communication

(a) Connection diagram

Host Side Signal name	Cable Connection and Signal Direction	GOT Side		Description
		Pin No.	Signal name	
SDA		8	RDA	Receive data
SDB		14	RDB	Receive data
RDA		10	SDA	Send data
RDB		16	SDB	Send data
DSR+		11	RSA	Request to send(DTR+)
DSR-		17	RSB	Request to send(DTR-)
DTR+		9	CSA	Clear to send(DTR+)
DTR-		15	CSB	Clear to send(DTR-)
		5		
SG		12	SG	Signal ground
		6	SG(Shield)	

DSR signal ... When this signal is off, data is not sent from the GOT to the host.

Normally, a signal should be sent from the host to keep DSR on.

DTR signal ... This signal switches on when the GOT is ready to receive data.

(b) Connectors and connector covers used

• GOT side connector

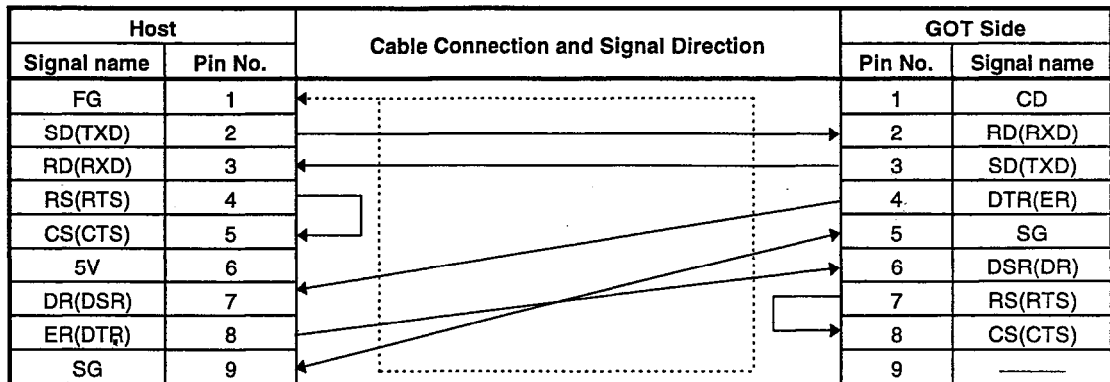
Name	Type	Manufacturer
Connector cover	P1620A-CA(20)	Hirose Electric Co.,Ltd.
Housing	SC-1620	
Contact	SC-1600-11	

• Host side connector

Use the connector conforming to the host used.

(2) For RS-232C communication

(a) Connection diagram



Note: The host side pin numbers are not established and are only provided for your reference.

Match them with the specifications of the host connected.

(b) Connectors and connector covers used

• GOT side connector

The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector. Use a mating connector which matches this connector:

9-pin D-sub (male) inch screw fixing type

Daiichi Electronic Industry make

17LE-23090-27(D3CC)

• Host side connector

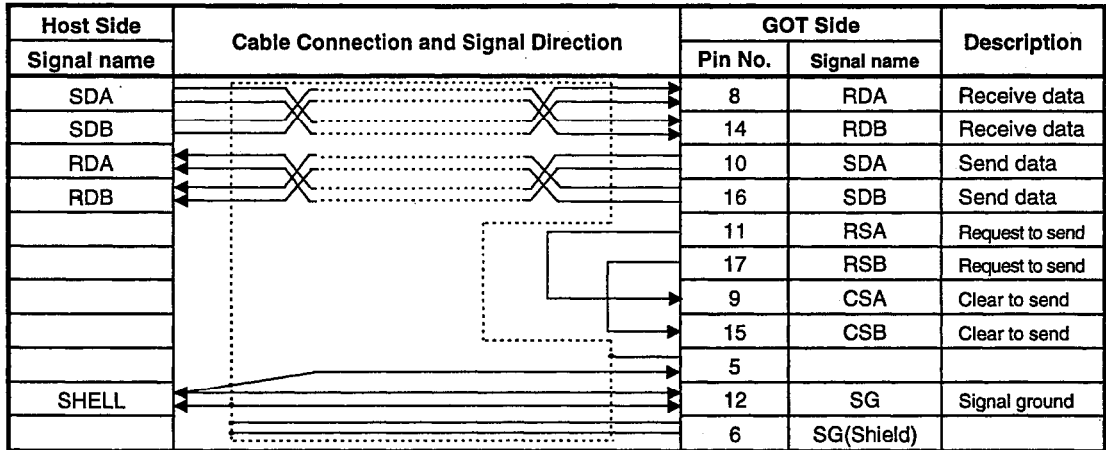
Use the connector conforming to the host used.

5.2.2 When DTR is not Connected

When the DTR signal is not connected, use the following connection diagrams and connectors to connect the cable between the host and GOT.

(1) For RS-422 communication

(a) Connection diagram



(b) Connectors and connector covers used

- GOT side connector

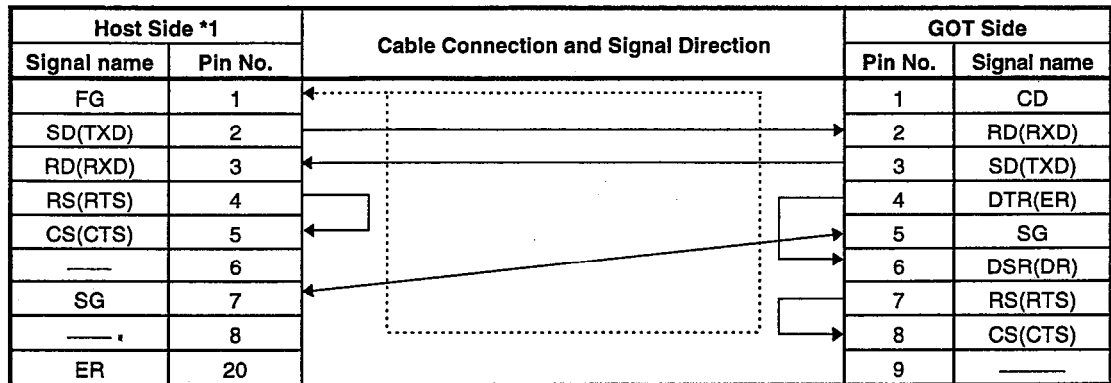
Name	Type	Manufacturer
Connector cover	P1620A-CA(20)	Hirose Electric Co.,Ltd.
Housing	SC-1620	
Contact	SC-1600-11	

- Host side connector

Use the connector conforming to the host used.

(2) For RS-232C communication

(a) Connection diagram



*1: The host side pin numbers are not established and are only provided for your reference.

Match them with the specifications of the host connected.

(b) Connectors and connector covers used

• GOT side connector

The RS-232C interface of the A853GOT/A8GT-RS2 uses the following type of connector.

Use a mating connector which matches this connector:

9-pin D-sub (male) inch screw fixing type

Daiichi Electronic Industry make

17LE-23090-27(D3CC)

• Host side connector

Use the connector conforming to the host used.

5.3 Transmission Specifications

The transmission specifications for communication between the GOT and host are as follows:

Data bit	7 bits
Parity bit	Yes (Even)
Stop bit	1 bit
Sumcheck	Yes
Transmission speed	19200bps

5.4 Device Data Areas

The virtual devices of the GOT are in the following data areas:

Address (Decimal)	Description																
D0 to D2	Not used																
D3	Communication error status Changes with the error status of the communication driver of the GOT. <table border="1" data-bbox="954 506 1398 786"> <thead> <tr> <th>Bit</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>0 to 3</td> <td>Not used</td> </tr> <tr> <td>4</td> <td>SIO framing error</td> </tr> <tr> <td>5</td> <td>SIO parity error</td> </tr> <tr> <td>6</td> <td>SIO overrun error</td> </tr> <tr> <td>7</td> <td>Transmission time error</td> </tr> <tr> <td>8</td> <td>Cable disconnection error</td> </tr> <tr> <td>9 to 15</td> <td>Not used</td> </tr> </tbody> </table>	Bit	Description	0 to 3	Not used	4	SIO framing error	5	SIO parity error	6	SIO overrun error	7	Transmission time error	8	Cable disconnection error	9 to 15	Not used
Bit	Description																
0 to 3	Not used																
4	SIO framing error																
5	SIO parity error																
6	SIO overrun error																
7	Transmission time error																
8	Cable disconnection error																
9 to 15	Not used																
D4 to D12	Not used																
D13	Interrupt output When data is written, the contents of the 8 lower bits are output as an interrupt code.																
D14 to D19	Not used																
D20 to D2031	User area																
D2032 to D2034	Not used																
D2035	1-second binary counter Incremented every 1 second after power-on. Data is binary.																
D2036 to D2047	Not used																

Note: "D****" indicated in this chapter indicates a virtual device of the GOT and is not the data register of the PLC.

5.5 Communication Commands

This section describes the commands used for communication.

5.5.1 Command List

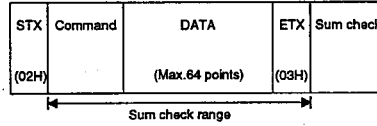
The following commands are used for transfer of data between the GOT and host:

Command	Name	Description
RD	Batch read	Reads the specified points of data consecutively from the specified devices.
WD	Batch write	Writes the specified points of data consecutively to the specified devices.
RR	Random read	Reads data from two or more different device addresses
RW	Random write	Writes data to two or more different device addresses.

5.5.2 Data Exchange Formats

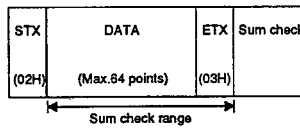
When the commands are used for communication, data exchanges are made in the following formats:

(1) Data sending format (host to GOT)



(2) Response data format in normal state (GOT to host)

- When read command (RD, RR) is sent



- When write command (WD, RW) is sent



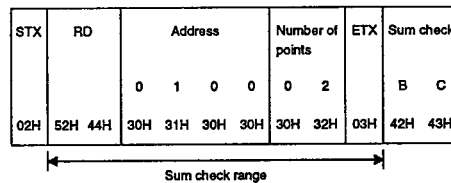
(3) Response data format at error occurrence (GOT to host)



5.5.3 Instructions for Use

- The sum check code is a value representing the lower 1 byte (8 bits) of the sum of binary data in the sum check range.

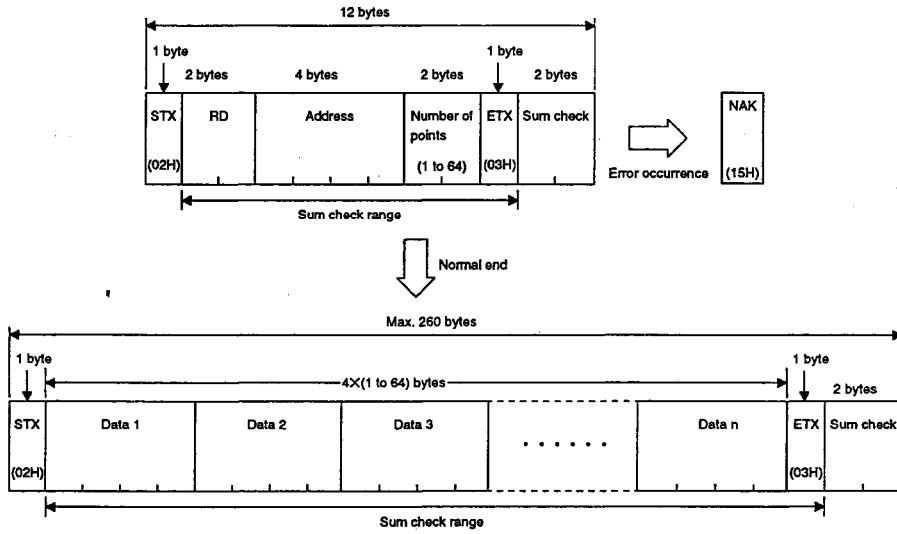
Example: When the RD command is used to read data at addresses D100 and D101



Expression: 52H+44H+30H+31H+30H+30H+30H+32H+03H=1BCH

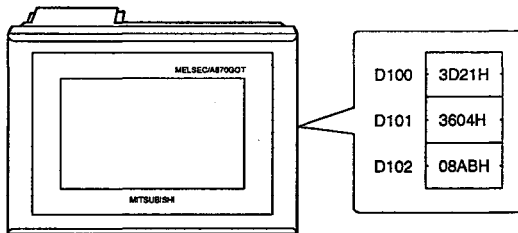
5.5.4 Batch read command (RD)

The format of the batch read command is shown below:



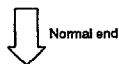
Example of use

When reading the contents of virtual devices D100 to D102 of the GOT



STX	RD	Address				Number of points		ETX	Sum check	
(02H)		0	1	0	0	0	3		B	D
		H	MH	ML	L	H	L	(03H)	H	L

Sent from host to GOT

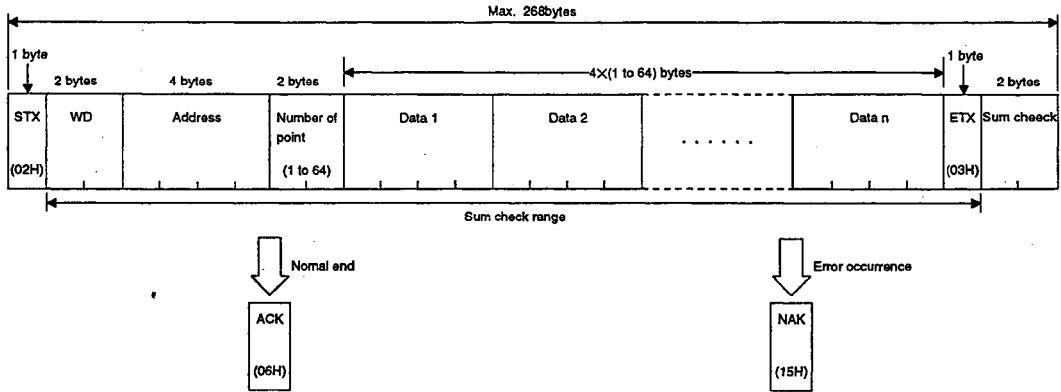


STX	D100				D101				D102				ETX	Sum check	
(02H)	3	D	2	1	3	6	0	4	0	8	A	B		9	5
	H	MH	ML	L	H	MH	ML	L	H	MH	ML	L	(03H)	H	L

Sent from GOT to host

5.5.5 Batch Write Command (WD)

The format of the batch write command is shown below:

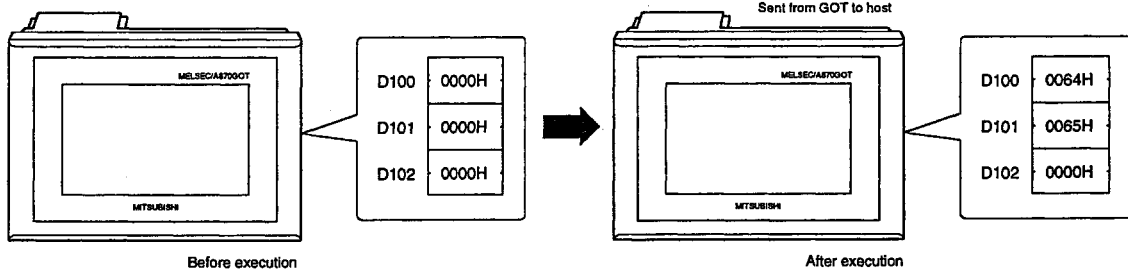
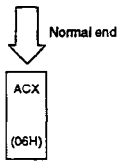


Example of use

When writing 64H and 65H to virtual devices D100 and D101 of the GOT, respectively

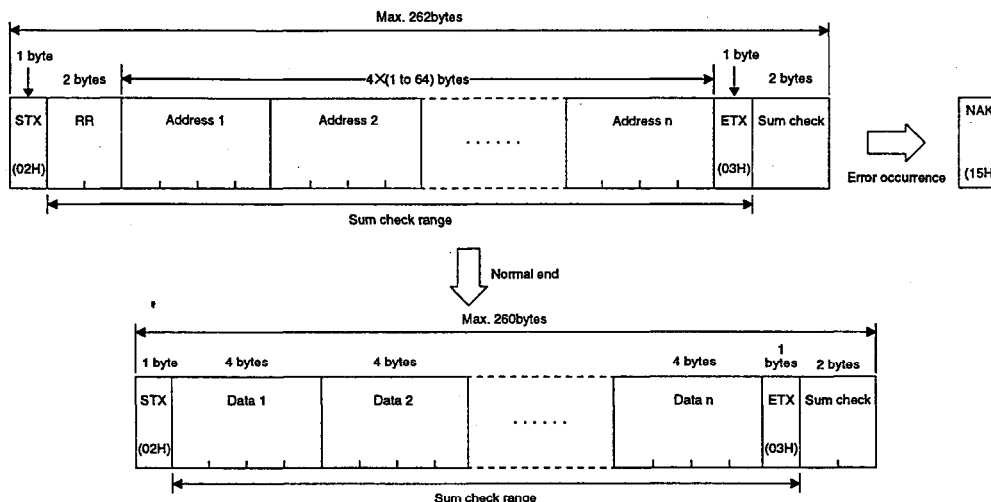
STX	W	D	Address				Number of points		D100				D101				ETX	Sum check	
(02H)			H	MH	ML	L	H	L	H	MH	ML	L	H	MH	ML	L	(03H)	H	L
			0	1	0	0	0	2	0	0	6	4	0	0	6	5	5	6	

Sent from host to GOT



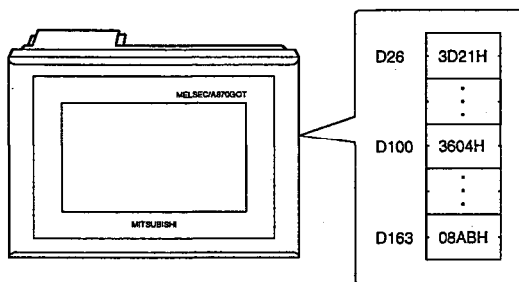
5.5.6 Random Read Command (RR)

The format of the random read command is shown below:



Example of use

When reading the contents of virtual devices D100, D26 and D102 of the GOT



STX	R	D	D100				D26				D100				ETX	Sum check
(02H)			0	1	0	0	0	0	2	6	0	1	6	3		F A
			H	MH	ML	L	H	MH	ML	L	H	MH	ML	L	(03H)	H L

Sent from host to GOT

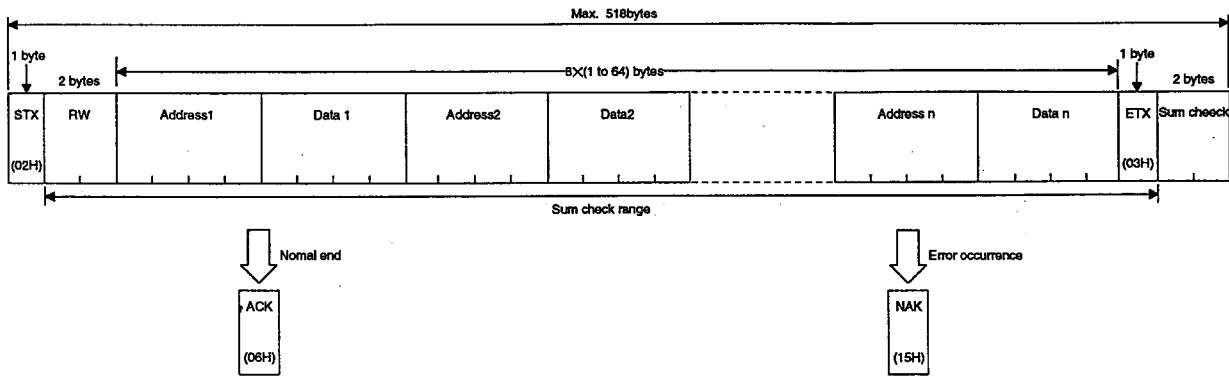
Normal end

STX	Contents of D100				Contents of D26				Contents of D163				ETX	Sum check
(02H)	3	D	2	1	4	4	3	6	0	8	A	B		9 9
	H	H	H	L	H	L	H	L	H	L	H	L	(03H)	H L

Sent from GOT to host

5.5.7 Random Write Command (RW)

The format of the random write command is shown below:

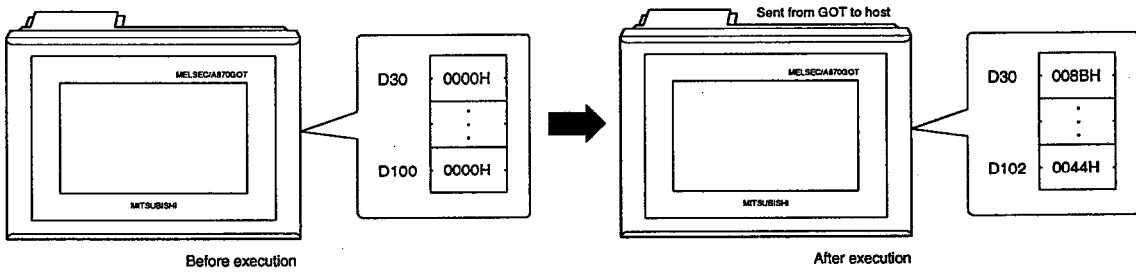
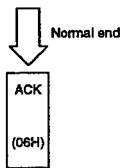


Example of use

When writing 8BH to the GOT's virtual device D30 and 44H to D100

STX	RW	D30				Data of D30				D100				Data of D100				ETX	Sum check	
(02H)		0	0	3	0	0	0	8	B	0	1	0	0	0	0	4	4	(03H)	D	2
		H	MH	ML	L	H	MH	ML	L	H	MH	ML	L	H	MH	ML	L		H	L

Sent from host to GOT

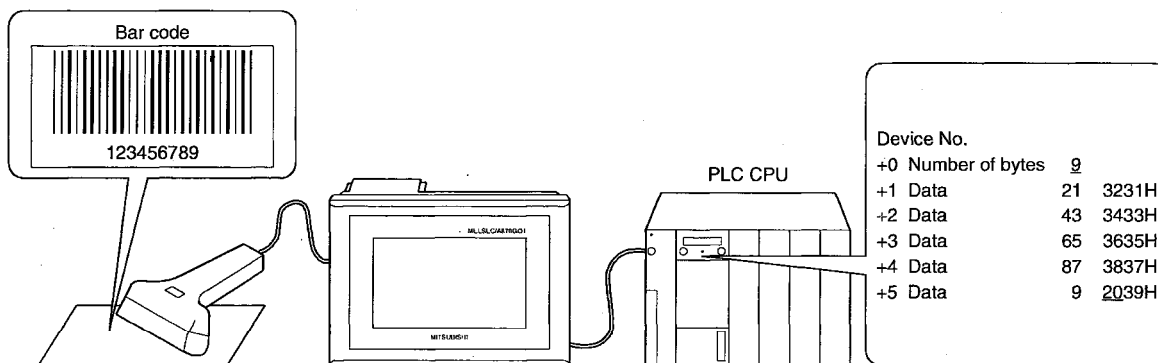


6. Bar-code Reader Connection System

In a bar-code reader connection system, a bar-code reader can be connected to the GOT main unit to write data read by the bar-code reader to the PLC CPU.

The data read by the bar-code reader is stored as the number of bytes received, beginning with the lower byte of the device No. (specified as ASCII data) + 1.

If the data received have an odd number of bytes, the upper bytes of the last data is filled with a space (20H).



*This connection system is an additional function to the SW3NIW-A8GOTP and SW3NIW-A8SYSP version B.

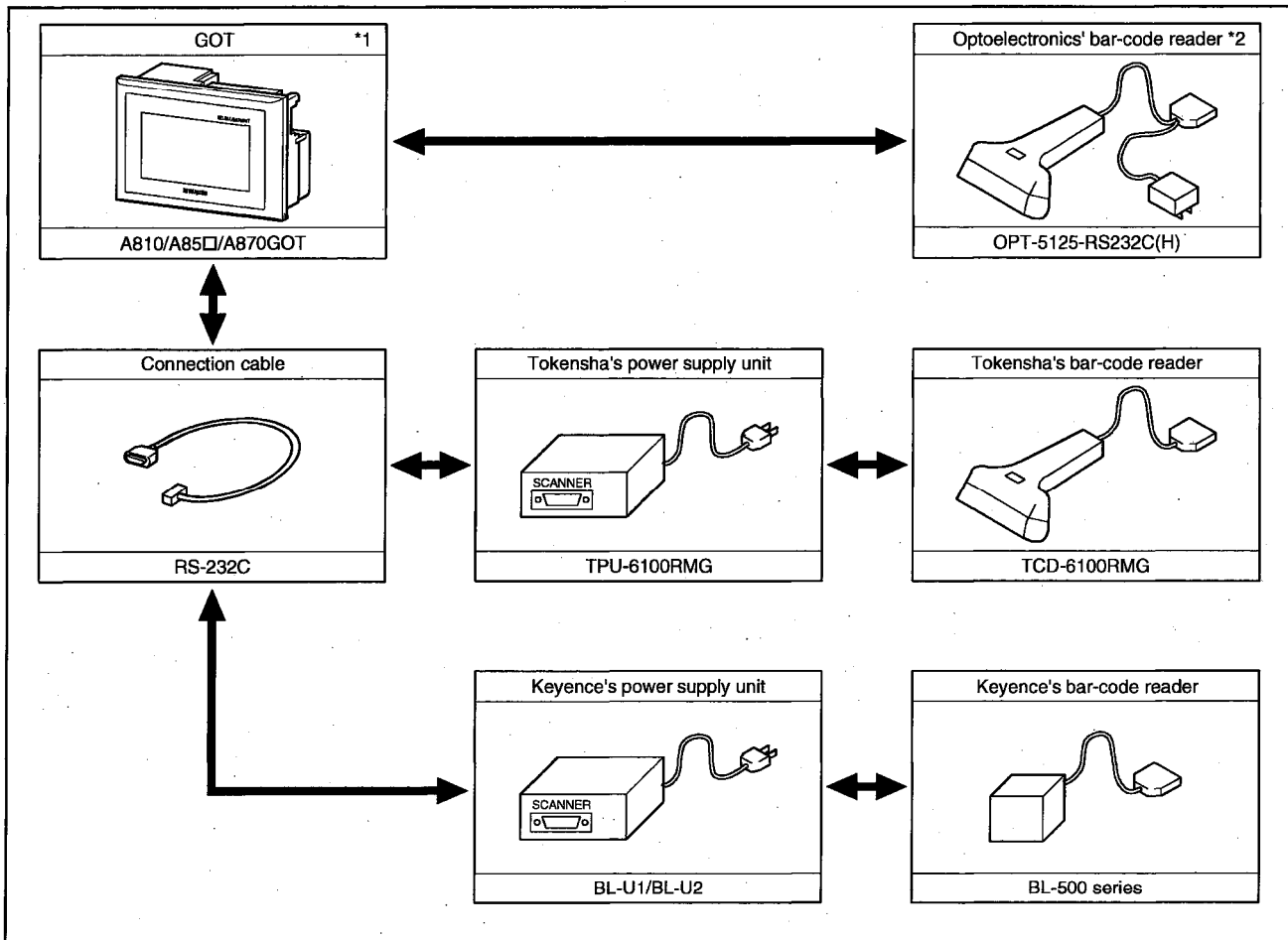
When using this connection system, you must install the "ROM-BIOS Version S or later" and option driver into the GOT main unit.

POINT

- Note that the bar-code reader cannot be connected when the MELSECNET/B or II is connected.

6.1 System Configuration

The following diagram shows the configuration of the bar-code reader connection system.



*1: When the RS-232C cable for connection of bar-code reader is to be connected to the GOT, connect that cable to the screen data transferring RS-232C interface of the GOT.

*2: Optoelectronics' bar-code reader must be supplied with power (5VDC) from the AC-DC adaptor.

6.2 Communication Settings for the Bar-Code Reader

When connecting the bar-code reader with the GOT, make the following communication settings and port settings on the bar-code reader side.

For full information, refer to the corresponding bar-code reader instruction manual.

6.2.1 Tokensha's bar-code reader

Communication Specifications	
Interface	RS232C
Baudrate	9600
Word length	8 bits
Parity	Even
Stop bit	1
Header	No
Terminator	CR

6.2.2 Optoelectronics' bar-code reader

Communication Specifications	
Transmission system	Asynchronous
Start bit	1
Stop bit	1
Data bit length	8
Parity bit	Yes: Even *1 (no default)
Baudrate	9600
Communication control system	BUSY/READY(RS/CS)
Prefix	No
Suffix	CR

*1: The initial setting (default) of the bar-code reader must be changed.

6.2.3 Keyence's bar-code reader

Communication Specifications	
Stop bit	1
Data bit length	8 *1
Parity bit	Yes: Even
Baudrate	9600
Communication control system	CTS/RTS *1
Prefix	No
Suffix	CR

*1: The initial setting (default) of the bar-code reader must be changed.

6.3 Connection Cables

Use the following diagrams and connectors for connection of the cable between the GOT and bar-code reader.

(Maximum cable length: Contact the manufacturer of the bar-code reader used.)

6.3.1 Tokensha's bar-code reader

(1) For use of the A870GOT

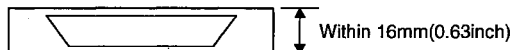
(a) Connection diagram

Tokensha's Power Supply Unit Side		Cable Connection and Signal Direction	GOT Side	
Signal name	Pin number		Pin number	Signal name
FG	1		1	FG
SD(TXD)	2		2	TXD
RD(RXD)	3		3	RXD
RS(RTS)	4		4	RTS
CS(CTS)	5		5	CTS
-	-		6	DSR
SG	7		7	SG
-	-		-	-
DC+5V	16		20	DTR

(b) Connectors used

- GOT side connector

The GOT side connector used should be max. 16mm(0.63inch) thick.



- Tokensha's bar-code reader side connector

Use the connector compatible with the Tokensha's power supply unit.

(2) For use of the A85 □ GOT

(a) Connection diagram

Tokensha's Power Supply Unit Side		Cable Connection and Signal Direction	GOT Side	
Signal name	Pin number		Pin number	Signal name
FG	1		-	-
SD(TXD)	2		2	RXD
RD(RXD)	3		3	TXD
RS(RTS)	4		4	DTR
CS(CTS)	5		5	SG
-	6		6	DSR
SG	7		7	RTS
-	-		8	CTS
DC+5V	16		-	-

(b) Connectors used

- GOT side connector

The GOT side connector used should be of screw fixing type (inch screw).

- Tokensha's bar-code reader side connector

Use the connector compatible with the Tokensha's power supply unit.

6.3.2 Optoelectronics' bar-code reader

(1) For use of the A870GOT

(a) Connection diagram

Optoelectronics' Bar-Code Reader Side (D-Sub 25 pin male)			Signal Direction	GOT Side (D-Sub 25 pin female)	
Signal direction	Signal name	Pin number		Pin number	Signal name
Jumper wire	FG	1	→	1	FG
	RD(RXD)	2	←	2	TXD
	SD(TXD)	3	→	3	RXD
	-	4	←	4	RTS
	-	5	→	5	CTS
	RS(RTS)	6	→	6	DSR
	SG	7	→	7	SG
	-	8	→	8	-
	CS(CTS)	20	←	20	DTR

(b) Connector used

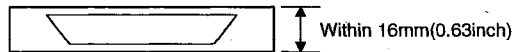
- Connector of Optoelectronics' bar-code reader

Use the connector supplied with the bar-code reader. In this case, the connector shape and pin numbers must be changed for connection with the GOT.

When placing an order for the bar-code reader, request the manufacturer to change the connector shape and pin numbers as described below:

1) Connector shape

The connector used should be max. 16mm(0.63inch) thick.



2) Connector pin numbers

Connector Pin Numbers before Shipment of Product from Manufacturer (D-Sub 25 pin male)		
Pin number	Signal name	Color
1	GND	Black
2	RD	White
3	SD	Green
4	CS	Blue
5	RS	Gray
6	NC	
7	S.GND	Brown
8to24	NC	
25	5V	Orange

Change the pin numbers.



Connector Pin Numbers for Connection with GOT (D-Sub 25 pin male)		
Pin number	Signal name	Color
1	FG	Black
2	RD(RXD)	White
3	SD(TXD)	Green
4	-	
5	-	
6	RS(RTS)	Gray
7	SG	Brown
8	-	
20	CS(CTS)	Blue

(2) For use of the A85 □ GOT

(a) Connection diagram

Optoelectronics' Bar-Code Reader Side (D-Sub 9 pin female)			Signal Direction	GOT Side (D-Sub 9 pin male)	
Signal direction	Signal name	Pin number		Pin number	Signal name
	-	-		-	-
	SD	2	→	2	RXD
	-	3		3	TXD
	CS	4	←	4	DTR
	SG	5		5	SG
	-	6		6	DSR
Jumper wire	-	7	←	7	RTS
	-	8	→	8	CTS
	-	-		-	-

(b) Connector used

- Connector of Optoelectronics' bar-code reader

Use the connector supplied with the bar-code reader. In this case, the connector shape and pin numbers must be changed for connection with the GOT.

When placing an order for the bar-code reader, request the manufacturer to change the connector shape and pin numbers as described below:

1) Connector shape

The connector used should be of screw fixing type (inch screw).

2) Connector pin numbers

Connector Pin Numbers before Shipment of Product from Manufacturer (D-Sub 25 pin male)		
Pin number	Signal name	Color
1	-	
2	SD	Green
3	-	
4	-	
5	GND	White
6	-	
7	CS	Blue
8to24	-	
25	+5V	Red

Change the pin numbers.



Connector Pin Numbers for Connection with GOT (D-Sub 9 pin female)		
Pin number	Signal name	Color
-	-	
2	SD	Green
3	-	
4	CS	Blue
5	SG	White
6	-	
7	-	
8	-	
-	-	

6.3.3 Keyence's bar-code reader

(1) When the A870GOT/A810GOT is used

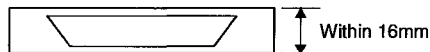
1) Connection diagram

Keyence's Power Supply Unit (BL-U2) Side			Cable Connection and Signal Direction	GOT Side	
Signal direction	Signal name	Pin number		Pin number	Signal name
Connected internally	FG	1		1	FG
	SD(TXD)	2		2	TXD
	RD(RXD)	3		3	RXD
	RS(RTS)	4		4	RTS
	CS(CTS)	5		5	CTS
	DSR(DR)	6		6	DSR
	SG	7		7	SG
	-	-		-	-
DTR(ER)	20	20	20	DTR	

2) Connectors used

- GOT side connector

On the GOT side, use the connector of max. 16mm thickness.



- Keyence's bar-code reader side connector

Use the connector compatible with the Keyence's power supply unit.

(2) When the A85□GOT is used

1) Connection diagram

Keyence's Power Supply Unit (BL-U1) Side			Cable Connection and Signal Direction	GOT Side	
Signal direction	Signal name	Pin number		Pin number	Signal name
Connected internally	FG	1		-	-
	RD(RXD)	2		2	RXD
	SD(TXD)	3		3	TXD
	ER(DTR)	4		4	DTR
	SG	5		5	SG
	DR(DSR)	6		6	DSR
	RS(RTS)	7		7	RTS
	CS(CTS)	8		8	CTS
-	-	-	-	-	

2) Connectors used

- GOT side connector

On the GOT side, use the connector of screw fixing type (inch threads).

- Keyence's bar-code reader side connector

Use the connector compatible with the Keyence's power supply unit.

6.4 Recommended Products to Be User-Prepared and How to Make Them Available

(1) Model

Manufacturer	Model	Remarks
Token	TDC-6100RMG	Bar-code reader
	TPU-6100RMG	Power supply unit
Optoelectronics	OPT-5125-RS232C(H)	Bar-code reader
Keyence	BL-500 series	Bar-code reader
	BL-U1/BL-U2	Power supply unit

(2) Where to place order and get information

For any information on the bar-code reader, connection cable, etc., contact either of the following companies.

At that time, please inform them of our product model which is connected with the bar-code reader in the system configuration.

When placing an order for Optoelectronics' bar-code reader, the shape and pin numbers of the bar-code reader connector must be changed for connection with the GOT.

Tell the company to that effect and purchase the product which has been modified for connection with the GOT on the manufacturer side.

• Token

Headquarters 26-23, Saka-machi, Shinjuku-ku, Tokyo 160, Japan

Osaka office: Nakanoshima Okada Building, 4-3-5, Tenman, Kita-ku, Osaka 530, Japan

Nagoya office: Matsuyo Building, 4-2-12, Meieki, Nakamura-ku, Nagoya 450, Japan

Fukuoka office: Hakata Building, 8-36, Hakataeki Chuogai, Hakata-ku, Fukuoka 812, Japan

Hitachi office: Royal Office, 2-1-10, Hashikabe, Hitachinaka City, Ibaragi Prefecture 312, Japan

Hiroshima office: ... No. 508, Hiroshima Office Center Building, 3-35, Higashikojinn-cho, Minami-ku, Hiroshima 732, Japan

• Optoelectronics

Headquarters 5-5-3, Tsukakoshi, Warabi, Saitama Prefecture, 335, Japan

• Keyence

Headquarters 1-3-14, Higashinakashima, Yodogawa-ku, Osaka 533, Japan

6.5 GOT Side Setting Method

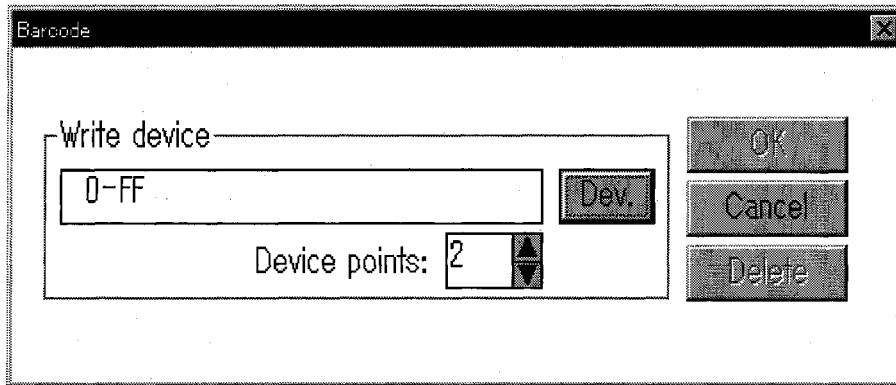
When using this connection system with the GOT, you need to make settings on the SW3NIW-A8GOTP graphic settings software package.

The setting method is as follows.

6.5.1 Setting of the data storing devices

The following operation sets the devices where the data read by the bar-code reader will be written,

Select **Barcode** on the common setting menu.



"Write device" Click **Dev** In the [Device] dialog box, set the word devices of the PLC CPU where data will be written. For the [Device] setting method, refer to Section 10.1 of the SW3NIW-A8GOTP Operating Manual (Monitor Screen Creation Manual).

"Device points" Set the number of data stored in the PLC CPU.
 If the read data is less than the set number of devices, 20h beginning with the last data is written.
 If the read data is more than the set number of devices, the data corresponding to the number of devices is written and the excess data is discarded.

Example: When 9-character data "123456789" is read by the bar-code reader

1) When 8 is set as the number of devices

Write Device: No.	Stored Data	ASCII Data	Remarks
n + 0	0009h		Number of read data bytes
n + 1	3231h	21	Stored data
n + 2	3433h	43	
n + 3	3635h	65	
n + 4	3837h	87	
n + 5	2039h	9	
n + 6	2020h		
n + 7	2020h		

n: Indicates the device set to the write device.

2) When 4 is set as the number of devices

Write Device: No.	Stored Data	ASCII Data	Remarks
n + 0	0006h		Number of read data bytes
n + 1	3231h	21	Stored data
n + 2	3433h	43	
n + 3	3635h	65	

n: Indicates the device set to the write device.

6.5.2 System information setting

The system information function is designed to confirm the operating status of the GOT with the PC CPU.

When using this connection form, system information must be set.

For full information on the system information setting, refer to Section 24.4 of the SW3NIW-A8GOTP Operating Manual (Monitor Screen Creation Manual).

POINT

· Note that the data read by the bar-code reader is not written if you make bar code setting under any of the following conditions:

- 1) System information setting has not been made.
- 2) System signal 1, b5 (bar code input invalid) is ON.
- 3) System signal 1, b6 (bar code input read completion) remains ON.
- 4) System signal 2, b6 (bar code input) is ON.

6.6 Types of Bar Codes That Can Be Read by the GOT

Only the following bar code specifications (data transfer format) are supported by the GOT:

Data	CR
------	----

Header	End Code
None	CR (0DH)

For the following types of bar codes, the bar-code readers have been confirmed at Mitsubishi to operate properly (O: proper operation confirmed):

Bar Code Type	Bar-code Reader Used	Tokensha's Bar-code Reader	Optoelectronics' Bar-code Reader	Keyence's Bar-code Reader
WPC (JAN/EAN/UPC)		○	○	○
CODE-39		○*1	○	○
CODE-93		○		
CODE-128		○		○
NW-7		○	○	
2 of 5 (Industrial)		○	○	○

*1: Full ASCII is not supported.

Other's Programmable Controller•Bar-code Connection

System Manual

MODEL	GOT-CONNECT-U-E
MODEL CODE	1DM143
IB(NA)-66797-C(0406)MEE	

 **MITSUBISHI ELECTRIC CORPORATION**

HEAD OFFICE : 1-8-12, OFFICE TOWER Z 14F HARUMI CHUO-KU 104-8212, JAPAN
NAGOYA WORKS : 1-14 , YADA-MINAMI 5-CHOME , HIGASHI-KU, NAGOYA , JAPAN

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Specifications subject to change without notice.