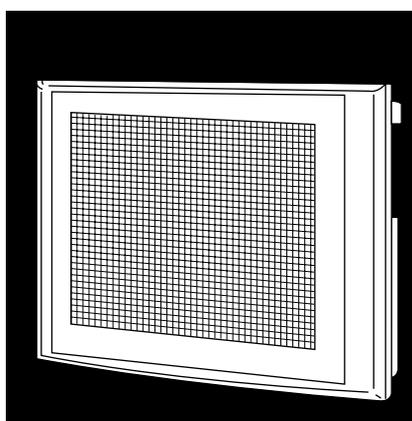


MITSUBISHI

A853GOT Graphic Operation Terminal

User's Manual



GRAPHIC OPERATION TERMINAL

800

Series



Mitsubishi Graphic Operation Terminal

• SAFETY PRECAUTIONS •

(Always read these instructions 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 instructions given in this manual are concerned with this product. For the safety instructions of the programmable controller system, please read the CPU module user's manual.

In this manual, the safety instructions are ranked as "DANGER" and "CAUTION".



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



Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injury or physical damage.

Note that the  CAUTION level may lead to a serious consequence according to the circumstances. Always follow the instructions 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]

DANGER

- Some failures of the GOT main unit or communication cable may keep the outputs on or off. An external monitoring circuit should be provided to check for output signals which may lead to a serious accident.
Not doing so can cause an accident due to false output or malfunction.
- If a communication fault (including cable disconnection) occurs during monitoring on the GOT, communication between the GOT and PLC CPU is suspended and the GOT becomes inoperative.
A system where the GOT is used should be configured to perform any significant operation to the system by using the switches of a device other than the GOT on the assumption that a GOT communication fault will occur.
Not doing so can cause an accident due to false output or malfunction.
- Do not use the GOT as the warning device that may cause a serious accident.
An independent and redundant hardware or mechanical interlock is required to configure the device that displays and outputs serious warning.
Failure to observe this instruction may result in an accident due to incorrect output or malfunction.

[Design Precautions]

⚠ DANGER

- Incorrect operation of the touch switch(s) may lead to a serious accident if the GOT backlight is gone out.

When the GOT backlight goes out, the display section turns black and causes the monitor screen to appear blank, while the input of the touch switch(s) still remains active.

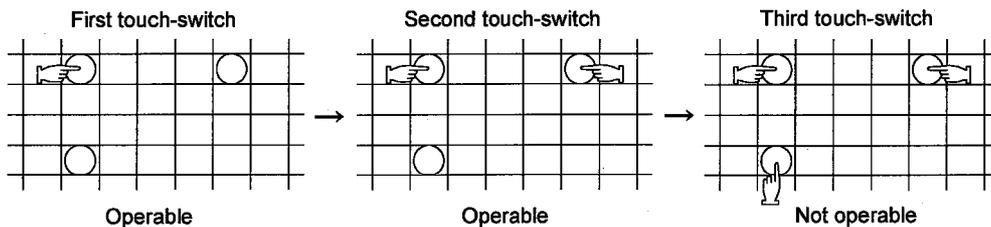
This may confuse an operator in thinking that the GOT is in "screensaver" mode, who then tries to release the GOT from this mode by touching the display section, which may cause a touch switch to operate.

Note that the following occurs on the GOT when the backlight goes out.

- The monitor screen disappears even when the screensaver is not set.
- The monitor screen will not come back on by touching the display section, even if the screensaver is set.

<In case the GOT is installed with the system program (standard monitor OS) SW2NIW-A8SYSP version J or earlier>

- Please note that the touch-switch that is thirdly touched will not operate while three touch-switches are simultaneously touched.



When setting the touch-switch that may cause serious accidents due to malfunction, be sure to create a switch outside the GOT. And then, make the settings so that the touch switch will operate by touching it together with the switch.

A malfunction might cause a breakdown, accident, or damage to the machine.

- Do not bundle the communication cable and bus connection cable with main-circuit, power or other wiring.

Run the above cables separately from such wiring and keep them a minimum of 100mm apart.

Not doing so noise can cause a malfunction.

[Mounting Precautions]

DANGER

- Before installing or removing the GOT main unit to or from an enclosure, always switch off the GOT power externally in all phases.
Not doing so can cause a module failure or malfunction.
- Make sure to switch all phases of the external GOT and PLC CPU side power supply off before connecting the communication cable and bus connection cable to the communication module and bus connection module.
If you do not switch off the external power supply, it will cause failure or malfunction of the module.

CAUTION

- The GOT should be used in the environment given in the general specifications of the GOT user's manual.
Not doing so can cause an electric shock, fire, malfunction or product damage or deterioration.
- When mounting the GOT main unit to an enclosure, tighten the mounting screws in the specified torque range.
Undertightening can cause a drop, short circuit or malfunction.
Overtightening can cause a drop, short circuit or malfunction due to the damage of the screws or module.
- The communication cable and GOT should be connected securely to the connector or terminal block on the computer link module side.
Defective contact could cause a false input and output.

[Wiring Precautions]

DANGER

- Before starting wiring, always switch off the GOT power externally in all phases.
Not doing so may cause an electric shock, product damage or malfunction.

[Wiring Precautions]

CAUTION

- Please make sure to ground FG terminal of the GOT power supply unit by applying Class D Grounding (Class 3 Grounding Method) or higher which is used exclusively for the GOT. Not doing so may cause an electric shock or malfunction.
- Correctly wire the GOT after confirming the rated voltage and terminal arrangement of the product. Not doing so can cause a fire or failure.
- Tighten the terminal screws of the GOT in the specified torque range. Undertightening can cause a short circuit or malfunction. Overtightening can cause a short circuit or malfunction due to the damage of the screws or module.
- When wiring the GOT, be careful that foreign objects, such as chips from the braided shield and wiring scraps, don't get caught in the GOT main module. These can cause fire, failure or malfunctions.

[Test Operation Precautions]

DANGER

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

[Startup/Maintenance Precautions]

DANGER

- When power is on, do not touch the terminals. Doing so can cause an electric shock or malfunction.
- Before starting cleaning or terminal screw retightening, always switch off the power externally in all phases. Not switching the power off in all phases can cause a module failure or malfunction. Undertightening can cause a short circuit, fallout or malfunction. Overtightening can cause a short circuit, fallout or malfunction due to the damage of the screws or module.

[Startup/Maintenance Precautions]

CAUTION

- Do not disassemble or modify the GOT.
Doing so can cause a failure, malfunction, injury or fire.
- Because they are made of resin, don't drop or given a strong shock to the GOT main module.
This may cause failure.

[Disposal Precautions]

CAUTION

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

[Backlight Changing Precautions]

DANGER

- Before changing the backlight, always switch off the GOT power externally in all phases and remove the GOT main unit from the enclosure.
Not switching the power off in all phases may cause an electric shock.
Not removing the unit from the enclosure can cause injury due to a drop.

CAUTION

- Perform replacement of the backlight at a place where no other machines exist in order to prevent troubles in case a fixed screw of the backlight or GOT drops.
If such screw is dropped, it may cause damage to the machine or an accident.
- Do not touch the GOT's circuit board or electronic parts when replacing the backlight.
Doing so could cause failure or malfunction.
- Tighten the backlight fixed screws within the range of specified torque.
If the fixed screws are loose, it may result in fallout, short circuits, or malfunctions.
Tightening the fixed screws too far may result in damages, short circuits, or malfunctions of the screw and/or module.
- Do not pull the cable connector of the backlight when replacing the backlight.
Doing so could cause damage or failure of the backlight.

[Disposal of the Backlight Precautions]

CAUTION

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

REVISIONS

*The manual number is given on the bottom left of the back cover..

Print Date	*Manual Number	Revision
Jul. 1997	IB(NA)-66785-A	First printing
Feb. 2002	IB(NA)-66785-B	Correction: SAFETY PRECAUTIONS

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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>SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual (Startup Manual)</p> <p>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>	IB-66680 (13J901)
<p>SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual (Introductory Manual)</p> <p>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>	IB-66679 (13J900)
<p>SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual (Monitor Screen Creation Manual)</p> <p>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>	IB-66681 (13J902)
<p>SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual (Data Transmission/Debugging/Document Creation Manual)</p> <p>This manual describes the following items.</p> <ol style="list-style-type: none"> (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 <p>(Sold separately)</p>	IB-66682 (13J903)
<p>A870/A850/A851GOT Graphic Operation Terminal Operating Manual (Expanded Functions Manual)</p> <p>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)</p>	IB-66683 (13J904)
<p>AJ71QC24(-R2/R4) Serial Communication Module User's Manual</p> <p>This manual describes the specifications of data multi-exchange functions in accordance with the dedicated protocol, non-procedure protocol and bidirectional protocol and the specifications and usage of the exchange method and special functions. (Sold separately)</p>	IB-66612 (13J825)
<p>Computer Link/Multidrop Link Module User's Manual (Computer Link Functions/Printer Functions Manual)</p> <p>This manual describes control protocol and command usage when data exchange is made in the A compatible frames of the dedicated protocol. (Sold separately)</p>	SH-3571 (13JK01)
<p>A8GT-50PRF Printer Interface Unit User's Manual</p> <p>This manual provides the specifications, settings, etc. of the A8GT-50PRF Printer Interface Unit. (Supplied with the product)</p>	IB-66730 (13J880)
<p>A8GT-50LT Backlighte user's Manual</p> <p>This explains how to install the replacement backlight for the A853GOT.</p>	IB-66670 (13J848)

1. Overview

This manual provides the system configuration, specifications, installation method, etc. of the A853GOT Graphic Operation Terminal (referred to as the GOT or A853GOT).

The A853GOT is a mid-sized display exclusively used for RS-232C communication.
The A853GOT is available in the following types:

Item	A853GOT-LWD A853GOT-LBD	A853GOT-LWD-M3 A853GOT-LBD-M3	A853GOT-SWD A853GOT-SBD	A853GOT-SWD-M3 A853GOT-SBD-M3
Front panel color	LWD/SWD: Ivory white, LBD/SBD: Dark gray			
Display unit	Monochrome LCD (2 colors)		STN color LCD (8 colors)	
Resolution	Horizontal:320dots, vertical: 240dots			
Display size	86mm(3.4inch) (vertical)×115mm(4.5inch) (horizontal)			
Backlight	Cold-cathode tube backlight OFF time can be set. Backlights can be replace			
NO. of touch keys	Among 300 keys, up to 256 keys may be set.			
Onboard memory capacity	The capacity is as follows independently of whether the optional driver OS is installed or not			
	A853GOT		A853GOT-M3	
	768k bytes		2816k bytes	
Connection format	Exclusively used for RS-232C communication connection (communication unit not needed)			
Extension function	System monitor must not be used.			
Compatible software package	SW2NIW-GOT800PSET(SW2NIW-A8GOTP version J or later, SW2NIW-A8SYSP version J or later)			

1.1 A853GOT-Compatible Software Package

When creating the A853GOT screen or installing OS, always use the following software version or later.

Graphics software : SW2NIW-A8GOTP software version J or later
 OS programs : SW2NIW-A8SYSP software version J or later
 Special module monitor data : SW2NIW-A8GMDP
 (special module monitoring function must not be used.)

Point

- The OS installed should be the basic OS of the A85*GOT.
 The communication driver installed should be the following one:
 For connection with the MELSEC-A series or QnA series computer link module
 Connection with QC24: Install the RS-422 or QC24 communication driver; Connection with other than QC24: Install the C24 or UC24 communication driver.
 For connection with OMRON's programmable controller
 Install the OMRON's SYSMAC communication driver.
- The A853GOT cannot use the ladder monitoring and special module monitoring functions.
 Therefore, do not install the extension function OS programs into the A853GOT.
- When creating screen data, set A85*GOT as the GOT type.

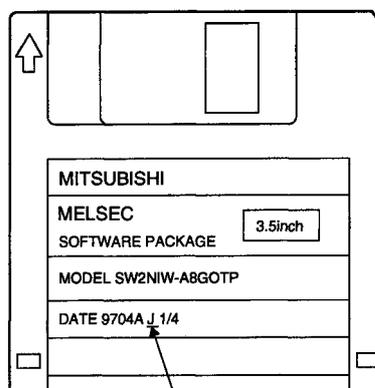
1.2 How to Confirm the Software Package Versions

1

How to confirm the SW2NIW-A8GOTP and SW2NIW-A8SYSP versions

Confirm the software package version in the following method.

Look at the rating of the product floppy disk to see if the version is correct.



Indicates the software version

2**How to confirm the versions after installing OS into the A853GOT**

After installing OS of SW2NIW-A8SYSP version J or later into the GOT, confirm the version in the following method.

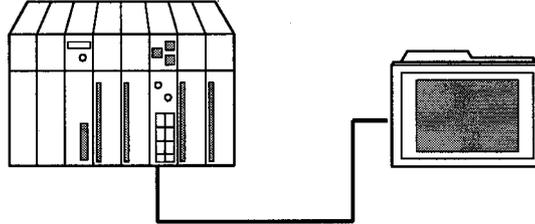
When you install the OS programs of SW2NIW-A8SYSP version J or later into the GOT, the GOT's memory information function provides the following display:

MEMORY INFORMATION	
S/W VERSION ▲	
ROM BIOS	Ver 5.0.*(Q)
SYSTEM	Ver 5.0.*
PC MONITOR	Ver 5.0.*
COMM DRAIVER	Ver 5.0.* ▼

When you install the OS programs of SW2NIW-A8SYSP version J or later, their versions are displayed 5.0.* (Q) at the right end of ROM_BIOS indicates version J of SW2NIW-A8SYSP.

1.3 Features

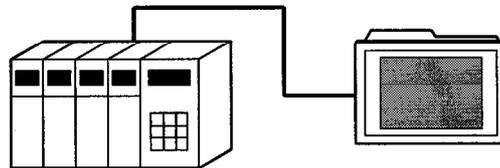
- (1) The GOT allows the MELSEC-A or QnA series computer link module to be monitored through RS-232C communication.



Can be monitored through RS-232C communication(Max. cable length:15m(49.25inch))

- Computer link module that can be monitored through RS-232C communication
 - Large-sized computer link module
 - AJ71QC24(R2), AJ71UC24
 - Small-sized computer link module
 - A1SJ71QC24(R2), A1SJ71UC24-R2, A1SJ71C24-R2
 - CPU having computer link module function
 - A1SCPU24-R2, A2CCPUC24

- (2) The GOT allows OMRON's programmable controller to be monitored through RS-232C communication.

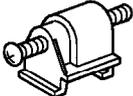


Can be monitored through RS-232C communication(Max. cable length:15m(49.25inch))

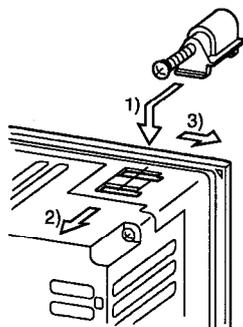
- Programmable controller that can be monitored through RS-232C communication
 - C200H (monitored via C200H-LK201-V1 upper-level link)
 - C200HS (monitored via C200H-LK201-V1 upper-level link/by direct connection)
 - C200H α (monitored via C200H-LK201-V1 upper-level link/via C200HW-COM02, C200HW-COM05 or C200HW-COM06 communication board)
 - CQM1 (monitored by direct connection)
 - C1000H, C2000H (monitored via C500H-LK201-V1 upper-level link)
 - CV1000 (monitored by direct connection)

1.4 Accessories

After unpacking, make sure that the following products are in the package:

Product Name	Quantity
GOT main module	1
Attachment hooks 	4

1 Attaching the attachment hooks



1) Fit the attachment hook onto the GOT main unit.

2) Slide the attachment hook in the direction indicated by 2).

3) Slide the attachment hook in the direction of the notch provided for the hook.

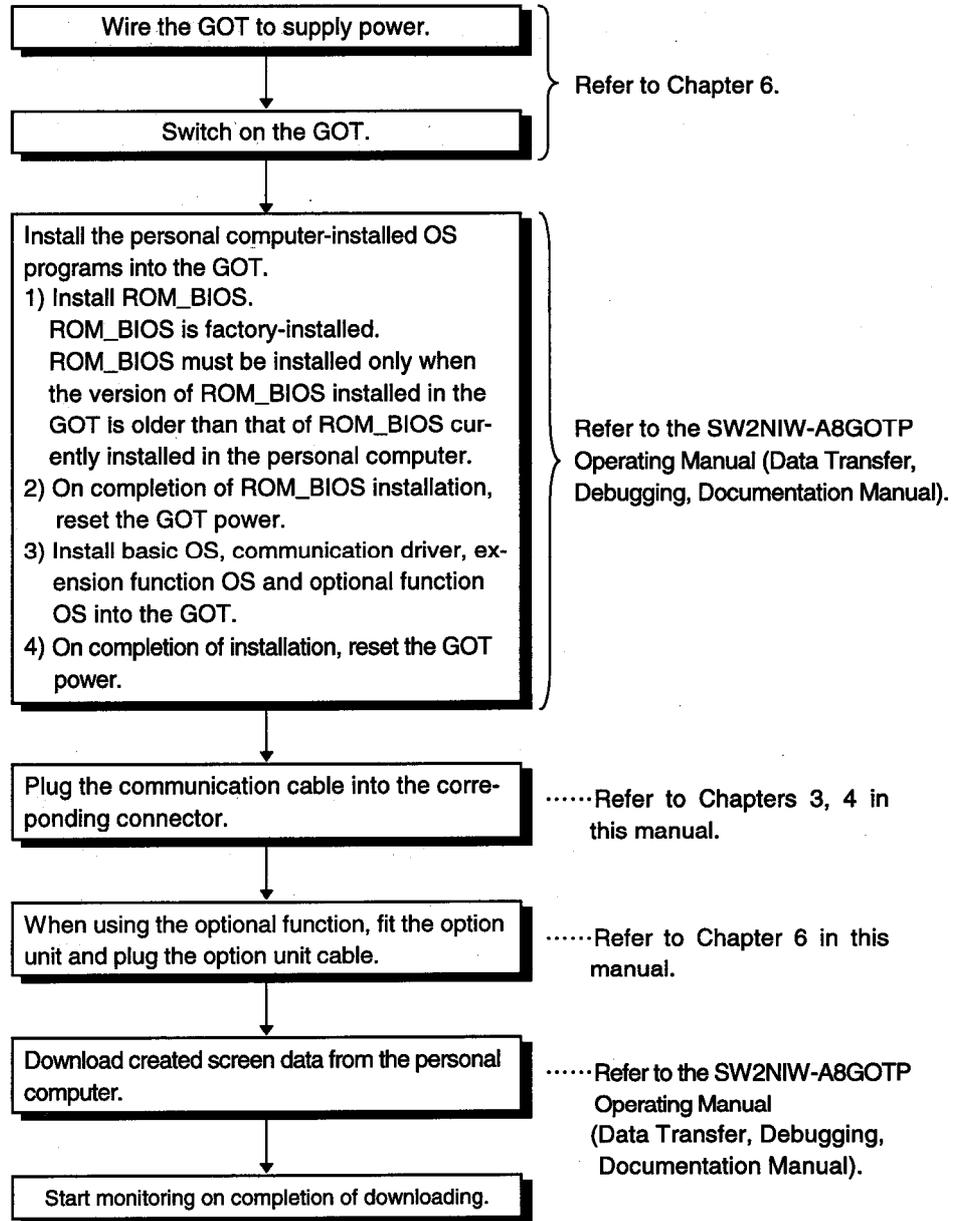
2 The sheet affixed to the GOT display unit

When the GOT is shipped, a protective sheet is affixed over the display unit.

This is a temporary sheet and is not the protective sheet which prevents the display unit from being scratched or damaged during actual use.

After the GOT has been attached to its base, peel off this temporary sheet and cover the display unit with the A8GT-50PSC protective sheet (transparent protective sheet) or the A8GT-50PSN (anti-reflection protective sheet), both of which are sold separately.

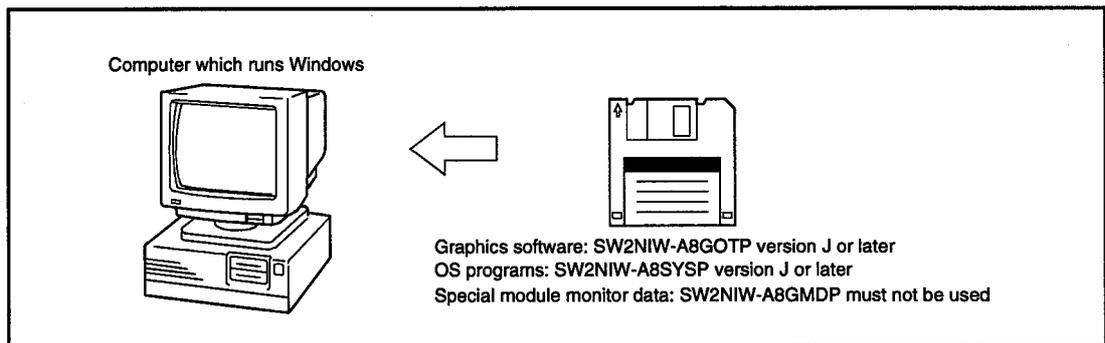
1.5 Procedures to Prepare for Starting Operation



2. System Configuration Used for Monitor Screen Creation and Data Transmission

2.1 System Configuration When Creating Monitor Screens

This shows the system configuration when using the graphics software to create monitor screens.



Main unit : Personal computer which runs Microsoft Windows Ver. 3.1

Personal computer which runs Microsoft Windows 95

Main memory: At least 4 MB is required (8 MB or more is strongly recommended)

Hard disk : At least 10 MB of space must be available when the program is installed

CRT : Must be able to connect to main unit and be used with Microsoft Windows

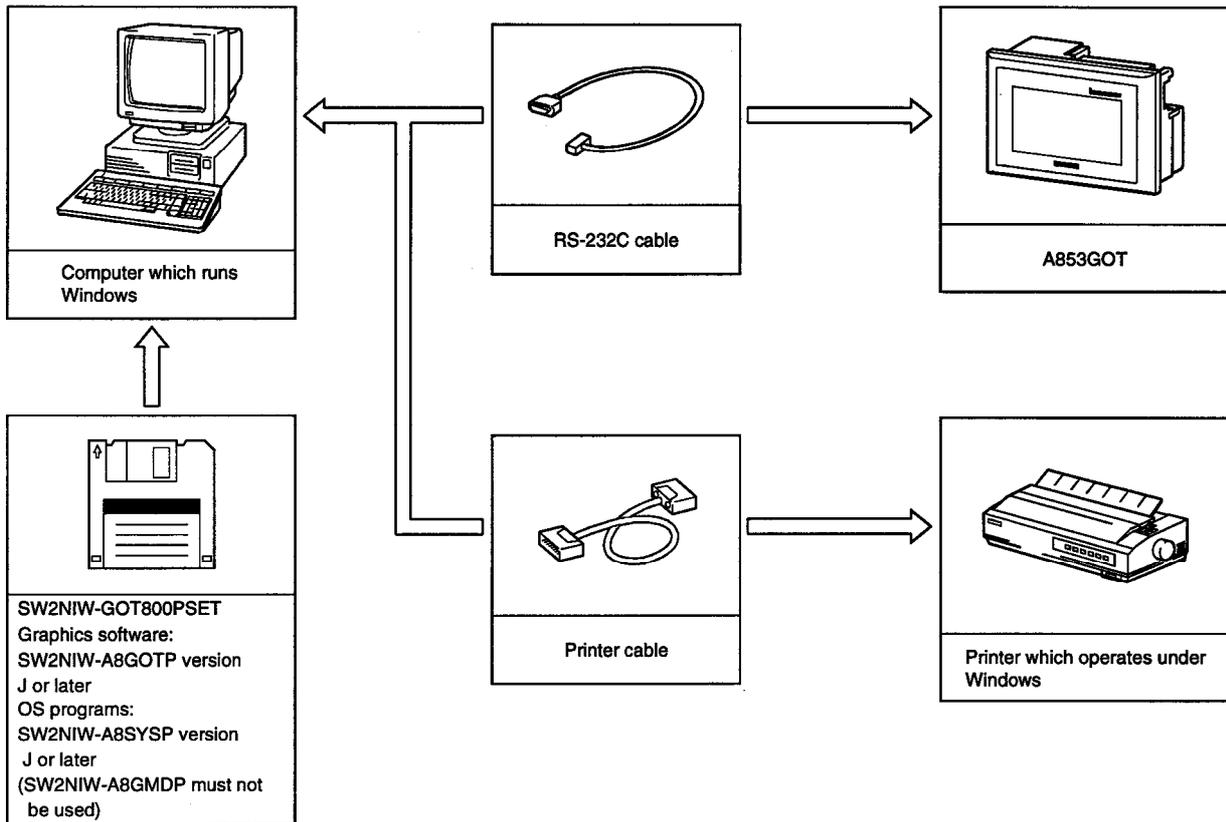
Mouse : Any mouse which can be used with a Windows computer

• Windows 3.1, Windows 95 is a trademark of Microsoft Corporation.

2.2 System Configuration Used for Data Transmission, Debugging, and Document Creation

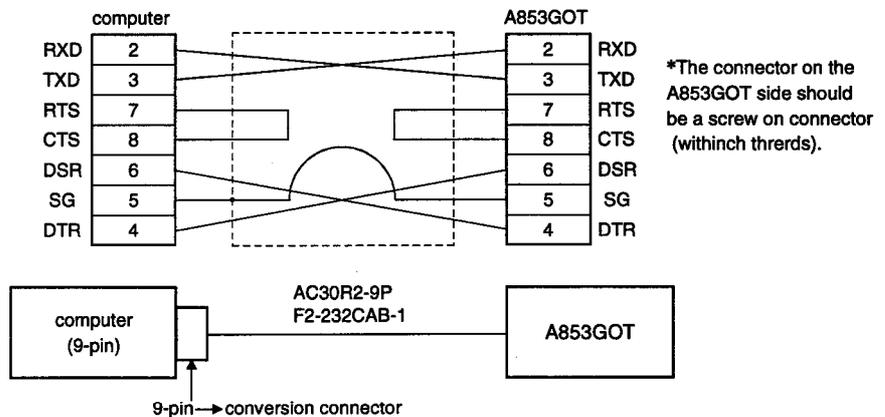
2.2.1 System Configuration

This shows the system configuration used for transmitting data, debugging, and creating documents.



2.2.2 RS-232C Cables Used for Data Transmission

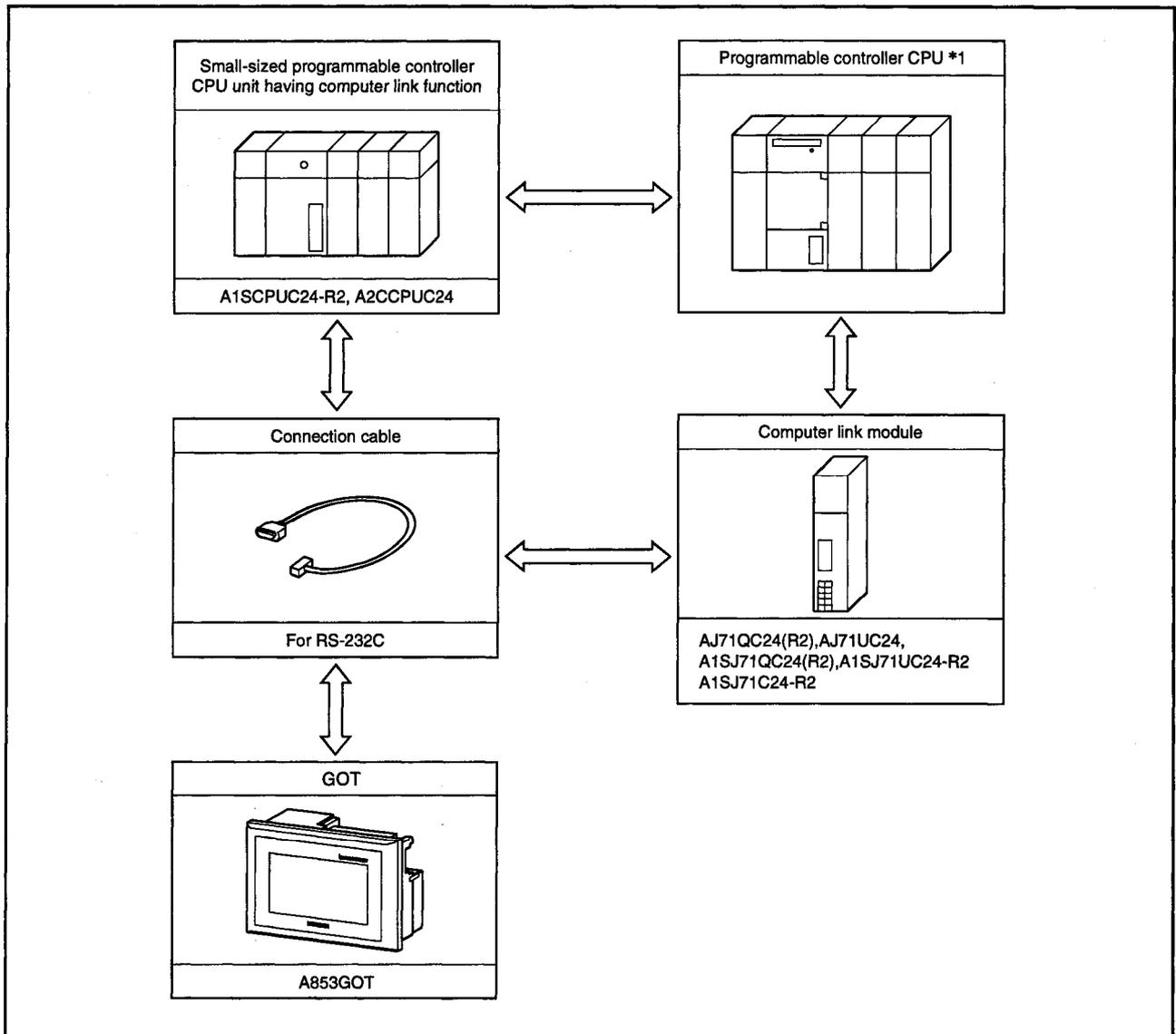
The cable shown in the internal connections drawing below, or a cable with the model name noted below, is required.



Maker	Model Name
Mitsubishi Electric	AC30R2-9P F2-232CAB-1 (Introductory product)

3. System Configuration for Connection with the MELSEC-A or QnA Series

3.1 System Configuration



*1: For the system configuration on the computer link module side, refer to the User's Manual of the computer link module used.

3.2 Hardware Settings for the Computer Link Module

1 For A1SJ71UC24-R2, A1SJ71C24-R2

1) Mode setting switch

Always set this switch to position 1 (format 1 protocol mode).

2) Transmission specifications setting switches

Setting Switch	Setting Item	Setting Switch Position							
		ON				OFF			
SW04	Setting of write enable/disable during run	Enable				Disable			
	Transmission speed(BPS)	300	600	1200	2400	4800	9600	19200	Reserved
SW05	Transmission speed setting	OFF	ON	OFF	ON	OFF	ON	OFF	ON
SW06		OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW07		OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW08	Data bit setting	8 bits				7 bits			
SW09	Setting of yes/no for parity bit	Yes				No			
SW10	Setting of even/odd parity	Even				Odd			
SW11	Stop bit setting	2 bits				1 bits			
SW12	Setting of yes/no for sum check	Yes				No			

2 For A1SCPU24-R2

1) Mode setting switch

Always set this switch to position 1 (format 1 protocol mode).

2) Transmission specifications setting switches

Setting Switch	Setting Item	Setting Switch Position							
		ON				OFF			
1	Setting of write enable/disable during run	Enable				Disable			
	Transmission speed(BPS)	300	600	1200	2400	4800	9600	19200	Reserved
2	Transmission speed setting	OFF	ON	OFF	ON	OFF	ON	OFF	ON
3		OFF	OFF	ON	ON	OFF	OFF	ON	ON
4		OFF	OFF	OFF	OFF	ON	ON	ON	ON
5	Data bit setting	8 bits				7 bits			
6	Setting of yes/no for parity bit	Yes				No			
7	Setting of even/odd parity	Even				Odd			
8	Stop bit setting	2 bits				1 bits			
9	Setting of yes/no for sum check	Yes				No			

3 For A2CCPUC24

1) Mode setting switch

Always set this switch to position 1 (format 1 protocol mode).

2) Transmission specifications setting switches

Setting Switch	Setting Item	Setting Switch Position							
		ON				OFF			
	Transmission speed(BPS)	300	600	1200	2400	4800	9600	19200	Reserved
SW11	Transmission speed setting	OFF	ON	OFF	ON	OFF	ON	OFF	ON
SW12		OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW13		OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW14	Data bit setting	8 bits				7 bits			
SW15	Setting of yes/no for parity bit	Yes				No			
SW16	Setting of even/odd parity	Even				Odd			
SW17	Stop bit setting	2 bits				1 bits			
SW18	Setting of yes/no for sum check	Yes				No			
SW19	Main channel setting	RS-422/RS-485				RS-232C			
SW20	Setting of write enable/disable during run	Enable				Disable			

4 For AJ71UC24

1) Mode setting switch

Always set this switch to position 1 (format 1 protocol mode).

2) Transmission specifications setting switches

Setting Switch	Setting Item	Setting Switch Position							
		OFF				ON			
SW11	Main channel setting	RS-232C				RS-422/RS-485			
SW12	Data bit setting	7 bits				8 bits			
	Transmission speed(BPS)	300	600	1200	2400	4800	9600	19200	Reserved
SW13	Transmission speed setting	OFF	ON	OFF	ON	OFF	ON	OFF	ON
SW14		OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW15		OFF	OFF	OFF	OFF	ON	ON	ON	ON
SW16	Setting of yes/no for parity bit	No				Yes			
SW17	Setting of even/odd parity	Odd				Even			
SW18	Stop bit setting	1 bits				2 bits			
SW21	Setting of yes/no for sum check	No				Yes			
SW22	Setting of write enable/disable during run	Disable				Enable			
SW23	Computer link/multidrop link selection	Multidrop link				Computer link			

5 For AJ71QC24(R2), A1SJ71QC24(R2)

1) Mode setting switch

Always set this switch to position 5 (format 5 protocol mode).

2) Transmission specifications setting switches

Setting Switch		Setting Item	Setting Switch Position							
CH1 position	CH2 position		OFF				ON			
SW02		Data bit setting	7 bits				8 bits			
SW03		Setting of yes/no for parity bit	No				Yes			
SW04		Setting of even/odd parity	Odd				Even			
SW05		Stop bit setting	1 bits				2 bits			
SW06		Setting of yes/no for sum check	No				Yes			
SW07		Setting of write enable/disable during run	Disable				Enable			
SW09 ┆ SW12		Transmission speed(BPS)	300	OFF	OFF	2400	4800	9600	19200	
		SW09	600	OFF	OFF	ON	OFF	ON	OFF	
		SW10	1200	OFF	OFF	ON	OFF	OFF	ON	
		SW11	OFF	ON	OFF	OFF	ON	ON	ON	
		SW12	ON	OFF	OFF	OFF	OFF	OFF	OFF	

3.3 About the connection cables

Use the following connection diagrams and connectors to connect the RS-232C cable between the GOT and computer link module or small-sized programmable controller CPU unit having computer link function.

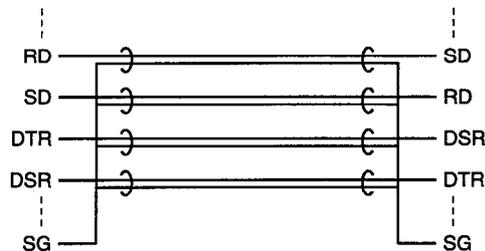
(Max. cable length:15m(49.21feet))

1 Connection diagram

- 1) For the computer link module side connector having D sub 9 pins
(A1SJ71QC24(R2),A1SJ71UC24-R2,A1SJ71C24-R2,A1SCPUC24-R2,A2CCPUC24)

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

*1: If the A1SJ71QC24(R2) connected cannot be monitored properly due to external noise, connect the connection cable's each signal and SG in pairs, with the exception of SG and FG.



- 2) For the computer link module side connector having D sub 25 pins
(AJ71QC24(R2),AJ71UC24)

Computer Link Module 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
DSR(DR)	6		6	DSR(DR)
SG	7		7	RS(RTS)
CD	8		8	CS(CTS)
DTR(ER)	20		9	—

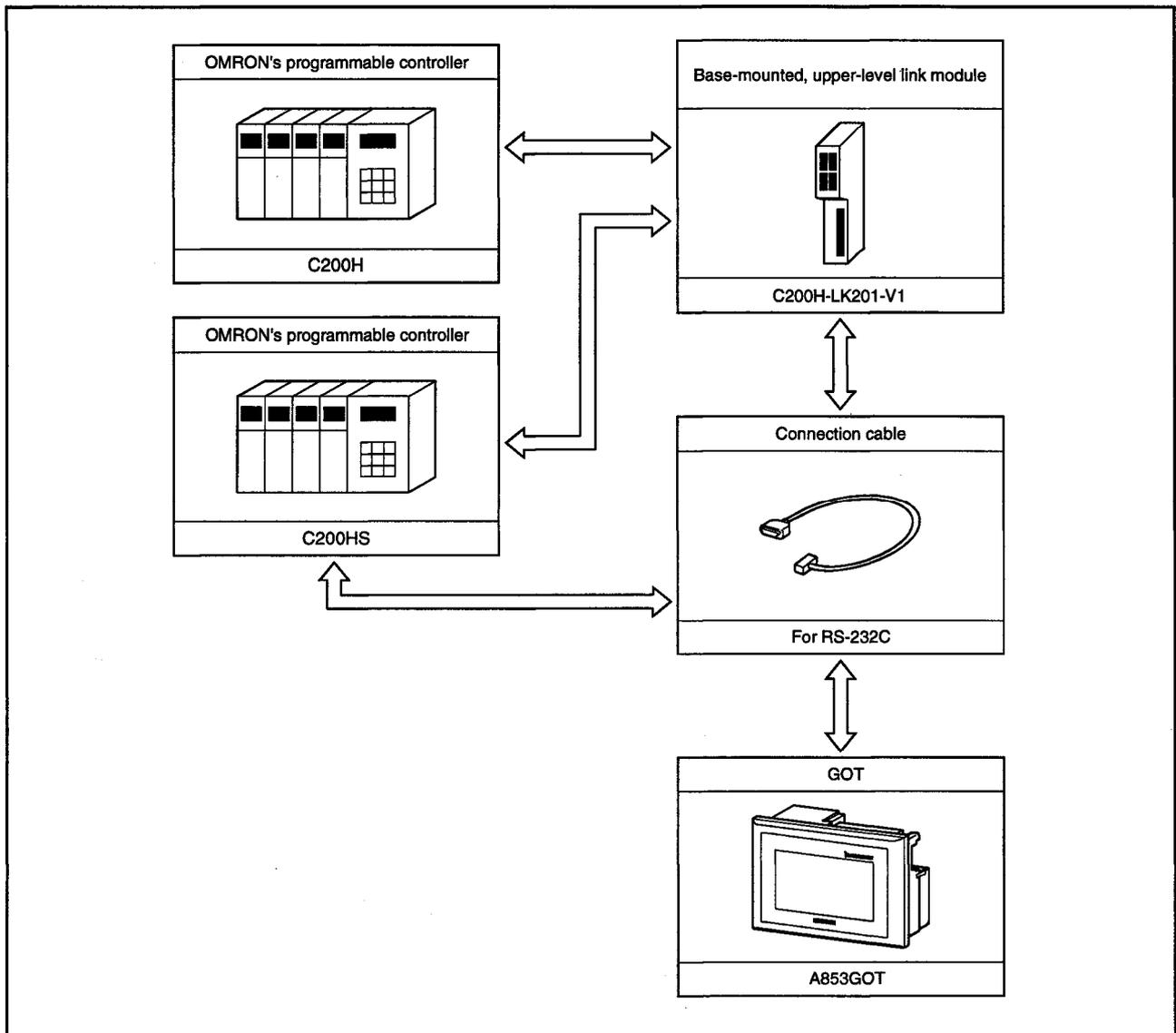
2 Connectors and connector covers used

- GOT side connector
The A853GOT uses the following connector. Use a mating connector which matches this connector:
9-pin D sub (male), inch screw type Daiichi Electronic Industry make
17LE-23090-27(D3CC)
- Computer link module side connector
Refer to the User's Manual of the computer link module used.

4. System Configuration for Connection with OMRON's Programmable Controller (RS-232C Communication)

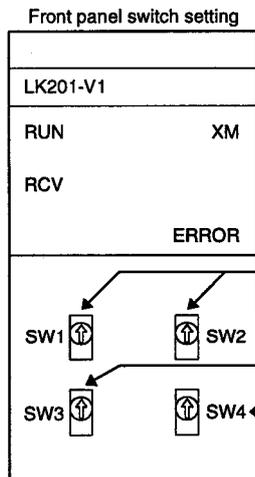
4.1 System Configuration for Connection with the C200H or C200HS Series

4.1.1 System Configurations

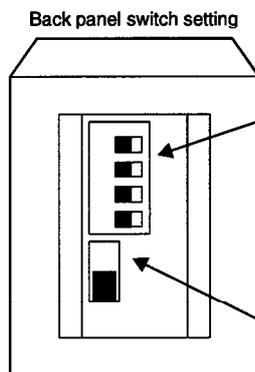


4.1.2 Switch Settings for the Upper-Level Link Module

When using the upper-level link module (C200H-LK201-V1) perform the switch setting shown below.



- 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 / party / transmission code setting)
Set as follows.
SW4:2 (Party: 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.

4.1.3 About the connection cables

The connection diagram of the cables connecting the upper-level link module and GOT, and the connectors used are shown below. (Max. cable length:15m(49.21feet))

(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) Connector and connector cover

- GOT side connector

The A853GOT uses the following type of connector. Use a mating connector which matches this connector.

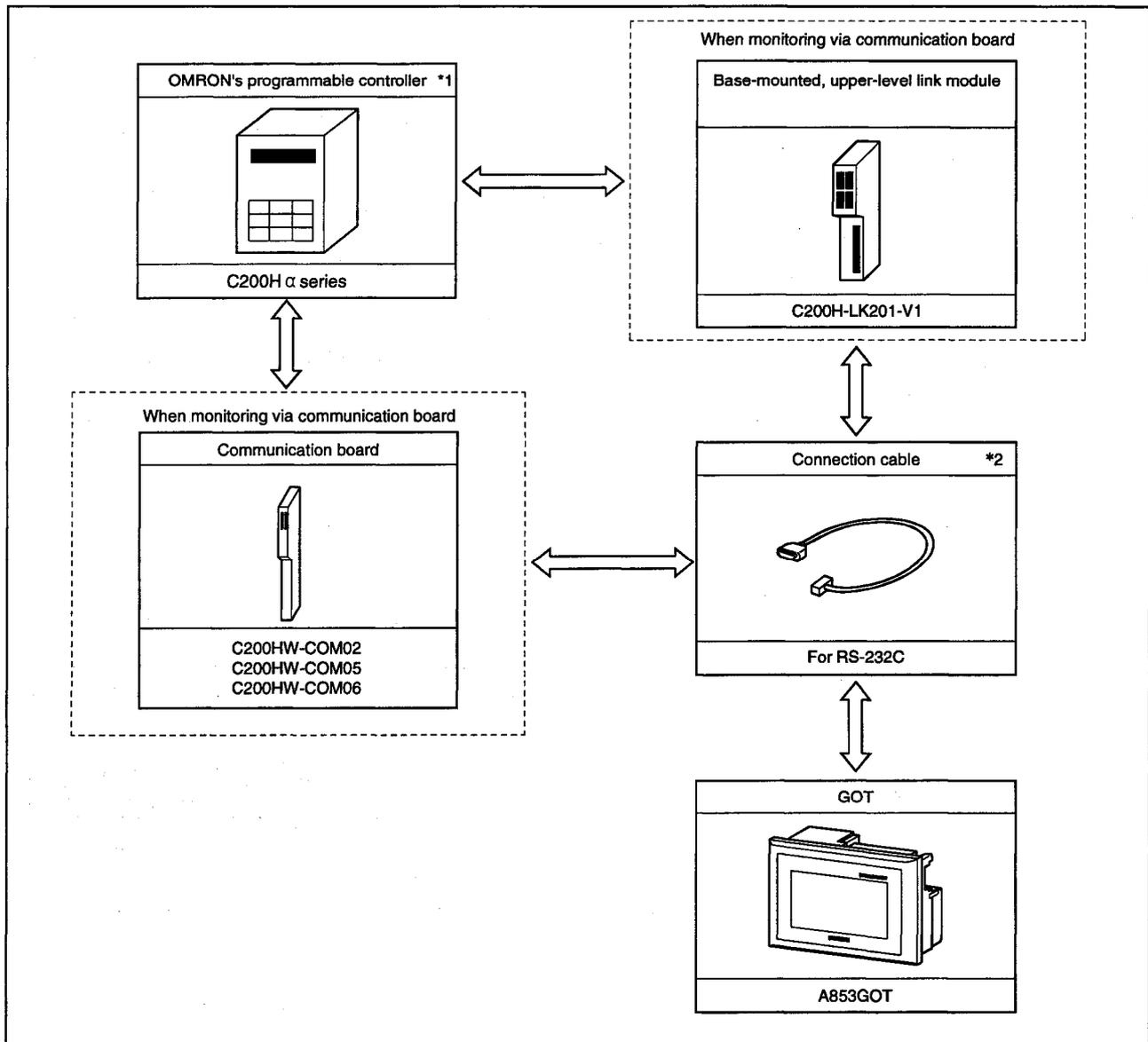
9-pin D sub (male), inch screw type Daiichi Electronic Industry make
17LE-23090-27(D3CC)

- Omron side connector

Use the connectors provided with the upper-level link module.

4.2 System Configuration When Connecting to the C200H α Series

4.2.1 System Configurations



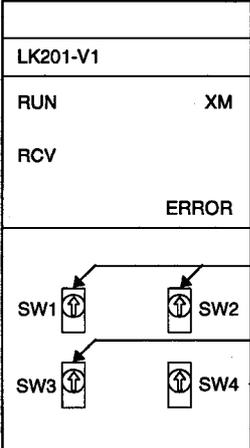
*1 The communication board cannot be installed to the C200HE-CPU11. Install the board via upper-level link module.

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

4.2.2 Switch Settings for the Upper-Level Link Module

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

Front panel switch setting

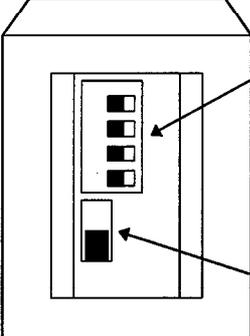


1) Setting for SW1 and SW2 (Device No. setting)
Set as follows.
SW1: 0, SW2: 0 (Set to device No. 00.)

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

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)

Back panel switch setting



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.

4.2.3 Communication Board Initializing Program

When using the communication board, write the following values to the following devices 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~DM6554	No need to write	DM6555	0001H
DM6556	0304H	DM6557	0000H
DM6558	0000H	DM6559	0000H

4.2.4 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.

(Max. cable length: 15m(49.21feet))

1 Connection diagrams

1) Upper-level link module

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	—

2) Communication board

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
5V	6	→	6	DSR(DR)
SG	7	←	7	RS(RTS)
ER(DTR)	8	→	8	CS(CTS)
ER	9	←	9	—

2

Connectors and connector covers used

- GOT side connector

The serial communication module uses the following RS-232C interface connector.

Use a mating connector which matches this connector.

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

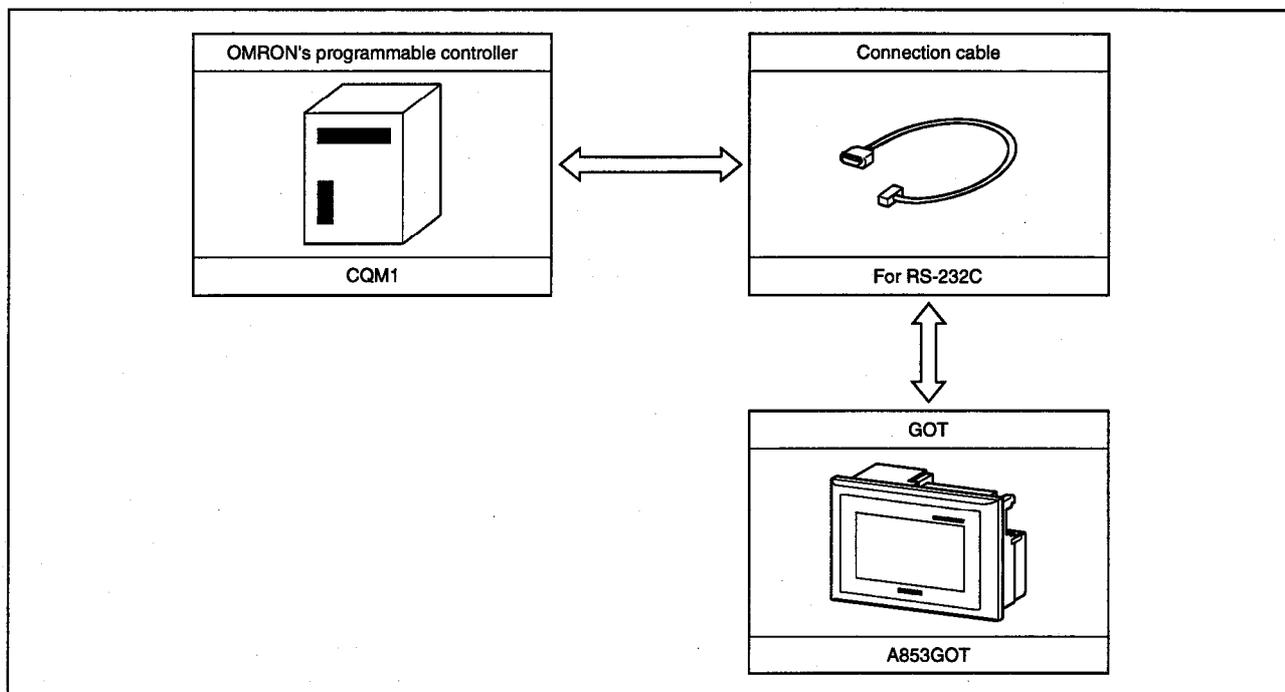
17LE-2309-27(D3CC)

- OMRON side connector

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

4.3 System Configuration for Connection with the CQM1

4.3.1 System Configurations



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

4.3.2 Initialization of the CQM1

When using the RS232 port of the CQM1, write the following values to the following devices and perform initialization for the RS232 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		

4.3.3 About the Connection Cable

Use the following connection diagram and connectors to connect the cable between the GOT and programmable controller. (Max. cable length: 15m(49.21feet))

1 Connection diagram

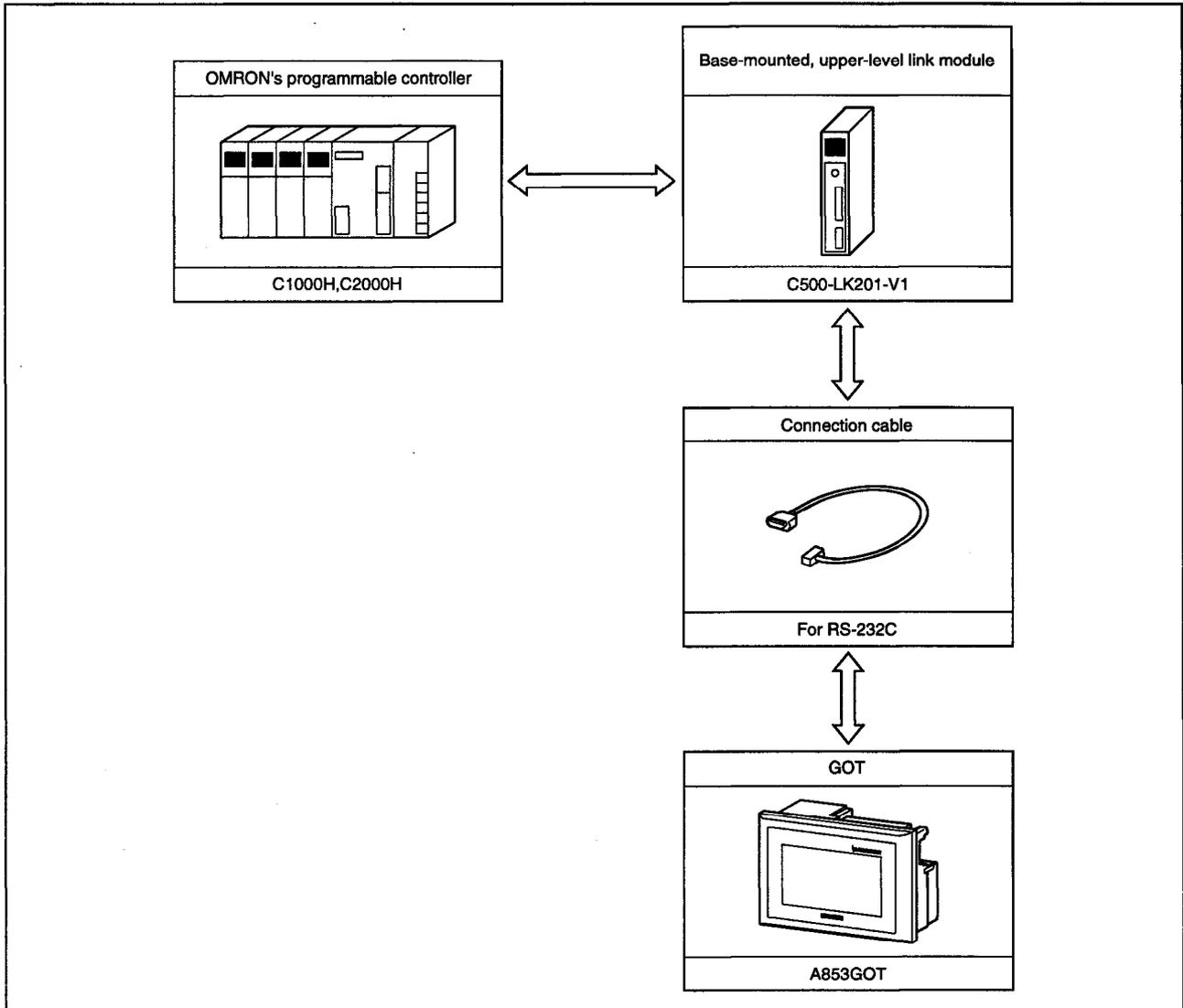
OMRON Side		Cable Connection and Signal Direction	GOT Side	
Signal name	Pin No.		Pin No.	Signal name
FG	1	←	1	CD
SD(TXD)	2	→	2	RD(RXD)
RD(RXD)	3	←	3	SD(TXD)
RS(RTS)	4	→	4	DTR(ER)
CS(CTS)	5	←	5	SG
—	6	→	6	DSR(DR)
—	7	→	7	RS(RTS)
—	8	→	8	CS(CTS)
GND	9	→	9	—

2 Connectors and connector covers used

- GOT side connector
 - The A853GOT uses the following RS-232C interface connector.
 - Use a mating connector which matches this connector.
 - 9-pin D sub (male), inch screw type Daiichi Electronic Industry make
- OMRON side connector
 - Use the connector supplied with the CQM1.

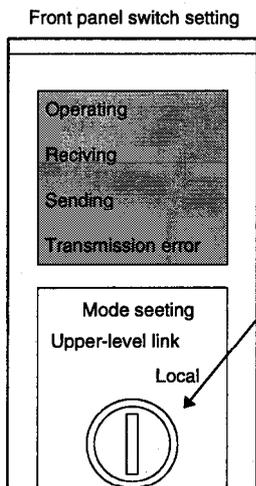
4.4 System Configuration for Connection with the C1000H or C2000H

4.4.1 System Configurations

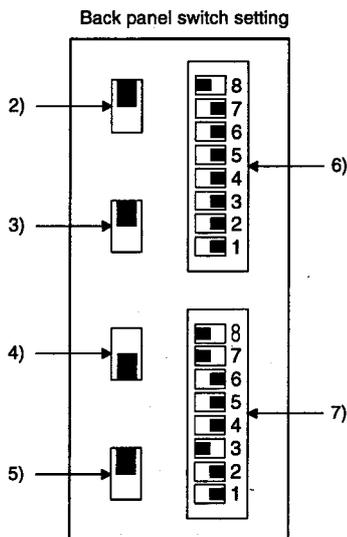


4.4.2 Switch Settings for the Upper-Level Link Module

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	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

4.4.3 Connection Cable

Use the following connection diagram and connectors to connect the cable between the upper-level link module and GOT . **(Max. cable length: 15m(49.21feet))**

1 Connection diagram

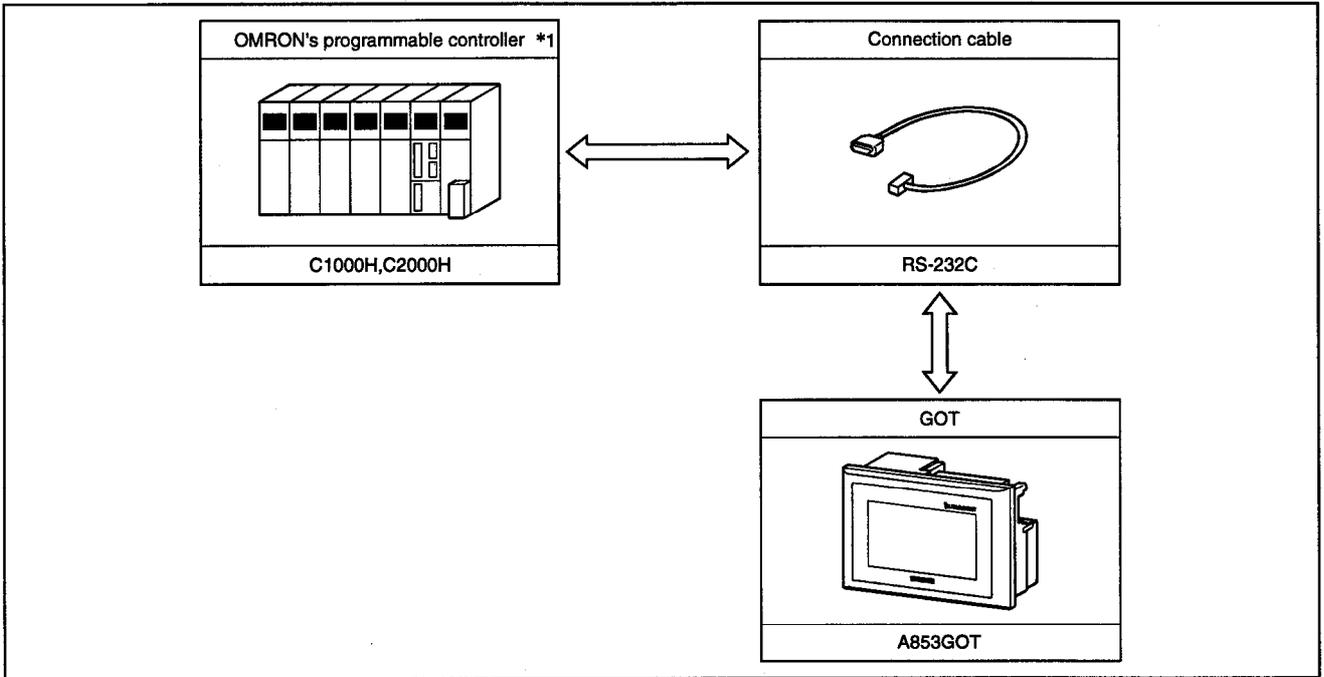
OMRON Side		Cable Connection and Signal Direction	GOT Side	
Signal name	Pin No.		Pin No.	Signal name
FG	1		1	CD
SD(TXD)	2		2	RD(RXD)
RD(RXD)	3		3	SD(TXD)
RS(RTS)	4		4	DTR(ER)
CS(CTS)	5		5	SG
-	6		6	DSR(DR)
SG	7		7	RS(RTS)
-	8		8	CS(CTS)
ER	20		9	---

2 Connectors and connector covers used

- GOT side connector
 The A853GOT uses the following RS-232C interface connector.
 Use a mating connector which matches this connector.
 9-pin D sub (male), inch screw type Daiichi Electronic Industry make
 17LE-23090-27(D3CC)
- OMRON side connector
 Use the connector supplied with the upper-level link module.

4.5 System Configuration for Connection with the CV1000

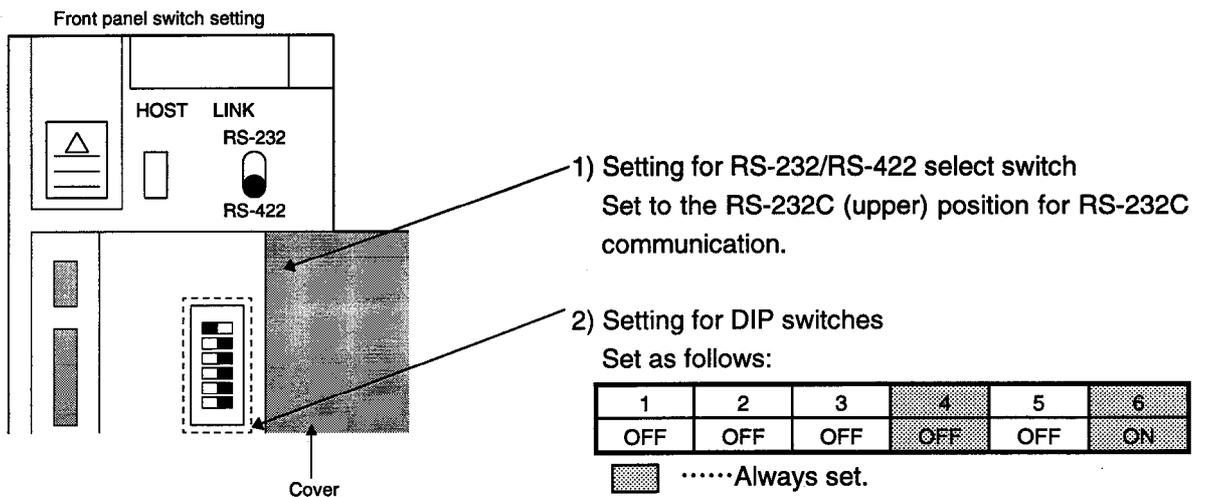
4.5.1 System Configurations



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

4.5.2 Switch Settings for the CPU

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



4.5.3 Setting for the 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

4.5.4 About the Connection Cable

Use the following connection diagram and connectors to connect the cable between the CPU (CV1000) and GOT . (Max. cable length: 15m(49.21feet))

1 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)
CD	7		7	RS(RTS)
---	8		8	CS(CTS)
SG	9		9	---
FG	SHALL		---	---

2 Connectors and connector covers used

- GOT side connector
The A853GOT uses the following RS-232C interface connector.
Use a mating connector which matches this connector.
9-pin D sub (male), inch screw type Daiichi Electronic Industry make
17LE-23090-27(D3CC)
- OMRON side connector
Use the connector supplied with the CPU (CV1000).

4.6 Devices and Access Ranges That Can Be Set with Sprites

When using OMRON's programmable controller, always install the communication driver "OMRON SYSMAC" into the GOT.

		Device Name	Set Monitorable Range
Devices	Bit	I/O relay	..0000~51115
		Internal auxiliary relay	
		Data link relay (LR)	LR0000~LR6315
		Auxiliary storage relay (AR)	AR0000~AR2715
		Holding relay (HR)	HR0000~HR9915
		Timer (contact) (TIM) *1	TIM000~TIM511
		Counter (contact) (CNT) *1	CNT000~CNT511
		Data memory (DM)	} *2 DM0000~DM9999
		Timer (current value) (TIM)	
		Counter (current value) (CNT)	
	Word	I/O relay	..000~511
		Data link relay (LR)	LR0000~LR0063
		Auxiliary storage relay (AR)	AR0000~AR0027
		Holding relay (HR)	HR0000~HR0099
Data memory (DM)		DM0000~DM9999	
Timer (current value) (TIM)		TIM000~TIM511	
Counter (current value) (CNT)	CNT000~CNT511		

*1: These devices are write-disabled when the CV1000 is used.

*2: When the touch switch function is to be executed with the bits of the word devices set as monitored devices, do not perform write to those word devices in the sequence program.

5. Specifications

5.1 General Specifications

Item	Specifications					
Ambient operating temperature	Display unit		Other than display unit			
	0 ~ 40°C		0 ~ 55°C			
Ambient storage temperature	-20 ~ 60°C					
Ambient operating humidity	10 ~ 90% RH, with no condensation					
Ambient storage humidity	10 ~ 90% RH, with no condensation					
Vibration resistance	Conforming to JIS B 3501, IEC 1131-2	Under intermittent vibration				
		Frequency	Acceleration	Amplitude	No. of sweeps	
		10 ~ 57Hz	—	0.075 mm (0.003 inch)	10 times each in X, Y, Z directions (for 80 min.)	
		57 ~ 150Hz	9.8 m/s ² {1G}	—		
		Under continuous vibration				
		Frequency	Acceleration	Amplitude		
		10 ~ 57Hz	—	0.035 mm (0.001 inch)		
		57 ~ 150Hz	4.9 m/s ² {0.5G}	—		
Impact resistance	Conforming to JIS B 3501, IEC 1131-2 (147 m/s ² {15G}, 3 times in each of 3 directions)					
Noise withstand resistance	Noise voltage: 1500Vp-p; noise width: 1 μs Noise frequency: based on noise simulation of 25 ~ 60Hz					
Voltage withstand resistance	Batch resistance between external DC terminals—500 VAC for 1 minute between grounding terminals					
Insulation resistance	10 MΩ min. using insulation resistance meter					
Environment	No corrosive gases					
Altitude	2000 m (6562 feet) max					
Installation location	Control panel					
Over-voltage category *1	11 max.					
Pollution level *2	2 max.					

*1 This indicates the section of the power supply to which the equipment is assumed to be connected between the public electrical power distribution network and the machinery within the premises. Category 11 applies to equipment for which electrical power is supplied from fixed facilities. The surge voltage withstand level for up to the rated voltage of 300 V is 2,500V.

*2. This index indicates the degree to which conductive material is generated in terms of the environment in which the equipment is used. Pollution level 2 indicates that only non-conductive pollution is produced; however, in this environment, there may be times when temporary conductivity is produced because of freezing.

5.2 Performance Specifications

Item	A853GOT-L□D	A853GOT-L□D-M3	A853GOT-S□D	A853GOT-S□D-M3
Front panel color	LWD/SWD: Ivory white LBD/SBD: dark gray			
Display unit	Type	Monochrome LCD		STN color LCD
	Resolution	Horizontal: 320 dots, vertical: 240 dots		
	Display size	86 mm (3.4 inch) (vertical) x 115 mm (4.5 inch) (horizontal)		
	Display color	Single color (white, black)		8 colors
Backlights	Chilled cathode ray tube backlight; Backlights can be replaced			
Touch panel	No. of touch keys	300 (15 rows x 20 columns)		
	Key size	16 dots x 16 dots min. (per key)		
	Repeat function	None		
memory*1	Type	Internal memory (flash ROM)		
	Application	For storing project data/for storing system monitor OS		
	Capacity	The capacity is as follows independently of whether the optional driver OS is installed or not.		
		A853GOT	A853GOT-M3	
		768k bytes	2816k bytes	
RS-232C interface for screen data transfer	For connection of screen data transfer cable, 1 channel (connected with personal computer)			
RS-232C interface for monitoring communication	For connection of monitoring communication cable, 1 channel (connected with computer link module)			
Interface for optional unit connection	For connection of memory card interface unit/printer interface unit, 1 channel			
Buzzer	Single sound (length of sound can be adjusted)			
Lifetime *2	Display unit	50,000 hours (when ambient temperature during use is 25°C)		
	Backlights	10,000 hours (50% of display brightness)		
	Touch keys	1 million times min. (at operational force of 100 g (0.2 lb) or less)		
	Internal memory	No. of writings: 100,000		
Power supply voltage	DC24V (+30%, -35%)			
Allowable falter time	10ms			
Noise immunity	Use a noise simulator of 500Vp-p noise voltage, 1 μs noise width and 25-60Hz noise frequency			
Current consumption (24V)	0.6A (when printer interface unit is not used) 0.7A (when printer interface unit is used)			
Connection format	Exclusively used for RS-232C communication connection			
Environmental protection construction	IP65 or equivalent (front panel section)			
External dimensions mm(inch)	192(7.56) × 135(5.31) × 62(2.44)			
Panel cutout dimensions mm(inch)	184(7.24) × 124(4.89)			
Weight	850g(1.89lb)			
Compatible software package	SW2NIW-GOT800PSET (SW2NIW-A8GOTP version J or later, SW2NIW-A8SYSP version J or later)			

*1. The internal memory is a ROM which enables overwriting of new data without deleting previously written data.

(No data backup power supply is required.)

*2. When parts need to be replaced, please consult your nearest dealer or branch office.

NOTE

With the GOT, if a momentary power failure occurs, the screen display disappears. If the power is restored within 20 ms, however, monitor functions and other functions resume normal operation.

5.3 Monitorable Computer Link Modules

The following MELSEC-A series and QnA series computer link modules and OMRON's programmable controllers can be monitored.

1**MELSEC-A series, QnA series**

Large-sized computer link module

AJ71QC24(R2), AJ71UC24

Small-sized computer link module

A1SJ71QC24(R2), A1SJ71UC24-R2, A1SJ71C24-R2

CPU having computer link module function

A1SCPU24-R2, A2CCPUC24

For the applicable CPU to each computer link module, refer to the corresponding computer link module user's manual.

2**OMRON's programmable controllers**

C200H (monitored via C200H-LK201-V1 upper-level link)

C200HS (monitored via C200H-LK201-V1 upper-level link/by direct connection)

C200H α (monitored via C200H-LK201-V1 upper-level link/via C200HW-COM02, C200HW-COM05 or C200HW-COM06 communication board)

CQM1 (monitored by direct connection)

C1000H, C2000H (monitored via C500H-LK201-V1 upper-level link)

CV1000 (monitored by direct connection)

5.4 Table of Component Equipment Units

The GOT requires the following equipment.

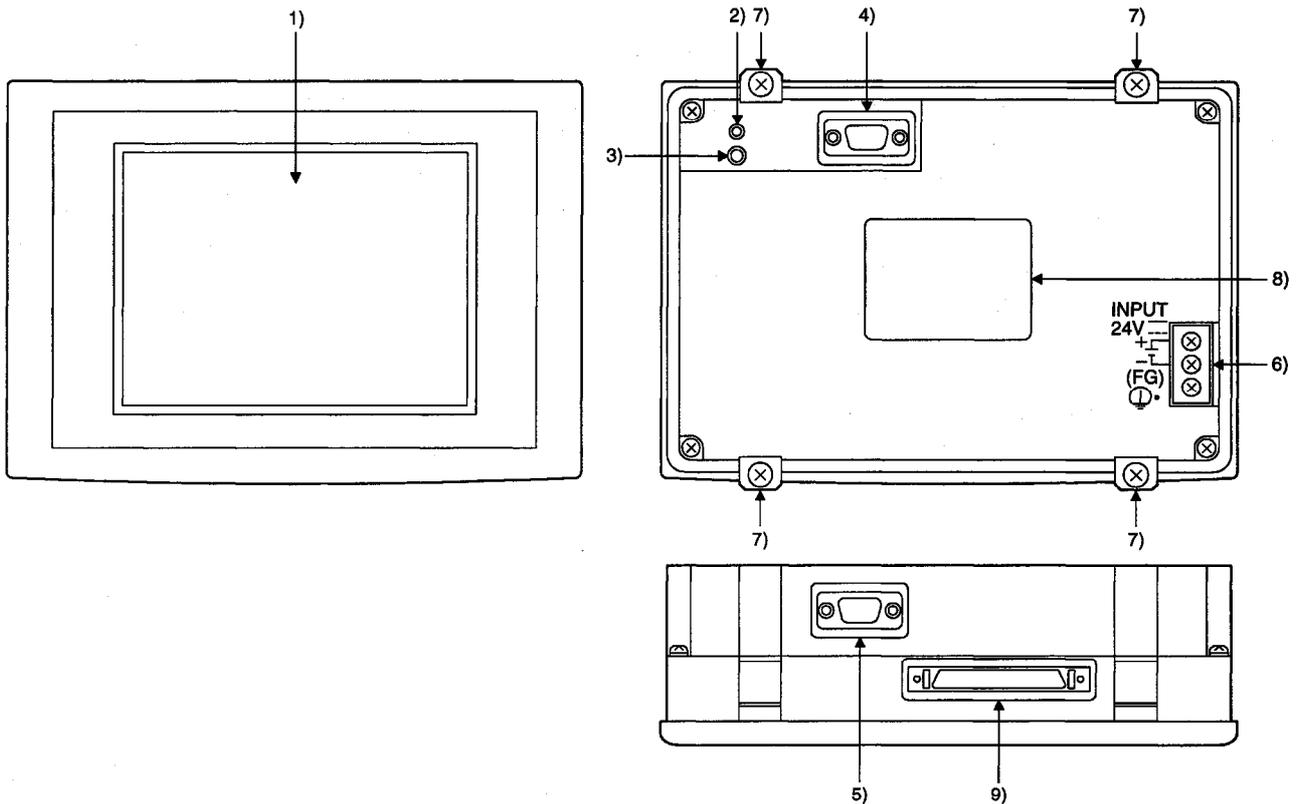
Name	Type	Remarks	
GOT main unit (RS-232C communication unit incorporated)	A853GOT-LWD	Monochrome liquid crystal type, front ivory white (with 24VDC power supply), onboard memory 768k bytes	
	A853GOT-LBD	Monochrome liquid crystal type, front dark gray (with 24VDC power supply), onboard memory 768k bytes	
	A853GOT-SWD	STN liquid crystal type, front ivory white (with 24VDC power supply), onboard memory 768k bytes	
	A853GOT-SBD	STN liquid crystal type, front dark gray (with 24VDC power supply), onboard memory 768k bytes	
	A853GOT-LWD-M3	Monochrome liquid crystal type, front ivory white (with 24VDC power supply), onboard memory 2816k bytes	
	A853GOT-LBD-M3	Monochrome liquid crystal type, front dark gray (with 24VDC power supply), onboard memory 2816k bytes	
	A853GOT-SWD-M3	STN liquid crystal type, front ivory white (with 24VDC power supply), onboard memory 2816k bytes	
	A853GOT-SBD-M3	STN liquid crystal type, front dark gray (with 24VDC power supply), onboard memory 2816k bytes	
Backlights	A8GT-50LT	Replacement light for A850GOT	
Protective sheet	A8GT-50PSC	Transparent protective sheets for A850GOT	
	A8GT-50PSN	Anti-reflection protective sheets for A850GOT	
Printer interface unit	A8GT-50PRF	For connection of printer	
Memory card interface unit	A1SD59-MIF	For loading of memory card	
Optional unit bracket	A8GT-50STE	For mounting printer interface unit on GOT main unit	
Printer connection cable	AC30PIO-20P	For connection of printer and printer interface unit, 3m	
	AC300PIO-20P	For connection of printer and printer interface unit, 30m	
Memory card cable	A85GT-C05H	For connection of GOT and memory card interface unit, 2m	
SRAM memory card conforming to JEIDA Ver. 4.0 or later	MF3257-L5DAT01	Mitsubishi Electric make, memory capacity 256k bytes, SRAM	For project data backup *1 Verified products
	MF3213-L5DAT01	Mitsubishi Electric make, memory capacity 512k bytes, SRAM	
	MF31M1-L5DAT01	Mitsubishi Electric make, memory capacity 1M bytes, SRAM	
	MF32M1-L6DAT01	Mitsubishi Electric make, memory capacity 2M bytes, SRAM	
	MF3257-J1DAT01	Mitsubishi Electric make, memory capacity 256k bytes, SRAM, with sub battery	
	MF3515-J1DAT01	Mitsubishi Electric make, memory capacity 512k bytes, SRAM, with sub battery	
	MF31M1-J1DAT01	Mitsubishi Electric make, memory capacity 1M bytes, SRAM, with sub battery	
	MF32M1-J1DAT01	Mitsubishi Electric make, memory capacity 2M bytes, SRAM, with sub battery	
	Q1MEN-64S	For QnACPU, memory capacity 64k bytes, SRAM	For project data backup
	Q1MEN-128S	For QnACPU, memory capacity 128k bytes, SRAM	
	Q1MEN-265S	For QnACPU, memory capacity 256k bytes, SRAM	
	Q1MEN-512S	For QnACPU, memory capacity 512k bytes, SRAM	
	Q1MEN-1MS	For QnACPU, memory capacity 1M bytes, SRAM	
	Q1MEN-2MS	For QnACPU, memory capacity 2M bytes, SRAM	
Compatible software package	SW2NIW-GOT800PSET	SW2NIW-A8GOTP version J or later SW2NIW-A8SYSP version J or later	

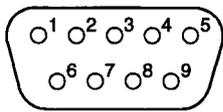
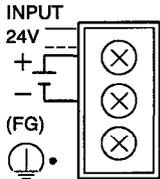
*1: Verified products - Products verified to have the specifications (standard) that allow them to be connected to our units.

Use these products in conformance with their specifications (standard).

6. Names of Parts and Handling Component Equipment units

6.1 Names of Parts



No.	Name	Contents
1)	Display unit	Displays monitor screens
2)	Power supply LED	Lights when power supply is on
3)	Reset switch	Reset the GOT hardware
4)	RS-232C interface for screen data transfer	RS-232C interface for screen data transfer
5)	RS-232C interface for monitoring communication	RS-232C interface for monitoring communication 
6)	Terminal base	For input of 24 VDC power supply (M3×3 screw) 
7)	Attachment hook installation section	Attachment hook is installed here
8)	Ratings plate	-----
9)	Optional unit interface	For connection of printer interface unit/memory card interface unit

6.2 Protective Sheets

The A8GT-50PSC and A8GT-50PSN are protective sheets for the display unit of the GOT. Protective sheets are used for the following purposes.

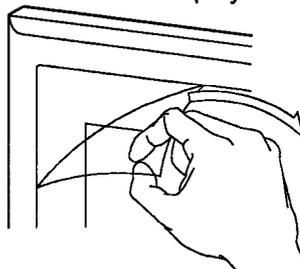
- 1) To protect the touch keys from scratches and dirt when using the touch key panel on the display unit
- 2) To prevent reflection from external disturbance light on the display unit.

The protective sheet used should be selected in accordance with the purpose for which it is used, from among those listed here.

Purpose	Model	Contents
Protection of display	A8GT-50PSC	Transparent protective sheet
Display unit protection + anti-reflection	A8GT-50PSN	Anti-reflection protective sheet

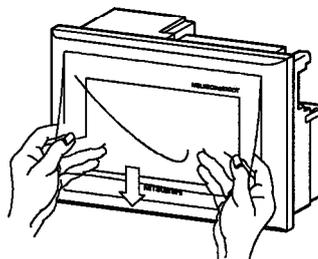
- Attachment Procedures

- 1) Peel off the old protective sheet from the GOT display unit.



- 2) Peel off the protective backing from the adhesive tape on the new protective sheet, and affix it to the display unit of the GOT.

(Note) When affixing the protective sheet to the display unit, make sure it is flat and tight, with no looseness or gaps at the adhesive sections.



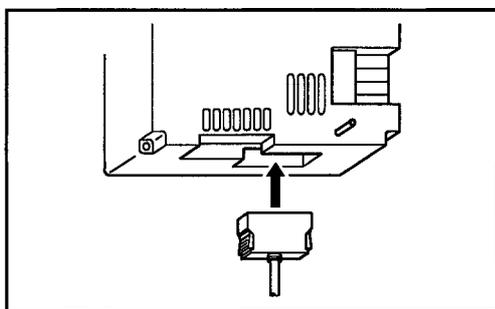
6.3 Connection of the Printer Interface Unit

Connect the printer interface unit to the GOT in the following procedure.

For full information on the installation procedure and specifications of the printer interface unit, refer to the A8GT-50PRF User's Manual.

**DANGER**

- Before mounting or dismounting the printer interface unit to or from the GOT, always switch off the GOT and programmable controller powers externally in all phases.



- 1) Thread A8GT-50PRF mounting screw holes in the control box or the like. (2- ϕ 3.5 mounting holes)

The A8GT-50PRF's GOT connection cable is 50cm long. Install the A8GT-50PRF within this distance so that the GOT-end connector of the cable may be fitted into the GOT's connector. When mounting the A8GT-50PRF on the back of the control box door, exercise care to avoid screw holes passing through the control box surface.

- 2) Tighten the mounting screws to the specified torque range 39 to 59N · cm (4 to 6kg · cm).
- 3) Fit the GOT-end connector of the cable into the connector in the GOT bottom.
- 4) Connect the A8GT-50PRF and printer with the connection cable.

6.4 Connection of the Memory Card Interface Unit

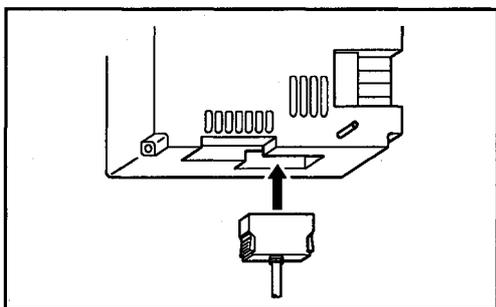
Connect the memory card interface unit to the GOT in the following procedure.

For full information on the installation procedure and specifications of the memory card interface unit, refer to the A1SD59J-MIF User's Manual (Hardware).



DANGER

- Before mounting or dismantling the memory card interface unit to or from the GOT, always switch off the GOT and programmable controller powers externally in all phases.



- 1) Mount the A1SD59J-MIF on the control box or the like. (Refer to the A1SD59J-MIF User's Manual.)
- 2) Fit the GOT-end connector of the cable into the connector in the GOT bottom.
- 3) Fit the A1SD59J-MIF-end connector of the cable into the A1SD59J-MIF's connector.

7. Operating Utility Functions

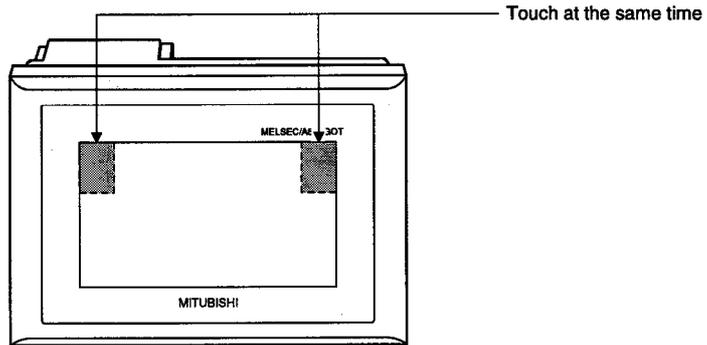
7.1 A Table of Utility Functions

Item	Contents	Remarks	Ref. Page
Brightness adjustment Message display selection	Adjusts the backlight brightness Selects the screen message display (Japanese / English)		Section 7.3
System monitor	Monitors/changes CPU devices	Can only be executed when OS is installed from graphics software to GOT	Section 7.4
Screen copy	Transmits data between internal memory of screen data and memory card	Only screen data created by the user	Section 7.5
Setup	Sets the following items: <ul style="list-style-type: none"> • Message display selection (Japanese/English) • Buzzer sound adjustment • Screen saver time setting • Select the display mode (Can be selected for monochrome liquid crystal type only) 		Section 7.6
Self-test	Tests the following hardware units of the GOT. <ul style="list-style-type: none"> • Drawing check • Font check • Memory card check • Check of user area in internal memory • Check of OS area of internal memory • CPU communications check • Check of touch keys 		Section 7.7
Memory information	Displays the following information. <ul style="list-style-type: none"> • OS version • Format of communications with PC CPU • Space available in internal memory • Whether or not memory card is inserted, and available space 		Section 7.8
Clock function	Sets date/time of PC CPU		Section 7.9
Screen cleaning	Displays screen in order to clean display unit		Section 7.10
File function	The following information of the data stored by the alarm history function is displayed or deleted. <ul style="list-style-type: none"> • Data capacity, storage date and time • Memory card format 		Section 7.11

7.2 Procedures to Prepare for Running the Various Functions

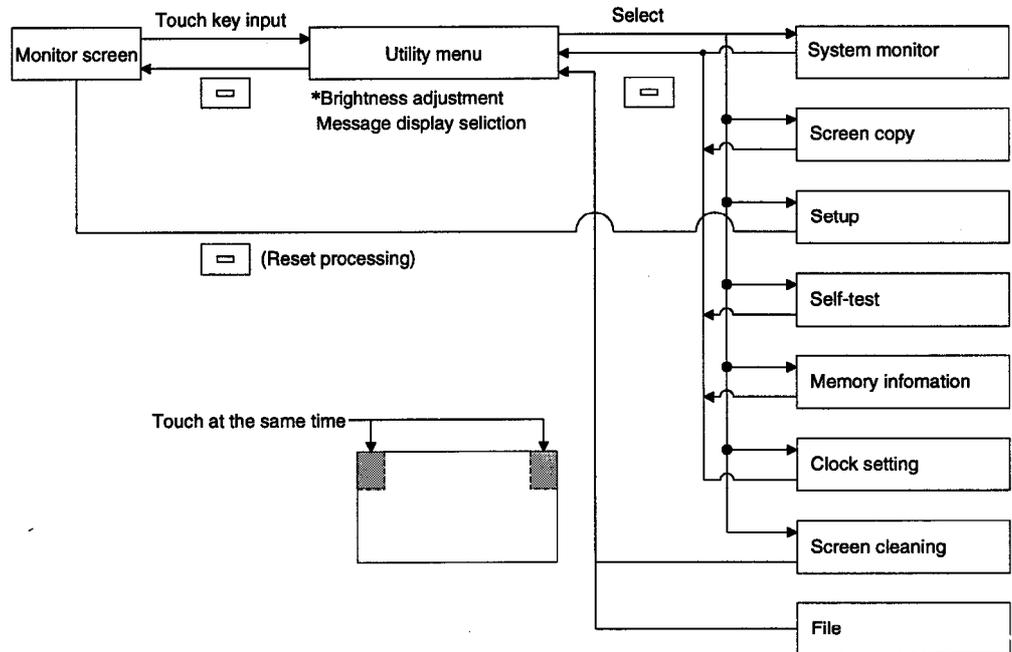
This section outlines the various procedures used to prepare for running the utility functions. All of the utility functions can be operated using the touch keys on the monitor screen. There are two ways to start up the utility functions, as described below.

- (1) Touch the top right and top left corners of the monitor screen at the same time.



- (2) On the monitor screen, specify the touch key (expansion) function, and input the settings using the touch keys. (For information on entering settings using touch keys, please refer to the A8GOTP Operating Manual (Monitor Screen Creation Manual).)

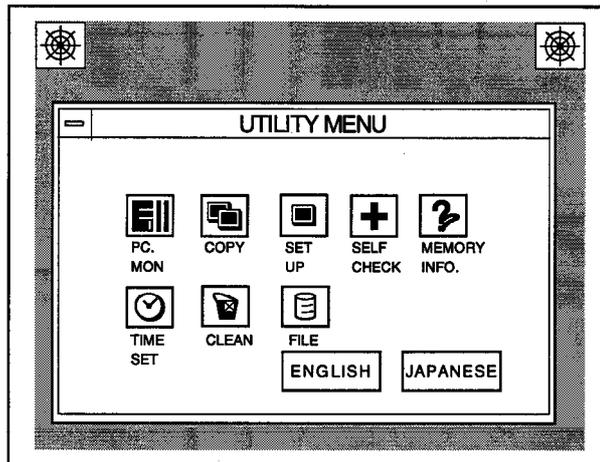
The following shows an outline of the utility function procedures.



7.3 Selecting Functions on the Utility Menu Screen

(Adjusting the Screen Brightness - Brightness Adjustment)
(Selecting the Screen Message Display - Message Display Selection)

1 Display screen



2 Functions

- This is the menu screen where the various utility functions are selected.
- The brightness of the screen can be adjusted on this screen.
- The screen message display (Japanese/English) can be selected on this screen.

3 Operation

(a) Basic operation

- Directly touch the section where the function to be selected is displayed.

(b) Return to the monitor screen

- Touching the  returns to the monitor screen.

(c) Brightness adjustment

- Touch **LIGHT** **DARK**
- The brightness can be adjusted in 50 steps.

(d) Message display selection

- Touch **ENGLISH** or **JAPANESE** . (**ENGLISH** : English, **JAPANESE** : Japanese)

Point

- If the OS has not been installed in the GOT, the items for system monitoring are displayed, but cannot be selected.
- If the PC CPU connected to the GOT does not have a clock function, the clock setting is displayed, but cannot be selected.

4 Error messages displayed in response to operations

Message	Cause	Corrective Action
Can't be selected (When system monitor or clock setting is selected)	<ul style="list-style-type: none"> • System monitoring function OS has not been installed in GOT • PC CPU connected to GOT has no clock function 	<ul style="list-style-type: none"> • Install the OS. • Replace the PC CPU with one that has a clock function, or do not use the clock function.

7.4 Monitoring PC CPU Device Data on a Dedicated Screen (System Monitor)

Point

In order to use the system monitor function, the system monitoring function OS must be installed from the graphics software to the GOT.

1 Display screen

The system monitor function enables the following types of monitoring.

1) Entry monitor

Up to 8 points of PC CPU devices registered by the user can be monitored.

ENTRY MONITOR				MENU	FROM	SET
NETWK No.[0]		STATION[FF]				
D	15	-2147483648	DW			
D	10	-32767				
X	001	●				
M	25	○				
D	30	5000				
W	200	43				
R	50	68378428	DW			
Y	70	●				

2) Batch monitor

Up to 16 points subsequent to PC CPU devices specified by the user can be monitored.

BATCH MONITOR				MENU	FROM	SET
NETWK No.[0]		STATION[FF]				
D	10	32767	D	18	-500	
D	11	0	D	19	3234	
X	12	0	D	20	0	
M	13	-1	D	21	0	
D	14	0	D	22	0	
W	15	3	D	23	-32768	
R	16	0	D	24	0	
Y	17	0	D	25	0	

3) T/C monitor

Up to 8 points, including the current value, set value, contact point, and coil, of timer (T)/counter (C) values subsequent to PC CPU devices specified by the user can be monitored.

TC MONITOR				MENU	FROM	SET
NETWK No.[0]		STATION[FF]				
T	0	PV	0 SV	0	↑	○
[Production line A]						
T	1	PV	0 SV	0	↑	○
[Production line B]						
T	2	PV	0 SV	150	+	●
[Production line C]						
T	3	PV	0 SV	0	↑	○
[Production line D]						

4) Buffer memory monitor

Up to 16 points subsequent to the buffer memory of a special function unit specified by the user can be monitored.

BM MONITOR				MENU	FROM	SET
NETWK No.[0]		STATION[FF]				
I/O NO [1]						
BM	1110	-32767	BM	1118	0	
BM	1111	64	BM	1119	0	
BM	1112	149	BM	1120	150	
BM	1113	-1111	BM	1121	130	
BM	1114	126	BM	1122	-32768	
BM	1115	160	BM	1123	555	
BM	1116	255	BM	1124	2368	
BM	1117	1200	BM	1125	11000	

2 Functions

- Bit devices and word devices of the PC CPU can be monitored and changes made.
- Contact points, coils, set values, and current values for the PC CPU timer and counter can be monitored and changes made.
- The contents of the special function unit buffer memory can be monitored and changes made.

3 Operation

(a) Basic operation

- Operations can be carried out by touching the monitor screen directly.
- For detailed information, please refer to the A870GOT/A850GOT Graphic Operation Terminal Operating Manual (Expanded Functions Manual).

(b) Returning to the utility menu screen

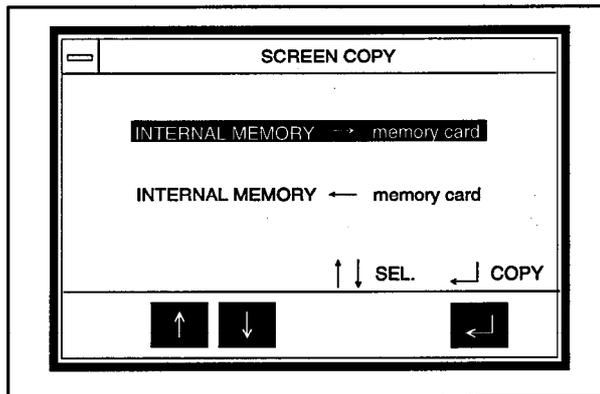
- Touching the  returns to the monitor screen.

7.5 Copying Monitor Data between the Internal Memory and Memory Card (Screen Copy)

By storing the alarm history function data into the memory card used for this function, the screen data copied by the screen copy operation is deleted.
Use different memory cards for the screen copy and alarm history functions.

1 Display screen

Screen example



2 Function

- The backup copy of project data on onboard memory can be created on the memory card.
- The backup copy of project data on the memory card can be transcribed onto onboard memory.

3 Operation

(a) Basic operation

- Touch or to select the required item.
- By touching , "EXECUTE?" is displayed.
- Touch once more to execute.

To change the item, touch or .

To stop at any point, touch . Note that the screen returns to the utility screen.

(b) Return to the utility screen

- Touch to return to the utility screen.

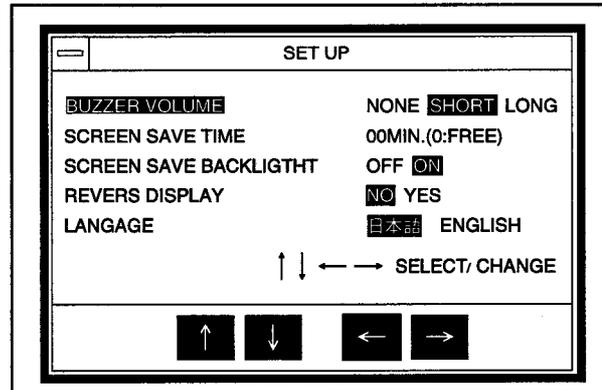
4 Error messages displayed during operation

Message	Cause	Remedy
Cancel write protect function	Memory card is write-protected.	Make the memory card write-enabled.
Install memory card	Memory card is not loaded in the GOT.	Load the memory card into the GOT.
Format memory on card	Unformatted memory card is loaded.	Format the memory card (refer to Section 8.4).
Insufficient memory on card	Load the memory card which has less memory capacity than onboard memory.	Use a larger capacity memory card.
Memory card error	Hardware fault of the loaded memory card	Change the memory card.

7.6 Entering GOT Usage Environment Settings (Setup)

1 Display screen

Example of screen



2 Functions

- The length of the buzzer can be selected. (When shipped from the factory, this is set to "Short".)
- The timing of the screen saver function can be set.
 - Screen saver function ---• In order to keep the display unit from burning out, this function turns off the display if it is not touched within a specified period of time. (The backlight does not go off.)
 - If the display has been turned off, it can be turned on again simply by touching it.
 - If this timing is set to "0", the screen is always displayed.
- The backlight can be switched off together with the screen saver function. (Factory-set to ON)
- The display mode (normal display (NO)/reverse display (YES)) can be selected (Factory-set to normal display)
- The message language can be selected.

3 Operations

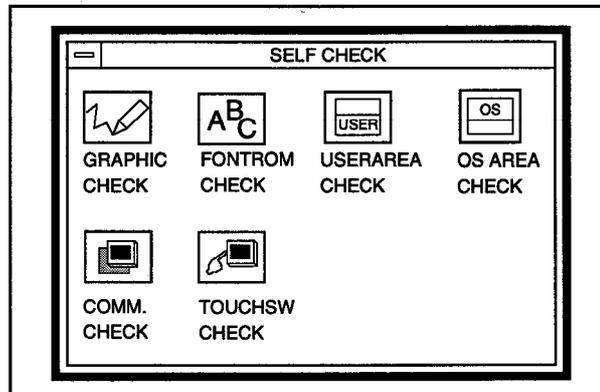
(a) Basic operations

- Items are selected by touching the and keys.
- Settings are changed by pressing the and keys.
- The setting for the screen saver timing can be changed by touching the and keys to highlight the digits, and then the and keys to set the numeric value. (If another item is selected right after this setting is entered, touching the key returns the highlighted display to the "Screen Saver Time" parameter, where the and keys can be used for selection.)
- After entering a setting, touch the key.
 - When the key is pressed, the GOT is reset automatically, and the monitor screen is displayed.

7.7 Self-Test of the GOT Main Unit Hardware (Self-Test)

1

Display screen



2

Functions

This tests the hardware units of the GOT listed below.

- Drawing check --Checks visually for sections of the display unit where colors or display elements are missing.
- Font check --Checks visually for distortion in the character font.
- Memory card check-- Checks the memory card hardware. (for future planning)
- Internal memory OS area check-- Checks the OS area of the internal memory.
- CPU communications check-- Checks the status of communications between the GOT and the PC CPU.
- Touch keys check-- Checks the touch keys.

These are checked by the GOT

2

Operations

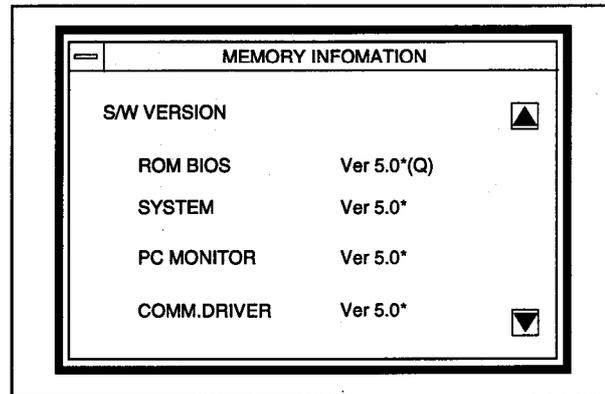
(a) Basic operations

- Touch the display section of the item to be run.
- To operate the various items, follow the messages displayed on the screen.
- When an item has been completed without errors, a message is displayed, indicating that no problems occurred.
- If a problem is detected, an error message is displayed, stating the content of the error.
- The following three types of screens are drawn during the drawing check.
 - 1) The entire screen is displayed in one color. With STN models, the color changes in sequential order as follows: blue -> red -> purple -> green -> blue/green -> yellow -> white. With L models, only white is displayed.
 - 2) Basic graphics such as circles and squares are displayed.
 - 3) Ovals and checked patterns are displayed either alternately, or in asuperimposed display.

7.8 Displaying Various Types of GOT System Information (System Information)

1 Display screen

Example of screen



2 Functions

This displays the various types of memory information for the GOT shown below.

- OS version
- Format for communications with the PC CPU
- Available space in internal memory
- Whether or not memory card is installed, and amount of space available on memory card (for future planning)
- Presence/absence of optional unit

3 Operations

(a) Basic operations

The screen can be scrolled by touching the  and  keys.

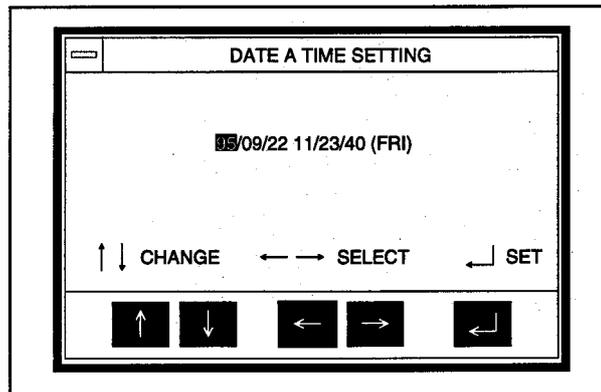
(b) Returning to the utility menu screen

- Touching the  returns to the utility menu screen.

7.9 Specifying the PC CPU Clock Data (Clock Setting)

1 Display screen

Example of screen



* The date and time displayed in the setting window are those shown when the clock setting screen is displayed. The time most recently set is always shown at the upper right of the screen. After you have finished entering the settings, check this time at the upper right of the display.

2 Functions

- On the clock controlled by the PC CPU, the date, time, and day can be set.

3 Operations

(a) Basic operations

- Items are selected by touching the  and  keys.
- Numeric values are changed by touching the  and  keys.
- Touching the  key sets the clock data in the PC CPU.

(b) Returning to the utility menu screen

- Touching the  returns to the monitor screen.

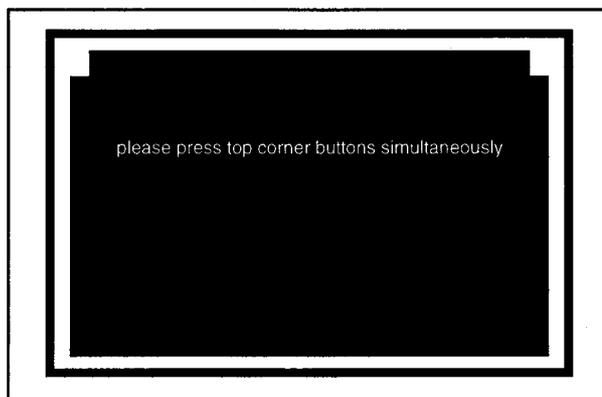
Point

- The clock setting should be entered when the system is booted.
- When using a sequence program or similar program on the PC CPU side to read and write clock data, settings for the clock data cannot be entered properly using this function.
- If the PC CPU connected to the GOT does not have a clock function, this function cannot be selected on the Utility menu.

7.10 Displaying the Display Section Cleaning Screen (Screen Cleaning)

1 Display screen

Example of screen



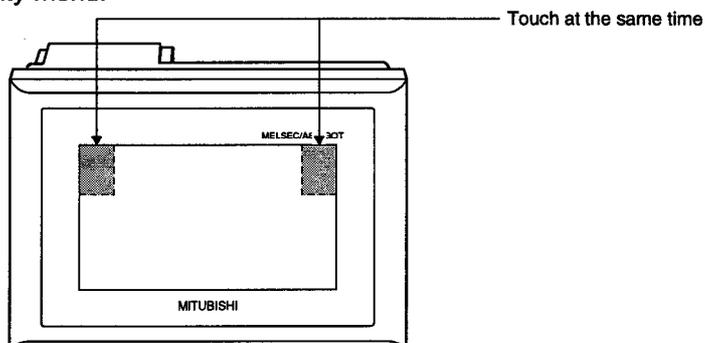
2 Functions

- When cleaning the display unit, displaying a completely black screen makes the surface easier to see.

3 Operations

(a) Basic operations

- Touching the upper right and left corners of the screen simultaneously returns to the Utility menu.



7.11 Confirming the Data Information Stored with the Alarm History Function (File)

The memory card used for the alarm history function cannot be used for the screen copy function.

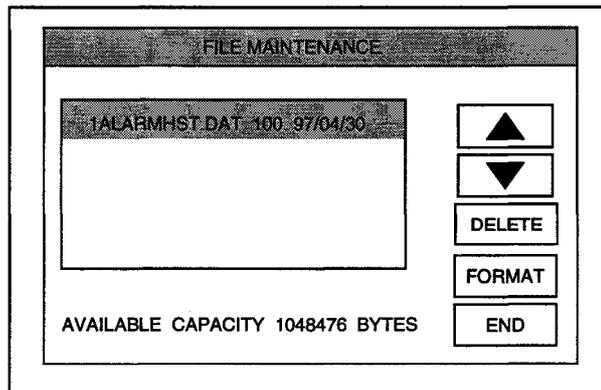
Note that the screen data will be deleted if the data of the alarm history function is stored onto the memory card which contains the screen data of the screen copy function.

The memory card used for the alarm history function should be different from the one used for the screen copy function.

If another memory card (when two or more memory cards are used for the alarm history function) is loaded while this screen is being displayed, the data information of that memory card will not be displayed.

In this case, call this screen from the utility screen again.

1 Display screen



2 Functions

- You can confirm the file name, capacity and date of the data stored with the alarm history function.
(The file name of the data stored with the alarm history function is fixed to above ALARMHST.DAT.)
- You can format the memory card.
- You can delete the data stored with the alarm history function.

3 Operation

- Deleting the data stored with the alarm history function
Touch or to select the data to be deleted.
After making selection, touch .
- Formatting the memory card Touch .
- Return to the utility screen
Touch to return to the utility screen.

8. Off-line Functions

All off-line functions are processed from the graphics software in relation to the GOT.

Point

There are no operations on the GOT side.

For detailed information on operation with the graphics software, please refer to the A8GOTP Operating Manual (Data Transmission/Debugging/Document Creation Manual).

8.1 A Table of Off-line Functions

Item	Contents	Remarks
Install	Installs the OS from the computer to the internal memory of the GOT.	
Download	Downloads project data and special unit monitor data from the computer to the internal memory of the GOT.	
Upload	Uploads project data from the internal memory of the GOT to the computer.	
Memory card format	Formats the memory card installed in the GOT.	
Memory information	Sends the following information to the computer: the version of the OS currently installed in the GOT, the space available in the internal memory, and the space available on the memory card.	This can also be checked using "Memory Information" under the GOT utility functions (see Section 7.8).

9. Installation

9.1 Precautions Regarding Handling

This section explains precautions which should be observed when handling the GOT.



DANGER

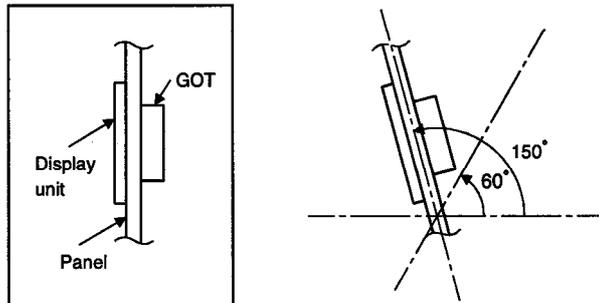
- Before beginning any installation or wiring work, make sure all phases of the power supply have been obstructed from the outside. Failing to completely shut out the power supply phases could cause electrical shock and/or damage to the product.
- Following installation or wiring work, when turning on the power supply and operating the equipment, make sure the terminal cover provided as an accessory has been attached to the product. Failing to attach the cover could result in electrical shock.



CAUTION

- Be careful never to let foreign matter such as filings or wiring scraps get inside the unit. These can cause fire, breakdowns, and malfunctioning.
- Communications cables should not be bundled with main circuits and power lines, or installed in the vicinity of these.
- The communications cable should be connected securely to the connector on the communications unit, and checked after being installed, to make sure it is not loose. Defective contact could cause malfunctioning.
- The FG and LG terminals of the GOT main unit should always be grounded using the Class 3 ground designed especially for the Graphic Operation Terminal, or a higher class of ground. Failing to ground these terminals sufficiently could cause electrical shock and/or malfunctioning.
- Before wiring the GOT, check the rated voltage and terminal layout of the wiring, and make sure wiring is done correctly. Connecting a power supply that differs from the rated voltage, or wiring it incorrectly, could cause fire and/or breakdowns.
- Tighten terminal of the GOT main unit screws to the rated torque. Failing to tighten terminal screws adequately could cause short-circuits, fire, and/or malfunctioning.

- The unit is made of resinous materials, and should be protected from strong shock or impact.
- Do not separate the PCB of the unit from the case, as this can result in a breakdown.
- When attaching the main unit to the control panel, position the display unit as shown below.
If the temperature inside the panel is 55°C, the display unit should be attached at an angle within the range of 60 ~105°.



- Using the display unit at an angle outside the range noted above may cause the GOT to wear out faster than it would otherwise. Make sure the temperature inside the panel does not exceed 40°C.

9.2 Installation Environment

CAUTION

When installing the equipment, make sure the location satisfies the general specifications, and avoid locations like those listed below. Using the equipment in an environment outside the range of the general specifications could result in electrical shock, fire, malfunctioning, and damage to or deterioration of the product.

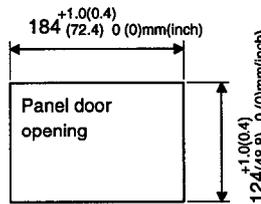
- Locations where the temperature changes drastically and condensation occurs
- Locations where the equipment is exposed to direct sunlight
- Locations where strong electrical or magnetic fields are generated
- Locations where the main unit is exposed to direct vibration or impact

9.3 Attachment Procedures

Use the fittings that come with the main unit to assemble it.

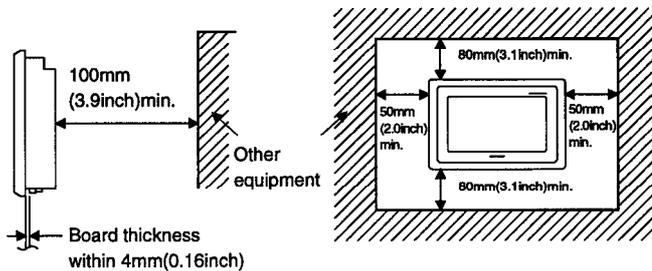
1 Attachment panel and processing dimensions

If units such as the control panel door and an attachment base made by the user are to be attached, the door and attachment base need to be processed as shown in the illustration below.



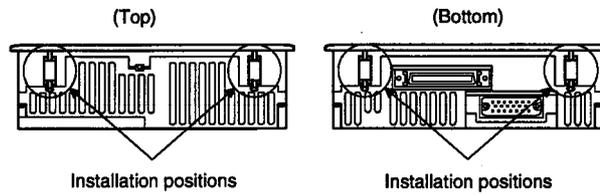
2 Attachment position

When attaching the GOT, it should be separated from other equipment by the clearances indicated below.

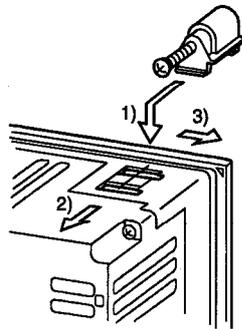


3**Attachment procedure**

- (a) Insert the front of the main unit first.
(b) The unit is attached at four places on the top and bottom of the GOT, as shown below.



- (c) Attach the attachment hooks as shown below. The tightening torque should be 62 ~ 83.5N-cm(15.47~17.68lb).



- 1) Fit the attachment hook onto the GOT main unit.
- 2) Slide the attachment hook in the direction indicated by 2).
- 3) Slide the attachment hook in the direction of the notch provided for the hook.
- 4) Secure the attachment hook to the panel with the screw.

10. Maintenance and Inspection

In order to make sure your sequencer is kept operating in optimum condition, certain items should be inspected daily, and others on a regular basis. These items are described below.

10.1 Daily Inspection

The items noted in Table 10.1 should be inspected daily.

Table 10.1 Daily Inspection

Item	Inspection Method	Item to Inspect	Judgment Criteria	Handling
1	Unit attachment conditions	Check for loose attachment screws and covers that are not tightly attached.	Make sure they are firmly attached.	Tighten screws securely.
2	Connections	Loose terminal screws	There should be no loose screws.	Tighten terminal screws securely.
		Proximity to crimping terminals	There should be appropriate spacing.	Space appropriately
		Connector sections of cables	There should be no loose connectors.	Tighten connector screws securely.

10.2 Periodic Inspection

The items noted below should be inspected once or twice every six months. If the equipment is moved or renovated, or if wiring is changed, these items should be inspected at that time.

Table 10.2 Periodic Inspection

Item	Item Method	Item to Inspect	Judgment Criteria	Handling	
1	Ambient environment	Measure with thermometer/ barometer. Measure corrosive gases.	Display unit	0~40°C	If used inside the panel, in-panel temperature should be same as ambient temperature
			Other than display unit	0~55°C	
			10~90% RH		
			No corrosive gases		
2	Power supply voltage check	Measure voltage between DC24V terminals.	DC15.6 to 31.2V	Change power supply	
3	Attachment conditions	Looseness, rattling	Try moving the unit.	Should be attached firmly and securely	Tighten screws
		Dirt or foreign matter	Check visually.	Should not be any adhering to equipment	Remove/clean
4	Connections	Loose terminal screws	Tighten with a screwdriver.	No loose screws	Tighten
		Proximity to crimping terminals	Check visually.	Appropriate spacing	Correct spacing
		Loose connectors	Check visually.	No loose connectors	Tighten connector screws

10.3 Precautions During Maintenance and Inspection

The following precautions should be observed when carrying out maintenance and inspections.

**DANGER**

- Never touch terminals while conductivity is being supplied. This could cause electrical shock and/or malfunctioning.
- When cleaning the terminals and tightening the screws, make sure the power supply has been turned off. Cleaning the terminals or tightening screws while conductivity is being supplied could cause electrical shock.

**CAUTION**

- Never disassemble or renovate the unit. This could cause fire, breakdowns, and/or malfunctioning.
- Always turn off the power supply before attaching or detaching component units. Doing this while conductivity is being supplied could cause a unit to break down, or could cause malfunctioning.
- When discarding this product, it should be handled as an industrial discard.

10.4 Replacing the LCD Backlight

The GOT has a backlight built into the LCD of the display unit. As time goes by, this backlight gradually becomes dimmer. When the display unit screen becomes hard to see, the backlight should be replaced.



DANGER

- Before replacing the backlight, turn the power supply off (if using a bus connection, turn off the power to the CPU as well), and detach the GOT from its base. Replacing the backlight with the GOT attached to the base could cause it to fall over, resulting in injury. Also, doing this with conductivity being supplied could result in electrical shock.



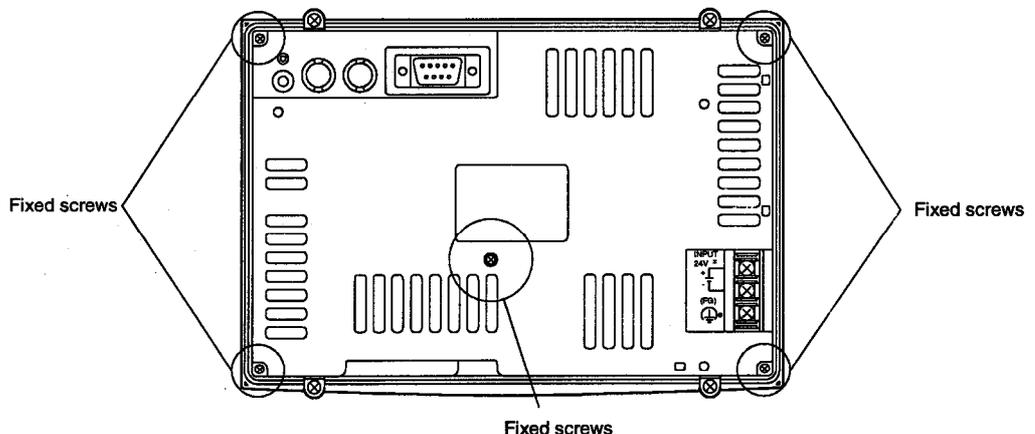
CAUTION

- When replacing the backlight, be careful not to drop the screws that secure the backlight in place, or the screws that secure the GOT in place. The backlight should be replaced in an area where there is no other machinery or equipment. Dropping the screws that secure the backlight or the GOT could cause damage to the machinery or cause accidents.
- When replacing the backlight, be careful not to touch the GOT PCB or electrical components. This can cause breakdowns and malfunctions.
- Always make sure the screws that secure the backlight are tightened to the specified torque (14.7 ~24.5 N·cm). Failing to tighten the screws properly could cause damage to the backlight, or cause it to break down.
- When replacing the backlight, do not pull on the backlight cable connector. This could cause damage to the backlight, or cause it to break down.

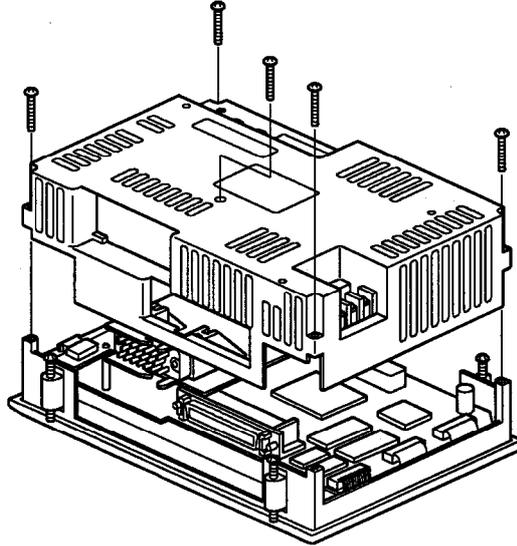
1

Removing the backlight

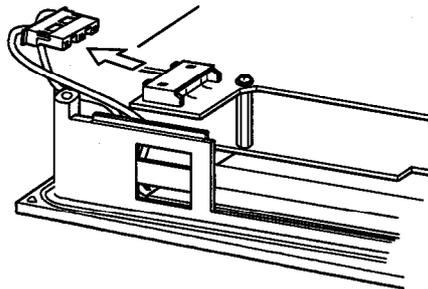
- 1) Loosen the GOT attachment hooks, and remove the GOT from the base.
- 2) Using a screwdriver, remove the four securing screws from the back corners of the GOT, and the one securing screw in the center. If a communications unit has been installed, remove it before taking out the securing screws.



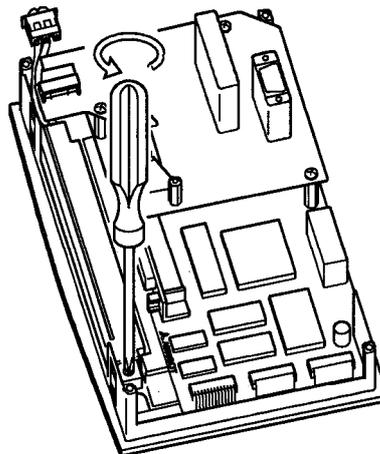
3) Remove the case from the back of the GOT.



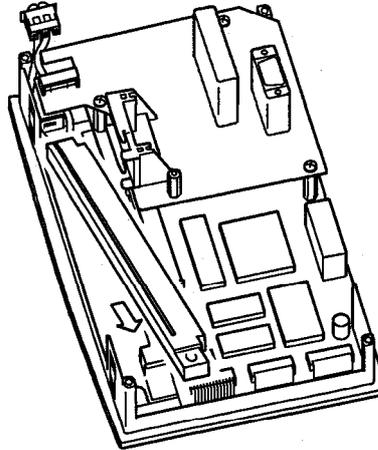
4) Disconnect the backlight cable connector from the display unit connectors.



5) Using a screwdriver, remove the screws securing the backlight.



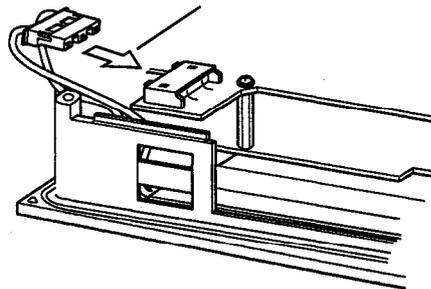
6) Remove the back light from the display unit.



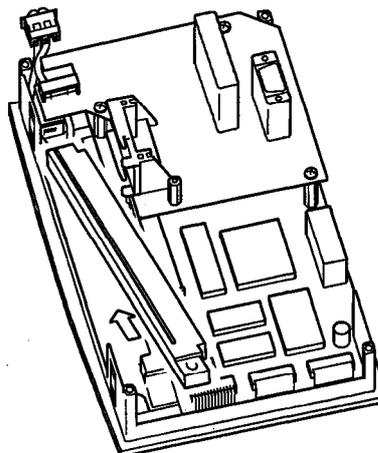
2

Attaching the backlight

1) Fit the backlight cable connector into the display unit connector.



2) Align the left side of the backlight with the backlight holder on the display unit, and fit the backlight in position.



3) Tighten the screw to secure the backlight.

4) Attach the case from the back of the GOT to the display unit, and tighten the securing screws. Make sure the screws are tightened to the appropriate torque (39 ~ 59 N·cm).

11. Error Codes and Error Messages

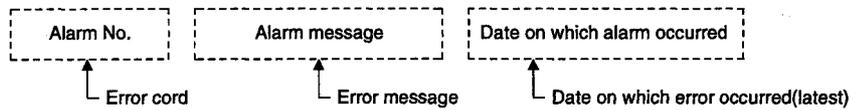
This section explains the error codes and error messages displayed in the alarm list display of the monitor function.

11.1 Interpreting the Display Contents

This section explains how to look at the error codes and error messages displayed on the monitor screen, and to decipher the correct response and the reference page.

First, let's look at error codes for the system which are displayed on the monitor screen from the alarm list display of the monitor function.

1 Display format on monitor screen - Displayed at position specified by user



2 Error codes and reference manuals

Location where error occurred	Error code	Reference
ACPU	0~199 (D9008 value)	User's manual for the ACPUs connected to the GOT
GOT	300~499	This section

11.2 Error Code and Error Message List

1 Error messages displayed before execution of monitoring

Error message	Error contents	Handling
Check communication circuit. (cable, driver, module)	Fault of the cable or the communication driver or communication unit installed	Check for unplugged cable or improperly installed communication unit or check the communication driver installed.
Check memory information.	Illegal combination of OS program versions installed	Check the versions of the OS programs installed.

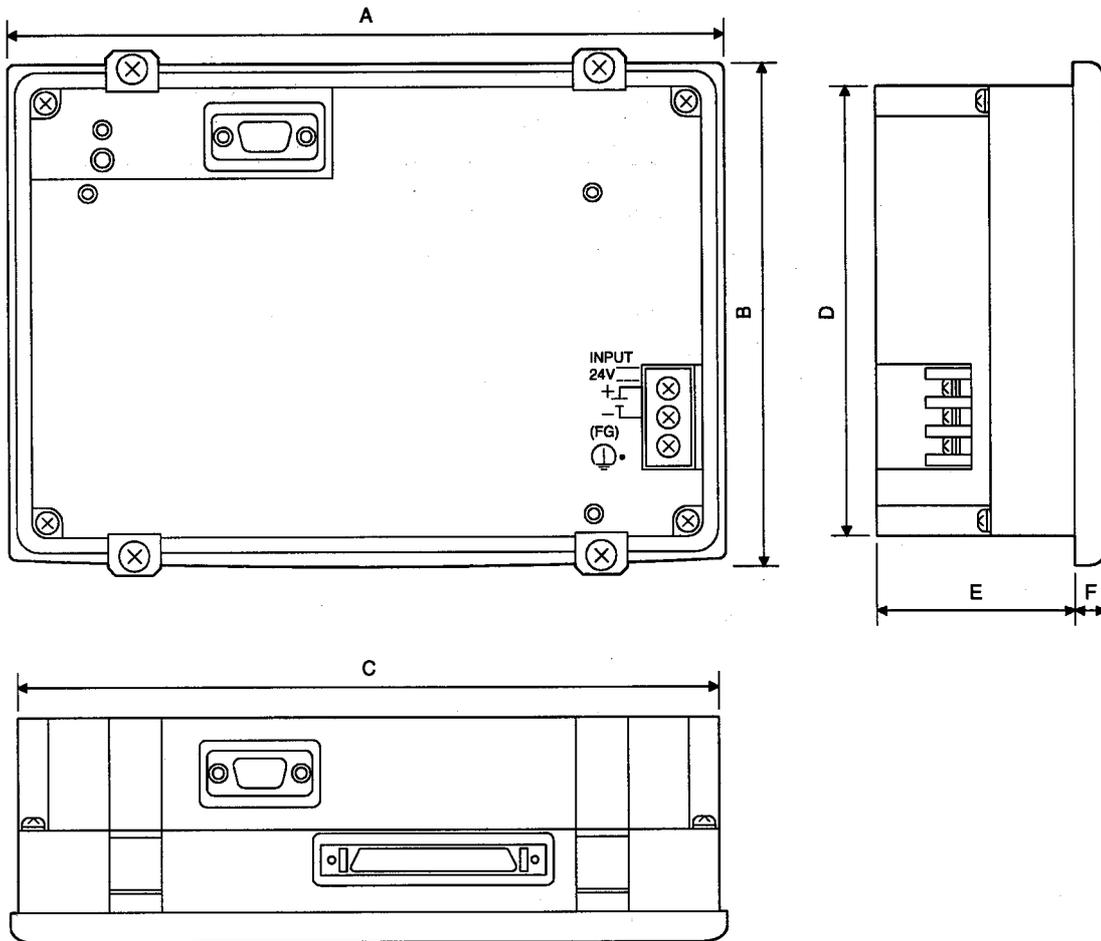
2 Error codes and messages displayed during execution of monitoring

Any of the following error codes and messages are displayed when the corresponding error is detected by the GOT.
 Use the system information function's error code area or alarm list (system alarm) function to check the error codes.
 For the system information and alarm list functions, refer to the SW2NIW-A8GOTP Operating Manual (Monitor Screen Creation Manual).

Error code	Error message	Error contents	Handling
303	Too many monitor points have been specified.	Sprites set for the screen to be displayed are too many to preserve the work area for the system.	Reduce the set number of sprites.
304	Too many trigger points have been specified.		
305	Number of specified printout points is excessive.		
306	No monitor data	Screen data is not yet downloaded to onboard memory.	Download the screen data to onboard memory.
310	Specified monitor data dose not exist or is out side range	(1) Specified base screen/window screen does not exist in the project data. (2) Specified base screen/window screen is outside the permissible range (1 to 1024).	(1) Specify the existing base screen/window screen. (2) Specify the existing base screen/window screen between 1 and 1024.
320	Specified parts do not exist or are outside range .	Part No. set on parts display does not exist.	Check the specified part No. on the parts display of the screen data.
321	Specified station number of monitor device is incorrect.	Station number of the specified station to be monitored does not exist or is outside the monitoring range.	Check the station number of the station to be monitored in the screen data.
322	The specified monitor date dose not exist, or is out of range.	The number of the device to be monitored is not within the allowable range for the target PC CPU	Set the device in the monitorable range by using the programmable controller CPU to be monitored and performing parameter setting.
323	Specified file register is outside range.		
330	Memory card capacity is insufficient.	Memory card running out of capacity.	Check the capacity.
331	Memory card is not mounted or M-CARD switch is OFF	Memory card is not loaded or memory card access switch is OFF.	Load the memory card or turn on the access switch.
332	Format error	Memory card is not formatted.	Format the memory card.
333	Write not possible because memory card is write protected.	Memory card is write-protected.	Make the memory card write-enabled.
334	Memory card is faulty.	Memory card faulty.	Change the memory card.
335	Memory card battery voltage is low.	Memory card battery voltage low.	Change the memory card battery.
340	Error generated by printer or power is disconnected.	Printer faulty or printer power off.	Check the printer or switch the printer on.
341	Printer is faulty.		
350	RS-232C communication error	Cable for connection of the GOT and personal computer is faulty.	Check for unplugged communication cable or improper cable.

Appendix

Appendix 1. Diagram of External Dimensions



· Dimensions

(Unit : mm(inch))

A	B	C	D	E	F
192(7.56)	135(5.32)	183(7.21)	123(4.85)	54(2.13)	8(0.32)

WARRANTY

Please confirm the following product warranty details before starting use.

1. Gratis Warranty Term and Gratis Warranty Range

If any faults or defects (hereinafter "Failure") found to be the responsibility of Mitsubishi occurs during use of the product within the gratis warranty term, the product shall be repaired at no cost via the dealer or Mitsubishi Service Company. Note that if repairs are required at a site overseas, on a detached island or remote place, expenses to dispatch an engineer shall be charged for.

[Gratis Warranty Term]

The gratis warranty term of the product shall be for one year after the date of purchase or delivery to a designated place.

Note that after manufacture and shipment from Mitsubishi, the maximum distribution period shall be six (6) months, and the longest gratis warranty term after manufacturing shall be eighteen (18) months. The gratis warranty term of repair parts shall not exceed the gratis warranty term before repairs.

[Gratis Warranty Range]

- (1) The range shall be limited to normal use within the usage state, usage methods and usage environment, etc., which follow the conditions and precautions, etc., given in the instruction manual, user's manual and caution labels on the product.
- (2) Even within the gratis warranty term, repairs shall be charged for in the following cases.
 1. Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.
 2. Failure caused by unapproved modifications, etc., to the product by the user.
 3. When the Mitsubishi product is assembled into a user's device, Failure that could have been avoided if functions or structures, judged as necessary in the legal safety measures the user's device is subject to or as necessary by industry standards, had been provided.
 4. Failure that could have been avoided if consumable parts (battery, backlight, fuse, etc.) designated in the instruction manual had been correctly serviced or replaced.
 5. Failure caused by external irresistible forces such as fires or abnormal voltages, and Failure caused by force majeure such as earthquakes, lightning, wind and water damage.
 6. Failure caused by reasons unpredictable by scientific technology standards at time of shipment from Mitsubishi.
 7. Any other failure found not to be the responsibility of Mitsubishi or the user.

2. Onerous repair term after discontinuation of production

- (1) Mitsubishi shall accept onerous product repairs for seven (7) years after production of the product is discontinued. Discontinuation of production shall be notified with Mitsubishi Technical Bulletins, etc.
- (2) Product supply (including repair parts) is not possible after production is discontinued.

3. Overseas service

Overseas, repairs shall be accepted by Mitsubishi's local overseas FA Center. Note that the repair conditions at each FA Center may differ.

4. Exclusion of chance loss and secondary loss from warranty liability

Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to damages caused by any cause found not to be the responsibility of Mitsubishi, chance losses, lost profits incurred to the user by Failures of Mitsubishi products, damages and secondary damages caused from special reasons regardless of Mitsubishi's expectations, compensation for accidents, and compensation for damages to products other than Mitsubishi products and other duties.

5. Changes in product specifications

The specifications given in the catalogs, manuals or technical documents are subject to change without prior notice.

6. Product application

- (1) In using the Mitsubishi MELSEC programmable logic controller, the usage conditions shall be that the application will not lead to a major accident even if any problem or fault should occur in the programmable logic controller device, and that backup and fail-safe functions are systematically provided outside of the device for any problem or fault.
- (2) The Mitsubishi general-purpose programmable logic controller has been designed and manufactured for applications in general industries, etc. Thus, applications in which the public could be affected such as in nuclear power plants and other power plants operated by respective power companies, and applications in which a special quality assurance system is required, such as for Railway companies or National Defense purposes shall be excluded from the programmable logic controller applications.

Note that even with these applications, if the user approves that the application is to be limited and a special quality is not required, application shall be possible.

When considering use in aircraft, medical applications, railways, incineration and fuel devices, manned transport devices, equipment for recreation and amusement, and safety devices, in which human life or assets could be greatly affected and for which a particularly high reliability is required in terms of safety and control system, please consult with Mitsubishi and discuss the required specifications.

A853GOT Graphic Operation Terminal

User's Manual

MODEL	A853GOT-U-E
MODEL CODE	13JL26
IB(NA)-66785-B(0202)MEE	

 **MITSUBISHI ELECTRIC CORPORATION**

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Specifications subject to change without notice.