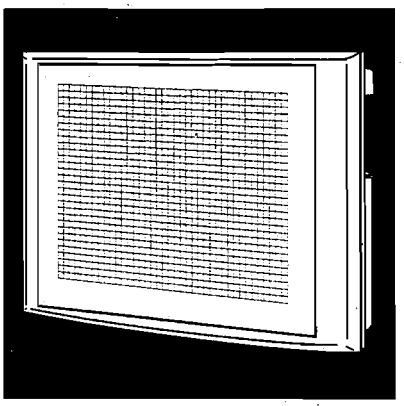
# A852GOT Graphic Operation Terminal

# User's Manual



GRAPHIC OPERATION TERMINAL

# 800

## Series

GOT MELSEC

Mitsubishi Graphic Operation Terminal

# ⊛ SAFETY PRECAUTIONS ⊛

(Read these precautions before using.)

When using Mitsubishi equipment, thoroughly read this manual and the associated manuals introduced in this manual. Also pay careful attention to safety and handle the module properly.

These precautions apply only to Mitsubishi equipment. Refer to the CPU module use's manual for a description of the PC system safety precautions.

These ⊛ SAFETY PRECAUTIONS ⊛ classify the safety precautions into two categories: "DANGER" and "CAUTION".

| | |
|---|---|
| ⚠ DANGER | Procedures which may lead to a dangerous condition and cause death or serious injury if not carried out properly. |
| ⚠ CAUTION | Procedures which may lead to a dangerous condition and cause superficial to medium injury, or physical damage only, if not carried out properly. |

Depending on circumstances, procedures indicated by ⚠ **CAUTION** may also be linked to serious results. In any case, it is important to follow the directions for usage.

Store this manual in a safe place so that you can take it out and read it whenever necessary. Always forward it to the end user.

## [DESIGN PRECAUTIONS]

**⚠ DANGER**

- ⊛ A malfunction in the GOT main module may keep the output ON or OFF. Add a circuit to externally monitor the output which could lead to a serious accident.

  An accident may occur by false output or malfunction.

- ⊛ If a communication error (including by a disconnected cable) occurs while the monitor is running on the GOT, the communication between the GOT and the master station is interrupted, and the GOT stops running.

  For a system configuration using a GOT, design the system such that the crucial switching to the system is performed by the equipment other than the GOT with the assumption that a communication error could occur in the GOT.

  An accident may occur by false output or malfunction.

## [DESIGN PRECAUTIONS]

**DANGER**

- Read Chapter 5 "Data Link Processing Time" in the Master Module User's Manual carefully regarding the status of each station when the PC CPU operation is stopped or the data link becomes a communication error.

  Also, configure an interlocking circuit in the sequence program using the communication status information (SB and SW) so that the overall system is always maintained.

  An accident may occur by false output or malfunction.

  · Received data from master or local data link faulty station.

  ① Remote input (RX) and remote output

  This varies depending on the setting of the module's condition setting switch and input data (SW4) of the data link faulty station.

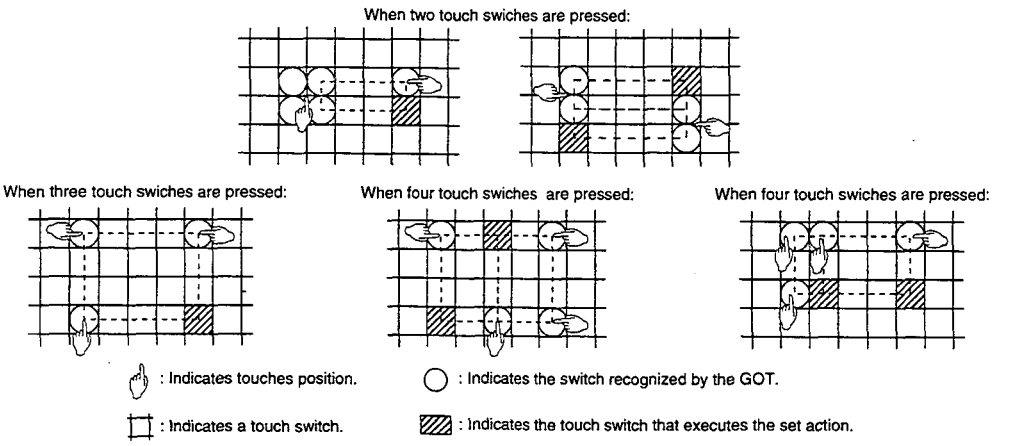
  OFF : Clear (all off)

  ON : Keeps the data right before the error occurrence.

  ② Remote registers (RWw and RWr)

  The data right before the error is kept regardless of the SW4 setting.

- Regardless the touch-switch function is set or not, when multiple touch switches (two places or more) are pressed simultaneously as shown in the following diagram, the GOT is designed to execute a pre-defined operation of the touch switch if a touch switch function is defined at the fourth vertex of the rectangle.




When multiple touch switches are pressed simultaneously under the conditions described above, make sure that the system works safely by carefully considering the location of each touch switch function and adding an interlock circuit to the write device using a sequence program, etc.

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

## [DESIGN PRECAUTIONS]

**⚠ CAUTION**

- Do not bunch the communication cables with the main circuit or power wires, or install them close to each other. They should be installed 100 mm (3.9 inch) or more from each other, Failure to do so may result in noise that would cause malfunctioning.

## [INSTALLATION PRECAUTIONS]

**⚠ DANGER**

- Make sure to switch all phases of the external GOT's power supply off before installing or removing the GOT main module to/from the base.

  If you do not switch off the external power supply, it will cause failure or malfunction of the module.
- Make sure to switch all phases of the external GOT's power supply off before mounting or removing the optional module to/from the GOT main module.

  If you do not switch off the external power supply, it will cause failure or malfunction of the module.
- Make sure to switch all phases of the external GOT and PC CPU side power supply off before connecting the communication cable to the GOT main module.

  If you do not switch off the external power supply, it will cause failure or malfunction of the module.

## [INSTALLATION PRECAUTIONS]

**⚠ CAUTION**

- Use the GOT in the environment given in the general specifications of the GOT User's Manual. Using the GOT outside the range of the general specifications may result in electric shock, fire or malfunctioning, or may damage or degrade the module.
- Tighten the installation screws for installing the GOT main module to the base within the range of specified torque.

  If the installation screws are loose, it may result in fallout, short circuits, or malfunctions.

  Tightening the installation screwes too far may cause damages to the screws and/or the module, resulting in fallout, short circuits, or malfunctions.

## [WIRING PRECAUTIONS]

**⚠ DANGER**

- Make sure to switch all phases of the external GOT's power supply off before beging wiring work. If you do not switch off the external power supply, it will cause electric shock, malfunction, or damage to the module.

## [WIRING PRECAUTIONS]

**⚠ CAUTION**

- The FG and LG terminals should always be grounded using the class-3 or higher grounding designed specially for the GOT. Failure to ground these terminals may cause electric shock or malfunctions.
- When wiring the GOT, check the rated voltage and terminal layout of the wiring, and make sure the wiring is done correctly. Connecting a power supply that differs from the rated voltage or wiring it incorrectly may cause fire or failure.
- Tighten the GOT's terminal screws within the range of specified torque. If the terminal screws are loose, it may result in fallout, short circuits, or malfunctions. Tightening the terminal screws too far may cause damages to the screws and/or the module, resulting in fallout, short circuits, or malfunctions.
- 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 and the optional module.

  These can cause fire, failure or malfunctions.

## [PRECAUTIONS WHEN PERFORMING THE TEST OPERATION]

**⚠ DANGER**

- Read the manual carefully and fully understand the operation before the test operation (ON/OFF of bit devices, modifying current value of a word device, modifying timer/counter setting, modifying the current value, or modifying the current value of a buffer memory) of the user created monitor screen.

  In addition, never modify data in a test operation to a device which performs a crucial operation to the system.

  It may cause an accident by false output or malfunction.

## [STARTING AND MAINTENANCE PRECAUTIONS]

**⚠ DANGER**

- Do not touch the terminals while the power is on. Doing so may cause electric shock or malfunction.
- Do not change the switch setting while the power is on. It may cause failure or malfunction.
- Make sure to switch all phases of the external GOT's power supply off before cleaning or retightening terminal screws. If you do not switch off the external power supply, it will cause electric shock. If the terminal screws are loose, it may result in fallout, short circuits, or malfunctions. Tightening the terminal screws too far may cause damages to the screws and/or the module, resulting in fallout, short circuits, or malfunctions.

## [STARTING AND MAINTENANCE PRECAUTIONS]

**⚠ CAUTION**

- Never disassemble or modify the GOT main module and optional module. This may cause failure, malfunctions, injury, and/or fire.
- Don't touch the conductive parts and electronic parts of the GOT main module and optional module. This may cause the module to malfunction or failure.
- Bacause they are made of resin, don't drop or given a strong shock to the GOT main module and optional module.

  This may cause failure.

## [DISPOSAL PRECAUTIONS]

**⚠ CAUTION**

- When disposing of this product, treat it as industrial waste.

## [PRECAUTIONS WHEN REPLACING THE BACKLIGHT]

**⚠ DANGER**

- Make sure to switch all phases of the external GOT's power supply off before replacing the backlight, and first remove the GOT main module from the panel. If you do not switch off the external power supply, it will cause electric shock. If left in the panel, the GOT could fall and cause an injury.

**⚠ 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.

## [PRECAUTIONS WHEN DISPOSING THE BACKLIGHT]

| ⚠ CAUTION |
| --- |
| ● When disposing the backlight, treat it as industrial waste. |

## Revisions

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

| Print Date | *Manual Number | Revision |
|---|---|---|
| May. 1997 | IB (NA)-66767-A | First printing |

# 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 This 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) |
|---|---|
| AJ61BT11/A1SJ61BT11 CC-Link System Master/Local Module User's Manual | IB-66721 (13J872) |
| AJ61QBT11/A1SJ61QBT11 CC-Link System Master/Local Module User's Manual | IB-66722 (13J872) |
| SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual (Introductory Manual)<br>This 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 A870GOT, and what the various screen displays mean.<br>(Included in the same package.) | IB-66679 (13J900) |
| SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual (Startup Manual)<br>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.<br>(Included in the same package.) | IB-66680 (13J901) |
| SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual (Monitor Screen Creation Manual)<br>This describes procedures for creating monitor screens, monitor functions that can be used with the A870GOT, 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 A870GOT.<br>(Included in the same package.) | IB-66681 (13J902) |
| SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual (Data Transfer/Debugging/Document Creation Manual)<br>This describes the following items.<br>(1) Procedures for downloading project data to the GOT and uploading data from the GOT<br>(2) Procedures for installing the operating system in the GOT<br>(3) Procedures for using the A8GOTP as a virtual PC and for debugging the GOT<br>(4) Procedures for outputting created monitor data as a completed document<br>(Included in the same package.) | IB-66682 (13J903) |
| A870/A850/A851GOT Graphic Operation Terminal Operating Manual (Expanded Functions Manual)<br>This describes the operation procedures for using system monitor functions, monitor functions for special function modules, and the dedicated monitor screens used with the circuit monitor functions.<br>(Included in the same package.) | IB-66683 (13J904) |

| Manual Name | Manual No. (Model Code) |
|---|---|
| A8GT-50PRF Printer Interface Module User's Manual (Hardware Manual)<br>This describes the specification of the A8GT-50PRF, the name of parts, installation method, and external dimension diagrem.<br>(incouded in the A8GT-50PRF.) | IB66730<br>(13J880) |

# 1. OVERVIEW

This manual describes the system configuration, specification, installation, etc. of the A852GOT graphic operation terminal (abbreviated as A852GOT hereafter).

A852GOT is a display device specifically designed for Control & Communication (abbreviated as CC-Link hereafter) connection to perform monitoring.

A852GOT has the following models.

<table>
<tr><th>Item</th><th>A852GOT-LWD<br>A852GOT-LBD</th><th>A852GOT-LWD-M3<br>A852GOT-LBD-M3</th><th>A852GOT-SWD<br>A852GOT-SBD</th><th>A852GOT-SWD-M3<br>A852GOT-SBD-M3</th></tr>
<tr><td>Coloe of front area</td><td colspan="2">LWD/SWD: Ivory white</td><td colspan="2">LBD/SBD: Danrk gray</td></tr>
<tr><td>Display area</td><td colspan="2">Monochrome LCD (2 colors)</td><td colspan="2">STN color LCD (8 colors)</td></tr>
<tr><td>Resolution</td><td colspan="4">Hrizontal: 320 dots x Vertical: 240 dots</td></tr>
<tr><td>Display size</td><td colspan="4">Horizontal: 115 mm (4.5 inch) x Vertical: 86 mm (3.4 inch)</td></tr>
<tr><td>No. of toucn switch keys</td><td colspan="4">A maximum of 256 points can be set out of 300 points.</td></tr>
<tr><td>Internal memory capacity</td><td colspan="4">The following capacity is definite regardless of whether the optional driver OS is installed.<br><table><tr><td>A852GOT</td><td>A852GOT-M3</td></tr><tr><td>768 KB</td><td>2816 KB</td></tr></table></td></tr>
<tr><td>Connection type</td><td colspan="4">Dedicated to the CC-Link connection (communication module not necessary)</td></tr>
<tr><td>Extension function</td><td colspan="4">System monitor cannot be used.</td></tr>
<tr><td>Corresponding software package</td><td colspan="4">SW2NIW-GOT 800 PSET<br>(SW2NIW-A8GOTP version J or later/ SW2NIW A8SYSP version J or later)</td></tr>
</table>

## 1.1 Supplied Parts

Make sure that the following devices are included in the shipment box.

| | |
|---|---|
| A852GOT main module | 1 |
| This manual | 1 copy |

## 1.2 About A852GOT Compatible Software Packages

When creating the A852GOT screen or installing the OS, always use the following software versions or later.

| | |
|---|---|
| Graphic software | : SW2NIW-A8GOTP software version J or later |
| OS program | : SW2NIW-A8SYSP software version J or later |
| Special module monitor data | : Cannot be used. |

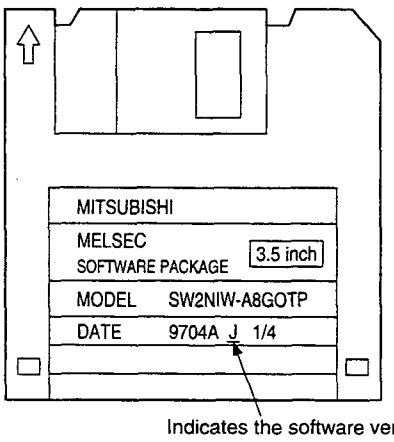
**Point**

When installing the OS, install the A85*GOT's basic OS.
Install the CC-Link connection driver for the communication driver.
The A852GOT cannot use the extension functions (system monitor, circuit monitor, and special module monitor).
When creating the screen data, set the GOT type to A85*.

## 1.3 Software Package Version Checking Method

### 1 Checking the version of SW2NIW-A8GOTP and SW2NIW-A8SYSP

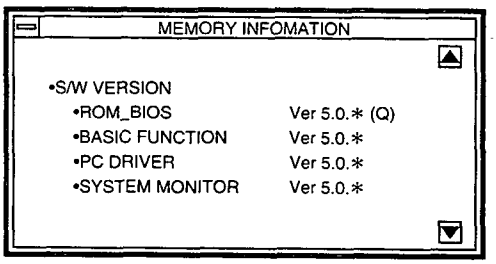
The version checking method for the software package is described below.
The version can be checked by looking at the label on the product floppy disk.




### 2 Checking the version after installing the OS to the A852GOT

The version checking method of the SW2NIW-A8SYSP version J or later after the OS is installed to the GOT is shown below.

When the SW2NIW-A8SYSP version J or later is installed to GOT, the version is displayed by the GOT memory information function as shown below:




If the SW2NIW-A8SYSP OS version E or later is installed, the version is displayed as 5.0*.

ROM_BIOS is displayed as 5.0* (Q).
(Q is for version J.")

## 1.4 Device Specification Method When Creating the Monitor Screen

The A852GOT monitor can access only remote devices with the A852GOT allocated to the master station, and GOT internal devices. (Refer to Section 4.6.)

Other remote devices allocated to the master station cannot be monitored.

When creating the monitor screen, specify with the following device names.

### 1 NW number and station number setting

Always set "0" for NW number and "local" for the station number.

### 2 Device name and device number setting

Set the device name as shown below.

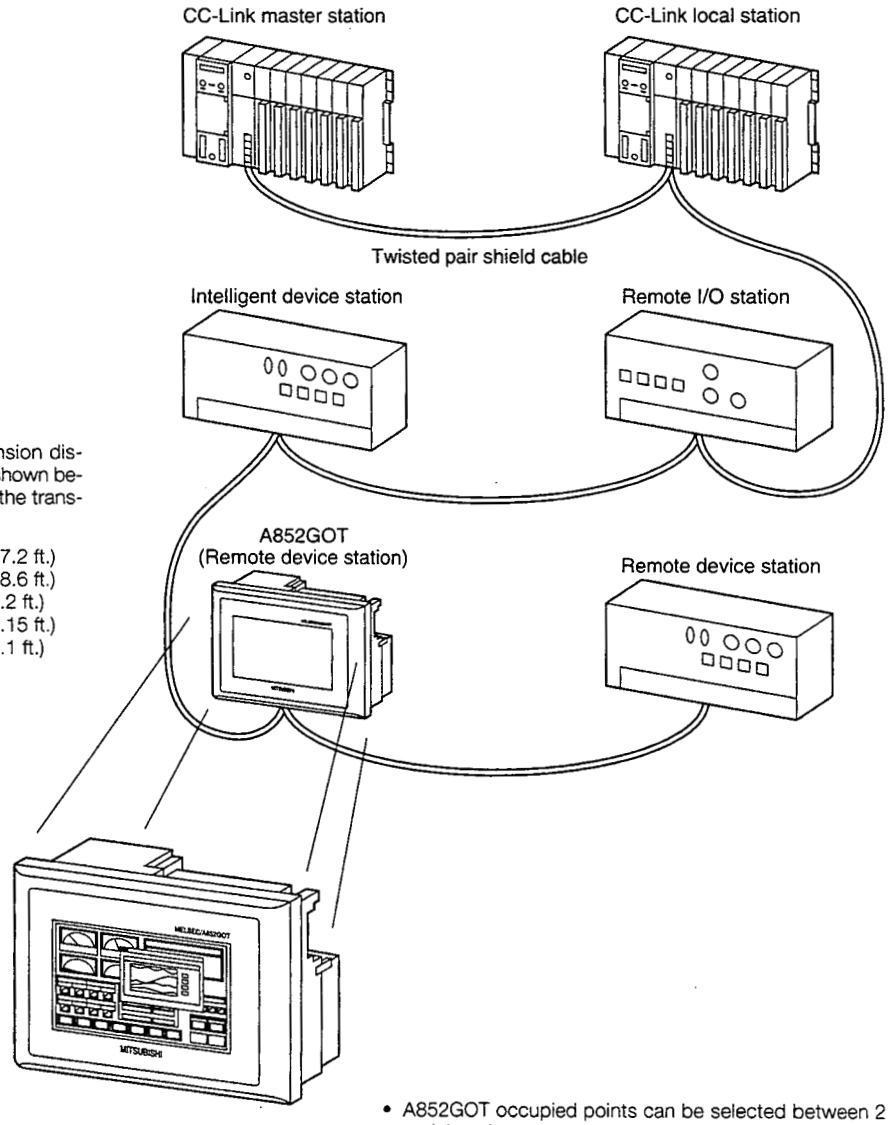
Set the address allocated by the station number setting for the device number of the remote register.

| Monitored device | | | Device name set in the graphic software | Setting device range |
|---|---|---|---|---|
| Bit | Remote input | RX | X | X0 to X7FF |
| | Remote output | RY | Y | X0 to Y7FF |
| | Bit specification in the remote register (write area) | RWw | Ww | Ww0 to WwFF |
| | Bit specification in the remote register (read area) | RWr | Wr | Wr0 to WrFF |
| | GOT internal bit device | GB | GB | GB0 to GB1023 |
| | Bit specification in the GOT internal word device | GD | GD | GB0 to GB1023 |
| Word | Remote register (write area) | RWw | Ww | Ww0 to WwFF |
| | Remote register (read area) | RWr | Wr | Wr0 to WrFF |
| | GOT internal word device | GD | GD | GB0 to GB1023 |

## 1.5 Features

**1 The connection can be made to the CC-Link system as a CC-Link system remote device station. (Selectable between occupied points 2 stations and 4 stations.)**

Since the A852GOT has the built-in communication module for CC-Link connection, the communication module is not necessary.




- The maximum total extension distance of the system is as shown below (varies depending on the transmission speed setting):

  156 kbps : 1200 m (3937.2 ft.)
  625 kbps : 600 m (1968.6 ft.)
  2.5 Mbps : 200 m (656.2 ft.)
  5 Mbps : 150 m (492.15 ft.)
  10 Mbps : 100 m (328.1 ft.)

- A852GOT occupied points can be selected between 2 stations and 4 stations.

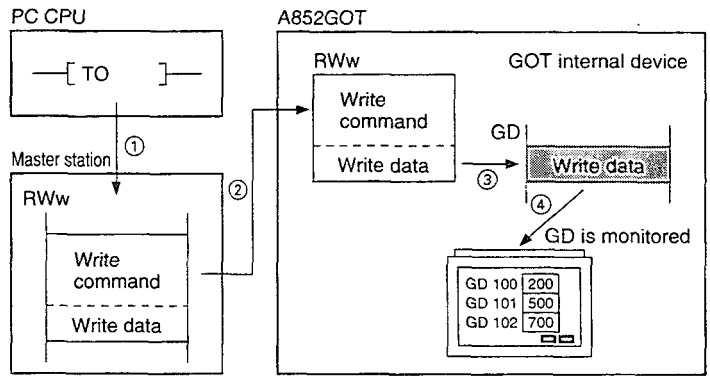
| | 2 stations | 4 stations |
|---|---|---|
| Remote input/output | 48 points | 112 points |
| Remote register | 8 points | 16 points |

The monitor points of the remote register can be extended by monitoring by means of the GOT internal device.

2 **Read/write can be performed between remote register ↔ GOT internal device using the dedicated commands. By expanding the remote register data to each GOT internal device, several information such as operation status, production amount, operation command, etc. can be monitored in one screen.**

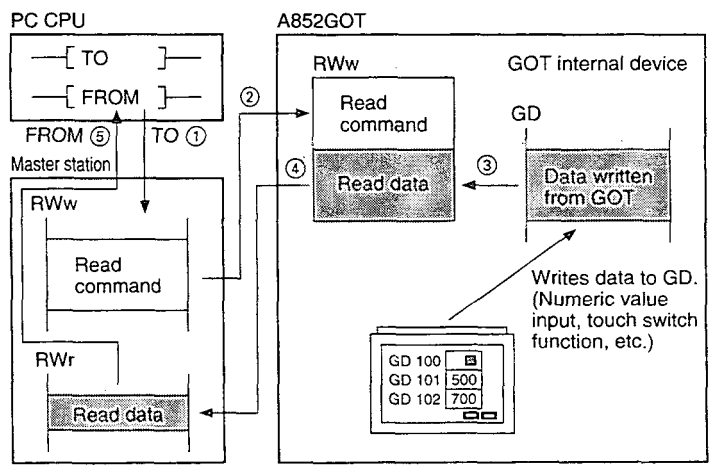
(A sequence program for the command execution is required.)

**When writing data to the GOT internal device by command execution**




① Using the sequence program, store the write command data and write data to the allocated A852GOT's remote register (RWw).
② The command data and write data are stored in the A852GOT's remote register by link scan.
③ Write the write data to the specified GOT internal device.
④ Monitor the GOT using the GOT internal device.

**When reading data from the GOT internal device by command execution**




① Using the sequence program, store the read command data to the allocated A852GOT remote register (RWw).
② The command data is stored in the A852GOT's remote register by link scan.
③ By the read command, read the data in the specified GOT internal device to the remote register (RWr).
④ Read the data to the A852GOT's remote register (RWr) by link scan.
⑤ Using the sequence program, read the data in the remote register (RWr) to the PC CPU.

### 3 Screen debugging without connecting PC CPU

The graphics software supports a screen debugging function, so screens can be debugged simply by connecting the GOT and computer, without connecting the PC CPU.

### 4 Worldwide access through multi-language capability

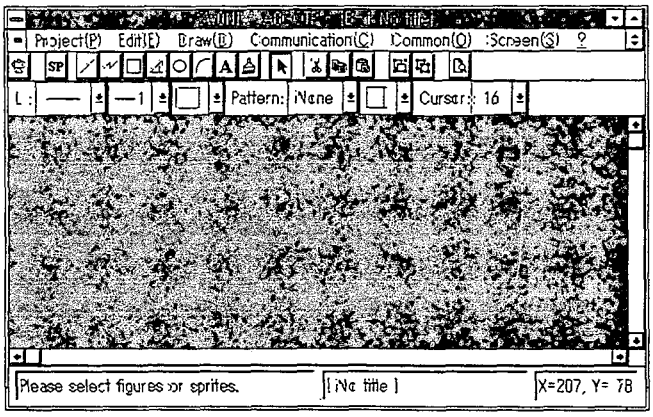
The Unicode*2 system is used to enable approximately 26,000 characters to be used, making it possible to accommodate languages from all over the world, including Japanese, Korea, Chinese (Mandarin), English, Italian, and French.

*2 Unicode = a standard international character code

### 5 Graphics software is easier to use than ever before

The graphics software runs on Windows 3.1, Windows 95*3, so it can be used in a variety of development environments. Both Japanese and English can be used on-screen.

Through Windows, operation is easier than ever before.



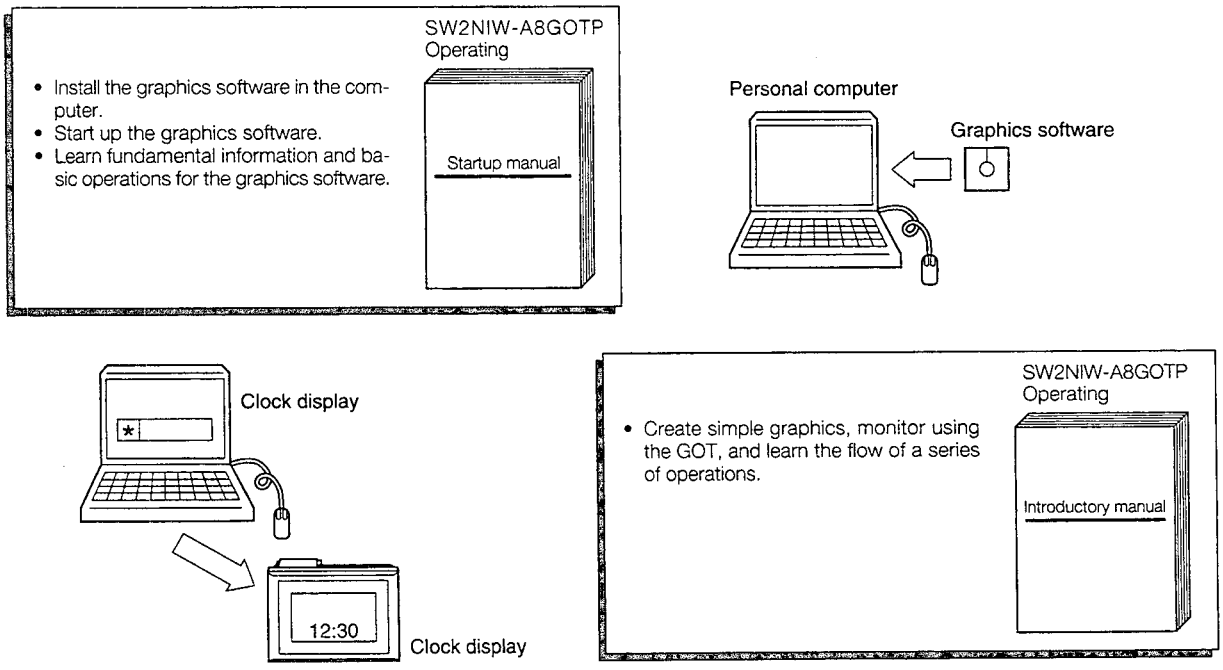

In addition, a panel kit library significantly reduces the amount of time required to create screens.

*3 Windows 3.1, Windows 95 is a registered trademark of Microsoft Corporation (U.S.).

## 1.6 Structure and Guide to the Use of This Manual

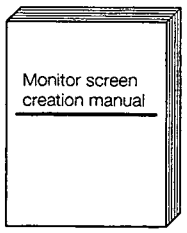
When the GOT is purchased, it comes with a user's manual. The graphics software also comes with five operating manuals. Manuals are categorized according to the purpose for which they are used. Please read the manual that corresponds to your particular objective in order to become familiar with the operations and functions of the software.

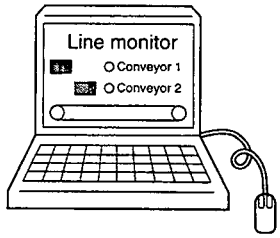
**SW2NIW-A8GOTP Operating Manual**
**A870GOT Operating Manual**

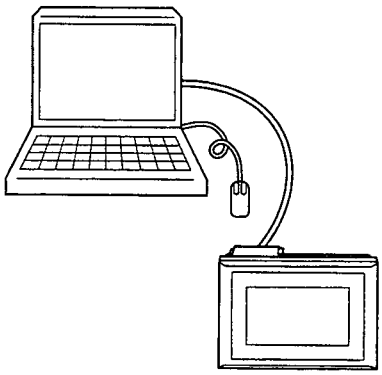


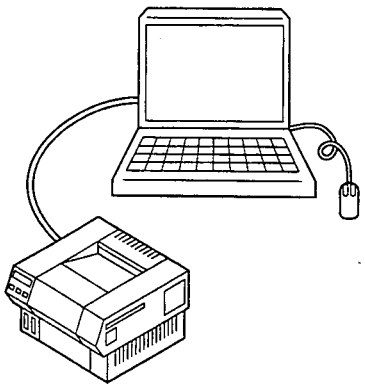
SW2NIW-A8GOTP
Operating

- Actually create screens for monitoring using the GOT.
  Drawing graphics
  Sprite settings
- Edit the data which has been created.



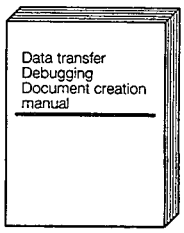





SW2NIW-A8GOTP
Operating

- Install the OS program and communications driver in the GOT.
- Download created graphics to the GOT.
- Debugging graphics between the personal computer and GOT.
- Create data documents.



## 1.7 Abbreviations and Terms Used in This Manual

(1) GOT ..... This is the abbreviation for the A852GOT and A852GOT-M3 Graphic Operation Terminal. When the model name needs to be made explicit, however, "A852GOT/A852GOT-M3" may be used.

(2) CC-Link ..... This is the abbreviation for the CC-Link system.

(3) Master station ..... Station which controls remote sataions and local stations.
One station is required for one system.

(4) Local station ..... Station with CPU which can communicate with master station and other local stations.

(5) Remote I/O station ..... Remote station which deals with bit information only. (AJ65BTB□-□□□, AJ65BTC□-□□)

(6) Remote device station ..... Remote station which deals with bit information and word information.
(AJ65BT-64AD, AJ65BT-64DAV, AJ65BT-64DAI)

(7) Remote station ..... General name for remote I/O station and remote device station. Controlled by a master station.

(8) Intelligent device station ..... Station that can perform transient transmission. (Including local station) (AJ65BT-R2)

(9) Master/local module ..... General name for AJ61QBT11 and A1SJ61QBT11.

(10) Master module ..... General name for AJ61QBT11 and A1SJ61QBT11 when they are used as master station.

(11) Local module ..... General name for AJ61QBT11 and A1SJ61QBT11 when they are used as local station.

(12) Remote module ..... General name for AJ65BTB□-□□, AJ65BTC□-□□, AJ65BT-64AD, AJ65BT-64DAV and AJ65BT-64DAI.

(13) RX ..... Remote input

(14) RY ..... Remote output

(15) RWw ..... Remote register (write area)

(16) RWr ..... Remote register (read area)

## 1.8 Precautions When Installing the ROM_BIOS/OS

Notes about executing the ROM_BIOS/OS installation are described in the following.

(1) Before installing the ROM_BIOS/OS, confirm that the connectors of the communication cable are securely connected to the GOT and the personal computer.

If the ROM_BIOS/OS installation is executed when the connectors are not connected securely, the GOT might stop operating after installation.

(2) Note that the ROM_BIOS/OS installation cannot be interrupted once it is started.

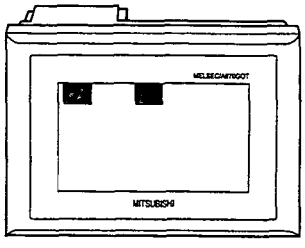
The GOT might stop running if the power of the GOT or personal computer is turned off, or the communication cable is disconnected in order to interrupt in the middle of the installation.

(3) Do not turn off the power supply of the GOT or personal computer, and do not disconnect the communication cable during the ROM_BIOS/OS installation.

The GOT might stop running if the power of the GOT or personal computer is turned off, or the communication cable is disconnected during the ROM_BIOS/OS installation.

(4) If one of the operations described above was done by mistake, or if the GOT does not work after the ROM_BIOS/OS installation, follow the steps shown in the following to reinstall the ROM_BIOS/OS.

① Turn off the power supply of the GOT.
② If a communication module is installed, disconnect the communication module.
③ Turn on the power supply of the GOT while pressing the two locations on the GOT display simultaneously as shown in ■ of the following diagram:

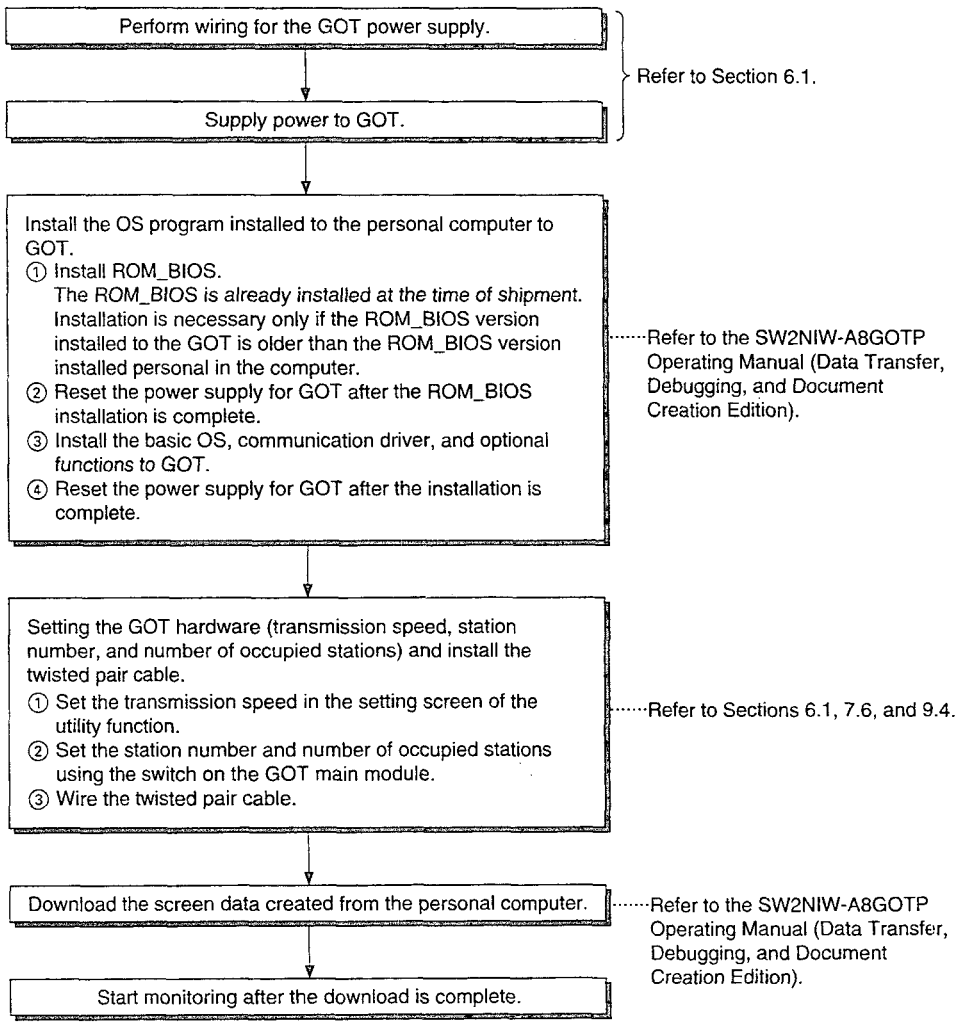


④ A message, "Reinstall ROM_BIOS/OS", will appear on the GOT display area.
⑤ Reinstall the ROM_BIOS/OS. Refer to Section 3.1 of "SW2NIW-A8GOTP Graphic Settings Software Package Operating Manual" (Data Transfer/Debugging/Document Creation Manual).

## 1.9 Procedure Overview Before the Operation

Procedure overview before the operation is shown below.

Refer to the CC-Link Master Module User's Manual for the operation of the entire CC-Link system.



## 1.10 A852GOT's Monitor Functions

The monitor functions that can be performed with the A852GOT is listed below.
Refer to the SW2NIW-A8GOTP Operating Manual (Monitor Screen Creation Manual) for details of each function.
Refer to Section 4.6 regarding the monitor access range.

### 1 Utility functions

| Functions | Usability (○: Usable △: Usable with restrictions ×: Unusable ) |
|---|---|
| System monitor | × |
| Screen copy | ○ |
| Setup | ○ |
| Self-test | ○ |
| Memory information | ○ |
| Clock setting | × |
| Screen cleaning | ○ |
| File | △ (The time when the data was stored cannot be displayed.) |

### 2 Sprite functions

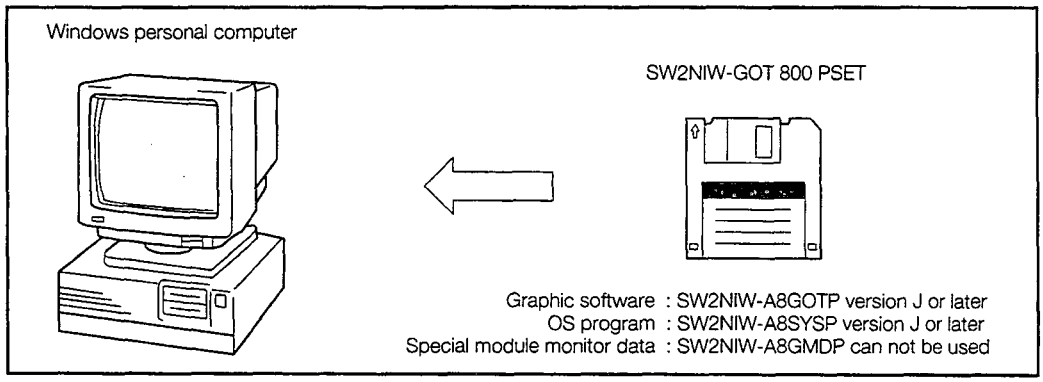
| Functions | | Usability (○: Usable △: Usable with restrictions ×: Unusable ) |
|---|---|---|
| Numeric value display | | ○ |
| Data list display | | ○ |
| ASCII disply | | ○ |
| Clock disply | | × |
| Comment display | Bit | ○ |
| | word | |
| Alarm list display | System alarm | △ (The time when it occurred cannot be displayed.) |
| | User alarm | |
| Parts | Bit | ○ |
| | word | |
| Parts movement display | | ○ |
| Lamp dispaly | Bit | ○ |
| | word | ○ |
| Panel meter display | | ○ |
| Trend graph display | | ○ |
| Broken line graph display | | ○ |
| Bar graph display | | ○ |
| Level display | | ○ |
| Touch switch | Bit | ○ |
| | Word | |
| | Base screen switching | |
| | Window screen switching | |
| | Extension | |
| | Key code setting | |

| Functions | Usability (○: Usable △: Usable with restrictions ×: Unusable ) |
|---|---|
| Numeric value input | ○ |
| ASCII input | ○ |
| System information | ○ |
| Hard copy | ○ |
| Report | ○ |
| Status monitoring | ○ |
| Alarm history | △ (The time when it occurred cannot be displayed.) |

# 2. SYSTEM CONFIGURATION

## 2.1 System Configuration When Creating Monitor Screens

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



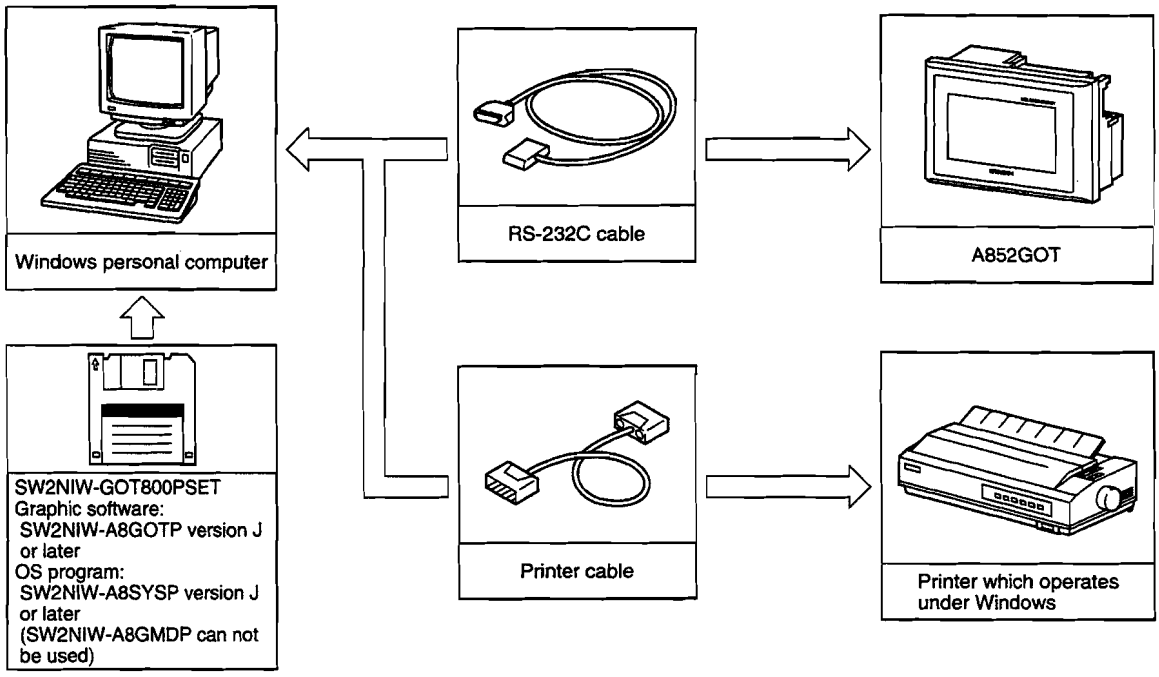

| | | |
|---|---|---|
| Main module | : | Personal computer which runs Microsoft Windows Ver. 3.1/95 |
| Main memory | : | At least 4 MB is required (8 MB or more is strongly recommended) |
| Hard disk | : | At least 10 MB of space must be available when the program is installed |
| CRT | : | Must be able to connect to main module 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 Transfer, Debugging, and Document Creation

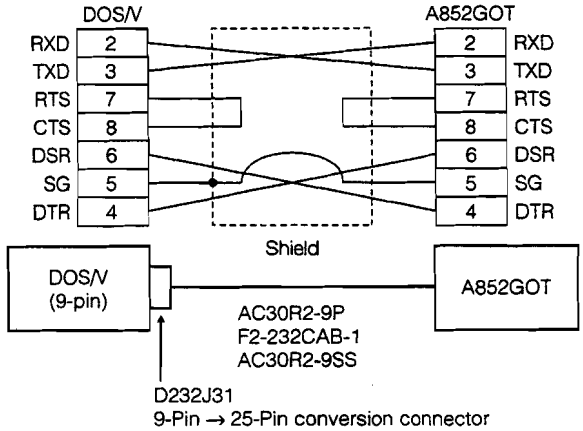
### 2.2.1 System configurtation

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




### 2.2.2 RS-232C cables used for data transfer

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

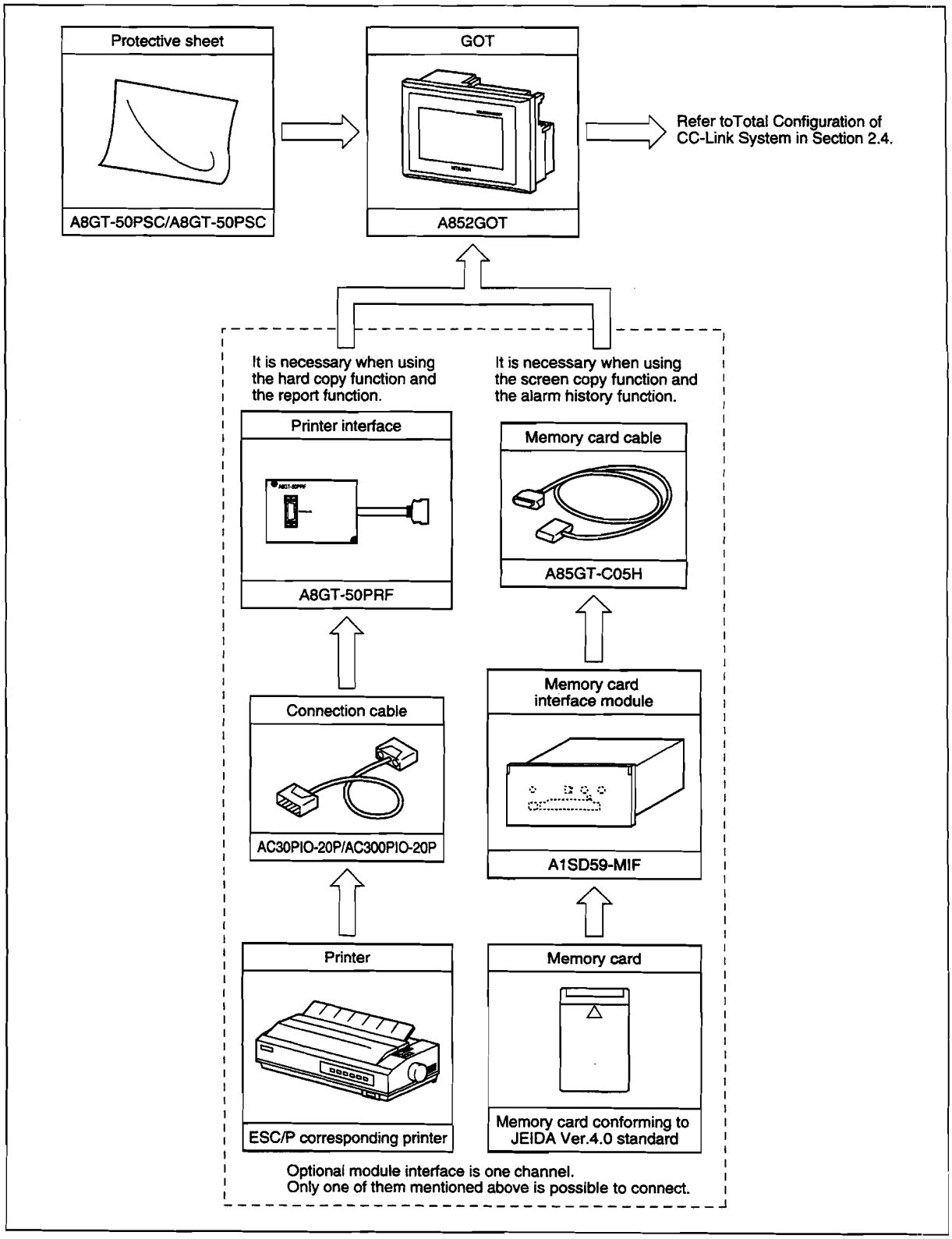



* The connector on the A852GOT side should be a screw-on connector (with inch screws).

| Manufacture | Model Name |
|---|---|
| Mitsubishi Electric | AC30R2-9P |
| | F2-232CAB-1 (introductory product) |
| | AC30R2-9SS (conversion connector is not required) |

## 2.3 Necessary Equipment for A852GOT

Necessary equipment for A852GOT are shown below.



## 2.4 Total Configuration of CC-Link System

A total of 64 remote I/O stations, remote device stations (A852GOT included), or local stations can be connected for one master station.

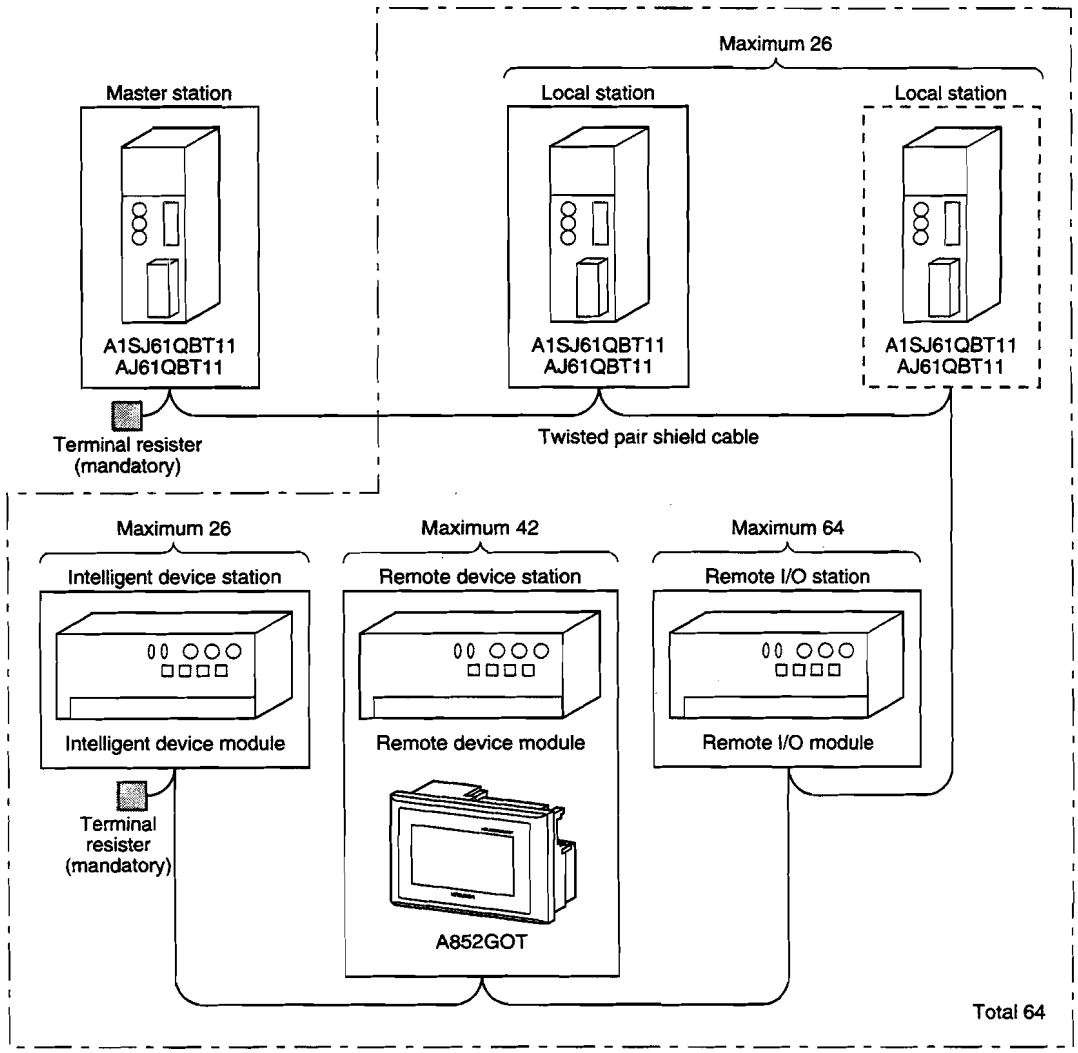
However, the following conditions must be satisfied:

(1) $\{(1 \times a) + (2 \times b) + (3 \times c) + (4 \times d)\} \leq 64$

a : Number of modules occupied 1 station
b : Number of modules occupied 2 stations
c : Number of modules occupied 3 stations
d : Number of modules occupied 4 stations

(2) $\{(16 \times A) + (54 \times B) + (88 \times C) + (88 \times D)\} \leq 2304$

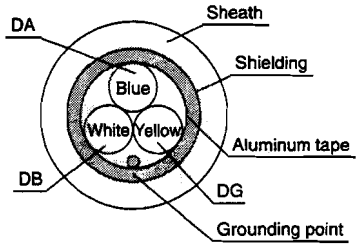
A : Number of remote I/O stations ≤ 64
B : Number of remote device stations ≤ 42
C : Number of intelligent device stations ≤ 26
D : Number of local stations ≤ 26



## 2.5 Twisted Pair Cable Specification

The twisted pair cable that can be used with CC-Link the recommended cables are described below: The CC-Link features cannot be guaranteed when cables other than the recommended ones shown below are used.

The model and specification of the recommended cable is shown below:

| Item | Specification |
|---|---|
| Model | FANC-CB 0.5 mm² × 3 |
| Contact | Mitsubishi Service Center |
| Cable type | Twisted pair shield cable |
| Conductor section area | 0.5 mm² |
| Conductor resistor (20°C) | More than 37.8Ω |
| Insulation resistor | More than 10000Ω-km |
| Voltage resistance | 500VDC, 1 minute |
| Static capacity (1kHz) | More than 60nF/km |
| Special impedance (1MHz) | 100 ± 15Ω |
| Sliced diagram |  |
| External dimensions | 7 mm (0.28 inch) |
| Approximate weight | 65 kg/km |

**Remark**

Consult nearest Mitsubishi representative with connector plug.

## 2.6 Applicable CPU

(a) When master module is AJ61BT11

- A0J2CPU
- A0J2HCPU
- A1CPU
- A2CPU (S1)
- A3CPU
- A1NCPU
- A2NCPU (S1)
- A3NCPU
- A3MCPU
- A3HCPU
- A2ACPU (S1)
- A3ACPU
- A2UCPU (S1)
- A3UCPU
- A4UCPU

(b) When master module is AJ61QBT11

- Q2ACPU (S1)
- Q3ACPU
- Q4ACPU
- Q2ASCPU (S1)
- Q2ASHCPU (S1)
- Q4ARCPU

(c) When master module is A1SJ61BT11

- A1SCPU (C24-R2)
- A1SJCPU
- A2SCPU
- A2USCPU (S1)
- A2USHCPU-S1

(c) When master module is A1SJ61QBT11

- Q2ASCPU (S1)
- Q2ASHCPU (S1)

## 2.7 List of Configuration Equipment

Necessary configuration equipment for GOT are shown below.
Refer to CC-Link Master Module User's Manual about the total configuration of CC-Link system.

| Component | Model | Remarks | |
|---|---|---|---|
| GOT main module (Internal CC-Link communication module) | A852GOT-LWD | Monochrome LCD, color of front area ivory white (with 24VDC power supply), internal memory 768 KB | |
| | A852GOT-LBD | Monochrome LCD, color of front area dark gray (with 24VDC power supply), internal memory 768 KB | |
| | A852GOT-SWD | STN color LCD, color of front area ivory white (with 24VDC power supply), internal memory 768 KB | |
| | A852GOT-SBD | STN color LCD, color of front area dark gray (with 24VDC power supply), internal memory 768 KB | |
| | A852GOT-LWD-M3 | Monochrome LCD, color of front area ivory white (with 24VDC power supply), internal memory 2816 KB | |
| | A852GOT-LBD-M3 | Monochrome LCD, color of front area dark gray (with 24VDC power supply), internal memory 2816 KB | |
| | A852GOT-SWD-M3 | STN color LCD, color of front area ivory white (with 24VDC power supply), internal memory 2816 KB | |
| | A852GOT-SBD-M3 | STN color LCD, color of front area dark gray (with 24VDC power supply), internal memory 2816 KB | |
| Backlights | A8GT-50LT | For replacing the backlight | |
| Protective sheet | A8GT-50PSC | Transparent protective sheet | |
| | A8GT-50PSN | Anti-reflection protective sheet | |
| Printer interface module | A8GT-50PRF | For connecting printer | |
| Memory card interface module | A1SD59-MIF | For loading memory card | |
| Optional module installation blacket | A8GT-STE | For installing printer interface module GOT main module | |
| Printer connection cabel | AC30PIO-20P | For connecting printer and printer interface module: 3 m (10 feet) | |
| | AC300PIO-20P | For connecting printer and printer interface module: 30 m (98 feet) | |
| Memory card cable | A85GT-C05H | For connecting GOT and memory card interface module: 2 m (6.6 feet) | |
| SRAM memory card conforming to JEIDA Ver. 4.0 standard | MF3257-L5DAT01 | SRAM made by Mitsubishi; memory capacity 256 KB | For backup of project data<br>*1 Recommended product |
| | MF3513-L5DAT01 | SRAM made by Mitsubishi; memory capacity 512 KB | |
| | MF31M1-L5DAT01 | SRAM made by Mitsubishi; memory capacity 1 MB | |
| | MF32M1-L6DAT01 | SRAM made by Mitsubishi; memory capacity 2 MB | |
| | MF3257-J1DAT01 | SRAM made by Mitsubishi; memory capacity 256 KB; with backup battery | |
| | MF3513-J1DAT01 | SRAM made by Mitsubishi; memory capacity 512 KB; with backup battery | |
| | MF31M1-J1DAT01 | SRAM made by Mitsubishi; memory capacity 1 MB; with backup battery | |
| | MF32M1-J1DAT01 | SRAM made by Mitsubishi; memory capacity 2 MB; with backup battery | |
| | Q1MEN-64S | SRAM for QnACPU; memory capacity 64 KB | For backup of project data |
| | Q1MEN-128S | SRAM for QnACPU; memory capacity 128 KB | |
| | Q1MEN-256S | SRAM for QnACPU; memory capacity 256 KB | |
| | Q1MEN-512S | SRAM for QnACPU; memory capacity 512 KB | |
| | Q1MEN-1MS | SRAM for QnACPU; memory capacity 1 MB | |
| | Q1MEN-2MS | SRAM for QnACPU; memory capacity 2 MB | |
| | RJB-2000 | Product of Melco Co., Ltd. (Contact: 052-619-1827)<br>Memory capacity 2MB SRAM | For backup of project data<br>*2 Can be connected |
| Twisted pair shield cable | ——— | CC-Link connection cable<br>(Refer to Section 2.5) | |
| Corresponding software package | SW2NIW-GOT800PSET | SW2NIW-A8GOTP version J or later<br>SW2NIW-A8SYSP version J or later | |

*1. Recommended product:
This product is guaranteed to have specifications (standards) that can be connected to our modules.
These products should be used in conformance with the specifications (standards) of that product.

*2. Can be connected:
Products with this indication have specifications that allow connection to our modules. These products should be used in conformance with the specifications (standards) of that product.

# 3. SPECIFICATIONS

## 3.1 General Specifications

<table>
<tr><th>Item</th><th colspan="5">Specifications</th></tr>
<tr><td rowspan="2">Operating ambient temperature</td><td colspan="3">Display area</td><td colspan="2">Other than display area</td></tr>
<tr><td colspan="3">0 to 40°C</td><td colspan="2">0 to 55°C</td></tr>
<tr><td>Storage ambient temperature</td><td colspan="5">-20 to 60°C</td></tr>
<tr><td>Operating ambient humidity</td><td colspan="5">10 to 90% RH, with no condensation</td></tr>
<tr><td>Storage ambient humidity</td><td colspan="5">10 to 90% RH, with no condensation</td></tr>
<tr><td rowspan="8">Vibration resistance</td><td rowspan="8">Conforming to JIS B 3501, IEC 1131-2</td><td colspan="4">Under intermittent vibration</td></tr>
<tr><td>Frequency</td><td>Acceleration</td><td>Amplitude</td><td>No. of sweeps</td></tr>
<tr><td>10 to 57Hz</td><td>—</td><td>0.075 mm (0.003 inch)</td><td rowspan="4">10 times each in X, Y, Z directions (for 80 min.)</td></tr>
<tr><td>57 to 150Hz</td><td>9.8 m/S$^2${1G}</td><td>—</td></tr>
<tr><td colspan="3">Under continuous vibration</td></tr>
<tr><td>Frequency</td><td>Acceleration</td><td>Amplitude</td></tr>
<tr><td>10 to 57Hz</td><td>—</td><td>0.0035 mm (0.001 inch)</td></tr>
<tr><td>57 to 150Hz</td><td>4.9 m/S$^2$ {0.5G}</td><td>—</td></tr>
<tr><td>Shock resistance</td><td colspan="5">Conforming to JIS B 3501, IEC 1131-2 (147 m/s$^2$ {15 G},3 times in each of 3 directions)</td></tr>
<tr><td>Noise durability</td><td colspan="5">Noise voltage: 1500 Vp-p; noise width: 1 μs<br>Noise frequency: based on noise simulation of 25 to 60 Hz</td></tr>
<tr><td>Withstand voltage</td><td colspan="5">Batch resistance between external DC terminals ..... 500 VAC for 1 minute between grounding terminals</td></tr>
<tr><td>Insulation resistance</td><td colspan="5">Batch resistance between external DC terminals ..... 500 VDC at 10 MΩ min. using insulation resistance meter</td></tr>
<tr><td>Operating ambience</td><td colspan="5">No corrosive gases</td></tr>
<tr><td>Operating elevation</td><td colspan="5">2000 m (6562 feet) max.</td></tr>
<tr><td>Installation location</td><td colspan="5">Control panel</td></tr>
<tr><td>Over-voltage category *1</td><td colspan="5">II max.</td></tr>
<tr><td>Pollution level *2</td><td colspan="5">2 max.</td></tr>
</table>

*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 II 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 2,500 V.

*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 is when only non-conductive pollution occurs. A temporary conductivity caused by condensation must be expected occasionally.

## 3.2 Performance Specifications

| Item | | A852GOT-L□D | A852GOT-L□D-M3 | A852GOT-S□D | A852GOT-S□D-M3 |
|---|---|---|---|---|---|
| Color of front area | | LWD/SWD: Ivory white | | LBD/SBD: Dark gray | |
| Display area | Type | Monochrome LCD | | STN color LCD | |
| | Resolution | Horizontal: 320 dots x Vertical: 240 dots | | | |
| | Display size | Horizontal: 115 mm (4.5 inch) x Vertical: 86 mm (3.4 inch) | | | |
| | Display color | Single color (white, black) | | 8 colors | |
| Backlights | | Chilled cathode ray tube backlight; Backlight OFF time can be set; Backlights can be replaced | | | |
| Touch panel | No. of touch keys | 300 (15 rows x 40 columns) | | | |
| | Key size | 16 dots x 16 dots min. (per key) | | | |
| | Repeat function | None | | | |
| Memory *1 | Type | Internal memory (flash ROM) | | | |
| | Application | For storing monitor screen data/for storing optional driver OS | | | |
| | Capacity | The following capacity is definite regardless of whether the optional driver OS is installed. | | | |
| RS-232C interface | | For connecting personal computer; 1 channel | | | |
| Interface for connecting optional module | | For connecting memory card interface module/ printer interface module; 1 channel | | | |
| Buzzer | | Single sound (length of sound can be adjusted) | | | |
| Lifetime *2 | Display area | 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 | | | |
| Number of staions occupied | | Can be selected in 2/4 stations<br>2 stations: (RX/RY 64 points each, RW write area/ read area 8 points each)<br>4 stations: (RX/RY 128 points each, RW write area/ read area 16 points each) | | | |
| CC-Link station type | | Remote device station | | | |
| Transmission speed/ max. transmission distance | | 156 kbps: 1200 m (3937.2 ft.)/625 kbps max.: 600 m (1968.6 ft)/2.5Mbps max.: 200 m (656.2 ft.)/ 5Mbpt max.: 150 m (492.2 ft.)/10Mbps max.:100 m (3.281 ft.) | | | |
| No. of maximum connection | | 42 stations max. (Refer to Section 2.4 ) | | | |
| Connection cable | | Twisted pair shield cable (Refer to Section 2.5 ) | | | |
| Power supply voltage | | 24VDC (+30%, -35%) | | | |
| Allowable falter time | | 10 ms | | | |
| Noise durability | | Using the noise simulator with noise voltage at 500Vp-p, noise width at 1μs, and noise frequency at 25 to 60Hz. | | | |
| Applicable wire size | | 0.75 to 2.00 mm² | | | |
| Applicable solderess terminal | | RAV 1.25 - 3.5/ RAV 2 - 3.5 | | | |
| Current consumption (24V) | | 0.6 A (When printer interface is not used)<br>0.7 A (When printer interface is used) | | | |
| Connection type | | Dedicated to the CC-Link connection | | | |
| Environmental protection construction | | IP65 or equivalent (front area) | | | |
| External dimentions | | 192mm (7.6 inch) (W) x 135mm (5.3 inch) (H) x 62mm (2.4 inch) (D) | | | |
| Panel cutout dimensions | | 184mm (7.2 inch) (W) x 124mm (4.9 inch) (H) | | | |
| Weight | | 850 g (1.7 lb) | | | |
| Corresponding software package | | SW2NIW-GOT 800PSET (SW2NIW A8GOTP version J or later)<br>/ SW2NI-A8SYSP version J or later | | | |

| A852GOT | A852GOT-M3 |
|---|---|
| 768 KB | 2816 KB |

*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.

**Remark**

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.

# 4. MONITOR SPECIFICATION

## 4.1 Monitor Overview

There are the following two types of monitoring methods for the A852GOT.

1 **Normal monitor method**

A method to monitor by specifying the remote input/output allocated to the A852GOT and the remote register.

2 **Dedicated command monitor method**

The remote register area is used as the GOT internal device transfer command area, and the monitoring is performed by specifying the GOT internal device.

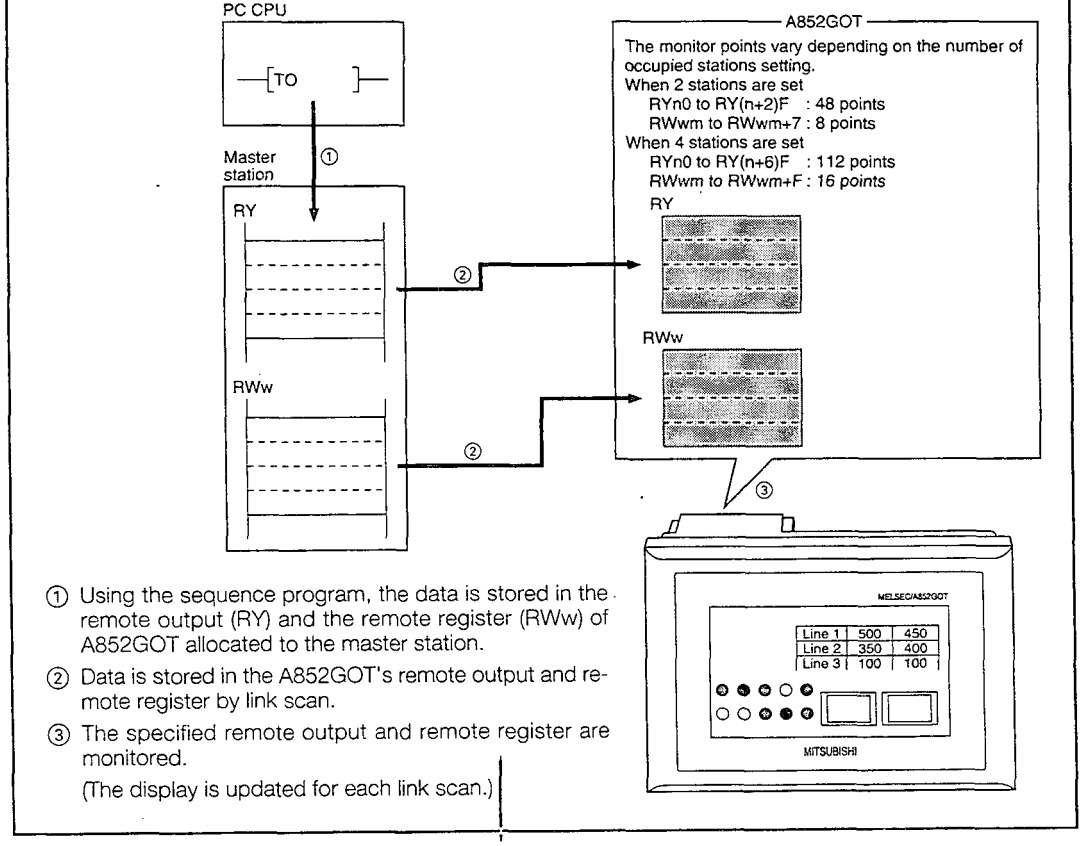
By expanding the data to the GOT internal word device (GD0 to 1023) using dedicated commands, several information such as the operation status, production amount, and operation command can be monitored in one screen.

The monitor overview is shown below:

1 **Normal monitor method**

In the monitor overview, the remote output and remote register (write area) are described separately from the remote input and remote register (read area), but all of the information can be displayed on one screen for monitoring.

**Monitor for remote output and remote register (write area)**

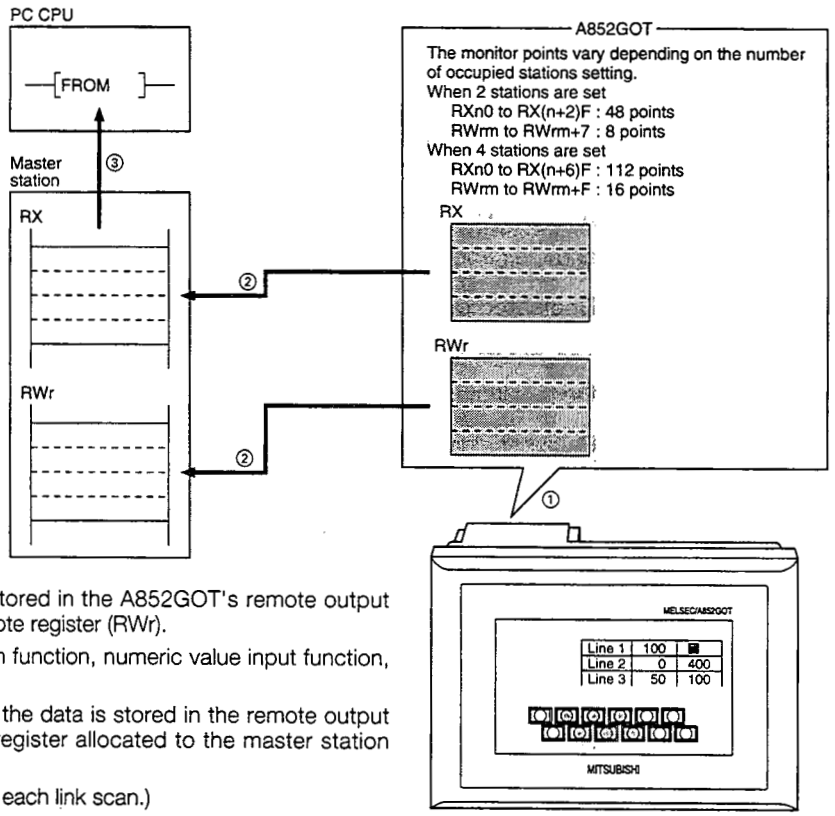



① Using the sequence program, the data is stored in the remote output (RY) and the remote register (RWw) of A852GOT allocated to the master station.

② Data is stored in the A852GOT's remote output and remote register by link scan.

③ The specified remote output and remote register are monitored.
(The display is updated for each link scan.)

## Monitor (write from GOT) for remote output and remote register (read area)




① The data is stored in the A852GOT's remote output (RX) and remote register (RWr).
(Touch switch function, numeric value input function, etc.)

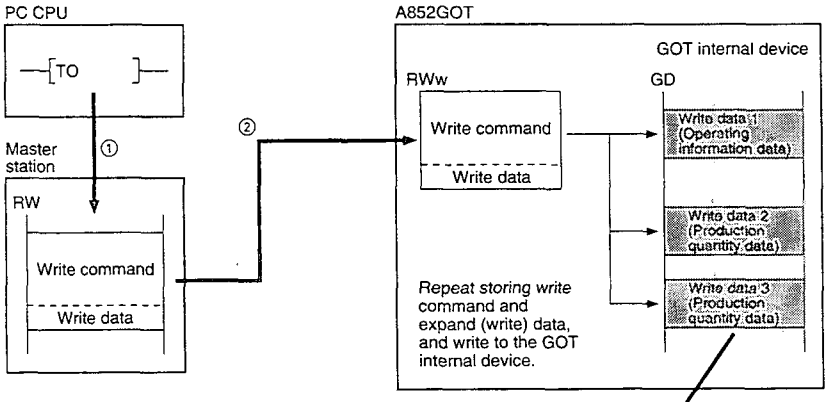
② By link scan, the data is stored in the remote output and remote register allocated to the master station A852GOT.
(Collected for each link scan.)

③ Remote output and remote register data are read to the PC CPU.

## 2 Dedicated command monitor method

The remote register (write area) data is stored in the GOT internal device using dedicated commands and monitoring is performed.

### When the GOT internal device write command is executed

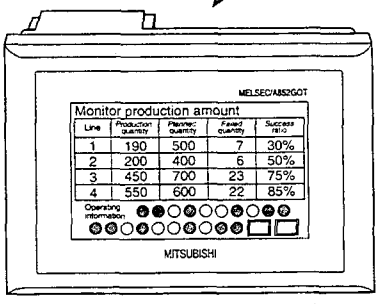



① Using the sequence program, store the write command and the write data to be stored in the GOT internal device to the remote register (RWw) of the A852GOT allocated to the master station.

② When the GOT request flag is turned on, the write command data and write data are stored in the A852GOT remote registers, and the write data is stored in the GOT internal device.

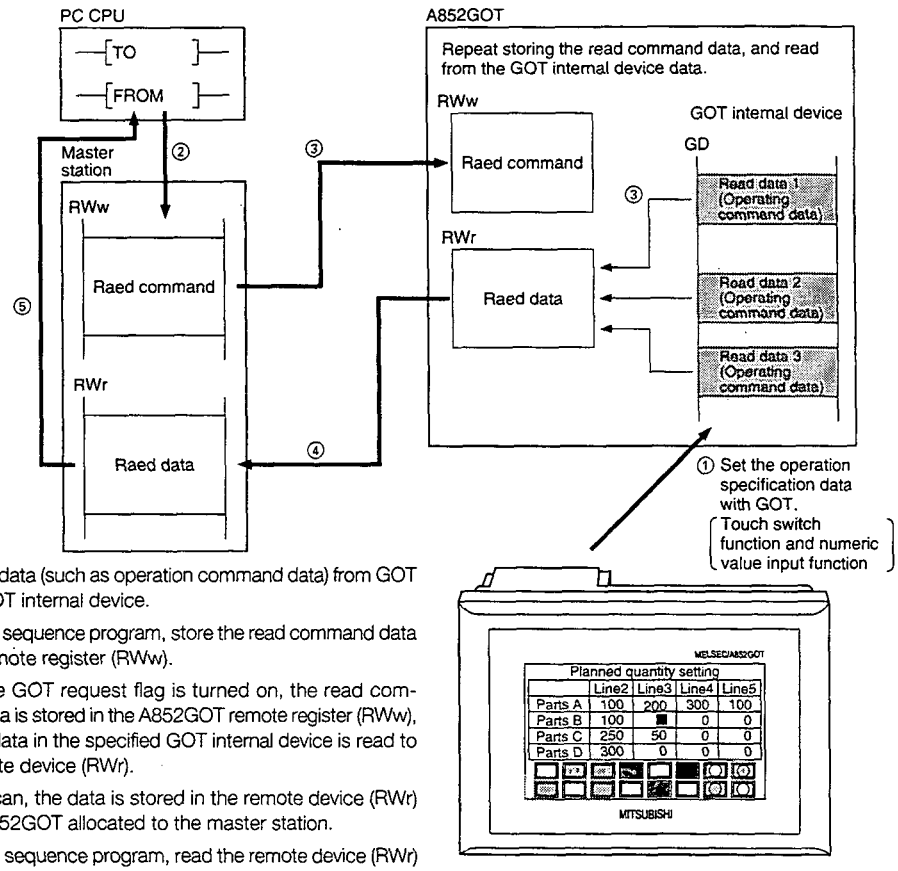
③ The data in the GOT internal device where the write data is stored is monitored.

Repeat steps ① and ② to execute the write command, and write several information to the GOT internal device and monitor the data.




The operating information and production amount are monitored with GOT. (Monitor GD.)

## When the GOT internal device read command is executed




① Write the data (such as operation command data) from GOT to the GOT internal device.

② Using the sequence program, store the read command data to the remote register (RWw).

③ When the GOT request flag is turned on, the read command data is stored in the A852GOT remote register (RWw), and the data in the specified GOT internal device is read to the remote device (RWr).

④ By link scan, the data is stored in the remote device (RWr) of the A852GOT allocated to the master station.

⑤ Using the sequence program, read the remote device (RWr) data to the PC CPU.

Repeat the above steps and execute the read commands, then read several information to the PC CPU.

## 4.2 I/O Signals to the Master Module

### 4.2.1 List of I/O signals

The I/O signal allocation is shown below.
The I/O signals varies depending on the set number of occupied stations (2 stations or 4 stations).
The "n" in the table indicates the address allocated to the master module by the station number setting.

1 When monitoring using the dedicated command monitor method

| Signal direction: A852GOT → Master module | | | Signal name: Master module → A852GOT | | |
|---|---|---|---|---|---|
| Device No. | | Signal name | Device No. | | Signal name |
| Occupied points | | | Occupied points | | |
| 2 stations | 4 stations | | 2 stations | 4 stations | |
| RXn0 to RX (n+2) F | RXn0 to RX (n+6) F | User area | RYn0 to RY (n+2) F | RYn0 to RY (n+6) F | User area |
| RX (n+3) 0 | RX (n+7) 0 | GOT complete flag | RY (n+3) 0 | RY (n+7) 0 | GOT request flag |
| RX (n+3) 1 to RX (n+3) 8 | RX (n+7) 1 to RX (n+7) 8 | Unusable | RY (n+3) 1 | RY (n+7) 1 | GOT monitor request flag |
| | | | RY (n+3) 2 | RY (n+7) 2 | GOT always write requset flag |
| | | | RY (n+3) 3 to RY (n+3) 8 | RY (n+7) 3 to RY (n+7) 8 | Unusable |
| RX (n+3) 9 | RX (n+7) 9 | Initial data setting complete flag | RY (n+3) 9 | RY (n+7) 9 | Initial data setting request flag |
| RX (n+3) A | RX (n+7) A | Error status flag | RY (n+3) A | RY (n+7) A | Error reset request flag |
| RX (n+3) B | RX (n+7) B | Remote ready | RY (n+3) B to RY (n+3) F | RY (n+7) B to RY (n+7) F | Unusable |
| RX (n+3) C to RX (n+3) F | RX (n+7) C to RX (n+7) F | Unusable | | | |

2 When monitoring using the normal monitor method

| Signal direction: A852GOT → Master module | | | Signal name: Master module → A852GOT | | |
|---|---|---|---|---|---|
| Device No. | | Signal name | Device No. | | Signal name |
| Occupied points | | | Occupied points | | |
| 2 stations | 4 stations | | 2 stations | 4 stations | |
| RXn0 to RX (n+2) F | RXn0 to RX (n+6) F | User area | RYn0 to RY (n+2) F | RYn0 to RY (n+6) F | User area |
| RX (n+3) 0 to RX (n+3) A | RX (n+7) 0 to RX (n+7) A | Unusable | RY (n+3) 0 to RY (n+3) F | RY (n+7) 0 to RY (n+7) F | Unusable |
| RX (n+3) B | RX (n+7) B | Remote ready | | | |
| RX (n+3) B to RX (n+3) F | RX (n+7) B to RX (n+7) F | Unusable | | | |

**Point**

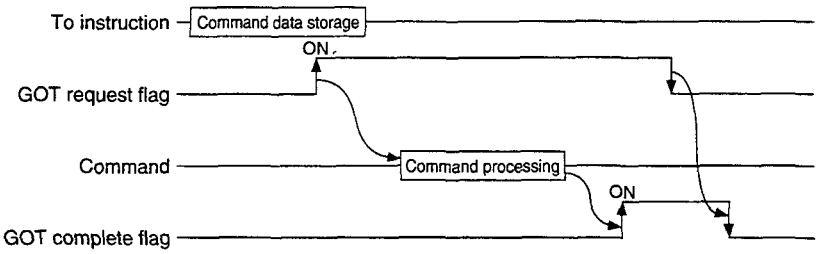
If the device that cannot be used is turned on/off with the sequence program, the GOT functions are not guaranteed.

## 4.2.2 Details of the I/O signals

The function of each I/O signal is described below:

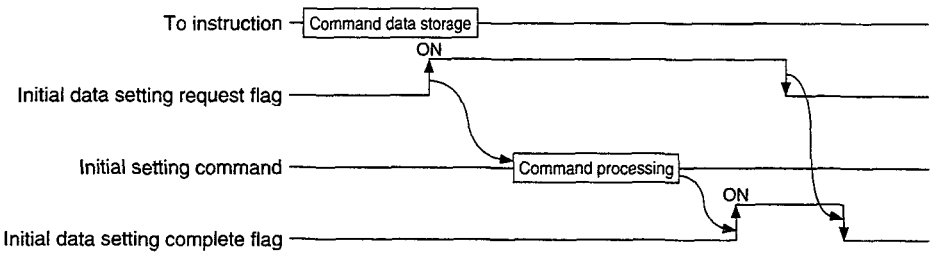
### 1 GOT complete flag and GOT request flag

By turning on the GOT request flag, each command which uses the GOT internal device to monitor (excluding the initial setting command, monitor request command, and always write request command) is executed.
After each command processing is complete, the GOT complete flag turns on.
When the GOT request flag is turned off, the GOT complete flag turns off as well.



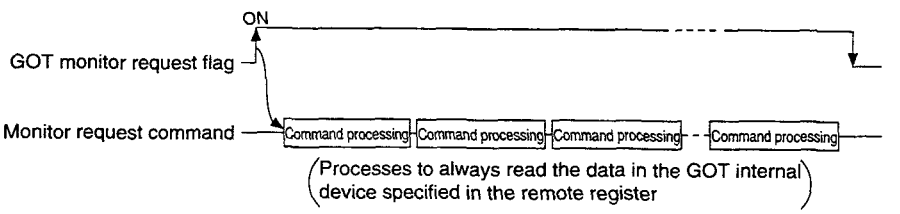

### 2 Initial data setting complete flag and initial data setting request flag

By turning on the initial data setting request flag, the initial setting command to monitor using the GOT internal device, is executed.
When the initial setting command processing is complete, the initial data setting complete flag turns on.
When the initial data setting request flag is turned off, the initial data setting complete flag turns off as well.



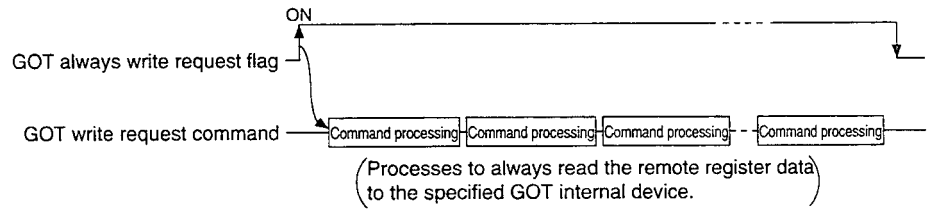

### 3 GOT monitor request flag

When the GOT monitor request flag is on, the data in the GOT internal device registered for monitoring is always read to the remote register.
Refer to 1 when executing the monitor registration command.



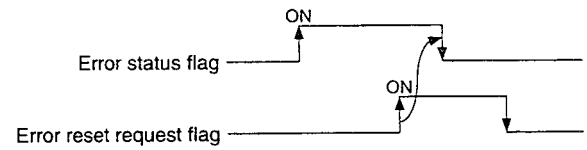
### 4 GOT always write request flag

When the GOT always write request flag is on, the remote device data is always written to the GOT internal device which has been registered for write.
Refer to 1 when executing the always write register command.




### 5 Error status flag and error reset request flag

If an error occurs during execution of a command when communicating with the GOT internal device, the error status flag turns on.
The error status flag is turned off by turning on the error reset request flag,.




### 6 Remote ready flag

Turns on during the A852GOT startup.
Turns off during off-line operations (OS installation and screen data download) and initial processing execution.

## 4.3 Remote Register Allocation

The remote register allocation for A852GOT is described below.
The usage of the remote registers is different between the normal monitor method and dedicated command monitor method.

### 1 When the dedicated command monitor method

The entire area is used for the GOT internal device communication commands.
Refer to Section 4.5 regarding each command for the GOT internal device communication.
The "m" and "n" in the table indicates the address allocated to the master module by the station number setting.

| Communication direction | Address (Occupied points) | | Contents | Default value |
|---|---|---|---|---|
| | 2 stations | 4 stations | | |
| Master station ↓ Remote device station | RWwm to RWwm+7 | RWwm to RWwm+F | Command execution area to be monitored by using GOT internal device | 0 |
| Remote device station ↓ Master station | RWrn to RWrn+7 | RWrn to RWrn+F | Command response area to be monitored by using GOT internal device | 0 |

### 2 When the normal monitor method

The entire area is used for user region.
The "m" and "n" in the table indicates the address allocated to the master module by the station number setting.

| Communication direction | Address (Occupied points) | | Contents | Default value |
|---|---|---|---|---|
| | 2 stations | 4 stations | | |
| Master station ↓ Remote device station | RWwm to RWwm+7 | RWwm to RWwm+F | User write area | 0 |
| Remote device station ↓ Master station | RWrn to RWrn+7 | RWrn to RWrn+F | User read area | 0 |

## 4.4 Command List for the Dedicated Command Monitor Method

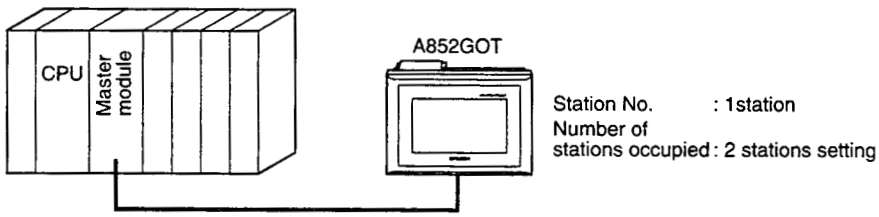
The command list for the dedicated command monitor is shown below:

| Command name | Contents | Reference Section |
|---|---|---|
| Initial setting | Initial setting command when monitoring with dedicated command monitor method (monitoring is performed using the GOT internal device). | Section 4.5.1 |
| Continuous read | Command to read the specified number of points of data from the specified head GOT internal device to the remote register.<br>Maximum read points<br>When the number of stations is set to 4 stations: 14 points<br>When the number of stations is set to 2 stations: 6 points | Section 4.5.2 |
| Random read | Command to read data from several different GOT internal devices to the remote register.<br>Maximum read points<br>When the number of stations is set to 4 stations: 14 points<br>When the number of stations is set to 2 stations: 6 points | Section 4.5.3 |
| Continuous write | Command to write specified number of points of data from the remote register to the specified head GOT internal device.<br>Maximum write points<br>When the number of stations is set to 4 stations: 14 points<br>When the number of stations is set to 2 stations: 6 points | Section 4.5.4 |
| Random write | Command to write remote register data to several different GOT internal devices.<br>Maximum write points<br>When the number of stations is set to 4 stations: 7 points<br>When the number of stations is set to 2 stations: 3 points | Section 4.5.5 |
| Monitor register | Command to register the GOT internal device number that performs the always remote register read command.<br>Maximum registration points<br>When the number of stations is set to 4 stations: 14 points<br>When the number of stations is set to 2 stations: 6 points | Section 4.5.6 |
| Monitor request | Command to always read the GOT internal device data stored by executing the monitor register command to the remote register. | Section 4.5.7 |
| Alwats write register | Command to always register the GOT internal device number of the GOT internal device that performs the always remote register data write command.<br>Maximum registration points<br>When the number of stations is set to 4 stations: 14 points<br>When the number of stations is set to 2 stations: 6 points | Section 4.5.8 |
| Always write request | Command to always write remote register data to the GOT internal device registered by executing the always write register command. | Section 4.5.9 |

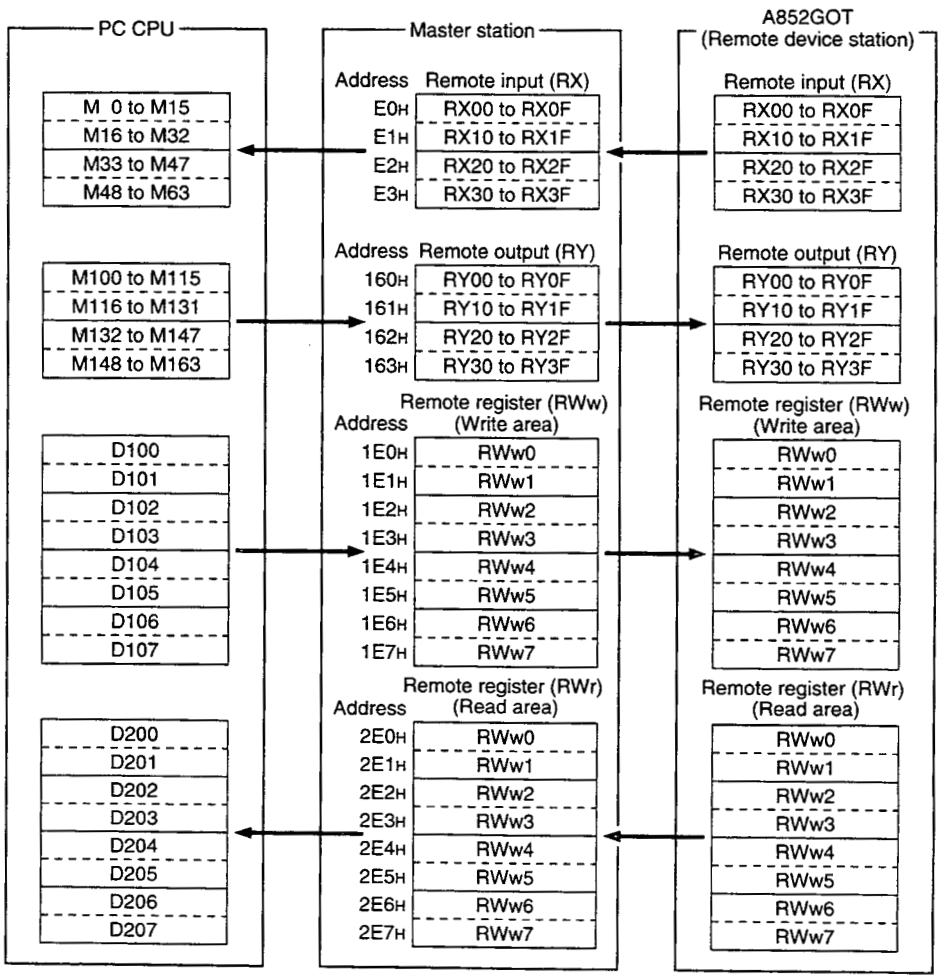
## 4.5 Details of Each Command

The execution method for each command is described.
The following system example is used to describe the sequence program in this section.
Refer to the CC-Link Master Module User's Manual regarding the sequence program for the entire CC-Link system.

**System configuration**




**Relationship among the PC CPU, master station buffer memory, and remote device stations**



## 4.5.1 Initial setting command

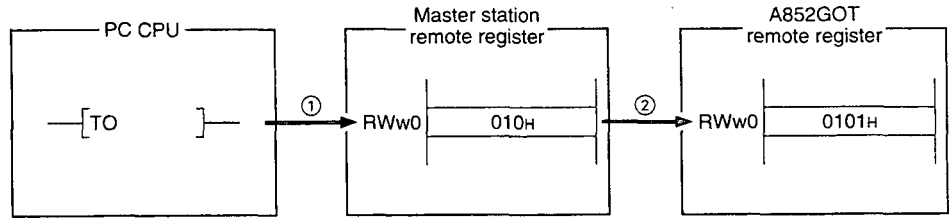
### 1 Initial setting command

This is the initial setting command for monitoring with the GOT internal device.
Create a sequence program for initial setting command to be processed before the commands described in Section 4.5.2 and after are executed.

### 2 Command format

| Communication direction | Address | Write data |
|---|---|---|
| Master station ↓ A852GOT | RWwm (H) | 1: Initial setting |
| | RWwm (L) | 1: Monitoring by the dedicated command monitor method<br>2: Switch to the nomal monitor method |
| | RWwm + 1 to RWwm + F | ———— |
| A852GOT ↓ Master station | RWrn to RWrn + F | ———— |

### 3 Communication overview

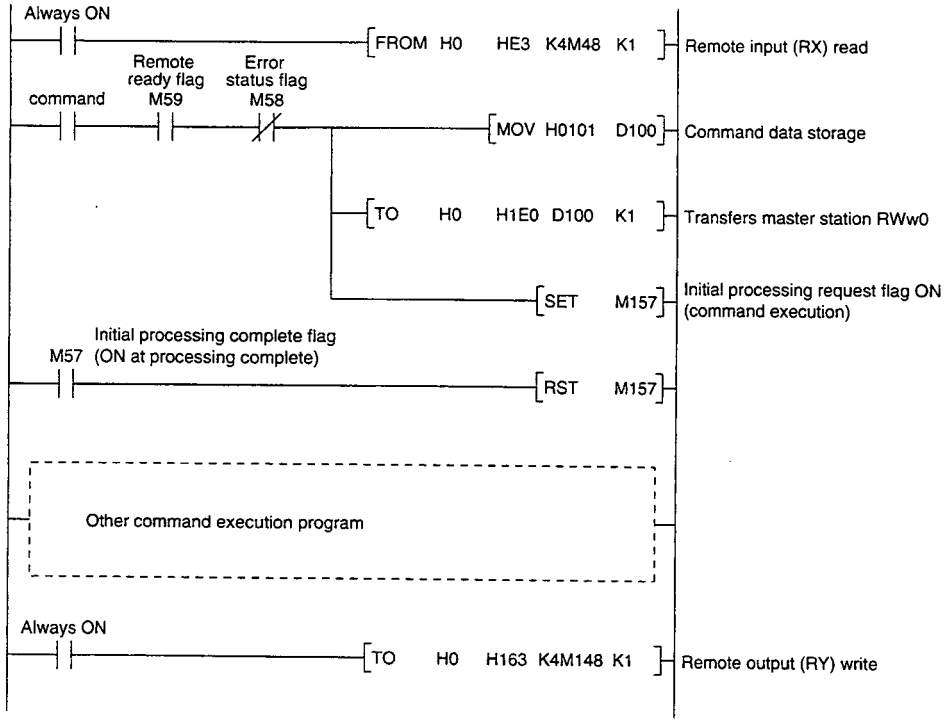



① Store the initial setting command data in the master station's remote register (RWw).

② Turn on the initial data setting request flag and store the command data in the GOT remote register (RWw).

(Command execution)
The initial data setting complete flag turns on when the command processing is complete.
By executing this command, the A852GOT will be in the monitor status with the dedicated command monitor method.

## 4 Sequence program example



## 4.5.2 Continuous read command

### 1 Continuous read command

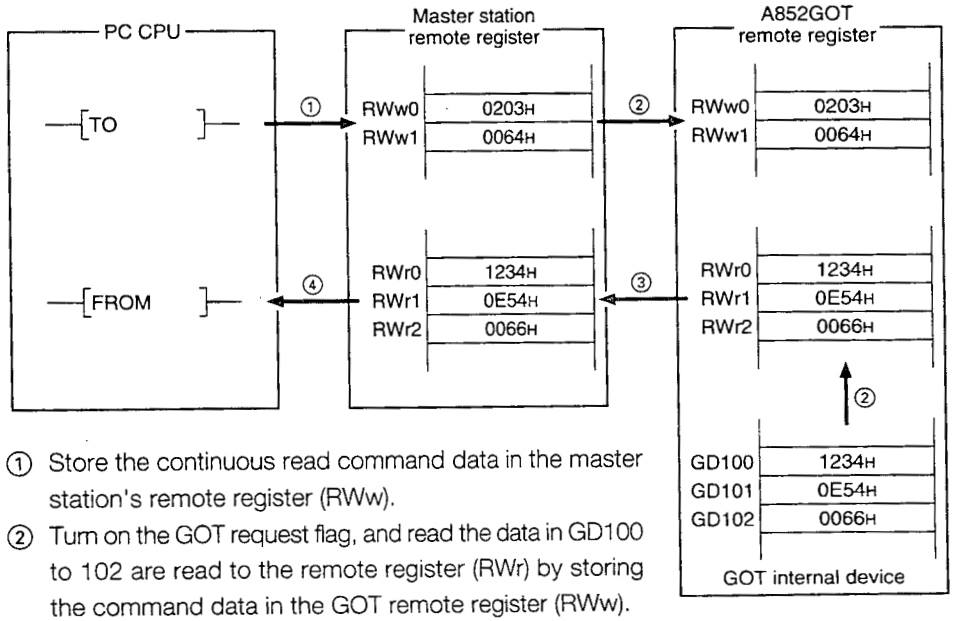
This is a command to read data for a specified number of points from the specified head GOT internal device to the remote register.

### 2 Command format

| Communication direction | Address | Contents |
|---|---|---|
| Master station ↓ A852GOT | RWwm (H) | 2: Continuous read setting |
| | RWwm (L) | When the occupied points are 2 stations<br>1 to 6 : GOT internal device point to be read<br>When the occupied points are 4 stations<br>1 to 14 : GOT internal device point to be read |
| | RWwm + 1 | 0 to 1023 : Head GOT internal device numbers to be read |
| | RWwm + 2 to RWwm + F | ——— |
| A852GOT ↓ Master station | RWrn to RWrn + D | Stores the data to be read from the GOT internal device |
| | RWrn + E, RWrn + F | ——— |

### 3 Communication overview

When reading three points from the GOT internal device GD100 to the remote register (RWr)




① Store the continuous read command data in the master station's remote register (RWw).

② Turn on the GOT request flag, and read the data in GD100 to 102 are read to the remote register (RWr) by storing the command data in the GOT remote register (RWw).

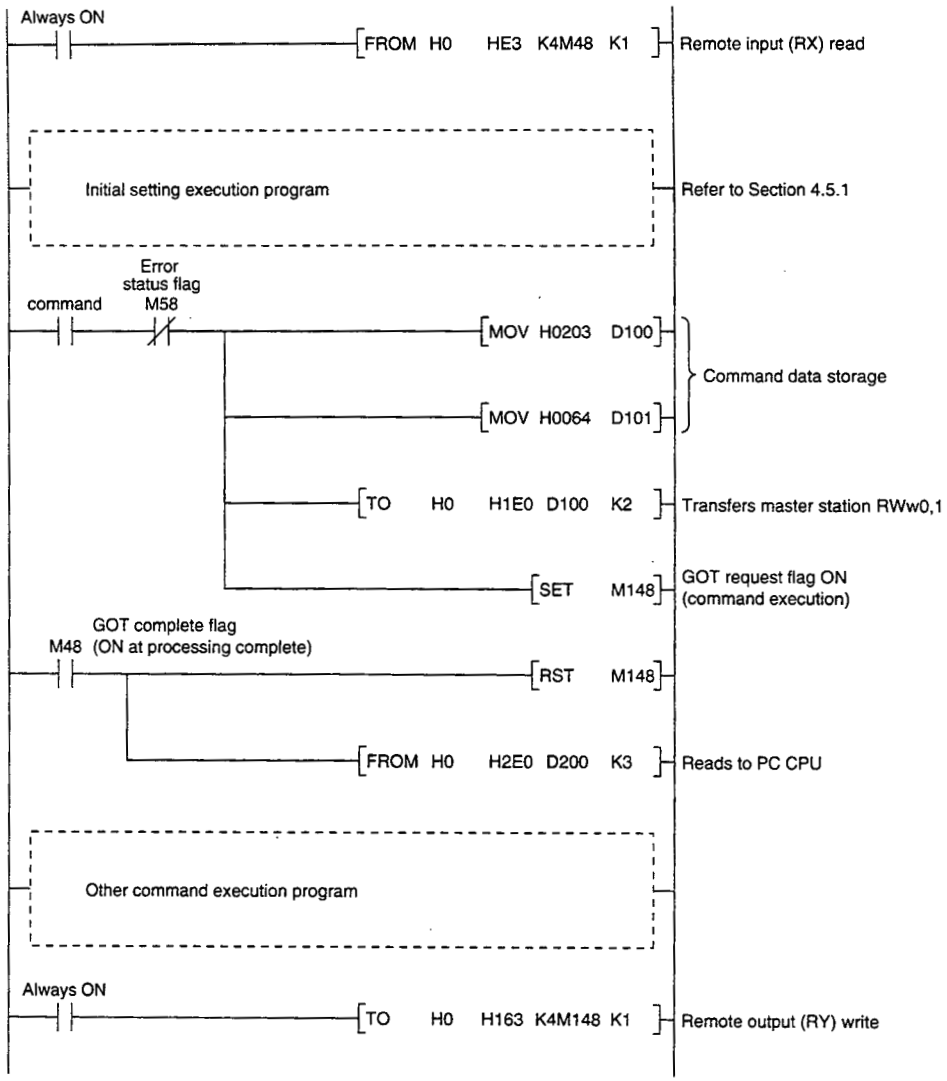
(Command execution)

The GOT complete flag turns on when the command processing is complete.

③ By link scan, the read data is stored in the master station's remote register (RWr).

④ Read the data to the PC CPU using the FROM instruction, etc.

## 4 Sequence program example



## 4.5.3 Random read command

### 1 Random read command

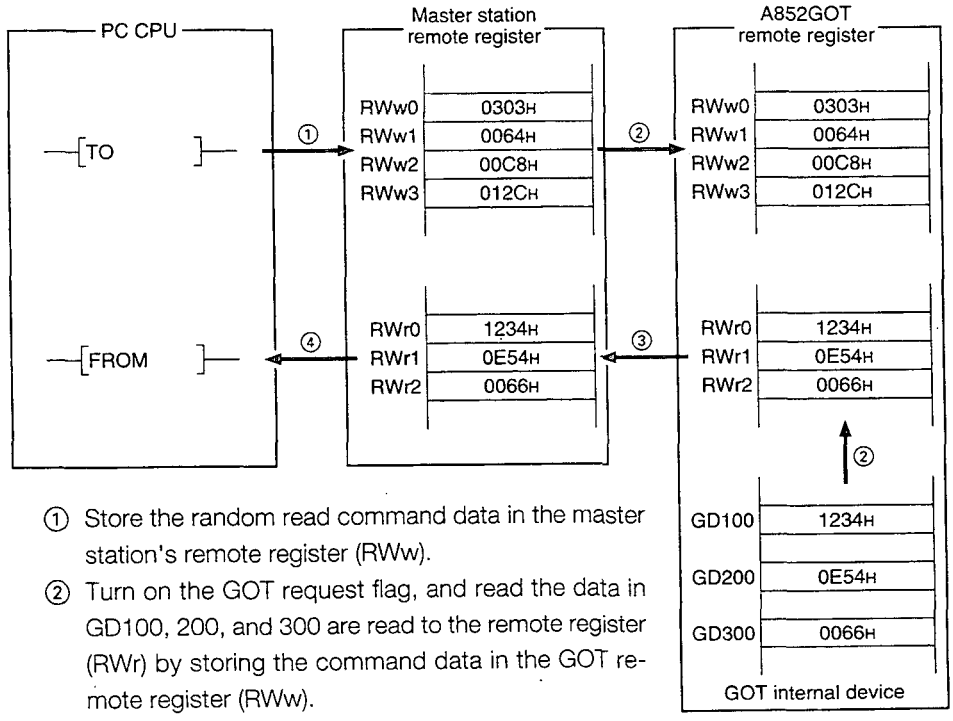
This is a command to read data from several different GOT internal devices to the remote register.

### 2 Command format

| Communication direction | Address | Contents |
|---|---|---|
| Master station ↓ A852GOT | RWwm (H) | 3: Random read setting |
| | RWwm (L) | When the occupied points are 2 stations<br>1 to 6 : GOT internal device point to be read<br>When the occupied points are 4 stations<br>1 to 14 : GOT internal device point to be read |
| | RWwm + 1 to RWwm + F | 0 to 1023 : GOT internal device numbers to be read<br>(Storage for the setting mentioned above) |
| A852GOT ↓ Master station | RWrn to RWrn + D | Stores the data to be read from the GOT internal device<br>(Storage for the setting mentioned above) |
| | RWrn + E, RWrn + F | ——— |

### 3 Communication overview

When reading data from the GOT internal device GD100, 200, and 300 to the remote register




① Store the random read command data in the master station's remote register (RWw).

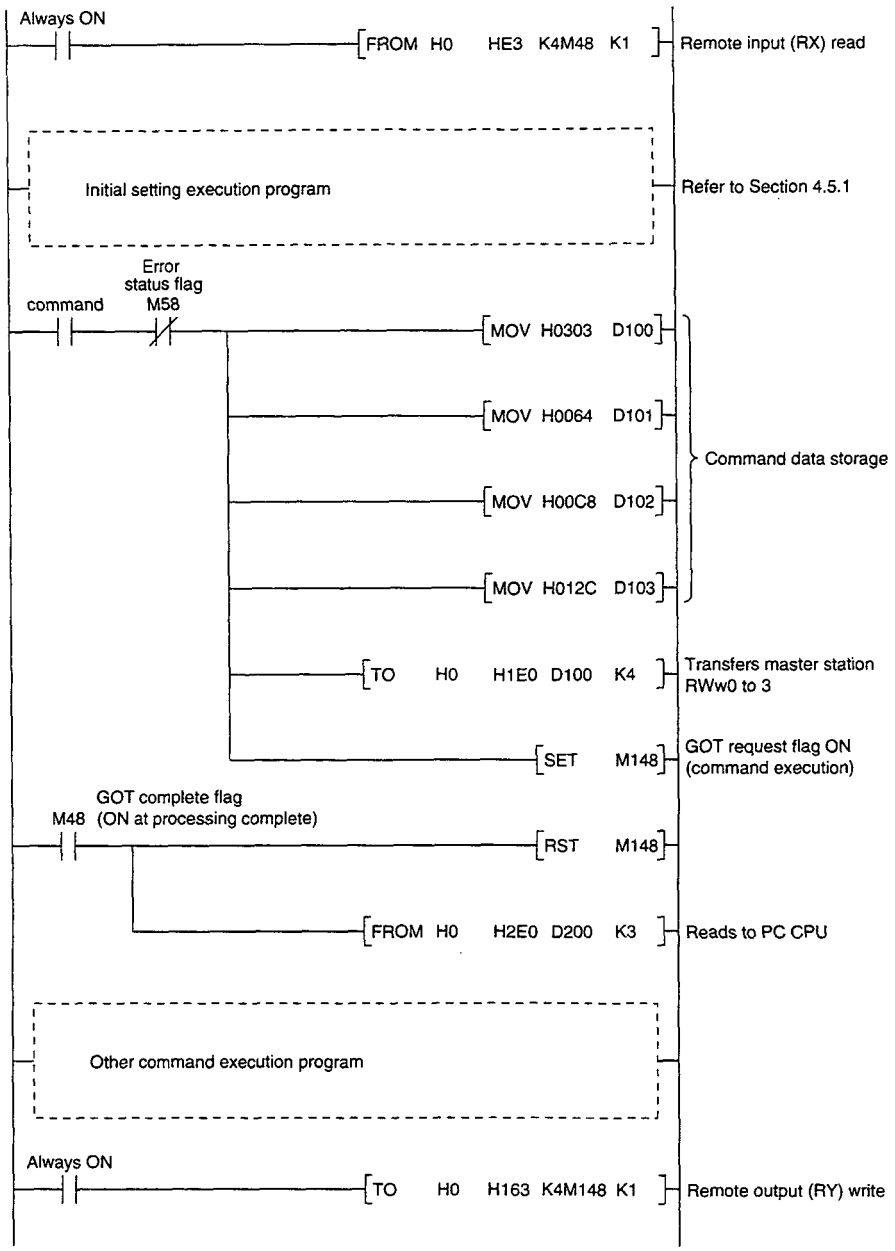
② Turn on the GOT request flag, and read the data in GD100, 200, and 300 are read to the remote register (RWr) by storing the command data in the GOT remote register (RWw).

(Command execution)
The GOT complete flag turns on when the command processing is complete.

③ By link scan, the read data is stored in the master station's remote register (RWr).

④ Read the data to the PC CPU using the FROM instruction, etc.

## 4 Sequence program example



## 4.5.4 Continuous write command

### 1 Continuous write command

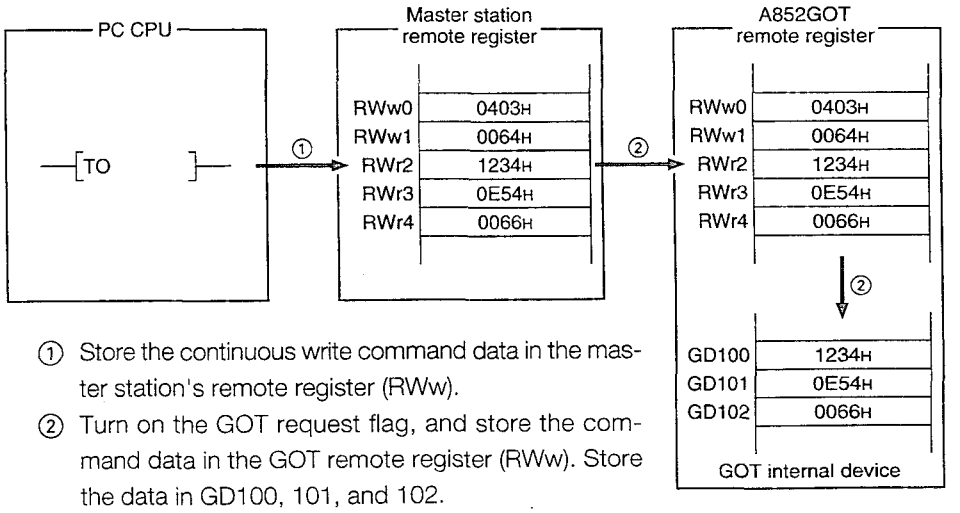
This is a command to write data from a specified number of points of remote registers to the specified head GOT internal device.

### 2 Command format

| Communication direction | Address | Contents |
|---|---|---|
| Master station ↓ A852GOT | RWwm (H) | 4: Continuous write setting |
| | RWwm (L) | When the occupied points are 2 stations<br>1 to 6 : Points to be written to the GOT internal device<br>When the occupied points are 4 stations<br>1 to 14 : Points to be written to the GOT internal device |
| | RWwm + 1 | 0 to 1023 : Head GOT internal device numbers to be written |
| | RWwm + 2 to RWwm + F | Stores the data to be written to the GOT internal device |
| A852GOT ↓ Master station | RWrn to RWrn + F | ——— |

### 3 Communication overview

When writing remote register data to the GOT internal device GD100, 101, and 102 (3 points)



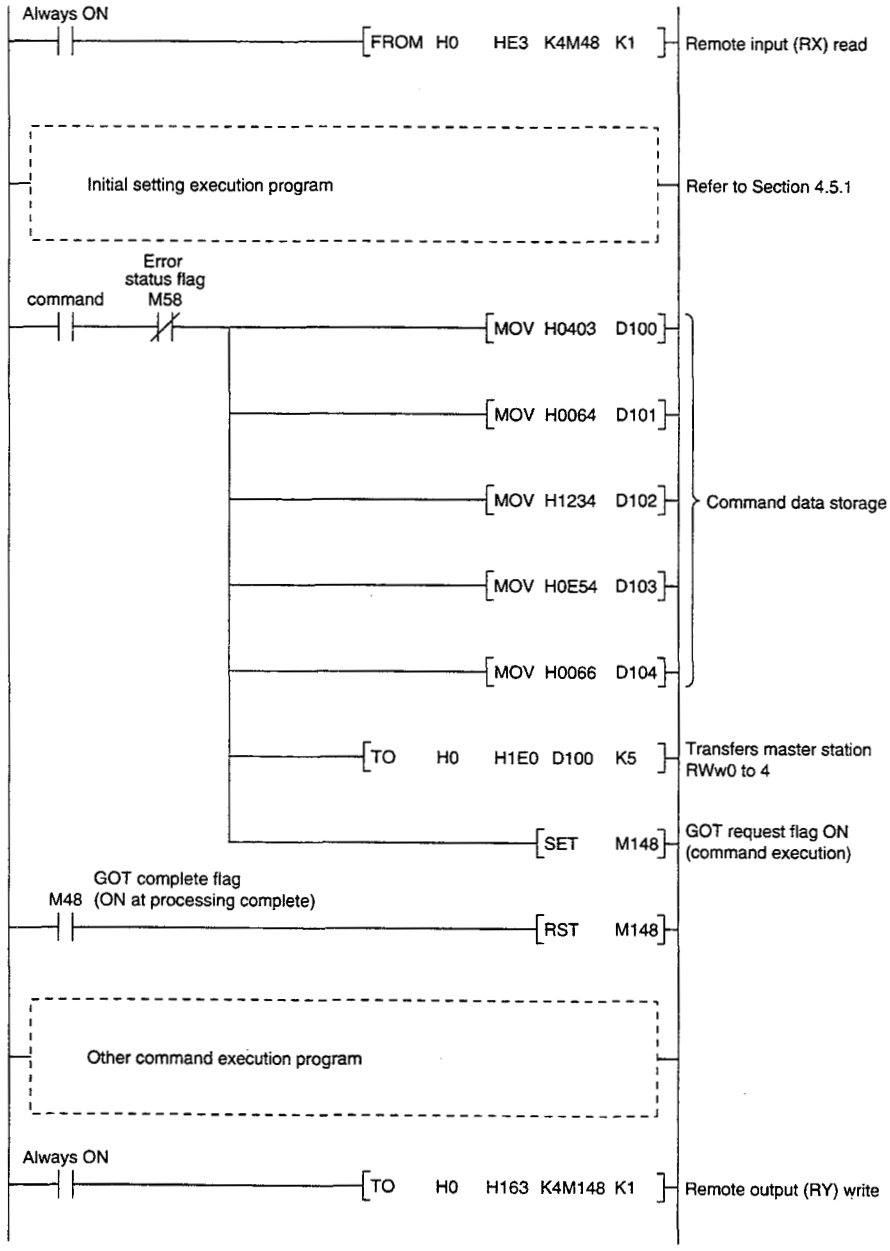

① Store the continuous write command data in the master station's remote register (RWw).

② Turn on the GOT request flag, and store the command data in the GOT remote register (RWw). Store the data in GD100, 101, and 102.

(Command execution)

The GOT complete flag turns on when the command processing is complete.

## 4 Sequence program example



## 4.5.5 Random write command

### 1 Random write command

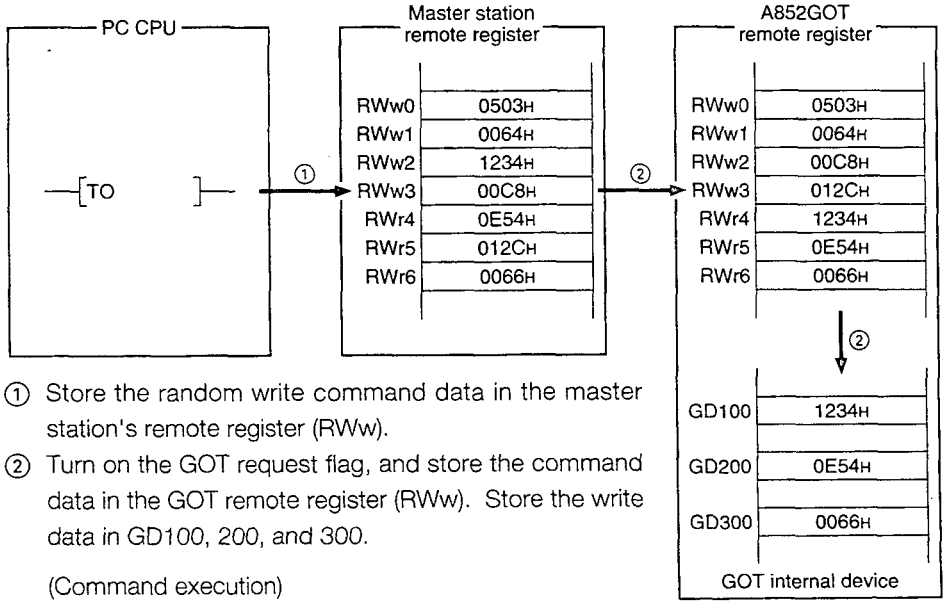
This is a command to write remote register data to several different GOT internal devices.

### 2 Command format

| Communication direction | Address | Contents |
|---|---|---|
| Master station ↓ A852GOT | RWwm (H) | 5: Random write setting |
| | RWwm (L) | When the occupied points are 2 stations<br>1 to 3 : Points to be written to the GOT internal device<br>When the occupied points are 4 stations<br>1 to 7 : Points to be written to the GOT internal device |
| | RWwm + 1 | 0 to 1023 : GOT internal device numbers to be written |
| | RWwm + 2 | Stores the data to be written to the GOT internal device described above |
| | RWwm + 3 to RWwm + E | Stores the data to be written and GOT internal device numbers for the setting points like mentioned above. |
| | RWwm + F | ———— |
| A852GOT ↓ Master station | RWrn to to RWrn + F | ———— |

### 3 Communication overview

When writing remote register data to the GOT internal device GD100, 200, and 300 (3 points)

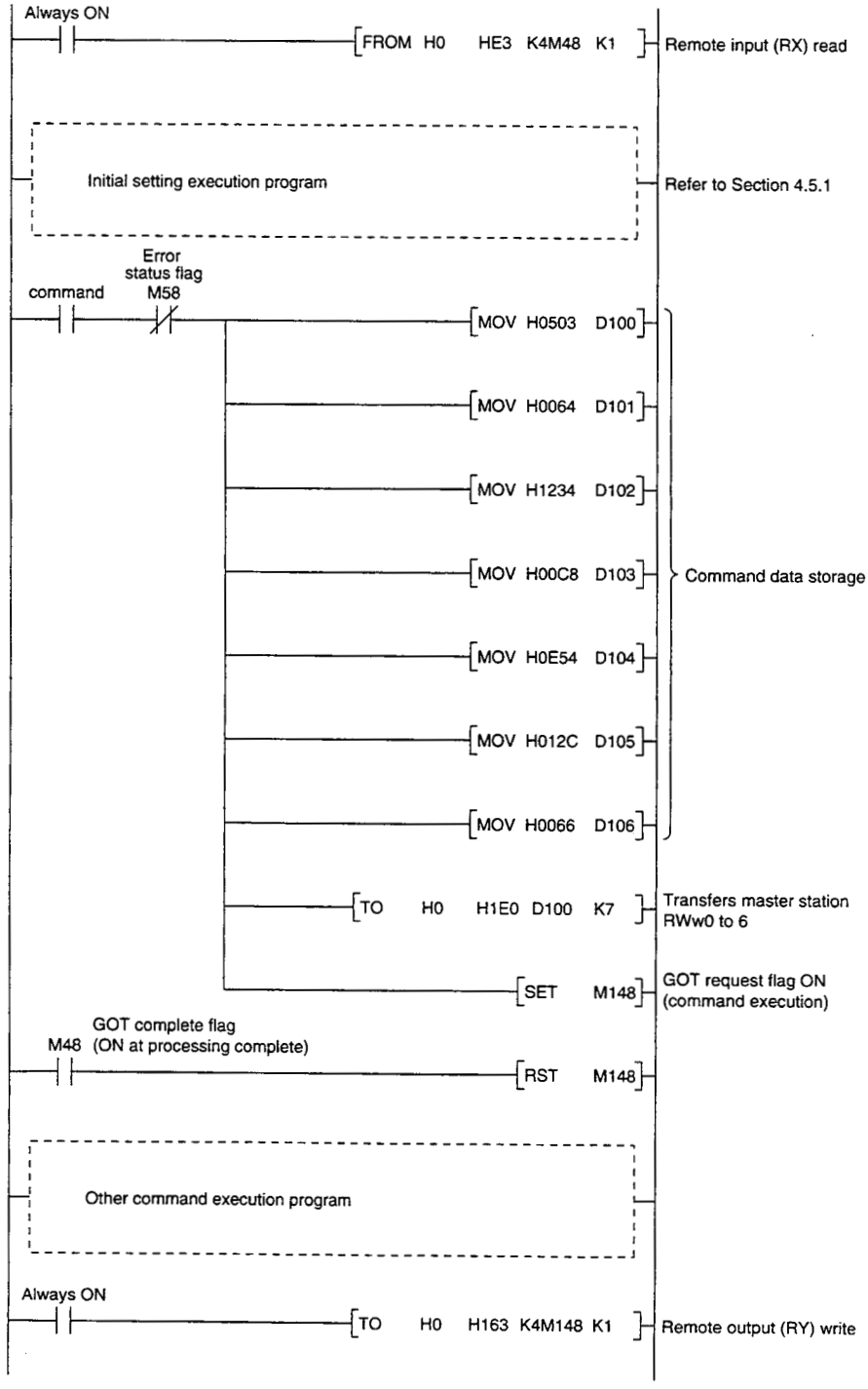



① Store the random write command data in the master station's remote register (RWw).

② Turn on the GOT request flag, and store the command data in the GOT remote register (RWw). Store the write data in GD100, 200, and 300.

(Command execution)
The GOT complete flag turns on when the command processing is complete.

## 4 Sequence program example



## 4.5.6 Monitor register command

### 1 Monitor register command

This is a command to always register the device number of the GOT internal device which reads the remote register.
After executing the monitor register command, always execute the monitor request command.

### 2 Command format

| Communication direction | Address | Contents |
|---|---|---|
| Master station ↓ A852GOT | RWwm (H) | 6: Monitor register setting |
| | RWwm (L) | When the occupied points are 2 stations<br>1 to 6 : GOT internal device points to be registerd for monitoring<br>When the occupied points are 4 stations<br>1 to 14 : GOT internal device points to be registerd for monitoring |
| | RWwm + 1 to RWwm + E | 0 to 1023 : GOT internal device numbers to be registered<br>(Storage for the setting mentioned above) |
| | RWwm + F | ———— |
| A852GOT ↓ Master station | RWrn to RWrn + F | ———— |

### 3 Communication overview

Refer to Section 4.5.7.

## 4.5.7 Monitor request command

### 1 Monitor request command

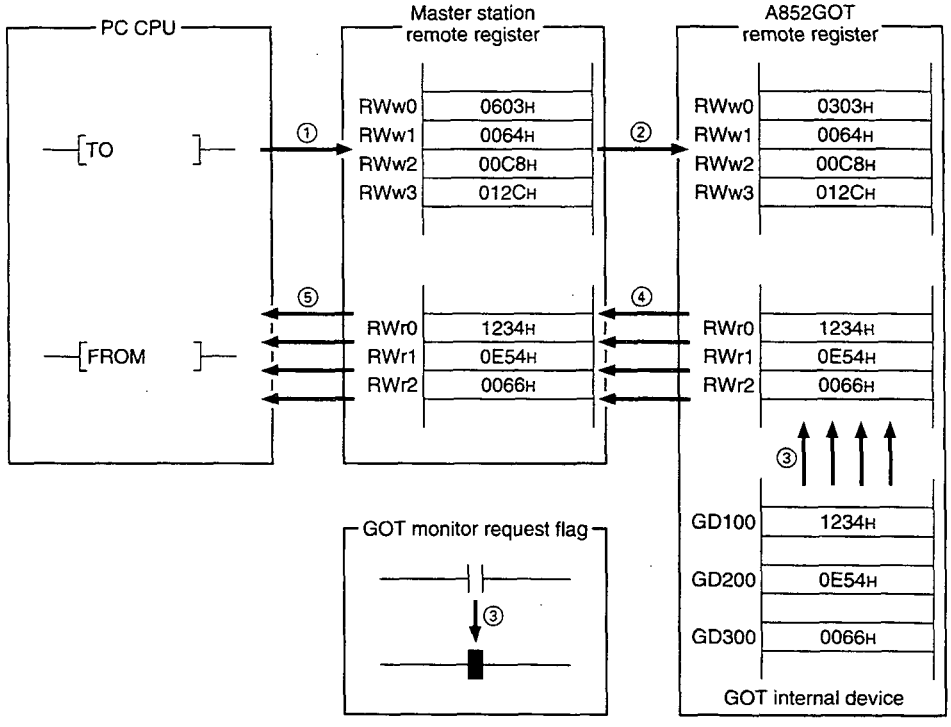
This is a command to always read the data in the GOT internal device registered by the monitor register command execution to the remote register.
Execute the monitor request command after the monitor register command is executed.

### 2 Command format

| Communication direction | Address | Contents |
|---|---|---|
| Master station ↓ A852GOT | RWwm to RWwm + F | ———— |
| A852GOT ↓ Master station | RWrn to RWrn + E | Store the data in the GOT internal device for the number of points registered with the monitor register command |
| | RWrn + F | ———— |

### 3 Communication overview

When always reading the data in the GOT internal device GD100, 200, and 300 to the remote register




① Store the monitor register command data in the master station's remote register (RWw).

② Turn on the GOT request flag, and store the command data in the GOT remote register (RWw).

(Command execution)

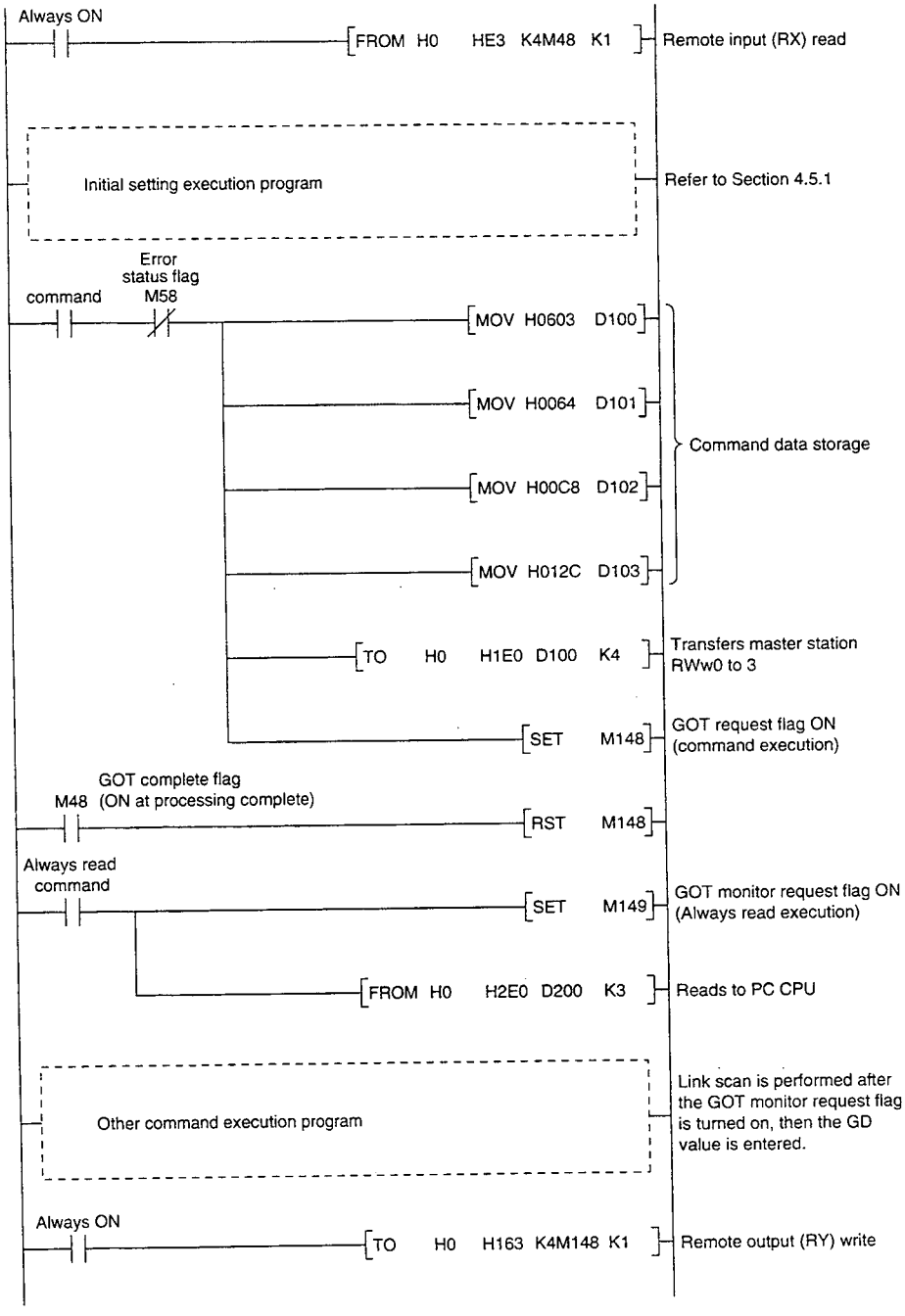
The GOT complete flag turns on when the command processing is complete.

③ By turning on the GOT monitor request flag, always read the data in the GD100, 200, and 300 to the remote register (RWr).

④ By link scan, the read data is stored in the master station's remote register (RWr).

⑤ Read the data to the PC CPU using the FROM instruction, etc.

## 4 Sequence program example



## 4.5.8 Always write register command

### 1 Always write register command

This is a command to always register the device number of the GOT internal device that performs the remote register data write.
After executing the always write register command, always execute the always write request command.

### 2 Command format

| Communication direction | Address | Contents |
|---|---|---|
| Master station ↓ A852GOT | RWwm (H) | 8: Always write register setting |
| | RWwm (L) | When the occupied points are 2 stations<br>1 to 6 : GOT internal device points to be registered for monitoring<br>When the occupied points are 4 stations<br>1 to 14 : GOT internal device points to be registerd for monitoring |
| | RWwm +1 to RWwm + E | 0 to 1023 : GOT internal device numbers to be registered<br>(Storage for the settings mentioned above) |
| | RWwm + F | ———— |
| A852GOT ↓ Master station | RWrn to RWrn + F | ———— |

### 3 Communication overview

Refer to Section 3.5.9.

## 4.5.9 Always write request command

### 1 Always write request command

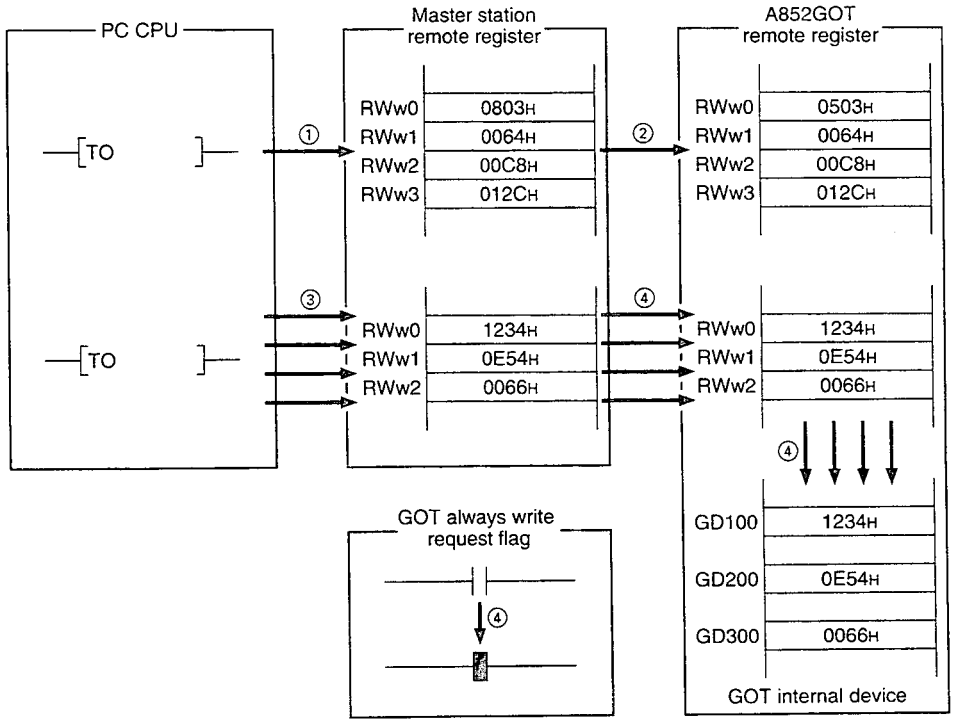
This is a command to always write data in the remote register to the GOT internal device registered by executing the always write register command.
Execute the always write request command after executing the always write register command.

### 2 Command format

| Communication direction | Address | Contents |
|---|---|---|
| Master station ↓ A852GOT | RWwm to RWwm + D | Store write data for the number of points registered with the always write register command |
| | RWwm + E, RWwm + F | ———— |
| A852GOT ↓ Master station | RWrn to RWrn + F | ———— |

### 3 Communication overview

When always writing data in the remote register to the GOT internal device GD100, 110, and 120




① Store the always write register command data in the master station's remote register (RWw).

② Turn on the GOT request flag, and store the command data in the GOT remote register (RWw).

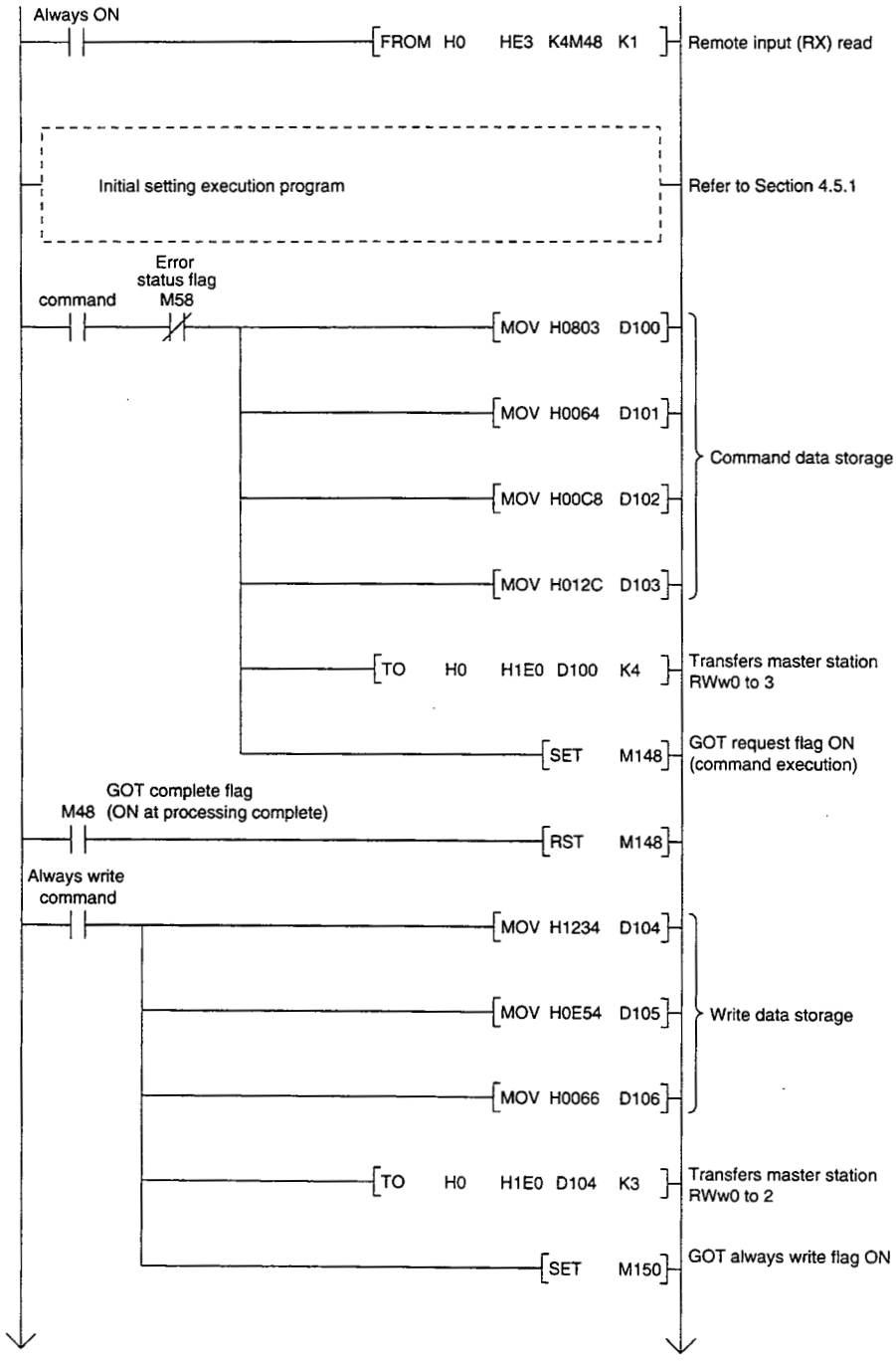
(Command execution)

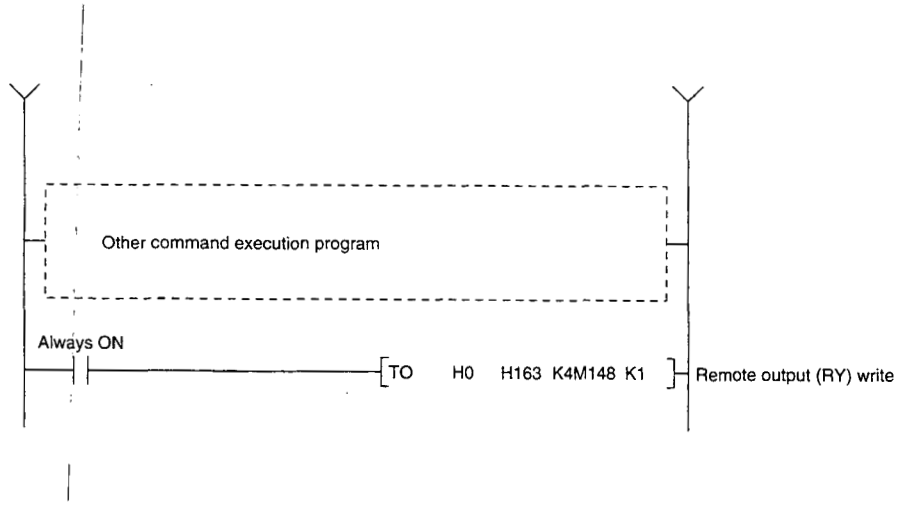
The GOT complete flag turns on when the command processing is complete.

③ Store the always write data in the master station's remote register (RWw).

④ Always write the write data to the GOT internal device GD100, 200, and 300 by turning on the GOT always write request flag.

## 4 Sequence program example




Other command execution program
Always ON
TO H0 H163 K4M148 K1
Remote output (RY) write

## 4.6 List of Accessible Range and Devices for Monitoring

### 1 Monitor accessible range

The monitor accessible range is the remote input/output for the A852GOT allocated to the master station, remote device (write area and read area), and the GOT internal device. Remote devices allocated to device other than the A852GOT cannot be monitored.

### 2 Devices that can be monitored

The "n" and "m" in the table indicates the address allocated to the master station by the station number setting.

| Accessible devices for monitoring | | Device range | |
|---|---|---|---|
| | | Number of stations occupied: 2 stations | Number of stations occupied: 4 stations |
| Bit device | Remote input (RX) | RXn0 to RX (n + 3) F | RXn0 to RX (n + 7) F |
| | Remote output (RY) | RYn0 to RY (n + 3) F | RYn0 to RY (n + 7) F |
| | Bit specification in the remote register (write area) (RWw) | RWwm to RWwm + 7 | RWwm to RWwm + F |
| | Bit specification in the remote register (read area) (RWr) | RWrn to RWrn + 7 | RWrn to RWrn + F |
| | GOT internal bit device (GB) | GB0 to GB1023 | |
| | Bit specification in the GOT internal word device (GD) | GD0 to GD1023 | |
| Word device | Remote register (write area) (RWw) | RWwm to RWwm + 7 | RWwm to RWwm + F |
| | Remote register (read area) (RWr) | RWrn to RWrn + 7 | RWrn to RWrn + F |
| | GOT internal word device (GD) | GD0 to GD1023 | |

**Point**

When creating the monitor screen, set the following device names:
Refer to Section 1.4 for details; Remote input: X; Remote output: Y; Remote register (write/read area): Ww/Wr.

## 4.7 Data Link Processing Time

Refer to the CC-Link Master Module User's Manual for link scan time of the entire system and transmission delay time.

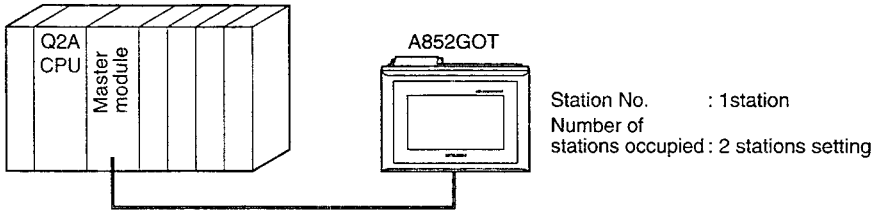
GOT is treated as a remote device station, so read the descriptions for remote device stations.

# 5. SEQUENCE PROGRAM EXAMPLE

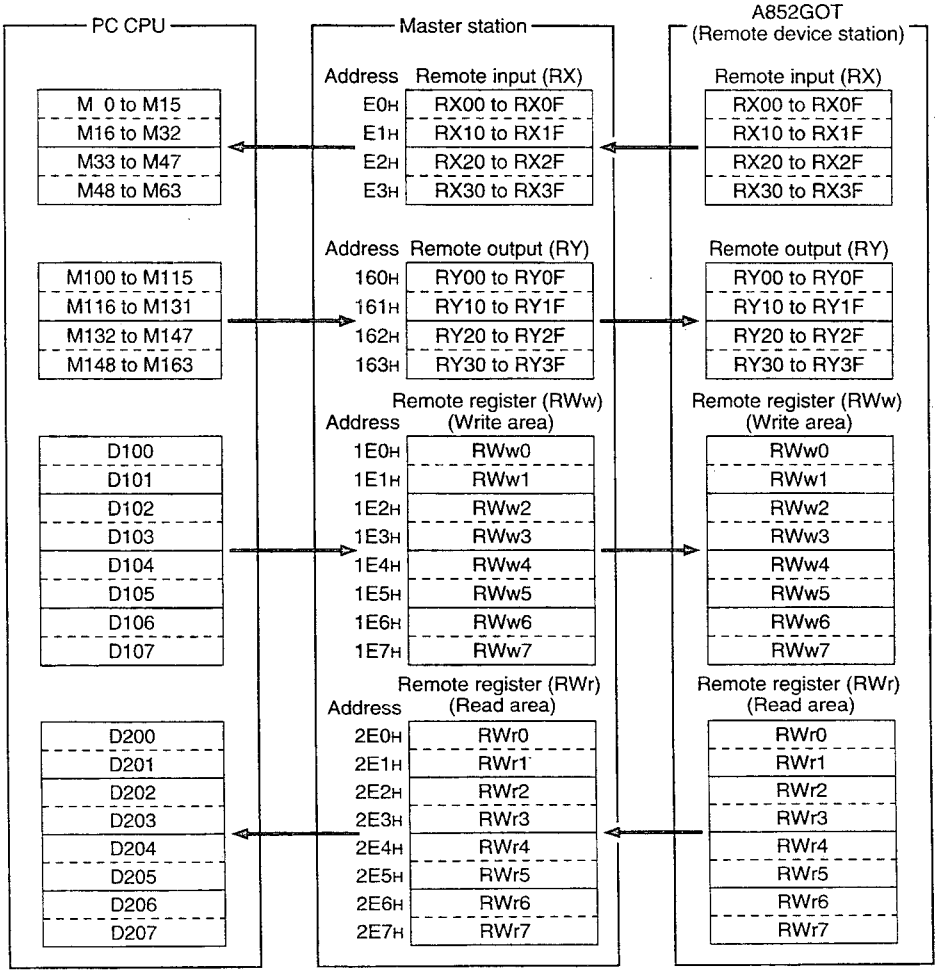
## 5.1 Sequence Program Example When Monitoring Using the Normal Monitor Method

The following system example is used to describe the sequence program in this section.
Refer to the CC-Link Master Module User's Manual regarding the sequence program for the entire CC-Link system.

### 1 System configuration of the program example



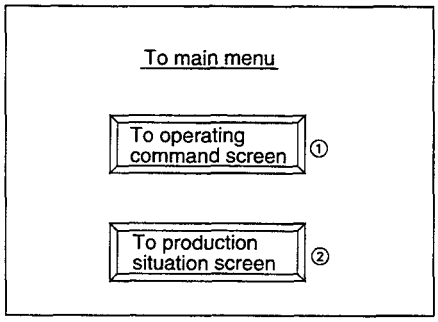

### 2 Relationship among the PC CPU, master station buffer memory, and remote device stations



## 3 Monitor screen data creation example

Common setting: Base screen switch device: Ww0

Base scren No.1

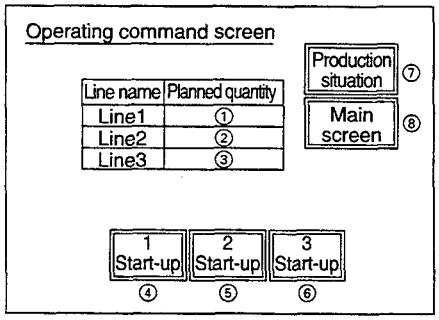



**Contents of sprite setting**

① Touch switch function
Bit SET: X1 (RX1) → M1
Bit RST: X0 (RX0) → M0
Bit RST: X2 (RX2) → M2

② Touch switch function
Bit SET: X2 (RX2) → M2
Bit RST: X0 (RX0) → M0
Bit RST: X1 (RX1) → M1

Base scren No.2




**Contents of sprite setting**

① Numeric value input function
Write device: Wr0 → D200

② Numeric value input function
Write device: Wr1 → D201

③ Numeric value input function
Write device: Wr2 → D202

④ Touch switch function
Bit alternate: X3 (RX3) → M3

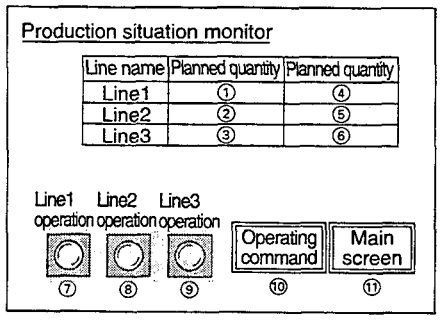
⑤ Touch switch function
Bit alternate: X4 (RX4) → M4

⑥ Touch switch function
Bit alternate: X5 (RX5) → M5

⑦ Touch switch function
Bit SET: X2 (RX2) → M2
Bit RST: X0 (RX0) → M0
Bit RST: X1 (RX1) → M1

⑧ Touch switch function
Bit SET: X0 (RX0) → M0
Bit RST: X1 (RX1) → M1
Bit RST: X2 (RX2) → M2

Base scren No.3




**Contents of sprite setting**

① Numeric value display function
Monitor device: Ww1 (RWw1)
← D101

② Numeric value display function
Monitor device: Ww2 (RWw2)
← D102

③ Numeric value display function
Monitor device: Ww3 (RWw3)
← D103

④ Numeric value display function
Monitor device: Ww4 (RWw4)
← D104

⑤ Numeric value display function
Monitor device: Ww5 (RWw5)
← D105

⑥ Numeric value display function
Monitor device: Ww6 (RWw6)
← D106

⑦ Lamp display function
Monitor device: Y0 (RY0) ← M100

⑧ Lamp display function
Monitor device: Y1 (RY1) ← M101

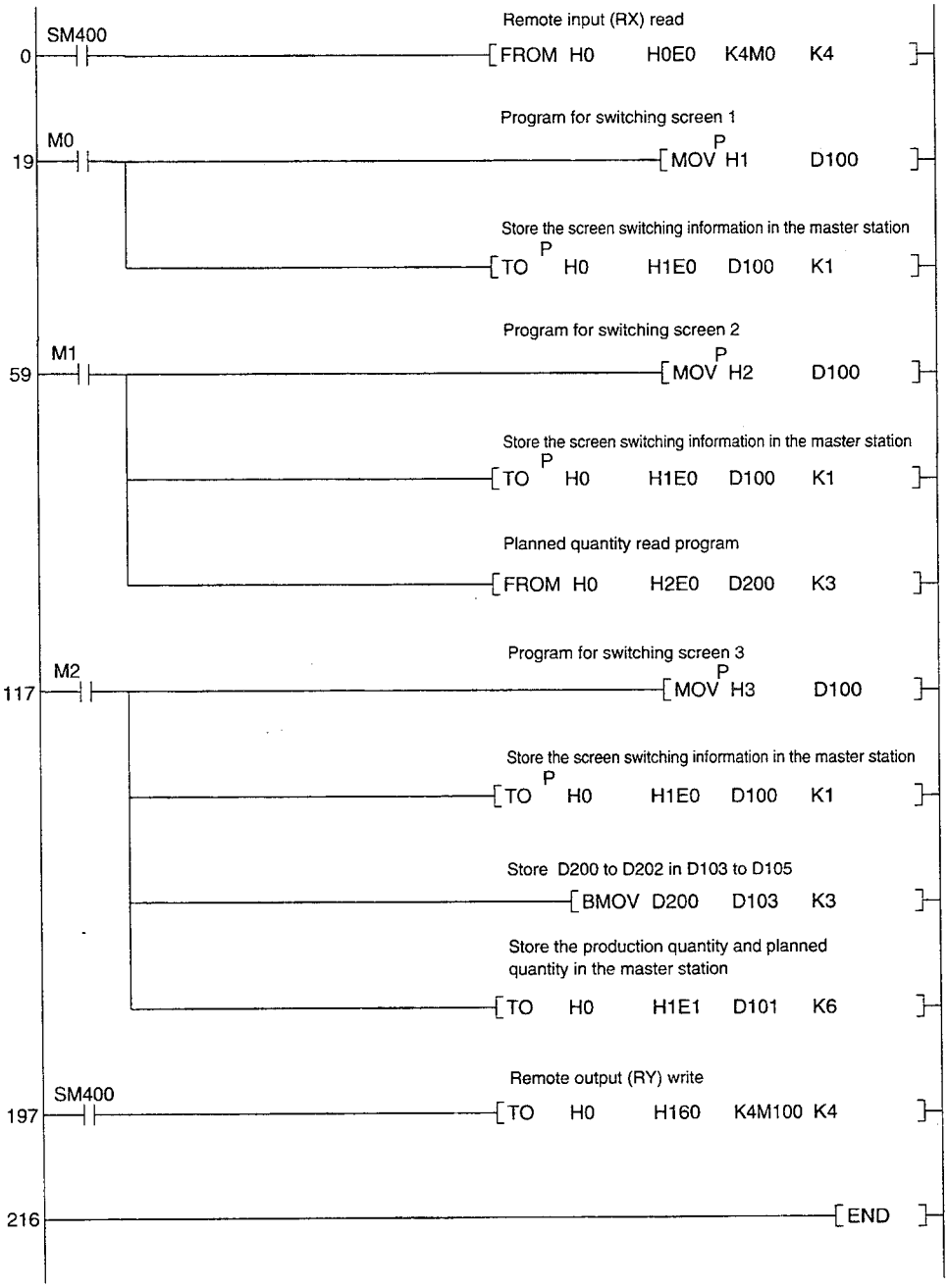
⑨ Lamp display function
Monitor device: Y2 (RY2) ← M102

⑩ Touch switch function
Bit SET: X1 (RX0) → M1
Bit RST: X0 (RX0) → M0
Bit RST: X2 (RX2) → M2

⑪ Touch switch function
Bit SET: X0 (RX0) → M0
Bit RST: X1 (RX1) → M1
Bit RST: X2 (RX2) → M2

## 4 Sequence program example

Refer to the Master Module User's Manual about the program for setting CC-Link parameter.

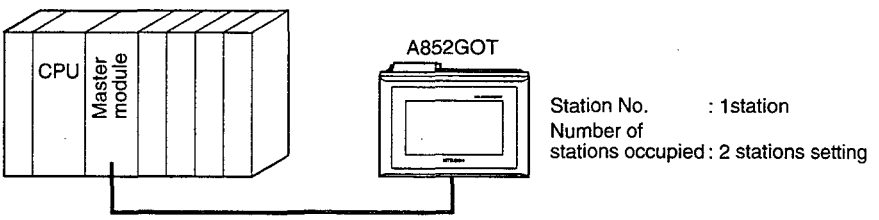


## 5.2 Sequence Program Example When Monitoring Using Dedicated Command Monitor Method

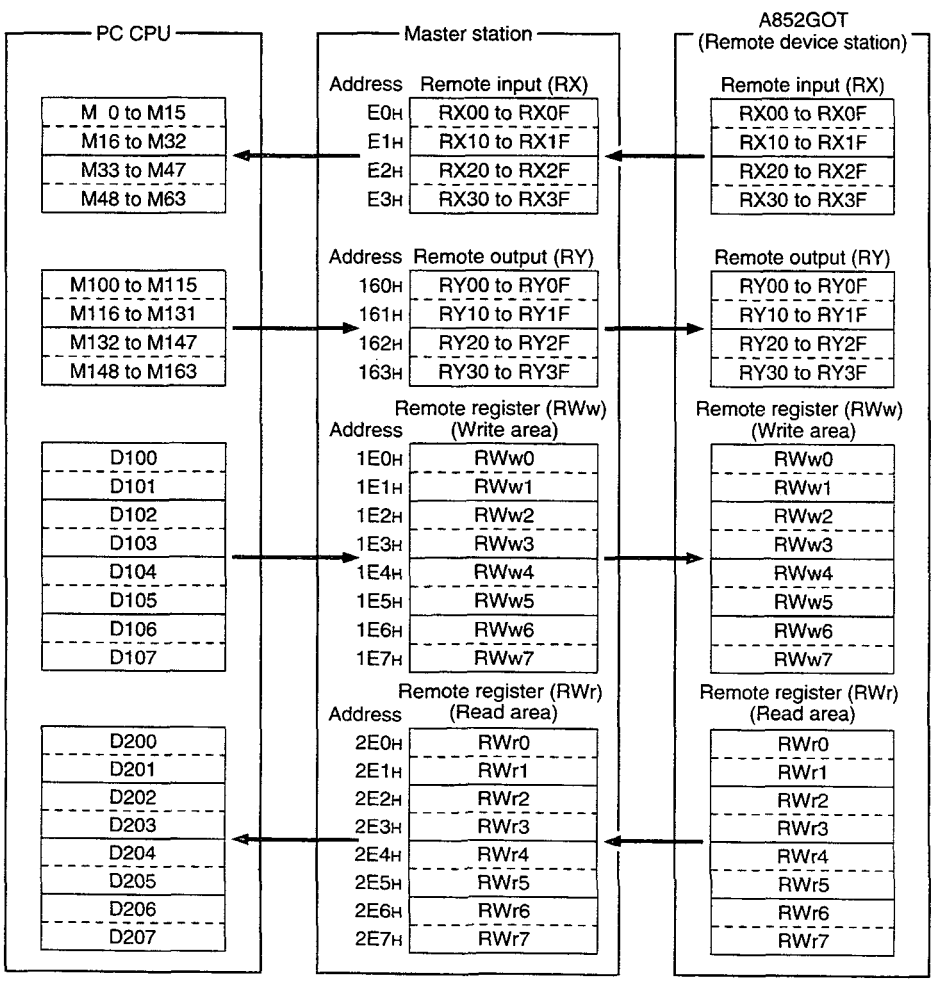
The following system example is used to describe the sequence program in this section.

Refer to the CC-Link Master Module User's Manual regarding the sequence program for the entire CC-Link system.

### 1 System configuration of the program example



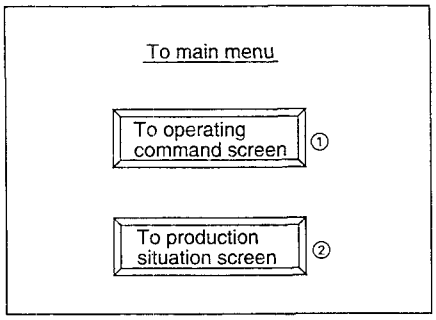

### 2 Relationship among the PC CPU, master station buffer memory, and remote device stations



## 3 Monitor screen data creation example

Common setting: Base screen switch device: GD100

Base scren No.1

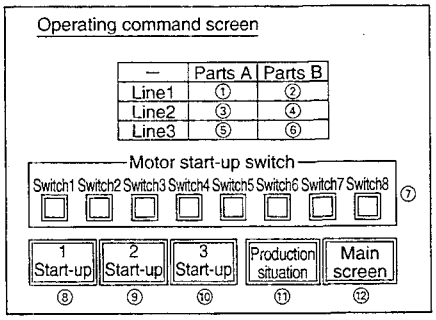



**Contents of sprite setting**

① Touch switch function
Base screen switch fixed value: 2

② Touch switch function
Base screen switch fixed value: 3

Base scren No.2




**Contents of sprite setting**

① Numeric value input function
Monitor device: GD200

② Numeric value input function
Monitor device: GD201

③ Numeric value input function
Monitor device: GD202

④ Numeric value input function
Monitor device: GD203

⑤ Numeric value input function
Monitor device: GD204

⑥ Numeric value input function
Monitor device: GD205

⑦ The monitor devices for the touch switch function of switches 1 to 8 are as follows:
Switch 1: GD250 b0
Switch 2: GD250 b1
Switch 3: GD250 b2
Switch 4: GD250 b3
Switch 5: GD250 b4
Switch 6: GD250 b5
Switch 7: GD250 b6
Switch 8: GD250 b7

⑧ Touch switch function
Bit alternate: GD255 b0

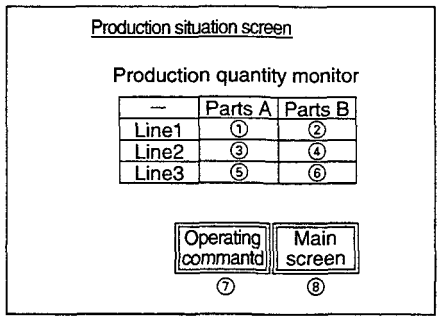
⑨ Touch switch function
Bit alternate: GD255 b1

⑩ Touch switch function
Bit alternate: GD255 b2

⑪ Touch switch function
Base screen switch fixed value: 3

⑫ Touch switch function
Base screen switch fixed value: 1

Base scren No.3




**Contents of sprite setting**

① Numeric value display function
Monitor device: GD101

② Numeric value display function
Monitor device: GD102

③ Numeric value display function
Monitor device: GD103

④ Numeric value display function
Monitor device: GD104

⑤ Numeric value display function
Monitor device: GD105

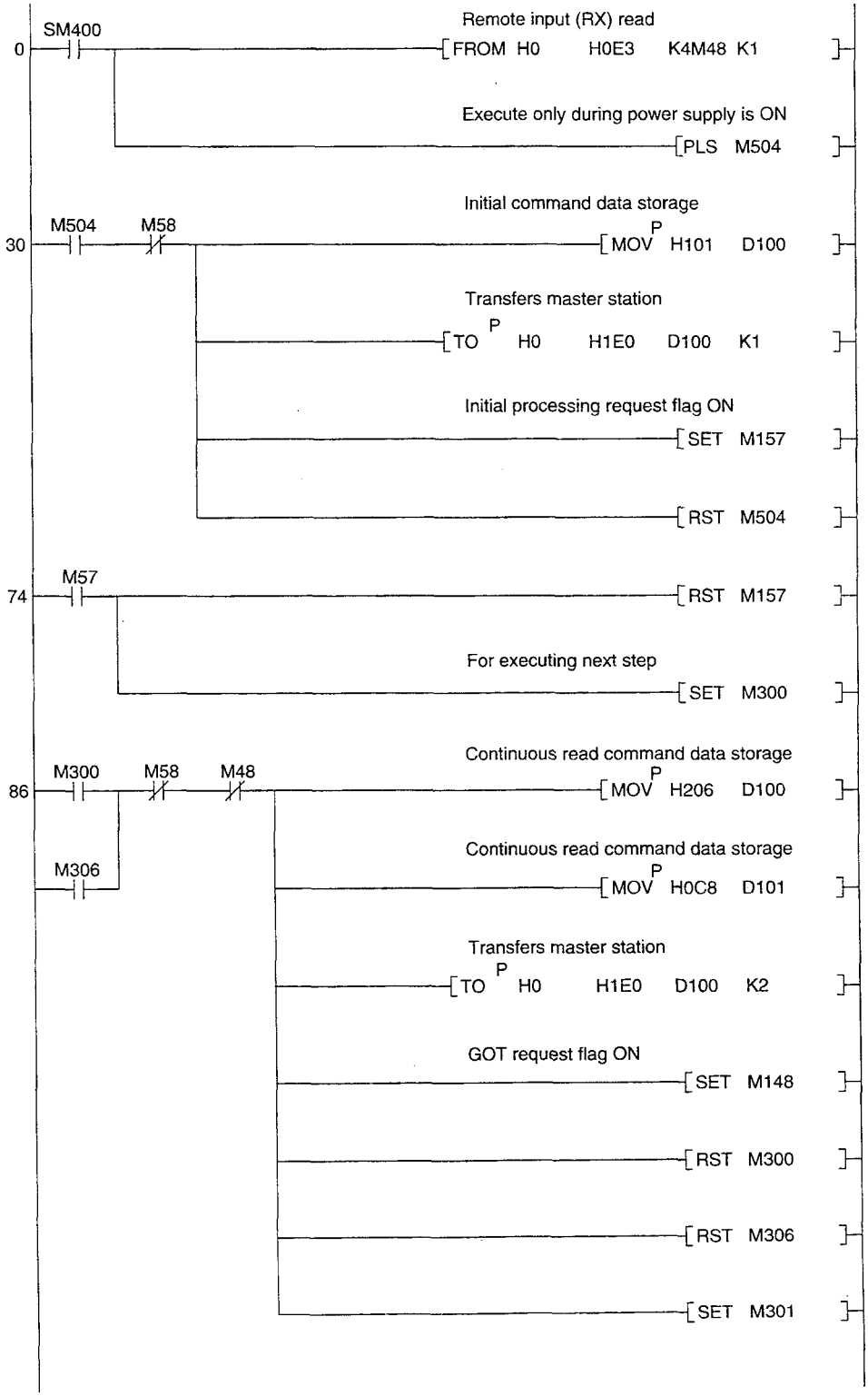
⑥ Numeric value display function
Monitor device: GD106

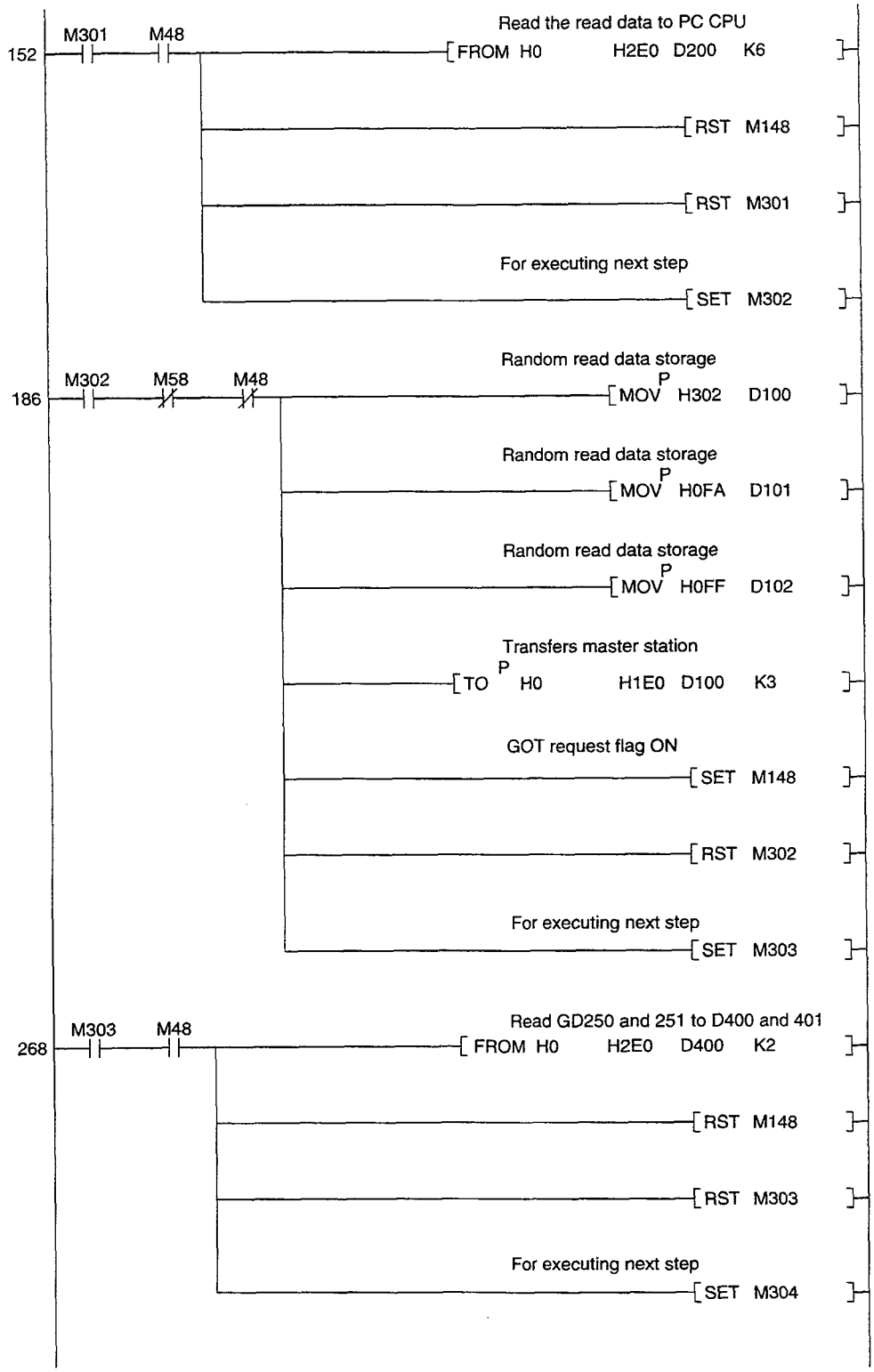
⑦ Touch switch function
Base screen switch fixed value: 2

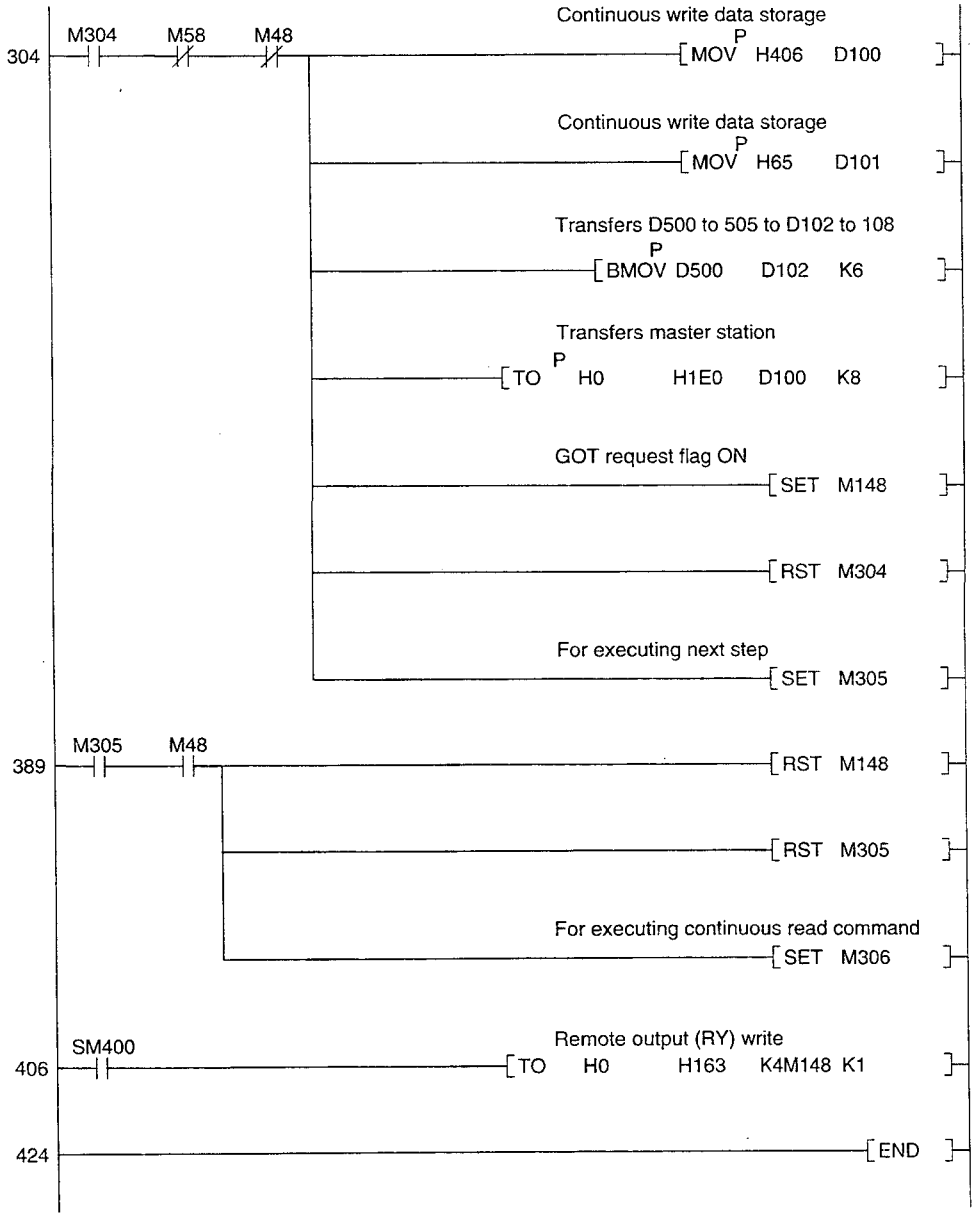
⑧ Touch switch function
Base screen switch fixed value: 1

## 4 Sequence program example

Refer to the Master Module User's Manual about the program for setting CC-Link parameter.

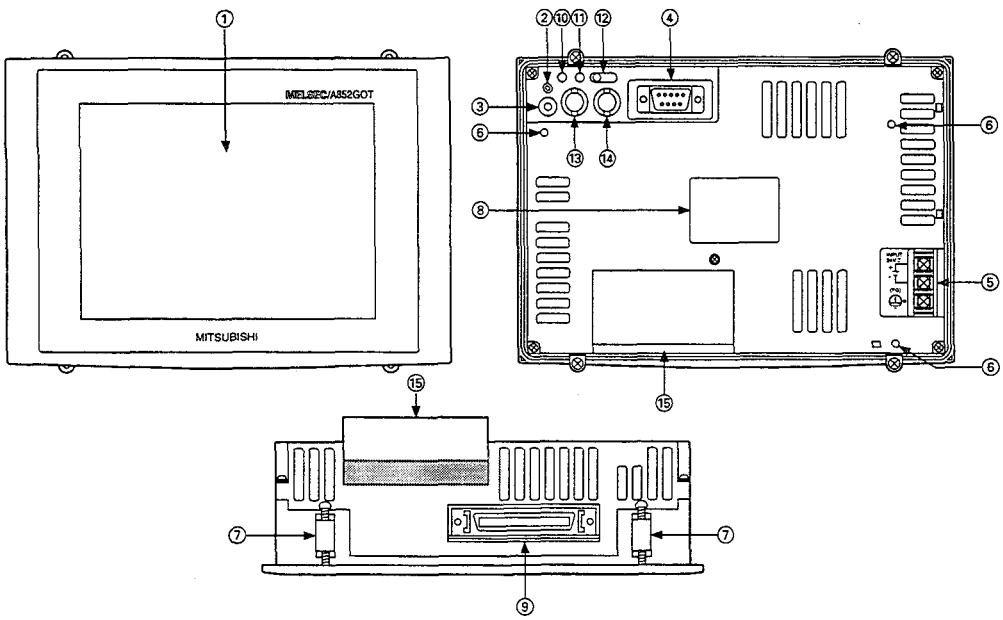



152
M301
M48
Read the read data to PC CPU
FROM H0 H2E0 D200 K6
RST M148
RST M301
For executing next step
SET M302
186
M302
M58
M48
Random read data storage
MOV P H302 D100
Random read data storage
MOV P H0FA D101
Random read data storage
MOV P H0FF D102
Transfers master station
TO P H0 H1E0 D100 K3
GOT request flag ON
SET M148
RST M302
For executing next step
SET M303
268
M303
M48
Read GD250 and 251 to D400 and 401
FROM H0 H2E0 D400 K2
RST M148
RST M303
For executing next step
SET M304


Continuous write data storage
M304
M58
M48
304
MOVP H406 D100
Continuous write data storage
MOVP H65 D101
Transfers D500 to 505 to D102 to 108
BMOVP D500 D102 K6
Transfers master station
TOP H0 H1E0 D100 K8
GOT request flag ON
SET M148
RST M304
For executing next step
SET M305
M305
M48
389
RST M148
RST M305
For executing continuous read command
SET M306
SM400
406
Remote output (RY) write
TO H0 H163 K4M148 K1
424
END

# 6. NAMES OF PARTS AND HANDLING SYSTEM EQUIPMENTS

## 6.1 Names of Parts and Their Settings




| No. | Name | Contents |
|---|---|---|
| ① | Display module | Displays monitor screens |
| ② | Power supply LED | Lights when power supply is on |
| ③ | Reset switch | Resets the GOT hardware |
| ④ | RS-232C interface | RS-232C interface for connectiong a personal computer |
| ⑤ | Power supply terminal block | For input of 24 VDC power supply<br>(M3 × 3 screws)<br>INPUT 24V ⎓ + - (FG) |
| ⑥ | Communications module installation screw hole | Hole for screw used to attach a communications module to the GOT |
| ⑦ | Installation hook installation section | installation hook is installed here |
| ⑧ | Ratings plate | ——— |
| ⑨ | Optional module interface | For connecting printer interface module/ memory card interface module |
| ⑩ | Operation display LED L. RUN | ON : Normal communication<br>OFF: Discommunication (Refer to Sectuon 11.3) |
| ⑪ | Operation display LED L. ERR | ON : Communication data error (Refer to Section 11.3)<br>OFF: Normal communication |
| ⑫ | Number of stations occupied setting switch | Set number of stations occupied (2/4 stations)<br>(Factry-set: 4 stations) |
| ⑬ ⑭ | Station number setting switch | Set the station No. of A852GOT within the range of 1 to 64.<br>(Factry-set: 0 station) |
| ⑮ | Terminal block | For connecting cable<br>(8 points terminal block M3 × 8 screws) |

## 6.2 Protective Sheets

The A8GT-50PSC and A8GT-50PSN are protective sheets for the display area 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 area

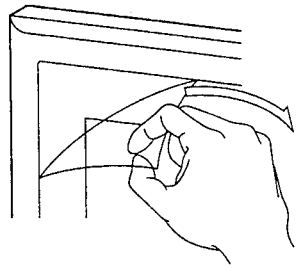
② To prevent reflection from external disturbance light on the display area

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 area | A8GT-50PSC | Transparent protective sheet |
| Display area protection + anti -refletion | A8GT-50PSN | Anti-reflection protective sheet |

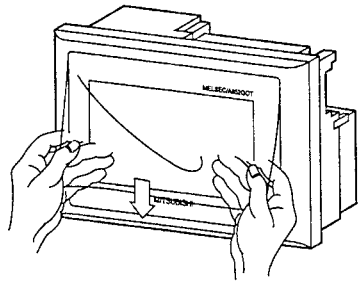
∘ Installation method

① Peel off the old protective sheet from the GOT display area.



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

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



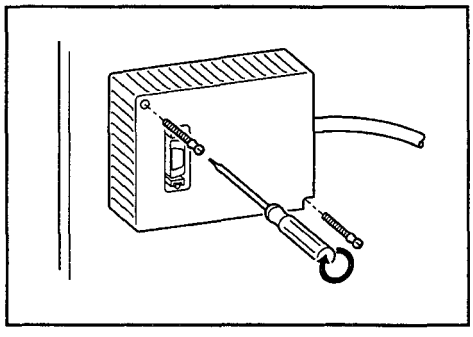
## 6.3 Printer Interface Module Connection Method

The connection method for the printer interface module to be installed to the GOT is described.

Refer to the A8GT-50PRF User's Manual for the details of installation method and specification of the printer interface module.

Refer to the A8GT-50STE User's Manual when using the installation metal clamps to install the printer interface module to the GOT main module.

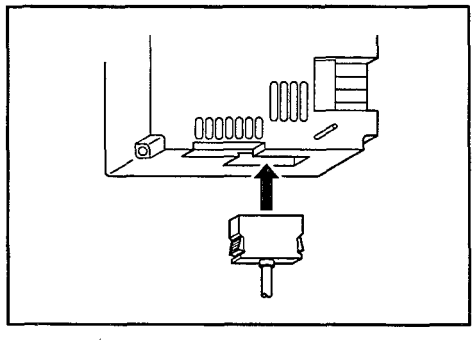
**DANGER** ● Make sure to switch all phases of the external GOT's and PC's power supply off before loading or removing the printer interface to/from the GOT.



① Make screw holes on the control panel, etc. for the A8GT-50PRF installation. (2 ø 3.5 installation holes)

The A8GT-50PRF GOT connection cable is 50cm; set in the position where the GOT side connector can securely be installed to the GOT connector. When installing it behind the lid of the A8GT-50PRF control panel, make sure that the screw holes do not protrude the surface of the control panel.

② Tighten the installations screws within the range of specified torque 39 to 59 N·cm(4 to 6kg·cm).



③ Install the GOT side connector to the GOT lower connector.

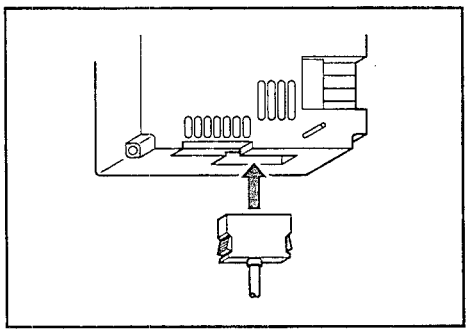
④ Connect the A8GT-50PRF and printer with the connection cable.

## 6.4 Memory Card Interface Module Connection Method

The connection method for the memory card interface module to be installed to GOT is described.

Refer to the A1SD59J-MIF User's Manual (Hardware Manual) for details of installation and specification of the memory card interface module.

**DANGER** ● Make sure to switch all phases of the external GOT's and PC's power supply off before loading or removing the memory card interface module to/from the GOT.



① Install the A1SD59J-MIF to the control panel, etc.
(Refer to the A1SD59J-MIF User's Manual.)

② Install the GOT side connector to the GOT lower connector.

③ Install the A1SD59J-MIF side connector to the A1SD59J-MIF connector.

# 7. OPERATING UTILITY FUNCTIONS

## 7.1 List of Utility Functions

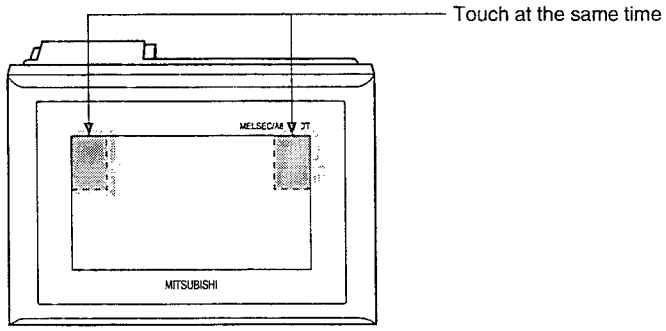
| Item | Contents | Remarks | Ref. Page |
|---|---|---|---|
| Brightness adjustment<br>Message display selection | Adjusts the backlight brightness<br>Selects the screen message display (Japanese/English) | | Section 7.3 |
| System monitor | Unusable | | Section 7.4 |
| Screen copy | Transfers data between internal memory of screen data and memory card (Only when using A1SD59-MIF) | Only screen data created by the user | Section 7.5 |
| Setup | Sets the following items:<br>• Message display selection (Japanese/English)<br>• Buzzer sound adjustment<br>• Screen saver time setting<br>• Backlight automatic off function<br>• Select the display mode (for either the A852GOT-LWD (-M3) and A852GOT-LBD (-M3), normal/reversed display can be selected).<br>• Transmission speed setting | | Section 7.6 |
| Self-test | Tests the following hardware of the GOT main module:<br>• Drawing check<br>• Font check<br>• Memory card check<br>• Internal memory user area check<br>• Internal memory OS area check<br>• CPU communications check (CC-Link communication check)<br>• Touch switches check | | Section 7.7 |
| Memory information | Displays the following information:<br>• OS version<br>• Format of communications with PC CPU<br>• Available capacity in internal memory<br>• Whether or not memory card is inserted, and available capacity<br>• Whether or not optional module exists | | Section 7.8 |
| Clock function | Unusable | | Section 7.9 |
| Screen cleaning | Displays screen in order to clean display area | | Section 7.10 |
| File function | The following information of the data stored by the alarm history function is display, data deletion:<br>• Data capacity, and storage date and time<br>• Memory card format<br>(Only when using A1SD59-MIF) | | 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.

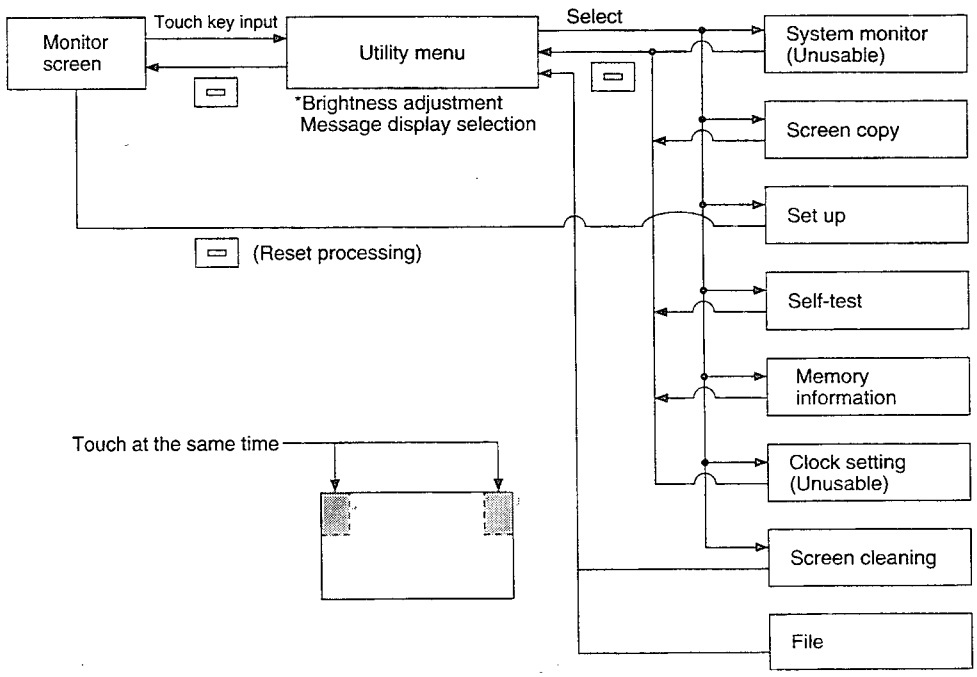
There are two ways to start up the utility functions, as described below.

(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 (extension) 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).)

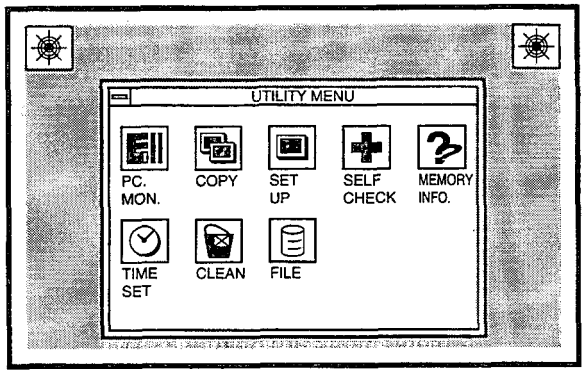
The following shows an outline of the utility function procedures.



## 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 Operations

(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) | • System monitoring function OS has not been installed in GOT<br>• PC CPU connected to GOT has no clock function | • Install the OS.<br>• 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 the Dedicated Screen (System Monitor)

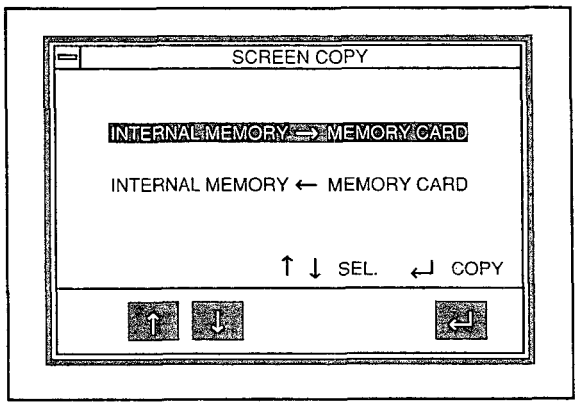
The system monitor function cannot be used.

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

When the alarm history function data is stored in the memory card that uses this function the screen data copied using the screen copy function is deleted. Use separate memory cards of the memory cards for the screen copy function and the alarm history function.

### 1 Display screen

Example of screen




### 2 Functions

- Project data can be backed up from the internal memory to a memory card.
- Project data backed up from the memory card to the internal memory can be copied.

### 3 Operations

(a) Basic operations

- Items are selected by touching the [↑] and [↓] keys.
- Touching the [↵] key displays the message "OK to execute?".
- To execute the function, touch the key once again. To select an item, use the [↑] and [↓] keys. To interrupt a function, touch the [▭] key. However, please be aware that this returns to the utility menu screen.

(b) Returning to the utility menu screen

- Touching the [▭] returns to the utility menu screen.

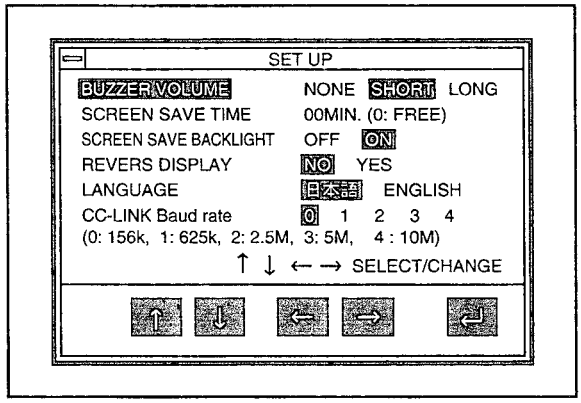
## 4 Error messages displayed in response to operations

| Message | Cause | Corrective action |
|---|---|---|
| Cancel write protect function | The write protect function has been specified on the memory card. | Cancel the write protect function on the memory card. |
| Install memory card | No memory card has been installed in the GOT. | Install a memory card in the GOT. |
| Format memory card | The memory card installed in the GOT has not been formatted. | Format the memory card. (Refer to Section 8.4.) |
| Insufficient memory on card | The amount of available capacity on the memory card which has been installed is less than the contents of the internal memory. | Replace the memory card with one which has sufficient available capacity.. |
| Memory card error | There is a hardware problem with the memory card which has been installed. | Replace 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
  ① In order to keep the display module from burning out, this function turns off the display if it is not touched within a specified period of time.
  ② If the display has been turned off, it can be turned on again simply by touching it.
  ③ If this timing is set to "0", the screen is always displayed.

- The back light can be automatically turned off along with the screen saver. (When shipped from the factoty: ON)
- The display mode (normal display (No)/inverted display (Yes)) can be selected. (When shipped from the factoty: No)
  A852GOT-LWD, A852GOT-LBD, A852GOT-LWD, or A852GOT-LBD can be selected.
- The language for displaying messages can be selected.
- The transmission speed can be set. (When shipped from the factoty: 0: 156K)

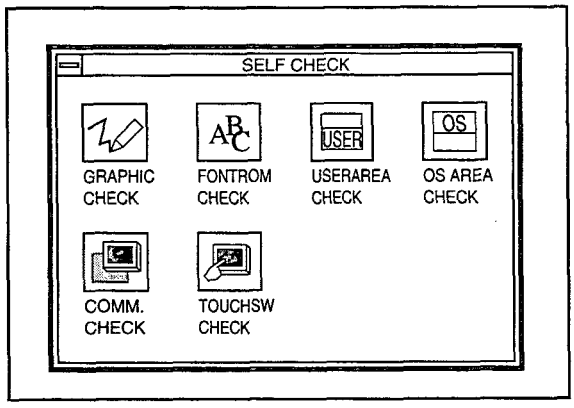
### 3 Operations

(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 time 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 Module Hardware (Self-Test)

### 1 Display screen




### 2 Functions

This tests the hardware modules of the GOT listed below.

- Drawing check ..... Checks visually for sections of the display module 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.
- Internal memory user area check ... Checks the user area of the internal memory.
- Internal memory OS area check..... Checks the OS area of the internal memory.
- CPU communications check ..... Checks the status of communications between the CC-Link. (CC-Link communication check)
- Touch switches check ..... Checks the touch switches.

} These are checked by the GOT.

### 3 Operations

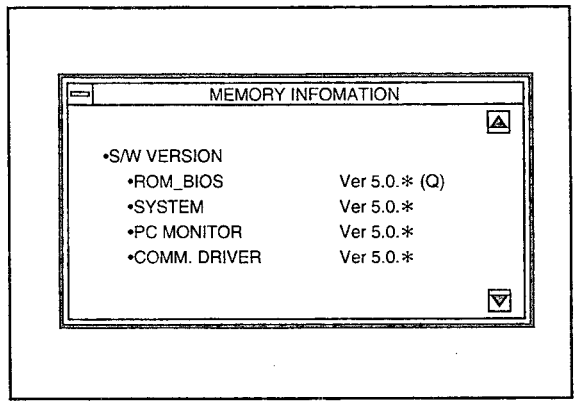
(a) Basic operations

- Touch the display area 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. The colors used for display change in the order of: blue → red → purple → green → blue/green → yellow → white.
  - ② Basic graphics such as circles and squares are displayed.
  - ③ Ovals and checked patterns are displayed either alternately, or in a superimposed display.
- Perform the CC-Link communication check (communication status). If an error is displayed, the case of error need to be corrected by referring to Section 11.3.

## 7.8 Displaying Various Types of GOT Memory 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 capacity in internal memory
- Whether or not memory card is installed, and available capacity
- Whether or not optional module exists

### 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.

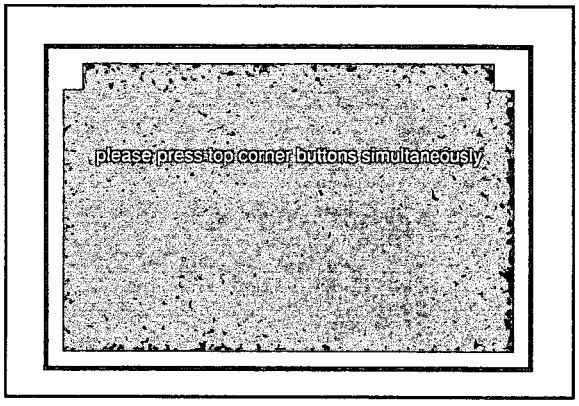
## 7.9 Specifying the PC CPU Clock Data (Clock Setting)

The clock setting function cannot be used.

## 7.10 Displaying the Display Area Cleaning Screen (Screen Cleaning)

### 1 Display screen

Example of screen



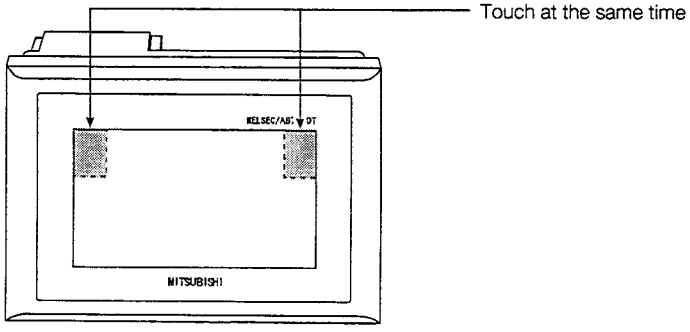

### 2 Functions

- When cleaning the display area, 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.



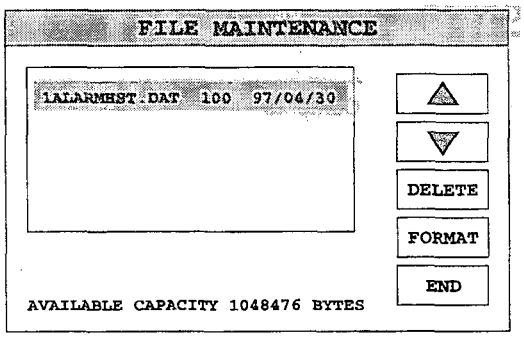
## 7.11 Checking Data Information Stored by the Alarm History Function

The same memory card cannot be used for the alarm history function and the screen copy function. If the alarm history function data is stored in the memory card in which the screen copy function screen data is stored the data stored by the screen copy will be deleted, so take due precautions.

Use separate memory cards for the memory cards for the screen copy function and the alarm history function.

If a different memory card (several memory cards for alarm history can be used) is switched in while this screen is displayed, the data information of this switched in memory card cannot be displayed. Redisplay this screen from the utility screen.

### 1 Display screen




### 2 Functions

- The file name, capacity, date, and time of the data stored by the alarm history function can be checked. (The file name of the data stored by the alarm history function is set to the above ALARMHST.DAT. fixed)
- The memory card can be formatted.
- The data stored by the alarm history function can be deleted.

### 3 Operations

(a) Operation for deleting the data stored by the alarm history function

Touch the [▲] [▼] to select the data to be deleted.

After making the selection touch the [DELETE].

(b) Operation for formatting the memory card

Touch [FORMAT].

(c) To return to the utility menu

Touch [END] to return to the utility menu.

# 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 Transfer/Debugging/Document Creation Manual) Section "Communication menu".

## 8.1 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 module 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 | Transfers 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 available capacity on the memory card. | This can also be checked using "Memory Information" under the GOT utility functions (Refer to Section 7.8). |

# 9. INSTALLATION AND WIRING

## 9.1 Precautions Regarding Handling

This section explains precautions which shoud be overred when handling the GOT.

**DANGER**

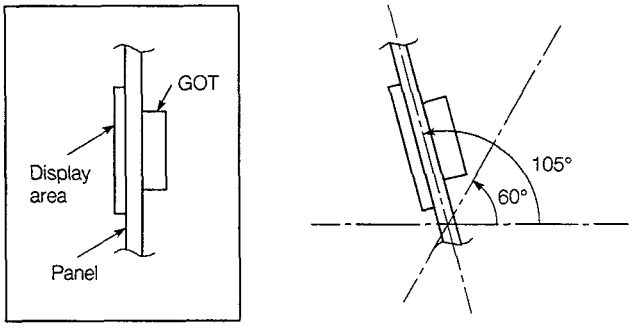
- Make sure to switch all phases of the external GOT's power supply off before beging installing and wiring work. If you do switch off the external power supply, it will cause electric shock, malfunction, or damage to the module.

**CAUTION**

- 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 and the optional module.
  These can cause fire, failure or malfunctions.
- Do not bunch the communication cables with the main circuit or power wires, or install them close to each other.
- The FG and LG terminals should always be grounded using the class-3 or higher grounding designed specially for the GOT. Failure to ground these terminals may cause electric shock or malfunctions.
- When wiring the GOT, check the rated voltage and terminal layout of the wiring, and make sure the wiring is done correctly. Connecting a power supply that differs from the rated voltage or wiring it incorrectly may cause fire or failure.
- Tighten the GOT's terminal screws within the range of specified torque. If the terminal screws are loose, it may result in fallout, short circuits, or malfunctions. Tightening the terminal screws too far may cause damages to the screws and/or the module, resulting in fallout, short circuits, or malfunctions.
- Never disassemble or modify the each module.
  This may cause failure, malfunctions, injury, and/or fire.
- Don't touch the conductive parts and electronic parts of the GOT main module and optional module. This may cause the module to malfunction or failure.
- When disposing of this product, treat it as industrial waste.
- Bacause they are made of resin, don't drop or given a strong shock to the GOT main module and optional module.
  This may cause failure.

**1** **When installing the main module to the control panel, position the display module as shown below.**

· If the temperature inside the panel is 55°C, the display module should be installed at an angle within the range of 60 to 105°.




· Using the display module 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.

**2** **Refer to Section 2.5 about usable model name of cable, specification and manufacuture.**

## 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.

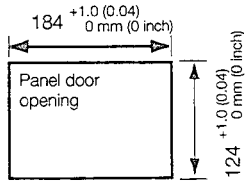
- Locations where the temperature changes drastically and condensation occurs
- Locations where the equipment is exposed to direct sunlight
- Locations where strong electrical or magnetic fields are generated
- Locations where the main module is exposed to direct vibration or impact

## 9.3 Installation and Wiring Method

Use the fittings that installation come with the main module to assemble it.

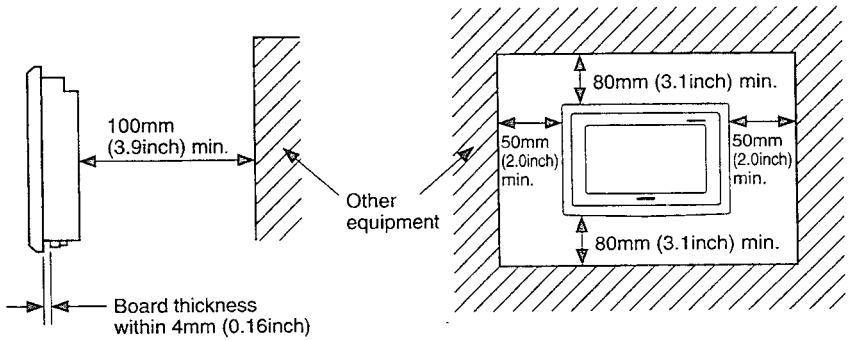
### 1 Installation panel and processing

If module s such as the control panel door and an installation base made by the user are to be installed, the door and installation base need to be processed as shown in the illustration below.




### 2 Installation position

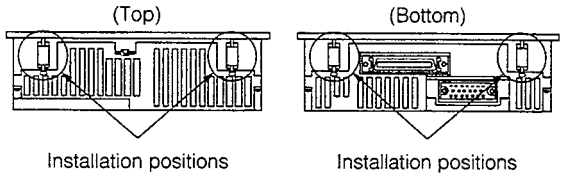
When installing the GOT, it should be separated from other equipment by the clearances indicated below.



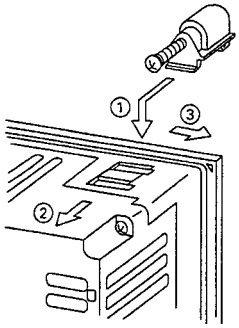
### 3 Installation method

(a) Insert the front of the main module first.

(b) The module is installed at four places on the top and bottom of the GOT, as shown below.



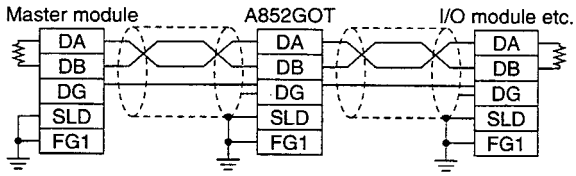

(c) Install the installation hooks as shown below. The specified torque should be 62 to 83.5 N·cm (6 to 8 kg·cm).




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

### 4 Wiring method

(a) Wire the twisted pair cables between A852GOT and the master module, etc. in the following manner:



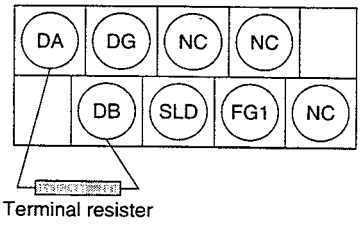

(b) About the FG terminal grounding method for the power supply terminal block and cable connection terminal block

The FG terminals of the power-supply terminal block and cable connection terminal block are not internally connected.

Be sure to ground the FG terminal of the power supply terminal block and that of cable connection terminal block separately.

### 5 When the A852GOT is the final station

When the A852GOT is the final station, be sure to connect a terminal resistor at the following position:



6 Tighten the connection terminal screws and power supply terminal screws in the following range:

| | |
|---|---|
| Connected terminal block terminal screw | 39 to 59 N·cm (4 to 6 kg·cm) |
| Connected terminal block installation screw | 59 to 88 N·cm (6 to 9 kg·cm) |
| Terminal block screw for power supply | 39 to 59 N·cm (4 to 6 kg·cm) |

# 10. MAINTENANCE AND INSPECTION

In order to make sure your PC 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 | Item to inspect | Inspection method | Judgment criteria | Corrective action |
|---|---|---|---|---|
| 1 | Module installation conditions | Check for loose installation 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 area of cables | There should be no loose connectors. | Tighten connector fixed 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 to inspect | | Item method | Judgment criteria | | Corrective action |
|---|---|---|---|---|---|---|
| 1 | Ambient environment | Ambient temperature | Measure with thermometer/barometer. Measure corrosive gases. | Display area | 0 to 40°C | If used inside the panel, inpanel temperature should be same as ambient temperature |
| | | Ambient humidity | | Other parts | 0 to 55°C | |
| | | Atmosphere | | 10 to 90% RH | | |
| | | | | No corrosive gases | | |
| 2 | Power supply voltage check | | Measure voltage between 24 VAC terminals. | 15.6 to 31.2 VDC | | Change power supply |
| 3 | Installation conditions | Looseness, rattling | Try moving the module. | Should be installed 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

This section explains precautions which should be observed when carrying out maintenance and inspections.

**DANGER**

- Do not touch the terminals while the power is on. Doing so may cause electric shock or malfunction.
- Make sure to switch all phases of the external GOT's power supply off before cleaning or retightening terminal screws. If you do not switch off the external power supply, it will cause electric shock.

**CAUTION**

- Never disassemble or modify the module. This may cause failure, malfunctions, injury, and/or fire.
- Make sure to switch all phases of the external GOT's power supply off before mounting or removing the system equipment.
  If you do not switch off the external power supply, it will cause failure or malfunction of the module.
- When disposing of this product, treat it as industrial waste.

## 10.4 Replacing the LCD Backlight

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

**DANGER**

- Make sure to switch all phases of the external GOT's power supply off before replacing the backlight, and first remove the GOT main module from the panel. If you do not switch off the external power supply, it will cause electric shock. If left in the panel, the GOT could fall and cause an injury.

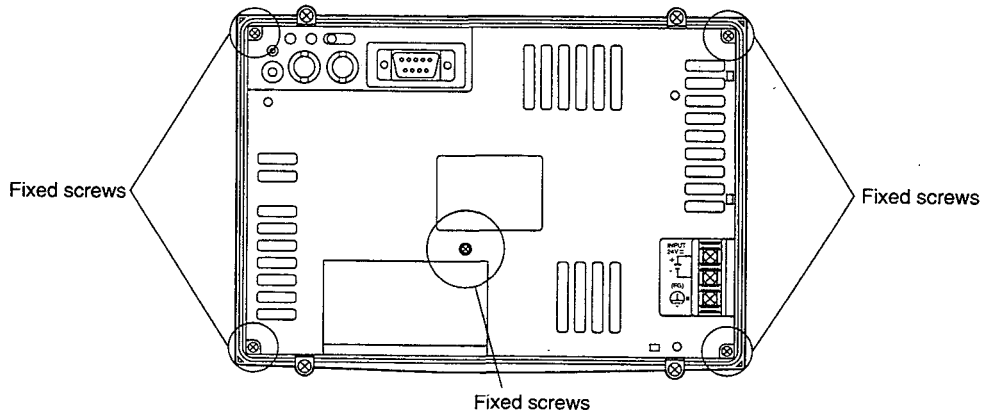
**CAUTION**

- 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 backlight when replacing the backlight. Doing so could cause damage or failure of the backlight.

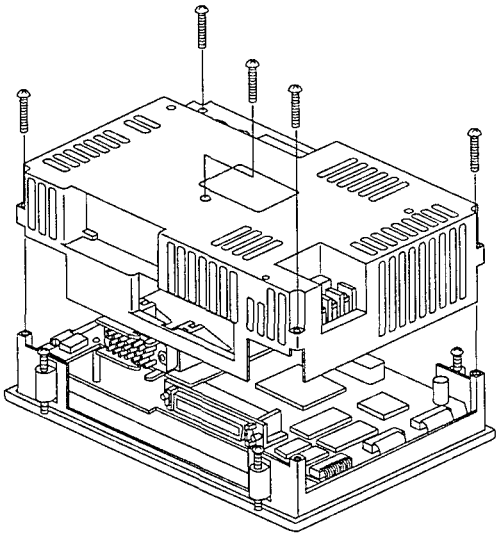
### 1 Removing the backlight

① Loosen the GOT installation hooks, and remove the GOT from the base.

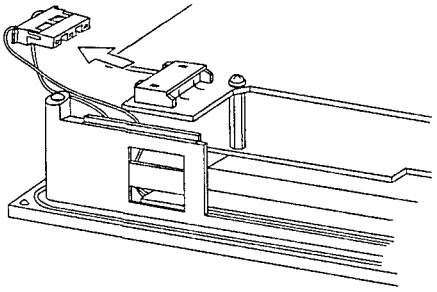
② Using a screwdriver, remove the four fixed screws from the back corners of the GOT, and the one fixed screw in the center. If a communications module has been installed, remove it before taking out the fixed screws.



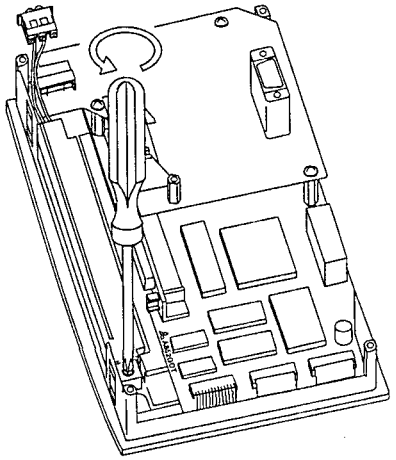
③ Remove the case from the back of the GOT.



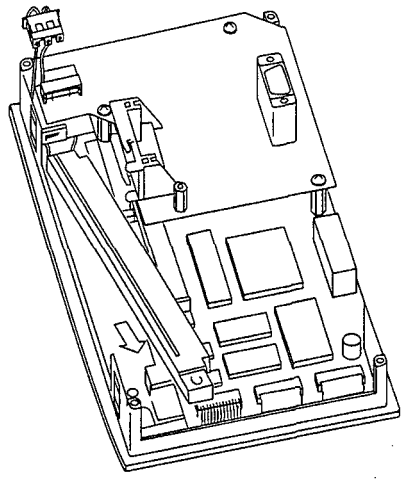
④ Disconnect the backlight cable connector from the display area connectors.



⑤ Using a screwdriver, remove the fixed screws of the backlight.

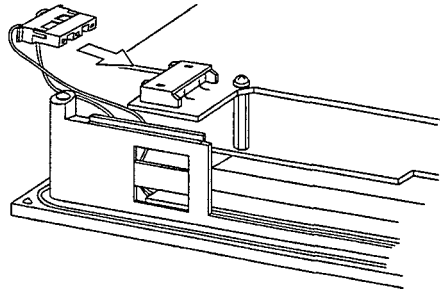


⑥ Remove the backlight from the display area.

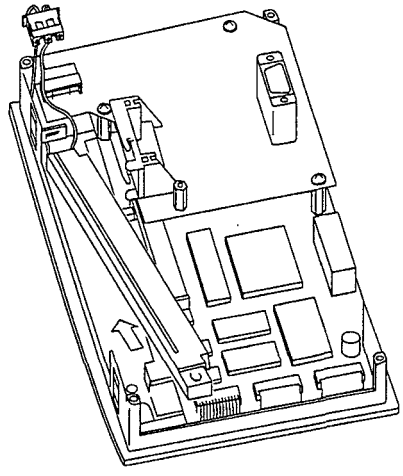


2 **Installing the backlight**

① Fit the backlight cable connector into the display area connector.



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



③ Tighten the backlight fixed screw to secure the backlight.

④ Install the case from the back of the GOT to the display area, and tighten the fixed screws. Make sure the fixed screws are tightened within the range of the specified torque (39 to 59 N·cm(4 to 6 kg·cm)).

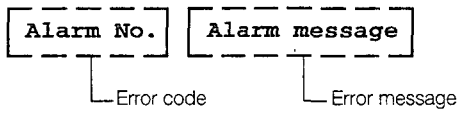
# 11. LIST OF ERROR CODES AND ERROR MESSAGES

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 |
|---|---|---|
| GOT | 300 to 499 | Section 11.2 |
| QnACPU | 1000 to 9999 (SD0 value) | User's manual for the QnACPU of the master/local station |

## 11.2 List of Error Codes and Error Messages

### 1 Error messages displayed before monitoring

| Error message | Error contents | Corrective action |
|---|---|---|
| Check communication circuit. (cable, driver, module) | Cable, installed communications driver, or communications module is faulty | Check for loose cables and mounting status of communications module. Also check the installed communications driver. |
| Check memory information. | Arrangement of each installed OS program version is improper. | Check each installed OS program version. |

### 2 Error code and error message during monitoring

Error codes and error messages detected by GOT are shown below.
The error code can be checked with the system information function of the error code storage area and with the alarm list (system alarm) function.
For information on the system information function and the alarm list function, refer to the SW2NIW-A8GOTP Operating Manual (Monitor Screen Creation Manual).

| Error code | Error message | Error contents | Corrective action |
|---|---|---|---|
| 303 | Number of specified monitoring points is excessive. | System work area cannot be secured because sprite settings of the screen to be shown are excessive. | Reduce the number of sprite setting points. |
| 304 | Number of specified trigger points is excessive. | | |
| 305 | Number of specified printout points is excessive. | System work area cannot be secured because sprite settings of the screen to be printed out by hard copy function are excessive. | |
| 306 | No monitor data | Screen data is not downloaded to internal memory. | Download screen data to internal memory. |
| 310 | Specified monitor data does not exist or is outside range. | (1) Specified base screen/window screen does not exist in project data.<br>(2) Specified base screen/window screen is outside permissible range (1 to 1024) | (1) Specify base screen/window screen that exists.<br>(2) Specify base screen/window screen of 1 to 1024 that exists. |
| 320 | Specified parts do not exist or are outside range. | Parts number set in parts display does not exist. | Check specified parts numbers of screen data parts display. |
| 321 | Specified station number of monitor device is incorrect. | Specified station number of applicable monitor does not exist or is not an applicable monitor station. | Check station number of target monitor in screen data. |
| 322 | Specified device is outside range. | The number of the device to be monitored is outside the permissible range of the applicable PC CPU. | Set device in the permissible monitoring range by setting parameter and PC CPU to be monitored. |
| 323 | Specified file register is outside range. | | |
| 330 | Memory card capacity is insufficient. | Memory card capacity is insufficient. | Check capacity. |
| 331 | Memory card is not mounted or M-CARD switch is OFF. | Memory card is not mounted or the memory card access switch has turned OFF. | Mount memory card and/or turn access switch to ON. |
| 332 | Format error | Memory card is not formatted. | Format memory card. |

| Error code | Error message | Error contents | Corrective action |
|---|---|---|---|
| 333 | Write not possible because memory card is write protected. | Memory card is write protected. | Cancel write protection of memory card. |
| 334 | Memory card is faulty. | Memory card is defective. | Replace memory card. |
| 335 | Memory card battery voltage is low. | Memory card battery voltage has dropped. | Replace memory card battery. |
| 340 | Error generated by printer or power is disconnected. | Printer is faulty, or printer power supply is not engaged. | Check printer and/or engage printer power supply. |
| 341 | Printer is faulty. | | |
| 350 | RS-232C communication error | Cable connecting GOT to personal computer is faulty. | Check for loose connectors of communications cable and check cable in use. |

## 11.3 Error Cause Confirmation Method from the L.RUN and L.ERR LEDs on GOT

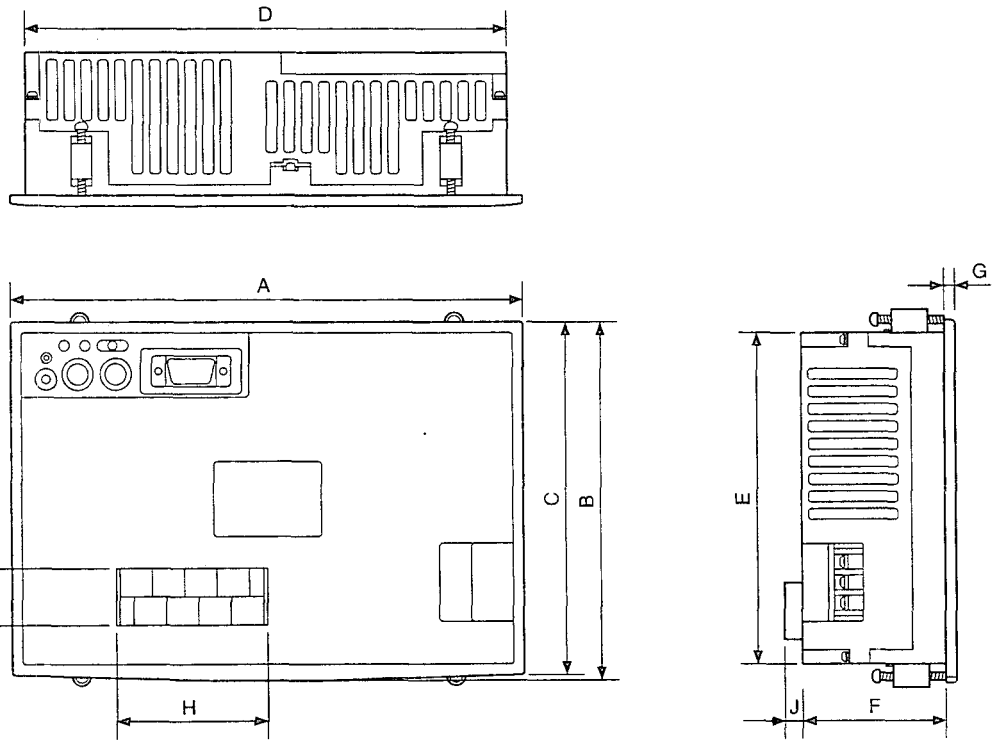
The LED displays of GOT that indicate cause of error are described.

Refer to the PC CPU User's Manual and Master Module User's Manual regarding errors for the PC CPU and the master module.

| L. RUN | L. ERR | Cause of error |
|---|---|---|
| On ● | Off ○ | Data link is normal |
| Off ○ | Off ○ | Possible causes are as follows:<br>Refer to the Master Module User's Manual for details.<br>· The cable is disconnected.<br>(The L.RUN LEDs are turned off at all modules beyond the disconnected cable.)<br>· The cable shorted-circuited.<br>(The L.RUN LEDs are turned off at all station modules.)<br>· The master station has stopped the link.<br>(The L.RUN LEDs are turned off at all station modules except for the master station.)<br>· The power supply to the GOT is off.<br>(The ERR LEDs on the master station and local stations are turned off.)<br>· The station number settings overlap between the GOT station and another station.<br>(The L.RUN LED on the overlapping station is turned off.)<br>· The transmission speed setting is incorrect.<br>· The GOT station is not set in the parameter. |
| Off ○ | On ● | The GOT was started up with the station number setting switch set to out of range. |
| Off ○ | On ★ | The station number setting switch or transmission speed setting was changed during data link. |

# APPENDIX

## Appendix 1 External Dimensions Diagram




· Dimensions (Unit: mm (inch))

| A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|
| 192 | 135 | 132 | 183 | 123 | 62 | 6 | 46 | 18 | 7 |
| (7.6) | (5.3) | (5.2) | (7.2) | (4.8) | (2.4) | (0.2) | (1.8) | (0.7) | (0.3) |

# A852GOT Graphic Operation Terminal

# User's Manual

| | |
|---|---|
| MODEL | A852GOT-U-E |
| MODEL CODE | 13JL15 |

**MITSUBISHI ELECTRIC AUTOMATION, INC.**

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