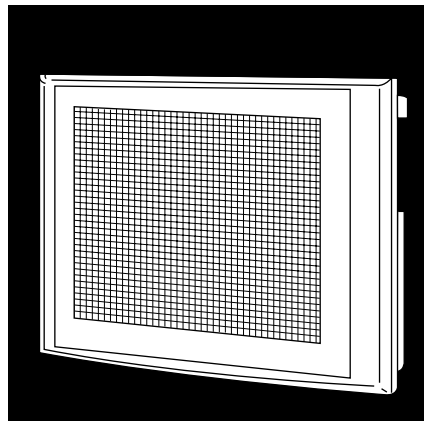
MITSUBISHI

GOT800 Series Operating Manual

(Expanded Functions 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 user'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.

[PRECAUTION WHEN PERFORMING THE TEST OPERATION]

⚠ CAUTION
● 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 system monitor, special function module monitor, and circuit monitor. In addition, never modify data in a test operation to a device which performs a curcial operation to the system. It may cause an accident by a false output or malfunction.

Revisions

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

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Feb., 1998	IB(NA)-66796-B	Addition Section 1.2, 1.3, 1.4, 3.1, 3.2, 3.3
Jun., 2004	IB(NA)-66796-C	Partial correction About the Manuals Addition WARRANTY

Japanese Manual Version IB-68915-C

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Introduction

Thank you for purchasing the Mitsubishi Graphic Operation Terminal.

Before using the equipment, please read this manual carefully to develop full familiarity with the functions and performance of the graphic operation terminal you have purchased, so as to ensure correct use.

Please forward a copy of this manual to the end user.

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Configuration of the Manual

This manual covers the circuit monitor functions, system monitor functions, and special module monitor functions that are possible with the GOT Graphic Operation Terminal, and presents an overview, the specifications, and the functions.

[Common Edition]

Chapter 1

This describes the various monitor functions and their features.

Chapter 2

This describes the equipment required in order to use the various monitor functions, and precautions regarding use of these functions.

Chapter 3

This describes the specifications for the various monitor functions.

[Circuit Monitor Functions Operation]

Chapters 4 to 6

These present an overview of the operation procedures for the circuit monitor function, as well as the operation procedures for system monitoring of the PC CPU, input and output modules, and special function modules.

[System Monitor Functions Operation]

Chapters 7 to 9

These present an overview of the operation procedures for the system monitor function, as well as operation procedures for system monitoring of the PC CPU, input and output modules, and special function modules.

[Special Module Monitor Functions Operation]

Chapters 10 to 13

These present an overview of the operation procedures for the special module monitor function, as well as operation procedures for monitoring special modules using the dedicated screens provided for each module.

POINT

(1) When using the circuit monitor function, read Chapters 1 to 3 to confirm the overview, required equipment, and precautions, and then begin operation by referring to Chapters 4 to 6.

(2) When using the system monitor function, read Chapters 1 to 3 to confirm the overview, required equipment, and precautions, and then begin operation by referring to Chapters 7 to 9.

(3) When using the special module monitor function, read Chapters 1 to 3 to confirm the overview, required equipment, and precautions, and then begin operation by referring to Chapters 10 to 13.

About the Manuals

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

Related Manuals

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

Manual Name	Manual No. (Model Code)
SW3NIW-A8GOTP Graphic Settings Software Package Operating Manual (Report Functions Manual) This manual describes procedures to draw grid lines, set and edit report data using the report function. (Sold separately)	IB-66795 (1DM178)
Other Companies' PC and Barcode Connection Manual This manual describes system configuration and setting method when connecting GOT and other companies' PC and barcode. (Sold separately)	IB-66797 (1DM143)

Common Edition

The Common Edition section of this manual describes an overview of the circuit monitor function, the system monitor function, and the special module monitor function, along with the features of each, the required equipment, precautions concerning the functions, and specifications.

1. Overview

This manual describes the circuit monitor function, system monitor function, and special module monitor function (hereafter referred to as "expanded functions") which can be used with a GOT in which the SW2NIW-A8SYSP has been installed.

1.1 Preparation Prior to Using Expanded Functions

In order to use the circuit monitor function, system monitor function, and special module monitor function described in this manual, the graphic settings software must be used to install the operating systems for the various functions in the GOT.

Referring to the manuals noted below, make sure the operating system of the expanded function to be used has been installed in the GOT before attempting to use the function.

SW3NIW-A8GOTP Graphic Settings Software Package Operating Manual (Data Transmission/ Debugging/Document Creation Manual)

1.2 Precautions Concerning Usage

The user should be aware of the following precautions before using the expanded functions.

(1) It may not be possible to use some of the expanded functions, depending on the type of GOT being used.

Functions	A870GOT	A850GOT	A851GOT	A853GOT	A852GOT
Circuit monitor function	○*1	×	×	×	×
System monitor function		○	○	○	○
Special module monitor function		×	×	×	×

*1 When using the option function, take note that the three functions, circuit monitor function, system monitor function, and special module monitor function cannot be used at once. Only two out of the three types of extension functions can be used out of three types.

(2) There are some functions which cannot be used, depending on the CPU to which the GOT is connected and the connection format.

Functions			Ref. Section	MELSEC-QnACPU						
				Bus connection	CPU direct connection	MELSECNET connection	Calculator link connection	CC-Link connection: Remote device station	CC-Link connection: Intelligent device station	
Circuit monitor function	Circuit monitoring	Sequence program monitoring using circuit signals	Section 5.2.1	×				×	○*4	
	Display switching	Decimal and hexadecimal display of word device values	Section 5.2.2							
		Device comment display								
	Device changing	Changeing of device values*2	Section 5.2.3							
	Print out	Printing of circuit*2	Section 5.2.4							
System monitor function	Entry monitoring	Monitoring of current values by pre-registering monitor devices	Section 8.2	○				△*3 Monitoring is possible for the remote device installed to GOT only.		
	Batch monitoring	Monitoring of n points of current values subsequent to specified device	Section 8.3							
	T/C monitoring	Monitoring of m points of current values, set values, contact points, and coils subsequent to specified device	Section 8.4	○				×		
	BM monitoring	Monitoring of x points of current values subsequent to specified buffer memory of specified special module	Section 8.5	○						
	Data editing using test operation	Setting/resetting of bit device	Section 8.6	○				×		
		Changing of current value for buffer memory of word device		○			△ Can't change V or Z current values			
		Changing of current value for T/C (can be used while monitoring T/C)		○						
		Changing of set value for T/C (can be used while monitoring T/C)		○*3						
	Quick test	Changing of device values using quick test*1	Section 8.6.2	○						
	Display switching	Device comment display	Section 8.1.2	○*3						
		Decimal and hexadecimal display of word device values and buffer memory values	Section 8.1.2	○						
Special module monitor function	Monitor test of special function module	Monitor testing of buffer memory using special screen	Section 11.2	○			△ (Monitoring possible when connected to QC24)	×		
		Monitor of special module*2								
		Monitoring of PC CPU I/O signals								
	I/O module monitoring	Monitoring of I/O signal statuses using special screen	Ch. 12							

MELSEC-ACPU						MELSEC-FXCPU	Omron-made PC	Yasukawa Electric-made PC	Allen-Bradley-made PC	Microcomputer connection
Bus connection	CPU direct connection	MELSECNET connection	Calculator link connection	CC-Link connection: Remote device station	CC-Link connection: Intelligent device station	CPU direct connection				
○			△*2 Subprograms 2 and 3 are not possible.	×	○*4	○*3	×	×	×	×
		○								
		○								
		○		△*3 Monitoring is possible for the remote device installed to GOT only.		○*1				
		○		×		△*1 Can't monitor T/C set values				
		○				×				
		○		×		○*1				
○			△ Can't change V or Z current values							
		○				×				
		○				○*1				
		○								
		○								
		○		×		×				

*1. Can be used with SW2NIW-A8GOTP, SW2NIW-A8SYSP version B and later versions.
*2. Can be used with SW2NIW-A8GOTP, SW2NIW-A8SYSP version D and later versions.
*3. Can be used with SW3NIW-A8GOTP, SW3NIW-A8SYSP version A and later versions.
*4. Can be used with SW3NIW-A8GOTP, SW3NIW-A8SYSP version E and later versions.

(a) For the PC CPUs that can perform monitoring, please see the SW3NIW-A8GOTP Operating Manual (Creating Monitor Screens).

(b) For access ranges for the circuit monitor function, please see Section 3.1.2.

(c) For access ranges for the system monitor function and devices which can be monitored, please see Sections 3.2.2 and 3.2.3.

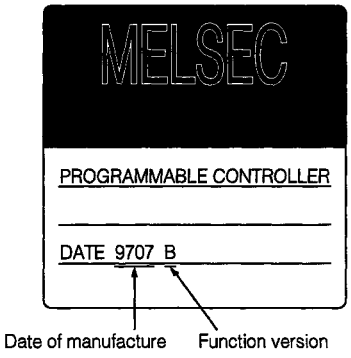
(d) For access ranges for the special module monitor function and special function modules which can be monitored, please see Sections 3.3.1 and 3.3.2.

POINT

- When the monitoring destination is subprogram 2 or 3 of the QnACPU, Q4ARCPU, Q2ASCPU, or A4UCPU (during calculator link connection), circuit monitoring cannot be performed.
- When the monitoring destination is motion controller, circuits cannot be monitored.
- When the monitoring destination is QnACPU, Q4ARCPU, or Q2ASCPU, the CPU which can perform setup value changes to the timer/counter of the system monitor function and perform device comment displays, is that the CPU which has "9707 B" and later in the date column of the rated plate.

  When changing the timer/counter setup value and performing the device comment display, use the CPU that is described above.

  <Viewing the Rated Plate>



(3) The capacities of the GOT internal memory when the operating systems of the expanded functions have been installed are as noted below.

(a) With the A870GOT

① If an option driver (Option function) has been installed in the GOT:
If the expanded function operating systems are not installed
The capacities of the GOT internal memory – 0 byte = Memory capacity
If any one expanded function operating system is installed
The capacities of the GOT internal memory – 256 bytes = Memory capacity
If any two expanded function operating systems are installed
The capacities of the GOT internal memory – 384 bytes = Memory capacity

② If no option driver (Option function) has been installed in the GOT:
If the expanded function operating systems are not installed
The capacities of the GOT internal memory – 0 byte = Memory capacity
If any one expanded function operating system is installed
The capacities of the GOT internal memory – 0 byte = Memory capacity
If any two expanded function operating systems are installed
The capacities of the GOT internal memory – 256 bytes = Memory capacity
If three expanded function operating systems are installed
The capacities of the GOT internal memory – 384 bytes = Memory capacity

POINT

If the special module monitor function is being used, enough memory space must be reserved in the internal memory to store the special module monitoring data (see Section 3.3.3).

(b) With the A85□GOT

① If an option driver (Option function) has been installed in the GOT:
If the expanded function operating systems are not installed
The capacities of the GOT internal memory – 0 byte = Memory capacity
If the system monitor function operating system is installed
The capacities of the GOT internal memory – 256 bytes = Memory capacity
② If no option driver (Option function) has been installed in the GOT:
If the expanded function operating systems are not installed
The capacities of the GOT internal memory – 0 byte = Memory capacity
If the system monitor function operating system is installed
The capacities of the GOT internal memory – 0 byte = Memory capacity

1.3 Features

The monitor functions described in this manual are intended to improve the efficiency of trouble-shooting and maintenance operations for the PC system.

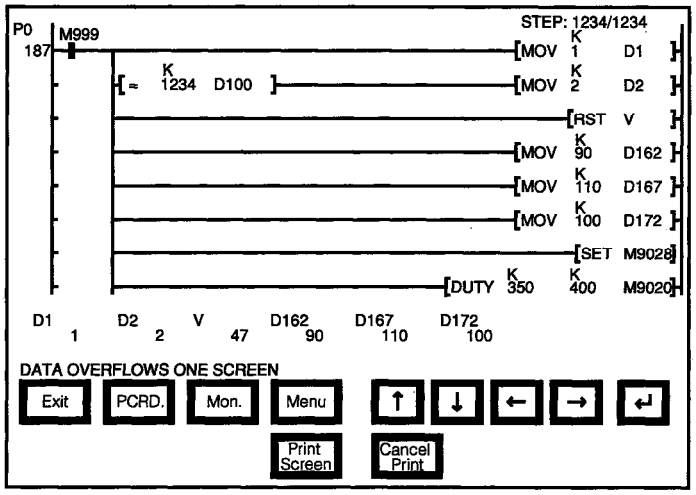
The features of each monitor function are explained in the following sections.

1.3.1 Features of the Circuit Monitor Function

Installing the circuit monitor function operating system into the A870GOT built-in memory using the graphics software enables circuit monitoring of the PC CPU program. The features of the circuit monitor function are shown below.

(1) Monitoring based on circuit symbols (See Section 5.2 for details.)

(Sample display) Circuit monitor screen



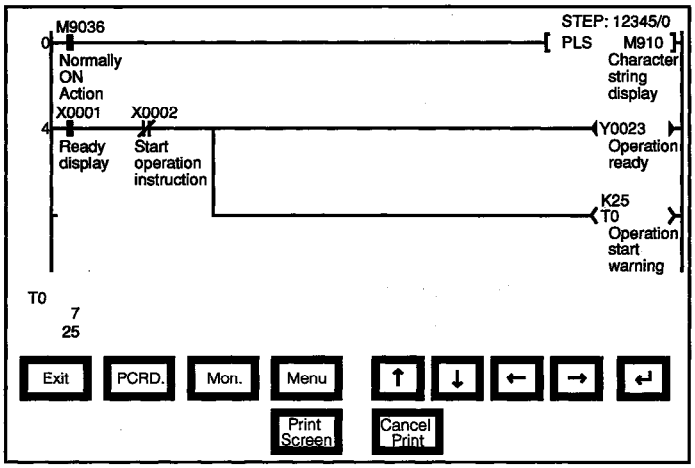
① Circuit monitor screen

A maximum of 8 lines (max. 11 contact points per line; with 12 contact points or more, the line returns) of a sequence program are displayed on one screen.

Also, for the current values and other settings of word devices, a maximum of 8 devices are displayed. (With 9 devices or more, use the arrow keys to switch displays.)

(2) The display format can be changed to show comments for devices. (See Section 5.2.2 for details.)

(Sample display) Circuit monitor screen



① Switching the display format

The current values monitor of the word devices at the bottom of the screen are executed in decimal or hexadecimal format.

② Displaying device comments

Comments for the device used in the PC program (comments that are written into the PC CPU) are displayed.

When comments are displayed, 3 lines of the program are shown.

(3) Monitoring other stations

Other stations in data link systems or network systems, including the A870GOT (or stations connected to the A870GOT), can be monitored.

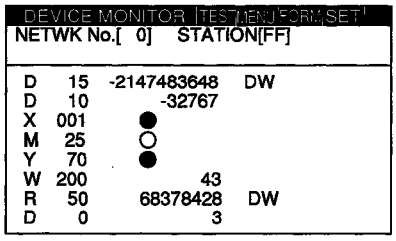
1.3.2 Features of the System Monitor Function

Installing the screen monitor function operating system into the A870GOT built-in memory using the graphics software enables monitoring and testing of the buffer memory for the PC CPU program and the special functions module. The features of the system monitor function are shown below.

(1) Any desired device can be monitored, using 4 dedicated screens

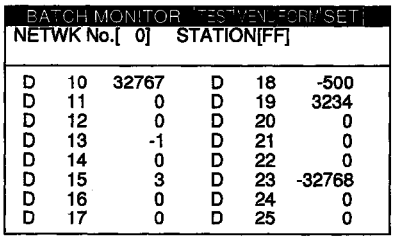
The system monitor function provides an entry monitor, a batch monitor, and a buffer memory monitor, enabling monitoring of any device, for complete flexibility in any application.

Device monitor



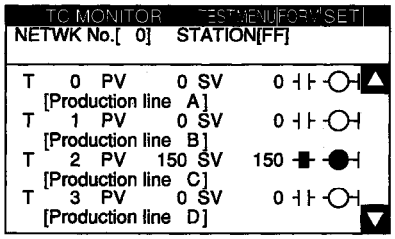
Up to 8 points for a PC CPU device registered by the user can be monitored in one window. (See Section 8.2.)

Batch monitor



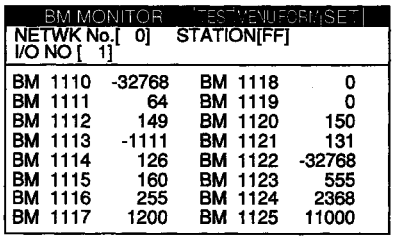
Up to 16 points subsequent to a PC CPU device specified by the user can be monitored in one window. (See Section 8.3.)

T/C monitor



Up to 8 points, including the current value, set value, contact point, and coil can be monitored in a window subsequent to a PC CPU timer (T)/ counter (C) specified by the user. (See Section 8.4.)

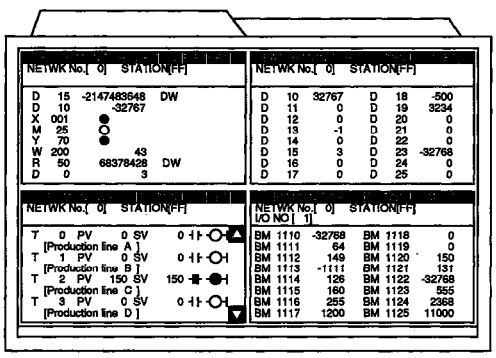
Buffer memory monitor



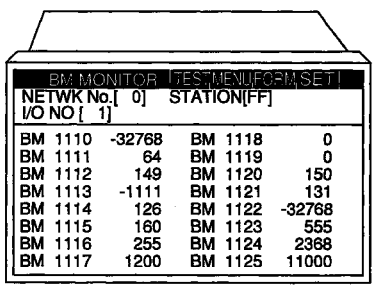
Up to 16 points subsequent to the buffer memory of a special function module specified by the user can be monitored in one window. (See Section 8.5.)

With the A870GOT, the full screen can be divided into four windows and separate monitoring carried out in all four windows simultaneously.

A870GOT

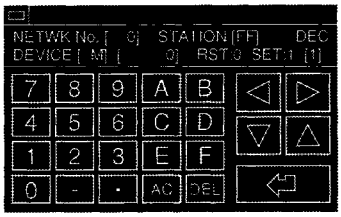


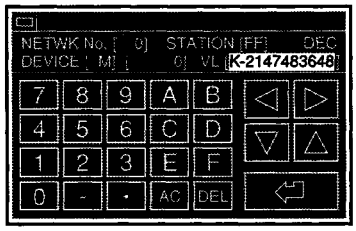
A85□GOT



(2) Data can be changed by test operation. (See Section 8.6 for details.)

(Test sample) When M0 is on When changing D0 present value





① Test for bit device

Device specified by user is turned on or off.

② Test for word device

Writes designated value into device specified by user.

③ Test for timer/counter

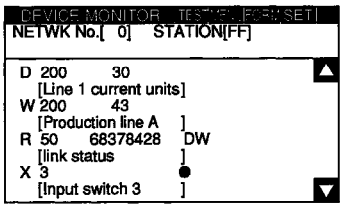
Writes in designated value as current value or set value of device specified by user.

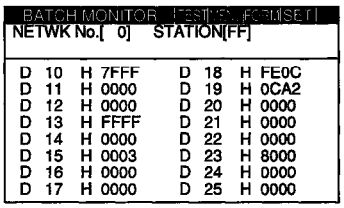
④ Test for buffer memory

Writes designated value into buffer memory specified by user.

(3) Display format can be changed and device comments can be displayed. (See Section 8.1.2 for details.)

(Sample display) For entry monitor (comment display) For batch monitor (hexadecimal display)





① Changing display format

The word device values for the entry monitor, batch monitor, T/C monitor, and buffer memory monitor are monitored in decimal or hexadecimal format.

② Device comment display

When the PC CPU device is monitored, the comments written into the PC CPU are displayed.

(4) Other stations can be monitored.

Other stations in data link systems or network systems or CC-Link systems, including the GOT (or stations connected to the GOT), can be monitored.

1.3.3 Features of the Special Module Monitor

Installing (or downloading) the special module monitor function operating system and special module monitor data into the A870GOT built-in memory using the graphics software enables monitoring and changing of data in the special function module buffer memory, using dedicated screens.

Signal statuses of I/O modules can also be monitored.

The features of the special module monitor function are shown below.

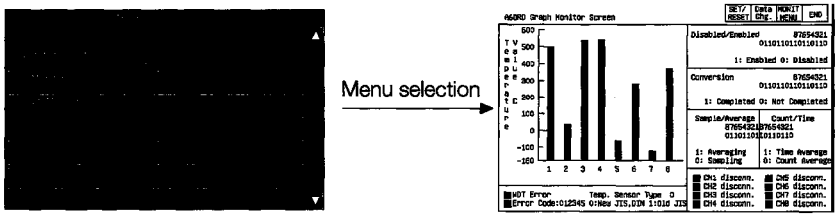
(1) Monitoring can be done with dedicated screens. (See Section 11.2 for details.)

Monitoring is carried out using dedicated screens provided by the manufacturer for the special function module and I/O module.

It is not necessary for the user to create monitor screens.

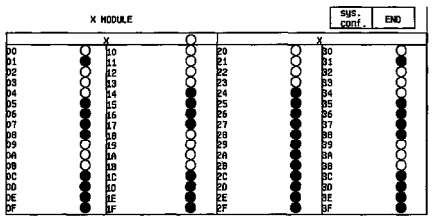
(Sample display 1: for special function module)

Menu screen after module selection Monitor screen after menu selection



(Sample display 2: for I/O module)

Monitor screen



① Menu screen

The menu is displayed classified into monitor items for the special function module only. The object monitor screen is displayed by selecting the item from the menu.

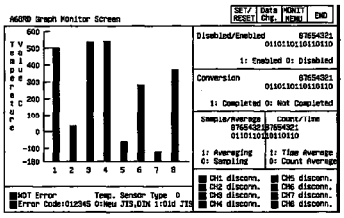
② Monitor screen

With the special function module, the buffer memory contents and the status of the PC CPU I/O signals are monitored using text, numbers, and graphs.

With the I/O module, the status of I/O signals to and from an external module is monitored.

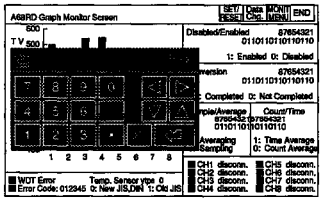
(2) Data can be changed by writing (See Section 11.1.5 for details.)

(Writing example) Monitor screen



Writing selection

When changing channel which can be changed



① The designated values are written into the user-specified buffer memory by writing the values from the monitor.

② When changing the buffer memory data, input the numeric value using the auto display key window and write it into the buffer memory.

(3) Special module monitor data can be allocated as user monitor screen data.

The special module monitor data installed in the computer can be allocated to serve as user monitor screen data. To do this, the steps below are required.

① Using the Copy function, allocate special module monitor data from another project as user monitor screen data.

② Correct the data to match the system used for the initial buffer memory number of the sprite function which has been set.

1.4 Names, Abbreviations, and Terminology Used in this Manual

(1) Circuit monitor cassette (memory cassette) ..... This refers to the A8GT-MCAM circuit monitor cassette.

(2) Graphics software (A8GOTP) ..... This refers to the SW3NIW-A8GOTP Graphic Operation Terminal Software Packages.

(3) System FD ..... This refers to the following floppy disks, which contain the graphics software, the operating system (see below) for monitors covered by this manual, and the data for monitoring special modules.

- SW3NIW-A8GOTP : This contains the graphics software. It is installed and run on personal computers which are supported by the software package.
- SW3NIW-A8GMDP : This contains the data for special module monitoring functions. It is downloaded to the A870GOT and stored in the built-in memory.
- SW3NIW-A8SYSP : This contains the operating system for monitor screen displays created by the user, the operating system for circuit monitor functions, and various other operating system data. It is installed in the built-in memory of the GOT.

(4) Data link system ..... This refers to the MELSECNET (II) and MELSECNET/B data link systems.

(5) Special module monitor data ..... This is the data for all monitor screens used for the special module monitor functions displayed on the A870GOT screen.

(6) Built-in memory ..... This is the internal memory (flash ROM) built into the GOT.

(7) Network system ..... This is the MELSECNET/10 network system.

(8) PC ..... This refers to a personal computer which runs Windows and which can run the graphics software described (2).

Windows is a trademark of the U.S. firm Microsoft Corporation.

(9) A870GOT ..... This refers to the A870GOT Graphic Operation Terminal.

(10) A850GOT ..... This refers to the A850GOT Graphic Operation Terminal.

(11) A851GOT ..... This refers to the A851GOT Graphic Operation Terminal.

(12) A852GOT ..... This refers to the A852GOT Graphic Operation Terminal.

(13) A853GOT ..... This refers to the A853GOT Graphic Operation Terminal.

(14) A85□ ..... This refers to the A850GOT/A851GOT/A852GOT/A853GOT.

(15) GOT ..... This refers to the A870GOT/A850GOT/A851GOT/A852GOT/A853GOT.

(16) FD ..... This is the abbreviation for a floppy disk.

(17) FDD ..... This is the abbreviation for a floppy disk drive (the drive into which the floppy disk is inserted).

(18) OS (program) ..... This is the abbreviation for an operating system. In this manual, it indicates the system software programs for the various object monitor functions. The types of floppy disks stored in the OS are those indicated above as the system FD.

MEMO

2. Before Beginning Operation

The required equipment and precautions for using the monitor functions in this manual are described in this section.

2.1 Required Equipment

The chart below shows the equipment required for using the monitor functions.

Required equipment	Application	System monitor	Special function module monitor (Possible only with A870GOT)	Circuit monitor (Possible only with A870GOT)
Circuit monitor cassette *1	• Required for executing circuit monitor function installed in the A870GOT. (Circuit monitor dedicated cassette)	—	—	○
PC graphics software *2	• Required for installing the object monitor function OS into the GOT and downloading the special module monitor data. It is necessary to install the graphics software for the object PC into the PC.	○		
Connecting cables *3	• Required for connecting the above PC and the GOT when installing the object monitor function OS into the GOT and downloading the special module monitor data.	○		

○ : Required — : Not required

*1 The table below shows the types of circuit monitor cassettes available for circuit monitoring.

Name	Model	Contents
Circuit monitor cassette	A8GT-MCAM	For circuit monitor function
Expanded memory cassette	A8GT-MCA1MFDW	1 MB expansion of internal memory + circuit monitor function
	A8GT-MCA2MFDW	2 MB expansion of internal memory + circuit monitor function
	A8GT-MCA4MFDW	4 MB expansion of internal memory + circuit monitor function

*2 Information concerning the PC for installing and using the graphics software is found in the A8GOTP Operating Manual (Startup Manual).

*3 For information on the cable used to connect the personal computer and the GOT, please refer to the A8GOTP Operating Manual (Data Transmission/Debugging/Document Creation Manual).

MEMO

3. Specifications

In this chapter, the specifications of the circuit monitor function, system monitor function, and special module monitor function are discussed separately.

3.1 Circuit Monitor Function Specifications

This section includes the function charts for the circuit monitor function, the PC CPUs and ranges that can be monitored, and the memory capacity required to use the circuit monitor function.

POINT

When using the circuit monitor function, a circuit monitor cassette must be used.

3.1.1 PC CPUs which can be Monitored

For PC CPUs which can be monitored, please see Section 1.2.

3.1.2 Access Ranges which can be Monitored

(1) Data link system access ranges which can be monitored

(a) Bus connection/CPU direct connection

① If the connected station is the master station (the connected station can be monitored)

- Local stations cannot be monitored.

② If the connected station is a local station (the connected station can be monitored)

- Only the master station can be monitored.
- Other local stations cannot be monitored.

③ If the connected station is a tri-layer master station (the connected station can be monitored)

- Dual-layer master stations and tri-layer local stations can be monitored.
- Dual-layer local stations cannot be monitored.

(b) With a MELSECNET/B or MELSECNET (II) connection

- Only master stations can be monitored.
- Local stations cannot be monitored.

POINT

Even with those stations for which monitoring is listed as possible, it cannot be done if the CPU being monitored is a QnACPU.

(2) Access ranges for network systems that can be monitored

(a) For a bus connection (when the A7GT-BUS Version B, the A7GT-BUS2 Version A or each later version is being used)

① When the connected station is a QnACPU or AnUCPU (The connected station can be monitored.)

- The control station and all ordinary stations on the network can be monitored.
- The control station and all ordinary stations on another network can be monitored. (When monitoring another network, always set the routine parameters.)
- If the connected station is an intermediate station and is mixed with a data link system, the master station and local stations can be monitored.
- When circuit monitoring is being carried out with other stations, please be aware that there may be times when monitoring cannot be done, depending on the PC CPU to which the GOT is connected.

☞ **See (Example 1), (Example 2).**

② When the connected station is an AnA, or AnNCPU (The connected station can be monitored.)

- The control station on the network can be monitored.
- Ordinary stations on the network cannot be monitored.
- Other networks cannot be monitored.

(b) For a bus connection (when the A7GT-BUS Version A is being used)

① When the connected station is an AnUCPU (The connected station can be monitored.)

- The control station and all ordinary stations on the network can be monitored.
- If the connected station is an intermediate station, the module number to which the network number being monitored is connected should be set using the data link parameter called "Module No. Effective When Accessing Other Stations".
- Other networks cannot be monitored.

② When the connected station is an AnA or AnNCPU (The connected station can be monitored.)

- The control station on the network can be monitored.
- Ordinary stations on the network cannot be monitored.
- Other networks cannot be monitored.

(c) For CPU direct connections, calculator link connections

① When the connected station is a QnACPU

- The access range described in (a) ① applies.

② When the connected station is an AnUCPU

- The access range described in (b) ① applies.

③ When the connected station is an AnA or AnNCPU

- The access range described in (b) ② applies.

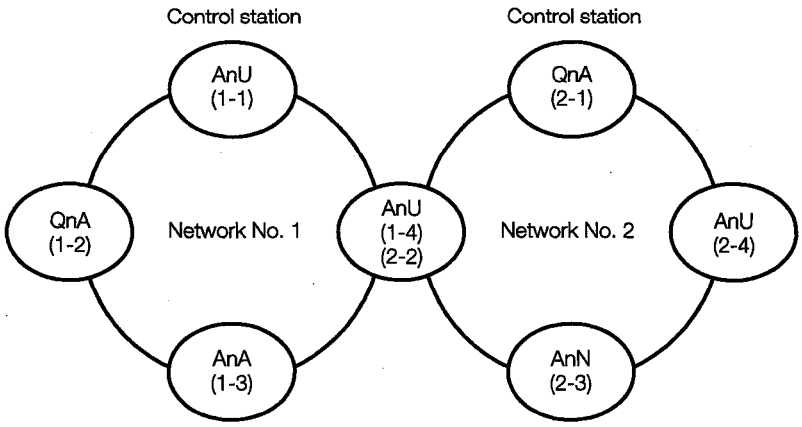
(d) For MELSECNET/10 connections

- The control station and all ordinary stations on the network can be monitored.
- Other networks cannot be monitored.

POINT

Even with access ranges for which monitoring is possible, it cannot be done if the CPU being monitored is a QnACPU.

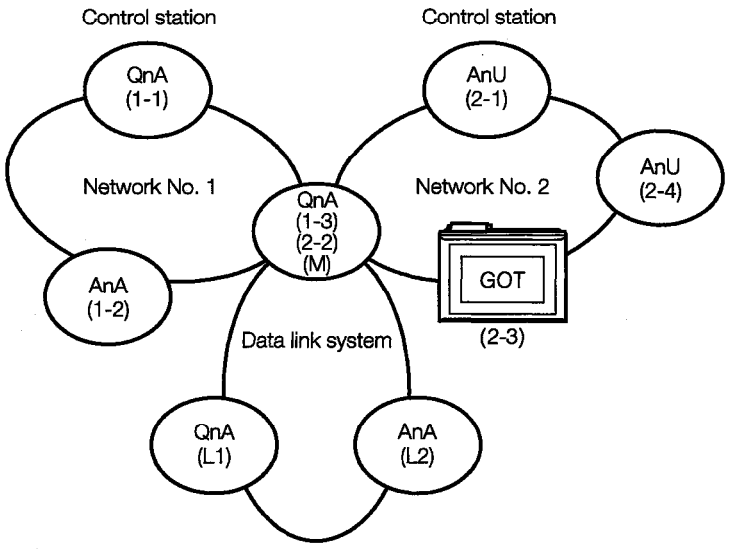
(Example 1) For bus connections (A7GT-BUS Version B, A7GT-BUS 2 Version A or all subsequent versions)



Station being accessed / Station connected to GOT	Network No. 1				Network No. 2			
	AnU (1-1)	QnA (1-2)	AnA (1-3)	AnU (1-4)	QnA (2-1)	AnU (2-2)	AnN (2-3)	AnU (2-4)
AnU (1-1)	O Host station	X	O	O	X	O	X	O
QnA (1-2)	O	X Host station	X	O	X	O	X	O
AnA (1-3)	O	X	O Host station	X	X	X	X	X
AnU (1-4) (2-2)	O	X	X	O Host station	X	O Host station	X	O
QnA (2-1)	O	X	X	O	X Host station	O	O	O
AnN (2-3)	X	X	X	X	X	X	O Host station	X
AnU (2-4)	O	X	X	O	X	O	X	O Host station

O : Can be accessed
X : Can't be accessed

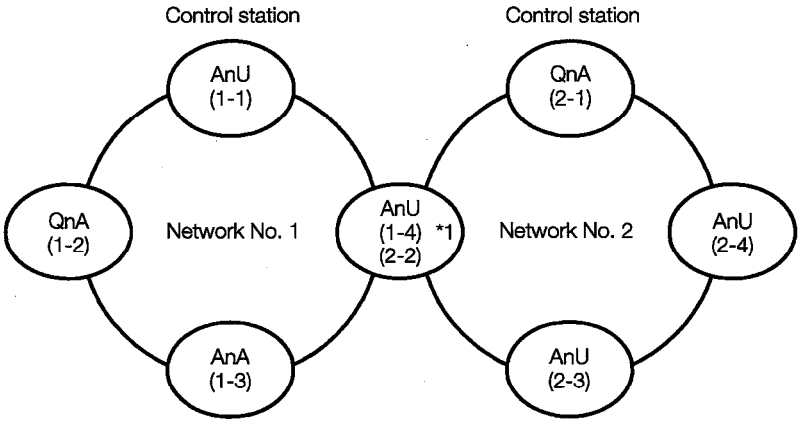
(Example 2) For bus connections (A7GT-BUS Version B, A7GT-BUS 2 Version A or all subsequent versions)



Station being accessed / Station connected to GOT	Network No. 1			Network No. 2				Data link system		
	QnA (1-1)	AnA (1-2)	QnA (1-3)	AnU (2-1)	QnA (2-2)	GOT (2-3)	AnU (2-4)	QnA (M)	QnA (L1)	AnA (L2)
QnA (1-1)	X Host station	O	X	O	X	—	O	X	X	X
AnA (1-2)	X	O Host station	X	X	X	—	X	X	X	X
QnA (1-3) (2-2) (M)	X	X	X Host station	O	X Host station	—	O	X Host station	X	O
AnU (2-1)	X	X	X	O Host station	X	—	O	X	X	X
GOT (2-3)	X	X	X	O	X	—	O	X	X	X
AnU (2-4)	X	X	X	O	X	—	O Host station	X	X	X
QnA (L1)	X	X	X	X	X	—	X	X	X Host station	X
AnA (L2)	X	X	X	X	X	—	X	X	X	O Host station

O : Can be accessed
X : Can't be accessed

(Example 3) For bus connections (when using a QnACPU with A7GT-BUS Version B, A7GT-BUS 2 Version A or each later version, or when using an AnUAnA or AnNCPU with A7GT-BUS Version A)

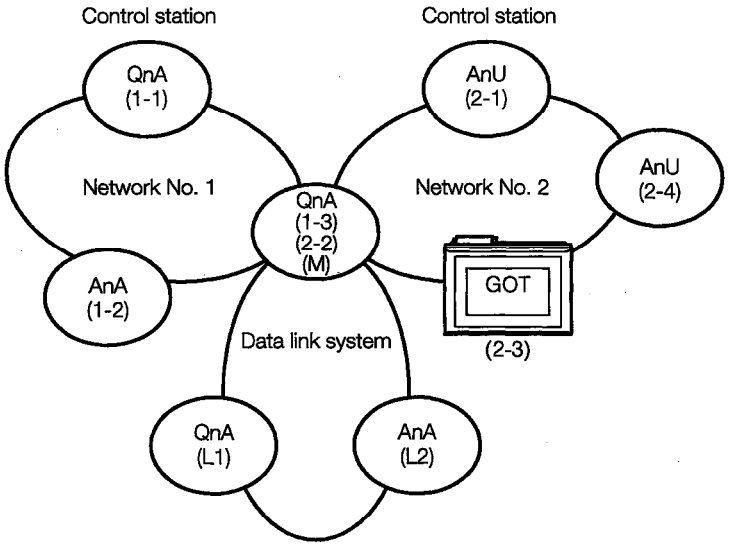


*1. The data link parameter called "Module No. Effective When Accessing Other Station" should be set to the module number connected to Network No. 1

Station being accessed / Station connected to GOT	Network No. 1				Network No. 2			
	AnU (1-1)	QnA (1-2)	AnA (1-3)	AnU (1-4)	QnA (2-1)	AnU (2-2)	AnN (2-3)	AnU (2-4)
AnU (1-1)	O Host station	X	O	O	X	X	X	X
QnA (1-2)	O	X Host station	X	O	X	O	X	O
AnA (1-3)	O	X	O Host station	X	X	X	X	X
AnU (1-4) (2-2)	O	X	X	O Host station	X	O Host station	X	X
QnA (2-1)	O	X	X	O	X Host station	O	O	O
AnN (2-3)	X	X	X	X	X	X	O Host station	X
AnU (2-4)	X	X	X	X	X	O	X	O Host station

O : Can be accessed
X : Can't be accessed

(Example 4) For bus connections (when using a QnACPU with A7GT-BUS Version B, A7GT-BUS 2 Version A or each later version, or when using an AnUAnA or AnNCPU with A7GT-BUS Version A)



- Monitoring access ranges of devices of other networks (other than B and W) and other networks

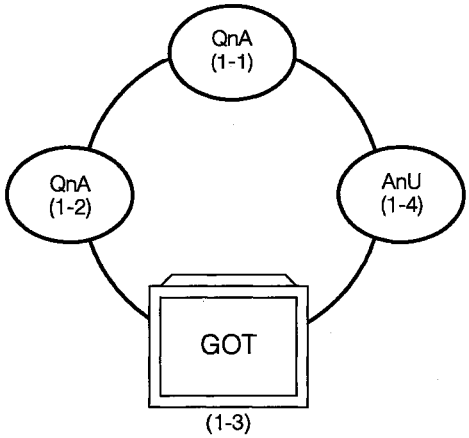
Station being accessed / Station connected to GOT	Network No. 1			Network No. 2				Data link system		
	QnA (1-1)	AnA (1-2)	QnA (1-3)	AnU (2-1)	QnA (2-2)	GOT (2-3)	AnU (2-4)	QnA (M)	QnA (L1)	AnA (L2)
QnA (1-1)	X Host station	O	X	O	X	—	O	X	X	X
AnA (1-2)	X	O Host station	X	X	X	—	X	X	X	X
QnA (1-3) (2-2) (M)	X	X	X Host station	O	X Host station	—	O	X Host station	X	O
AnU (2-1)	X	X	X	O Host station	X	—	O	X	X	X
GOT (2-3)	X	X	X	O	X	—	O	X	X	X
AnU (2-4)	X	X	X	O	X	—	O Host station	X	X	X
QnA (L1)	X	X	X	X	X	—	X	X	X Host station	X
AnA (L2)	X	X	X	X	X	—	X	X	X	O Host station

O : Can be accessed
X : Can't be accessed

(Example 5) For CPU direct connection and calculator link connection

- The monitoring access range is the same as that listed in Example 3 and Example 4.

(Example 6) For MELSECNET/10 connections



Station being accessed / Station connected to GOT	QnA (1-1)	QnA (1-2)	GOT (1-3)	AnU (1-4)
GOT (1-3)	X	X	—	O

O : Can be accessed
X : Can't be accessed

(3) The access range of the CC-Link system that can be monitored

(a) With bus connection, CPU direct connection or computer link connection

① When the connected station is a master station (the connected station can be monitored)

- The local station cannot be monitored.

② When the connected station is a local station (the connected station can be monitored)

- Only the master station can be monitored.
- The other local stations cannot be monitored.

(b) With CC-Link connection (remote device stations)

- The circuit monitoring function cannot be used.

(c) With CC-Link connection (intelligent device stations)

- The master station and local station can be monitored.

POINT

Even in the above monitoring access ranges, monitoring cannot be done if the monitored CPU is a QnACPU.

3.2 System Monitor Function Specifications

3.2.1 PC CPUs which can be Monitored

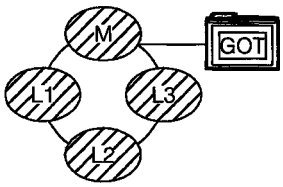
For PC CPUs which can be monitored, please see Section 1.2.

3.2.2 Access Ranges which can be Monitored

(1)Access ranges for data link systems that can be monitored

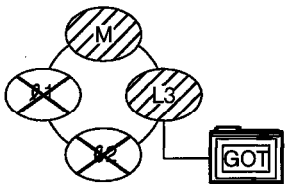
(a) With bus connections, CPU direct connections, and calculator link connections

① When the connected station is the master station (The connected station can be monitored.)



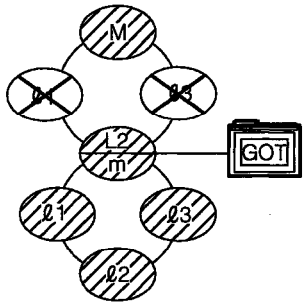
- Local stations can be monitored.
  If the PC CPU of the local station is the QnACPU, however, the only devices which can be monitored are the B and W devices assigned with the link parameter.

② When the connected station is a local station (The connected station can be monitored.)



- The master station can be monitored.
  If the PC CPU of the master station is the QnACPU, however, the only devices which can be monitored are the B and W devices assigned with the link parameter.
- Other local stations cannot be monitored.

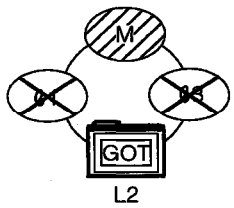
③ If the connected station is a tri-layer master station (The connected station can be monitored.)



- Dual-layer master stations and tri-layer local stations can be monitored.
  If the PC CPU of the station being monitored is the QnACPU, however, the only devices which can be monitored are the B and W devices assigned with the link parameter.
- Dual-layer local stations cannot be monitored.

(b) With MELSECNET (II) connections and MELSECNET/B connections

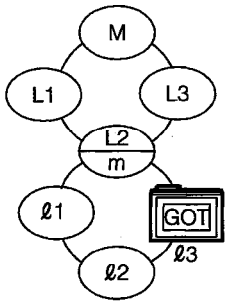
- The GOT acts as a local station, and only the master station can be monitored.If the PC CPU of the master station is the QnACPU, however, the only devices which can be monitored are the B and W devices assigned with the link parameter.



- Local stations cannot be monitored.
  When settings are entered for the monitor device, the settings for the NW number and station number should be entered as shown below.
  When monitoring the B and W devices assigned with the link parameter:
  Set NW number to 0 and local station to host station
  When monitoring any device other than the B and W devices assigned with the link parameter:
  Set NW number to 0 and station number to other station (station number: 0)

(c) Setting the monitor device

The following illustration shows an example of how the NW number and station numbers are set when setting a monitor device.



① When monitoring a connected station (host station) and the B and W devices assigned with the link parameter

Set NW number to 0 and local station to host station

② When monitoring devices of another station

Set NW number to 0 and local station to (see Table below).

Station connected to GOT \ Station being accessed	M	L1	L2 m	L3	ℓ1	ℓ2	ℓ3
M	Host station	Other station 1	Other station 2	Other station 3	—	—	—
L1	Other station 0	Host station	—	—	—	—	—
L2 m	Other station 0	—	Host station	—	Other station 1	Other station 2	—
L3	Other station 0	—	—	Host station	—	—	—
ℓ1	—	—	Other station 0	—	Host station	—	—
ℓ2	—	—	Other station 0	—	—	Host station	—
ℓ3 (GOT)	—	—	Other station 0	—	—	—	—

(2)Access ranges for network systems that can be monitored

(a) For a bus connection (when the A7GT-BUS Version B, the A7GT-BUS2 Version A or each later version is being used)

① When the connected station is a QnACPU or AnUCPU (The connected station can be monitored.)

- The control station and all ordinary stations on the network can be monitored.
- The control station and all ordinary stations on another network can be monitored. (When monitoring another network, always set the routine parameters.)
- If the connected station is an intermediate station and is mixed with a data link system, the master station and local stations can be monitored.
- If the connected station is an intermediate station, the data link parameters for the "Module No. Effective When Accessing Other Stations" (other than the B and W devices assigned with the network parameter) do not need to be set in the PC CPU of the connected station. (If set, the settings will be ignored.)
- When the devices of another station (other than the B and W devices assigned with the network parameter) are being monitored, there may be times when monitoring cannot be done, depending on the PC CPU of the station being monitored.

☞ **See (Example 1), (Example 2).**

② When the connected station is an AnA, or AnNCPU (The connected station can be monitored.)

- The control station on the network can be monitored.

  If the PC CPU of the control station is a QnACPU, however, the only devices which can be monitored are the B and W devices assigned with the network parameter.
- Ordinary stations on the network cannot be monitored.
- Other networks cannot be monitored.

(b) For a bus connection (when the A7GT-BUS Version A is being used)

When using the A850GOT, the A7GT-BUS Version A cannot be used.

When using the A870GOT and the connected station is a QnACPU, the A7GT-BUS Version A cannot be used.

① When the connected station is an AnUCPU (The connected station can be monitored.)

- The control station and all ordinary stations on the network can be monitored.When the devices of another station (other than the B and W devices assigned with the network parameter) are being monitored, however, monitoring cannot be done if the PC CPU of the station being monitored is a QnACPU.
- If the connected station is an intermediate station, the module number to which the network number being monitored is connected should be set using the data link parameter called "Module No. Effective When Accessing Other Stations".

② When the connected station is an AnA or AnNCPU (The connected station can be monitored.)

- The control station on the network can be monitored.

  If the PC CPU of the control station is a QnACPU, however, the only devices which can be monitored are the B and W devices assigned with the network parameter.

- Ordinary stations on the network cannot be monitored.
- Other networks cannot be monitored.

(c) For CPU direct connections or calculator link connections

① When the connected station is a QnACPU

- The access range described in (a) 1 applies.

② When the connected station is an AnUCPU

- The access range described in (b) 1 applies.

③ When the connected station is an AnA or AnNCPU

- The access range described in (b) 2 applies.

(d) For MELSECNET/10 connections

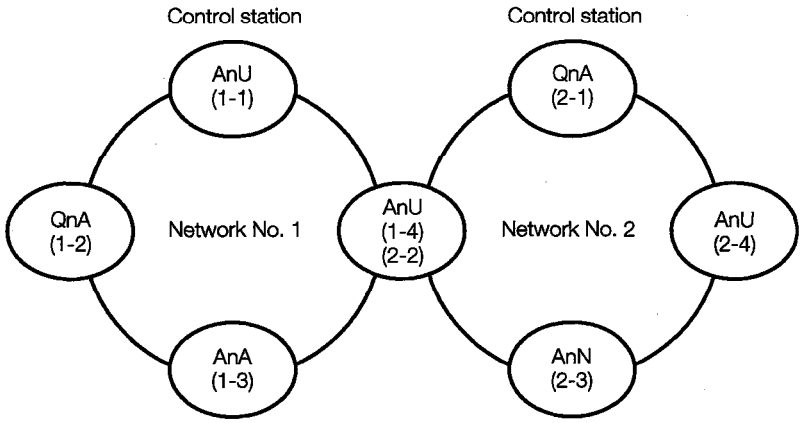
- The GOT acts as an ordinary station, and the control station and all ordinary stations on the network can be monitored.

  However, if the PC CPU being monitored is a QnACPU, monitoring can be done within the AnA device range. (As a restriction, the access range of timer (T) and counter (C) for monitoring is limited from 0 to 255. The file registers (R, ER, ZR) cannot be monitored.)

- Other networks cannot be monitored.
- When monitoring devices of other stations (other than the B and W devices assigned with the network parameter), there may be times when monitoring cannot be done, depending on the PC CPU of the station being monitored.

☞ **See (Example 6).**

(Example 1) For bus connections (A7GT-BUS Version B, A7GT-BUS 2 Version A or all subsequent versions)



- Monitoring access ranges of devices of other networks (other than B and W) and other networks

Station being accessed / Station connected to GOT	Network No. 1				Network No. 2			
	AnU (1-1)	QnA (1-2)	AnA (1-3)	AnU (1-4)	QnA (2-1)	AnU (2-2)	AnN (2-3)	AnU (2-4)
AnU (1-1)	O Host station	X	O	O	X	O	X	O
QnA (1-2)	O	O Host station	X	O	O	O	X	O
AnA (1-3)	O	X	O Host station	X	X	X	X	X
AnU (1-4) (2-2)	O	X	X	O Host station	X	O Host station	X	O
QnA (2-1)	O	O	X	O	O Host station	O	O	O
AnN (2-3)	X	X	X	X	X	X	O Host station	X
AnU (2-4)	O	X	X	O	X	O	X	O Host station

O : Can be accessed
X : Can't be accessed

- Setting NW numbers and station numbers when setting monitor devices

  (1) When monitoring the B and W devices of the connected station (host station) assigned with the network parameter

  Set the NW number to 0 and the station number to the host station.

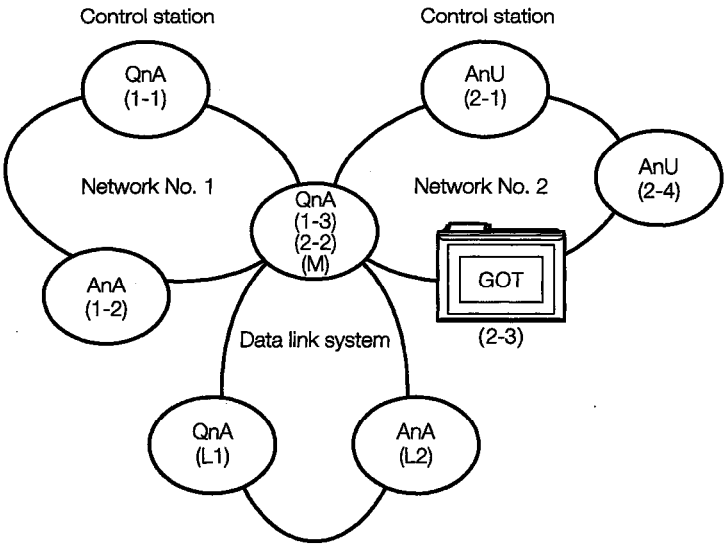
  (2) When monitoring another station (other than B and W) or another network

Station being accessed / Station connected to GOT	Network No. 1				Network No. 2			
	AnU (1-1)	QnA (1-2)	AnA (1-3)	AnU (1-4)	QnA (2-1)	AnU (2-2)	AnN (2-3)	AnU (2-4)
AnU (1-1)	0, host station	—	1, other station (3)	1, other station (4)	—	2, other station (2)	—	2, other station (4)
QnA (1-2)	1, other station (1)	0, host station	—	1, other station (4)	2, other station (1)	2, other station (2)	—	2, other station (4)
AnA (1-3)	0, other station (0)	—	0, host station	—	—	—	—	—
AnU (1-4) (2-2)	1, other station (1)	—	—	0, host station	—	0, host station	—	2, other station (4)
QnA (2-1)	1, other station (1)	1, other station (2)	—	1, other station (4)	0, host station	2, other station (2)	2, other station (3)	2, other station (4)
AnN (2-3)	—	—	—	—	—	—	0, host station	—
AnU (2-4)	1, other station (1)	—	—	1, other station (4)	—	2, other station (2)	—	0, host station

How to read the table: 2 , other station (2)

NW no. setting Station no. setting

(Example 2) For bus connections (A7GT-BUS Version B, A7GT-BUS 2 Version A or all subsequent versions)



- Monitoring access ranges of devices of other networks (other than B and W) and other networks

Station being accessed / Station connected to GOT	Network No. 1			Network No. 2				Data link system		
	QnA (1-1)	AnA (1-2)	QnA (1-3)	AnU (2-1)	QnA (2-2)	GOT (2-3)	AnU (2-4)	QnA (M)	QnA (L1)	AnA (L2)
QnA (1-1)	O Host station	O	O	O	O	—	O	O	X	X
AnA (1-2)	X	O Host station	X	X	X	—	X	X	X	X
(1-3) QnA (2-2) (M)	O	X	O Host station	O	O Host station	—	O	O Host station	X	O
AnU (2-1)	X	X	X	O Host station	X	—	O	X	X	X
GOT (2-3)	X	X	X	O	△	—	O	△	X	X
AnU (2-4)	X	X	X	O	X	—	O Host station	X	X	X
QnA (L1)	X	X	X	X	X	—	X	X	O Host station	X
AnA (L2)	X	X	X	X	X	—	X	X	X	O Host station

O: Can be accessed
△: Access possible within AnA range (for T/C, the range is 0 to 255, for R/ER/ZR, monitoring is impossible)
x : Can't be accessed

- Setting NW numbers and station numbers when setting monitor devices

  (1) When monitoring the B and W devices of the connected station (host station) assigned with the network parameter

  Set the NW number to 0 and the station number to the host station.

  (2) When monitoring another station (other than B and W) or another network

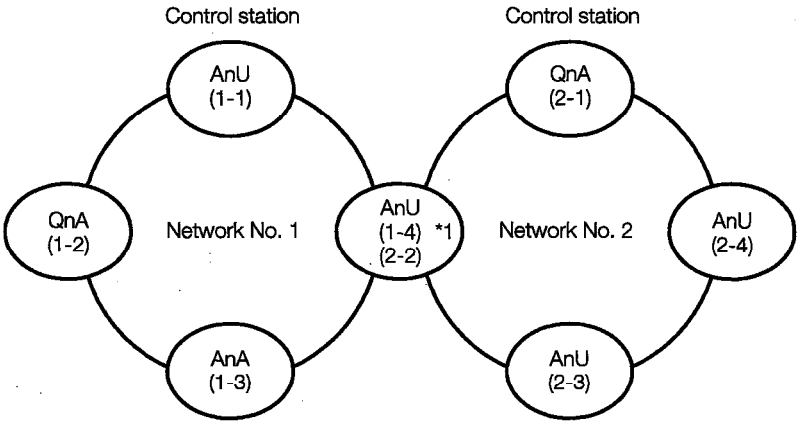
Station being accessed / Station connected to GOT	Network No. 1			Network No. 2				Data link system		
	QnA (1-1)	AnA (1-2)	QnA (1-3)	AnU (2-1)	QnA (2-2)	GOT (2-3)	AnU (2-4)	QnA (M)	QnA (L1)	AnA (L2)
QnA (1-1)	0, host station	1, other station (2)	1, other station (3)	2, other station (1)	2, other station (2)	–	2, other station (4)	1, other station (3) or 2, other station (2)	–	–
AnA (1-2)	–	0, host station	–	–	–	–	–	–	–	–
(1-3) QnA (2-2) (M)	1, other station (1)	–	0, host station	2, other station (2)	0, host station	–	2, other station (4)	0, host station	–	0, other station (2) *1
AnU (2-1)	–	–	–	0, host station	–	–	2, other station (4)	–	–	–
GOT (2-3)	–	–	–	0, other station (1)	0, other station (2)	–	0, other station (4)	0, other station (2)	–	–
AnU (2-4)	–	–	–	2, other station (1)	–	–	0, host station	–	–	–
QnA (L1)	–	–	–	–	–	–	–	–	0, host station	–
AnA (L2)	–	–	–	–	–	–	–	–	–	0, host station

*1 When monitoring a data link system, set the NW No. to 0.

How to read the table: 2 , other station (2)

NW no. setting Station no. setting

(Example 3) For bus connections (when using a QnACPU with A7GT-BUS Version B, A7GT-BUS 2 Version A or each later version, or when using an AnUAnA or AnNCPU with A7GT-BUS Version A)



*1. The data link parameter called "Module No. Effective When Accessing Other Station" should be set to the module number connected to Network No. 1.

- Monitoring access ranges of devices of other networks (other than B and W) and other networks

Station being accessed / Station connected to GOT	Network No. 1				Network No. 2			
	AnU (1-1)	QnA (1-2)	AnA (1-3)	AnU (1-4)	QnA (2-1)	AnU (2-2)	AnN (2-3)	AnU (2-4)
AnU (1-1)	O Host station	X	O	O	X	O	X	X
QnA (1-2)	O	O Host station	X	O	O	O	X	O
AnA (1-3)	O	X	O Host station	X	X	X	X	X
AnU (1-4) (2-2)	O	X	X	O Host station	X	O Host station	X	X
QnA (2-1)	O	O	X	O	O Host station	O	O	O
AnN (2-3)	X	X	X	X	X	X	O Host station	X
AnU (2-4)	X	X	X	O	X	O	X	O Host station

O : Can be accessed
X : Can't be accessed

- Setting NW numbers and station numbers when setting monitor devices

  (1) When monitoring the B and W devices of the connected station (host station) assigned with the network parameter

  Set the NW number to 0 and the station number to the host station.

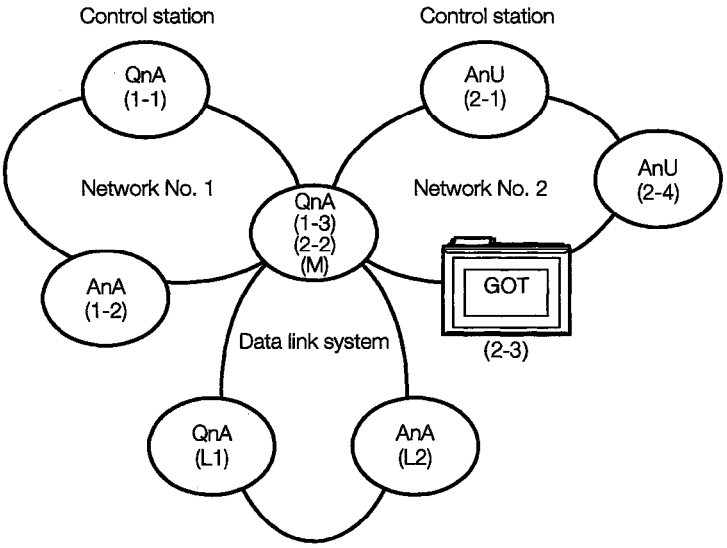
  (2) When monitoring another station (other than B and W) or another network

Station being accessed / Station connected to GOT	Network No. 1				Network No. 2			
	AnU (1-1)	QnA (1-2)	AnA (1-3)	AnU (1-4)	QnA (2-1)	AnU (2-2)	AnN (2-3)	AnU (2-4)
AnU (1-1)	0, host station	—	0, other station (3)	0, other station (4)	—	0, other station (4)	—	—
QnA (1-2)	1, other station (1)	0, host station	—	1, other station (4)	2, other station (1)	2, other station (2)	—	2, other station (4)
AnA (1-3)	0, other station (0)	—	0, host station	—	—	—	—	—
AnU (1-4) (2-2)	0, other station (1)	—	—	0, host station	—	0, host station	—	—
QnA (2-1)	1, other station (1)	1, other station (2)	—	1, other station (4)	0, host station	2, other station (2)	2, other station (3)	2, other station (4)
AnN (2-3)	—	—	—	—	—	—	0, host station	—
AnU (2-4)	—	—	—	0, other station (2)	—	0, other station (2)	—	0, host station

How to read the table: 2 , other station (2)

NW no. setting Station no. setting

(Example 4) For bus connections (when using a QnACPU with A7GT-BUS Version B, A7GT-BUS 2 Version A or each later version, or when using an AnUAnA or AnNCPU with A7GT-BUS Version A)



- Monitoring access ranges of devices of other networks (other than B and W) and other networks

Station being accessed / Station connected to GOT	Network No. 1			Network No. 2				Data link system		
	QnA (1-1)	AnA (1-2)	QnA (1-3)	AnU (2-1)	QnA (2-2)	GOT (2-3)	AnU (2-4)	QnA (M)	QnA (L1)	AnA (L2)
QnA (1-1)	O Host station	O	O	O	O	—	O	O	X	X
AnA (1-2)	X	O Host station	X	X	X	—	X	X	X	X
QnA (1-3) (2-2) (M)	O	X	O Host station	O	O Host station	—	O	O Host station	X	O
AnU (2-1)	X	X	X	O Host station	X	—	O	X	X	X
GOT (2-3)	X	X	X	O	△	—	O	△	X	X
AnU (2-4)	X	X	X	O	X	—	O Host station	X	X	X
QnA (L1)	X	X	X	X	X	—	X	X	O Host station	X
AnA (L2)	X	X	X	X	X	—	X	X	X	O Host station

O: Can be accessed
△: Access possible within AnA range (for T/C, the range is 0 to 255, for R/ER/ZR, monitoring is impossible)
x : Can't be accessed

- Setting NW numbers and station numbers when setting monitor devices

  (1) When monitoring the B and W devices of the connected station (host station) assigned with the network parameter

  Set the NW number to 0 and the station number to the host station.

  (2) When monitoring another station (other than B and W) or another network

Station being accessed / Station connected to GOT	Network No. 1			Network No. 2				Data link system		
	QnA (1-1)	AnA (1-2)	QnA (1-3)	AnU (2-1)	QnA (2-2)	GOT (2-3)	AnU (2-4)	QnA (M)	QnA (L1)	AnA (L2)
QnA (1-1)	0, host station	1, other station (2)	1, other station (3)	2, other station (1)	2, other station (2)	–	2, other station (4)	1, other station (3) or 2, other station (2)	–	–
AnA (1-2)	–	0, host station	–	–	–	–	–	–	–	–
(1-3) QnA (2-2) (M)	1, other station (1)	–	0, host station	2, other station (1)	0, host station	–	2, other station (4)	0, host station	–	0, other station (2) *1
AnU (2-1)	–	–	–	0, host station	–	–	2, other station (4)	–	–	–
GOT (2-3)	–	–	–	0, other station (1)	0, other station (2)	–	0, other station (4)	0, other station (2)	–	–
AnU (2-4)	–	–	–	2, other station (1)	–	–	0, host station	–	–	–
QnA (L1)	–	–	–	–	–	–	–	–	0, host station	–
AnA (L2)	–	–	–	–	–	–	–	–	–	0, host station

*1 When monitoring a data link system, set the NW No. to 0.

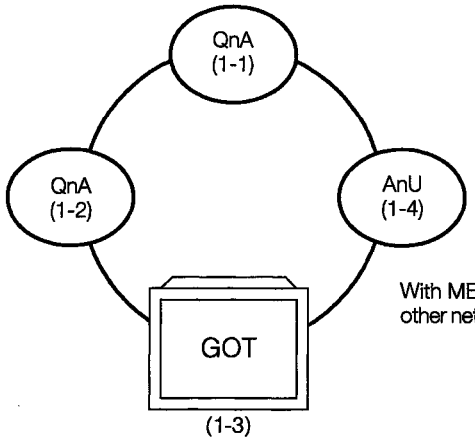
How to read the table: 2 (NW no. setting) , other station (2) (Station no. setting)

(Example 5) For CPU direct connection and calculator link connection

- The monitoring access range for devices of other stations (other than B and W) and other networks is the same as that listed in Example 3 and Example 4.
- Setting the NW number and station number for monitor devices

  The settings for the NW number and station number for monitor devices are the same as those listed in Example 3 and Example 4.

(Example 6) For MELSECNET/10 connections



With MELSECNET/10 connections, other networks cannot be monitored.

- Monitoring access ranges for devices of other stations (other than B and W)

Station being accessed / Station connected to GOT	QnA (1-1)	QnA (1-2)	GOT (1-3)	AnU (1-4)
GOT (1-3)	△	△	—	○

○: Can be accessed
△: Access possible within AnA range (for T/C, the range is 0 to 255)
×: Can't be accessed

- Setting NW numbers and station numbers when setting monitor devices

  (1) When monitoring the B and W devices of the connected station (host station) assigned with the network parameter

  Set the NW number to 0 and the station number to the host station.

  (2) When monitoring another station (other than B and W)

Station being accessed / Station connected to GOT	QnA (1-1)	QnA (1-2)	GOT (1-3)	AnU (1-4)
GOT (1-3)	0, other station (1)	0, other station (2)	—	0, other station (4)

How to read the table: 0 , other station (2)
NW no. setting Station no. setting

(3) The access range of the CC-Link system that can be monitored

(a) With bus connection, CPU direct connection or computer link connection

① When the connected station is a master station (the connected station can be monitored)
- The local station cannot be monitored.

② When the connected station is a local station (the connected station can be monitored)
- Only the master station can be monitored.
- The other local stations cannot be monitored.

(b) With CC-Link connection (remote device stations)
- Only the remote I/Os, remote registers and GOT internal devices to which the GOT is assigned at the master station can be monitored.
  Other remote I/Os and remote registers assigned to the master station cannot be monitored.

(c) With CC-Link connection (intelligent device stations)
- The master station and local station can be monitored.

3.2.3 Names of Devices which can be Monitored

(1) With a MELSEC-ACPU

Bit devices which can be monitored

Device name	Range of monitors which can be set
Input (X)	X0 to X1FFF
Output (Y)	Y0 to Y1FFF
Internal relay (M)	M0 to M8191
Latch relay (L)	L0 to L8191
Annunciator (F)	F0 to F2047
Link relay (B)	B0 to B1FFF
Special internal relay (M)	M9000 to M9255
Timer	T0 to T2047
Counter	C0 to C1023
GOT bit register (GB)	GB0 to 1023

Word devices which can be monitored

Device name	Range of monitors which can be set
Data register (D)	D0 to D8191
Special data register (D)	D9000 to D9255
Link register (W)	W0 to W1FFF
Timer (current value) (T)	T0 to T2047
Counter (current value) (C)	C0 to C1023
File register (R)	R0 to R8191
Index register (Z)	Z0 to Z6 (Z0 = Z)
(V)	V0 to V6 (V0 = V)
Accumulator (A)	A0 to A1
Buffer memory (special function module) (BM)	BM0 to BMn (*1)
GOT data register (GD)	GD0 to GD1023

*1. This can be specified only for the special function module of a station connected to the GOT.
It should be specified as a value within the address range of the buffer memory existing in the object special function module.

(2) With a MELSEC-QnACPU

Bit devices which can be monitored

Device name	Range of monitors which can be set
Input (X)	X0 to X1FFF
Output (Y)	Y0 to Y1FFF
Internal relay (M)	M0 to M32767
Latch relay (L)	L0 to L32767
Annunciator (F)	F0 to F32767
Link relay (B)	B0 to B7FFF
Timer	T0 to T32767
Counter	C0 to C32767
Special relay (SM)	SM0 to SM2047
GOT bit register (GB)	GB0 to 1023

Word devices which can be monitored

Device name	Range of monitors which can be set
Data register (D)	D0 to D32767
Special register (SD)	SD0 to SD2047
Link register (W)	W0 to W7FFF
Timer (current value) (T)	T0 to T32767
Counter (current value) (C)	C0 to C32767
File register (R)	R0 to R32767 (*1)
Expanded file register (ZR) Index register (Z)	ZR0 to ZR1042431 (*2) Z0 to Z15
Buffer memory (special function module) (BM)	BM0 to BMn (*3)
GOT data register (GD)	GD0 to GD1023

*1. This applies to the file registers of blocks switched using the RSET instruction.

*2. This applies to the file registers of blocks switched using the QFRSET instruction.

*3. This can be specified only for the special function module of a station connected to the A879GOT.

It should be specified as a value within the address range of the buffer memory existing in the object special function module.

(3) For CC-Link connection

Bit devices which can be monitored

Device name	Range of monitors which can be set
Input (X)	X0 to X7FF
Output (Y)	Y0 to Y7FF
GOT bit register (GB)	GB0 to GB1023
GOT data register bit specification (GD)	GD0 to GD1023

Word devices which can be monitored

Device name	Range of monitors which can be set
Data register (Ww)	Ww0 to WwFF
Special register (Wr)	Wr0 to WrFF
GOT data register (GD)	GD0 to GD1023

(4) MELSEC-FXCPU

If using the MELSEC-FXCPU, always install the MELSEC-FX communications driver in the GOT.

Device name		Range of monitors which can be set	Device no. format
Bit devices	Input relay (X)	X0000 to X0377	Octal
	Output relay (Y)	Y0000 to Y0377	
	Auxiliary relay (M)	M0000 to M3071	Decimal
	State (S)	S0000 to S0999	
	Special auxiliary relay (M)	M8000 to M8255	
	Timer contact point (T)	T000 to T255	
	Counter contact point (C)	C000 to C255	
	Word device bit (*1)	—	—
Word devices	Timer (current value) (T)	T000 to T255	Hexadecimal
	Counter (current value) (C)	C000 to C255	
	Data register (D)	D000 to D0999	
	RAM file register (C)	D1000 to D7999	
	Special data register (D)	D8000 to D8255	

*1. If running the touch key function in which a word device bit is specified as the monitor device, do not write the word device in the sequence program.

3.2.4 Precautions when Using the System Monitor Function

The precautions to follow when using the system monitor function are shown below.

(1) Monitor and test of real number data

Real number data cannot be monitored or tested.

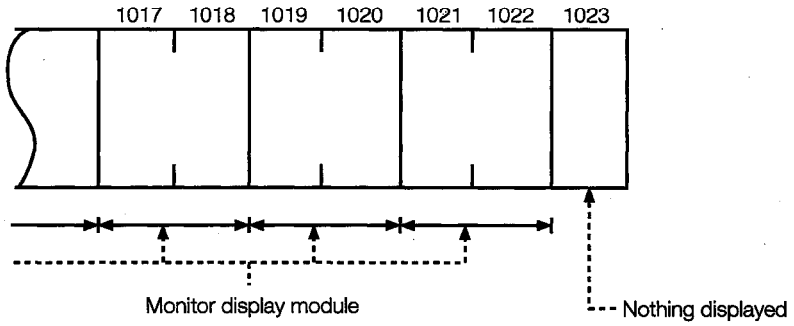
Monitoring of word devices that save real number data is all done by integer data (binary data).

(2) Monitoring in 32-bit modules

When monitoring word devices (such as T, C, D, W) in 32-bit (2-word) modules, monitor up to the point where 32 bits remain in the monitor processing. A location where 16 bits (1 word) remain cannot be monitored.

This situation occurs when an odd number has been specified as the initial number in the monitor device.

(Example) When monitoring the A2NCPU data register in 32-bit modules beginning with an odd number (D1, D3...):

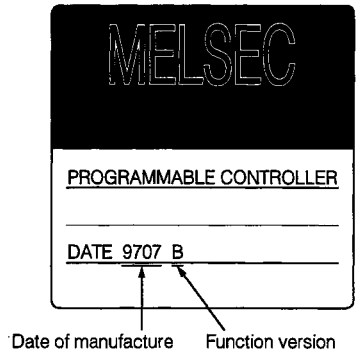


POINT

When the monitoring destination is QnACPU, Q4ARCPU, or Q2ASCPU, the CPU which can perform setup value changes to the timer/counter of the system monitor function and perform device comment displays, is that the CPU which has "9707 B" and later in the date column of the rated plate.

When changing the timer/counter setup value and performing the device comment display, use the CPU that is described above.

<Viewing the Rated Plate>



3.3 Special Module Monitor Function Specifications

3.3.1 Access Ranges which can be Monitored

(1) With a bus connection, CPU direct connection, or calculator link connection

- Special function module monitoring can be performed on the connection and remote station base.

(2) With a MELSECNET (II) connection or MELSECNET/B connection

- A special function module on the base of a master station can be monitored.
- Special function modules on the bases of local stations cannot be monitored.
- Monitoring cannot be performed on the system configuration where the remote I/O station exists.

(3) With a MELSECNET/10 connection

- A special function module on the base of a control station can be monitored.
- Monitoring cannot be performed on the system configuration where the remote I/O station exists.

(4) With a CC-Link connection (remote device stations)

- A special function module cannot be monitored.

(5) With a CC-Link connection (intelligent device stations)

- A special function module on the base of the master/local station.

POINT

The access range for the special module monitoring is the same as that during system monitoring. See Section 3.2 for details.

3.3.2 Special Function Modules that can be Monitored

The modules for which special function monitoring can be done are only those types shown in Section 3.3.3.

Monitoring of special function modules other than those can be done with the system monitor function "BM Monitor".

3.3.3 Memory Capacity Required for Using the Special Module Monitor Function

The memory capacity required when saving special module monitor data to the A870GOT built-in memory and the memory capacity required when saving to a PC hard disk are shown below.

(Unit: kilobytes)

Software to be saved	Memory capacity required when saving to A870GOT built-in memory	Memory capacity required when saving to PC hard disk	Remarks
Special module monitor data	—		
A61LS	20.0		
AD61	11.0		
A62DA-S1	8.1		
S62LS	95.0		———
A68AD (S2)	12.0		
A68ADN	19.0		
A68RD3 A68RD4	22.0		
A616AD	140.0		
A616DAI	20.0		
A616DAV	20.0		By merely downloading either, both sides can be monitored.
A616TD	260.0		
AD70	28.0		
AD70D	40.0		
AD71 (S1/S2/S7)	740.0		
AD72 A1SD71-S2 (S7)	750.0		
AD75P1 (P2/P3)	470.0		
AJ71PT32-S3	63.0		———
AJ71ID1 (ID2)-R4	43.0		
A84AD	26.0		
A1SD61	51.0		
S1S62DA	4.1		
A1S62RD	16.0		
A1S63ADA	22.0		
A1S64AD	15.0		
A1S68AD	12.0		

Software to be saved	Memory capacity required when saving to A870GOT built-in memory	Memory capacity required when saving to PC hard disk	Remarks
Special module monitor data	—		———
A1S68DAI	16.0		By merely downloading either, both sides can be monitored.
A1S68DAV	16.0		
A1SD70	28.0		———
A1SJ71JPT32-S3	63.0		
A1SJ71 (ID1)(ID2)-R4	43.0		
A1SD75P1 (P2/P3)	470.0		
A1S64TCTT(BW)-S1 A1S64TCRT(BW)-S1	63.0		
Input module	0.0		
Output module	0.0		

3.3.4 Precautions when Using the Special Module Monitor Function

The precautions to follow when using the special module monitor function are discussed below.

(1) Special function modules that cannot be monitored

Modules displayed as "special" on the system configuration screen cannot be monitored using the special module monitor function.

To monitor these modules, use the system monitor function "BM Monitor".

(2) Display when connecting the small building-block type PC CPU

This precaution pertains to a situation where an expansion base unit for a building block type of setup is connected to a small building-block type CPU (such as the A1SCPU) in a station connected to the A870GOT.

In such a case, the special function module on the expansion base unit is displayed on the system configuration screen with the same model name as that of the small building-block type special function module.

If there is no small building-block type special function module, "special" is displayed and the object module cannot be monitored.

(Example)

[Module loaded]		[Displayed model]
AD72	⟶	A1SD71
AJ71ID	⟶	A1SJ71ID
AJ71PT32-S3	⟶	A1SJ71PT32-S3
AD75P	⟶	A1SD75P
A68ADN	⟶	A1S64AD
A68RD	⟶	A1S62RD

(3) Monitoring restricted special function modules

(a) When monitoring the AD71 (S1, S2, S7)

When the slot on front of the AD71 module is an empty slot, monitoring is done in the following way.

① The AD71 is treated as the AD72, and "AD72" is displayed on the system configuration screen.

In this case, when monitoring the AD71, select the AD72 in the object display position.

② The monitor screen that is displayed by 1) above is for the AD72.

The number obtained by subtracting 10H from the I/O signal number on the display is the number to be used when installing the AD71 in the 0 slot.

* If you do not want the AD71 to be treated as the AD72, execute "Shift the installation position of AD71 forward" or "In the I/O assignments, assign the empty slot in front of AD71 to the 16 X-Y points."

(b) When monitoring the AD61 installed in the small building-block type PC CPU

With the A870GOT, the AD61 that is installed in the expansion base unit for the building-block type setup connected to the small building-block type CPU (such as the A1SCPU) is recognized as the A1SD61 and monitored as such.

Since the buffer memory composition of the A68AD and the A1S68AD is not the same, different data is displayed on the screen when monitoring the A68AD.

* An AD61 that is installed in the base unit of the building-block type PC CPU (such as the AnUCPU) can be monitored normally.

(c) When monitoring the A81CPU

The A81CPU is monitored in the following way.

	64 points in first half	64 points in last half
Treatment of A81CPU	Change to module that cannot be monitored.	Change to input module.
System configuration screen	Display "X, Y □"	Display "Input 64 X □"
Possibility of monitoring	Not possible	Can be monitored as input.

(d) When monitoring an I/O composite module

1) With an I/O composite module for which "Output □" is displayed on the system configuration screen, only the output signal can be monitored.

For the input signal, monitor X of the PC CPU device with the system monitor function.

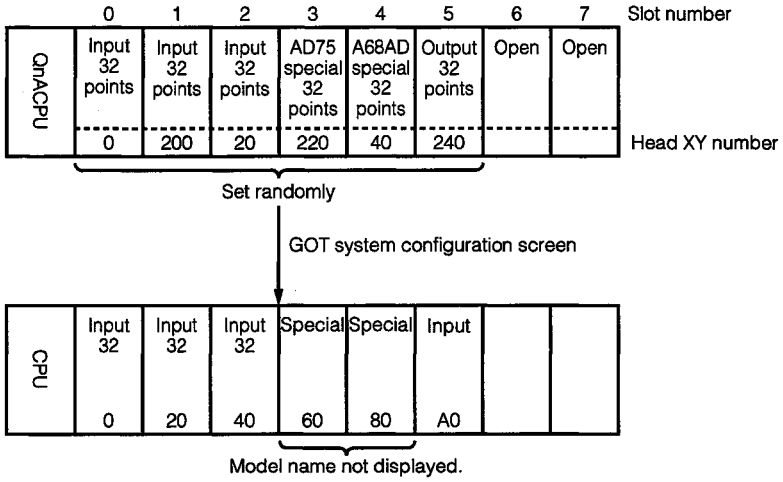
(4) Editing and allocating of special module monitor data.

Monitor screen data for the special module monitor function cannot be edited and cannot be allocated to monitor screens created by the user. Monitoring should be done using the various monitor functions as they are set when the module is shipped.

(5) Precaution for I/O allocation setting

During QnACPU connection, when the I/O allocation is set randomly as shown below, the special module model name is not displayed on the special module monitor system configuration screen. So the monitoring cannot be performed.

When performing special module monitoring, always perform the I/O allocation in order from slot 0.



Circuit Monitor Function Operation Manual

The Circuit Monitor Function Operation Manual gives a summary of the procedures for using the circuit monitor function and describes the method of operating the circuit monitor function.

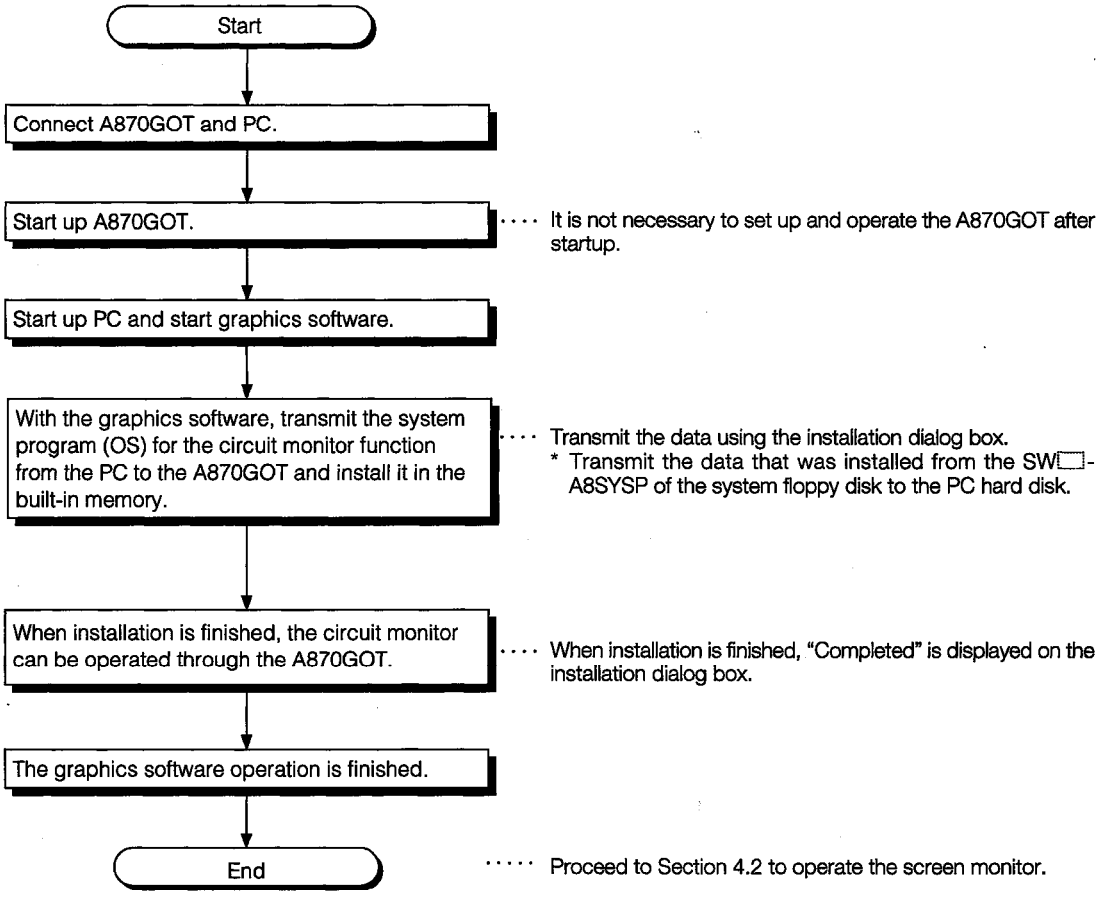
4. Operating Procedures for the Circuit Monitor Function

The operating procedures to follow when using the circuit monitor function are explained in the following sections.

4.1 Operating Procedures before Starting Circuit Monitoring

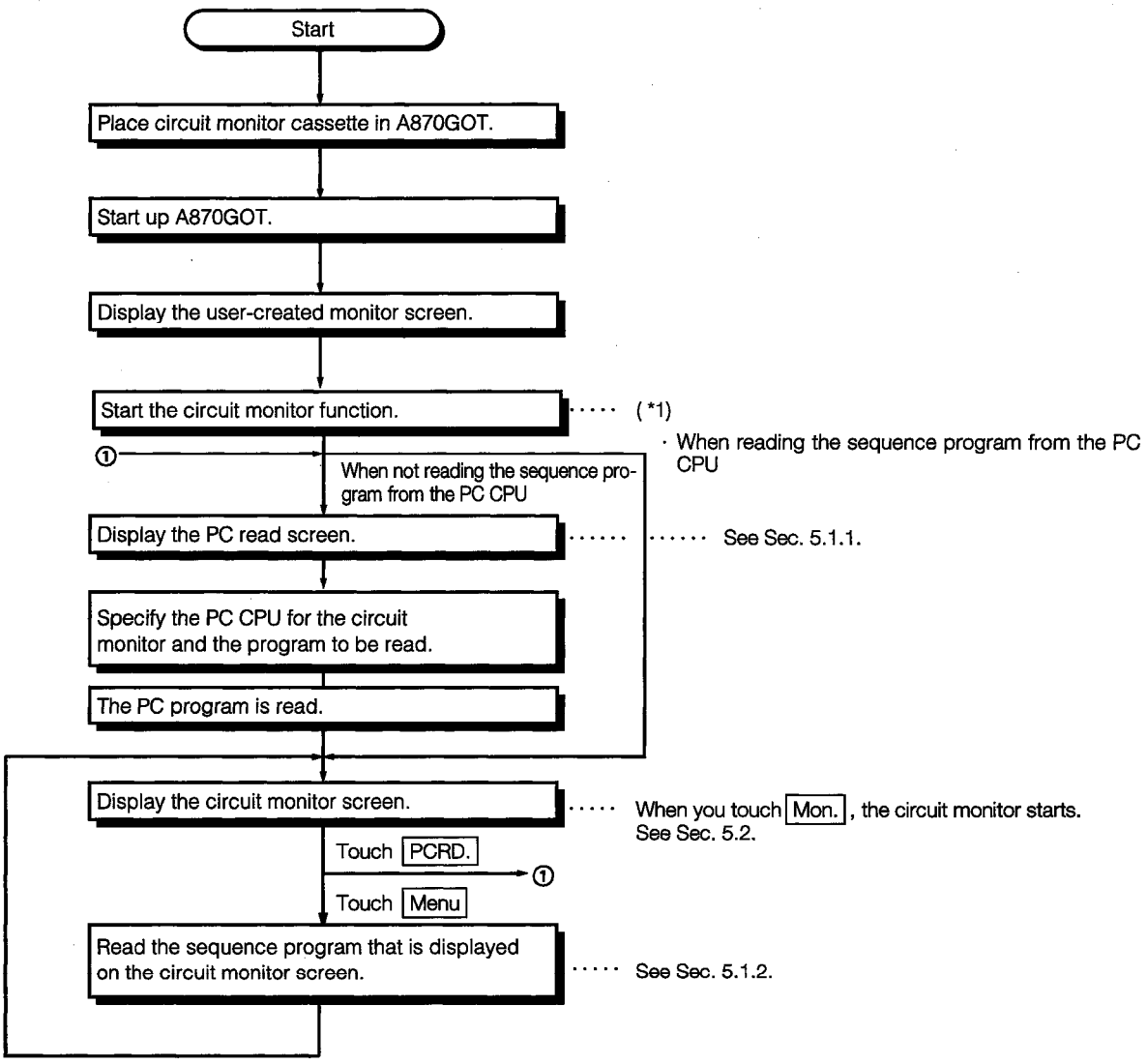
This section contains a summary of the procedures for transmitting the system program (OS) for the circuit monitor function from the PC to the A870GOT until it is installed in the built-in memory.

For details, please refer to the A8GOTP Operating Manual (Data Transmission, Debugging, Document Creation Manual). Details of the screen display and key operation are shown below.



4.2 Operating Procedure from Display of User-Created Monitor Screen to Start of Circuit Monitoring

This section shows the operating procedures for the A870GOT when starting each operation of the circuit monitor function after the circuit monitor function system program (OS) has been installed in the A870GOT built-in memory.



*1 With the graphics software, touch the key where the touch switch (expanded) function is set, and start the circuit monitor function.

When the Utility screen is displayed, start the circuit monitor function by touching LADDER MON. .

5. Operating the Various Circuit Monitor Screens

The following sections describe each screen operation when using the circuit monitor function.

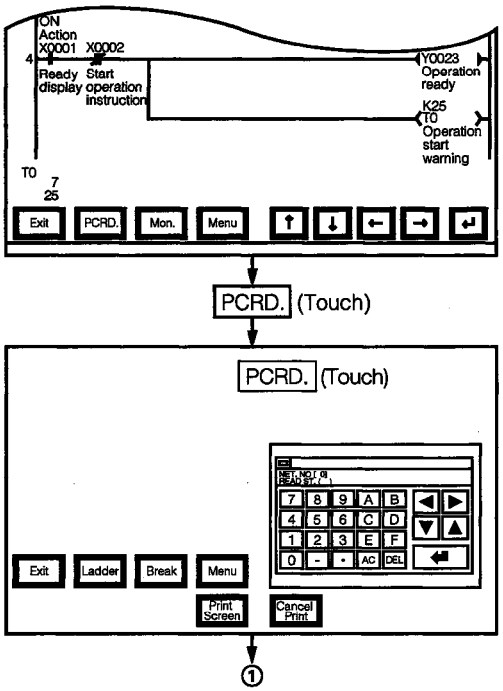
5.1 Screen Operation and Screen Changes when Monitoring

This section includes an explanation of the PC read operation that reads out the sequence program from the PC CPU when executing the circuit monitor, the circuit read operation that specifies the sequence program to be displayed on the circuit monitor screen, and the screen movement when executing the circuit monitor.

5.1.1 Reading Data from the PC

The operation of reading the sequence program for the circuit monitor from the PC CPU is described below.

All of the keys used with the operation are touch keys displayed on the screen. Touch the position where the object key is displayed and enter the data.



* When there is a ▭ at the upper left of the screen, touch it to return to the original screen.

When the circuit monitor function starts up, execution begins from the specified operation with the network no. and PC no. of the object PC CPU noted below.

When the screen below is currently displayed, it is not necessary to touch this.

(1) Specify the network no. and PC no. for the object PC CPU. (*1)

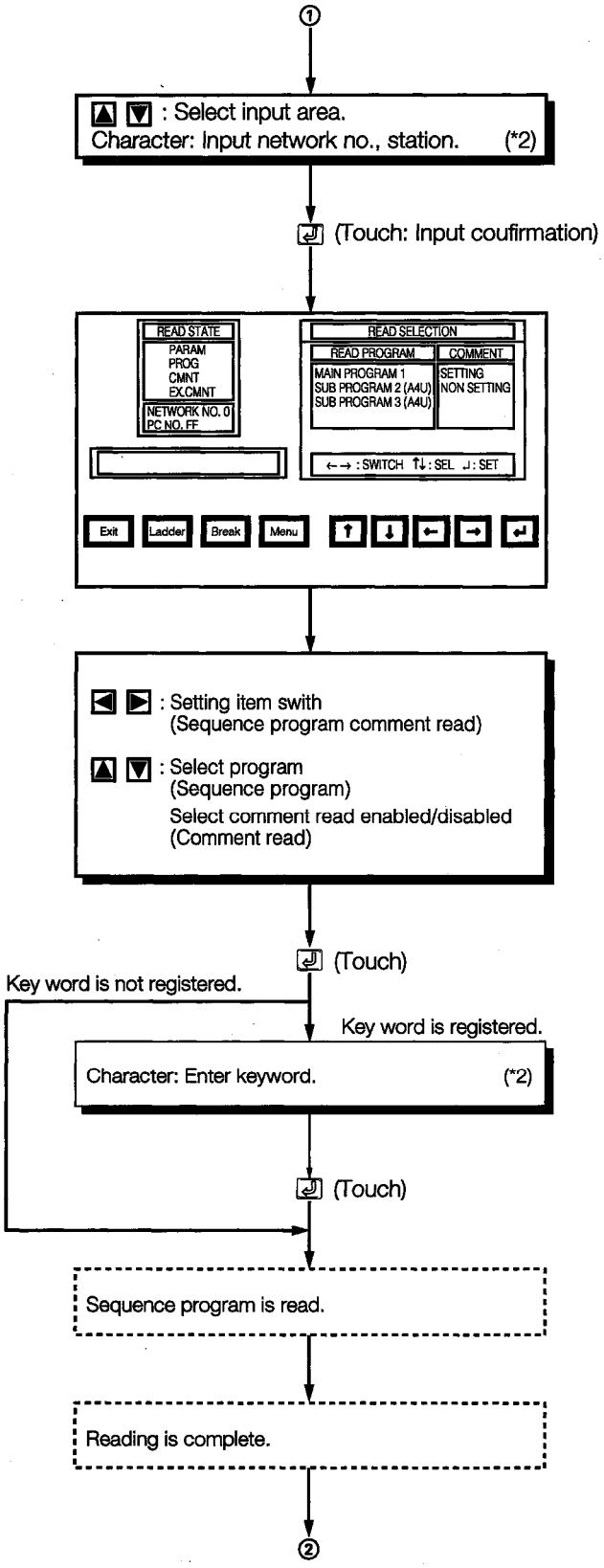
(For data link system)

Network no. : 0

PC no. : FF (Host station)

0 (Master station)

1 to 64 (Local stations)

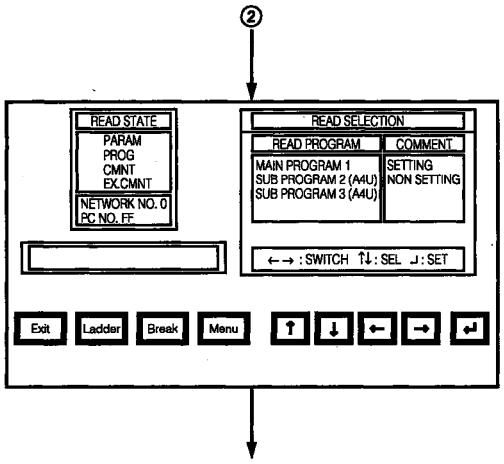


(2) In "Read Program", specify the sequence program to be read from the object station.
Specify whether or not to perform comment read.

(3) Input the keyword that is registered to that station.
If no keyword has been registered, nothing has to be entered.

(4) The contents and capacity of the read procedure are displayed. When you touch Break, the read procedure is interrupted. When reading resumes, it starts at the beginning.

(5) "Finished" is displayed.



Exit : Moves to screen where circuit monitor function starts.

Ladder : Moves to circuit monitor screen.

PCRD. : Moves to PC read screen.

*1 Set "0" for the network no.

For the station no., with either system, specify "FF" or "0" to "64" shown by PC CPU to be accessed.

*2 Data being entered can be cleared by the following keys.

AC : Clears all data being entered to the object area.

DEL : Clears one character at the cursor position.

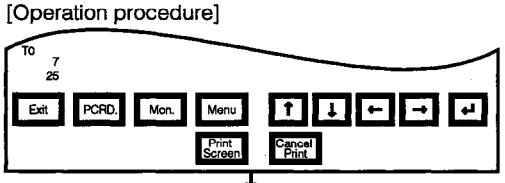
POINT

Once this data has been read from the PC, it does not need to be read again. If data for screens created by the user is downloaded from the computer after this data has been read, however, the data will have to be read again.

5.1.2 Circuit Read Operation

This section describes the object sequence program of the circuit monitor that is read from the PC CPU, for the operation displayed on the circuit monitor screen.

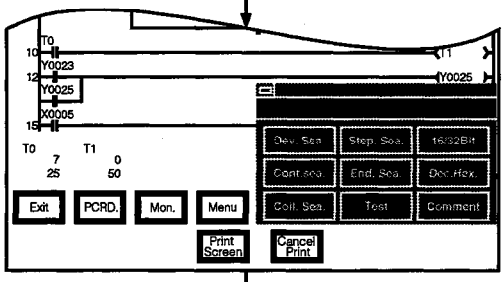
[Operation procedure]



Menu (Touch)

* When there is a ▭ at the upper left of the screen, touch it to return to the original screen.

When the screen below is currently displayed it is not necessary to touch this.



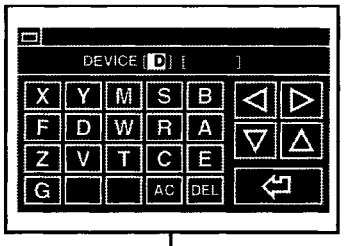
The circuit read operation is executed.

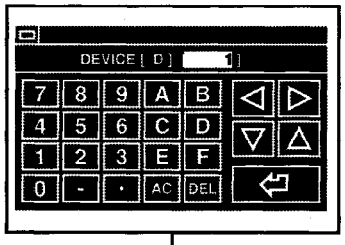
When specifying and reading the device, contact point or coil used in the program

(Touch any of these.)

Dev. Sea. Cont. Sea. Coil. Sea.

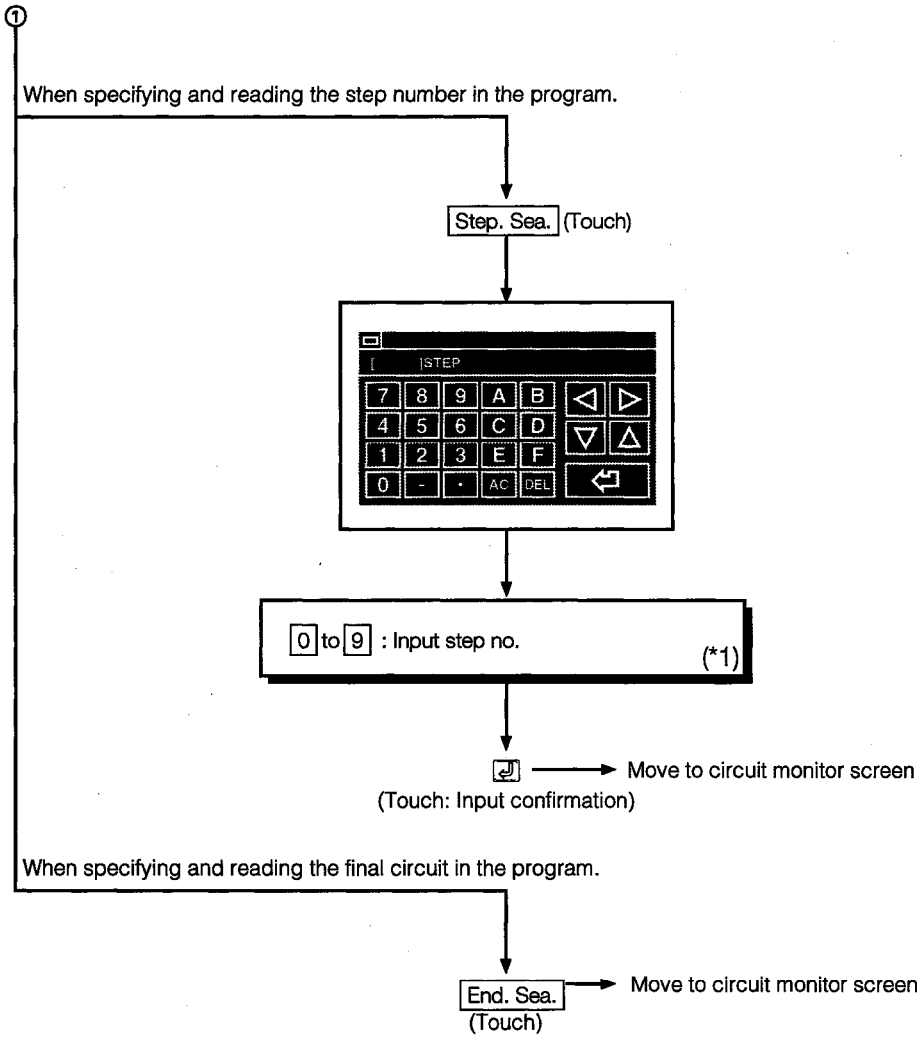
(When entering device name) (When entering device no.)





◀ ▶ :Select input area.
Charactor :Enter network no. and PC no. (*1)

(Touch: Input confirmation) → Move to circuit monitor screen (*2)



*1 Data being entered can be cleared by the following keys.

AC : Clears all data being entered to the target area.

DEL : Clears one character at the cursor position.

*2 When specifying and reading a device, contact point or coil used in the program, the search targets all programs starting from the step number displayed on the previous circuit monitor screen, to the program immediately previous to the one displayed.

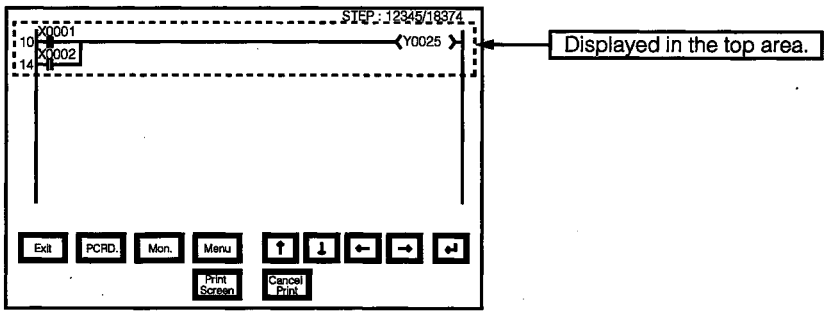
After moving to the screen monitor screen, continuous reading by the same device is enabled by touching ↵ on the screen.

If you touch any other key but ↵, the continuous read function is cancelled.

*3 When device search, contact point search, or coil search is performed during circuit monitoring, only the circuit block which includes the read search device is displayed.

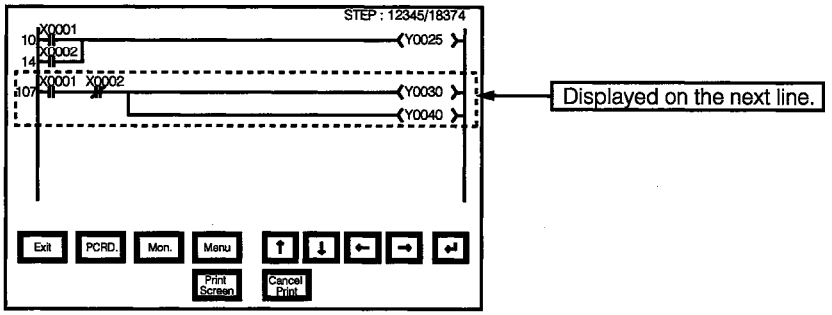
Example) ① When the device name to be searched is entered as "X0001":

Circuit monitor screen



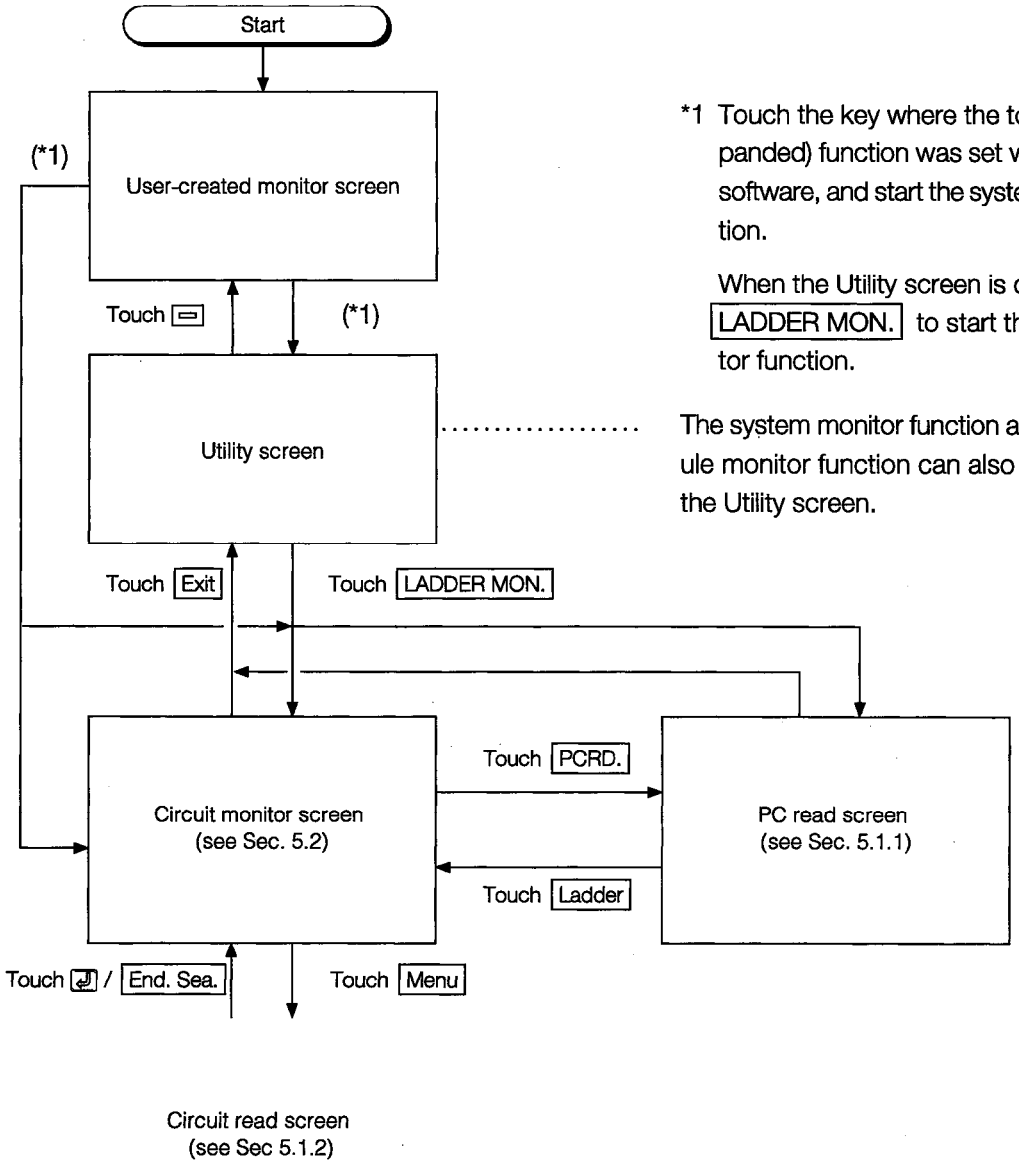
② When the same search is repeated

Circuit monitor screen



5.1.3 Changing from One Screen to Another

This section describes the screen movements when executing the circuit monitor from the status where the user-created monitor screen is displayed.



*1 Touch the key where the touch switch (expanded) function was set with the graphics software, and start the system monitor function.

When the Utility screen is displayed, touch LADDER MON. to start the system monitor function.

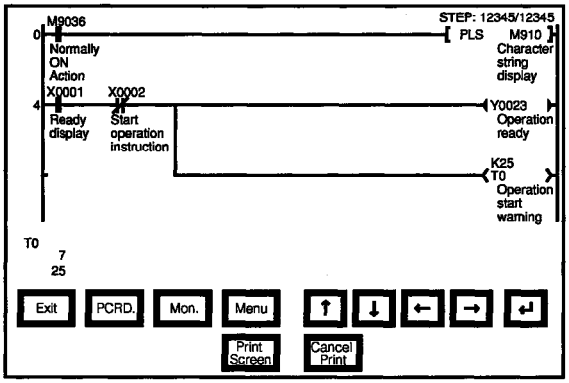
The system monitor function and special module monitor function can also be started from the Utility screen.

5.2 Circuit Monitor

The circuit monitor screen display and the keys that are shown at the top of the screen are explained in this section.

5.2.1 Circuit Monitor Screen Display and Key Functions

(1) Display



When comment is not displayed: maximum 8 lines
When comment is displayed : maximum 3 lines

ON/OFF status display for circuit monitor

- ON status :
- OFF status :

* The MCR command is normally displayed as .

①	Sequence program is displayed. A maximum of 11 contact points is displayed in one line of a circuit; for 12 contact points or more, move to the next line. When a comment display is specified, a comment is also displayed; expanded comments are given priority. (For the method of displaying comments, see Sec. 5.2.2.)
②	A maximum of eight devices is displayed for the word device current value, timer and counter current value (upper row), and set value (lower row). When the set value is an indirect specification, the value of the indirectly specified device is displayed. (To switch between decimal and hexadecimal for the displayed value, see Sec. 5.2.2.)
③	Display the keys used with the operation on the circuit monitor screen shown in (2). (Touch input)

(2) Key functions

This table shows the key functions used with the operations on the circuit monitor screen.

Key	Function
Exit	Return to screen where circuit monitor function starts.
PCRD.	Move to PC Read screen to read sequence program being monitored from PC CPU. (PC read)
Menu	Move to circuit monitor menu screen, to specify sequence program to be displayed on circuit monitor screen. (Circuit read)
Mon.	Start monitoring of sequence program that is displayed on circuit monitor screen.
→ ←	Switch display device when there are nine or more devices displaying current values and set values.
↑ ↓	Display one circuit; scroll up or down.
↵	When reading circuit with device specification, read next program with same device specification. (See *2 in Sec. 5.1.2.)

POINT

After executing PC Read, if the PC CPU comment or comment capacity is changed, the comment may not be correctly displayed on the circuit monitor screen.

When changing the comment or comment capacity, re-start the A870GOT.

5.2.2 Precaution during Circuit Monitoring with FXCPU

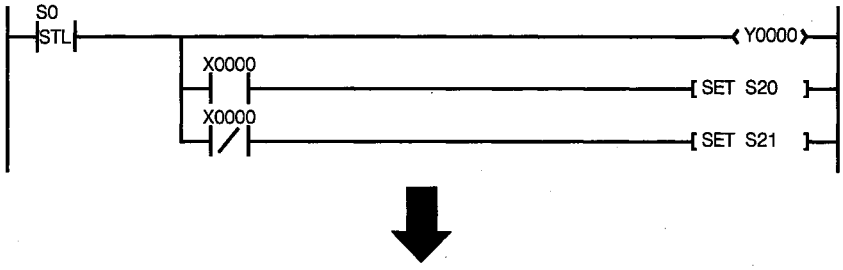
Precaution when using the FXCPU are described below.

(1) The comment display is kana comments only.

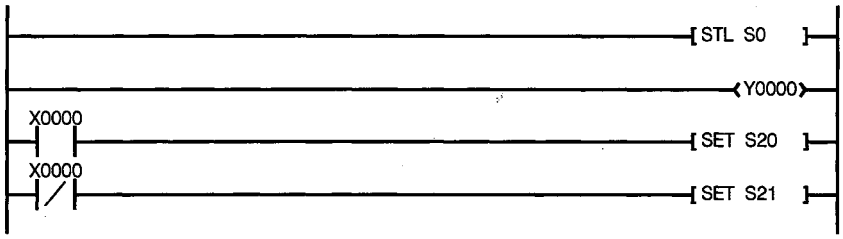
(2) During PC read operation, the PC read can only be performed for host only.

(3) The FXCPU exclusive instruction, STL (step ladder) is not a contact point, but treated as an instruction and displayed in the following manner:

When monitoring with the peripheral device for FX



When circuit monitoring with GOT



(4) When searching for STL instruction, search for "S (state)" in the device search.

5.2.3 Switching the Display Form (Decimal/Hexadecimal) and Turning the Comment Display On/Off

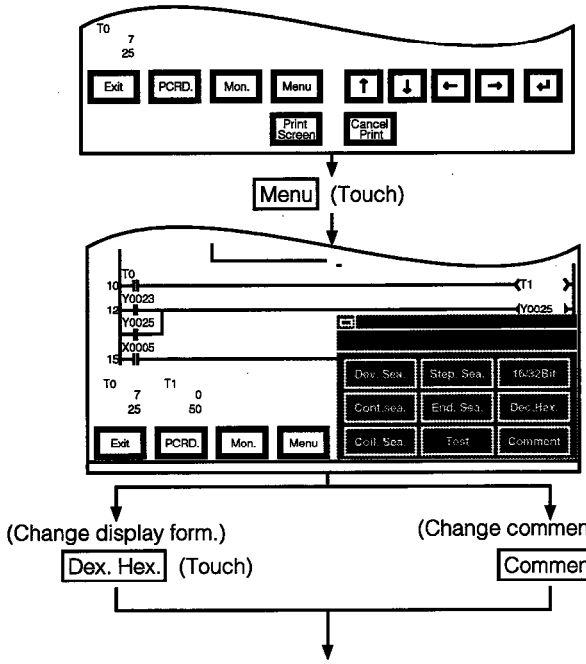
You can switch the display form (decimal/hexadecimal) of the word device value or the timer/counter value that is displayed on the circuit monitor screen. You can also specify whether or not to display a comment for the object device.

① Switching the display form (decimal/hexadecimal)
When monitoring, display the word device current value, the timer/counter current value (upper row) or the set value (lower row) in decimal or hexadecimal. (When decimal is displayed, the display changes to hexadecimal.)

② Switching the comment display on and off
Display the comment that is written in the object PC CPU. (When no comment is displayed, this turns on the comment display. Comment display priority order: expansion comment > Japanese character comment or Japanese kana comment)

The display change operation is explained below.

[Operation procedure]



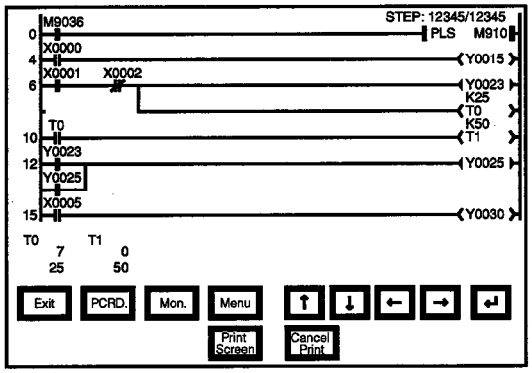
* When there is a ▭ at the upper left of the screen, touch it to return to the original screen.

When the screen below is currently displayed it is not necessary to touch this.

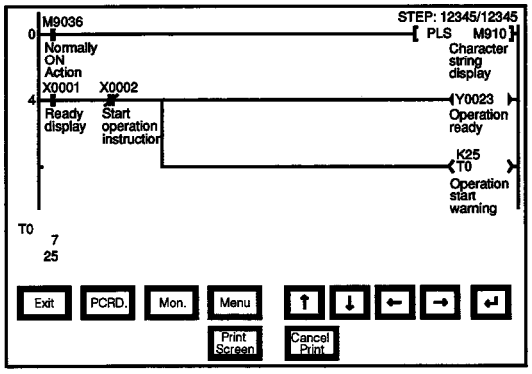
Touch the appropriate display position on the circuit monitor menu.

Move to circuit monitor screen..... After moving to the circuit monitor screen, the word device value is monitored when you touch Mon..

(When changing to hexadecimal display)



(When changing to comment display)



5.2.4 Changing the Device Value

⚠CAUTION

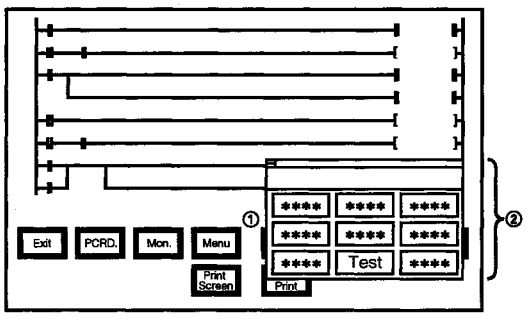
- **Read the manual carefully and fully understand the operation before the test operation (ON/OFF of bit devices, modifying current value of a word device, modifying timer/counter setting, modifying the current value, or modifying the current value of a buffer memory) of circuit monitor.**
  In addition, never modify data in a test operation to a device which performs a curcial operation to the system.
  It may cause an accident by a false output or malfunction.

Changing the device value on the screen during circuit monitoring is described. Switches for the timer/counter value display format (decimal/hexadecimal), and the comment display for the corresponding device (on/off) can be performed.

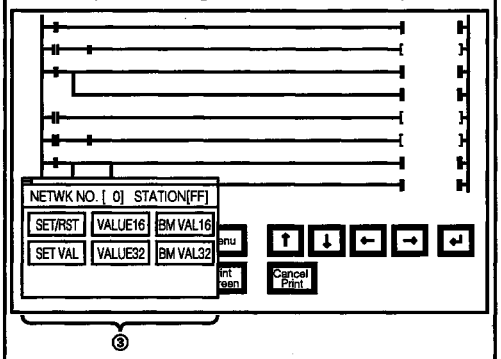
(1) Device value changing method

The device value changing method during circuit monitoring is described below:

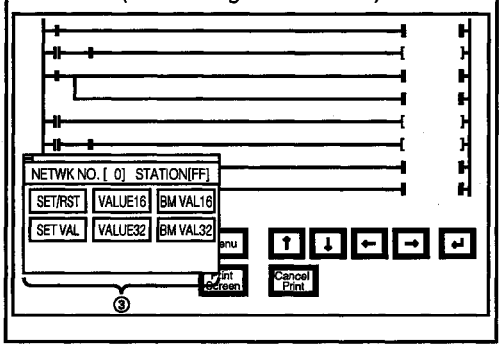
Circuit monitor screen



(When using A870GOT-STN TFT)



(When using A870GOT-EL)



Display the circuit monitor screen by touching Mon.

①Display the screen shown in 2 by touching Menu.

②Display the test window by touching Test.

③As the test window will open, perform the operation by seeing Section 8.6.

After the device change is complete, the changed contents can be verified in the circuit monitor.

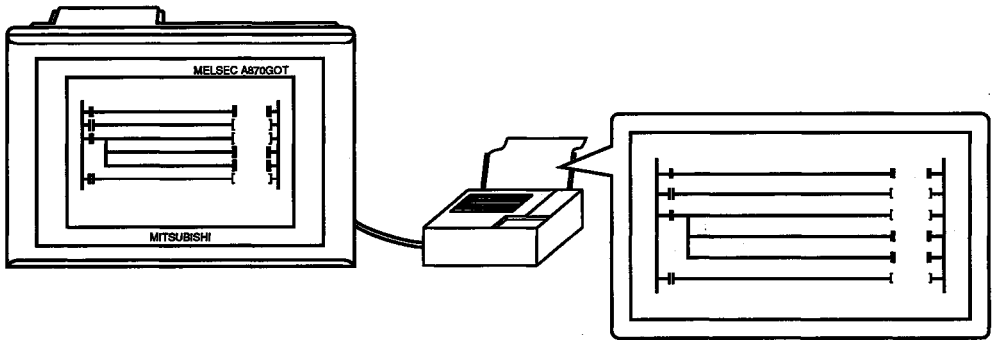
NOTE

The current value display of the word device becomes hidden from view due to the test window.

Using the → and ← key entries, the hidden current value display can be displayed by scrolling to the right/left.

5.2.5 Printing

Printing out during circuit monitoring is described.



When using A870GOT-EL, printing out cannot be performed.

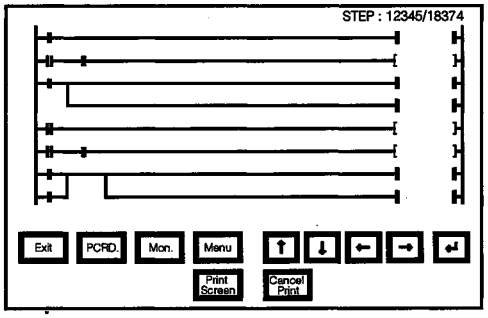
When performing printouts of the circuit monitor screen, the A8GT-70PRF is necessary.

When performing printouts of the circuit monitor screen, always install the option driver to GOT.

(1) Printout method during circuit monitoring

The printout method during circuit monitoring is described below:

Circuit monitor screen



Display the circuit monitor screen by touching [Mon].

1 Execute the printout by touching [Print Screen].

2 To cancel the printout, touch [Cancel Print].

6. Error Display and Handling with Circuit Monitoring

The following chart shows the error messages that are displayed during the circuit monitor operation and the method of handling them.

Error Message	Description	Method of Handling
Keywords do not match.	The specified keyword is different from the keyword that is registered in the object PC CPU.	Check the keyword that is registered in the object PC CPU and specify again.
No object program	An attempt was made to switch to the circuit monitor screen when a sequence program had not been read.	Read the sequence program that is written in the object PC CPU. (Ex.) A sub-sequence program can only be specified as A3□CPU/A4UCPU.
Cannot communicate with CPU	Cannot communicate with CPU of the specified network no. or PC no.	Check and correct the following: (1) Does the specified PC CPU exist? (2) Is it online? (Data communication status?) (3) Has an error occurred?

MEMO

System Monitor Function Operation Manual

In the System Monitor Function Operation Manual, the overall procedures for using the system monitor function and the method of operating the system monitor function are explained.

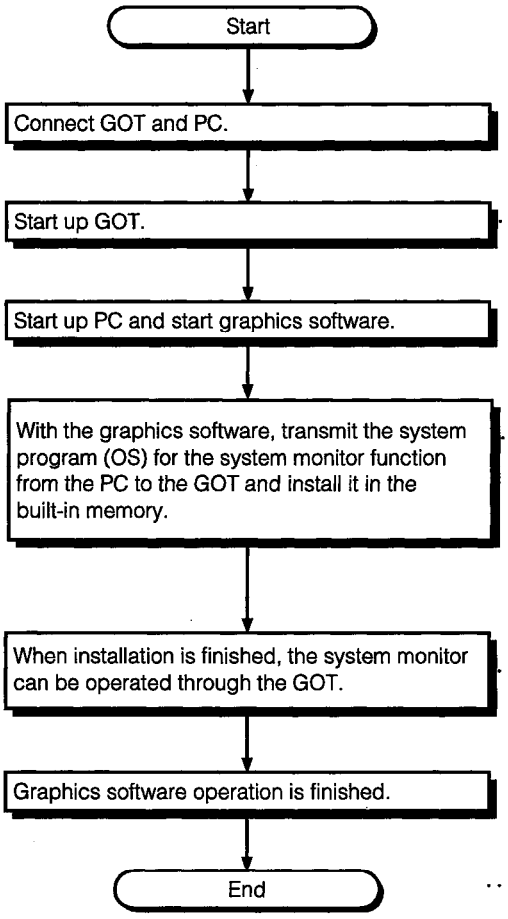
7. Operation Procedure for the System Monitor Function

The operation procedure for using the system monitor function is explained in this section.

7.1 Operation Procedure before Starting System Monitoring

This section contains a summary of the procedure for transmitting the system program (OS) for the system monitor function from the PC to the GOT until it is installed in the built-in memory.

For details, please refer to the A8GOTP Operation Manual (Data Transmission, Debugging, Document Creation Manual). Details of the screen display and key operation are shown below.



···· It is not necessary to set up and operate the GOT after startup.

···· Transmit the data using the installation dialog box.

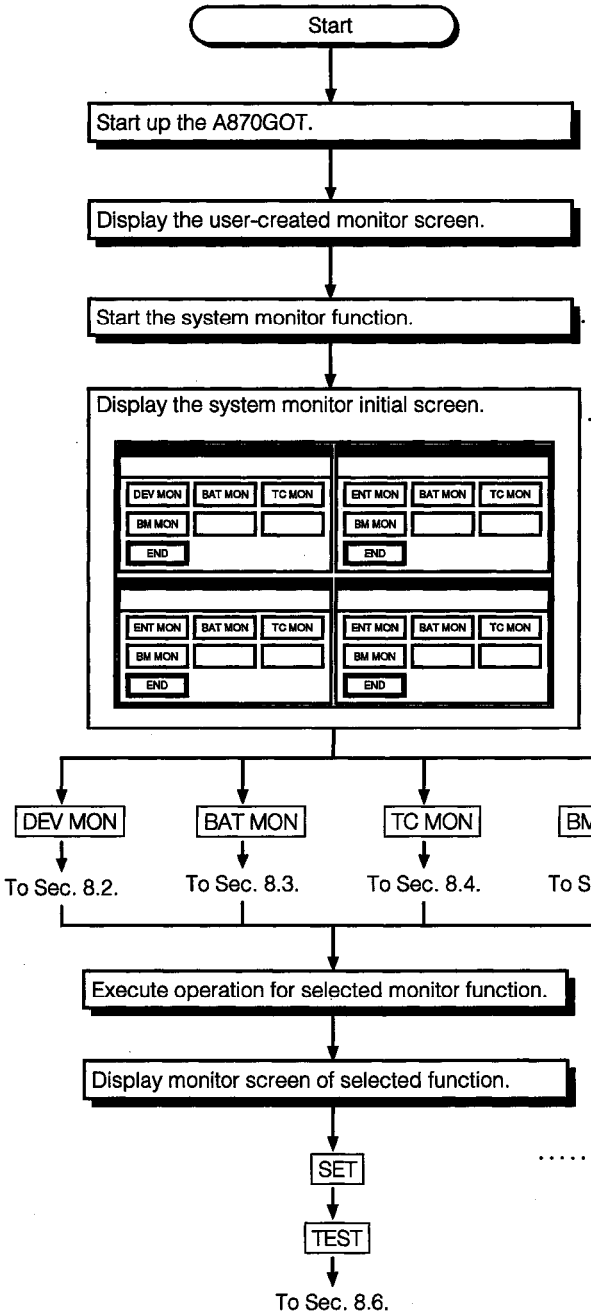
*Transmit the data that was installed from the SW□-A8SYSP of the system floppy disk to the PC hard disk.

···· When installation is finished, "End" is displayed on the installation dialog box.

····· Proceed to Section 7.2 to operate the system monitor.

7.2 Operation Procedure from User-Created Monitor Screen Display to Start of System Monitoring

This section explains the operating procedure for the GOT when starting each operation of the system monitor function, after the system program (OS) of the system monitor function has been installed in the GOT built-in memory.



With the A870GOT, the screen is divided to display four windows.
Execute the system monitor operation for each window as shown below.
With the A85□GOT, one window is displayed.
When [END] is selected in any window, the system monitor ends and the display moves to the original screen where the system monitor function started.

Touch display position of selected monitor function.

See Sec. 8.1 for common operations.
The procedure for testing is as follows:

- Set/reset bit device.
- Change current values of word device.
- Change current value, set values of T or C.

*1 Touch the key where the touch switch (expanded) function was set with the graphics software, and start the system monitor function.

When the Utility screen is displayed, touch [PC. MON.] to start the system monitor function.

8. Operation of the Various System Monitor Screens

This chapter contains an explanation of each screen operation when using the system monitor function.

POINT

If the A870GOT is being used, with any of the four windows, when using the station/monitor device or executing the test operation, it is not possible to do an operation with another window until that series of operations is finished.

8.1 Screen Configuration, Common Operations and Changing Screens when Monitoring

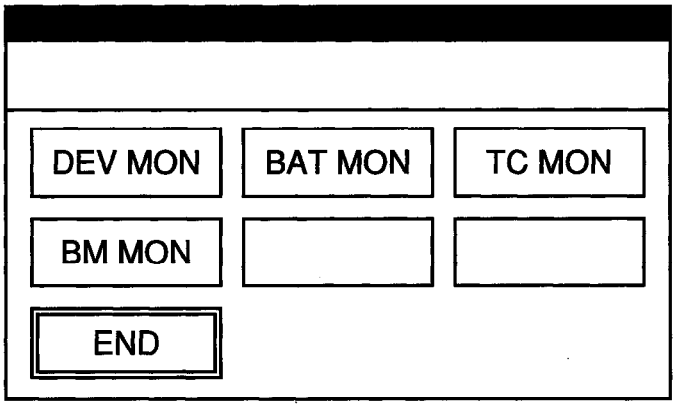
The common operations of each monitor function such as screen configuration and target PC CPU specification when executing system monitoring are described below.

8.1.1 Basic Screen Configuration and Key Functions (Menu)

The basic screen configuration displayed in the windows and the key functions displayed on the screen are shown below.

With the A870GOT, the following four windows are displayed. (One A85□ is displayed.)

(1) Display



(2) Key functions

The functions of keys that are used with the basic screen operation are shown in the chart below.

Key	Function
DEV MON	The entry monitor is executed with the applicable window. (See Sec. 8.2.)
BAT MON	The batch monitor is executed with the applicable window. (See Sec. 8.3.)
TC MON	The timer/counter monitor is executed with the applicable window. (See Sec. 8.4.)
BM MON	The buffer memory monitor is executed with the applicable window. (See Sec. 8.5.)
END	System monitoring ends; display returns to screen for starting system monitor function.

8.1.2 Switching the Display Form (Decimal/Hexadecimal) and Turning the Comment Display On/Off (FORM)

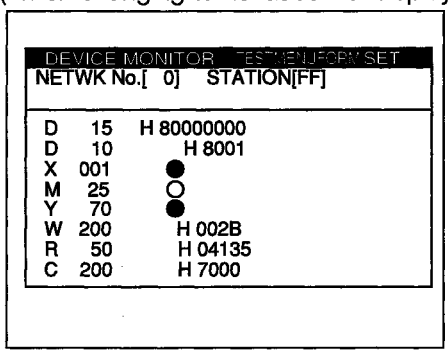
(1) Switching the display form (decimal/hexadecimal)

Display the word device present value or the timer/counter present value or set value in decimal or hexadecimal.

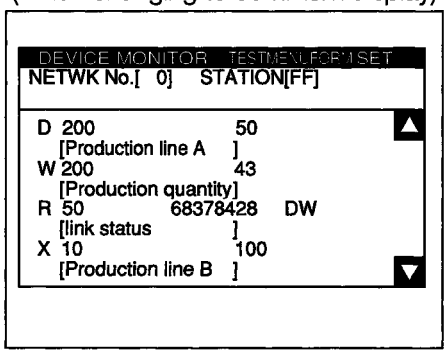
(2) Switching the comment display on and off

Display the comment that is written in the object PC CPU. (Comment display priority order: expanded comment > Japanese character comment or Japanese kana comment)

(When changing to hexadecimal display)



(When changing to comment display)



When the monitoring destination is being operated with the following conditions using the QnA series CPU, take note that the comment display cannot be performed.

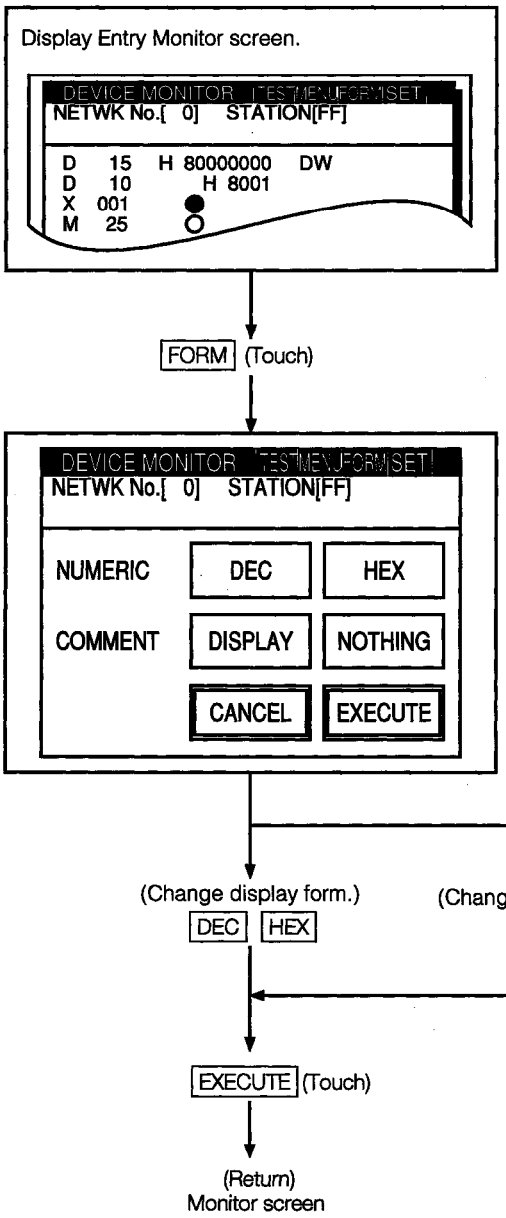
<Conditions>
When executing multiple programs, multiple comment files exist, and all comment files are set as "same file name being used as program."

When performing the comment display, use the comment file with a set specification.

Below is an explanation of the operation for changing the display, using the Entry Monitor window as an example.

The operating procedure is the same for changing the display when selecting windows other than Entry Monitor.

[Operation procedure]



When you touch [MENU] you return to the basic screen.

When you touch [SET], the monitor station and device can be specified. (See Sec. 8.1.3.)

When you touch [FORM], you can change this display.

The selected [FORM] display is also found on the screen displayed after selecting the monitor function with the basic screen and on each menu screen, in addition to each monitor screen.

Display monitor station network no. and station.

* When you touch [CANCEL], the display change is interrupted and the display returns to the monitor screen.

(1) Touch the display position of the selected menu.

POINT

After starting the system monitor, if the PC CPU comment or comment capacity is changed, the comment may not be correctly displayed on each monitor screen.

When changing the comment or comment capacity, re-start the GOT.

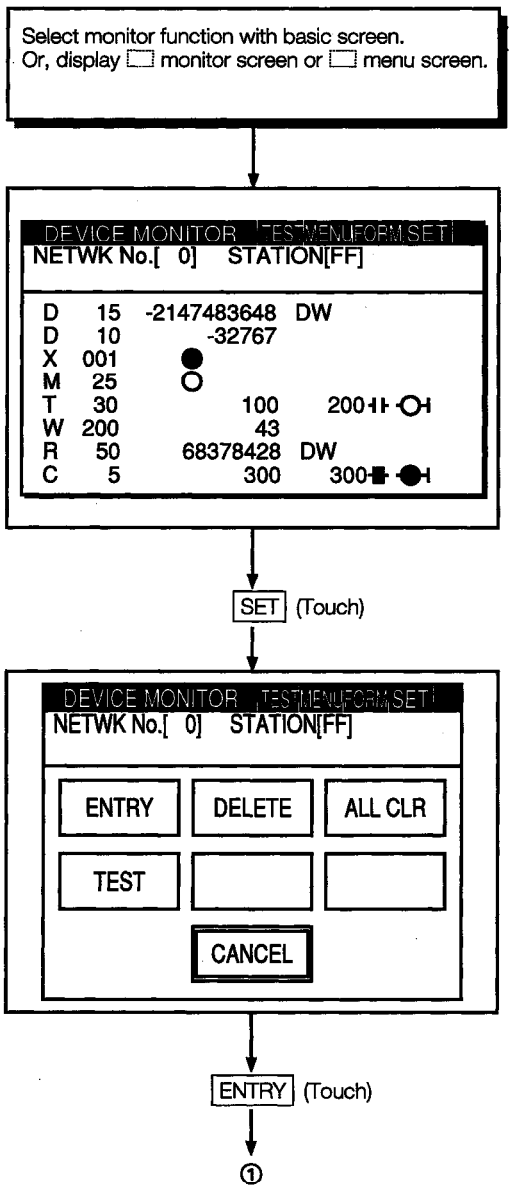
8.1.3 Specifying the Monitor Station and Device (SET)

An explanation of the procedure for specifying the monitor station and the device for executing the system monitor is explained below, using the Entry Monitor window as an example.

The operation procedure is the same for specifying the monitor station and device when selecting windows other than Entry Monitor.

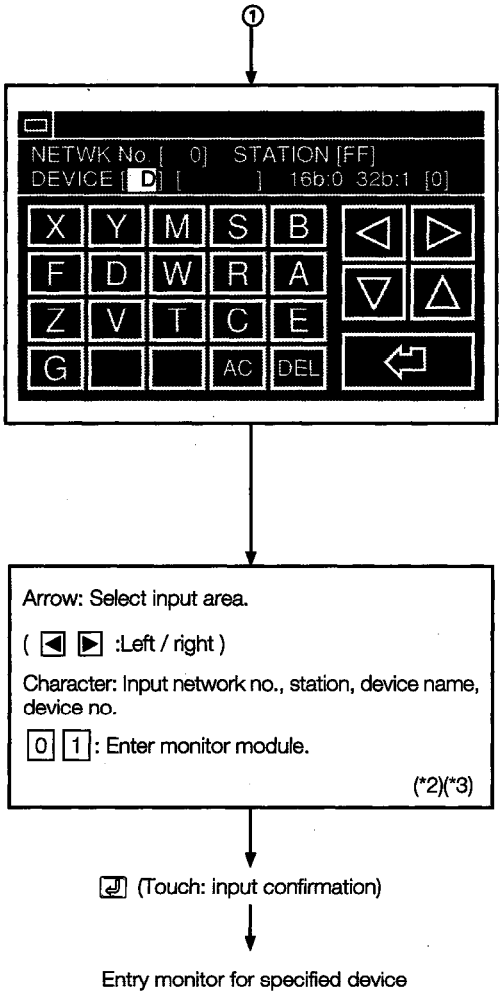
* When there is a [▭] (keywindow), touching it to returns to the monitor screen.

[Operation procedure]



..... See Sec. 8.1.1.
..... See the explanatory section for each monitor screen and the menu screen.

)···· When you touch [MENU] you return to the basic screen.
When you touch [FORM], you can change this display. (See Sec. 8.1.2.)
When you touch [SET], you can specify the monitor station and device.



(1) Specify network no. and station of object PC CPU. (*1)

(For data link system)

Network no. : 0

Station : FF (Host station)

0 (Master station)

1 to 64 (Local station)

(For network system)

Network no. : 0 (Host loop)

1 to 255 (Specified loop)

Station : FF (Host station)

0 (Control station)

1 to 64 (Normal station)

(2) Specify the device to be monitored.

(3) When specifying the word device or buffer memory as a monitor device, specify the monitor module.

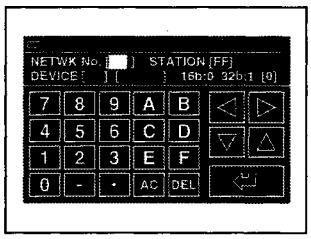
0: 16-bit (1-word) module

1: 32-bit (2-word) module

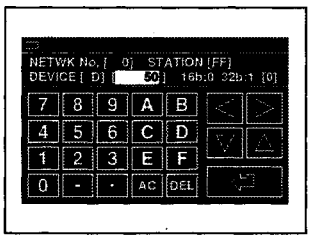
* Match the data to be entered; the touch key display at the bottom of the screen will change.

(Ex.)

(When entering network no.)



(When entering device no.)



*1 For the station, with either system specify "FF", which shows the PC CPU to be accessed, or "0" to "64".

*2 Data being entered can be cleared by the following keys.

AC : Clears all data being entered to the target area.

DEL : Clears one character at the cursor position.

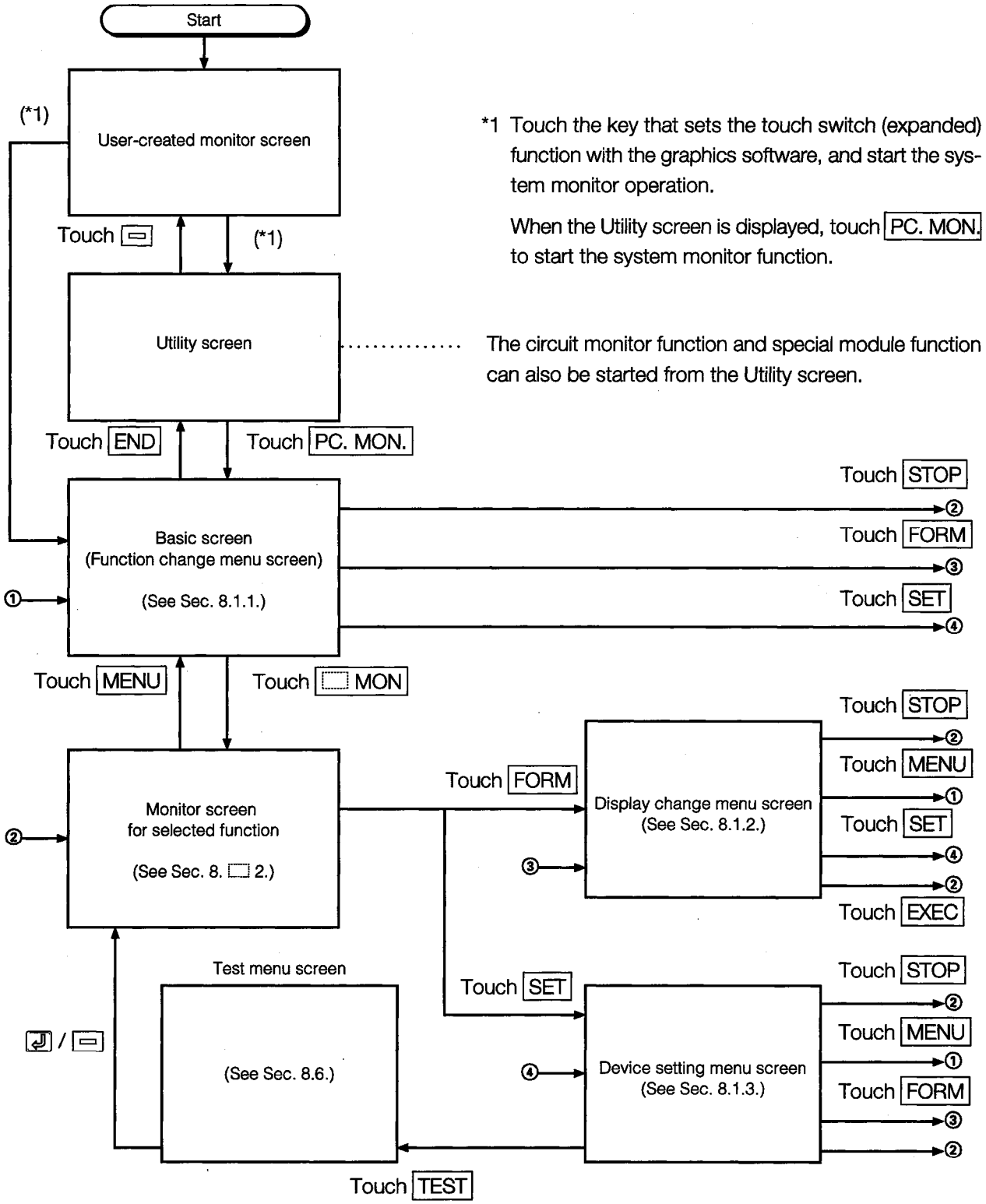
*3 The form of data to be entered is displayed at the right side of the screen.

DEC : Enter in decimal

HEX : Enter in hexadecimal

8.1.4 Changing Screens

This section shows the screen changes when executing each monitoring operation of the system monitor function from the status where the user-created monitor screen is displayed.



*1 Touch the key that sets the touch switch (expanded) function with the graphics software, and start the system monitor operation.

When the Utility screen is displayed, touch PC. MON. to start the system monitor function.

The circuit monitor function and special module function can also be started from the Utility screen.

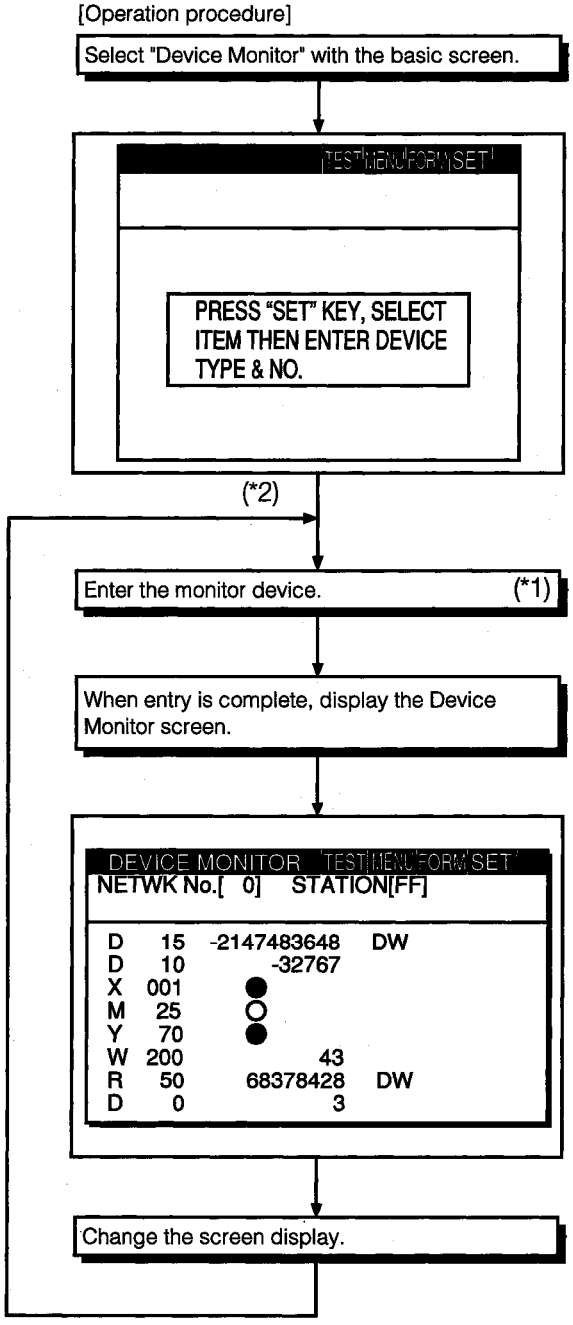
8.2 Device Monitor

Enter the device to be monitored in advance. The function that monitors only the device that was entered is called the "device monitor".

The device monitor operation when executing the system monitor function is explained below.

8.2.1 Basic Operation

The device monitor operation procedure is shown below.



See Sec. 8.1.1.

When a screen other than the basic screen is displayed, touch [MENU] at the top of the currently displayed screen, display the basic screen, and select Device Monitor.

When you touch [MENU], you return to the basic screen.
When you touch [FORM], you can change this display. (See Sec. 8.1.2.)
When you touch [SET], you can specify the monitor station and device. (See Sec. 8.1.3.)

Set the station and device to be monitored.
For the setting method, see Sec. 8.1.3.

*1 Monitor device entry is in station modules. If you change the station for the monitor device, all monitor devices entered before that are invalid.

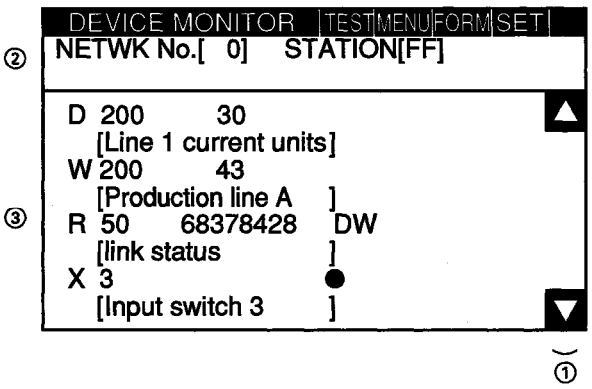
*2 A maximum of 8 entry devices can be entered.
To enter more than 8, delete in order from the old entry device. The 8 most recent entry devices will be monitored.
As needed, re-enter after deleting the entry device.
(For the method of deletion, see Sec. 8.2.3.)

Do if needed.
For the display change method, see Sec. 8.1.2.

8.2.2 Device Monitor Screen Display and Key Functions

In this section, the Device Monitor screen display and the functions of the keys displayed at the top of the screen are explained.

(1) Display



When comment is not displayed: max. 8 devices
When comment is displayed: max. 4 devices
Display for system monitor

* Bit device ····· ●: ON ○: OFF
* Word device ····Current value

①	Displays the keys that are used with the operation of the Device Monitor screen shown in (2). (Touch input)
②	Displays the monitor station network no. and station.
③	Displays the status and current value of the device.

(2) Key functions

Shows the functions of the keys that are used with the operation of the Device Monitor screen.

Key	Function
MENU	Move to basic screen (function change menu screen) to change to another monitor function or ending the system monitor. (See Sec. 8.1.1.)
FORM	Move to the display change menu screen to change the numerical display on the Device Monitor screen (decimal, hexadecimal) or changing the comment display (on/off). (See Sec. 8.1.2.)
SET	Move to device setting menu screen to enter the monitor device, delete the device, or execute a test. * Entry of monitor device (See Sec. 8.1.3.) * Deletion of device device (See Sec. 8.2.3.) * Test (See Sec. 8.6.)
▲ ▼	Scroll the display up or down one line, and display the monitor device that is not displayed (just before or after the current display). When a monitor device with five or more points is entered, operation is enabled when the monitor device comment is displayed. ▼: Scrolls down one line. ▲: Scrolls up one line.

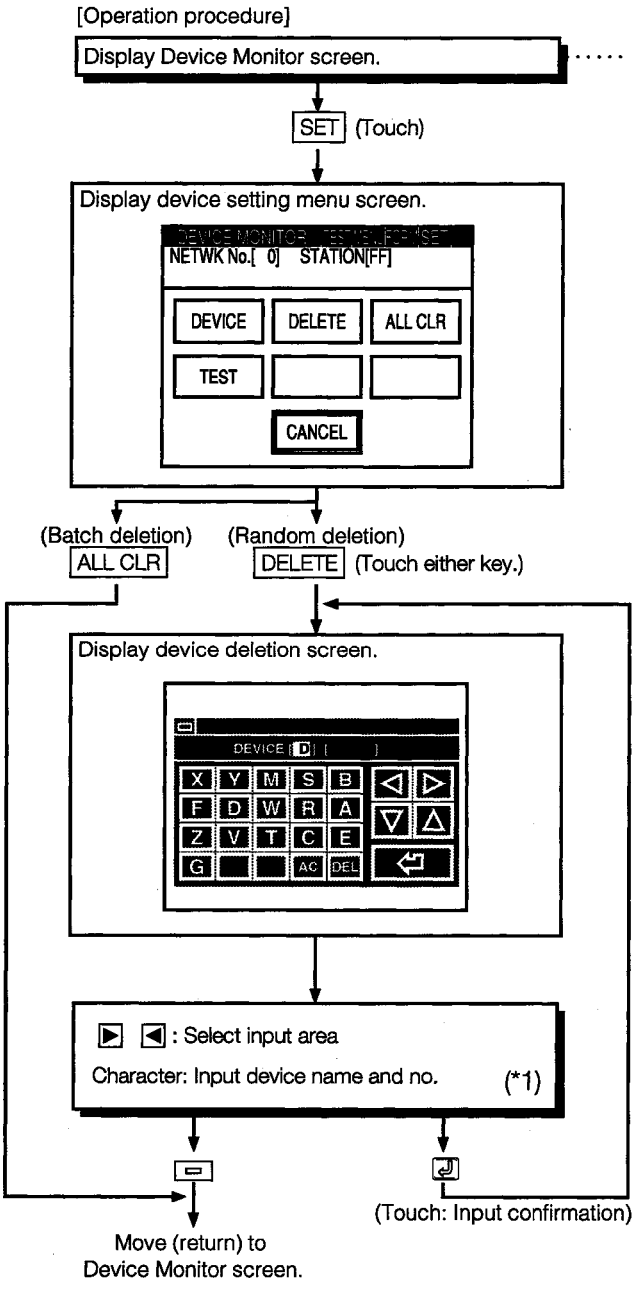
8.2.3 Deleting a Registered Device

The operation of deleting (erasing) the entry of the device being monitored with the Device Monitor screen is explained below.

The following two methods can be used to delete the registered device.

* Random deletion ···· Deletes only one specified device.
* Batch deletion ····· Deletes all devices that are currently registered.

* If there is a [▭] at the upper left of the screen, touching the [▭] returns to the monitor screen.



····· See Sec. 8.2.2.

(1) Specify the device to be deleted.

* Match the data to be entered; the touch key display at the bottom of the screen will change.

*1 Data being entered can be cleared by the following keys.

[AC] : Clears all data being entered to the object area.

[DEL] : Clears one character at the cursor position.

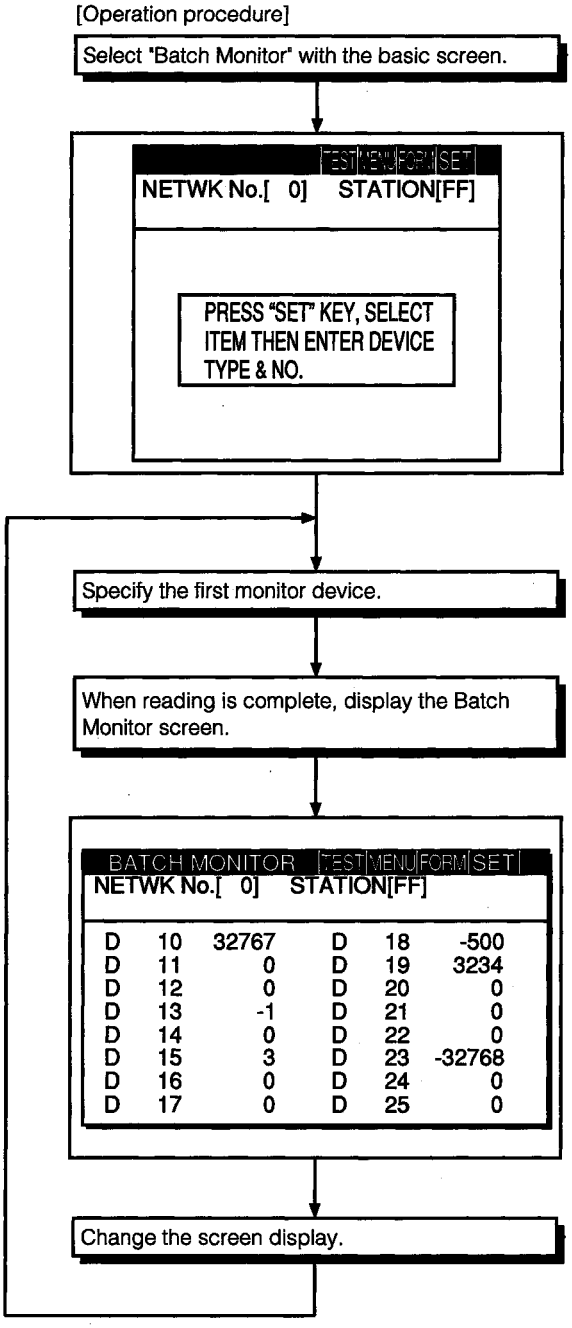
8.3 Batch Monitor

When monitoring, the function of specifying the device at the beginning of an optional device range and monitoring it is called the "batch monitor".

The batch monitor operation when executing the system monitor is explained below.

8.3.1 Basic Operation

The batch operation procedure is shown below.



See Sec. 8.1.1.
When a screen other than the basic screen is displayed, touch [MENU] at the top of the currently displayed screen, display the basic screen, and select "Batch monitor".

When you touch [MENU], you return to the basic screen.
When you touch [FORM], you can change this display. (See Sec. 8.1.2.)
When you touch [SET], the monitor station and device can be specified. (See Sec. 8.1.3.)

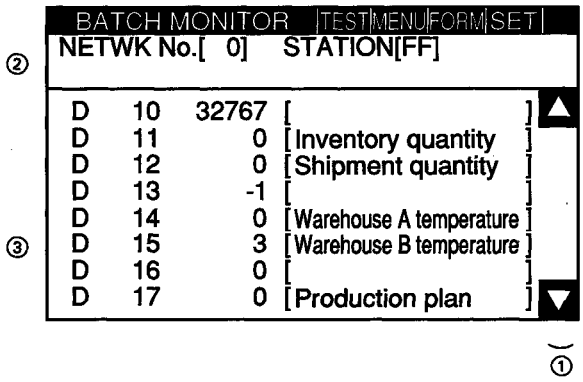
(1) Specify the station and device to be monitored.
For the method of specifying, see Sec. 8.1.3.

Do if needed.
For the display change method, see Sec. 8.1.2.

8.3.2 Batch Monitor Screen Display and Key Functions

In this section, the Batch Monitor screen display and the functions of keys displayed at the top of the screen are explained.

(1) Display



When comment is not displayed: max. 16 devices
When comment is displayed:max. 8 devices
Display for system monitor
* Bit device ·····●: ON ○: OFF
* Word device ····Current value

①	Displays the keys that are used with the operation of the Batch Monitor screen shown in (2). (Touch input)
②	Displays the monitor station network no. and station no.
③	Displays the status and current value of the monitor device (when the monitor module in the screen above is 16 bits).

(2) Key functions

The chart below shows the functions of the keys that are used with the operation of the Batch Monitor screen.

Key	Function
MENU	Move to basic screen (function change menu screen) for changing to another monitor function or ending the system monitor. (See Sec. 8.1.1.)
FORM	Move to display change menu screen for changing the numerical display on the Batch Monitor screen (decimal/ hexadecimal) or changing the comment display (on/off). (See Sec. 8.1.2.)
SET	Move to device setting menu screen to change the monitor device or execute a test. • Change of monitor device (See Sec. 8.1.3.) • Test (See Sec. 8.6.)
▲ ▼	Scroll the display up or down one line, and display the monitor device that is not displayed (just before or after the current display). ▼: Scrolls down one line. ▲: Scrolls up one line.

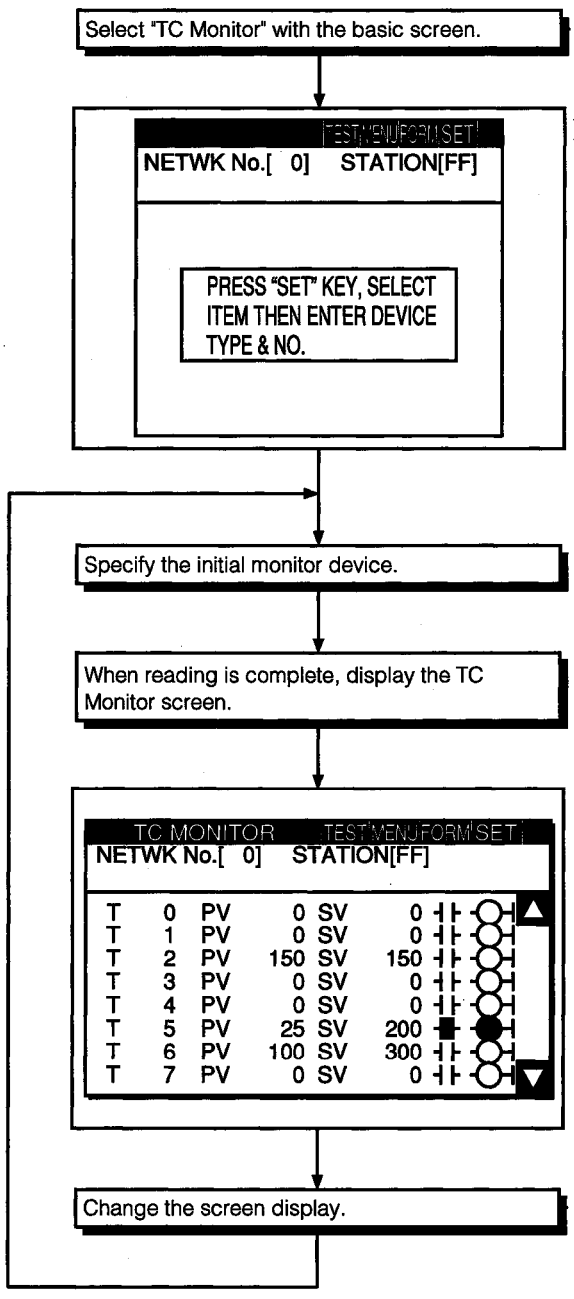
8.4 TC Monitor

The function that monitors only the timer (T) and counter (C) when monitoring is called the TC monitor.

The TC monitor operation when executing the system monitor is explained below.

8.4.1 Basic Operation

The TC operation procedure is shown below.



See Sec. 8.1.1.
When a screen other than the basic screen is displayed, touch MENU at the top of the currently displayed screen, display the basic screen, and select "TC Monitor".

When you touch MENU, you return to the basic screen.
When you touch FORM, you can change this display. (See Sec. 8.1.2.)
When you touch SET, the monitor station and device can be specified. (See Sec. 8.1.3.)

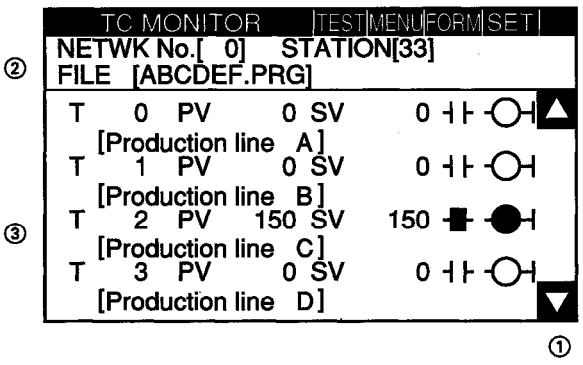
(1) Specify the station and device to be monitored .
For the method of specifying, see Sec. 8.1.3.

Do if needed.
For the display change method, see Sec. 8.1.2.

8.4.2 TC Monitor Screen Display and Key Functions

In this section, the TC Monitor screen display contents and the function of keys displayed at the top of the screen are explained.

(1) Display



When comment is not displayed:max. 8 devices
When comment is displayed:max. 4devices
Display when system monitor
* T/C ..... current value, set value
(Contact point, coil) :ON :OFF

①	Displays the keys that are used with the operation of the TC Monitor screen shown in (2). (Touch input)
②	Displays the monitor station network no. and station no. When connected to QnACPU, the execution file name is displayed. (For multiple connections, the first file name is displayed.)
③	Displays the current value, set value, contact point and coil status of the monitor device (when the monitor module in the screen above is 16 bits).

(2) Key functions

The chart below shows the function of the keys that are used with the operation of the TC Monitor screen.

Key	Function
MENU	Move to basic screen (function change menu screen) for changing to another monitor function or ending the system monitor. (See sec 8.1.1.)
FORM	Move to display change menu screen for changing the numerical display on the TC monitor screen (decimal/hexadecimal) or changing the comment display (on/off). (See Sec. 8.1.2.)
SET	Move to device setting menu screen to change the monitor device or execute a test. • Change of monitor device (See Sec. 8.1.3.) • Test (See Sec. 8.6.)
▲ ▼	Scroll the display contents up or down one line to display the monitor device that is not displayed (just before or after the current display). Operation is enabled when monitor device comment is displayed. ▼ : Scrolls down one line. ▲ : Scrolls up one line.

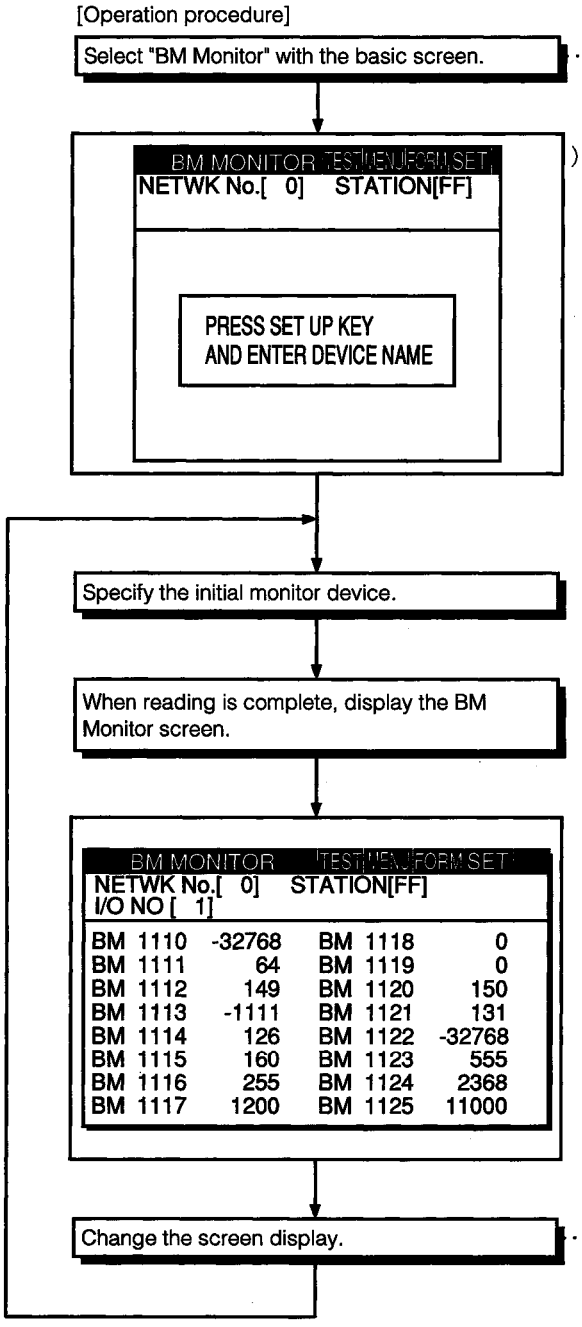
8.5 BM Monitor

When monitoring, the function that monitors the buffer memory of the special function module is called the "BM monitor".

The BM monitor operation when executing the system monitor is explained below.

8.5.1 Basic Operation

The BM operation procedure is shown below.



See Sec. 8.1.1.
When a screen other than the basic screen is displayed, touch [MENU] at the top of the currently displayed screen, display the basic screen, and select "BM Monitor".

When you touch [MENU] you return to the basic screen.
When you touch [FORM], you can change this display. (See Sec. 8.1.2.)
When you touch [SET], the monitor station and device can be specified. (See Sec. 8.1.3.)

(1) Specify the station and device to be monitored, and the monitor module (16-/32-bit module).

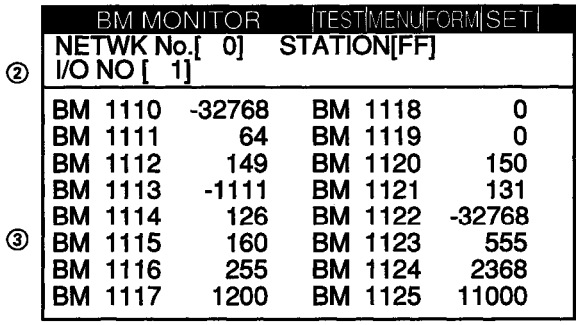
(2) For the method of specifying, see Sec. 8.1.3. Specify the module to be monitored and the buffer memory as follows.
Initial Y [ ] [ ]
Specify the initial address of the buffer memory in decimal.
When the initial I/O signal of module is displayed with three digits, specify the first two digits.

Switching between decimal and hexadecimal display is enabled. Do this as needed.For the display change method, see Sec. 8.1.2.

8.5.2 BM Monitor Screen Display and Key Functions

In this section, the BM Monitor screen display and the functions of keys displayed at the top of the screen are explained.

(1) Display



Displays current values of a maximum of 16 devices

①	Displays the keys that are used with the operation of the BM Monitor screen shown in (2). (Touch input)
②	Displays the monitor station network no. and station no. and the first 2 digits of the I/O signal no. of the object module.
③	Displays the current values of the buffer memory (when the monitor module in the screen above is 16 bits).

(2) Key functions

The chart below shows the functions of the keys that are used with the operation of the BM Monitor screen.

Key	Function
MENU	This moves to the basic screen (function change menu screen) for changing to another monitor function or ending the system monitor. (See Sec. 8.1.1.)
FORM	This moves to the display change menu screen for changing the number display on the BM monitor screen (decimal/ hexadecimal). (See Sec. 8.1.2.)
SET	This moves to the device setting menu screen to change the monitor device or execute a test. • Change of monitor device (See Sec. 8.1.3.) • Test (See Sec. 8.6.)

8.6 Test

⚠CAUTION

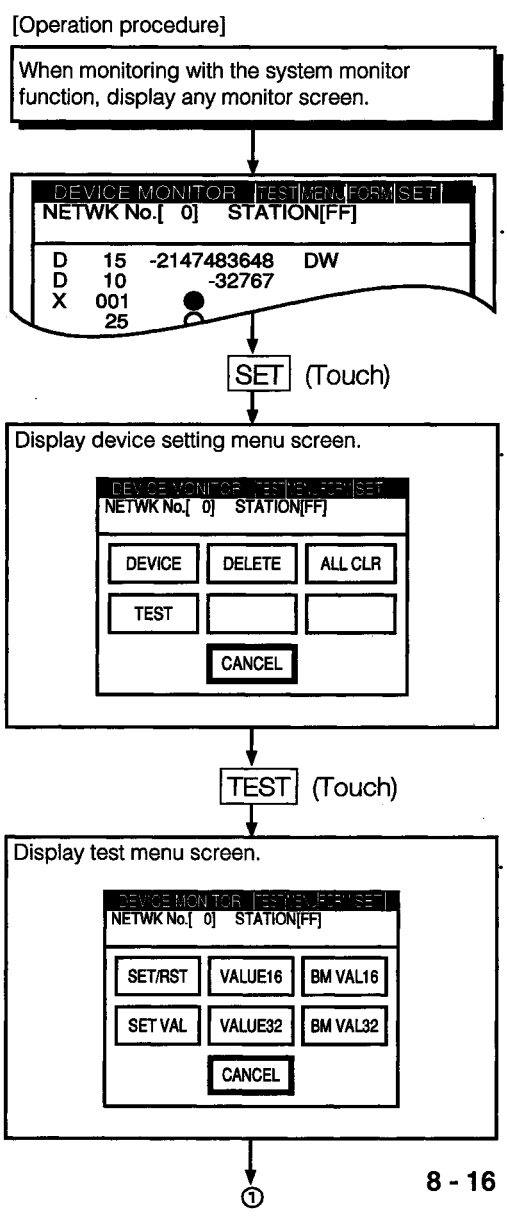
●Read the manual carefully and fully understand the operation before the test operation (ON/OFF of bit devices, modifying current value of a word device, modifying timer/counter setting, modifying the current value, or modifying the current value of a buffer memory) of system monitor.
In addition, never modify data in a test operation to a device which performs a curcial operation to the system.
It may cause an accident by a false output or malfunction.

When monitoring with the system monitor function, you can specify an optional station or device that can be monitored and test it.

The operation of testing a bit device, word device, or special module buffer memory of the PC CPU is explained in this section.

8.6.1 Basic Operation

The basic operation for testing when monitoring with the system monitor function is shown below.

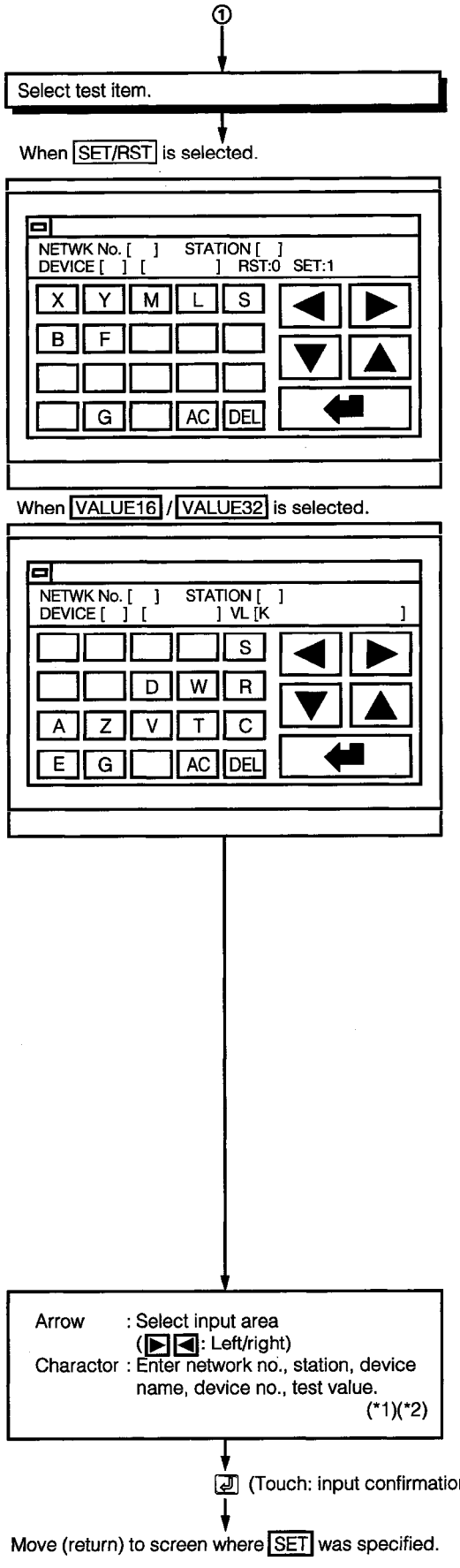


See sec 8.□. 2.
When a screen other than the monitor screen is displayed, display any monitor screen according to the explanatory section for each monitor function.

When Device Monitor screen is displayed

When you touch CANCEL, the display moves (returns) to the previous monitor screen.

When you touch CANCEL, the display moves (returns) to the previous monitor screen.



(1) Touch either, depending on test contents.

SET/RST

SET/RST (set/reset) bit device.

VALUE16 or VALUE32

Change current value of word device.

SET VALUE

Change T, or C set value.

BM VAL16 or BM VAL32

Change current value of buffer memory.

* With VALUE16 or BM VAL16, 16 bits is the object module.
With VALUE32 or BM VAL32, 32 bits is the object module.

(2) Specify the network no. and station no. of the object PC CPU.
(See Sec. 8.1.3, *1.)

(For data link system)
Network no. : 0
Station : FF (Host station)
0 (Master station)
1 to 64 (Local station)

(For network system)
Network no. : 0 (Host loop)
1 to 255(Specify loop)
Station : FF (Host station)
0 (Control station)
1 to 64 (Normal station)

(3) Specify object device.

(4) Specify test value.

- With SET/RST (set/reset) of bit device, specify 0 (RST) or 1 (SET).
- When changing current value of word device
  When changing T or C set value, or when changing current value of buffer memory
  Match current display form (decimal/hexadecimal) and specify change value. (*3)

*1 The data being entered can be cleared by using the following keys.

AC : Clear all data being entered in the object area.

DEL : Clear one character from the cursor position.

*2 The format for the data being entered is displayed on the right side of the screen.

DEC : Enter in decimal.

HEX : Enter in hexadecimal.

*3 Even when the setting value/current value is changed after the timer (T) has timed out and the counter (C) has finished counting, the time-up status/count-up status do not change. The current status is maintained.

(When the setting value is changed to a large value/when the current value is changed to a small value)

8.6.2 Quick Test Function

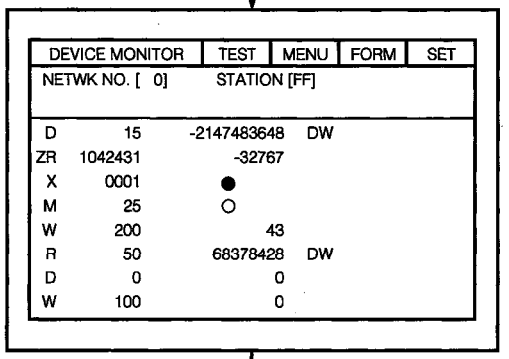
In addition to the existing tests for the direct input of device, station, etc. during monitoring with the A870/A850/A851GOT system monitor function, this function enables the bit device SET/RESET, word device, buffer memory data to change by a single touch.

① Operation to set the quick test function on

To perform the quick test functions, perform the following operations:

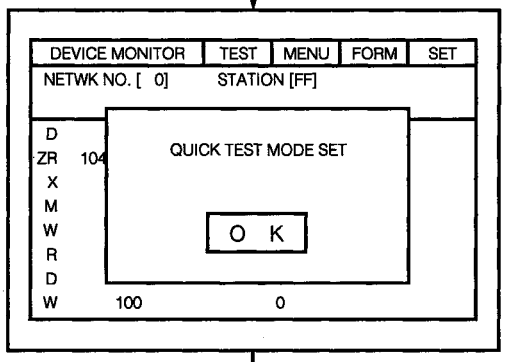
<Operation procedure>

Display one of the system monitor screen.



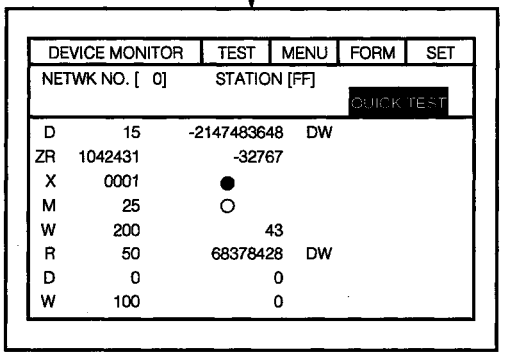
..... When displaying the device monitor screen

TEST (Touch)



..... The quick test is turned on by clicking on OK.

O K

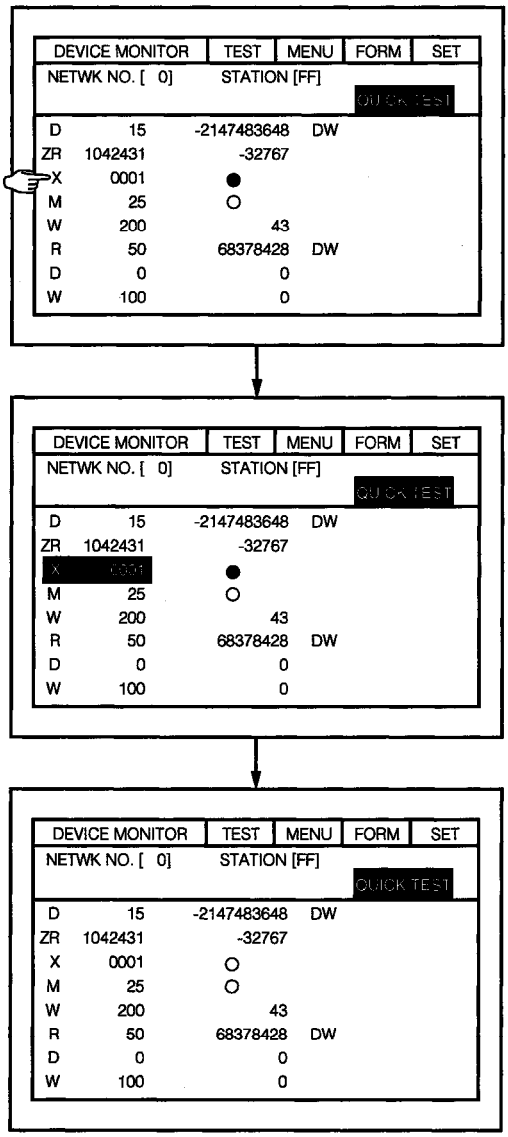


..... Status when the quick test function is on

② Operation to turn off the quick test function

When [Test] is touched when the quick test function is on, a dialog box is displayed. When [OK] is touched, the quick test can be canceled.

③ Bit device quick test



..... When the device monitor screen is displayed

Touch the device name or device no. display position for the bit device to be SET/RESET.

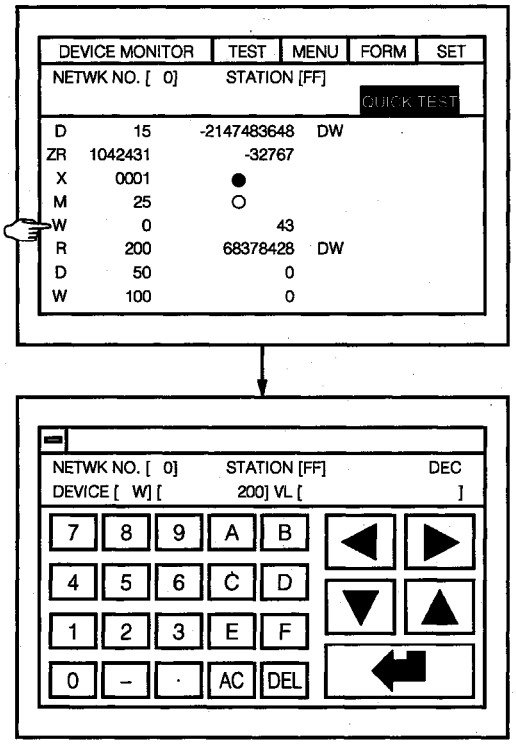
..... The device name and device no. touched is displayed highlighted.

When the on/off display (○, ●) of the highlighted display is touched, the status is SET/RESET.

* When the current bit device is ON, then it is turned OFF (RESET).
When OFF, it will be (SET).

..... The on/off display area (○, ●) of the X0001 device is highlighted.

④ Quick test for the word device, T/C monitor, and buffer memory.



..... When displaying the device monitor screen

Touch the display position of the device to be changed.

..... The change value input screen is displayed.

Enter the current value to be changed in the KEY window.

See Section 8.1.3 for the KEY window operations.

9. Error Display and Handling with System Monitoring

The following chart shows the error messages that are displayed during the system monitor operation and the method of handling them.

Error Message	Description	Method of Handling
PC communications error	Communication could not be established with the PC CPU.	Check the following: • Connections between the PC CPU and the GOT (disconnected or cut cables). • Has an error occurred in the PC CPU ?

Special Module Monitor Function Operation Manual

The Special Module Monitor Function Operation Manual contains a summary of the procedures for using the special module monitor function and the method of operating the special module monitor function.

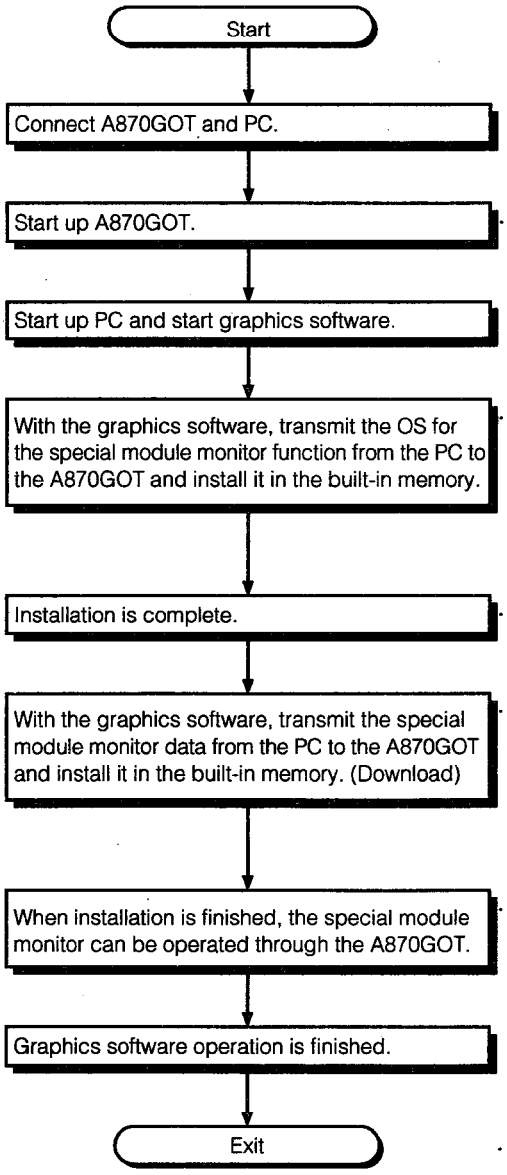
10. Operation Procedure for Special Module Monitor Function

The operation procedure when using the special module monitor function is explained in this chapter.

10.1 Operation Procedure before Starting Special Module Monitoring

This section contains a summary of the procedure for transmitting the system program (OS) for the special module monitor function and the special module monitor data from the PC to the A870GOT until it is installed in built-in memory.

For details, please see the A8GOTP Operating Manual (Data Transmission, Debugging, Document Creation Manual). Details of the screen display and key operation are shown below.



··· It is not necessary to set up and operate the A870GOT after startup.

··· Transmit the data using the installation dialog box.

* Transmit the data that was installed from the SW□-A8SYSP of the system floppy disk to the PC hard disk.

··· When installation is finished, "End" is displayed on the installation dialog box.

··· Transmit the data using the download dialog box.

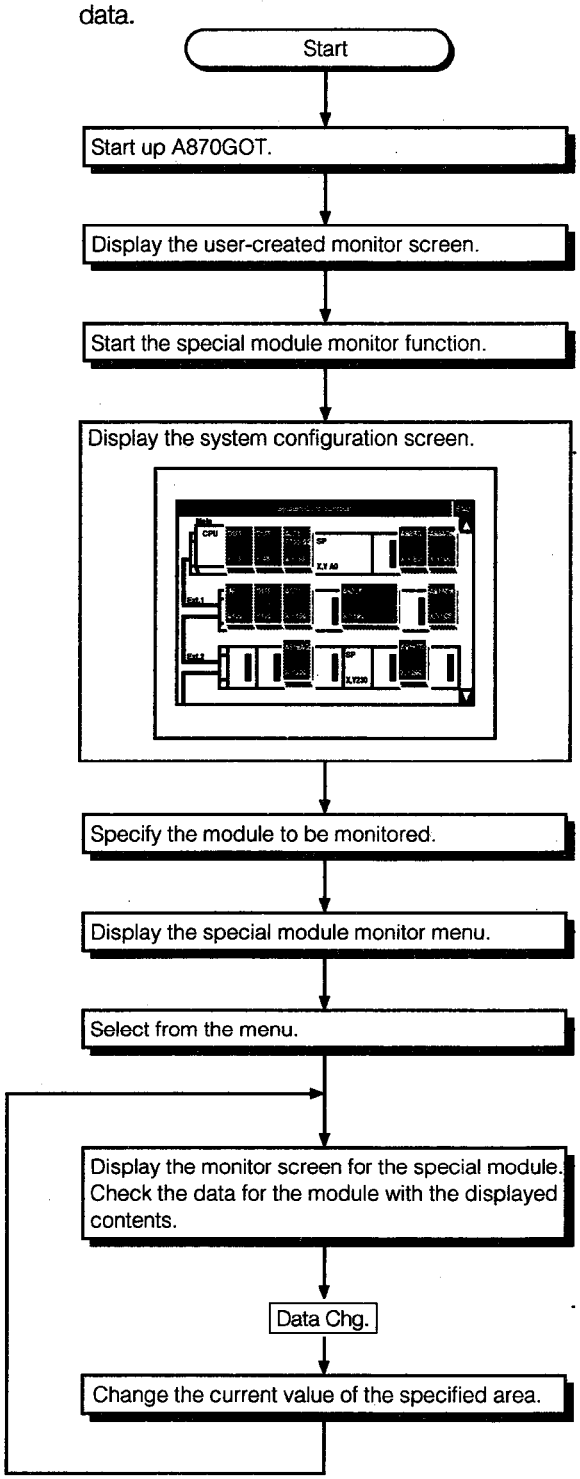
* Transmit the data that was installed from the SW□-A8SYSP of the system floppy disk to the PC hard disk.

··· When download is finished, "End" is displayed on the download dialog box.

··· Proceed to Section 10.2 to operate the special module monitor.

10.2 Operation Procedure from User-Created Monitor Screen Display to Start of Special Module Monitor

This section describes the operation procedure for the A870GOT when starting each operation of the special module monitor function after the system program (OS) of the special module monitor function has been installed in the A870GOT built-in memory, and downloading the special module monitor data.



··· (*1)

···· When starting, the module format and related data are not displayed.
When reading of module data from the PC CPU is complete, the module format and related data is displayed.
See sec. 11.1.1.
When END is selected, the special module monitoring ends and the display moves to the original screen where the special module monitor function was begun.

···· See Secs. 11.1.3, 11.1.4.

···· See Sec. 11.1.4.

···· The Special Module Monitor Screen is displayed by selecting it from the menu.
See Sec. 11.1.4.

···· See Sec. 11.1.2.
See Secs. 11.2 to 11.26.

····· Carry out the following operation when changing the current values of the buffer memory that is displayed on the monitor screen.
See Sec. 11.1.5.

*1 Touch the key where the touch switch (expanded) function was set with the graphics software, and start the system monitor function.

When the Utility screen is displayed, touch SP. MODULE to start the special module monitor function.

11. Operation of Each Special Module Monitor Screen

Each screen operation when using the special module monitor function is explained in this chapter.

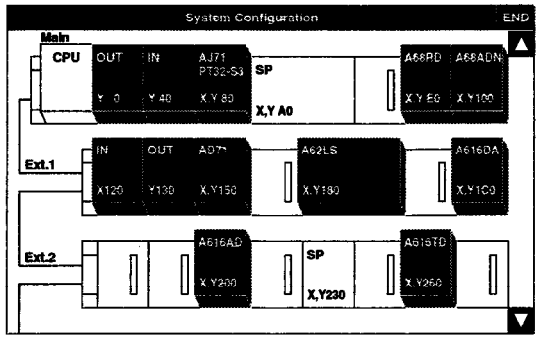
11.1 Screen Configuration, Common Operation and Changing Screens when Monitoring

The screen configuration and common operations used when executing the special module monitor are explained in this section.

11.1.1 Composition of System Configuration Screen and Key Functions

This section describes the structure of the system configuration screen that is displayed after starting the special module monitor function and the key functions displayed on the screen.

(1) Display



The module format and related data are displayed at the end of the module data readout from the PC CPU.
(OS is automatically executed.)

When connected to MELSECNET, the screen shown in Section 11.1.3 is displayed.

①	Displays network no. and station no. of monitor station.
②	With the module installed in the monitor station, the special function module displays the format and the initial no. of the I/O signal with the sequencer CPU; the I/O module displays "Input"/"Output" and the I/O points. For a special function module that cannot be monitored, "Special" and the initial no. of the I/O signal are displayed. The display position of the module is the key for moving the special function module monitor of that module to the screen where it is executed. (Touch input)
③	The keys used for the operation with the System Configuration screen shown in (2) are displayed. (Touch input)

(2) Key functions

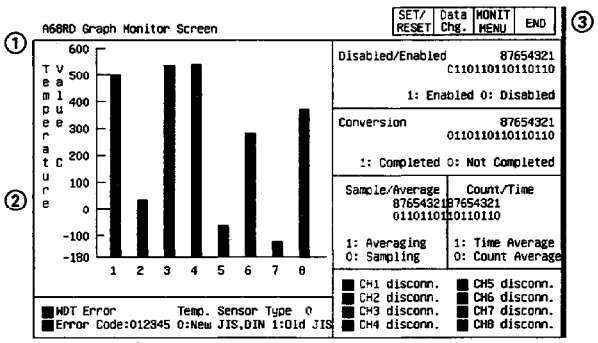
The chart below shows the functions of keys that are used with the System Configuration screen operation.

Key	Function
END	Monitor ends, and display returns to the screen where the special module monitor function was begun.
Module display position	Moves to screen where the special module monitor for that module is executed. Slots 0 through 7 are valid for each base module.
▲ ▼	Scrolls display up or down one level to display the system configuration of the level number just before or after the one that is currently displayed. Operation of these keys is enabled when the system configuration extends to three levels or more. ▼ : Scrolls down one level. ▲ : Scrolls up one level.

11.1.2 Monitor Screen Configuration and Key Functions

This section describes the structure of the monitor screen that is displayed by specifying the module with the system configuration screen, and the key functions that are displayed at the top of the screen.

(1) Display (with A68RD)



All types of data are displayed when the readout from the special function module is complete.
(OS is automatically executed.)

①	Displays format of module being monitored.
②	Displays buffer memory data of object module in its current form, or in a graph. Display status of I/O signal with the PC CPU. When testing, tests after moving the cursor to the display position of the target data.
③	The keys used for the operation with the monitor screen shown in (2) are displayed. (Touch input)

(2) Key Functions

Monitor screen operation is used to indicate the function of the key to be used.

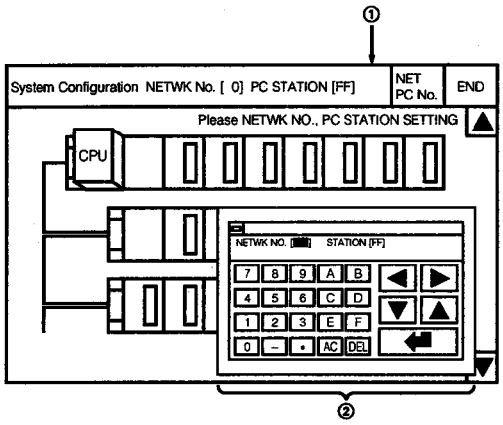
Key	Function
END	Monitoring ends; display returns to the screen where the special module monitor function was begun.
MONIT MENU	Ends current monitoring and moves to screen that shows monitor menu. Operation can be used only if the special function module has a Monitor menu.
Data Chg.	Starts change of current values for buffer memory of special function module displayed on screen.
SET / RESET	Starts test set/reset for I/O signal between PC CPU and special function module.

11.1.3 Setting Method for Remote Station Monitoring

The setting method to perform remote station monitoring during special module monitoring is described below.

<Special module monitor>

When connected to MELSECNET



Touch [Special Module] to display the system configuration screen.

Depending on the connection method, the screen first displayed will be different as indicated below.

Bus connection and CPU direct connection	The base of the connection station is displayed.
MELSECNET (II), /B connection	No system configuration display
MESELCNET/10 connection	No system configuration display

For MELSECNET connections, the following operations will always be required:

① Touch [NETPCNo.] to display the window shown in 2.

② Touch [Alphanumeric] to specify the network no. and PC station no.

[Alphanumeric].. Enter the network no. and PC station no.

[◀] [▶] ..... Select the input area.

[↵] ..... Set the area value.

In the case of data link systems	
NETWK NO.	: 0
STATION	: FF (Host)
	: 0 (Master station)
	: 1 to 64 (Local station)

In the case of network systems	
NETWK NO.	: 0 (Host loop)
	: 1 to 255 (Specified loop)
STATION	: FF (Host)
	: 1 (Station number of management station)
	: 1 to 64 (Normal station)

When the setting is finished, the system configuration of the specified station is displayed.

See Section 11.1.4 for operations which come after these operations.

11.1.4 Specifying Monitor Module and Selecting Monitor Menu

The operation when starting the special module monitor for an optional module is explained, using the positioning module (AD71) as an example.

[Operation procedure]

Display System Configuration screen. ···· See Sec. 11.1.1.

↓

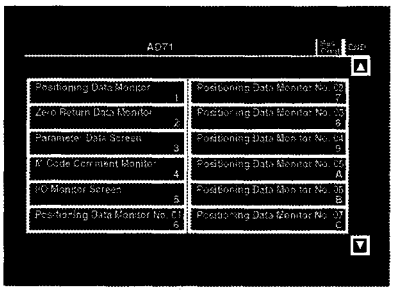
Specify module to be monitored (Touch display position of module).

(1) From the modules assigned to slots 0 through 7 of each base unit, specify the special function module where the format is displayed.

* For modules where the format is not displayed, monitor with the system monitor function. (See Sec. 8.5.)

↓

Display screen that shows monitor menu.



(2) Specify the menu corresponding to the type of data to be monitored.

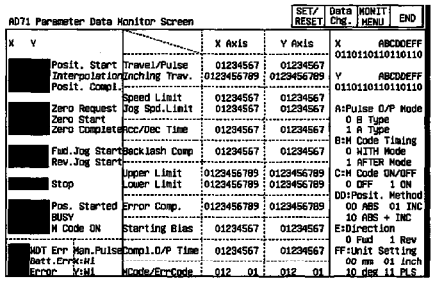
(3) With modules for which the monitor menu cannot all be displayed in one screen, touch the ▲ ▼ keys at the right of the screen to scroll the display menu.

↓

Specify menu to be monitored (Touch display position of menu).

↓

Display monitor screen of specified menu.



(4) Check the contents of the display. Carry out the subsequent operation according to Secs. 11.2 to 11.26.

(5) Carry out tests for the displayed data according to Sec. 11.1.5.

- Change current value of buffer memory
- Turn output signal from PC CPU on and off.

↓

Proceed to Sec. 11.1.5 and Secs. 11.2 to 11.26.

11.1.5 Test for Special Function Module

⚠CAUTION

- **Read the manual carefully and fully understand the operation before the test operation (modifying the current value of a buffer memory) of special function module monitor. In addition, never modify data in a test operation to a device which performs a curcial operation to the system. It may cause an accident by a false output or malfunction.**

Testing can be performed for all buffer memory data displayed on the current monitor screen.

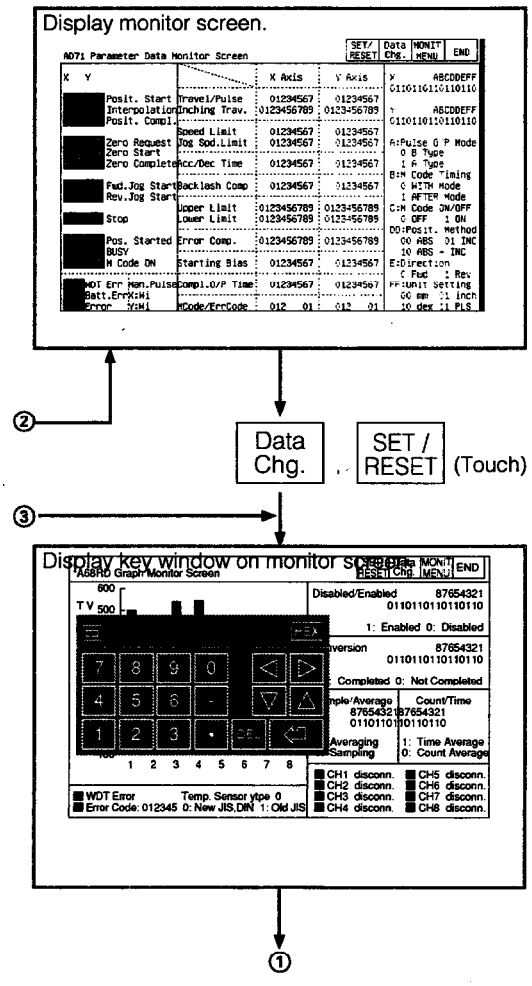
This section describes the operation for changing the current value of the buffer memory and turning the output signal from the PC CPU to the special function module on and off.

POINT

(1) When testing, test for the buffer memory that can be written in from the PC CPU and the output signal that is output from the PC CPU.

(2) Be sure to carry out the test operation with the PC CPU in STOP status.
If the PC CPU is tested during RUN status, it returns to the output values and output status from the sequence program.

[Operation procedure]

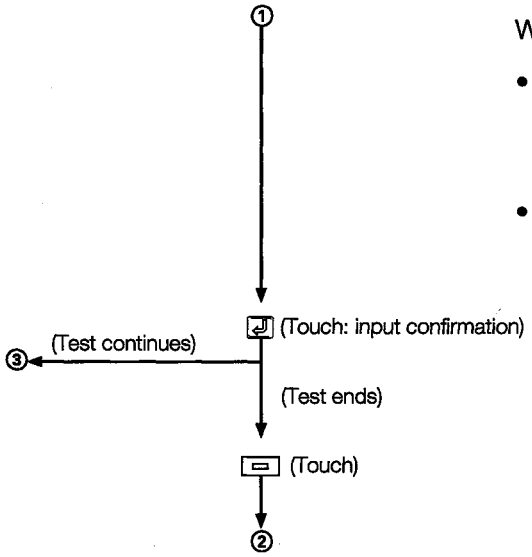


When [Data Chg.] is touched
(changes current value of buffer memory)

- All of the following operations can be carried out by touching the keys in the displayed key window.
- When you touch [▭] at the upper left of the key window, the key window closes and the display returns to the monitor screen.

(1) Move the cursor to the position where the data to be tested is displayed. (*1)
([▲] [▼]: Up/down [▶] [◀]: Left/right)

(2) Use the numeric keys to specify the value to be changed. (*2)
The [DEL] key can be used to clear individual characters among those input.



When [SET / RESET] is touched (tests the I/O signal)

- All of the following operations can be carried out by touching the keys in the displayed key window.
- When you touch [▭] at the upper left of the key window, the key window closes and the display returns to the monitor screen.

(1) Use the alphabetic character keys to specify the name of the device to be tested, and then touch [▶]. (*1)

(2) Use the numeric keys to specify the device number, and then touch [▶].

(3) Use the numeric keys to specify "Set" or "Reset".

[0]: OFF [1]: ON

*1 Do not perform the following tests.

When testing, the module may not operate correctly or the buffer memory/ input signal may return to the output value/output status from the special function module.

① Read out from the PC CPU and test the special purpose buffer memory.

② Test the input signal to the PC CPU from the special function module.

*2 When testing buffer memory data, specify the change value in the following way.

① For data where 16/32 bits is displayed with one number, specify the change value in decimal.

② For data where one number of 16/32 bits is displayed as a percent, such as with an A/D conversion module, specify the change value corresponding to the percentage in decimal.

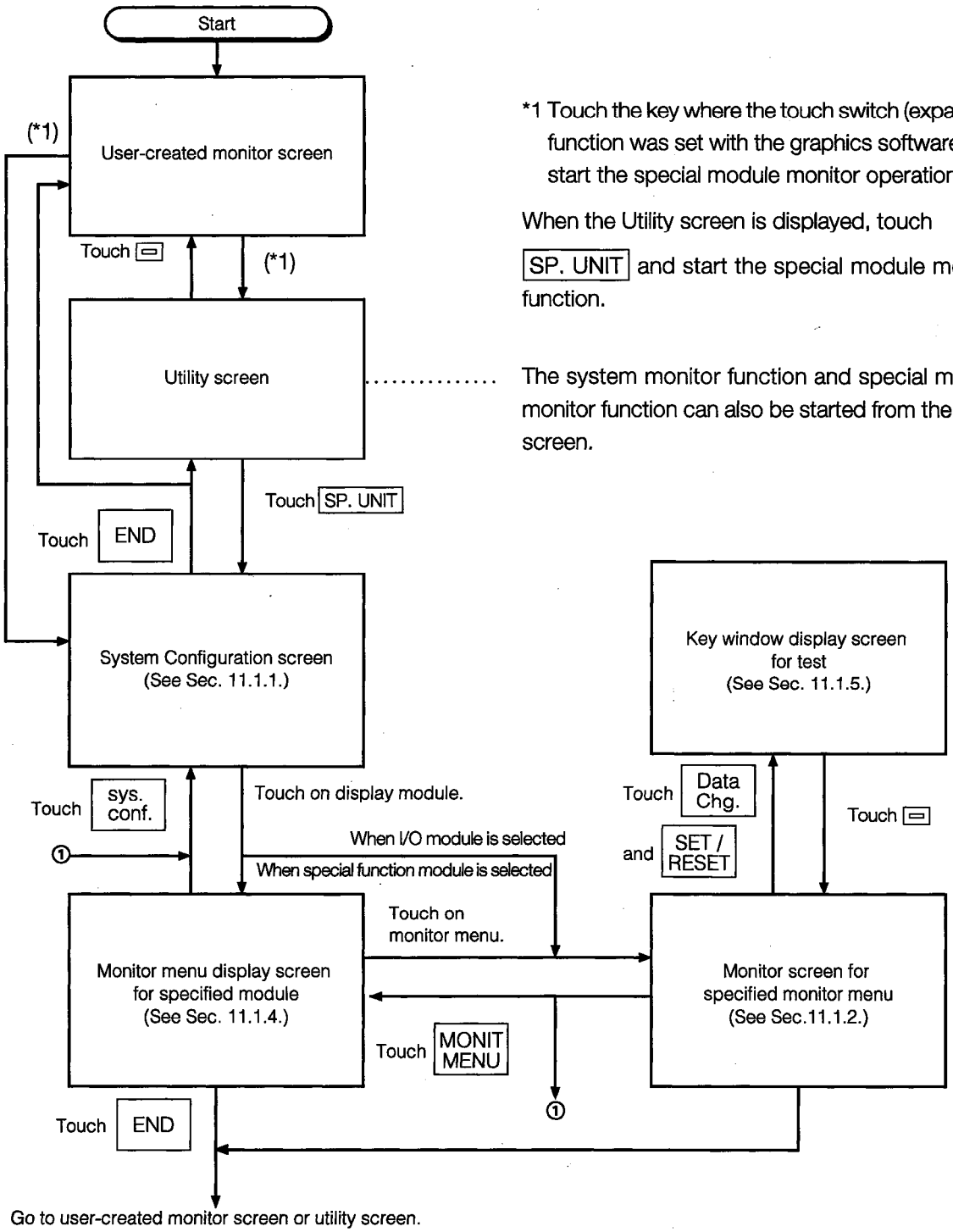
Ex:

When the set value of the offset or gain is 0 to 2000, when specifying a change value of 50%, input 1000.

③ For data where 16 bits is displayed one bit at a time as "0" and "1" , specify the change value of 16 bits in decimal.

11.1.6 Changing the Screen

This section describes how to change the screen when executing each monitor function of the special module monitor function from the status where the user-created monitor screen is displayed.



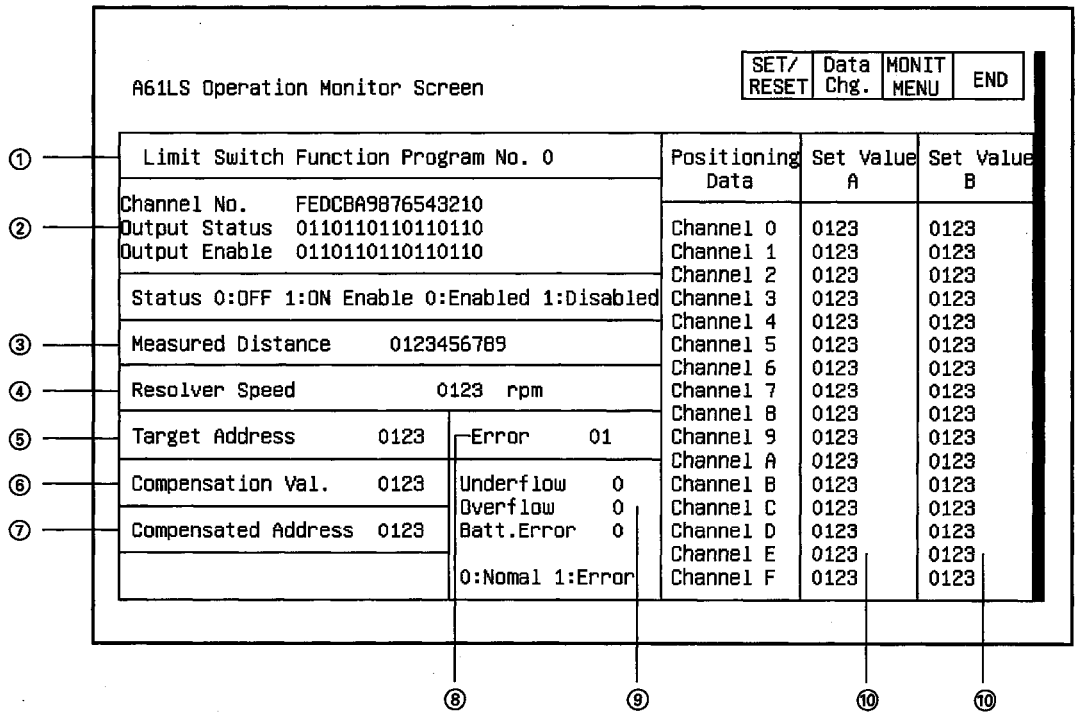
*1 Touch the key where the touch switch (expanded) function was set with the graphics software, and start the special module monitor operation.

When the Utility screen is displayed, touch SP. UNIT and start the special module monitor function.

The system monitor function and special module monitor function can also be started from the Utility screen.

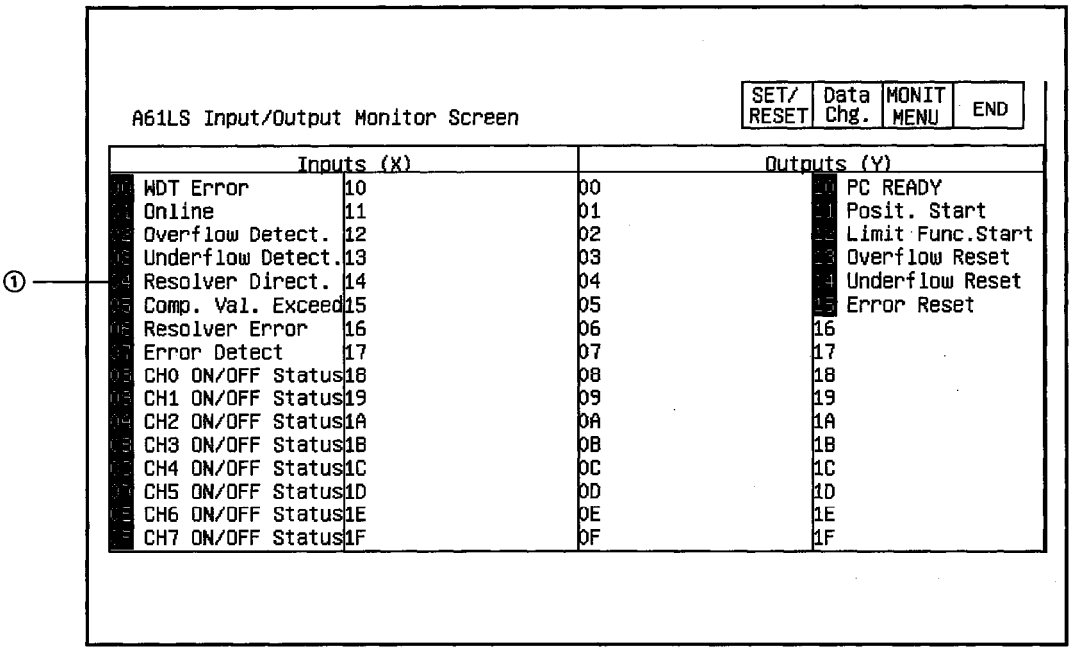
11.2 A61LS Module Monitor

11.2.1 Operation Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The number of the program being used is displayed.	11
②	The output status of each channel is displayed.	4
	The specified status for the Output Enable command of each channel is displayed.	10
③	The measured distance value for the distance detection function is displayed.	5, 6
④	The rotation speed of the resolver connected to A61LS is displayed.	3
⑤	The set value of the target address for the positioning function is displayed.	12
⑥	The compensation value for the zero point compensation function is displayed.	7
⑦	The current value of the resolver after compensation by the zero point compensation function is displayed.	0
⑧	The error code is displayed when an error occurs.	8
⑨	When an A61LS resolver underflow is detected, "1" is displayed.	2
	When an A61LS resolver overflow is detected, "1" is displayed.	1
	When a low battery charge is detected, "1" is displayed.	9
⑩	The set values A and B for executing the positioning function are displayed for each channel.	13 to 44

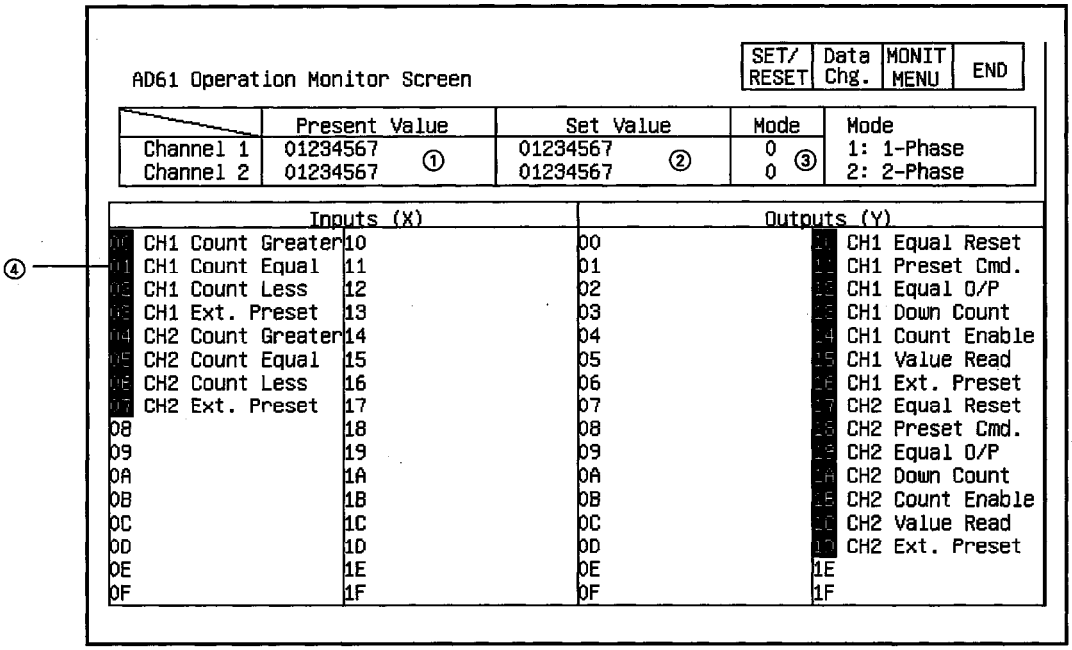
11.2.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

11.3 AD61 Module Monitor

11.3.1 Operation Monitor

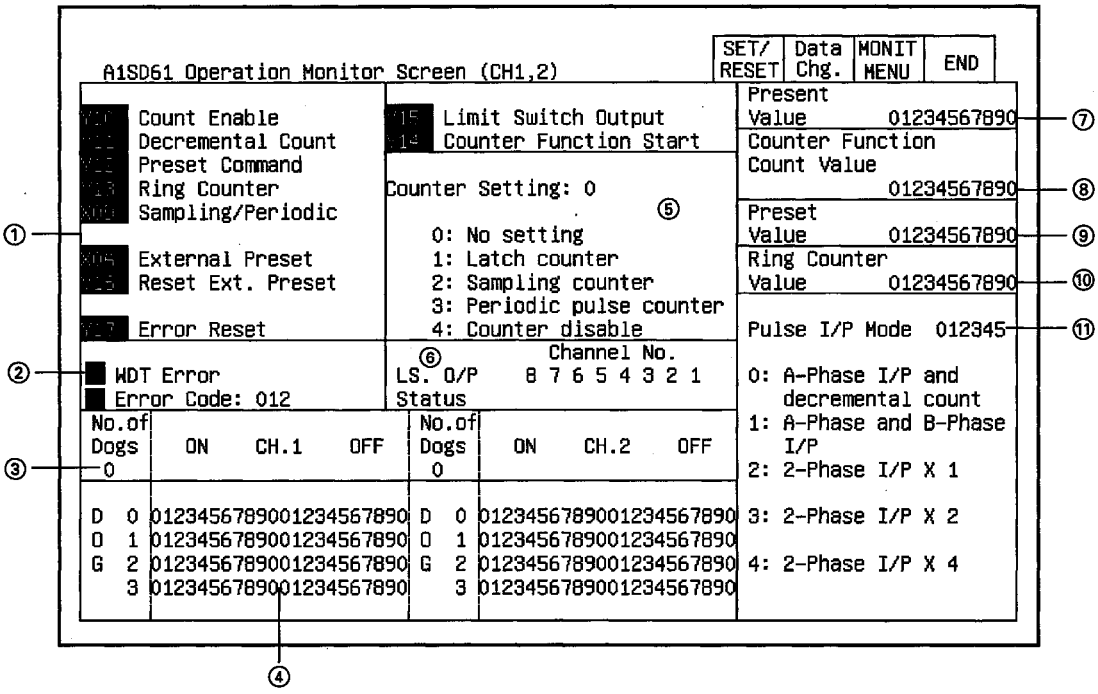


No.	Contents of display	Buffer memory address to reference (decimal)
①	The current values of channels 1 and 2 are displayed.	4, 5, 36, 37
②	The set values of channels 1 and 2 are displayed.	6, 7, 38, 39
③	The specified status of the mode register of channels 1 and 2 is displayed.	3, 35
④	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—

11.4 A1SD61 Module Monitor

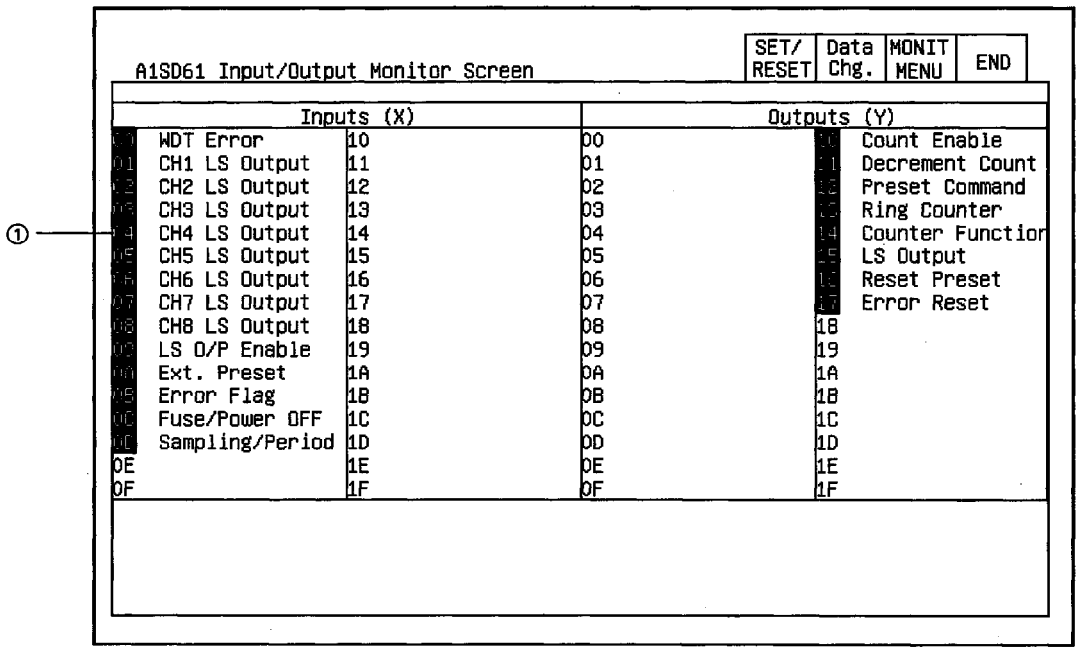
11.4.1 Operation Monitor

The Channel 1 and 2 Monitor Screen is used as an example.



No.	Contents of display	Buffer memory address to reference (decimal)
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—
②	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when a writing data error occurs; the channel where it occurred and the error code are displayed.	11
③	The number of multi-dogs that are set is displayed.	12 to147
④	The set value for the on position and off position of the multi-dog no. is displayed for each channel.	12 to147
⑤	The specified status of the counter function selection is displayed.	5
⑥	The limit switch output status of each channel is displayed. 0: OFF 1: ON	—
⑦	The current value of the counter is displayed for the following situations: in pulse input mode, when preset, when the ring counter function is being executed, and when the counter is disabled.	0, 1
⑧	The count value for execution of the latch counter, sampling counter, and periodic pulse counter set with the counter function selection (5) is displayed.	2, 3
⑨	The preset value is displayed.	6, 7
⑩	The ring counter value that was set is displayed.	8, 9
⑪	The set status of the pulse input mode is displayed.	4

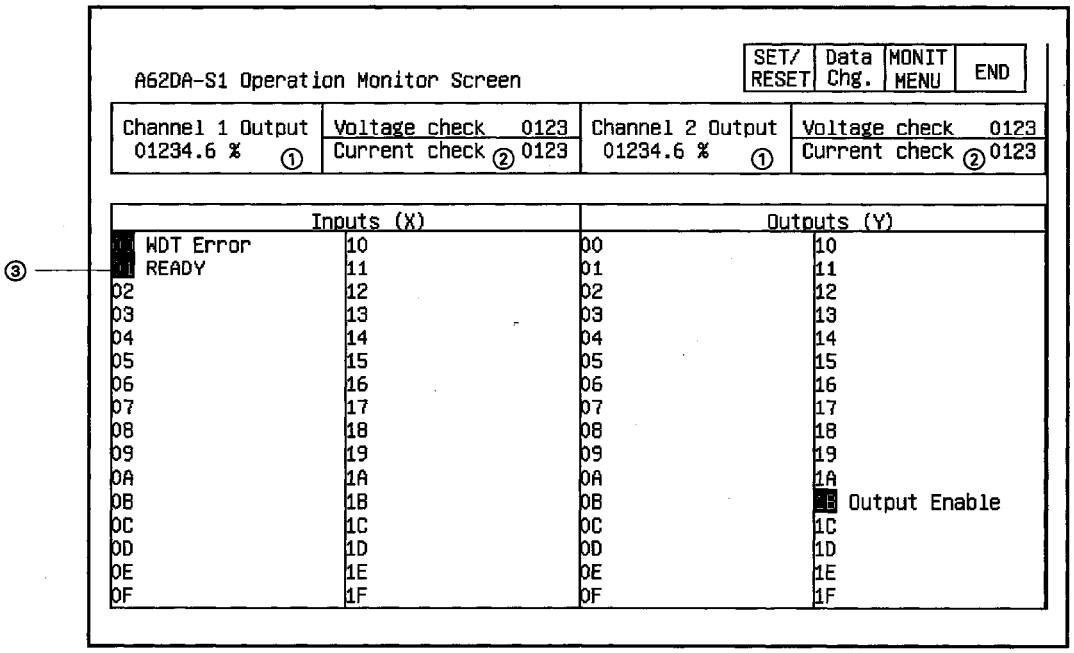
11.4.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

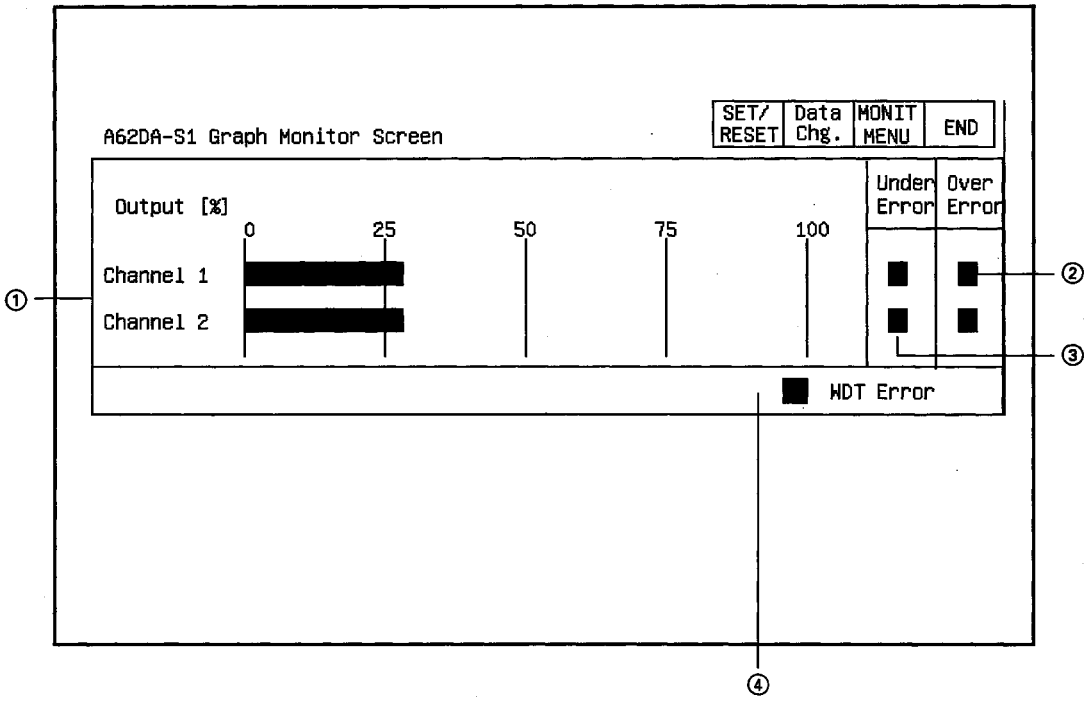
11.5 A62DA-S1 Module Monitor

11.5.1 Operation Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The current input value, a value between 0 to 4000 for the digital input value of channels 1 and 2, is displayed as a percentage ranging from 0 to 100%.	0, 1
②	"1" is displayed for Output Over when an input value of 4001 or greater was set for channel 1 or 2; "1" is displayed for Output Under when a negative number was set.	2 to 5
③	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—

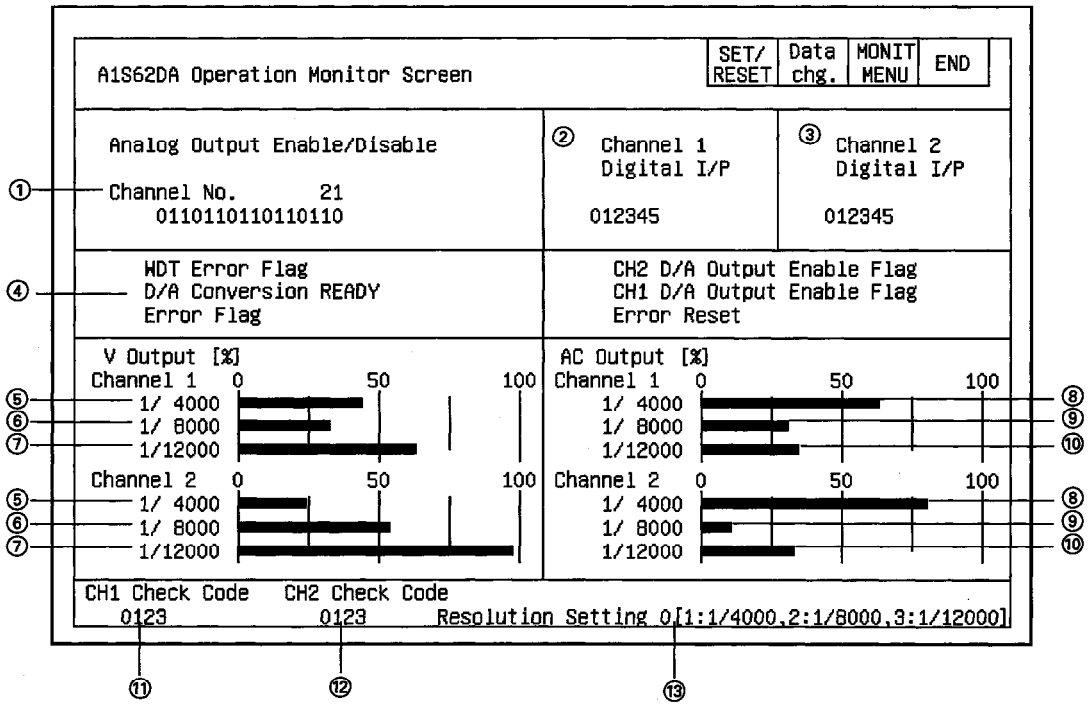
11.5.2 Graph Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The current input value, a value between 0 to 4000 for the digital input value of channels 1 and 2, is displayed as a percentage ranging from 0 to 100%.	0, 1
②	A "■" is displayed in the Over Error column when an input value of 4001 or greater was set for channel 1 or 2.	2, 4
③	A "■" is displayed in the Under Error column when an input value consisting of a negative number was set for channel 1 or 2.	3, 5
④	A "■" is displayed when a watchdog timer error occurs.	—

11.6 A1S62DA Module Monitor

11.6.1 Operation Monitor

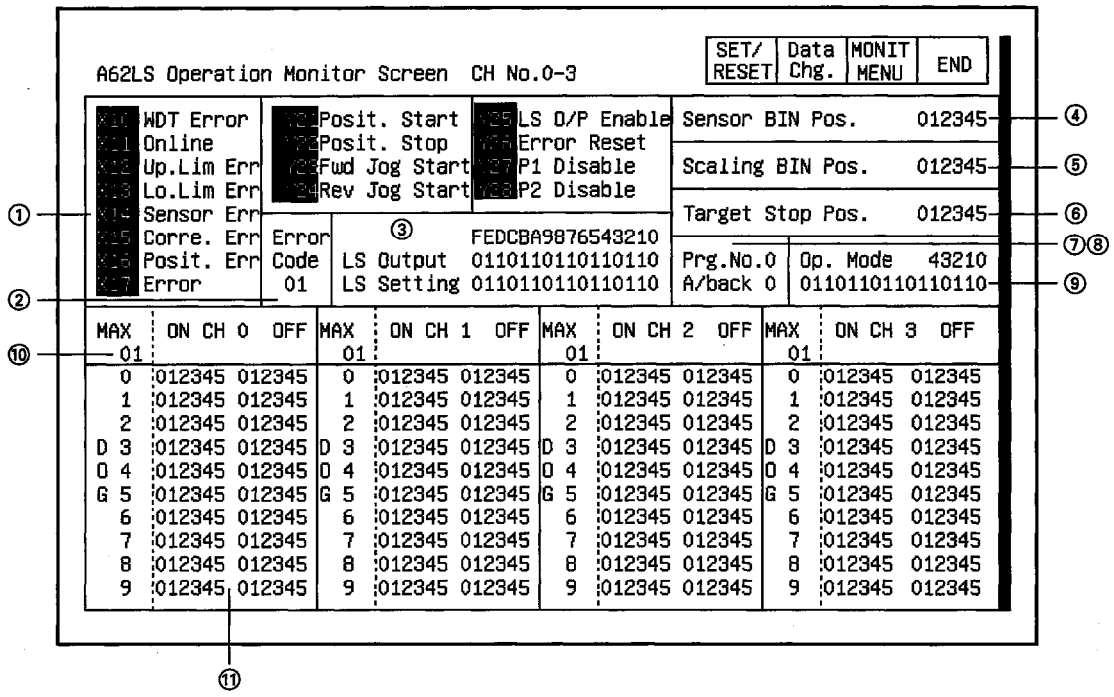


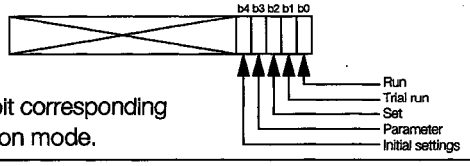
No.	Contents of display	Buffer memory address to reference (decimal)
①	The specified enable/disable status for the analog output of each channel is displayed. 0: Enable 1: Disable	0
②	The channel 1 digital input value is displayed.	1
③	The channel 2 digital input value is displayed.	2
④	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—
⑤	The current input value, a value between -4000 to 4000 for the digital input value of channels 1 and 2, is displayed in a graph as a percentage ranging from 0 to 100%.	1, 2
⑥	The current input value, a value between -8000 to 8000 for the digital input value of channels 1 and 2, is displayed in a graph as a percentage ranging from 0 to 100%.	
⑦	The current input value, a value between -12000 to 12000 for the digital input value of channels 1 and 2, is displayed in a graph as a percentage ranging from 0 to 100%.	
⑧	The current input value, a value between 0 to 4000 for the digital input value of channels 1 and 2, is displayed in a graph as a percentage ranging from 0 to 100%.	
⑨	The current input value, a value between 0 to 8000 for the digital input value of channels 1 and 2, is displayed in a graph as a percentage ranging from 0 to 100%.	
⑩	The current input value, a value between 0 to 12000 for the digital input value of channels 1 and 2, is displayed in a graph as a percentage ranging from 0 to 100%.	
⑪	When the channel 1 digital input value was set outside the allowable setting range, a check code is displayed.	10
⑫	When the channel 2 digital input value was set outside the allowable setting range, a check code is displayed.	11
⑬	The set resolution selection is displayed. 1: 1/4000 2: 1/8000 3: 1/12000	9

11.7 A62LS Module Monitor

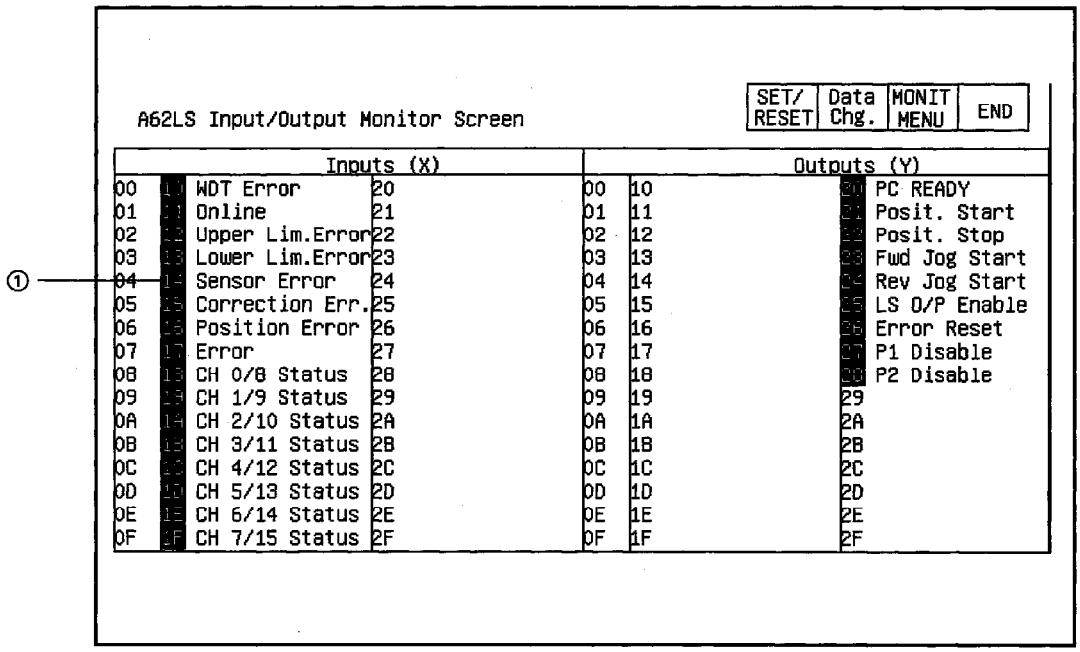
11.7.1 Operation Monitor

As a screen example, we will store the monitor screens from CH. 0 to CH. 3 in the memory.



No.	Contents of display	Buffer memory address to reference (decimal)
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—
②	The error code is displayed when an error occurs.	7
③	The output status of each channel is displayed. 0: OFF 1: ON	4
	The set limit switch output enable/disable status for each channel is displayed. 0: Enable 1: Disable	8
④	The sensor binary current value is displayed.	2, 3
⑤	After module conversion of the sensor binary current value to mm or inches, the value added to the minimum current value is displayed as the scaling binary current value.	0, 1
⑥	The set value of the positioning object stop position is displayed.	10, 11
⑦	The program number used with the limit switch output function is displayed.	9
⑧	The answer back program number corresponding to the program number used with the limit switch output function is displayed.	5
⑨	The A62LS operation mode status is displayed.  "1" is displayed in the bit corresponding to the selected operation mode.	6
⑩	The number of multi-dogs that are set is displayed.	12 to 226
⑪	The set value for the on position and off position of the multi-dog No. is displayed for each channel.	12 to 226

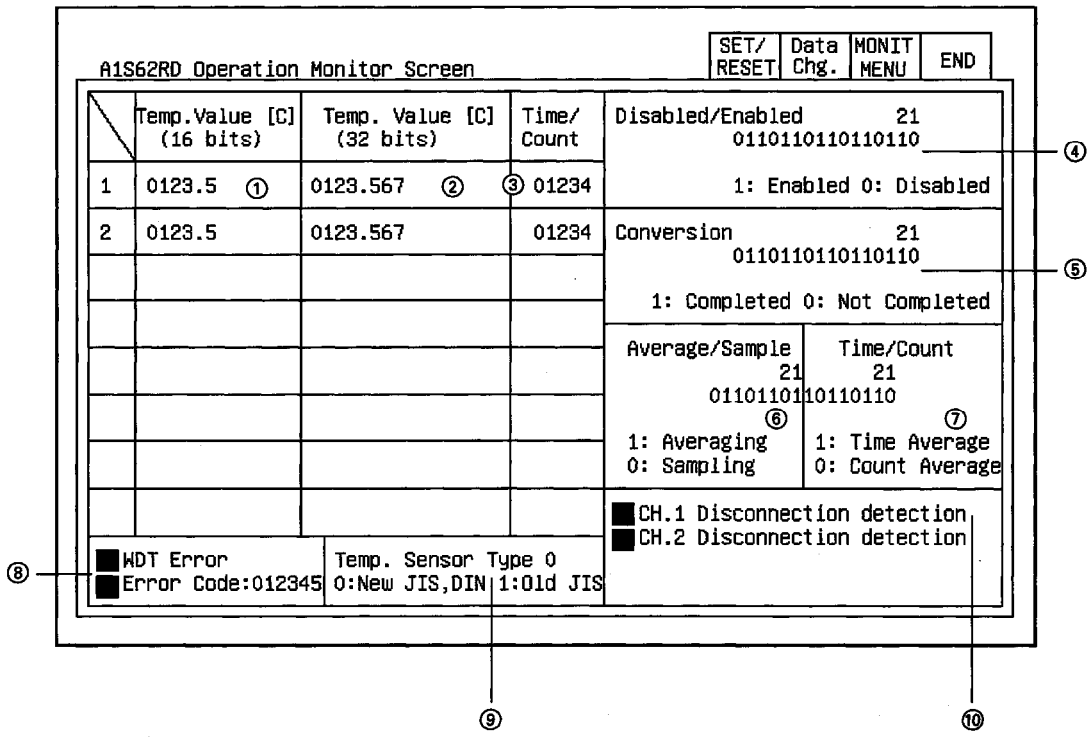
11.7.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

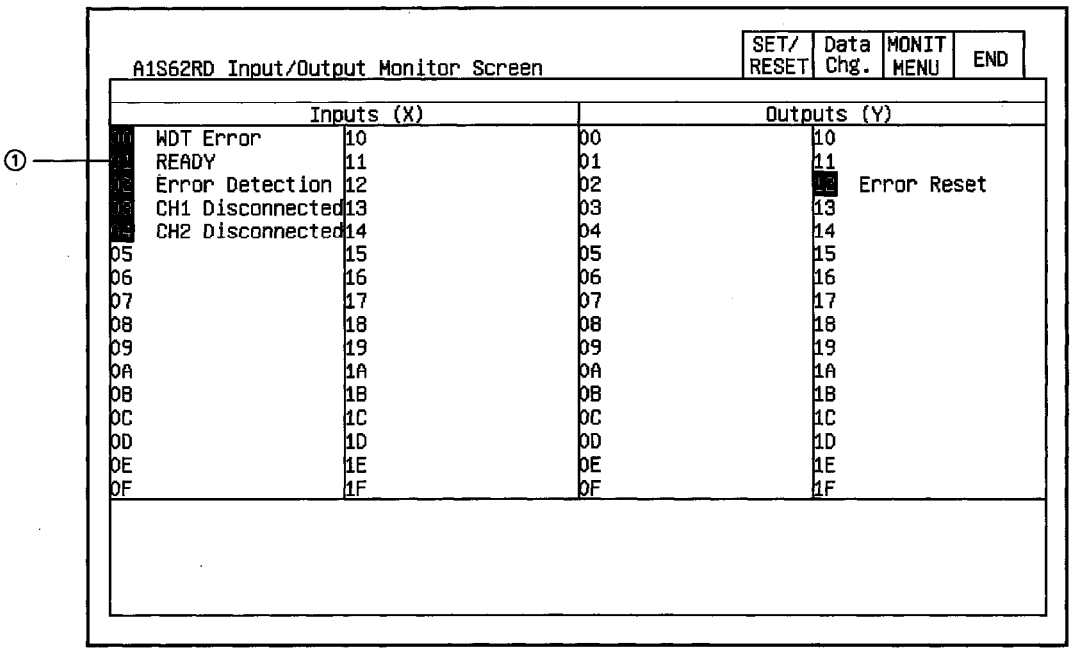
11.8 A1S62RD Module Monitor

11.8.1 Operation Monitor



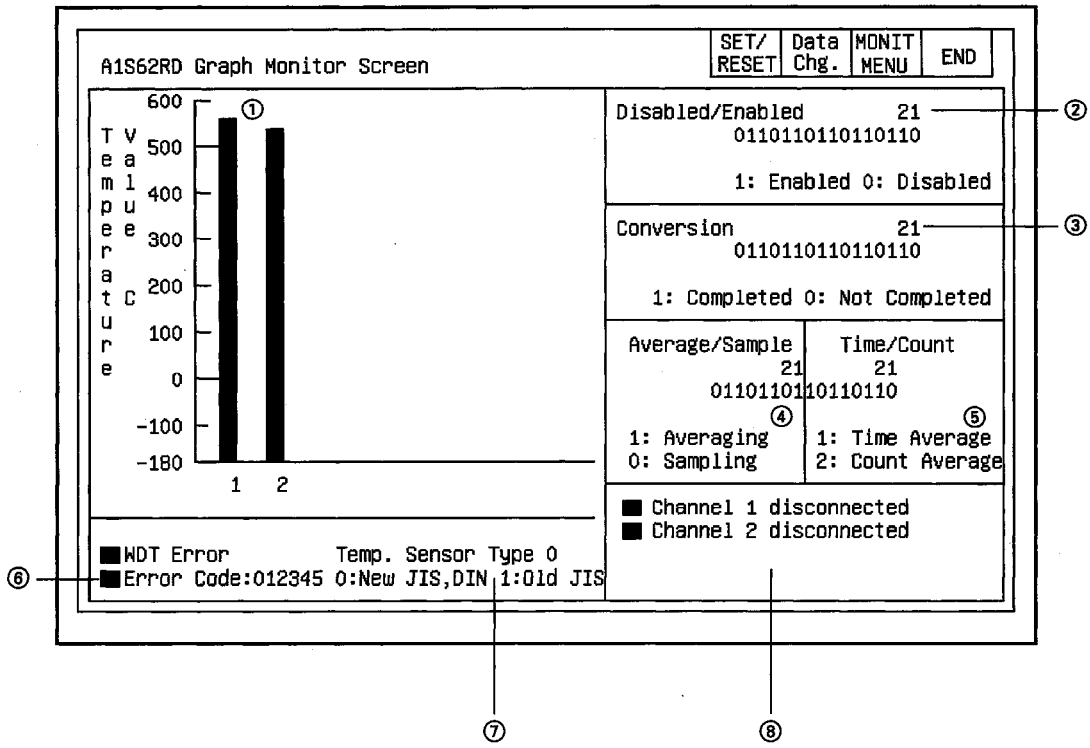
No.	Contents of display	Buffer memory address to reference (decimal)
①	The temperature detection value of each channel is displayed up to 1 digit after the decimal point.	10, 11
②	The temperature detection value of each channel is displayed up to 3 digits after the decimal point.	18 to 21
③	The values set for the time and count of times for averaging processing of each of the channels is displayed.	2, 3
④	The specified conversion enabled/disabled status of each channel is displayed.	0
⑤	The Conversion Completed flag status for each channel is displayed.	35
⑥	The specified status for the averaging processing/sampling processing of each channel is displayed.	1
⑦	The specified status for the averaging processing of each channel is displayed.	1
⑧	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when a writing data error occurs; the channel where it occurred and error code are displayed.	34
⑨	The specified status of the platinum temperature sensor that is used is displayed.	36
⑩	For A1S62RD3 A "■" is displayed in a channel where broken wire was detected. For A1S62RD4 A "■" is displayed in CH1 when a broken wire is detected in any channel.	—

11.8.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

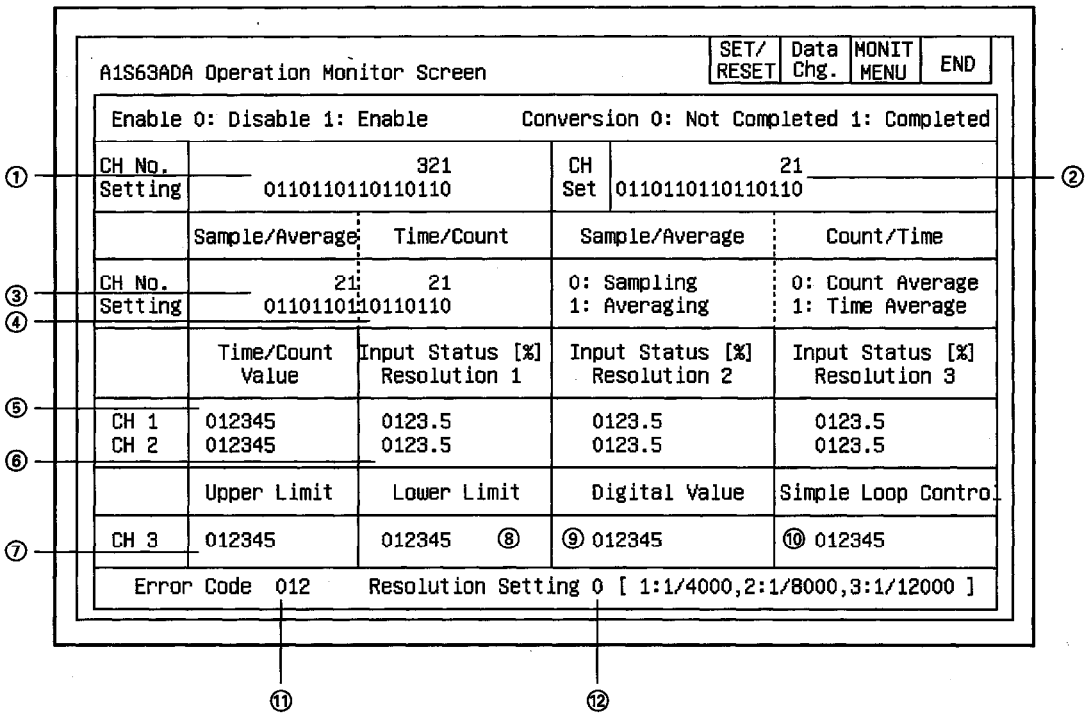
11.8.3 Graph Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The temperature detection value of each channel is displayed as a graph.	10, 11
②	The specified conversion enabled/disabled status for each channel is displayed.	0
③	The status of the Conversion Complete flag for each channel is displayed.	35
④	The specified status for the averaging processing/sampling processing of each channel is displayed.	1
⑤	The specified status for the averaging processing of each channel is displayed.	1
⑥	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when a writing data error occurs; the channel where it occurred and the error code are displayed.	34
⑦	The specified status of the platinum temperature sensor that is used is displayed.	36
⑧	For A1S62RD3 A "■" is displayed in a channel where a broken wire was detected. For A1S62RD4 A "■" is displayed in CH1 when a broken wire is detected in any channel.	—

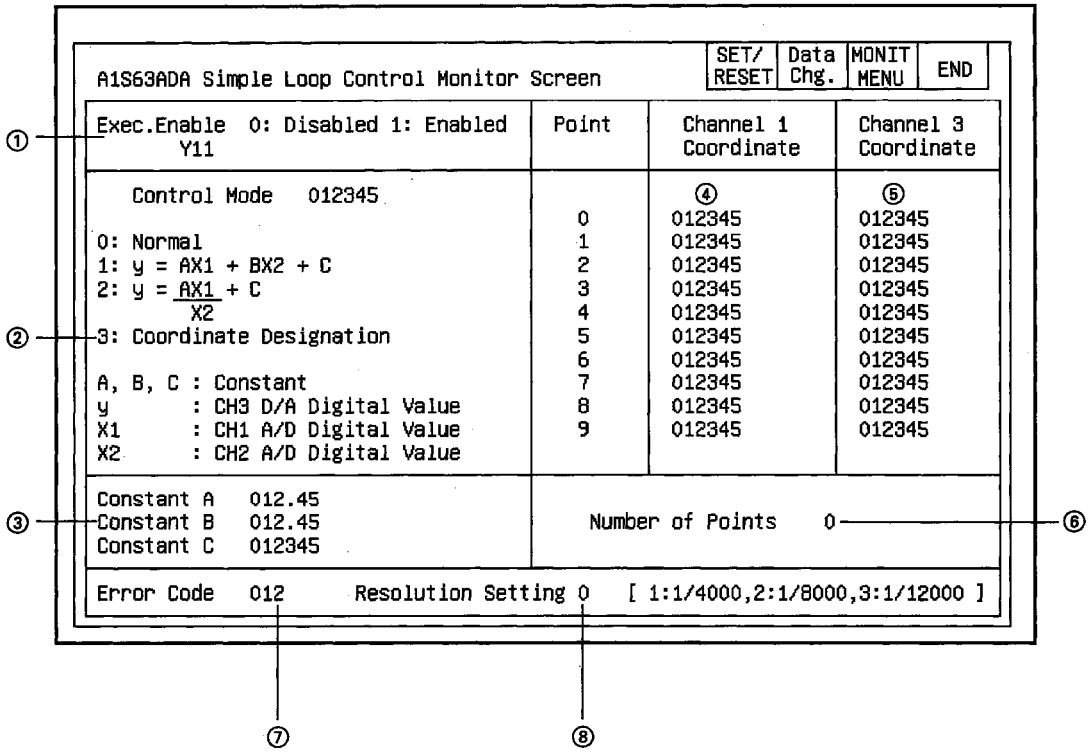
11.9 A1S63DA Module Monitor

11.9.1 Operation Monitor



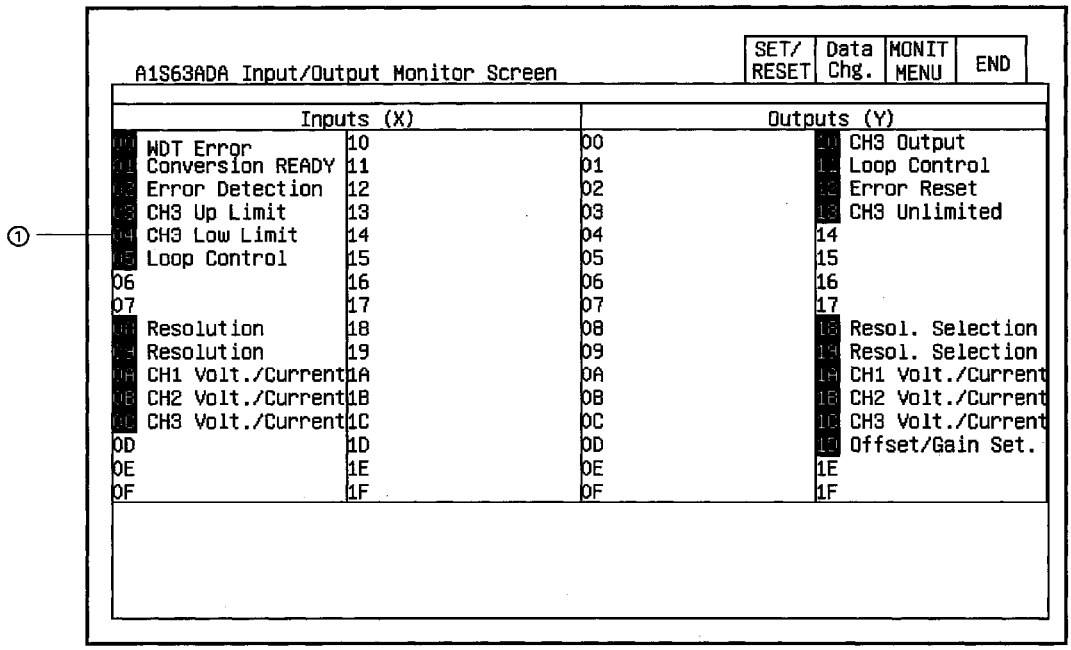
No.	Contents of display	Buffer memory address to reference (decimal)
①	The specified conversion enabled/disabled status for each channel is displayed.	0
②	The Conversion Completed flag status for channels 1 and 2 is displayed.	15
③	The specified status for the averaging processing/sampling processing of channels 1 and 2 is displayed.	1
④	The specified status for the averaging processing of channels 1 and 2 is displayed.	
⑤	The values set for the time and number of times for averaging processing of channels 1 and 2 is displayed.	2, 3
⑥	The current output value, a value between 0 to 4000 for the digital output value of channels 1 and 2, is displayed as a percentage ranging from 0 to 100%. (Resolution selection: 2: 0 to 8000, 3: 0 to 12000)	11, 12
⑦	The upper limit of the digital value following D/A conversion with channel 3 is displayed.	4
⑧	The lower limit of the digital value following D/A conversion with channel 3 is displayed.	5
⑨	The set value of the digital value following D/A conversion with channel 3 is displayed.	10
⑩	The digital value of channel 3 calculated by simple loop control is displayed.	13
⑪	The error code is displayed when a writing data error occurs.	16
⑫	The set resolution selection is displayed.	14

11.9.2 Simple Loop Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The specified simple loop control execution enabled/disabled status is displayed.	—
②	The control mode set status is displayed.	6
③	The set value of the simple loop control constant is displayed.	7, 8, 9
④	The set values of channel 1 coordinates that were set in each point are displayed.	18 to 37
⑤	The set values of channel 3 coordinates that were set in each point are displayed.	
⑥	The number of coordinate points of the simple loop control that was set is displayed.	17
⑦	The error code is displayed when a writing data error occurs.	16
⑧	The set resolution selection is displayed.	14

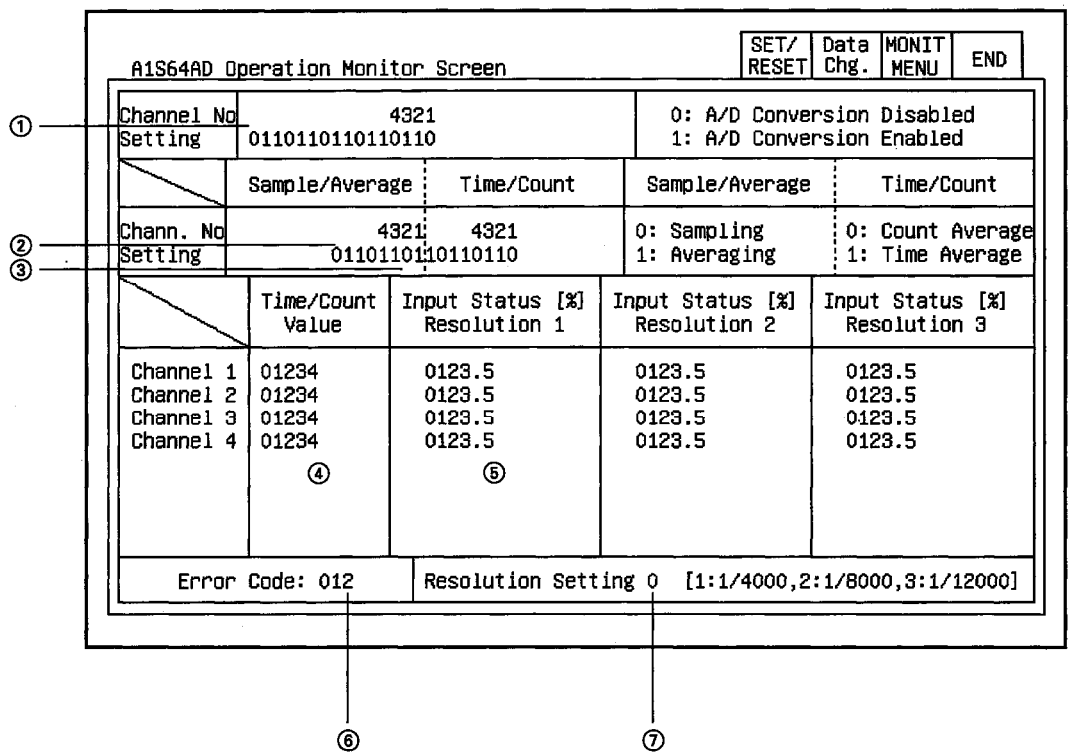
11.9.3 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

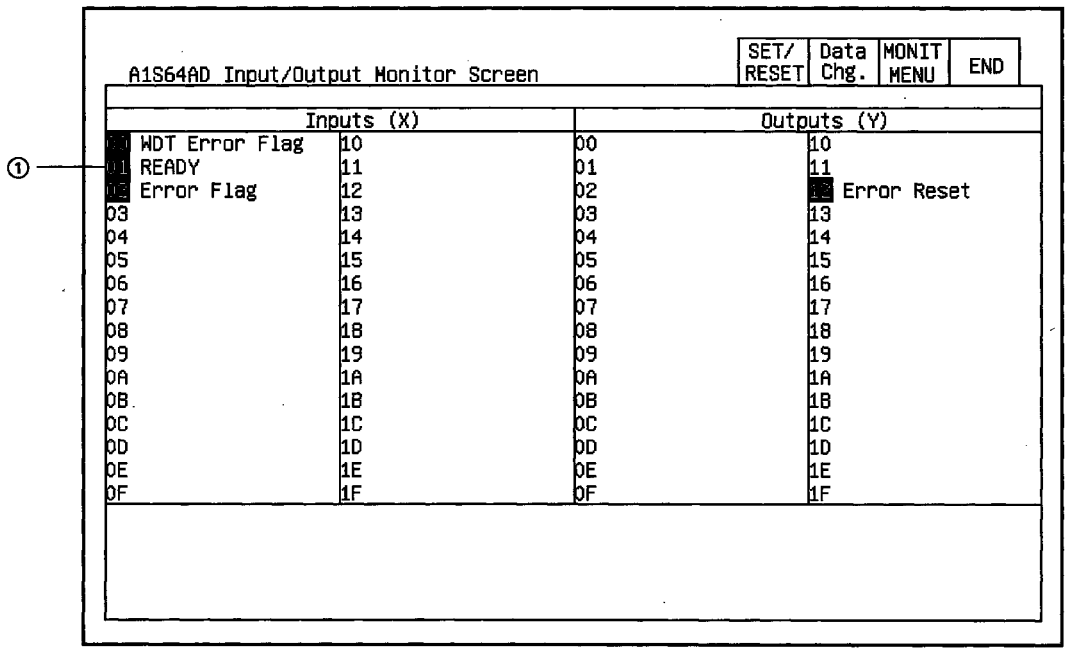
11.10 A1S64DA Module Monitor

11.10.1 Operation Monitor



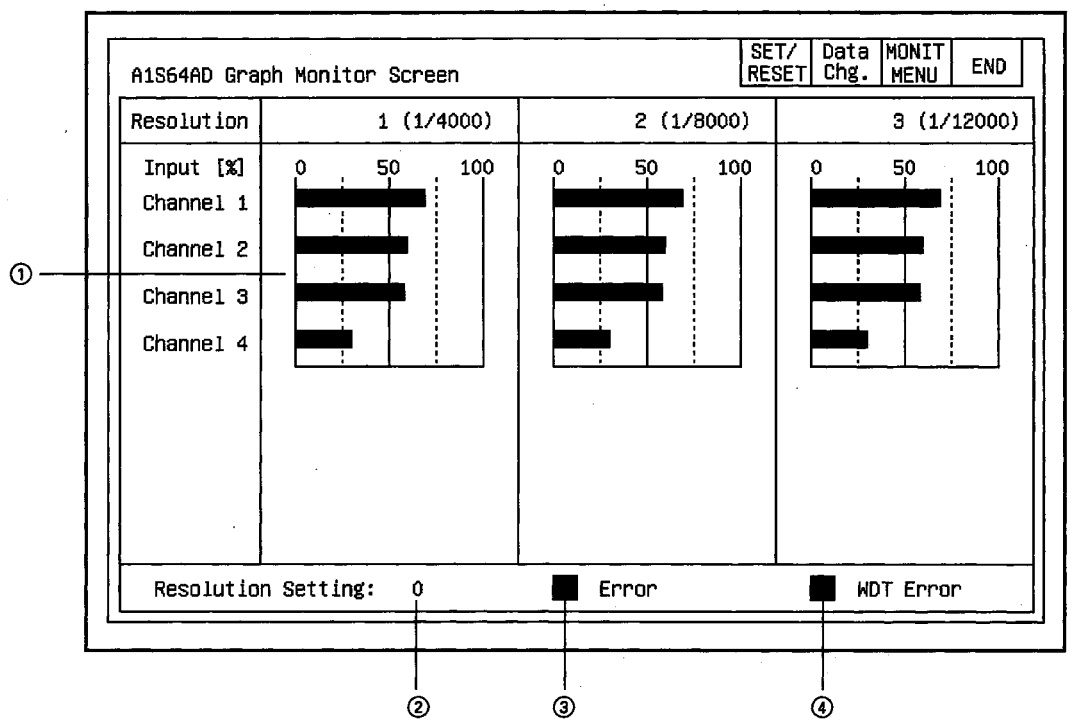
No.	Contents of display	Buffer memory address to reference (decimal)
①	The specified conversion enabled/disabled status of each channel is displayed.	0
②	The specified status for the averaging processing/sampling processing of each channel is displayed.	1
③	The specified status for the averaging processing of each channel is displayed.	1
④	The values set for the time and number of times for averaging processing of each channel is displayed.	2 to 5
⑤	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%. (Resolution selection: 2: 0 to 8000, 3: 0 to 12000)	10 to 13
⑥	The error code is displayed when a writing data error occurs.	18
⑦	The set resolution selection is displayed.	20

11.10.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

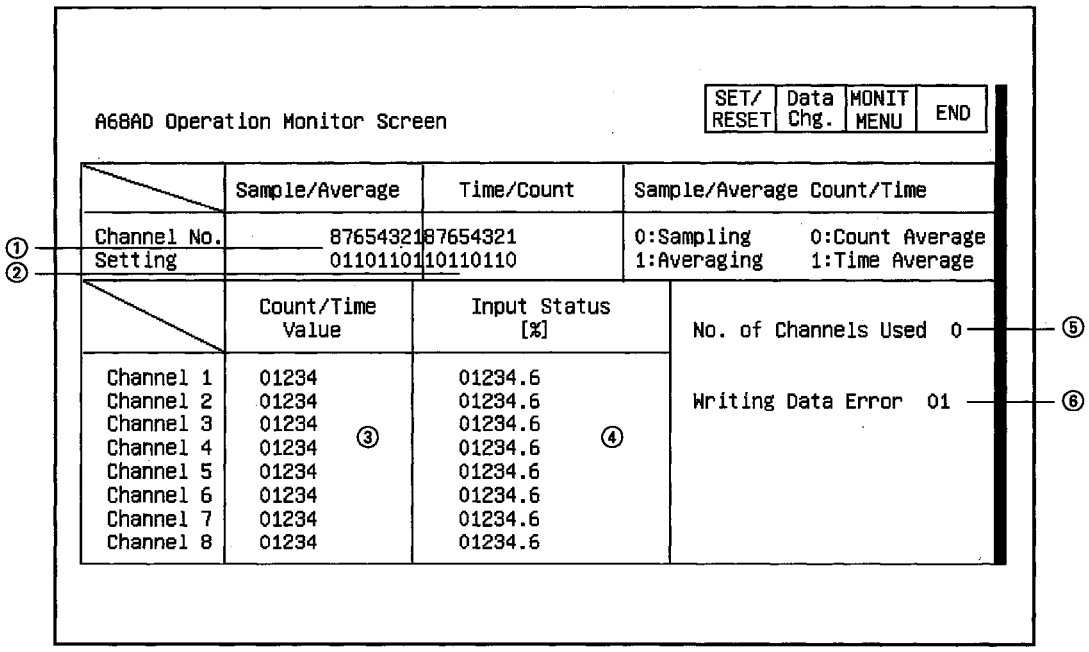
11.10.3 Graph Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed in a graph as a percentage ranging from 0 to 100%. (Resolution selection: 2: 0 to 8000, 3: 0 to 12000)	10 to 13
②	The set resolution selection is displayed. 1: 1/4000 2: 1/8000 3: 1/12000	20
③	A "■" is displayed when a writing data error occurs.	—
④	A "■" is displayed when a watchdog timer error occurs.	—

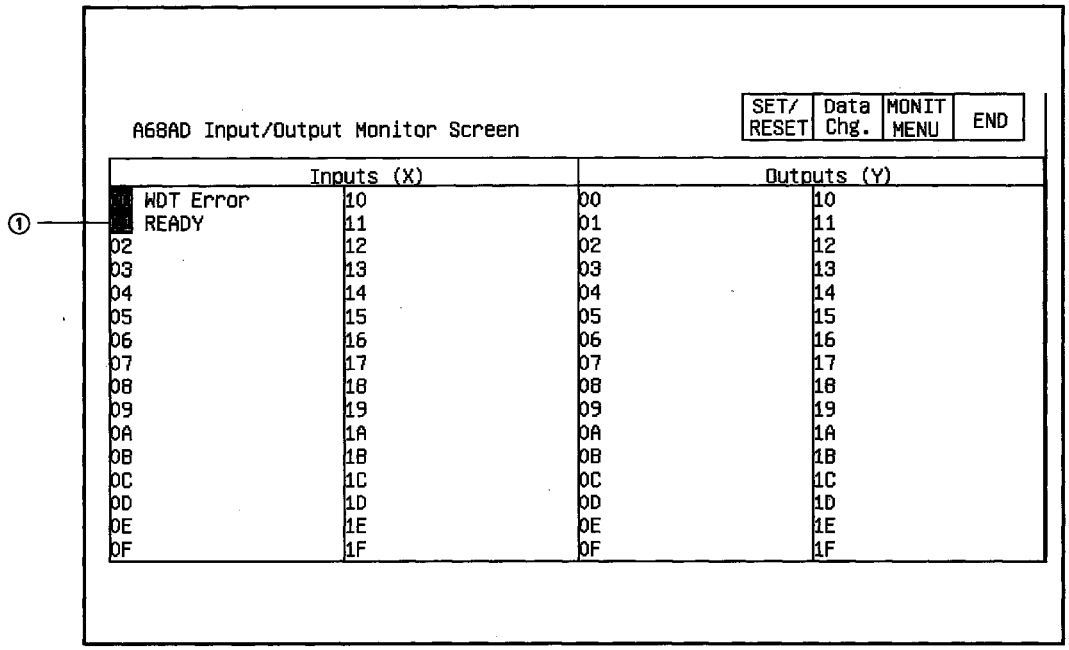
11.11 A68AD Module Monitor

11.11.1 Operation Monitor



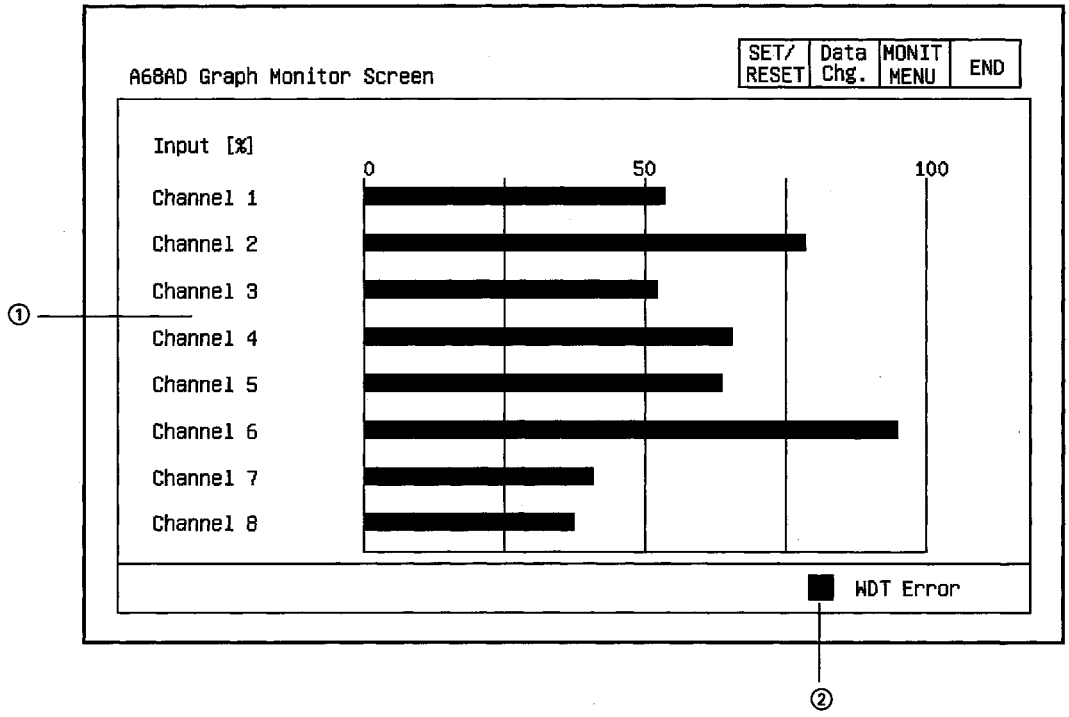
No.	Contents of display	Buffer memory address to reference (decimal)
①	The specified status for the averaging processing/sampling processing of each channel is displayed.	1
②	The specified status for the averaging processing of each channel is displayed.	1
③	The values set for the time and number of times for averaging processing of each channel is displayed.	2 to 9
④	The current output value, a value between 0 to 2000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%.	10 to 17
⑤	The number of channels that are used is displayed. (With A68AD-S2 monitoring, the display value is invalid.)	0
⑥	The error code is displayed when a writing data error occurs.	34

11.11.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

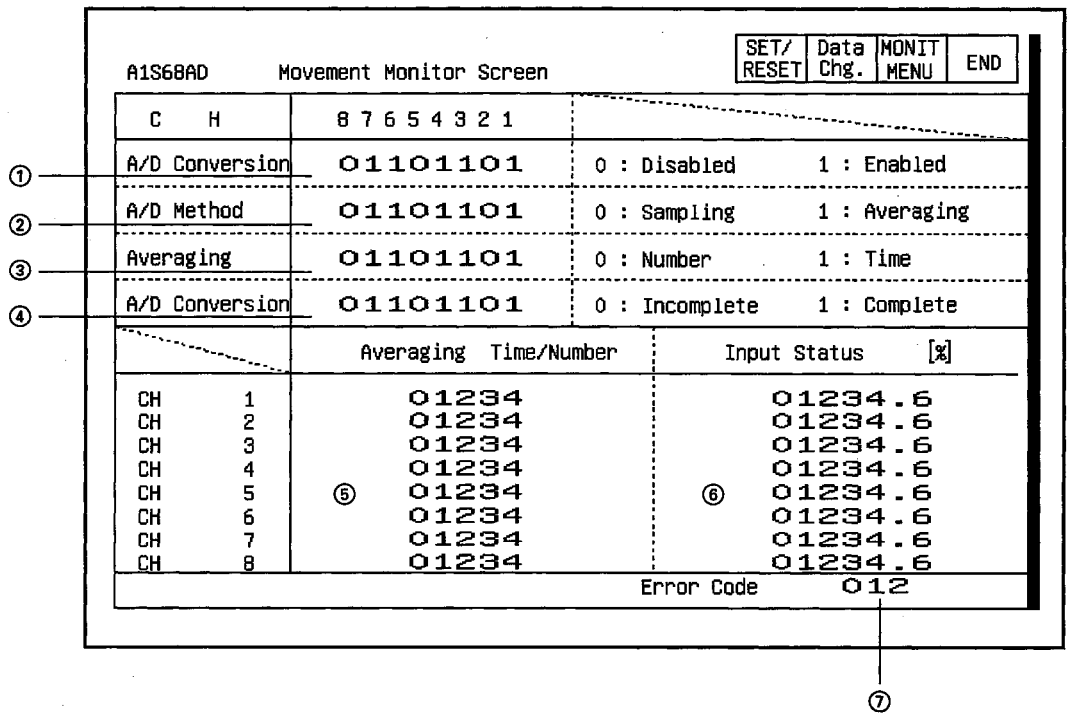
11.11.3 Graph Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The current output value, a value between 0 to 2000 for the digital output value of each channel, is displayed in a graph as a percentage ranging from 0 to 100%.	10 to 17
②	A "■" is displayed when a watchdog timer error occurs.	—

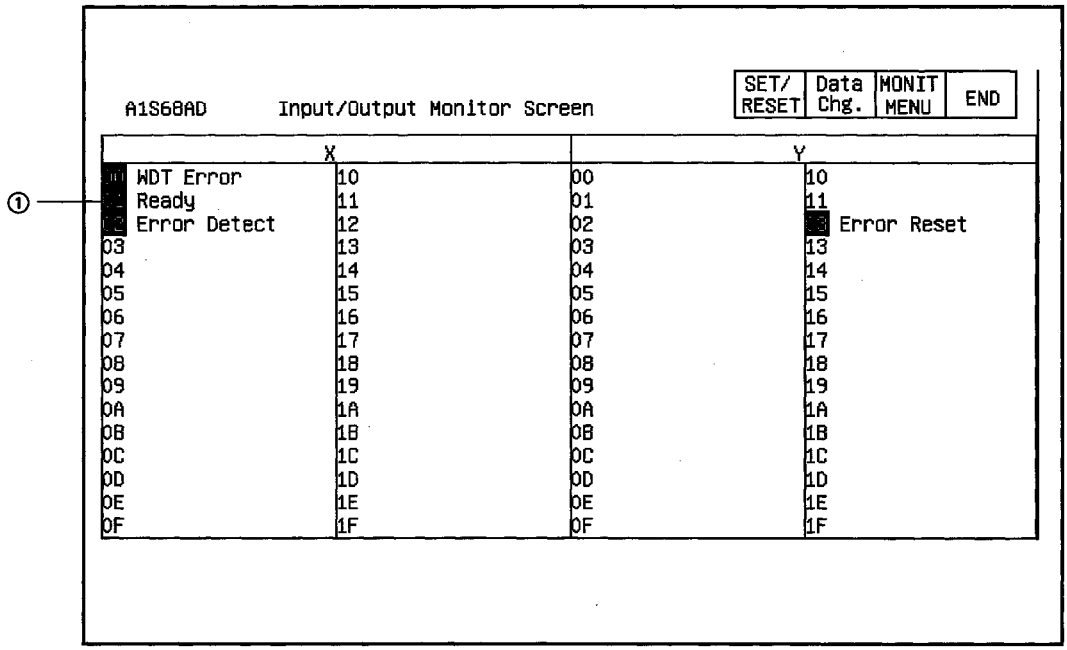
11.12 A1S68AD Module Monitor

11.12.1 Operation Monitor



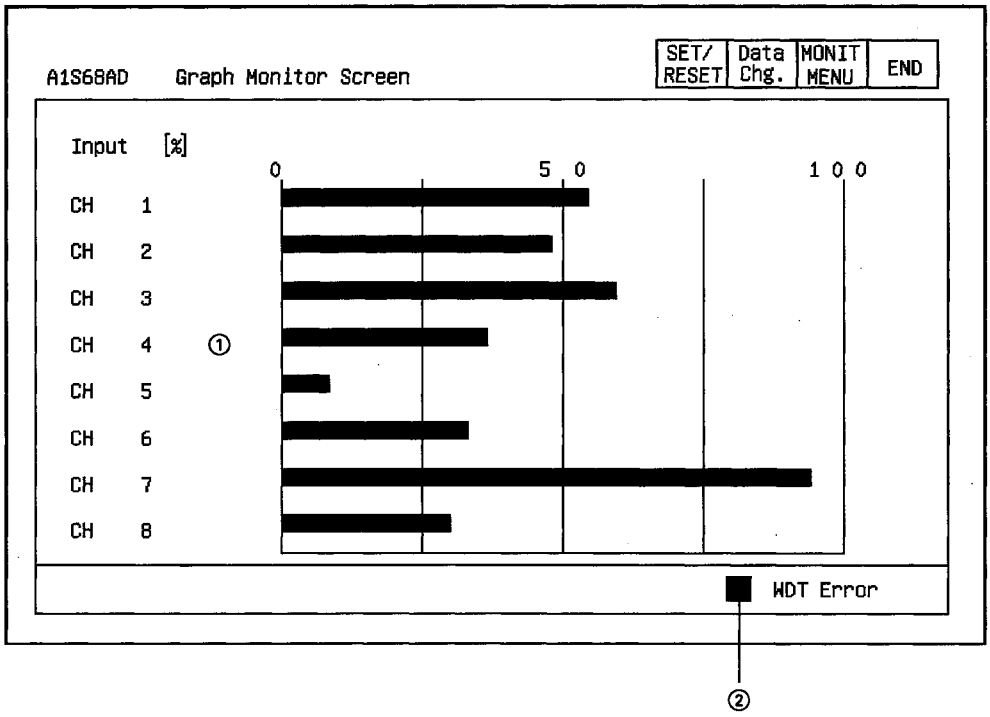
No.	Contents of display	Buffer memory address to reference (decimal)
①	The A/D conversion enabled/disabled status of each channel is displayed.	0
②	The specified status for the averaging processing/sampling processing of each channel is displayed.	2
③	The specified status for the averaging processing of each channel (Time/count) is displayed.	2
④	The A/D Conversion Complete flag status for each channel is displayed.	28
⑤	The values set for the time and count of times for averaging processing of each channel is displayed.	10 to 17
⑥	The current output value, a value between 0 to 2000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%.	20 to 27
⑦	The error code is displayed when a writing data error occurs.	1

11.12.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

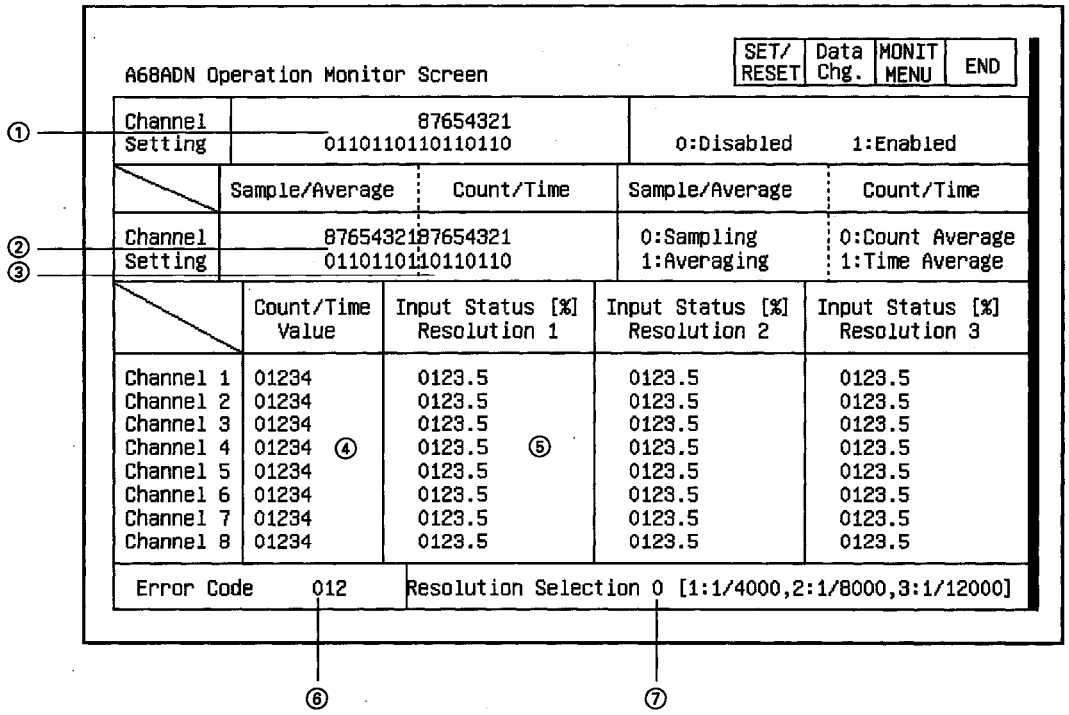
11.12.3 Graph Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The current output value, a value between 0 to 2000 for the digital output value of each channel, is displayed in a graph as a percentage ranging from 0 to 100%.	20 to 27
②	A "■" is displayed when a watchdog timer error occurs.	—

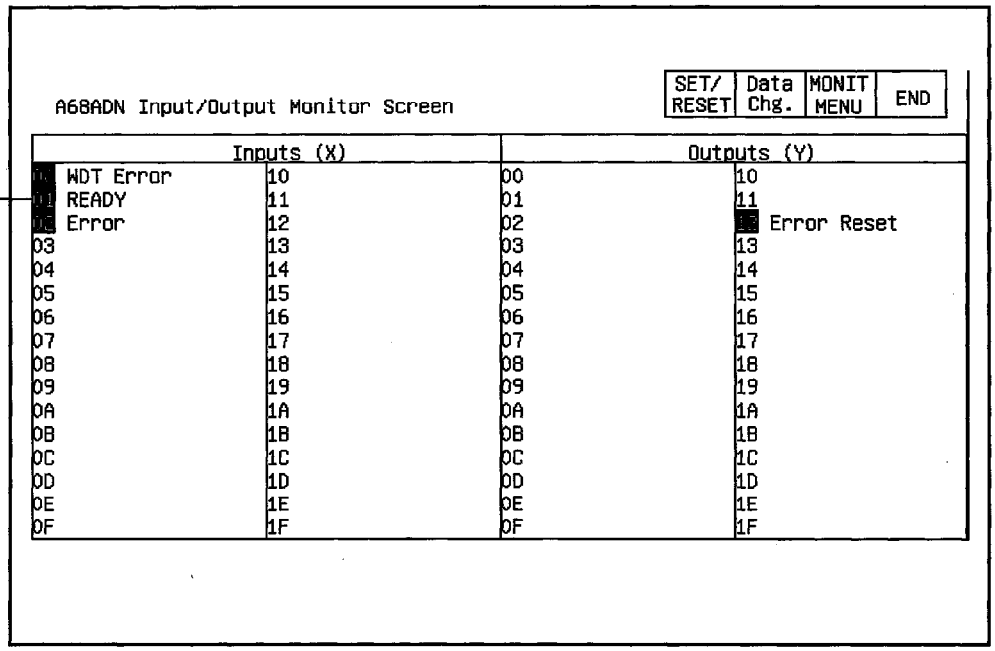
11.13 A68ADN Module Monitor

11.13.1 Operation Monitor



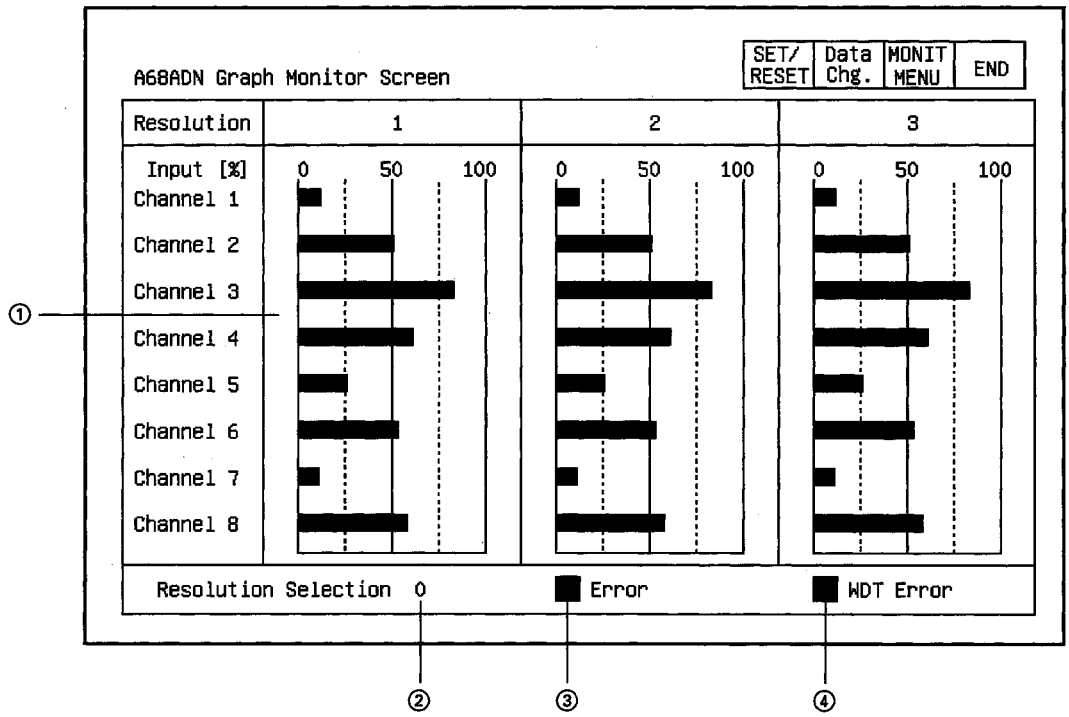
No.	Contents of display	Buffer memory address to reference (decimal)
①	The specified conversion enabled/disabled status of each channel is displayed.	0
②	The specified status for the averaging processing/sampling processing of each channel is displayed.	1
③	The specified status for the averaging processing of each channel is displayed.	1
④	The values set for the time and count of times for averaging processing of each channel is displayed.	2 to 9
⑤	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%. (Resolution selection: 2: 0 to 8000, 3: 0 to 12000)	10 to 17
⑥	The error code is displayed when a writing data error occurs.	18
⑦	The resolution selection that was set is displayed.	20

11.13.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

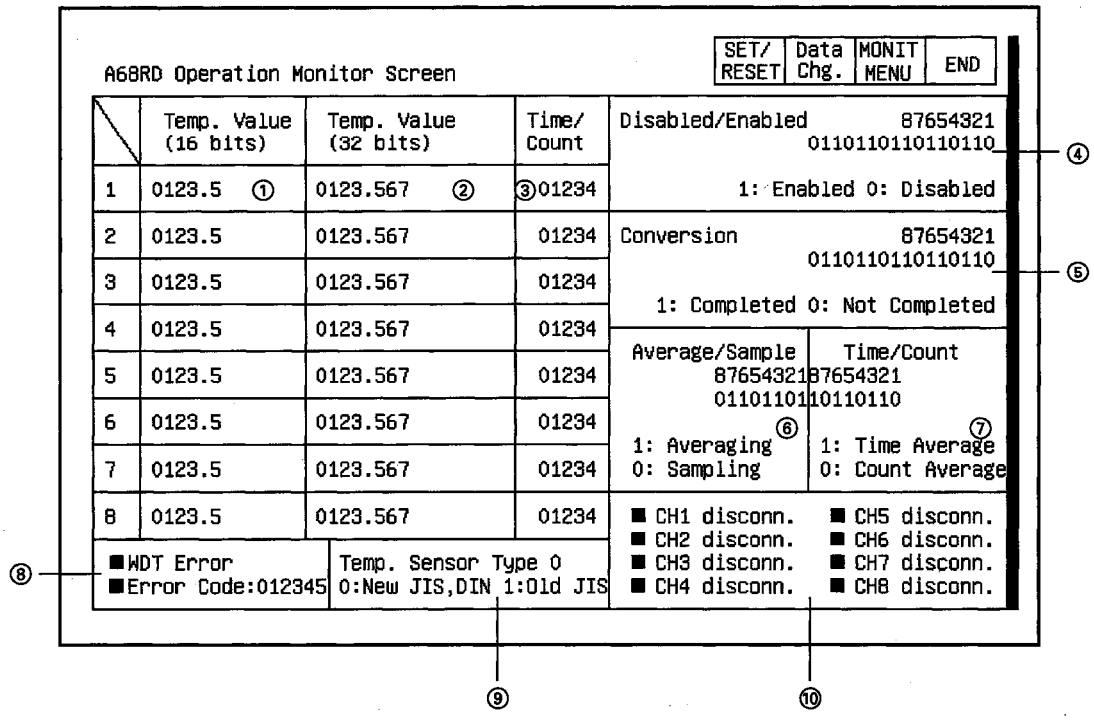
11.13.3 Graph Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%. (Resolution selection: 2: 0 to 8000, 3: 0 to 12000)	10 to 17
②	The set resolution selection is displayed. 1: 1/4000 2: 1/8000 3: 1/12000	20
③	A "■" is displayed when a writing data error occurs.	—
④	A "■" is displayed when a watchdog timer error occurs.	—

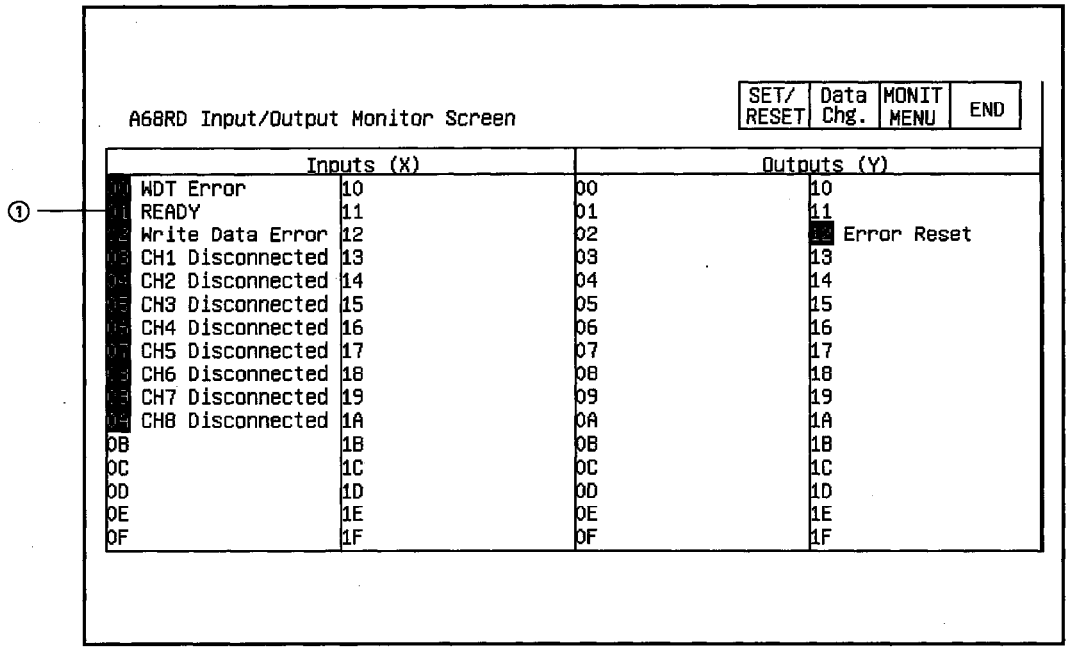
11.14 A68RD Module Monitor

11.14.1 Operation Monitor



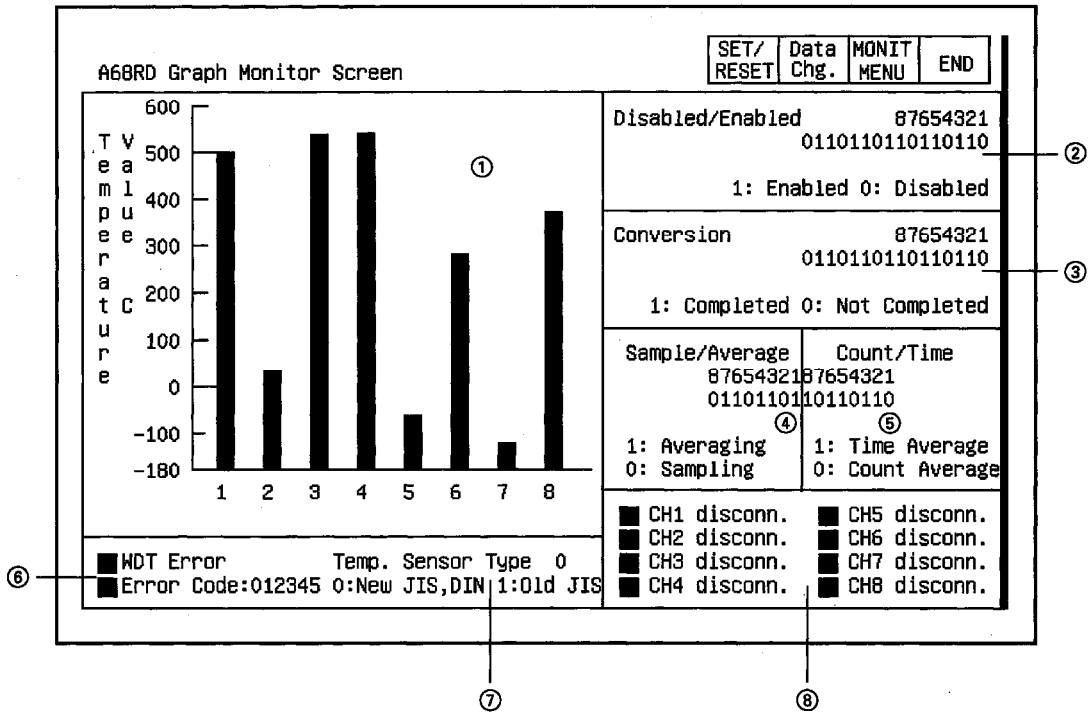
No.	Contents of display	Buffer memory address to reference (decimal)
①	The temperature detection value of each channel is displayed up to 1 digit after the decimal point.	10 to 17
②	The temperature detection value of each channel is displayed up to 3 digits after the decimal point.	18 to 33
③	The values set for the time and count of times for averaging processing of each channel is displayed.	2 to 9
④	The specified conversion enabled/disabled status of each channel is displayed.	0
⑤	The conversion complete flag status for each channel is displayed.	35
⑥	The specified status for the averaging processing/sampling processing of each channel is displayed.	1
⑦	The specified status for the averaging processing of each channel is displayed.	1
⑧	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when a writing data error occurs; the channel where it occurred and the error code are displayed.	34
⑨	The specified status of the platinum temperature sensor that is used is displayed.	36
⑩	For A68RD3 A "■" is displayed in a channel where a broken wire was detected. For A68RD4 A "■" is displayed in CH1 when a broken wire is detected in any channel.	—

11.14.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

11.14.3 Graph Monitor



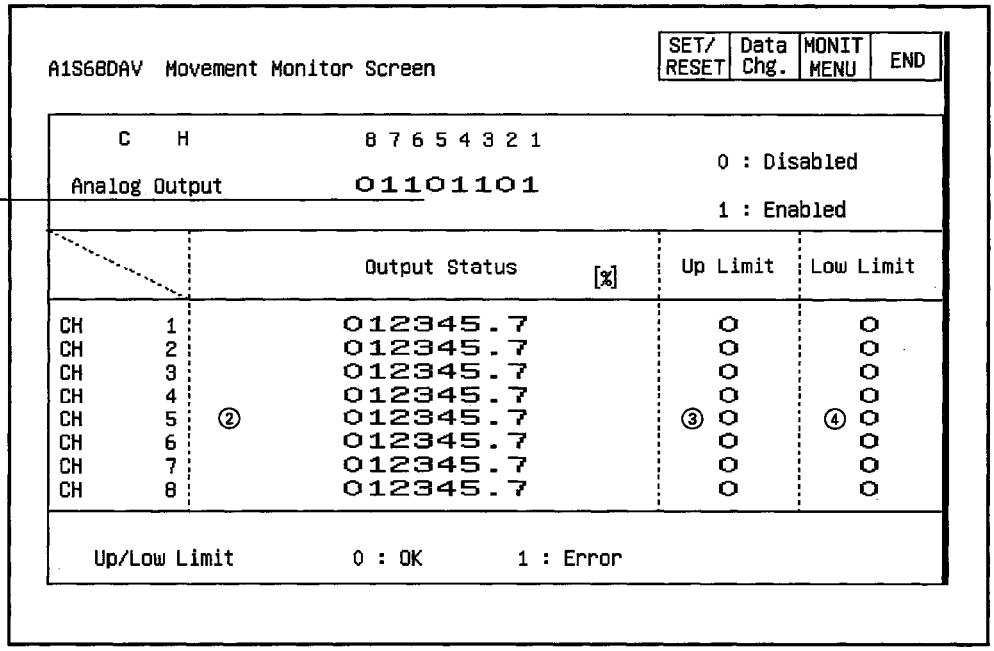
No.	Contents of display	Buffer memory address to reference (decimal)
①	The temperature detection value of each channel is displayed in a graph.	10 to 17
②	The specified conversion enabled/disabled status of each channel is displayed.	0
③	The conversion complete flag status for each channel is displayed.	35
④	The specified status for the averaging processing/sampling processing of each channel is displayed.	1
⑤	The specified status for the averaging processing of each channel is displayed.	1
⑥	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when a writing data error occurs; the channel where it occurred and the error code are displayed.	34
⑦	The specified status of the platinum temperature sensor that is used is displayed.	36
⑧	For A68RD3 A "■" is displayed in a channel where a broken wire was detected. For A68RD4 A "■" is displayed in CH1 when a broken wire is detected in any channel.	—

11.15 A1S68DAI, A1S68DAV Module Monitor

The contents displayed on each monitor of the A1S68DAI module and A1S68DAV module are nearly identical, except for the sections displaying the module format.

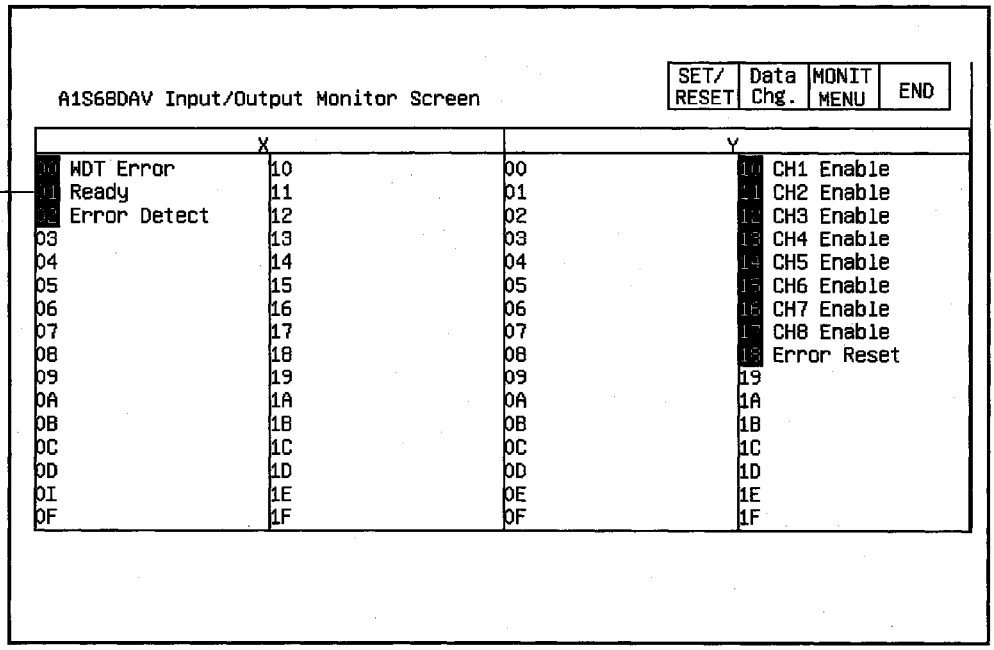
The A1S68DAV module monitor screen is used as an example in each of the following sections.

11.15.1 Operation Monitor



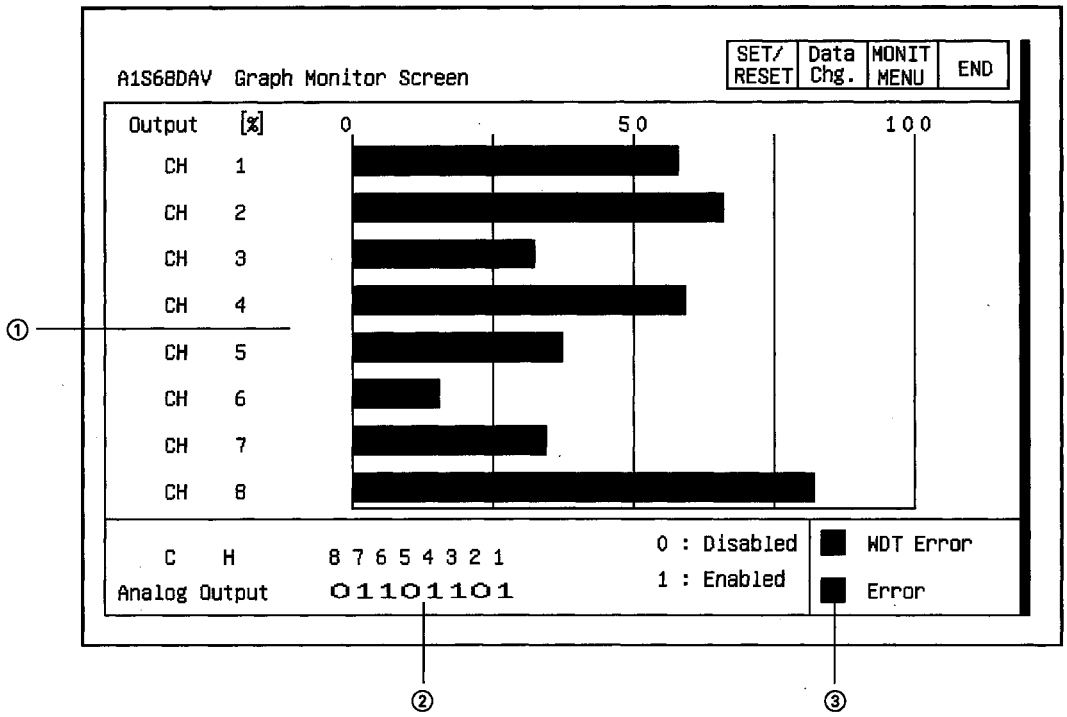
No.	Contents of display	Buffer memory address to reference (decimal)
①	The analog output enabled/disabled status for each channel is displayed.	0
②	For A1S68DAI: The present input value, a value between 0 to 4000 for the digital input value of each channel, is displayed as a percentage ranging from 0 to 100%. For A1S68DAV: The present input value, a value between -2000 to 2000 for the digital input value of each channel, is displayed as a percentage ranging from 0 to 100%.	1 to 8
③	When the digital input value set for each channel is greater than the allowable value, "1" is displayed.	10 to 17
④	When the digital input value set for each channel is less than the allowable value, "1" is displayed.	10 to 17

11.15.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

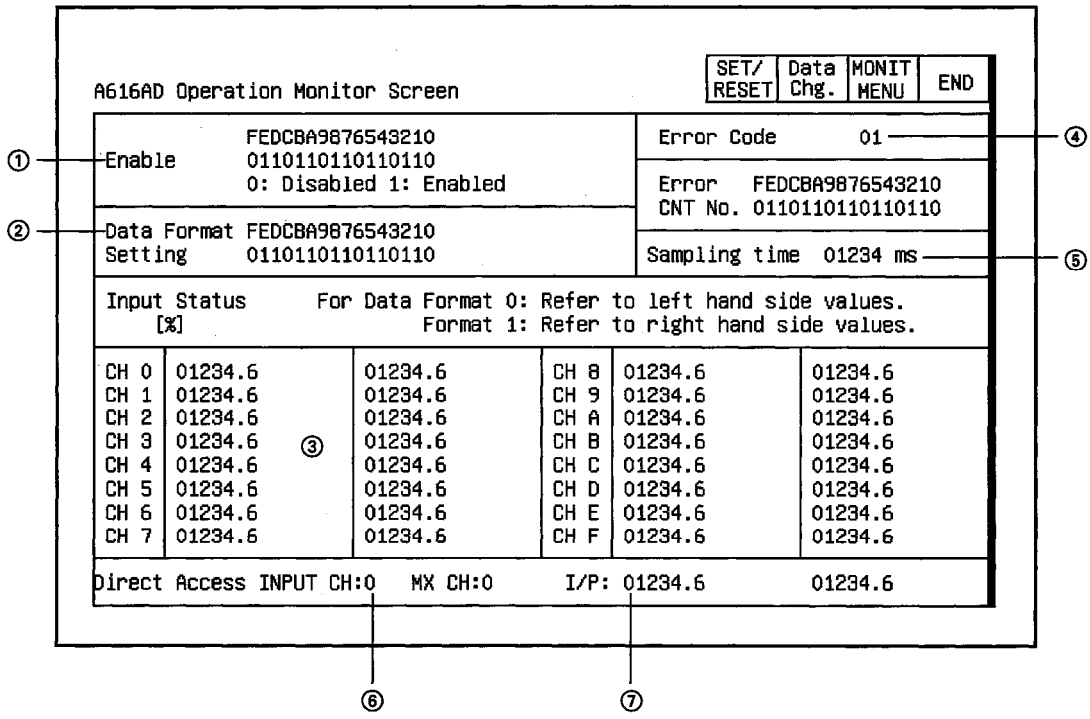
11.15.3 Graph Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	For A1S68DAI: The present input value, a value between 0 to 4000 for the digital input value of each channel, is displayed in a graph as a percentage ranging from 0 to 100%. For A1S68DAV: The present input value, a value between -2000 to 2000 for the digital input value of each channel, is displayed in a graph as a percentage ranging from 0 to 100%.	1 to 8
②	The analog output enabled/disabled status for each channel is displayed.	0
③	A "■" is displayed when a watchdog timer error occurs.	—
	When the digital input value set for each channel is greater than/ less than the allowable value, a "■" is displayed.	10 to 17

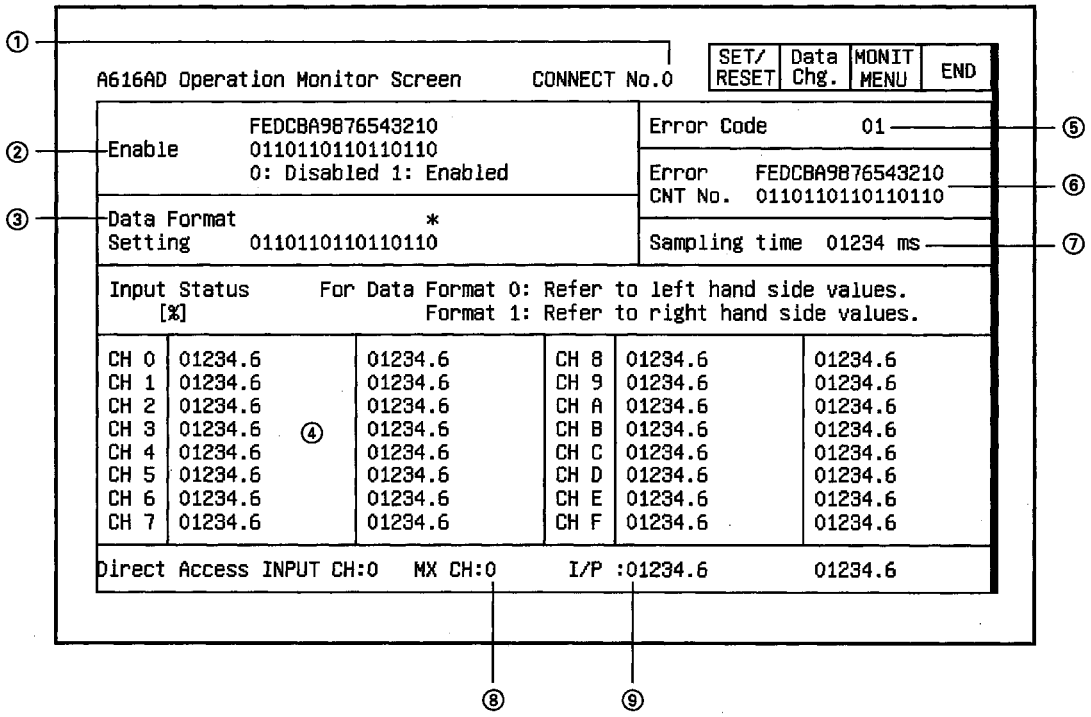
11.16 A616AD Module Monitor

11.16.1 Operation Monitor



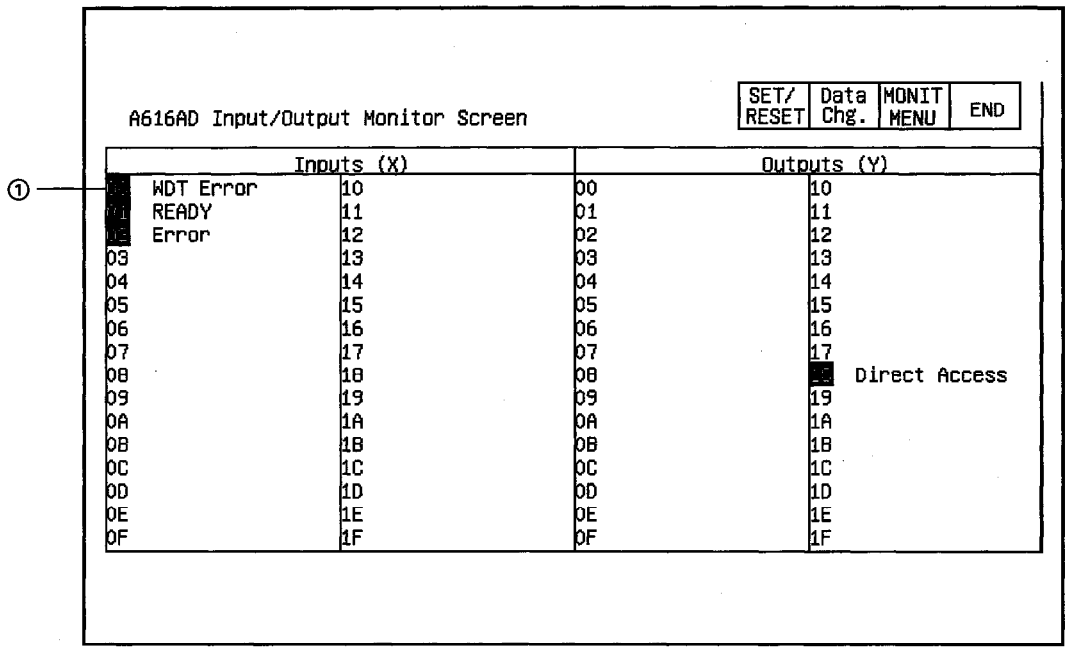
No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The specified conversion enabled/disabled status of each channel is displayed.	F
②	The set status of the data format for each channel is displayed. 0: Data format 48-4047 1: Data format 2048-2047	4
③	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%.	30 to 3F
④	The error code is displayed when an error occurs.	5
⑤	The set value of the sampling period is displayed.	3
⑥	The channels where direct access occurs are displayed.	0
⑦	The current output value, a value between 0 to 4000 for the digital output value for each channel where direct access occurs, is displayed as a percentage ranging from 0 to 100%.	2

11.16.2 Operation Monitor (Connect No. 0 to Connect No. 7 when Multiplex Module is Used)



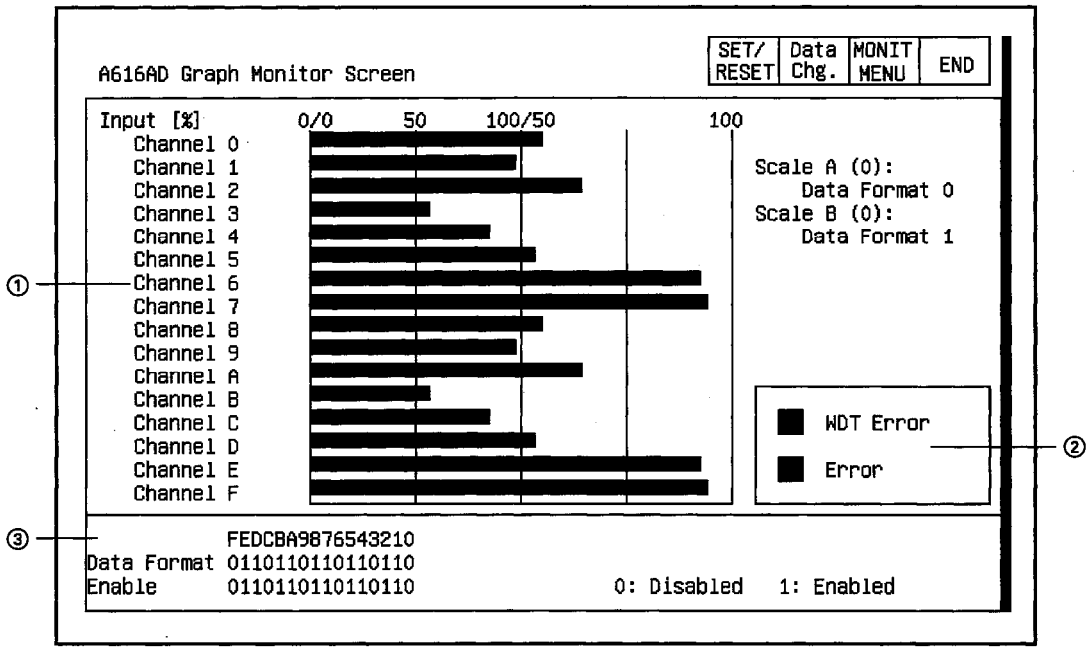
No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The connect number of the monitor being used is displayed.	—
②	The specified conversion enabled/disabled status of each channel is displayed.	10 to 17
③	The set status of the data format for each channel is displayed. 0: Data format 48-4047 1: Data format 2048-2047	4
④	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%.	100 to 17F
⑤	The error code is displayed when an error occurs.	5
⑥	"1" is displayed when an error with error code 01 to 03 occurs for any channel.	6
⑦	The set value of the sampling period is displayed.	3
⑧	The channels where direct access occurs are displayed.	1
⑨	The current output value, a value between 0 to 4000 for the digital output value for each channel where direct access occurs, is displayed as a percentage ranging from 0 to 100%.	2

11.16.3 I/O Monitor



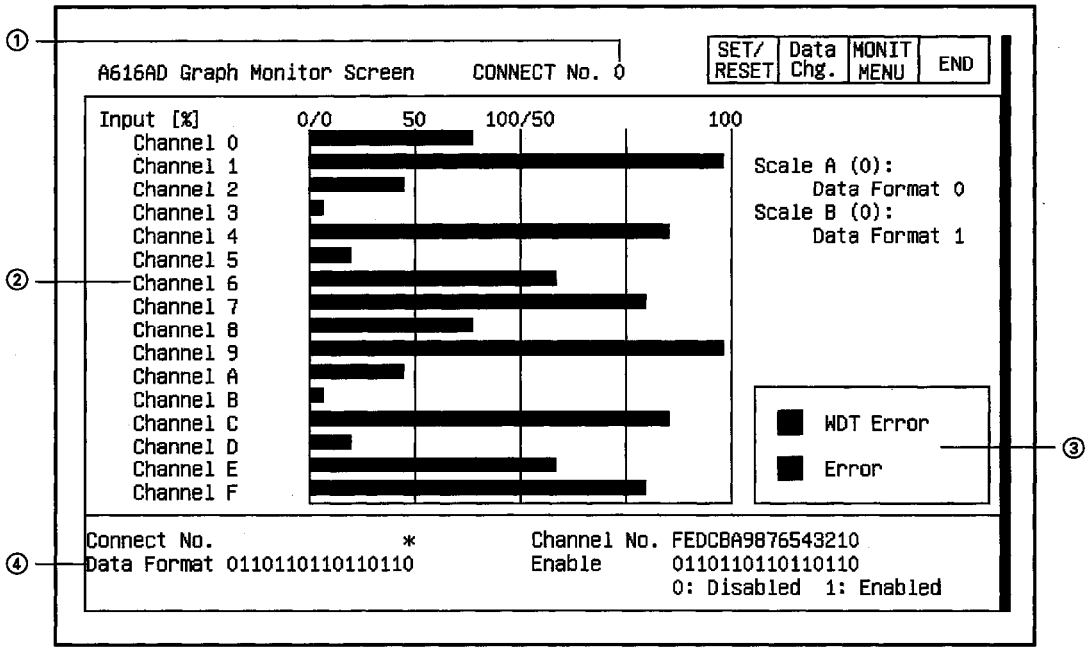
No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

11.16.4 Graph Monitor



No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%.	30 to 3F
②	A "■" is displayed when watchdog timer error occurs.	—
	A "■" is displayed when an error occurs.	—
③	The set status of the data format for each channel is displayed.	4
	The specified conversion enabled/disabled status of each channel is displayed.	F

11.16.5 Graph Monitor (Connect No. 0 to Connect No. 7 when Multiplex Module is Used)



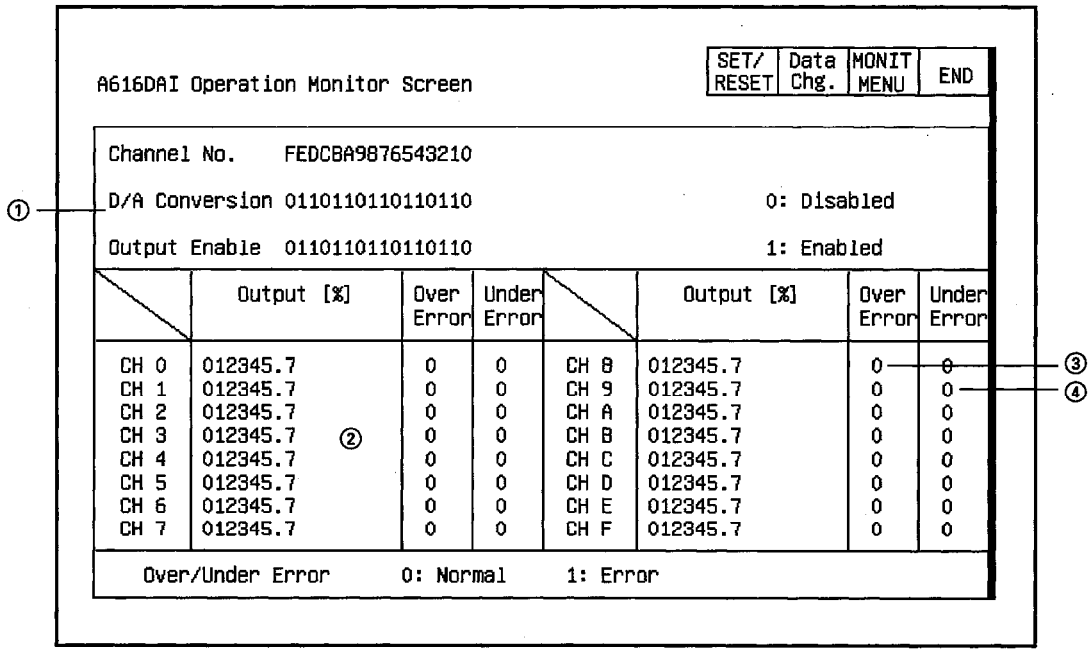
No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The connect number of the monitor being used is displayed.	—
②	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed in a graph as a percentage ranging from 0 to 100%.	100 to 17F
③	A "■" is displayed when watchdog timer error occurs.	—
	A "■" is displayed when an error occurs.	—
④	The set status of the data format for each channel is displayed.	4
	The specified conversion enabled/disabled status of each channel is displayed.	10 to 17

11.17 A616DAI, A616DAV Module Monitor

The contents displayed on each monitor of the A616DAI module and A616DAV module are nearly identical, except for the sections displaying the module format.

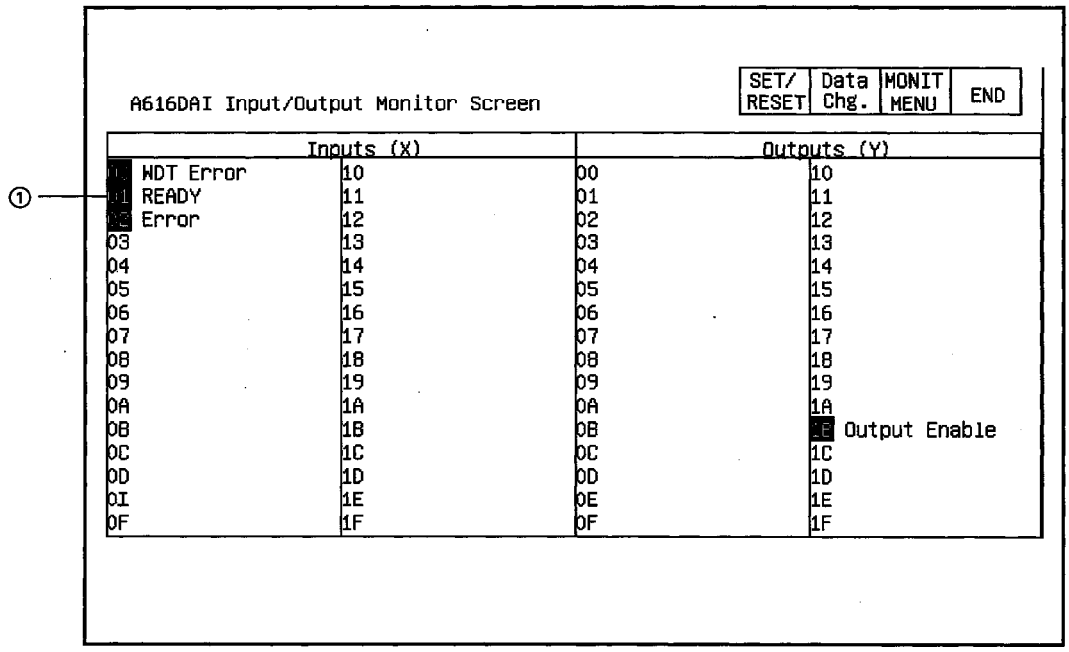
The A616DAI module monitor screen is used as an example in each of the following sections.

11.17.1 Operation Monitor



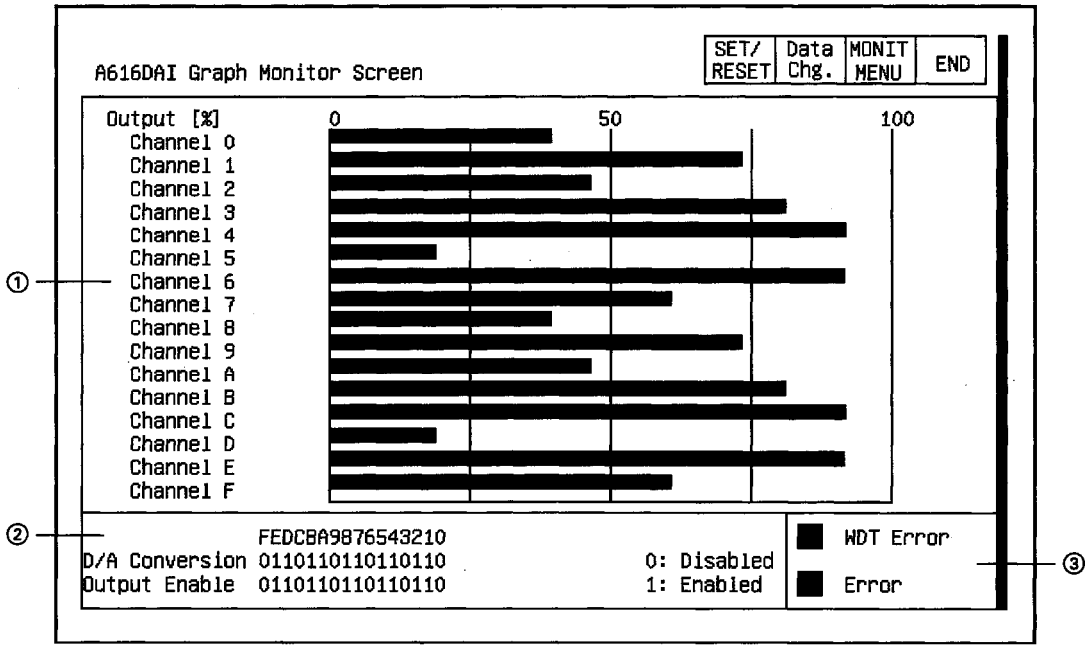
No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The set D/A conversion enabled/disabled status for each channel is displayed.	0
	The set analog output enabled/disabled status for each channel is displayed.	1
②	The current input value, a value between 0 to 4000 for the digital input value of each channel, is displayed as a percentage ranging from 0 to 100%.	10 to 1F
③	When the digital input value for any channel is set to 4096 or higher, "1" is displayed in the over error column.	30 to 3F
④	For A616DAI: When the digital input value for any channel is set as a negative number, "1" is displayed in the under error column. For A616DAV: When the digital input value for any channel is set to 4097 or less, "1" is displayed in the under error column.	30 to 3F

11.17.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

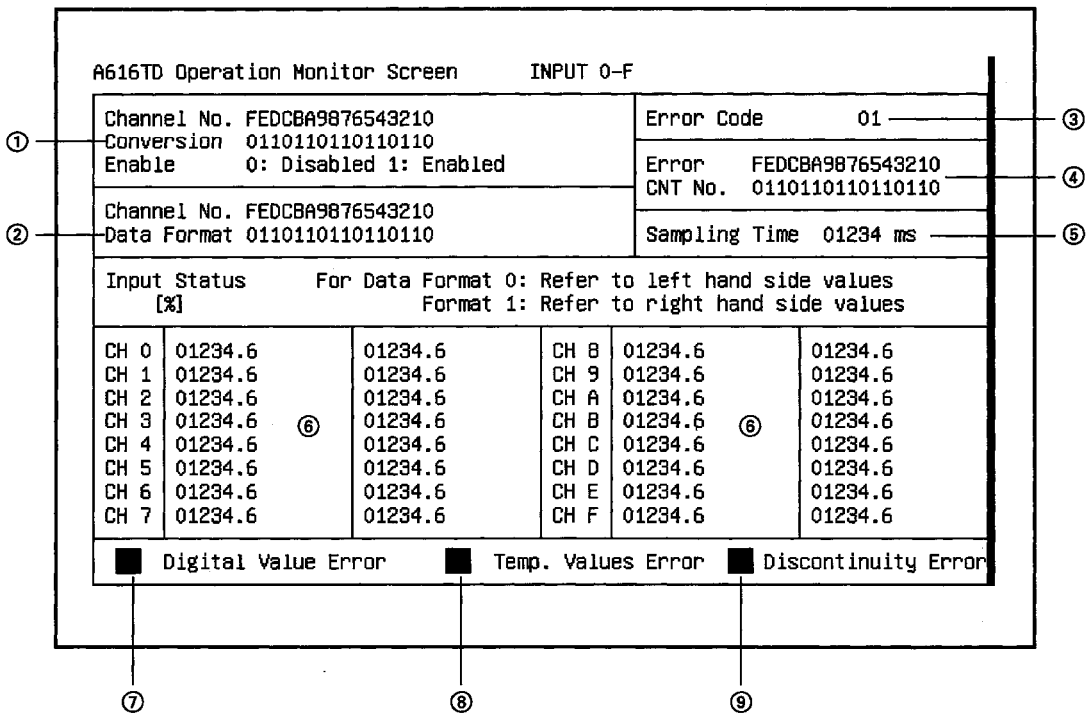
11.17.3 Graph Monitor



No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The current input value, a value between 0 to 4000 for the digital input value of each channel, is displayed in a graph as a percentage ranging from 0 to 100%.	10 to 1F
②	The set D/A conversion enabled/disabled status for each channel is displayed.	0
	The set analog output enabled/disabled status for each channel is displayed.	1
③	A "■" is displayed when a watchdog timer error occurs.	—
	For A616DAI: A "■" is displayed when the digital input value of any channel is set to 4096 or higher, or to a negative number. For A616DAV: A "■" is displayed when the digital input value of any channel is set to 4096 or higher, or to -4097 or lower.	—

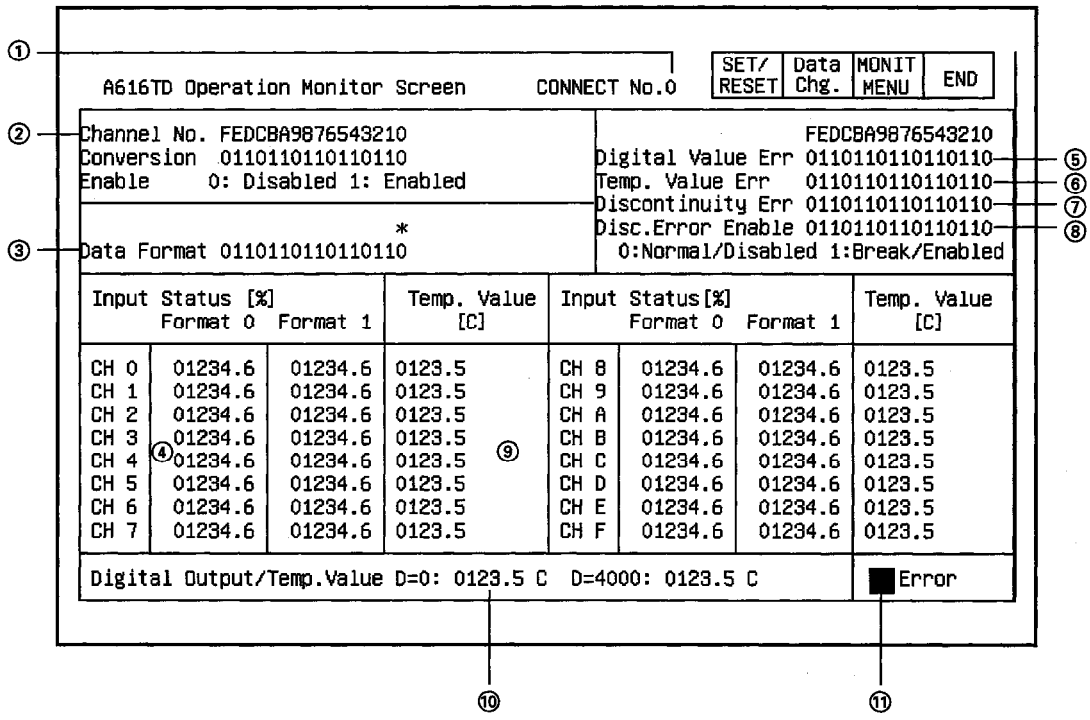
11.18 A616TD Module Monitor

11.18.1 Operation Monitor (INPUT 0-F)



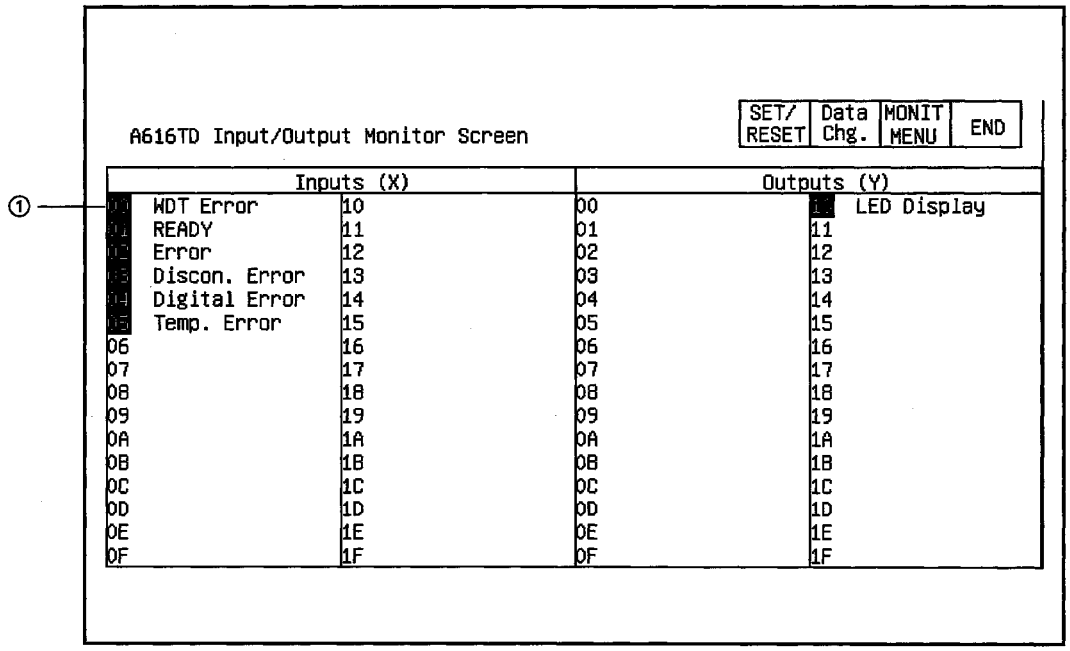
No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The specified D/A conversion enabled/disabled status for each channel is displayed.	F
②	The set status of the data format for each channel is displayed.	0
③	An error code is displayed when an error occurs.	1
④	"1" is displayed for CNT No. when an error with error code 01 to 04 has occurred due to a malfunction of the A60MXT unit or a setting error.	2
⑤	"0" is displayed for the sampling period current value.	4
⑥	For a channel not connected to the A60MX□, the current output value, a value between 0 to 4000 for the digital output of that channel, is displayed as a percentage ranging from 0 to 100%. When a channel is connected to the A60MX□, the above is displayed for the digital output value for CH0 of A60MX□.	70 to 7F
⑦	When the A60MXT is used, "■" is displayed when a temperature was input that exceeds the temperature range set according to the digital output value set for each channel.	—
⑧	When the A60MXT is used, "■" is displayed when a temperature was input that exceeds the measurement temperature range set for the measurement range of each channel.	—
⑨	When the A60MXT is used, "■" is displayed when broken wire is detected in the thermocouple or the compensating lead wire.	—

11.18.2 Operation Monitor (Connect No. 0 to Connect No. 7 when Multiplex Module is Used)



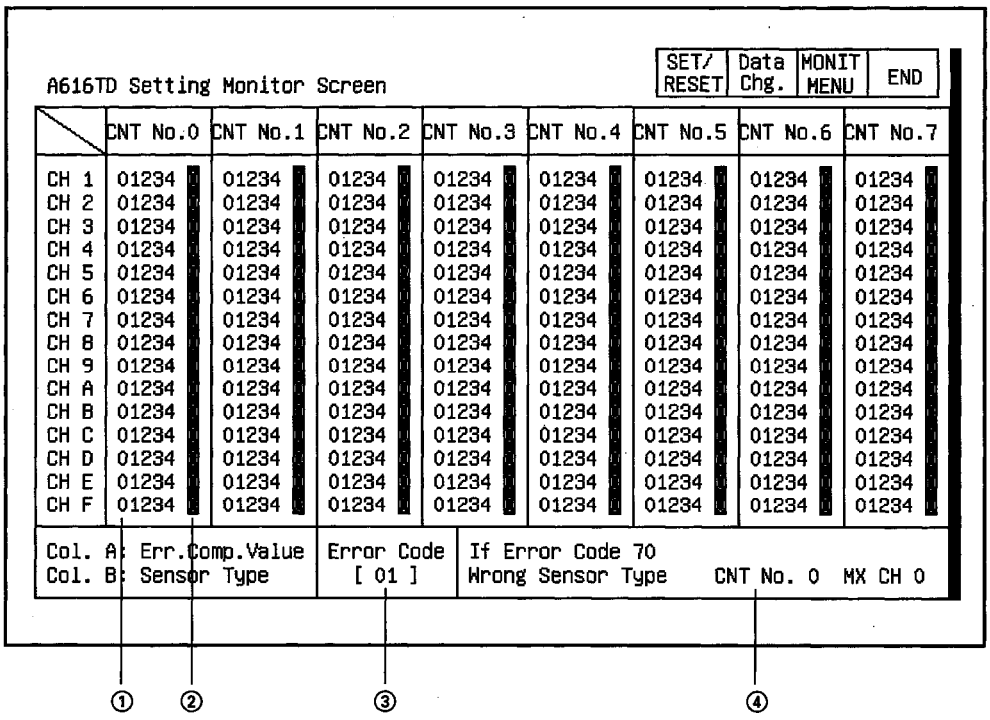
No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The connect number of the monitor being used is displayed.	—
②	The specified conversion enabled/disabled status for each channel is displayed.	F
③	The set status of the data format for each channel is displayed. 0: Data format 48-4047 1: Data format 2048-4047	0
④	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed as a percentage ranging from 0 to 100%.	180 to 1FF
⑤	When the A60MXT is used, "1" is displayed when a temperature was input that exceeds the temperature range set according to the digital output value set for each channel.	50 to 57
⑥	When the A60MXT is used, "1" is displayed when a temperature was input that exceeds the measurement temperature range set for the measurement range of each channel.	60 to 67
⑦	When the A60MXT is used, "1" is displayed when broken wire is detected in the thermocouple or the compensating lead wire.	40 to 47
⑧	When the A60MXT is used, the set status of the broken wire detection for the thermocouple that is connected to each channel is displayed. 0: Broken wire detection disabled 1: Broken wire detection enabled	20 to 27
⑨	When the A60MXT is used, the temperature detection value of each channel is displayed.	200 to 27F
⑩	The set temperature value (when the digital value is 0 or 4000) of the channel to which the A60MXT being monitored is connected is displayed.	30 to 3F
⑪	A "■" is displayed when an error occurs.	—

11.18.3 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

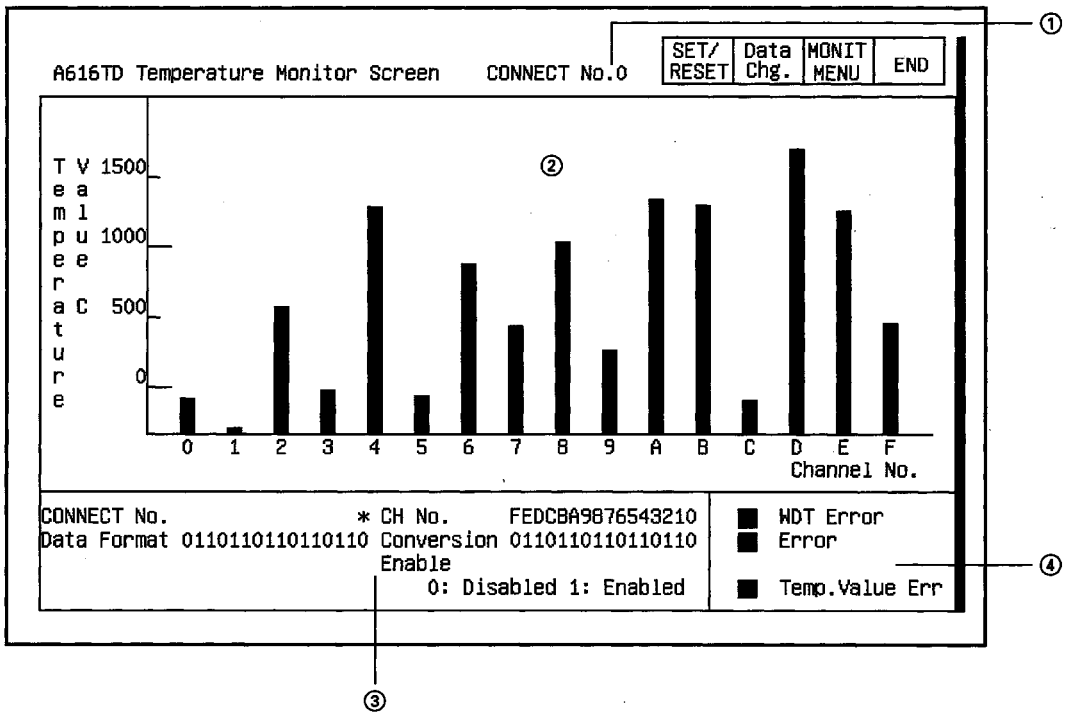
11.18.4 Setting Monitor (When A60MXT is Used)



No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The set value corresponding to the thermocouple used in each channel is displayed only in the column of the the CNT No. to which the A60MXT is connected. The types of thermocouples that correspond to the set values are indicated below.	100 to 17F
②	The error correction value of each channel is displayed only in the column of the CNT No. to which the A60MXT is connected.	80 to FF
③	The error code is displayed when an error occurs.	1
④	The connect number and channel are displayed when an error occurs in the thermocouple type setting.	3

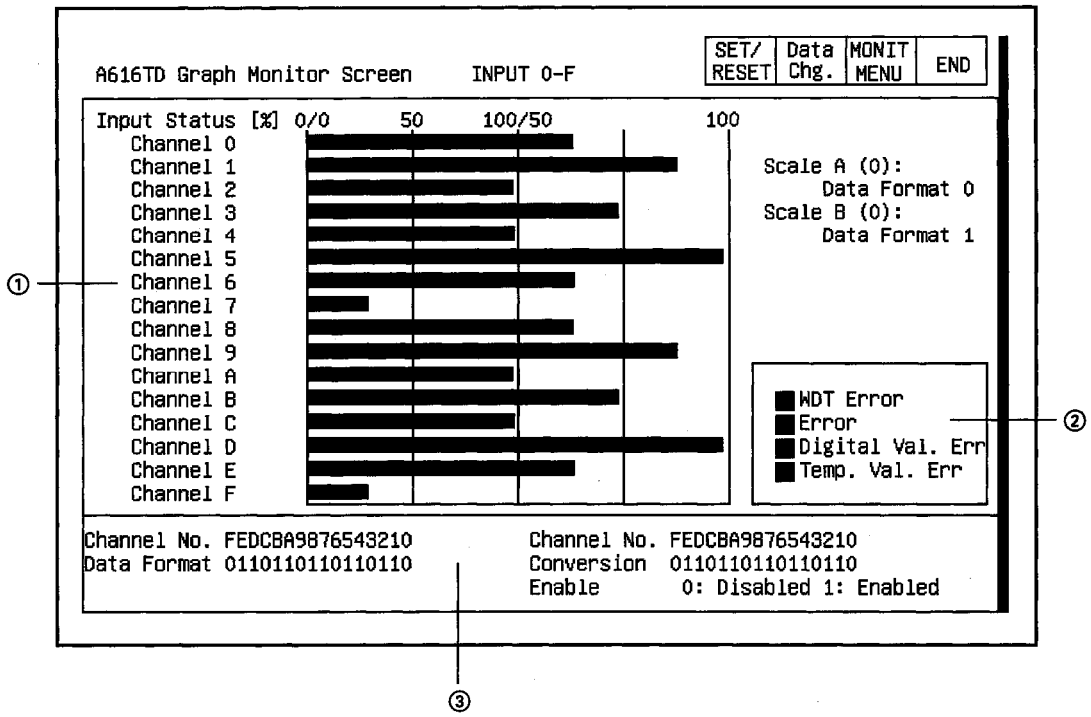
Set value / Rating	Type of thermocouple								
	0	1	2	3	4	5	6	7	8
JIS	K	J	E	R	T	B	S	—	—
ANSI	K	J	E	R	T	B	S	—	—
BS	NiCr -NiAl	Fe -CuNi	NiCr -CuNi	PtRh13 -Pt	Cu -CuNi	PtRh30 -PtRh6	PtRh10 -Pt	—	—
DIN	NiCr -Ni	—	—	—	—	—	PtRh -Pt	Fe -CuNi	Cu -CuNi

11.18.5 Temperature Monitor (Connect No. 0 to Connect No. 7 when A60MXT is Used)



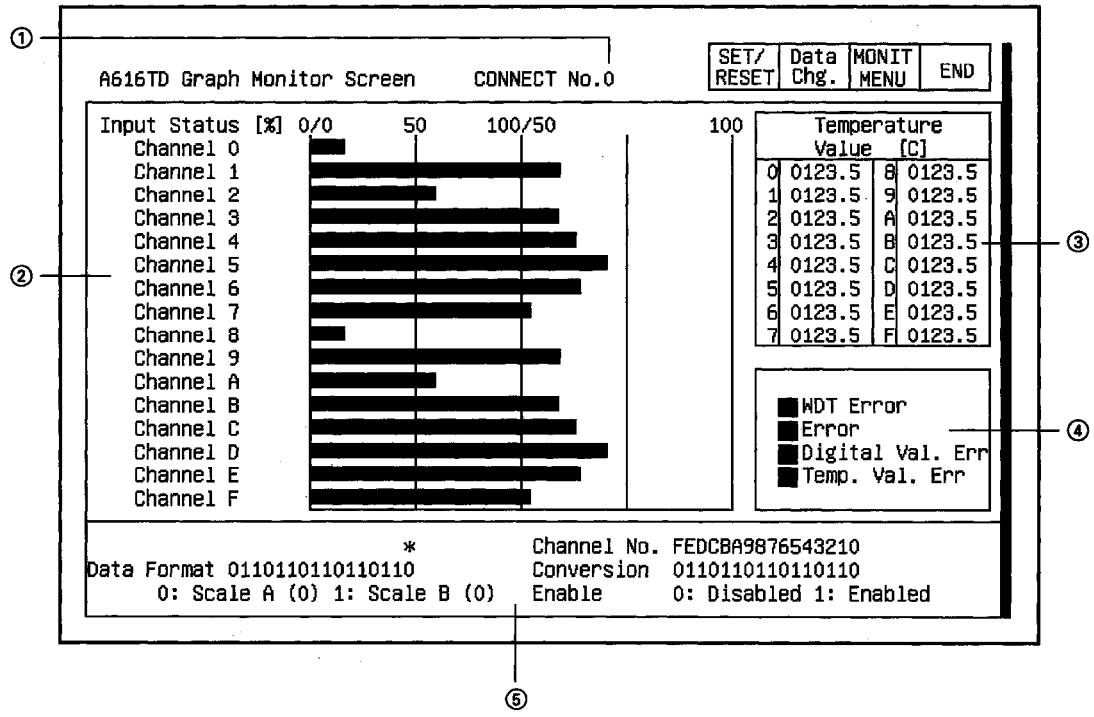
No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The connect number of the monitor being used is displayed.	—
②	The temperature detection value for each channel is graphically displayed.	200 to 27F
③	The set status of the data format for each channel is displayed.	0
	The specified conversion enabled/disabled status for each channel is displayed.	F
④	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when an error occurs.	—
	A "■" is displayed when a temperature was input that exceeds the measurement temperature range set for the measurement range of each channel.	—

11.18.6 Graph Monitor (INPUT 0-F)



No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	For a channel not connected to the A60MX□, the current output value, a value between 0 to 4000 for the digital output of that channel, is displayed as a percentage ranging from 0 to 100%. When a channel is connected to the A60MX□, the above is displayed for the digital output value for CH0 of A60MX□.	70 to 7F
②	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when an error occurs.	
	When the A60MXT is used, "■" is displayed when a temperature was input that exceeds the temperature range set according to the digital output value set for each channel.	
	When the A60MXT is used, "■" is displayed when a temperature was input that exceeds the measurement temperature range set for the measurement range of each channel.	
③	The set status of the data format for each channel is displayed.	0
	The specified conversion enabled/disabled status for each channel is displayed.	F

11.18.7 Graph Monitor (Connect No. 0 to Connect No. 7 when Multiplex Module is Used)



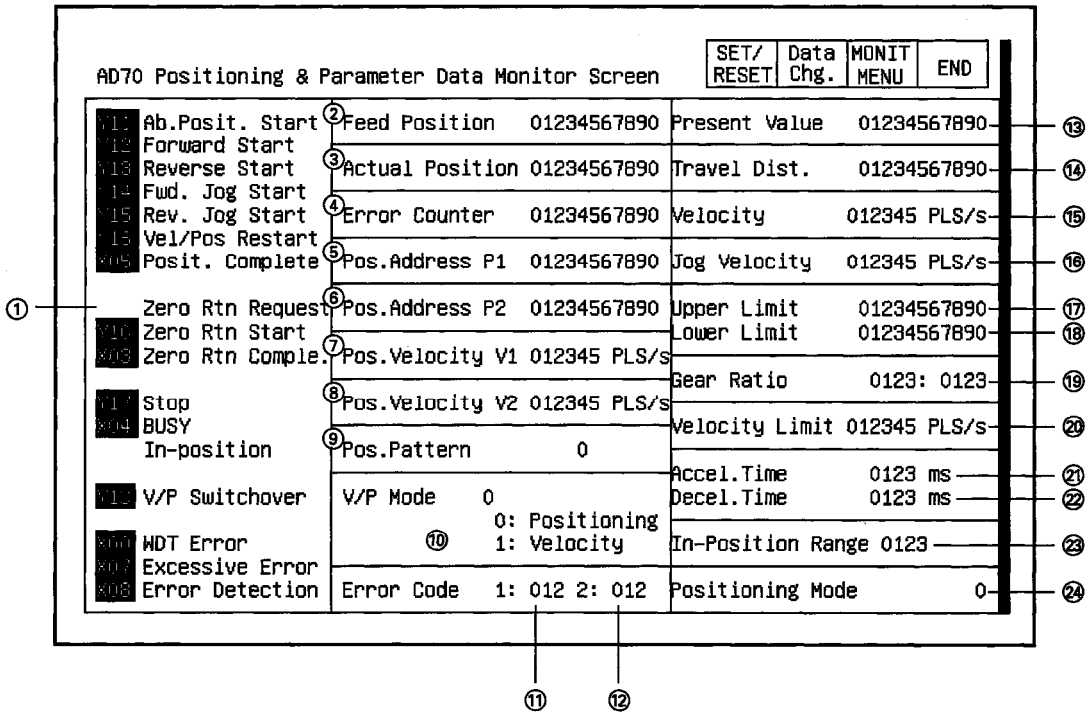
No.	Contents of display	Buffer memory address to reference (hexadecimal)
①	The connect number of the monitor being used is displayed.	—
②	The current output value, a value between 0 to 4000 for the digital output value of each channel, is displayed in a graph as a percentage ranging from 0 to 100%.	180 to 1FF
③	When the A60MXT is used, the temperature detection value of each channel is displayed.	200 to 27F
④	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when an error occurs.	—
	When the A60MXT is used, "1" is displayed when a temperature was input that exceeds the temperature range set according to the digital output value set for each channel.	—
	When the A60MXT is used, "1" is displayed when a temperature was input that exceeds the measurement temperature range set for the measurement range of each channel.	—
⑤	The set status of the data format for each channel is displayed.	0
	The specified conversion enabled/disabled status for each channel is displayed.	F

11.19 AD70, A1SD70 Module Monitor

The contents displayed on each monitor of the AD70 module and A1SD70 module are nearly identical, except for the sections displaying the module format.

The AD70 module monitor screen is used as an example in each of the following sections.

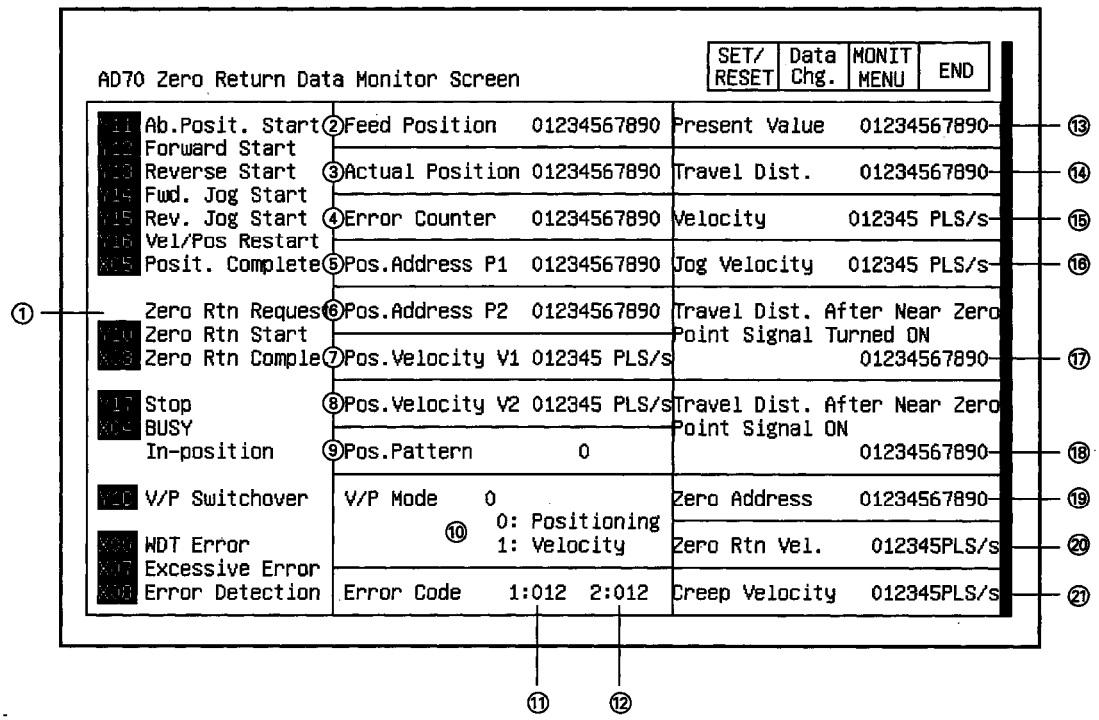
11.19.1 Positioning and Parameter Data Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—
②	The calculated command pulse number (PLS) based on the command value is displayed.	100, 101
③	The actual amount of servo movement (feedback pulse number) (PLS) calculated from the feedback pulse is displayed.	102, 103
④	The difference between the command pulse number x CMS/CDV and the feedback pulse number (PLS) is displayed.	106, 107
⑤	The set value of positioning address P1 (PLS) is displayed.	61, 62
⑥	The set value of positioning address P2 (PLS) is displayed.	65, 66
⑦	The set value of positioning velocity V1 is displayed.	63, 64
⑧	The set value of positioning velocity V2 is displayed.	67, 68
⑨	The set status of the positioning pattern is displayed. 0: Positioning 1: 2-speed trapezoid positioning	60
⑩	The status of the control mode when changing modes from velocity to position control is displayed. 0: Positioning control in progress 1: Velocity control in progress	111

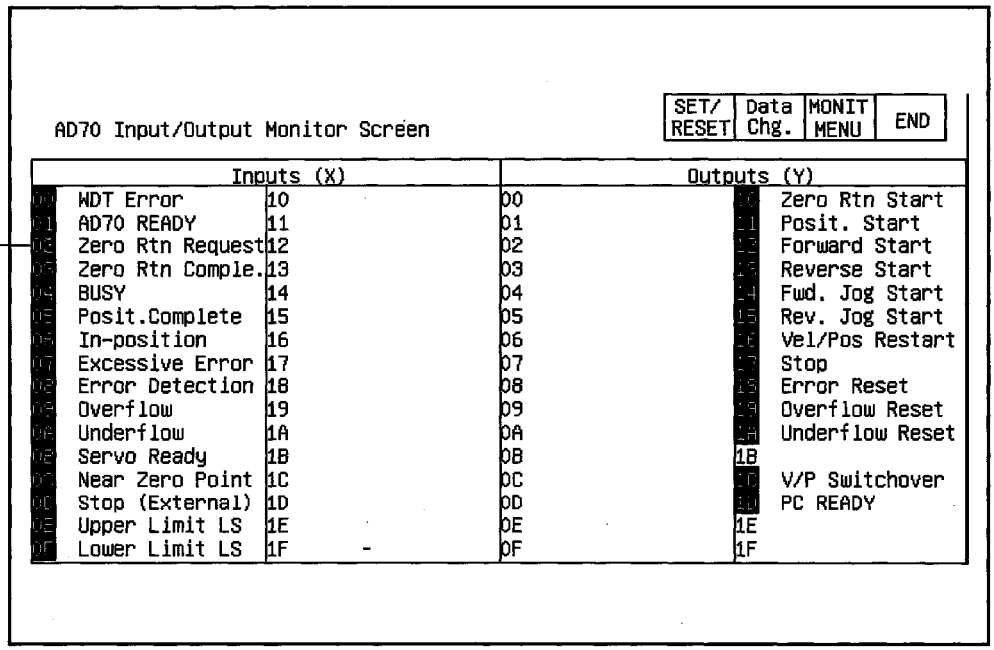
No.	Contents of display	Buffer memory address to reference (decimal)
⑪	The error code is displayed when an error occurs that can be handled by a sequence program such as a startup data error or BUSY in progress.	104
⑫	The error code is displayed when an error occurs that causes monitoring to stop due to an external signal when starting or when a startup is in progress.	105
⑬	The change value (PLS) of the current value is displayed.	80, 81
⑭	The change value (PLS) of the speed/position/travel distance is displayed.	88, 89
⑮	The change value of the velocity change is displayed.	82, 83
⑯	The set value of the JOG velocity is displayed.	84, 85
⑰	The set value (PLS) of the upper stroke limit is displayed.	0, 1
⑱	The set value (PLS) of the lower stroke limit is displayed.	2, 3
⑲	The command pulse ratio numerator (CMX) and denominator (CDV) are displayed.	4, 5
⑳	The set value of the velocity limit is displayed.	20, 21
㉑	The set value of the acceleration time is displayed.	22
㉒	The set value of the deceleration time is displayed.	23
㉓	The set value (PLS) of the in-position range is displayed.	24
㉔	The set status of the positioning mode is displayed. 0: Positioning 1: Velocity positioning	25

11.19.2 Zero Return Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—
②	The calculated command pulse number (PLS) based on the command value is displayed.	100, 101
③	The actual amount of servo movement (feedback pulse number) (PLS) calculated from the feedback pulse is displayed.	102, 103
④	The difference between the command pulse number x CMS/CDV and the feedback pulse number (PLS) is displayed.	106, 107
⑤	The set value of positioning address P1 (PLS) is displayed.	61, 62
⑥	The set value of positioning address P2 (PLS) is displayed.	65, 66
⑦	The set value of positioning velocity V1 is displayed.	63, 64
⑧	The set value of positioning velocity V2 is displayed.	67, 68
⑨	The set status of the positioning pattern is displayed. 0: Positioning 1: 2-speed trapezoid positioning	60
⑩	The status of the control mode when changing modes from velocity to position control is displayed. 0: Positioning control in progress 1: Velocity control in progress	111
⑪	The error code is displayed when an error occurs that can be handled by a sequence program such as a data error or BUSY in progress.	104
⑫	The error code is displayed when an error occurs that causes monitoring to stop due to an external signal when starting or when a startup is in progress.	105
⑬	The change value (PLS) of the current value is displayed.	80, 81
⑭	The change value (PLS) of the speed/position/travel distance is displayed.	88, 89
⑮	The change value of the speed change is displayed.	82, 83
⑯	The set value of JOG speed is displayed.	84, 85
⑰	After zero return starts, the travel distance (PLS) from when the near zero point signal goes on until zero return is complete is displayed.	108, 109
⑱	The set value (PLS) of the travel distance after the near zero point signal goes on is displayed.	46, 47
⑲	The set value (PLS) of the zero address is displayed.	40, 41
⑳	The set value of the zero return velocity is displayed.	42, 43
㉑	The set value of the creep velocity is displayed.	44, 45

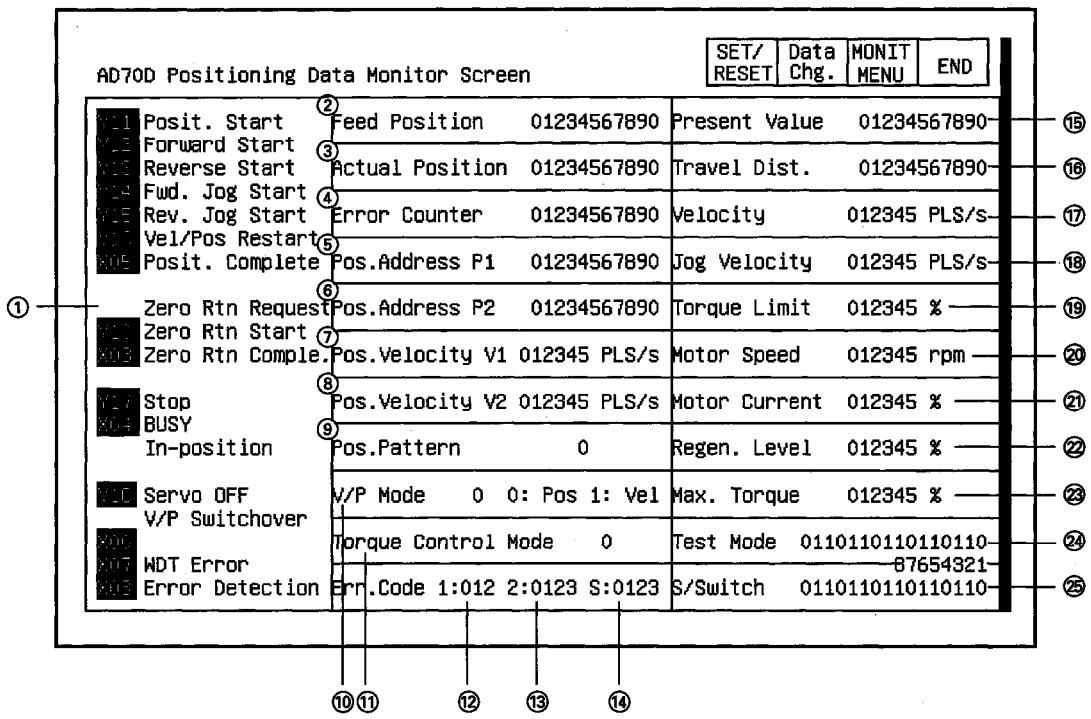
11.19.3 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

11.20 A70D Module Monitor

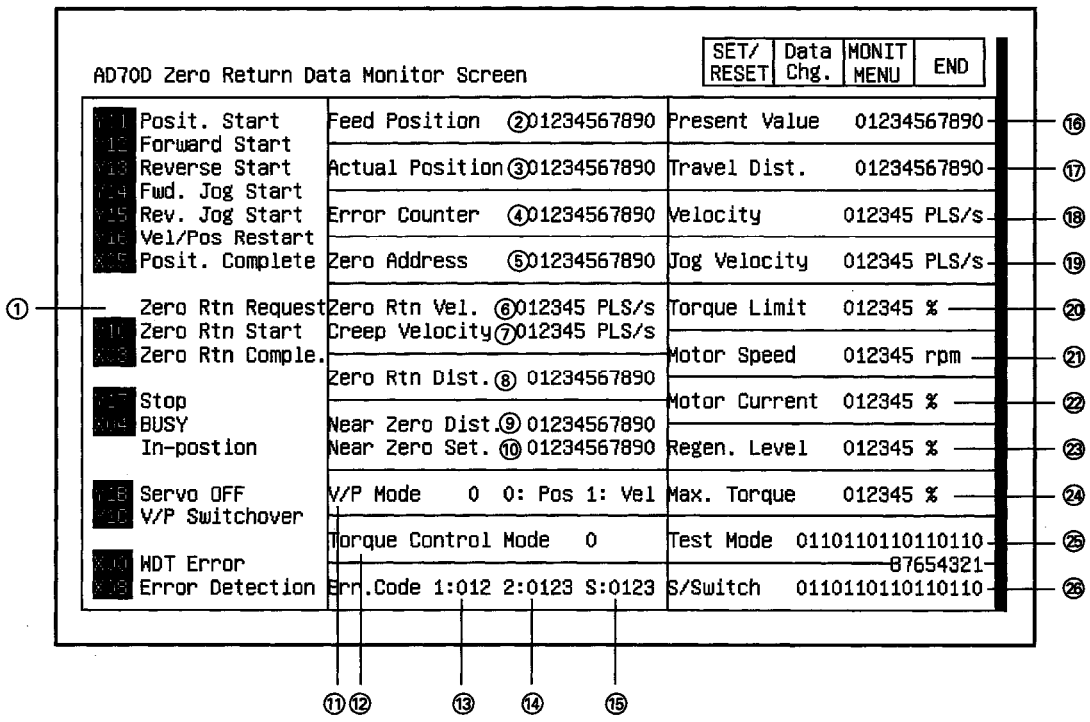
11.20.1 Positioning Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—
②	The calculated command pulse number (PLS) based on the command value is displayed.	100, 101
③	The actual amount of servo movement (feedback pulse number) (PLS) calculated from the feedback pulse is displayed.	102, 103
④	The difference between the command pulse number x CMS/CDV and the feedback pulse number (PLS) is displayed.	104, 105
⑤	The set value of positioning address P1 (PLS) is displayed.	61, 62
⑥	The set value of positioning address P2 (PLS) is displayed.	65, 66
⑦	The set value of positioning velocity V1 is displayed.	63, 64
⑧	The set value of positioning velocity V2 is displayed.	67, 68
⑨	The set status of the positioning pattern is displayed. 0: Positioning 1: 2-speed trapezoid positioning	60
⑩	The status of the control mode when changing modes from velocity to position control is displayed. 0: Positioning control in progress 1: Velocity control in progress	119
⑪	This displays whether the torque command (electrical current command) for the motor is controlled by the rated torque written in the motor catalog x the "torque limit value". 0: When motor is rotating within set torque limit 1: Limited	120

<table>
<tr><th>No.</th><th>Contents of display</th><th>Buffer memory address to reference (decimal)</th></tr>
<tr><td>⑫</td><td>The error code is displayed when an error occurs that can be handled by a sequence program such as a data error or BUSY in progress.</td><td>121</td></tr>
<tr><td>⑬</td><td>The error code is displayed when an error occurs that causes monitoring to stop due to an external signal when starting or when a startup is in progress.</td><td>122</td></tr>
<tr><td>⑭</td><td>The error code output from the servo amp that was converted into an error code for AD70D is displayed.</td><td>123</td></tr>
<tr><td>⑮</td><td>The change value (PLS) of the current value is displayed.</td><td>80, 81</td></tr>
<tr><td>⑯</td><td>The change value (PLS) of the speed/position/travel distance is displayed.</td><td>86, 87</td></tr>
<tr><td>⑰</td><td>The change value of the velocity change is displayed.</td><td>82, 83</td></tr>
<tr><td>⑱</td><td>The set value of the JOG velocity is displayed.</td><td>84, 85</td></tr>
<tr><td>⑲</td><td>The change value of the torque limit is displayed.</td><td>89</td></tr>
<tr><td>⑳</td><td>The actual number of revolutions of the motor is displayed.</td><td>110</td></tr>
<tr><td>㉑</td><td>The motor current is displayed as 100% of the rated current.</td><td>111</td></tr>
<tr><td>㉒</td><td>The data for monitoring the load of the regeneration resistance is displayed.</td><td>112</td></tr>
<tr><td>㉓</td><td>The maximum torque is displayed when it is 100% of the rated torque.</td><td>113</td></tr>
<tr><td>㉔</td><td>Valid when using peripheral equipment (SW□GP-AD70DP).
<table>
<tr><th colspan="2">Bit</th><th>8</th><th>7</th><th>6</th><th>5</th><th>4</th><th>3</th><th>2</th><th>1</th></tr>
<tr><td rowspan="2">Contents of display</td><td>0</td><td>Servo ready OFF</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>Test mode normal</td><td>Not in test mode</td></tr>
<tr><td>1</td><td>Servo ready ON</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>Test mode request error</td><td>Test mode in progress</td></tr>
</table></td><td>125</td></tr>
<tr><td>㉕</td><td>The set status of the AD70D slide switch is displayed.
<table>
<tr><th colspan="2">Bit</th><th>8</th><th>7</th><th>6</th><th>5</th><th>4</th><th>3</th><th>2</th><th>1</th></tr>
<tr><td rowspan="2">Contents of display</td><td>0</td><td>SW8 "OFF"</td><td>SW7 "OFF"</td><td>SW6 "OFF"</td><td>SW5 "OFF"</td><td>SW4 "OFF"</td><td>SW3 "OFF"</td><td>SW2 "OFF"</td><td>SW1 "OFF"</td></tr>
<tr><td>1</td><td>SW8 "ON"</td><td>SW7 "ON"</td><td>SW6 "ON"</td><td>SW5 "ON"</td><td>SW4 "ON"</td><td>SW3 "ON"</td><td>SW2 "ON"</td><td>SW1 "ON"</td></tr>
</table></td><td>126</td></tr>
</table>

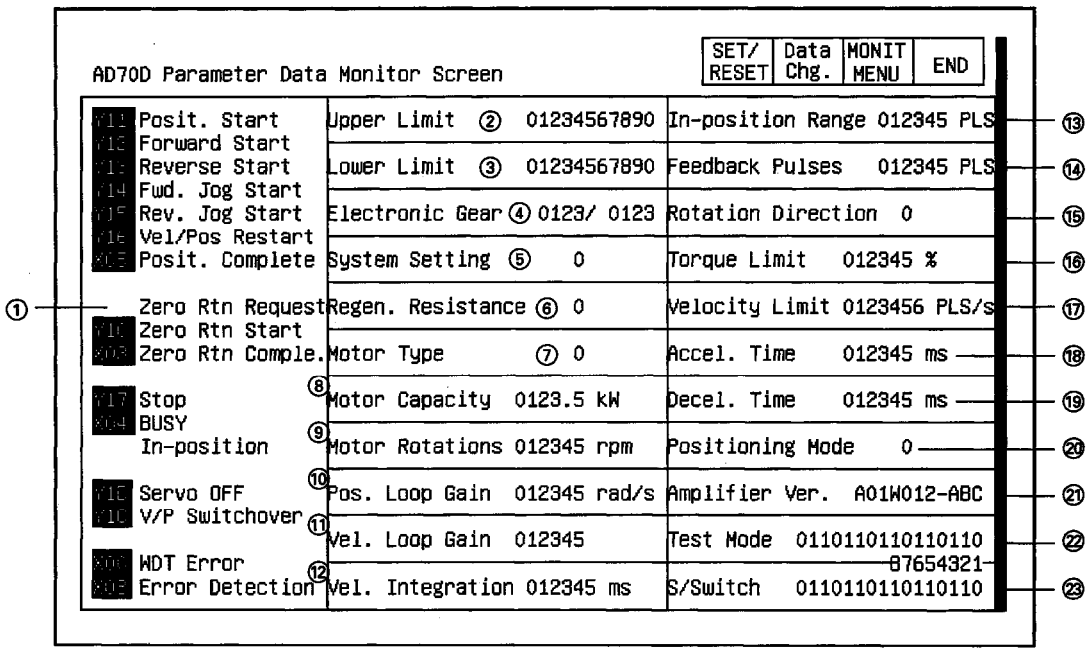
11.20.2 Zero Return Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—
②	The calculated command pulse number (PLS) based on the command value is displayed.	100, 101
③	The actual amount of servo movement (feedback pulse number) (PLS) calculated from the feedback pulse is displayed.	102, 103
④	The difference between the command pulse number x CMS/CDV and the feedback pulse number (PLS) is displayed.	104, 105
⑤	The set value (PLS) of the zero address is displayed.	30, 31
⑥	The set value of the zero return velocity is displayed.	32, 33
⑦	The set value of the creep velocity is displayed.	34, 35
⑧	After zero return starts, the near zero point signal goes off, decelerates and stops. The travel distance (PLS) from that point until zero return is complete is displayed.	108, 109
⑨	After zero return starts, the travel distance (PLS) from when the near zero point signal goes on until zero return is complete is displayed.	106, 107
⑩	The set value (PLS) of the travel distance after the near zero point signal goes ON is displayed.	36, 37
⑪	The status of the control mode when changing modes from velocity to position control is displayed. 0: Positioning control in progress 1: Velocity control in progress	119
⑫	This displays whether the torque command (electrical current command) for the motor is controlled by the rated torque written in the motor catalog x the "torque limit value". 0: When motor is rotating within set torque limit 1: Limited	120

<table>
<tr><th>No.</th><th>Contents of display</th><th>Buffer memory address to reference (decimal)</th></tr>
<tr><td>⑬</td><td>The error code is displayed when an error occurs that can be handled by a sequence program such as a data error or BUSY in progress.</td><td>121</td></tr>
<tr><td>⑭</td><td>The error code is displayed when an error occurs that causes monitoring to stop due to an external signal when starting or when a startup is in progress.</td><td>122</td></tr>
<tr><td>⑮</td><td>The error code output from the servo amp that was converted into an error code for AD70D is displayed.</td><td>123</td></tr>
<tr><td>⑯</td><td>The change value (PLS) of the current value is displayed.</td><td>80, 81</td></tr>
<tr><td>⑰</td><td>The change value (PLS) of the speed/position/travel distance is displayed.</td><td>86, 87</td></tr>
<tr><td>⑱</td><td>The change value of the velocity change is displayed.</td><td>82, 83</td></tr>
<tr><td>⑲</td><td>The set value of the JOG velocity is displayed.</td><td>84, 85</td></tr>
<tr><td>⑳</td><td>The change value of the torque limit is displayed.</td><td>89</td></tr>
<tr><td>㉑</td><td>The actual number of revolutions of the motor is displayed.</td><td>110</td></tr>
<tr><td>㉒</td><td>The motor current is displayed as 100% of the rated current.</td><td>111</td></tr>
<tr><td>㉓</td><td>The data for monitoring the load of the regeneration resistance is displayed.</td><td>112</td></tr>
<tr><td>㉔</td><td>The maximum torque is displayed when it is 100% of the rated torque.</td><td>113</td></tr>
<tr><td>㉕</td><td>Valid when using peripheral equipment (SW□GP-AD70DP).
<table>
<tr><th colspan="2">Bit</th><th>8</th><th>7</th><th>6</th><th>5</th><th>4</th><th>3</th><th>2</th><th>1</th></tr>
<tr><td rowspan="2">Contents of display</td><td>0</td><td>Servo ready OFF</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>Test mode normal</td><td>Not in test mode</td></tr>
<tr><td>1</td><td>Servo ready ON</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>Test mode request error</td><td>Test mode in progress</td></tr>
</table></td><td>125</td></tr>
<tr><td>㉖</td><td>The set status of the AD70D slide switch is displayed.
<table>
<tr><th colspan="2">Bit</th><th>8</th><th>7</th><th>6</th><th>5</th><th>4</th><th>3</th><th>2</th><th>1</th></tr>
<tr><td rowspan="2">Contents of display</td><td>0</td><td>SW8 "OFF"</td><td>SW7 "OFF"</td><td>SW6 "OFF"</td><td>SW5 "OFF"</td><td>SW4 "OFF"</td><td>SW3 "OFF"</td><td>SW2 "OFF"</td><td>SW1 "OFF"</td></tr>
<tr><td>1</td><td>SW8 "ON"</td><td>SW7 "ON"</td><td>SW6 "ON"</td><td>SW5 "ON"</td><td>SW4 "ON"</td><td>SW3 "ON"</td><td>SW2 "ON"</td><td>SW1 "ON"</td></tr>
</table></td><td>126</td></tr>
</table>

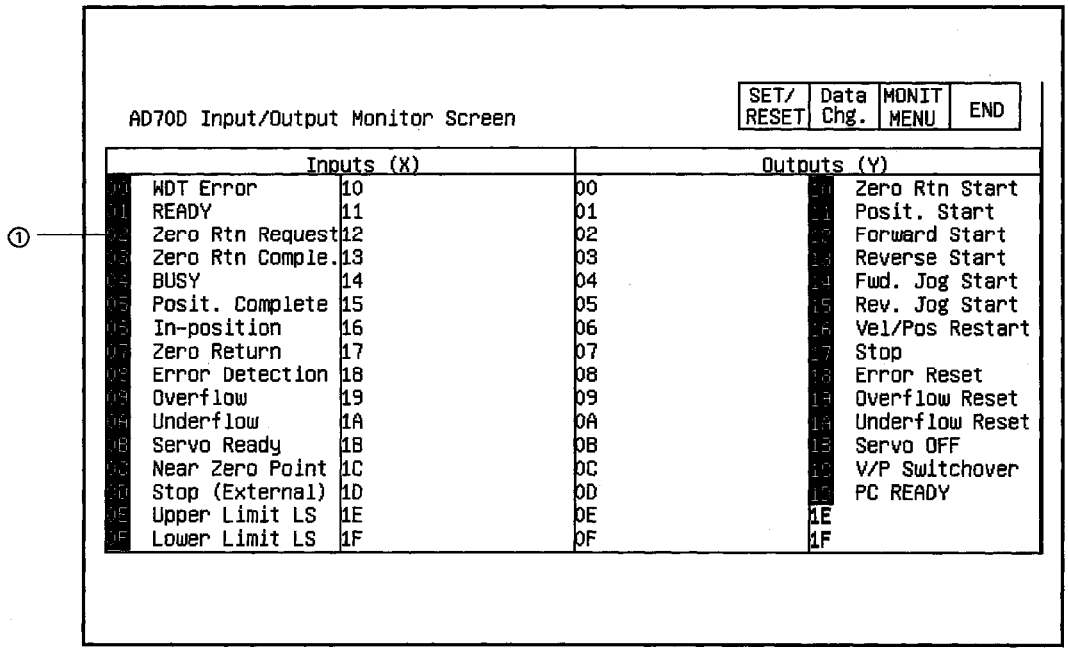
11.20.3 Parameter Data Monitor



No.	Contents of display	Buffer memory address to reference (decimal)
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is on when displayed in a reverse display.	—
②	The set value (PLS) of the upper stroke limit is displayed.	0, 1
③	The set value (PLS) of the lower stroke limit is displayed.	2, 3
④	The command pulse ratio numerator (CMX) and denominator (CDV) are displayed.	4, 5
⑤	The set status of the system is displayed. 0: MR-SB (standard) 1: MR-SB (absolute values)	10
⑥	The set status of the regeneration resistance is displayed. 0: None 1: RB30 2: RB50,51 3: RB100, 101	11
⑦	The set status of the motor type is displayed. 0: Standard 1: Low inertia L 2: Flat U	12
⑧	The motor output capacity is displayed.	13
⑨	The set status of the motor rpm is displayed.	14
⑩	The set value of the position loop gain is displayed.	15
⑪	The set value of the velocity loop gain is displayed.	16
⑫	The set value of the velocity integration is displayed.	17
⑬	The set value of the in-position range is displayed.	18
⑭	The feedback pulse number (PLS) of one revolution of the motor is displayed.	19
⑮	The set status of the direction of rotation is displayed. 0: Counter-clockwise with address increase 1: Clockwise with address increase	20
⑯	The set value of the torque limit is displayed.	21
⑰	The set value of the velocity limit is displayed.	40, 41

<table>
<tr><th>No.</th><th>Contents of display</th><th>Buffer memory address to reference (decimal)</th></tr>
<tr><td>⑱</td><td>The set value of the acceleration time is displayed.</td><td>42</td></tr>
<tr><td>⑲</td><td>The set value of the deceleration time is displayed.</td><td>43</td></tr>
<tr><td>⑳</td><td>The set status of the positioning mode is displayed.
0: Positioning mode 1: Velocity → position control change mode</td><td>44</td></tr>
<tr><td>㉑</td><td>The servo amp model code and version are displayed.</td><td>114 to 117</td></tr>
<tr><td>㉒</td><td>Valid when using peripheral instrument (SW□GP-AD70DP)
<table>
<tr><td colspan="2">Bit</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td></tr>
<tr><td rowspan="2">Contents of display</td><td>0</td><td>Servo ready OFF</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>Test mode normal</td><td>Not in test mode</td></tr>
<tr><td>1</td><td>Servo ready ON</td><td>—</td><td>—</td><td>—</td><td>—</td><td>—</td><td>Test mode request error</td><td>Test mode in progress</td></tr>
</table></td><td>125</td></tr>
<tr><td>㉓</td><td>The set status of the AD70D slide switch is displayed.
<table>
<tr><td colspan="2">Bit</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td></tr>
<tr><td rowspan="2">Contents of display</td><td>0</td><td>SW8 "OFF"</td><td>SW7 "OFF"</td><td>SW6 "OFF"</td><td>SW5 "OFF"</td><td>SW4 "OFF"</td><td>SW3 "OFF"</td><td>SW2 "OFF"</td><td>SW1 "OFF"</td></tr>
<tr><td>1</td><td>SW8 "ON"</td><td>SW7 "ON"</td><td>SW6 "ON"</td><td>SW5 "ON"</td><td>SW4 "ON"</td><td>SW3 "ON"</td><td>SW2 "ON"</td><td>SW1 "ON"</td></tr>
</table></td><td>126</td></tr>
</table>

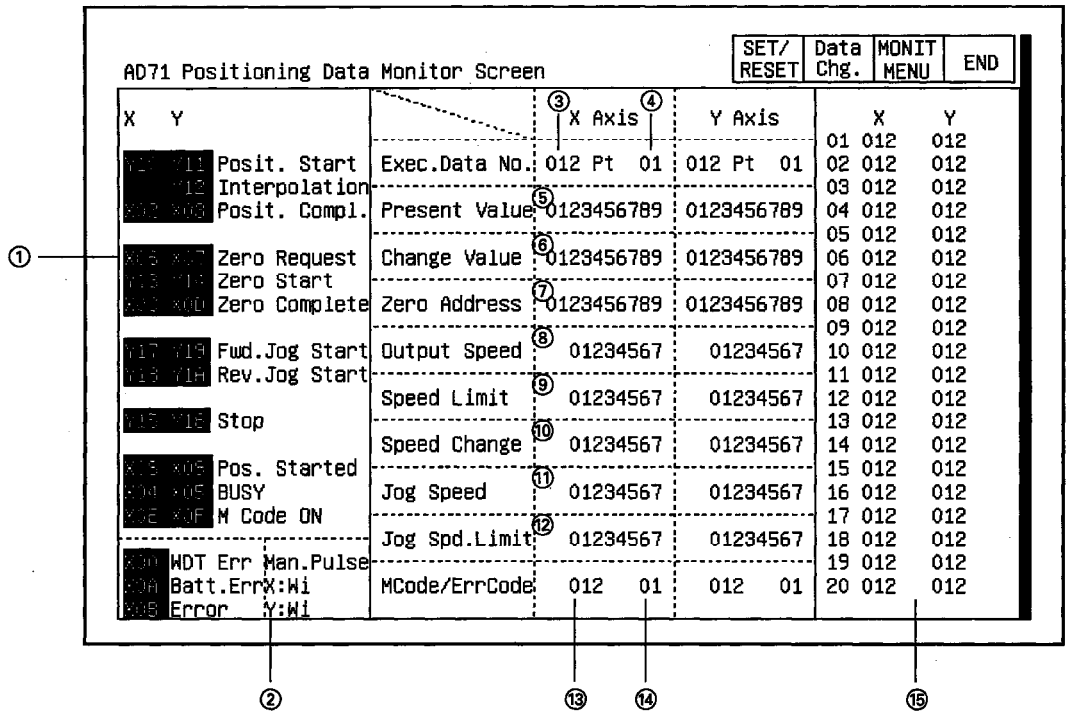
11.20.4 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

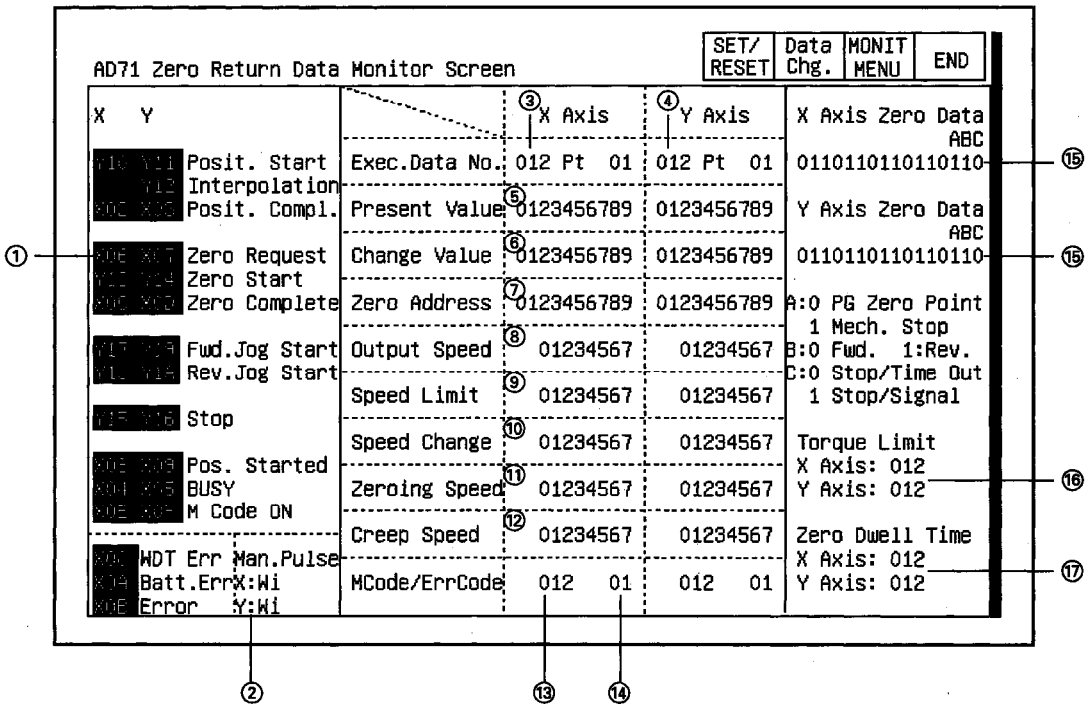
11.21 AD71 Module Monitor

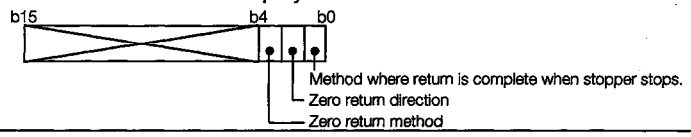
11.21.1 Positioning Monitor



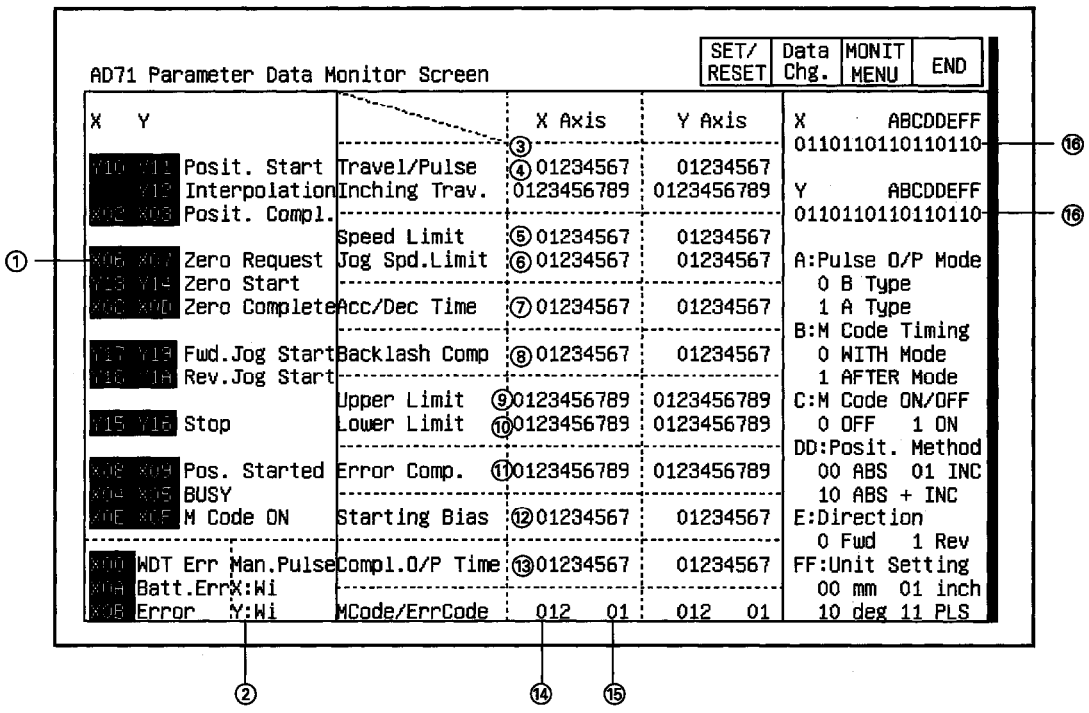
No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—	—
②	The set manual pulser run enabled/disabled status is displayed.	47	347
③	The data number during execution of current positioning is displayed.	48	348
④	The remaining pointer value is displayed.	39	339
⑤	The current value during execution of current positioning is displayed.	602 603	604 605
⑥	The change value of the current value is displayed.	41 42	341 342
⑦	The zero address set value is displayed.	7912 7913	7922 7923
⑧	The set value of the output speed is displayed.	600	601
⑨	The set value of the speed limit is displayed.	7874	7894
⑩	The change value of the speed change is displayed.	40	340
⑪	The set value of the jog speed is displayed.	44	344
⑫	The set value of the jog speed limit is displayed.	7875	7895
⑬	The set value of the M code is displayed. 0: M code not used	46	346
⑭	The error code is displayed when an error occurs.	45	345
⑮	The starting data number of each point is displayed.	0 to 37	300 to 337

11.21.2 Zero Return Monitor



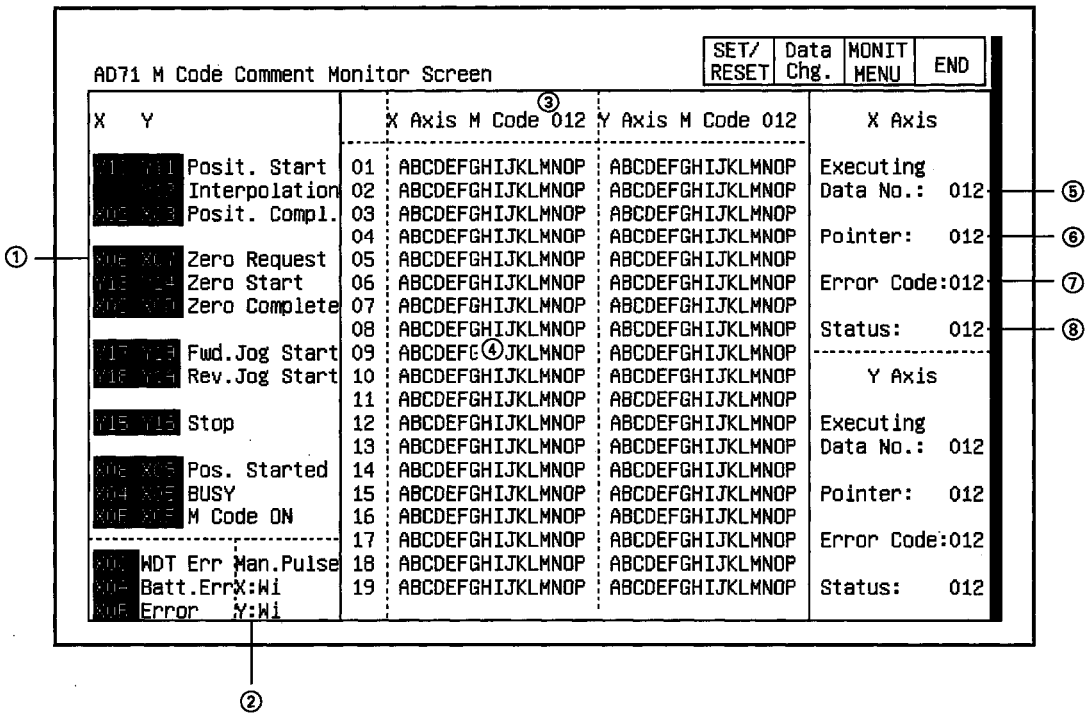
No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—	—
②	The set manual pulser run enabled/disabled status is displayed.	47	347
③	The data number during execution of current positioning is displayed.	48	348
④	The remaining pointer value is displayed.	39	339
⑤	The current value during execution of current positioning is displayed.	602 603	604 605
⑥	The change value of the current value is displayed.	41 42	341 342
⑦	The zero address set value is displayed.	7912 7913	7922 7923
⑧	The set value of the output speed is displayed.	600	601
⑨	The set value of the speed limit is displayed.	7874	7894
⑩	The change value of the speed change is displayed.	40	340
⑪	The set value of the zero return speed is displayed.	7914	7924
⑫	The set value of the zero return creep speed is displayed.	7915	7925
⑬	The set value of the M code is displayed. 0: M code not used	46	346
⑭	The error code is displayed when an error occurs.	45	345
⑮	The zero return data is displayed. 	7918	7928
⑯	The set value of the torque limit is displayed.	7917	7927
⑰	The set value of the dwell time is displayed.	7916	7926

11.21.3 Parameter Data Monitor



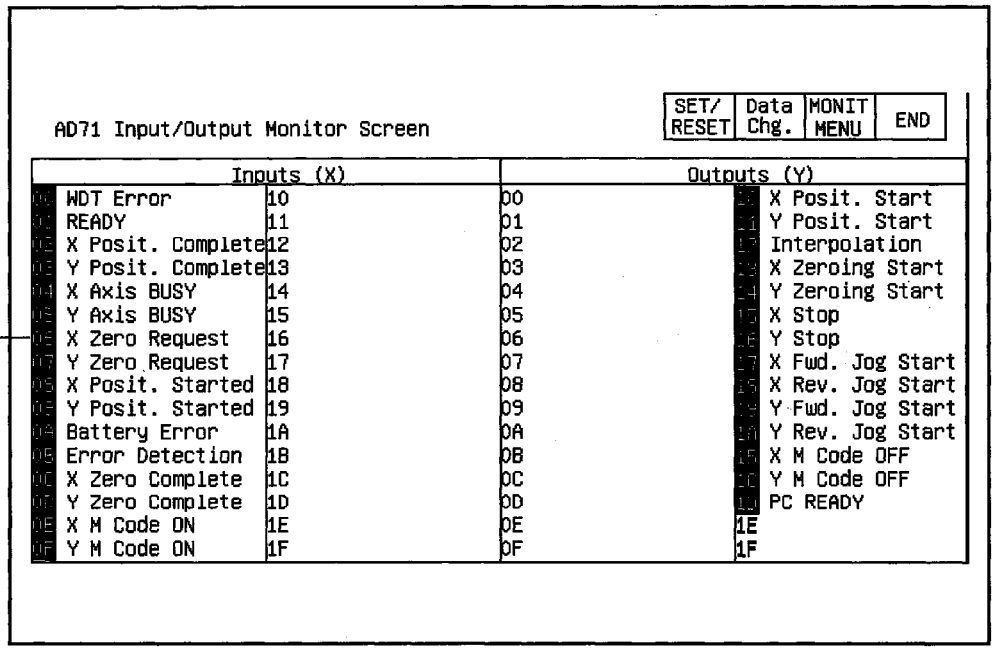
No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—	—
②	The set manual pulser run enabled/disabled status is displayed.	47	347
③	The set value of the travel distance per 1 pulse is displayed.	7873	7893
④	The set value of the travel distance per 1 pulse using the manual pulser is displayed.	7884 7885	7904 7905
⑤	The set value of the speed limit is displayed.	7874	7894
⑥	The set value of the jog speed limit is displayed.	7875	7895
⑦	The set value of the acceleration/deceleration time is displayed.	7876	7896
⑧	The set value of the backlash compensation amount is displayed.	7877	7897
⑨	The set value of the upper stroke limit is displayed.	7878 7879	7898 7899
⑩	The set value of the lower stroke limit is displayed.	7880 7881	7900 7901
⑪	The set value of the error compensation amount is displayed.	7882 7883	7902 7903
⑫	The set value of the starting bias speed is displayed.	7886	7906
⑬	The set value of the positioning complete signal output time is displayed.	7887	7907
⑭	The set value of the M code is displayed.	46	346
⑮	The error code is displayed when an error occurs.	45	345
⑯	The set status of the parameter data is displayed.	7872	7892

11.21.4 M Code Comment Monitor



No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—	—
②	The set manual pulser run enabled/disabled status is displayed.	47	347
③	The set value of the M code is displayed.	46	346
④	The set value of the comment for the M code is displayed.	49 to 200	349 to 500
⑤	The data number during execution of current positioning is displayed.	48	348
⑥	The remaining pointer value is displayed.	39	339
⑦	The error code is displayed when an error occurs.	45	345
⑧	The 8 bits where the status is saved are displayed in hexadecimal format. When "FF" is displayed b15 b0 1 1 1 1 1 1 1 1 "1" display conditions: Battery alarm; Zero return request; During dwell time; During positioning busy status (except for zero return, jog run, manual pulser run); Zero return complete; Near signal on; Drive module ready signal on; Stop signal from drive module on "0" display conditions: Not condition at left	43	343

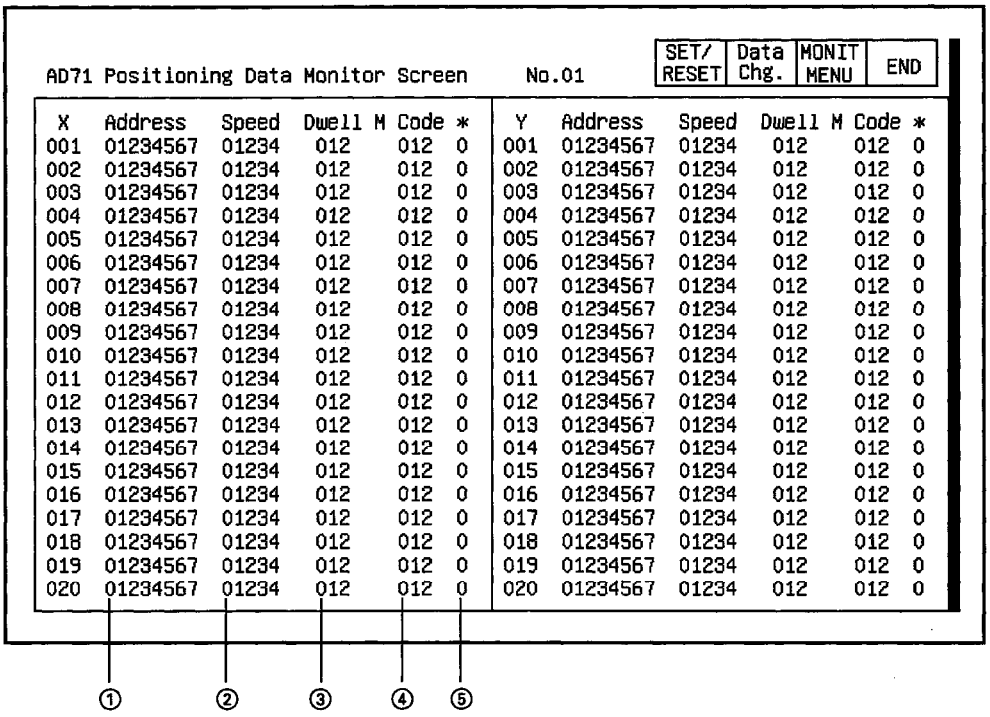
11.21.5 I/O Monitor

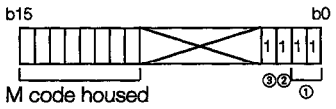


No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

11.21.6 Positioning Data Monitor

The positioning Data Monitor Screen No. 1 is used as an example.



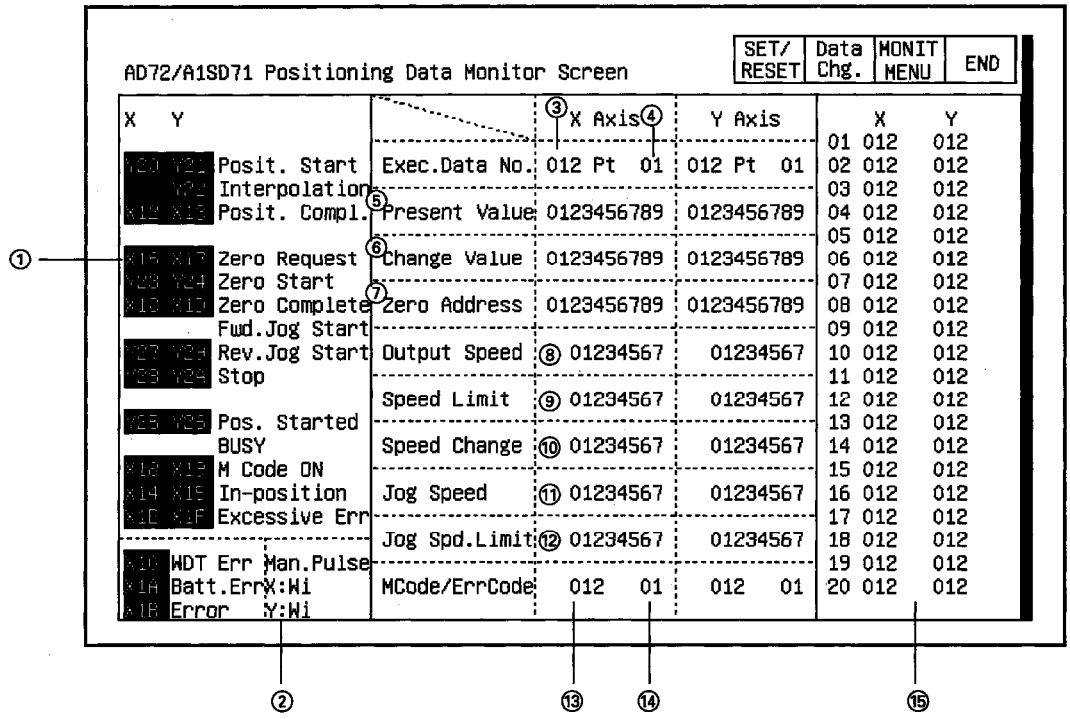
No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The set value of the positioning address for each data number is displayed.	5072 to 5111	7072 to 7111
②	The set value of the positioning speed for each data number is displayed.	4272 to 4291	6272 to 6291
③	The set value of the dwell time for each data number is displayed.	4672 to 4691	6672 to 6691
④	The set value of the M code for each data number is displayed.	3872 to 3891	5872 to 5891
⑤	The 4 bits where the set status of the positioning pattern, the positioning method, and the positioning direction for each data number is stored are displayed in hexadecimal format. When "F" is displayed  ① Positioning pattern 00: Positioning complete 01: Positioning continues 11: Speed changes and positioning continues ② Positioning method 0: Absolute 1: Incremental ③ Positioning direction (only valid in incremental mode) 0: Forward direction (address increase direction) 1: Reverse direction (address decrease direction)	3872 to 3891	5872 to 5891

11.22 AD72, A1SD71 Module Monitor

The contents displayed on each monitor of the AD72 module and the A1SD71 module are nearly identical, except for the sections displaying the module format.

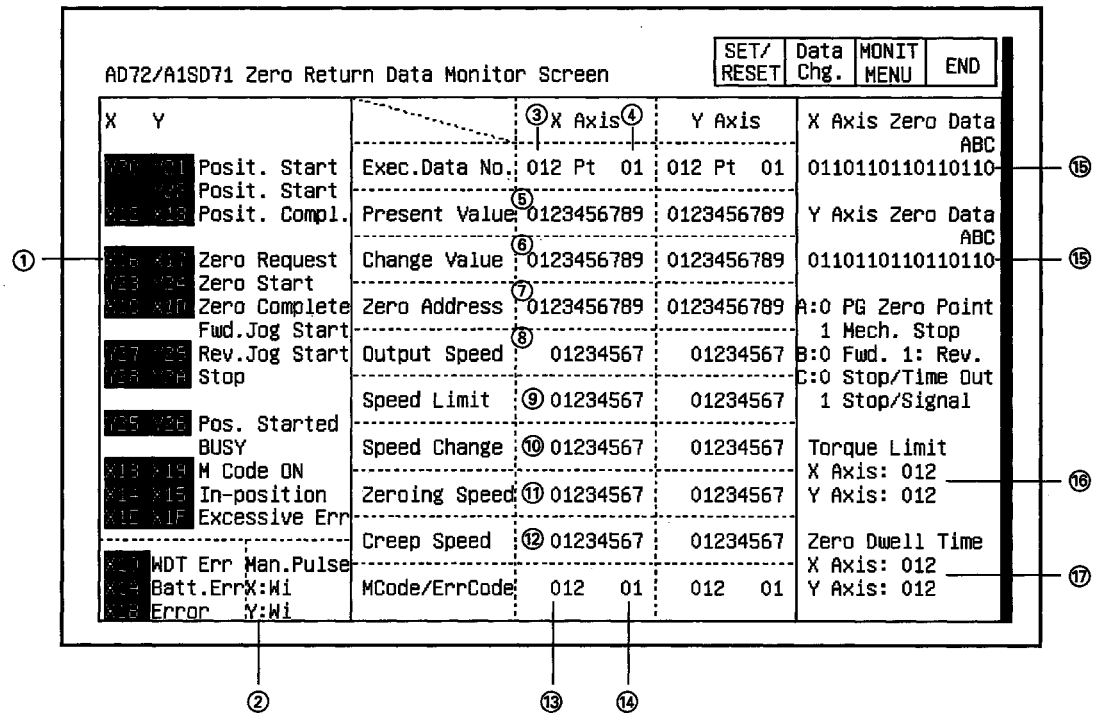
The AD72 module monitor screen is used as an example in each of the following sections.

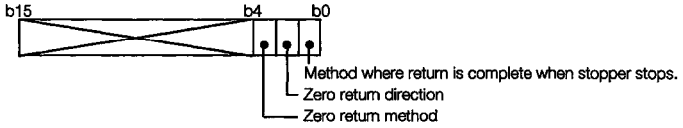
11.22.1 Positioning Monitor



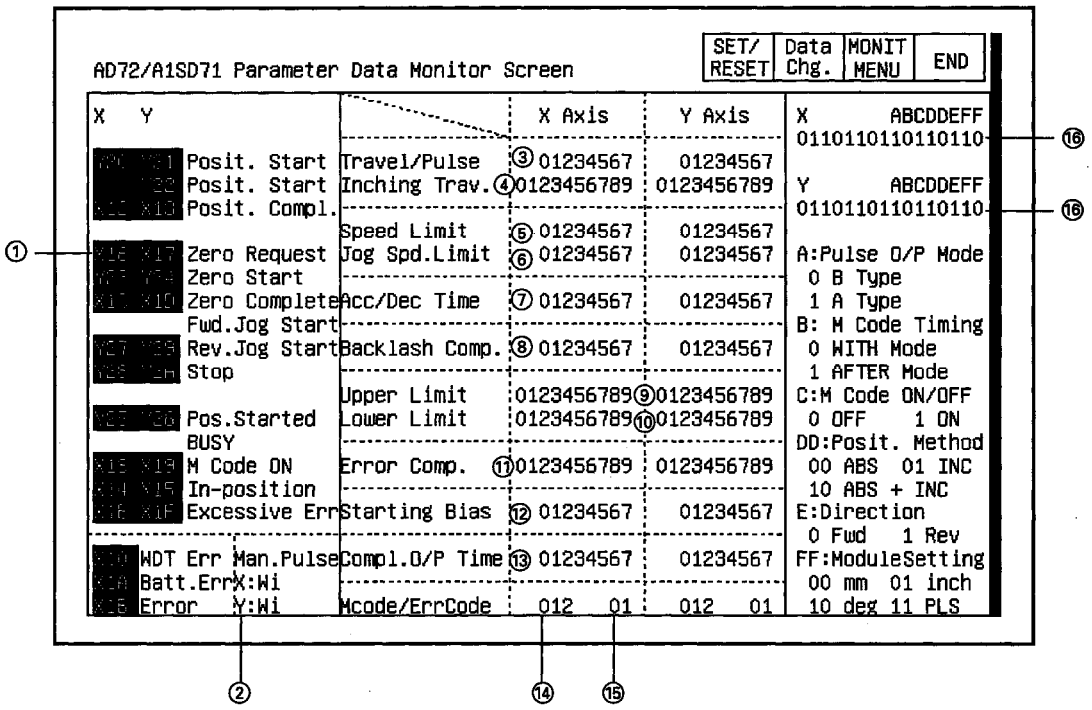
No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—	—
②	The set manual pulser run enabled/disabled status is displayed.	47	347
③	The data number during execution of current positioning is displayed.	48	348
④	The remaining pointer value is displayed.	39	339
⑤	The current value during execution of current positioning is displayed.	602 603	604 605
⑥	The change value of the current value is displayed.	41 42	341 342
⑦	The zero address set value is displayed.	7912 7913	7922 7923
⑧	The set value of the output speed is displayed.	600	601
⑨	The set value of the speed limit is displayed.	7874	7894
⑩	The change value of the speed change is displayed.	40	340
⑪	The set value of the jog speed is displayed.	44	344
⑫	The set value of the jog speed limit is displayed.	7875	7895
⑬	The set value of the M code is displayed. 0: M code not used	46	346
⑭	The error code is displayed when an error occurs.	45	345
⑮	The starting data number of each point is displayed.	0 to 37	300 to 337

11.22.2 Zero Return Monitor



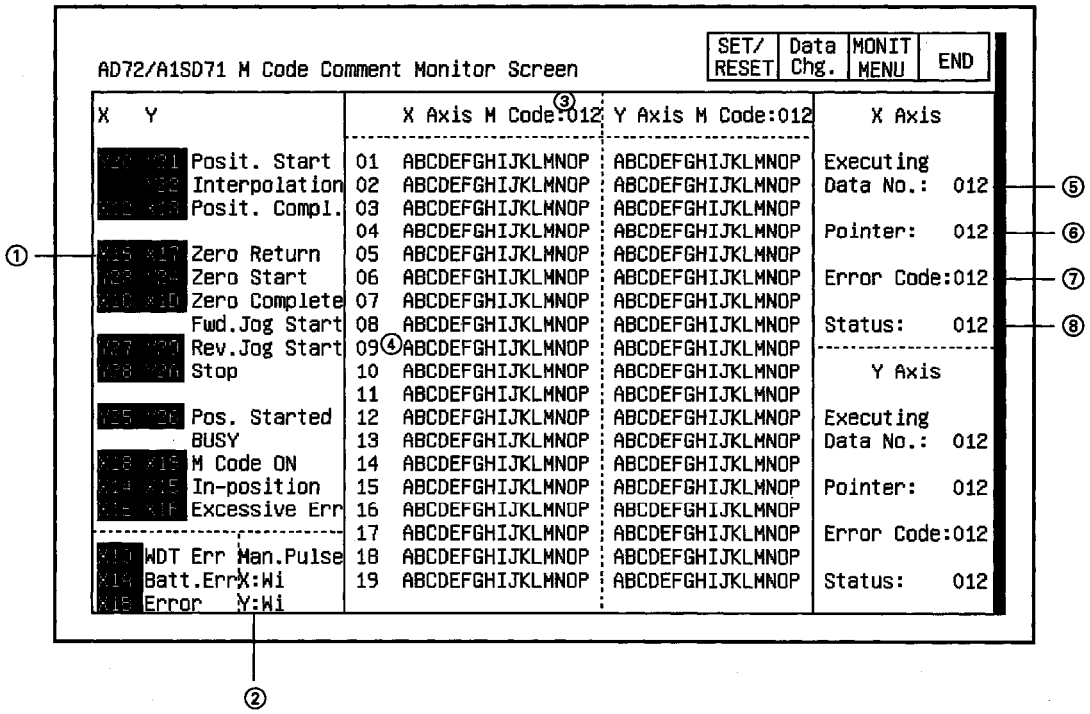
No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—	—
②	The set manual pulser run enabled/disabled status is displayed.	47	347
③	The data number during execution of current positioning is displayed.	48	348
④	The remaining pointer value is displayed.	39	339
⑤	The current value during execution of current positioning is displayed.	602 603	604 605
⑥	The change value of the current value is displayed.	41 42	341 342
⑦	The zero address set value is displayed.	7912 7913	7922 7923
⑧	The set value of the output speed is displayed.	600	601
⑨	The set value of the speed limit is displayed.	7874	7894
⑩	The change value of the speed change is displayed.	40	340
⑪	The set value of the zero return speed is displayed.	7914	7924
⑫	The set value of the zero return creep speed is displayed.	7915	7925
⑬	The set value of the M code is displayed. 0: M code not used	46	346
⑭	The error code is displayed when an error occurs.	45	345
⑮	The zero return data is displayed. Method where return is complete when stopper stops 	7918	7928
⑯	The set value of the torque limit is displayed.	7917	7927
⑰	The set value of the dwell time is displayed.	7916	7926

11.22.3 Parameter Data Monitor



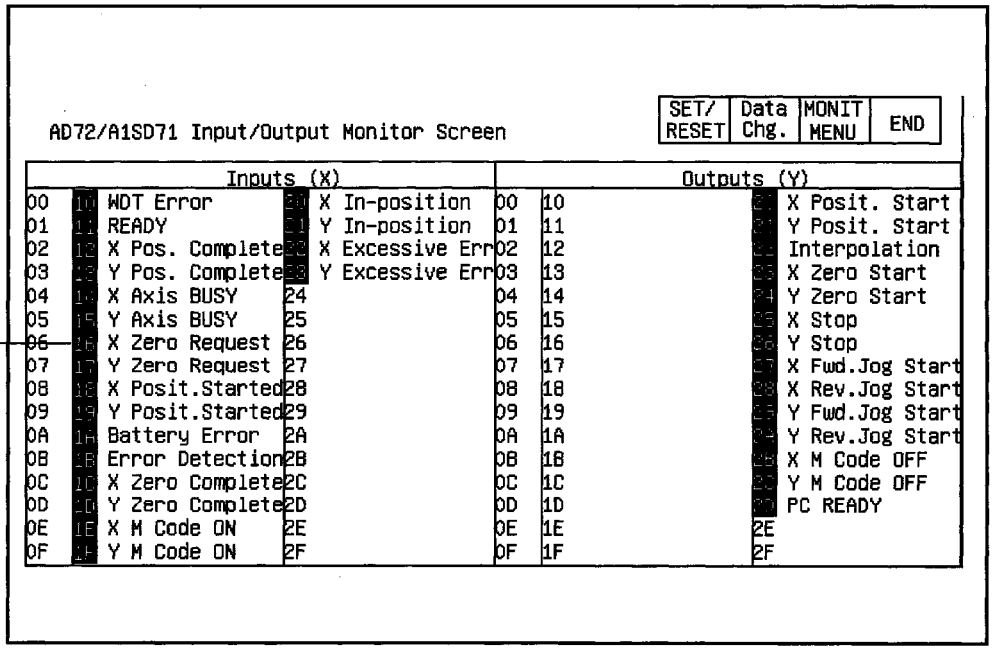
No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—	—
②	The set manual pulser run enabled/disabled status is displayed.	47	347
③	The set value of the travel distance per 1 pulse is displayed.	7873	7893
④	The set value of the travel distance per 1 pulse using the manual pulser is displayed.	7884 7885	7904 7905
⑤	The set value of the speed limit is displayed.	7874	7894
⑥	The set value of the jog speed limit is displayed.	7875	7895
⑦	The set value of the acceleration/deceleration time is displayed.	7876	7896
⑧	The set value of the backlash compensation amount is displayed.	7877	7897
⑨	The set value of the upper stroke limit is displayed.	7878 7879	7898 7899
⑩	The set value of the lower stroke limit is displayed.	7880 7881	7900 7901
⑪	The set value of the error compensation amount is displayed.	7882 7883	7902 7903
⑫	The set value of the starting bias speed is displayed.	7886	7906
⑬	The set value of the positioning complete signal output time is displayed.	7887	7907
⑭	The set value of the M code is displayed. 0: M code not used	46	346
⑮	The error code is displayed when an error occurs.	45	345
⑯	The set status of the parameter data is displayed.	7872	7892

11.22.4 M Code Comment Monitor



No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.	—	—
②	The set manual pulser run enabled/disabled status is displayed.	47	347
③	The set value of the M code is displayed.	46	346
④	The set value of the comment for the M code is displayed.	49 to 200	349 to 500
⑤	The data number during execution of current positioning is displayed.	48	348
⑥	The remaining pointer value is displayed.	39	339
⑦	The error code is displayed when an error occurs.	45	345
⑧	The 8 bits where the status is saved are displayed in hexadecimal format. When "FF" is displayed b15 b0 1 1 1 1 1 1 1 1 "1" display conditions: Battery alarm; Zero return request; During dwell time; During positioning busy status (except for zero return, jog run, manual pulser run); Zero return complete; Near signal on; Drive module ready signal on; Stop signal from drive module on "0" display conditions: Not condition at left	43	343

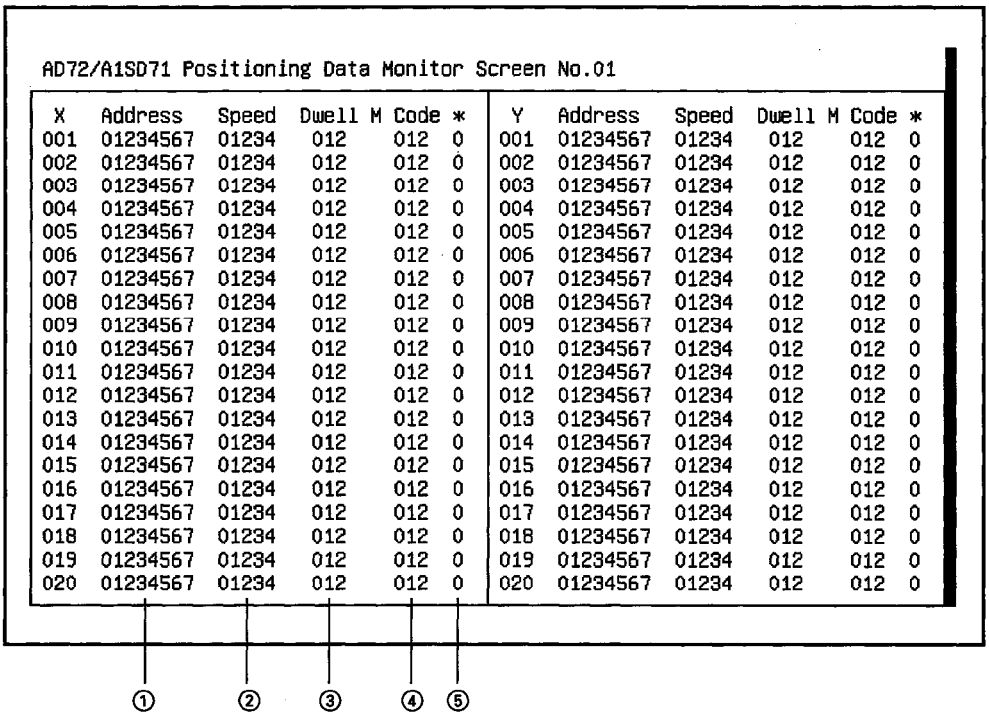
11.22.5 I/O Monitor

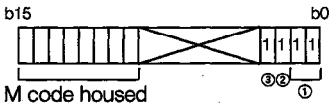


No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

11.22.6 Positioning Data Monitor

The Positioning Data Monitor Screen No. 1 is used as an example.



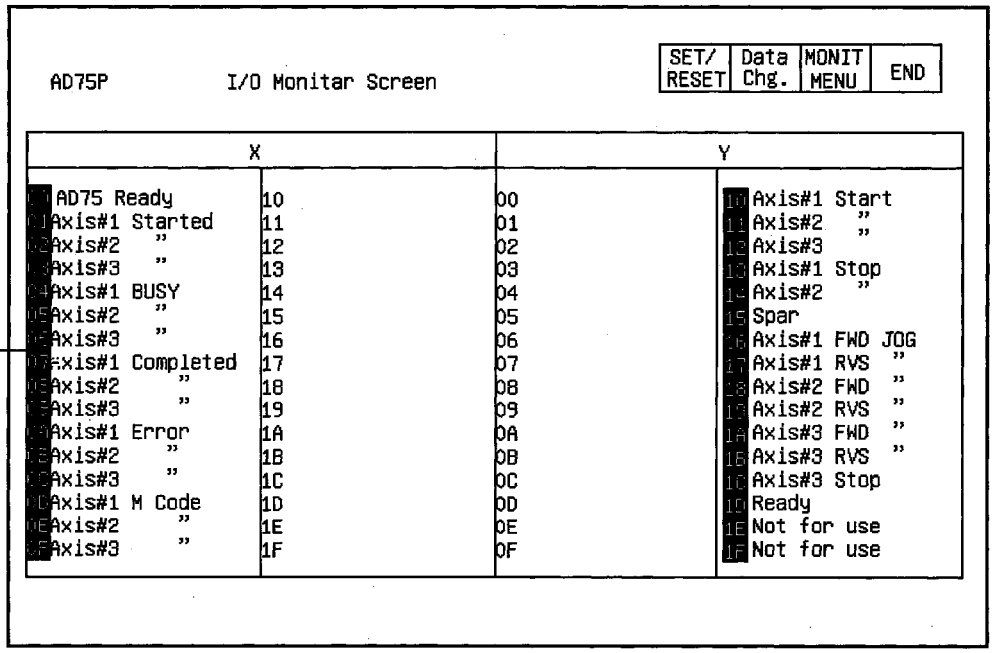
No.	Contents of display	Buffer memory address to reference (decimal)	
		X axis	Y axis
①	The set value of the positioning address for each data number is displayed.	5072 to 5111	7072 to 7111
②	The set value of positioning speed for each data number is displayed.	4272 to 4291	6272 to 6291
③	The set value of the dwell time for each data number is displayed.	4672 to 4691	6672 to 6691
④	The set value of the M code for each data number is displayed.	3872 to 3891	5872 to 5891
⑤	The 4 bits where the set status of the positioning pattern, the positioning method, and the positioning direction for each data number is stored are displayed in hexadecimal format. When "F" is displayed  ① Positioning pattern 00: Positioning complete 01: Positioning continues 11: Speed changes and positioning continues ② Positioning method 0: Absolute 1: Incremental ③ Positioning direction (only valid in incremental mode) 0: Forward direction (address increase direction) 1: Reverse direction (address decrease direction)	3872 to 3891	5872 to 5891

11.23 AD75, A1SD75 Module Monitor

The contents displayed on each monitor of the AD75P1 (P2, P3) module and the A1SD75P1 (P2, P3) module are nearly identical, except for the sections displaying the module format.

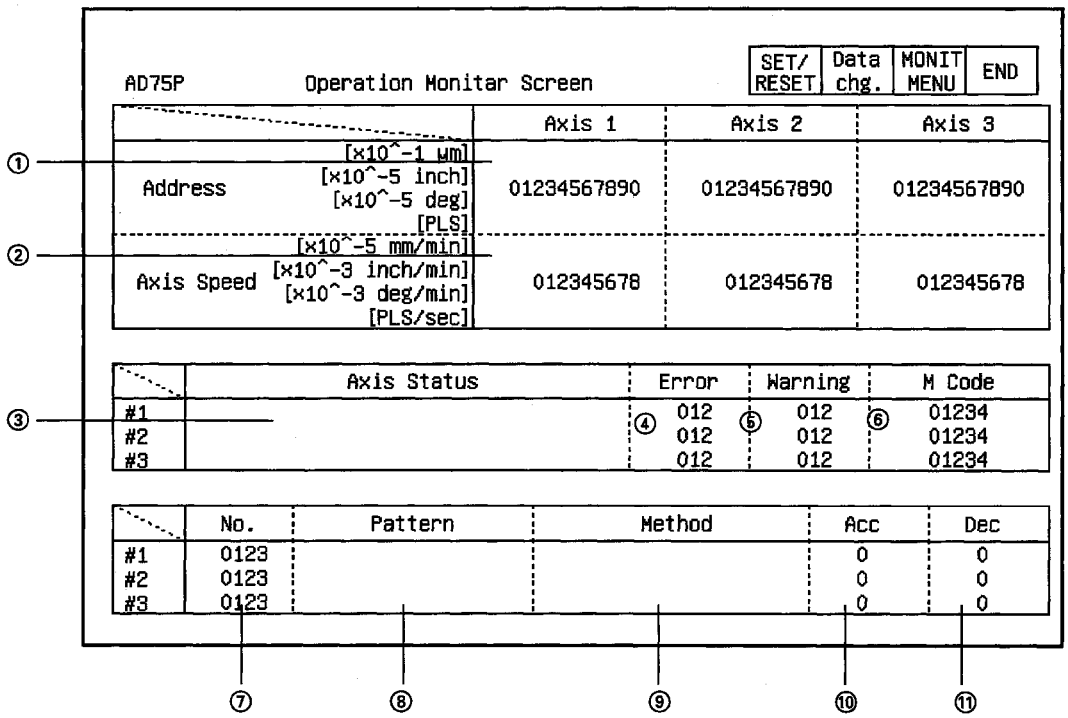
The AD75P3 module monitor screen is used as an example in this section.

11.23.1 I/O Monitor



No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU is displayed. The I/O signal is ON when displayed in a reverse display.

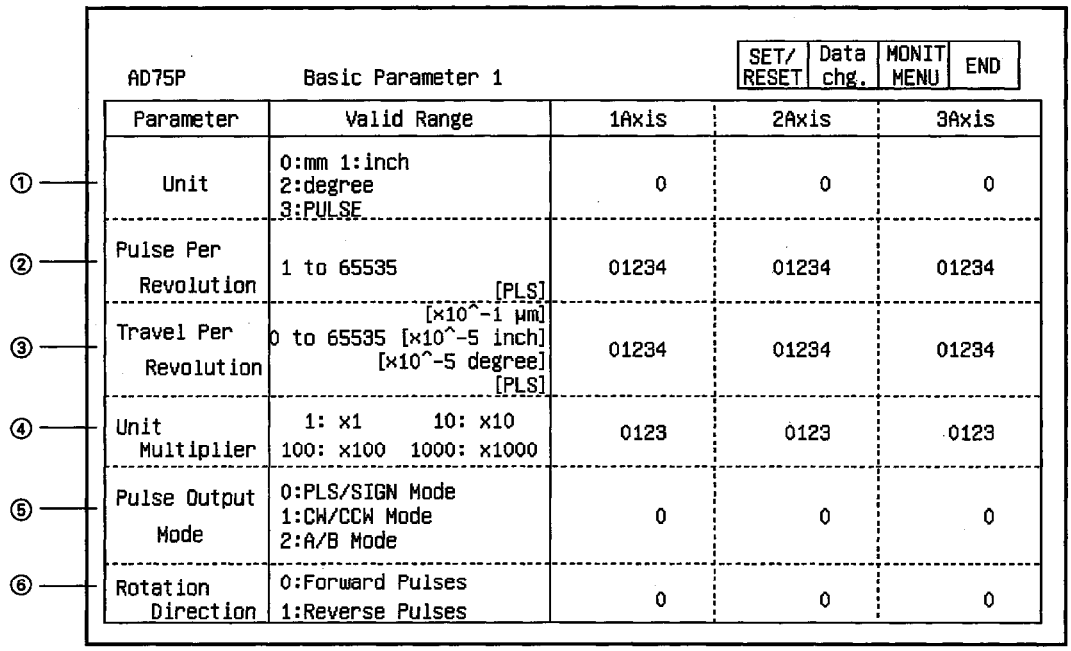
11.23.2 Operation Monitor



No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The feed current value is displayed.	800 801	900 901	1000 1001
②	The axis speed is displayed.	812 813	912 913	1012 1013
③	The axis operation status is displayed.	809	909	1009
④	The axis error No. is displayed when an axis error occurs.	807	907	1007
⑤	The axis warning No. is displayed when an axis warning occurs.	808	908	1008
⑥	The M code (valid M code) that is set in the data during positioning is displayed.	806	906	1006
⑦	Positioning data No. during positioning is displayed. (The actual data No. is also displayed when specified indirectly.)	835	935	1035
⑧ ⑨ ⑩ ⑪	The positioning identifier of the positioning data during positioning is displayed. Bit 15 to 8 7 6 5 4 3 to 0 ⑨ ⑪ ⑩ ⑧ Operation pattern Acceleration time no. Deceleration time no. Data control method	838	938	1038

11.23.3 Basic Parameter Monitor

(1) Basic Parameter 1



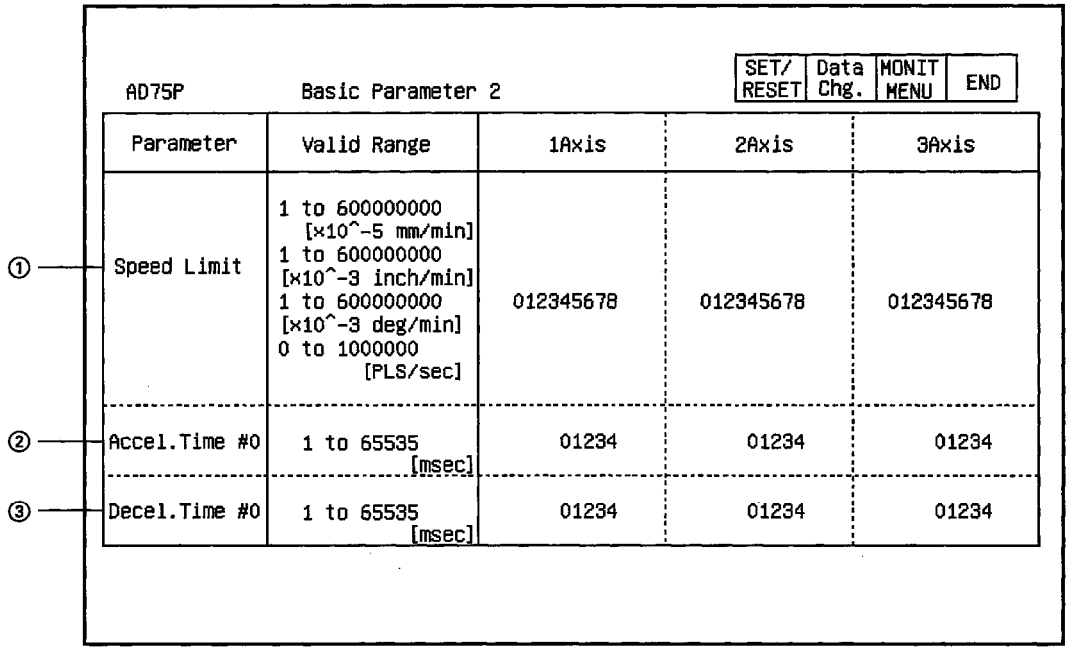
AD75P Basic Parameter 1

SET/RESET | Data chg. | MONIT MENU | END

	Parameter	Valid Range	1Axis	2Axis	3Axis
①	Unit	0:mm 1:inch 2:degree 3:PULSE	0	0	0
②	Pulse Per Revolution	1 to 65535 [PLS]	01234	01234	01234
③	Travel Per Revolution	[×10^-1 μm] 0 to 65535 [×10^-5 inch] [×10^-5 degree] [PLS]	01234	01234	01234
④	Unit Multiplier	1: x1 10: x10 100: x100 1000: x1000	0123	0123	0123
⑤	Pulse Output Mode	0:PLS/SIGN Mode 1:CW/CCW Mode 2:A/B Mode	0	0	0
⑥	Rotation Direction	0:Forward Pulses 1:Reverse Pulses	0	0	0

No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The command module for positioning control is displayed.	0	150	300
②	The pulse number per 1 revolution of the motor determined by the machine system is displayed.	1	151	301
③	The travel distance per 1 revolution of the motor determined by the machine system is displayed.	2	152	302
④	The multiplier of the travel distance per 1 pulse is displayed.	3	153	303
⑤	The pulse output mode is displayed.	4	154	304
⑥	The direction of rotation when the current value is increased is displayed.	5	155	305

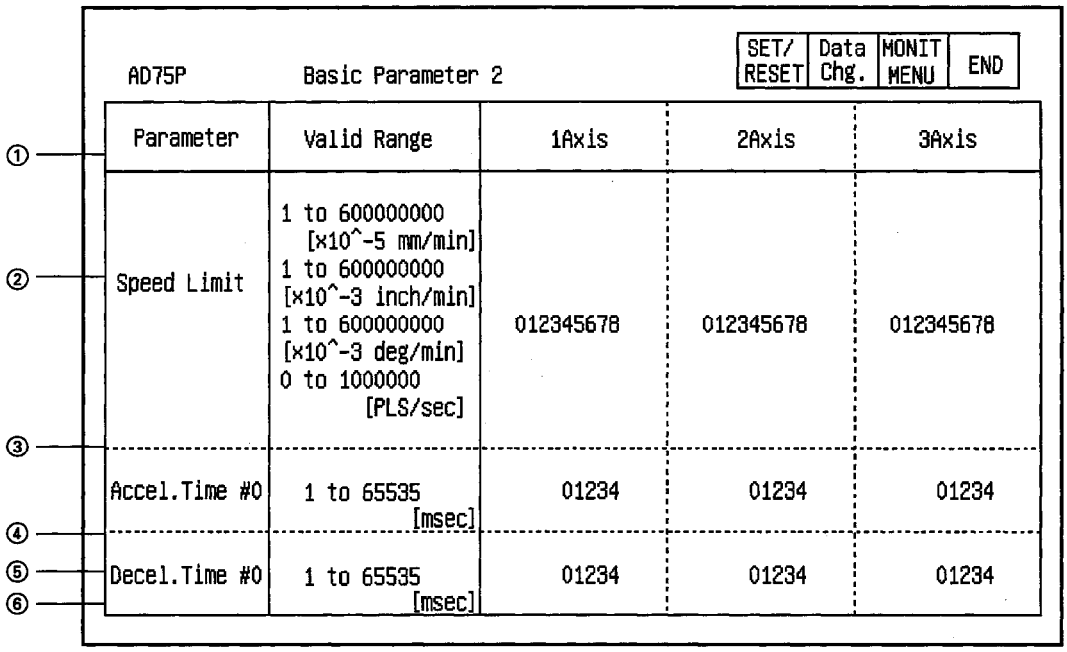
(2) Basic parameter 2



No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The maximum speed for the positioning operation (also including zero return) and the manual pulser operation is displayed.	6 7	156 157	306 307
②	With the positioning operation, the acceleration time 0 from speed 0 until the speed limit has been attained is displayed.	8 9	158 159	308 309
③	With the positioning operation, the deceleration time 0 from the speed limit to 0 speed is displayed.	10 11	160 161	310 311

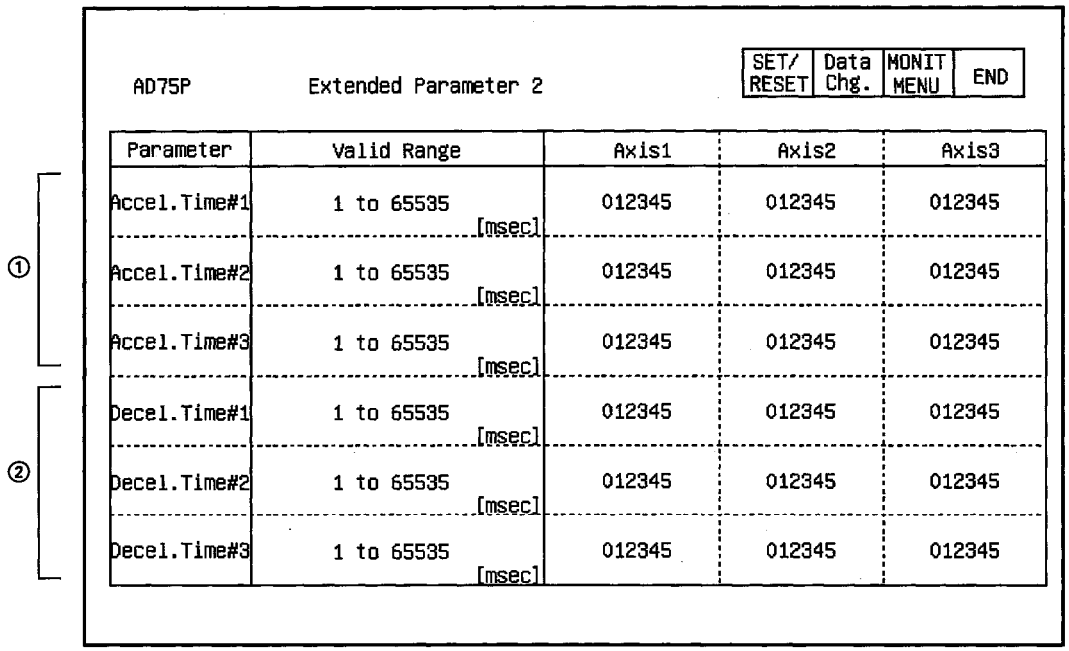
11.23.4 Extended Parameter Monitor

(1) Extended Parameter 1



No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The machine backlash compensation amount when the positioning direction changes is displayed.	15	165	315
②	The upper limit of the range that the machine can travel is displayed. (Software stroke upper limit)	16 17	166 167	316 317
③	The lower limit of the range that the machine can travel is displayed. (Software stroke lower limit)	18 19	168 169	318 319
④	This shows whether the software stroke limit is applied to the feed current value or the feed machine value. Check the feed current value with the operation monitor (Sec. 11.23.1). Check the feed machine value with the target value and the machine value monitor (Sec. 11.23.13).	20	170	320
⑤	This shows whether the software stroke limit for the jog operation and the manual pulser operation is enabled/disabled.	21	171	321
⑥	The torque limit is displayed.	24	174	324

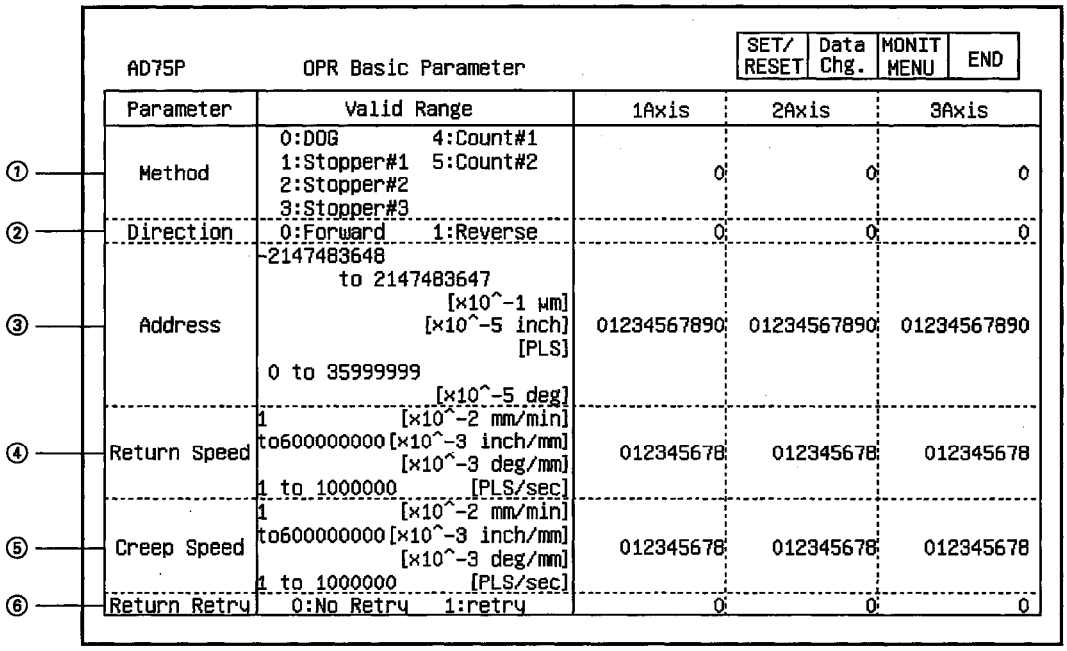
(2) Extended Parameter 2



No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	With the positioning operation, acceleration time 1 through acceleration time 3 from speed 0 until the speed limit is attained is displayed.	36 to 41	186 to 191	336 to 341
②	With the positioning operation, deceleration time 1 through deceleration time 3 from the speed limit to 0 speed is displayed.	42 to 47	192 to 197	342 to 347

11.23.5 Zero Return Parameter Monitor

(1) Basic parameters for zero return



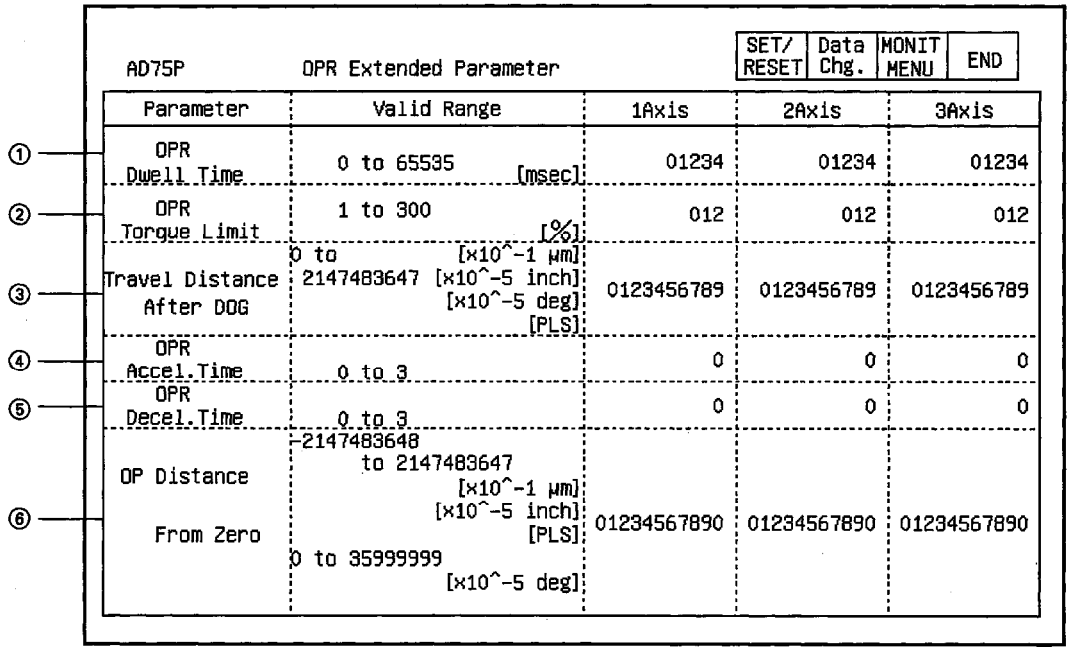
AD75P OPR Basic Parameter

SET/RESET | Data Chg. | MONIT MENU | END

	Parameter	Valid Range	1Axis	2Axis	3Axis
①	Method	0:DOG 4:Count#1 1:Stopper#1 5:Count#2 2:Stopper#2 3:Stopper#3	0	0	0
②	Direction	0:Forward 1:Reverse	0	0	0
③	Address	-2147483648 to 2147483647 [×10^-1 μm] [×10^-5 inch] [PLS] 0 to 35999999 [×10^-5 deg]	01234567890	01234567890	01234567890
④	Return Speed	1 [×10^-2 mm/min] to600000000 [×10^-3 inch/mm] [×10^-3 deg/mm] 1 to 1000000 [PLS/sec]	012345678	012345678	012345678
⑤	Creep Speed	1 [×10^-2 mm/min] to600000000 [×10^-3 inch/mm] [×10^-3 deg/mm] 1 to 1000000 [PLS/sec]	012345678	012345678	012345678
⑥	Return Retry	0:No Retry 1:retry	0	0	0

No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The zero return method is displayed.	70	220	370
②	The zero return direction is displayed. Forward: address increase direction Reverse: address decrease direction	71	221	371
③	The zero address that is set when the zero return is complete is displayed.	72 73	222 223	372 373
④	The maximum speed for the zero return is displayed.	74 75	224 225	374 375
⑤	The creep speed after the near signal turns on is displayed. (speed before zero return is complete)	76 77	226 227	376 377
⑥	This indicates whether or not to retry the zero return with the zero return retry function.	78	228	378

(2) Detailed parameters for origin return



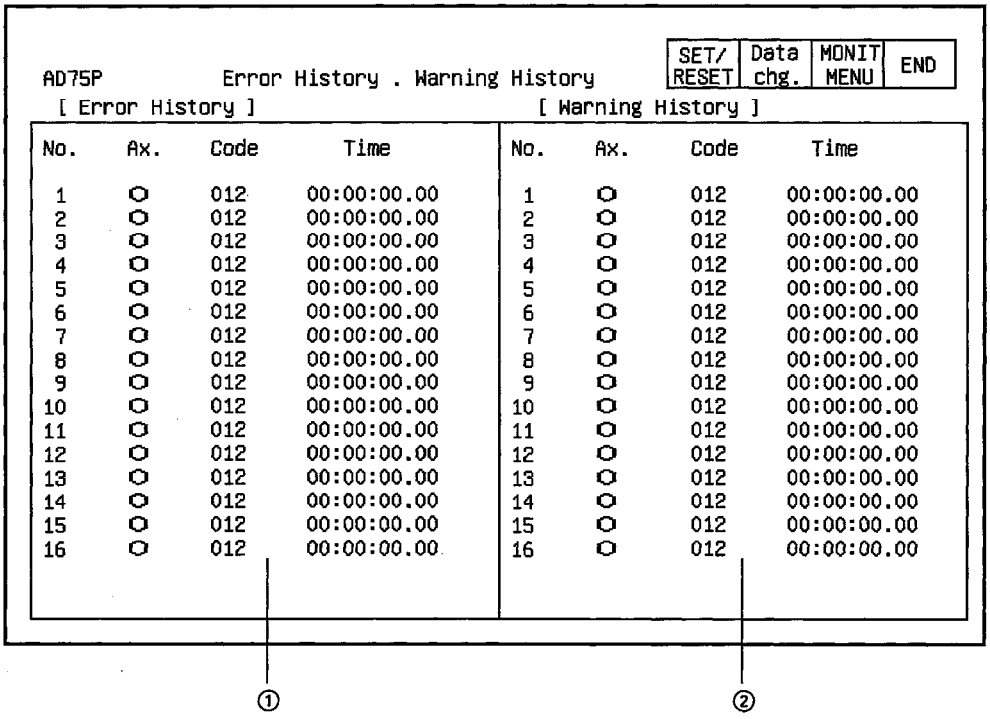
AD75P OPR Extended Parameter

SET/RESET | Data Chg. | MONIT MENU | END

	Parameter	Valid Range	1Axis	2Axis	3Axis
①	OPR Dwell Time	0 to 65535 [msec]	01234	01234	01234
②	OPR Torque Limit	1 to 300 [%]	012	012	012
③	Travel Distance After DOG	0 to 2147483647 [x10^-1 μm] [x10^-5 inch] [x10^-5 deg] [PLS]	0123456789	0123456789	0123456789
④	OPR Accel.Time	0 to 3	0	0	0
⑤	OPR Decel.Time	0 to 3	0	0	0
⑥	OP Distance From Zero	-2147483648 to 2147483647 [x10^-1 μm] [x10^-5 inch] [PLS] 0 to 35999999 [x10^-5 deg]	01234567890	01234567890	01234567890

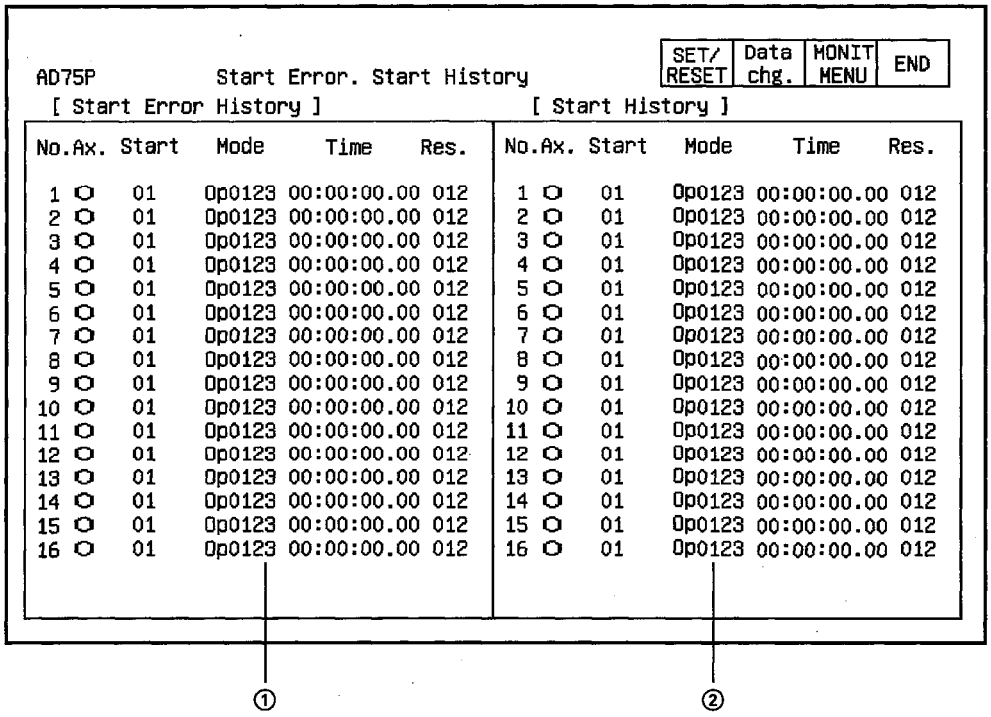
No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The time from when the proximity dog goes ON to when the origin point return is completed is displayed. (for stopper stop ①)	79	229	379
②	The restriction value used to limit the torque of the servo motor after reaching the creeping speed is displayed.	86	236	386
③	The amount of movement after the proximity dog goes ON is displayed. (for count equation)	80 81	230 231	380 381
④	The display shows which acceleration time, 0 to 3 (basically, this is set using the detailed parameters) is to be used as the acceleration time when making an origin point return.	82	232	382
⑤	The display shows which deceleration time, 0 to 3 (basically, this is set using the detailed parameters) is to be used as the deceleration time when making an origin point return.	83	233	383
⑥	The shift amount (amount of movement) for an origin point shift is displayed.	84 85	234 235	384 385

11.23.6 Monitoring the Error History and Warning History



No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The error history is displayed. Axis : No. of axis on which error occurred Code : Code for error which occurred (decimal) Time : Time at which error occurred	624 to 687 (624, 628···) (625, 629···) (626, 630···)		
②	The warning history is displayed. Axis : No. of axis on which warning occurred Code : Code for warning which occurred (decimal) Time : Time at which warning occurred	689 to 752 (689, 693···) (690, 694···) (691, 695···)		

11.23.7 Monitoring the Error Termporary Startup History and Startup History



No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The error startup history is displayed. Axis : Startup axis no. Startup source : Source which initiates startup (*1) 00: PC CPU (Y) 01: External signal 10: Peripheral equipment (AD75P) Type of operation : Type of operation at startup (*2) If restarting from a stopped status, "Re" is displayed just before this. Time : Startup time (hour: minutes: seconds: 100 milliseconds) Judgment : Error code when startup error occurred (decimal) The numeric values of the least significant 14 bits of the buffer memory are displayed.	543 to 622 (543, 548···) (544, 549···) (544, 549···) (545 · 546, 550 · 551···) (547, 552···)		
②	The startup history is displayed. (The contents of the display are the same as in ①.) Axis : Startup axis no. Startup source : Source which initiates startup (*1) Type of operation : Type of operation at startup (*2) Time : Startup time (hour: minutes: seconds: 100 milliseconds) Judgment : Error code when startup error occurred (decimal)	462 to 541 (462, 467···) (463, 468···) (463, 468···) (464 · 465, 469 · 470···) (466, 471···)		

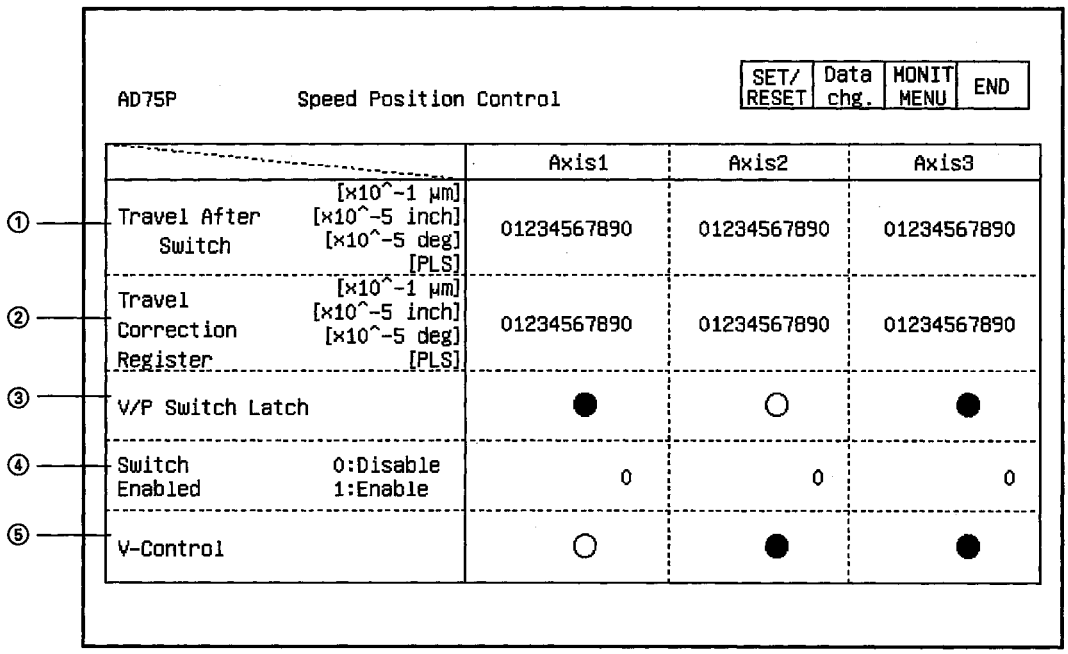
*1 The display is based on the data in Bits 13 and 14 of the object buffer memory.

*2 The correspondance between the numeric value displayed in the "Operation Type" column and the type of startup is shown below. The display is based on the data in Bits 0 to 12 of the object buffer memory.

Data no.	Type of startup	Remarks
1 to 600	Startup with positioning operation	Indicates the data number at the time of startup
7000	Startup with block positioning operation	———
8051	Startup with origin point return	
8052	Startup with high-speed origin point return	
8053	Startup with change in current value	
8160	Startup with jogging operation	
8161	Startup with manual pulser operation	

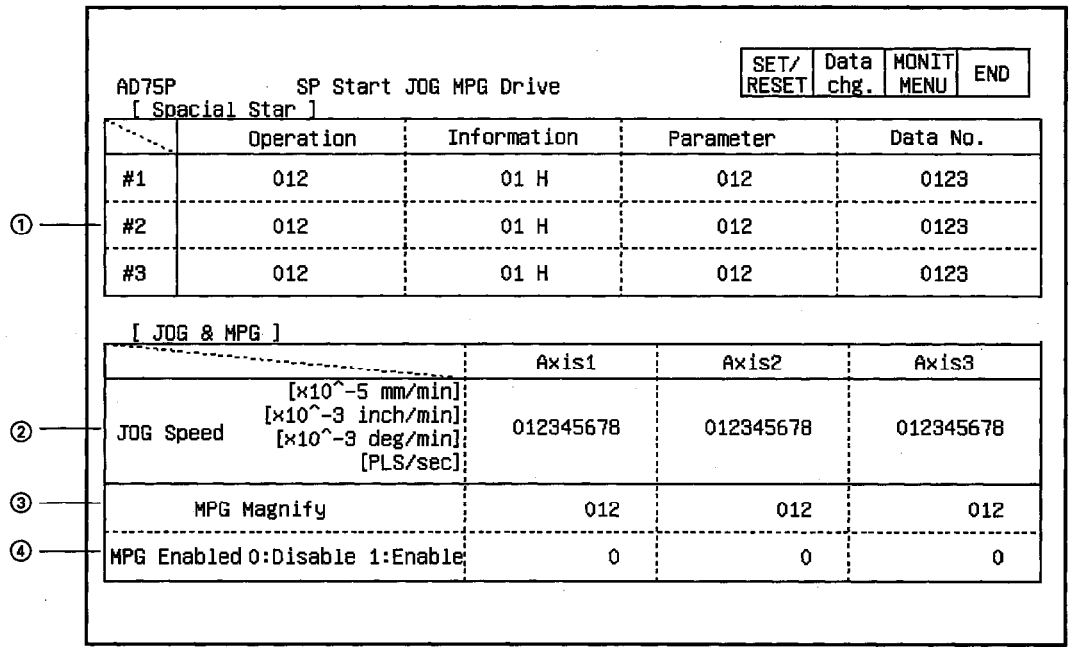
Items with the "Re" prefix are displayed based on the data of Bit 15 of the object buffer memory.

11.23.8 Monitoring Speed/Position Control



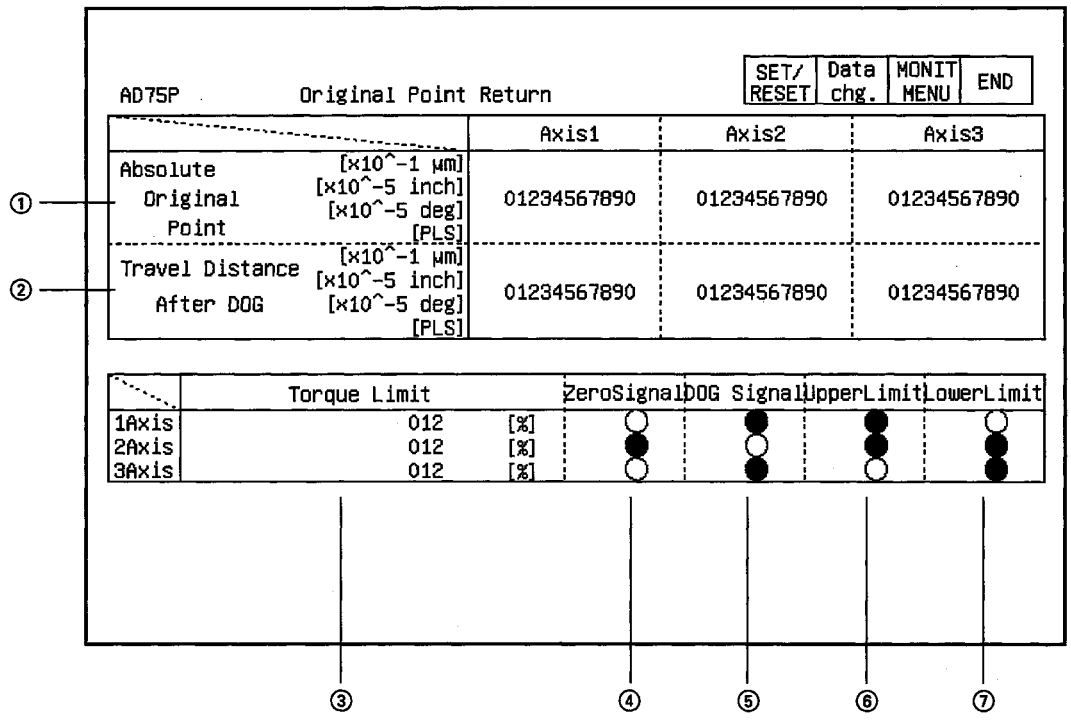
No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The address (amount of movement) for position control in speed/position changing control is displayed.	814 815	914 915	1014 1015
②	The changed value is displayed when the position control address (amount of movement) in the speed control function is changed in speed/position changing control.	1164 1165	1214 1215	1264 1265
③	The ON/OFF status of the speed/position changing latch flag (the flag indicating the control status) is displayed. (The status of Bit 1 of the pertinent buffer memory is displayed.) ● :Position control in progress ○ :Speed control in progress/positioning is in progress in another control method or operation method (such as jogging)	817	917	1017
④	This displays whether control switching in response to an external signal is effective or not in speed/position changing control. 1 :Switching is permitted 0 :Switching is not permitted	1163	1213	1263
⑤	The ON/OFF status flag during speed control (the flag indicating the control status) is displayed. (The status of Bit 0 of the pertinent buffer memory is displayed.) ● :Speed control in progress ○ :Position control in progress/positioning is in progress in another control method or operation method (such as jogging)	817	917	1017

11.23.9 Monitoring Special Startup, Jogging, and Manual Pulser Operation



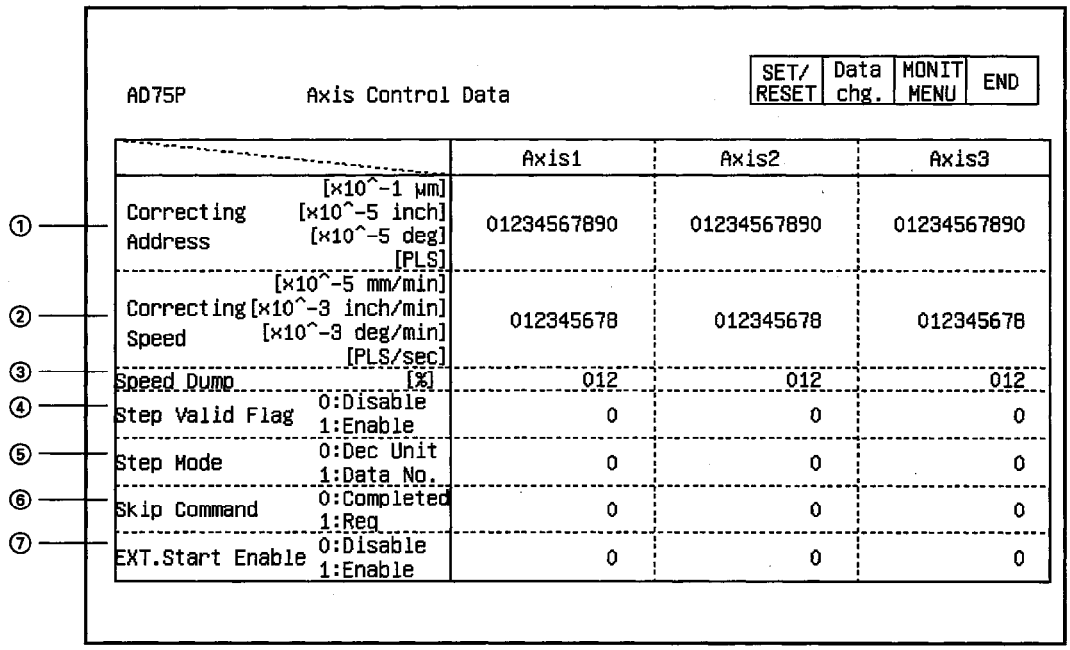
No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The information for the special startup currently in progress is displayed. Operation : Startup data pointer Information : Command code of the special startup data specified by the startup data pointer Parameter : Parameters for the special startup data specified by the startup data pointer Data No. : Positioning data number specified by the startup data pointer	832 827 828 829	932 927 928 929	1032 1027 1028 1029
②	The jogging speed used during jogging operation is displayed.	1160 1161	1210 1211	1260 1261
③	The input magnification per one pulse from the manual pulser is displayed.	1168 1169	1218 1219	1268 1269
④	The display shows whether or not manual pulser operation is permitted.	1167	1217	1267

11.23.10 Monitoring an Origin Point Return



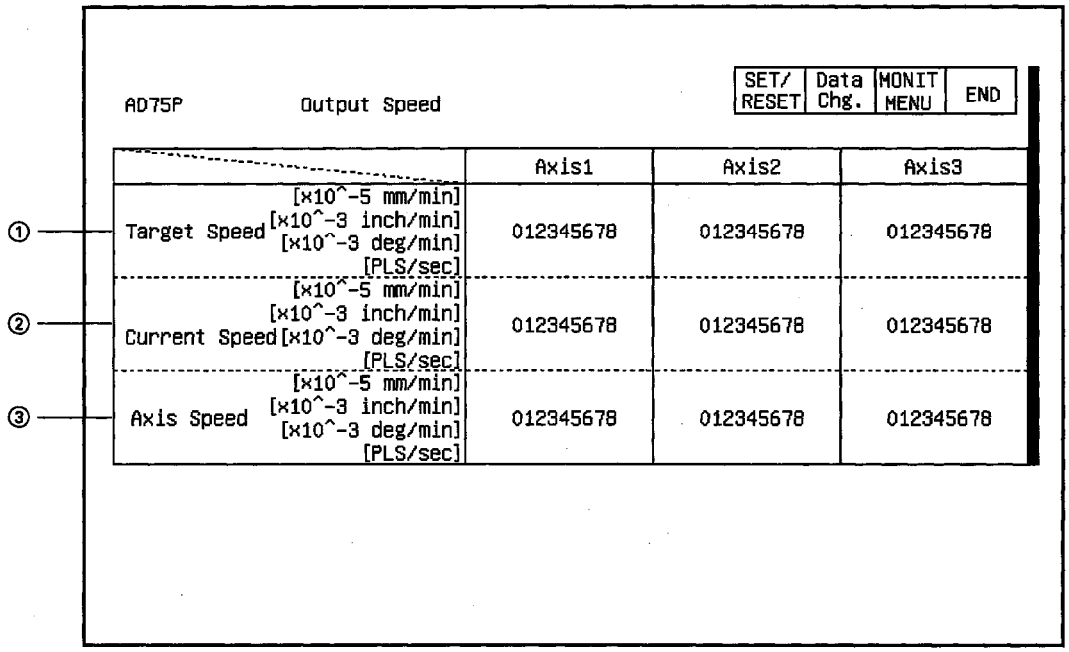
No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The address of the origin point set when an origin point return is completed is displayed.	822 823	922 923	1022 1023
②	The amount of movement after the proximity dog goes ON is displayed.	824 825	924 925	1024 1025
③	The torque limit value is displayed.	826	926	1026
④ ⑤ ⑥ ⑦	The ON/OFF status of the external I/O signal corresponding to the signal name displayed on the screen is displayed. ○ : OFF ● : ON Bit 15 to 7 6 5 4 3 2 1 0 Zero point signal Proximity signal Upper limit Lower limit	816	916	1016

11.23.11 Monitoring Axis Control Data



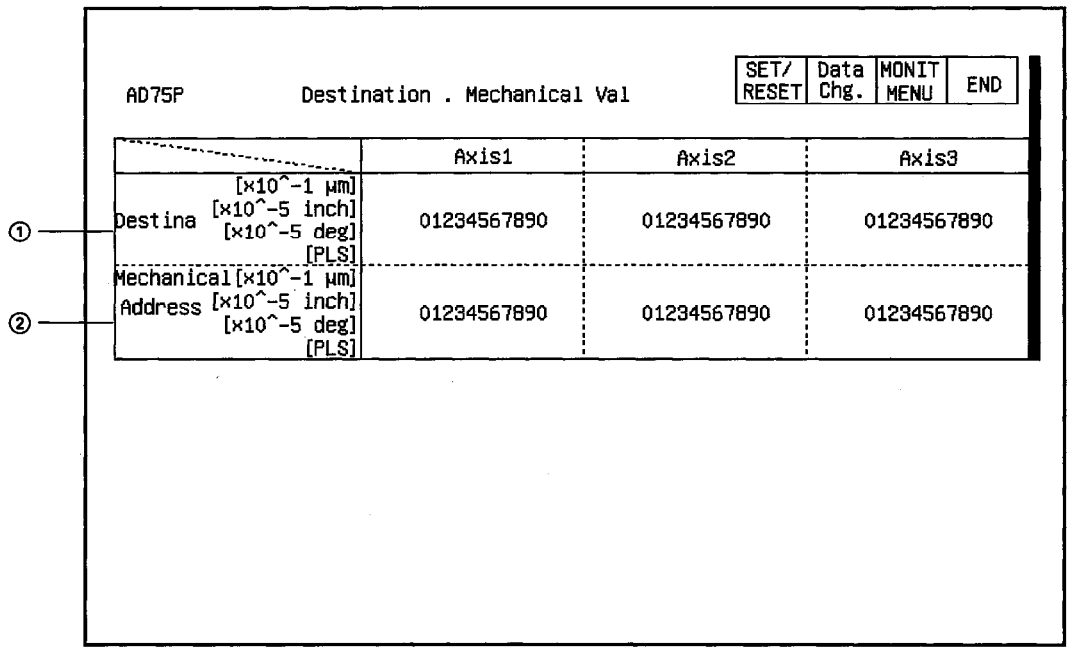
No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The value for the current value change is displayed.	1154 1155	1204 1205	1254 1255
②	The speed change value is displayed.	1156 1157	1206 1207	1256 1257
③	The override value in relation to the positioning speed is displayed.	1159	1209	1259
④	The ON/OFF status for the flag indicating whether step action is effective is displayed; this flag confirms the actions of the various positioning data in the step function. 1 : Step effective (step action is carried out) 0 : Step invalid (step action is not carried out)	1172	1222	1272
⑤	This displays the module to be used for step action in operation based on the step function. 1 : Step action in data number modules 0 : Step action in reduced-speed modules	1173	1223	1273
⑥	The ON/OFF status of the skip command is displayed. 1 : Request for skip in progress 0 : Request for skip has been completed/No request	1175	1225	1275
⑦	The display shows whether control based on an external startup signal is effective or invalid. 1 : External startup effective 0 : External startup invalid	1171	1221	1271

11.23.12 Monitoring the Output Speed



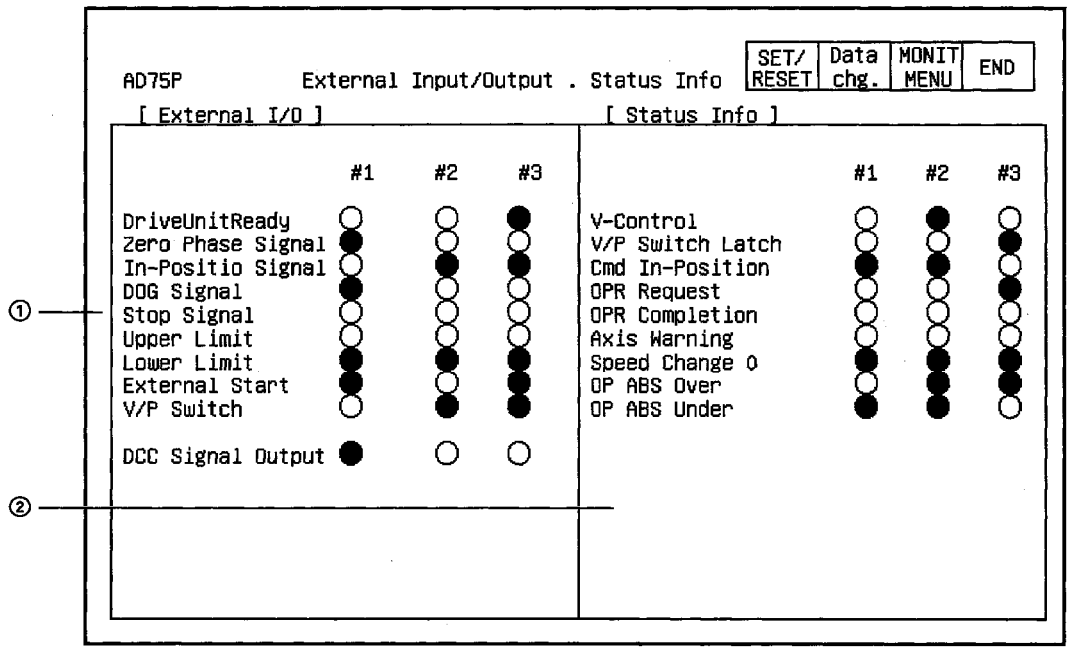
No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	When positioning, the actual speed, taking the override and the speed limit value into consideration, is displayed. When using interpolation operation, the target speeds for the composite speed/reference axis speed are displayed on the reference axis side, and "0" is displayed on the other axis side. When using jogging operation, the actual speed taking the jogging speed limit value into consideration is displayed.	820 821	920 921	1020 1021
②	The speed set for the positioning data is displayed. When using interpolation operation, the target speeds for the composite speed/reference axis speed are displayed on the reference axis side, and "0" is displayed on the other axis side.	810 811	910 911	1010 1011
③	The actual positioning speed is displayed.	812 813	912 913	1012 1013

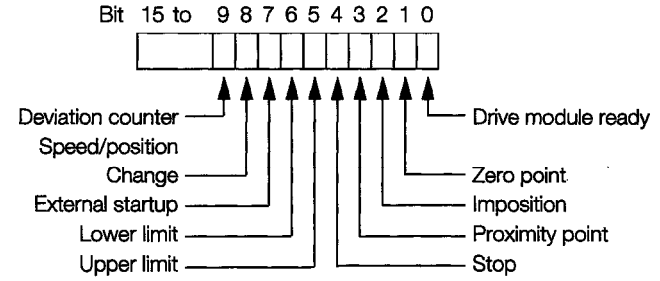
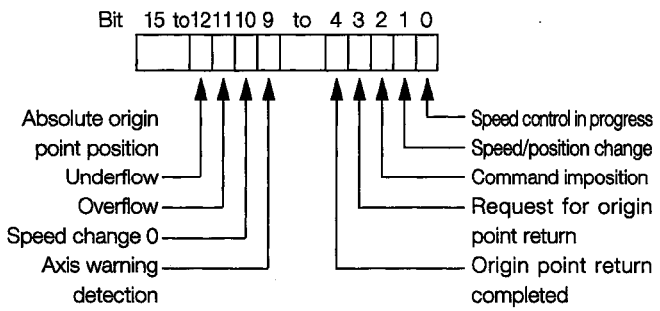
11.23.13 Monitoring the Target Values and Machine Values



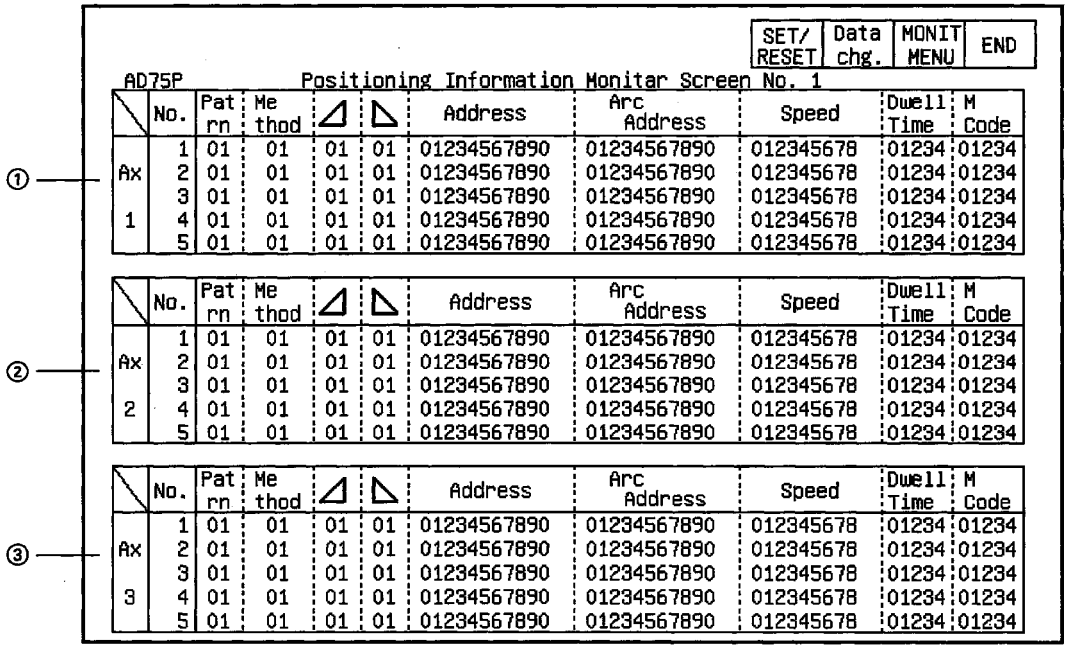
No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The object values when using positioning based on position control are displayed. (With ABS: address/With INC: amount of movement) When using speed/position changing control, the amount of movement following a change to position control is displayed.	818 819	918 919	1018 1019
②	The individual position determined by the machine is used as the machine origin point, and the current machine feed value (position) is displayed.	802 803	902 903	1002 1003

11.23.14 Monitoring External I/O Signals and Status Signals (Flags)



No.	Contents of display	Buffer memory address to reference (decimal)		
		Axis 1	Axis 2	Axis 3
①	The ON/OFF status for the external I/O signal corresponding to the signal name shown on the screen is displayed. ○ : OFF ● : ON 	816	916	1016
②	The ON/OFF status for the various flags corresponding to the flag shown on the screen is displayed. ○ : OFF ● : ON 	817	917	1017

11.23.15 Monitoring Positioning Information



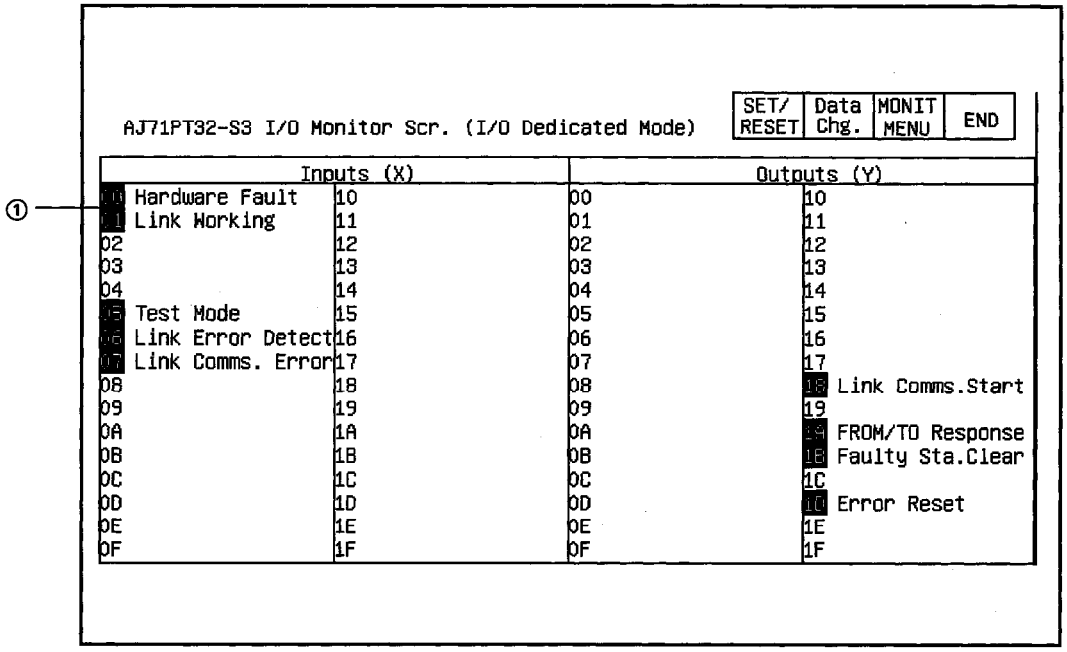
No.	Contents of display	Buffer memory address to reference (decimal)
①	The positioning data corresponding to the data number and data name shown on the screen for Axis 1 is displayed.	1300 to 2299
	Pattern : This is displayed based on Bits 0 to 1 of the applicable buffer memory address.	(1300, 1310···)
	Control method :	(1300, 1310···)
	Acceleration :	(1300, 1310···)
	Deceleration :	(1300, 1310···)
	Address :	(1306 · 1307, 1316 · 1317···)
	Arc address :	(1308 · 1309, 1318 · 1319···)
	Specified speed :	(1304, 1314···)
	Dwell time :	(1302, 1312···)
	M code :	(1301, 1311···)
②	The positioning data corresponding to the data number and data name shown on the screen for Axis 2 is displayed.	2300 to 3299
	Pattern : (The contents of the display are the same as for (1).)	(2300, 2310···)
	Address :	(2306 · 2307, 2316 · 2317···)
	Arc address :	(2308 · 2309, 2318 · 2319···)
	Dwell time :	(2302, 2312···)
	M code :	(2301, 2311···)
③	The positioning data corresponding to the data number and data name shown on the screen for Axis 3 is displayed.	3300 to 4299
	Pattern : (The contents of the display are the same as for (1).)	(3300, 3310···)
	Address :	(3306 · 3307, 3316 · 3317···)
	Arc address :	(3308 · 3309, 3318 · 3319···)
	Dwell time :	(3302, 3312···)
	M code :	(3301, 3311···)

11.24 Monitoring the AJ71PT32-S3 and A1SJ71PT32-S3 Modules

The contents displayed on the monitor screens of the AJ71PT32-S3 and A1SJ71PT32-S3 modules are the same, except for the section where the module model name is displayed.

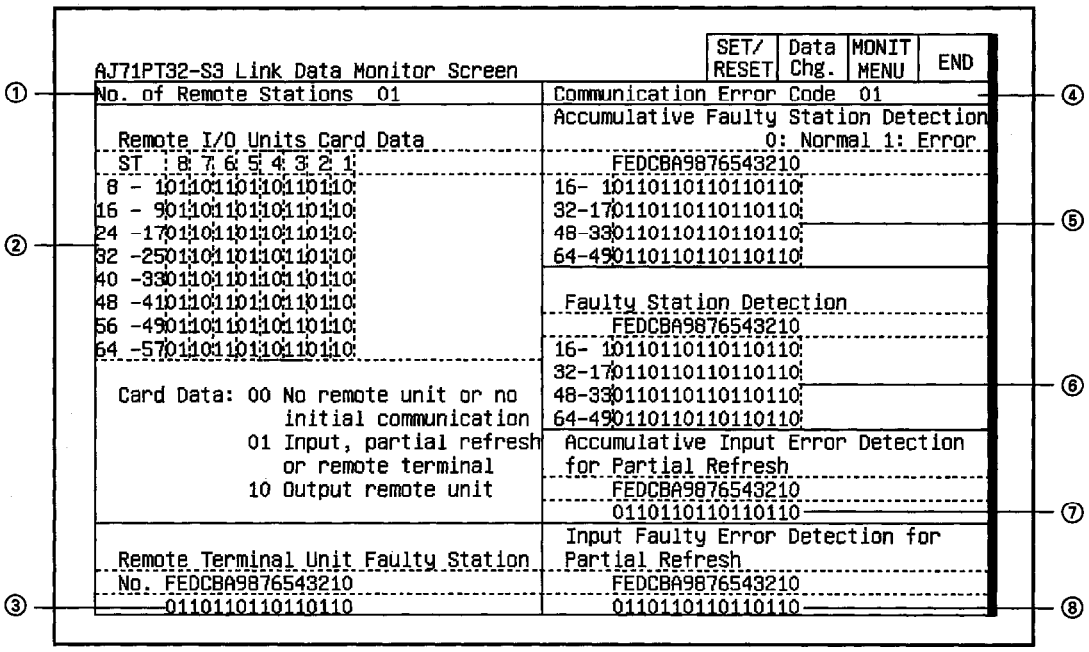
In this section, we will look at the monitor screens for the AJ71PT32-S3.

11.24.1 I/O Monitor (I/O Mode)



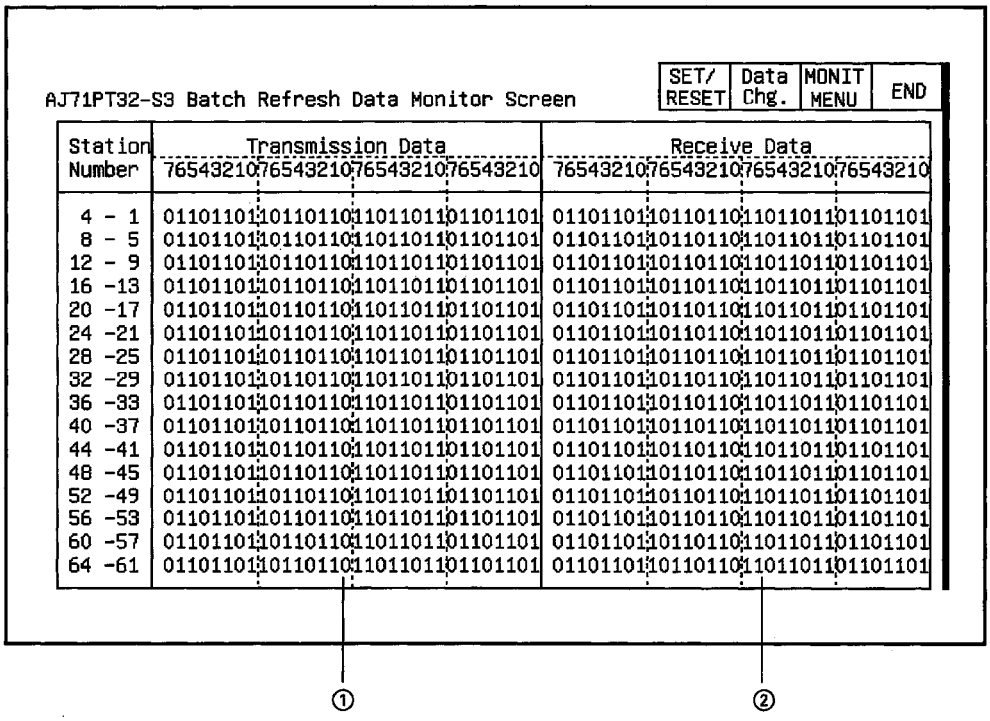
No.	Contents of display
①	The ON/OFF status of the I/O signal corresponding to the PC CPU of the master module is displayed. The I/O signal is ON when displayed in a reversed display.

11.24.2 Monitoring the Link Status



No.	Contents of display	Buffer memory address to reference (decimal)
①	The total number of remote stations connected is displayed.	0
②	This shows whether the station number of the connected remote module is for input or output.	70 to 77
③	A "1" is displayed for the remote terminal module number where the error has occurred.	195
④	When an error occurs in link communications, the communications error code is displayed. 0: No error 1: Initial data error 2: Circuit error 3: Erroneous station issued 4: Separate refresh type remote I/O module error	107
⑤	A communications error has occurred, and a "1" is displayed for the station number of the remote module. The detection status is maintained until the error is reset.	90 to 93
⑥	A communications error has occurred, and a "1" is displayed for the station number of the remote module. If the automatic recovery function is on, a "0" is displayed when normal communications have been resumed.	100 to 103
⑦	A "1" is displayed for the station number of a separate refresh type remote I/O module where the input information could not be read out within a given time period. The detection status is maintained until the error is reset.	598
⑧	A "1" is displayed for the station number of a separate refresh type remote I/O module where the input information could not be read out within a given time period. If the automatic recovery function is on, a "0" is displayed when the station is able to read the input normally.	599

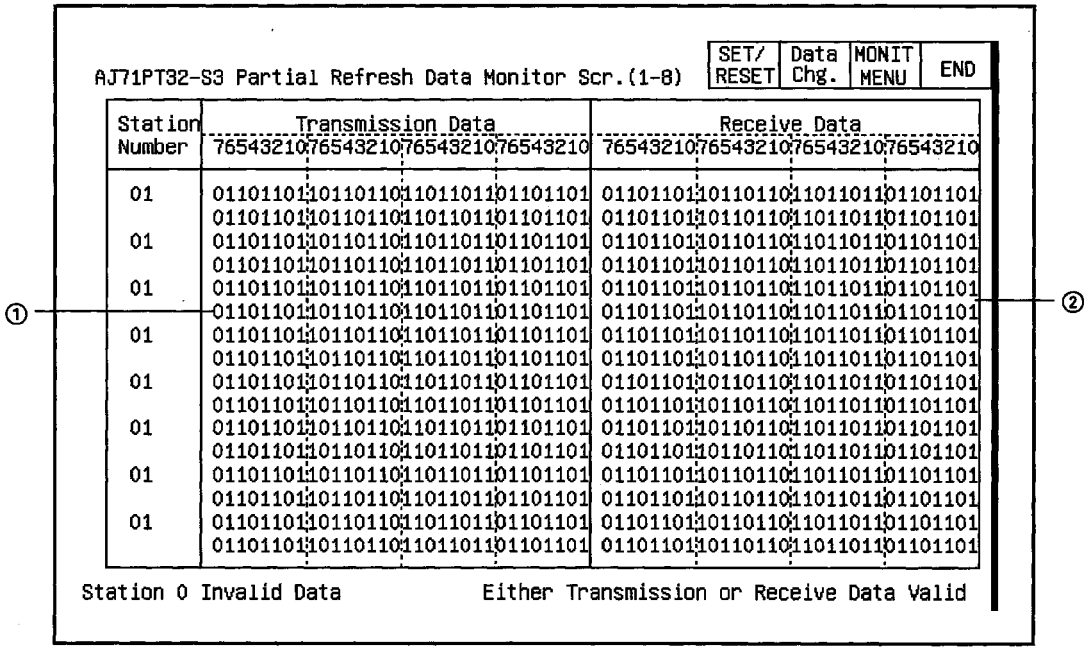
11.24.3 Monitoring Batch Refreshing



No.	Contents of display	Buffer memory address to reference (decimal)
①	The output status for the batch refresh type remote I/O module is displayed. 0: OFF 1: ON	10 to 41
②	The input status for the batch refresh type remote I/O module is displayed. 0: OFF 1: ON	110 to 141

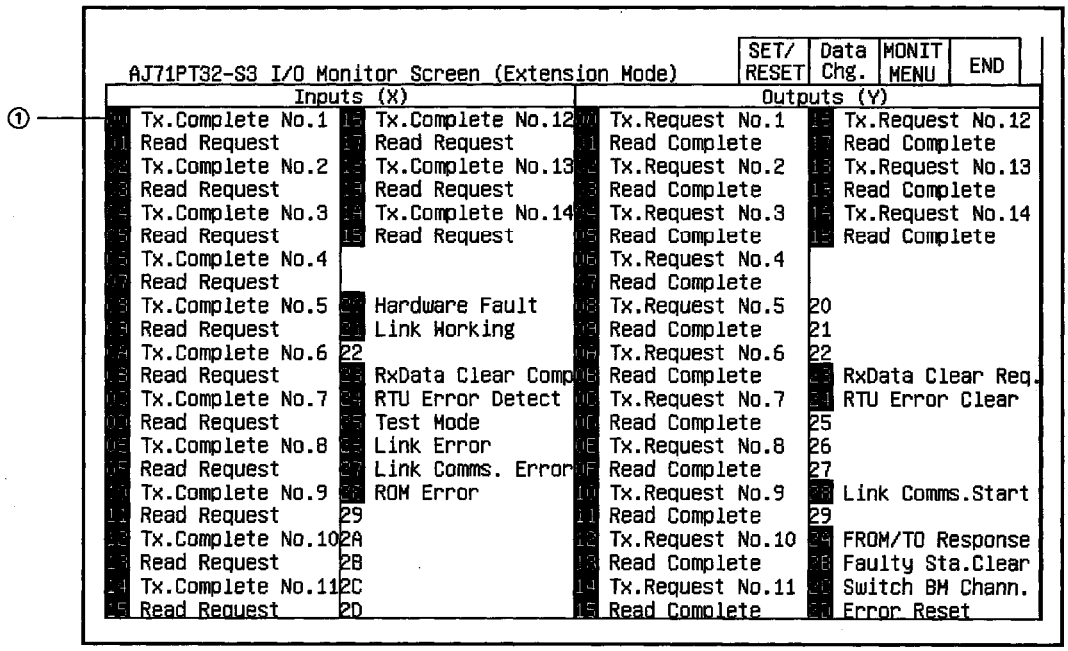
11.24.4 Monitoring Separate Refreshing

As a screen example, we will store the monitor screens from the split refresh monitors (numbers 1 to 8) in the memory.



No.	Contents of display	Buffer memory address to reference (decimal)
①	The output status for the separate refresh type remote I/O module is displayed. 0: OFF 1: ON Output statuses are displayed in the following order for each of the station numbers. (2nd digit) (1st digit) (4th digit) (3rd digit)	300 to 363
②	The input status for the separate refresh type remote I/O module is displayed. 0: OFF 1: ON Input statuses are displayed in the following order for each of the station numbers. (2nd digit) (1st digit) (4th digit) (3rd digit)	600 to 663

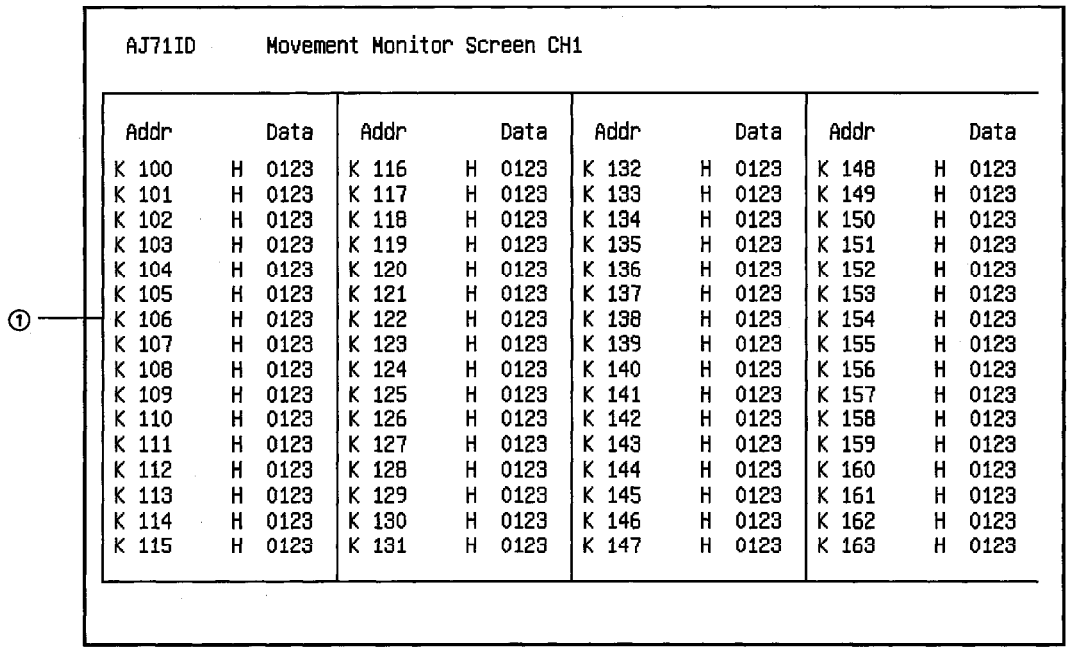
11.24.5 Monitoring Input and Output (Expansion Mode)



No.	Contents of display
①	The ON/OFF status for the I/O signal corresponding to the PC CPU of the master module is displayed. An I/O signal is ON when it is displayed in a reverse display.

11.25 Monitoring the AJ71ID1 (ID2)-R4 and A1SK71ID1 (ID2)-R4 Modules

11.25.1 Action Monitor (CH 1 and CH 2)

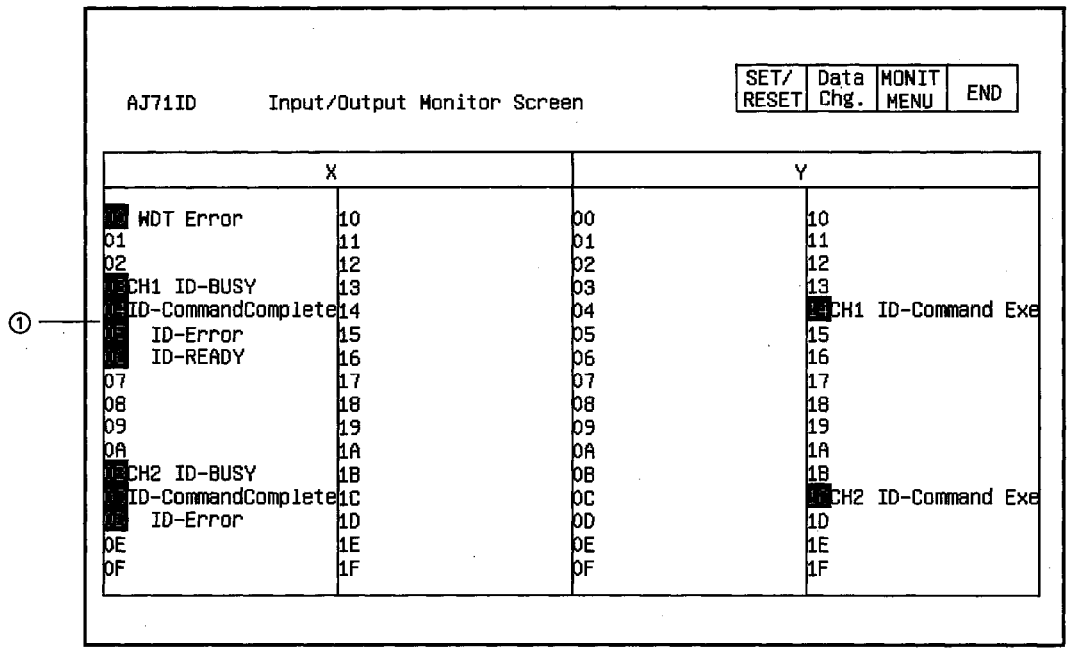


AJ71ID Movement Monitor Screen CH1

Addr	Data	Addr	Data	Addr	Data	Addr	Data
K 100	H 0123	K 116	H 0123	K 132	H 0123	K 148	H 0123
K 101	H 0123	K 117	H 0123	K 133	H 0123	K 149	H 0123
K 102	H 0123	K 118	H 0123	K 134	H 0123	K 150	H 0123
K 103	H 0123	K 119	H 0123	K 135	H 0123	K 151	H 0123
K 104	H 0123	K 120	H 0123	K 136	H 0123	K 152	H 0123
K 105	H 0123	K 121	H 0123	K 137	H 0123	K 153	H 0123
K 106	H 0123	K 122	H 0123	K 138	H 0123	K 154	H 0123
K 107	H 0123	K 123	H 0123	K 139	H 0123	K 155	H 0123
K 108	H 0123	K 124	H 0123	K 140	H 0123	K 156	H 0123
K 109	H 0123	K 125	H 0123	K 141	H 0123	K 157	H 0123
K 110	H 0123	K 126	H 0123	K 142	H 0123	K 158	H 0123
K 111	H 0123	K 127	H 0123	K 143	H 0123	K 159	H 0123
K 112	H 0123	K 128	H 0123	K 144	H 0123	K 160	H 0123
K 113	H 0123	K 129	H 0123	K 145	H 0123	K 161	H 0123
K 114	H 0123	K 130	H 0123	K 146	H 0123	K 162	H 0123
K 115	H 0123	K 131	H 0123	K 147	H 0123	K 163	H 0123

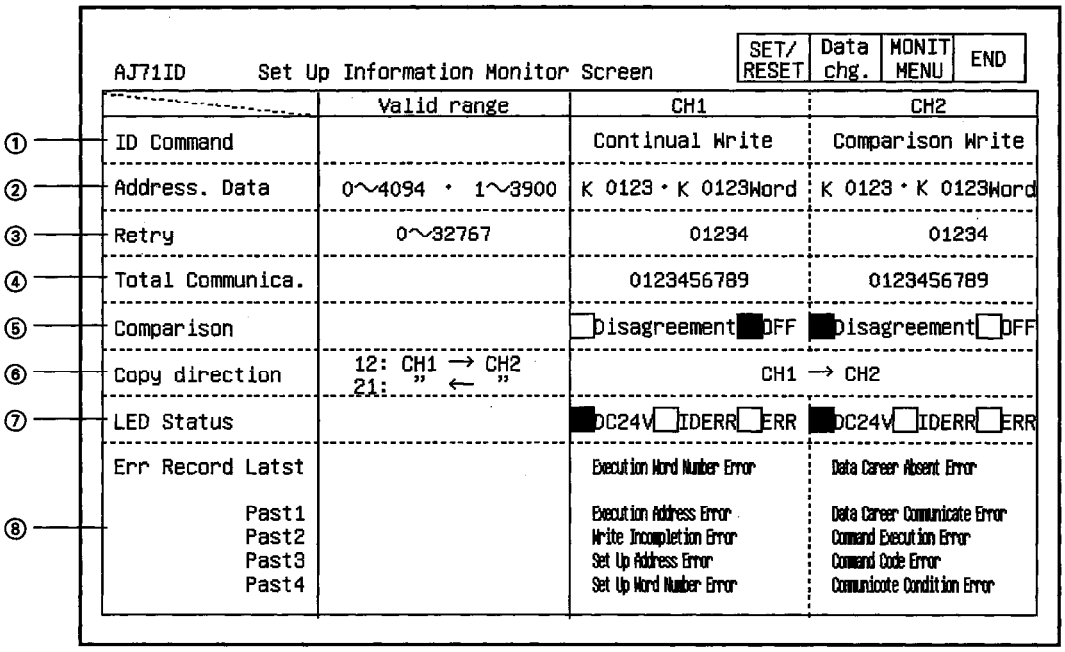
No.	Contents of display	Buffer memory address to reference (decimal)	
		CH1	CH2
①	The contents of the data storage area are displayed in address modules. (The illustration above shows the results when the CH 1 side is monitored.) (Addresses are displayed in decimal format and data in hexadecimal format.)	100 to 163	4100 to 4163

11.25.2 I/O Monitor



No.	Contents of display
①	The ON/OFF status for the I/O signal corresponding to the PC CPU is displayed. An I/O signal is ON when it is displayed in a reverse display.

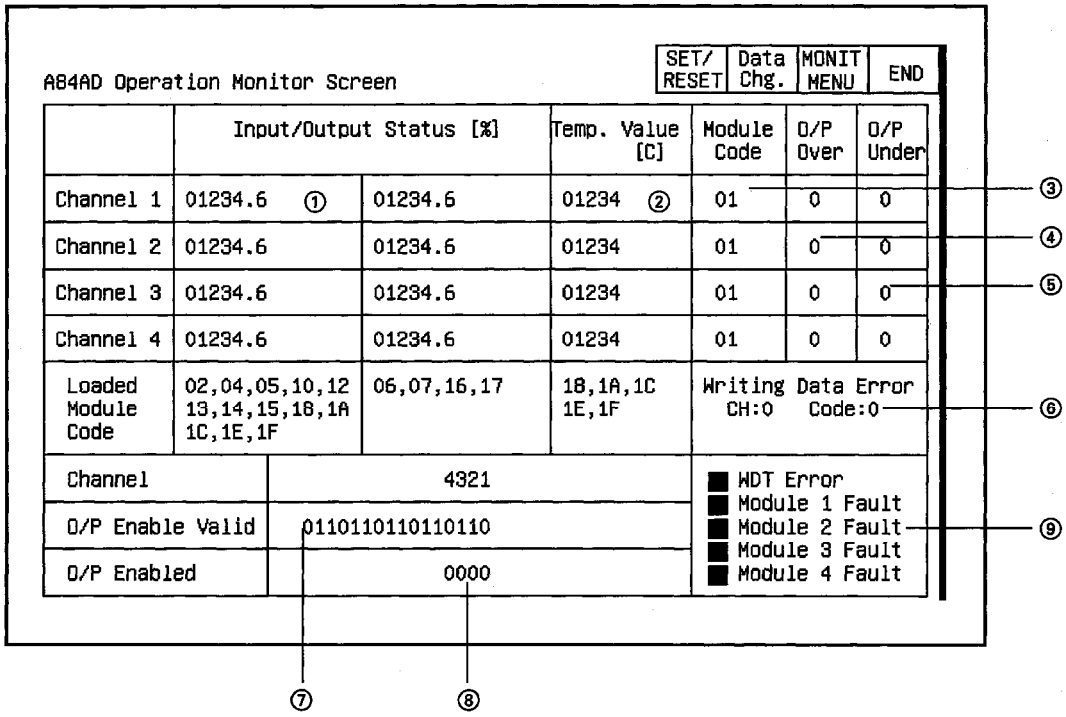
11.25.3 Monitoring Set Information



No.	Contents of display	Buffer memory address to reference (decimal)	
		CH1	CH2
①	The output command for the data carrier is displayed.	0	4000
②	The first address for the data carrier which is reading and writing the data is displayed, along with the number of processing points for the data being read and written.	1 2	4001 4002
③	The number of retries when a data communications error occurs is displayed.	8	4008
④	The number of communications (accumulated number of times) for the data carrier is displayed (exclusing the CM, CL, OF, and ON commands).	22 23	4022 4023
⑤	The results of executing the compare command (CM) are displayed.	4 5	4004 4005
⑥	The direction in which data is copied when the copy data command (CO) is executed is displayed.	—	4010
⑦	The lighting status of the error LED is displayed. (A "■" is displayed when an error occurs.)	12	4012
⑧	The error codes for the five most recent times that an error has occurred is displayed.	14 to 18	4014 to 4018

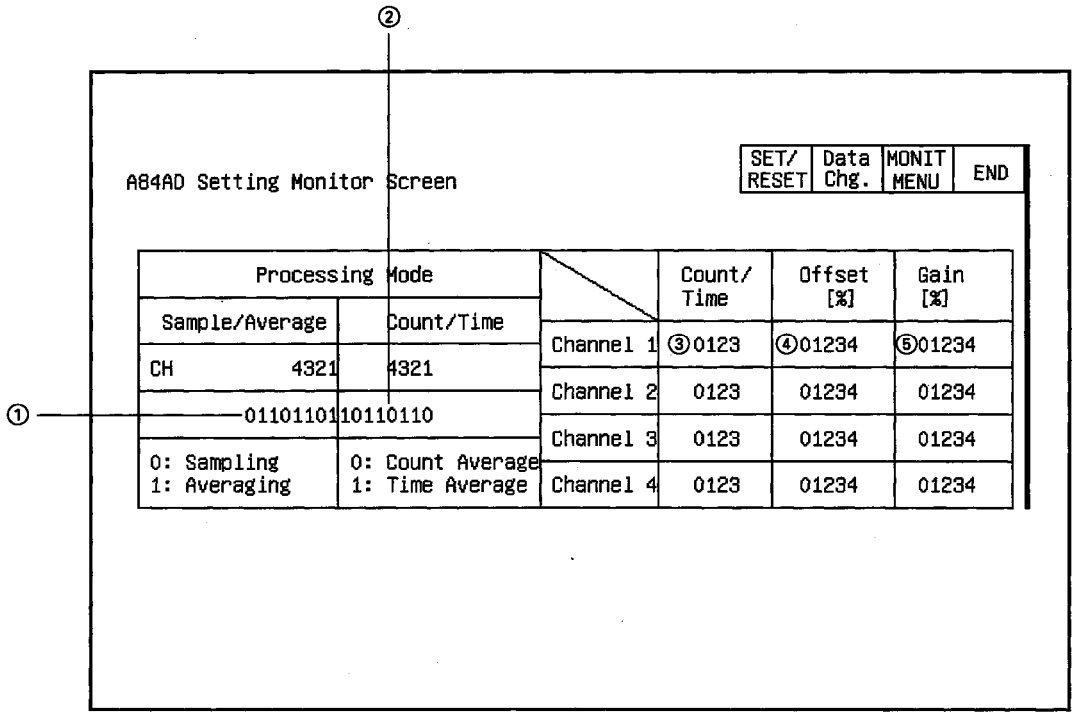
11.26 Monitoring the A84AD Module

11.26.1 Action Monitor



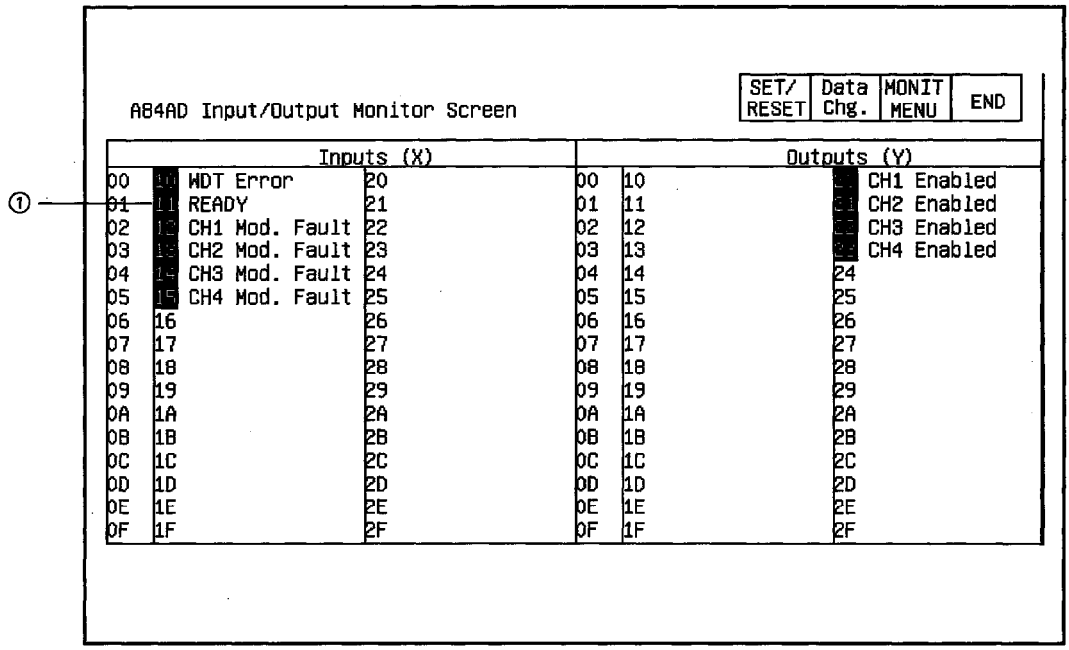
No.	Contents of display	Buffer memory address to reference (decimal)
①	The current I/O data, a value between 0 to 1000 or 0 to 2000 for the digital I/O value of the various channels, is displayed as a percentage ranging from 0 to 100%, in the corresponding module code column.	10 to 13
②	The temperature detection values for the various channels are displayed.	18 to 21
③	The codes for installed modules for the various channels are displayed.	28 to 31
④	If the digital values for the various channels have been set to values larger than the maximum value for the various modules, a "1" is displayed in the "Output Over" column.	22 to 25
⑤	If the digital values for the various channels have been set to values smaller than the maximum value for the various modules, a "1" is displayed in the "Output Under" column.	22 to 25
⑥	If an error occurs in the data being written, the channel on which the error occurred, and the error code, are displayed.	26
⑦	The specified effective/invalid status for the analog output enable signal for each of the channels is displayed. 0: Effective 1: Invalid	27
⑧	The specified status for the output enable command of each of the channels is displayed. 0: The offset value is output as an analog value. 1: The analog value following D/A conversion is output.	—
⑨	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when an error occurs in a module on the various channels.	—

11.26.2 Setting Monitor



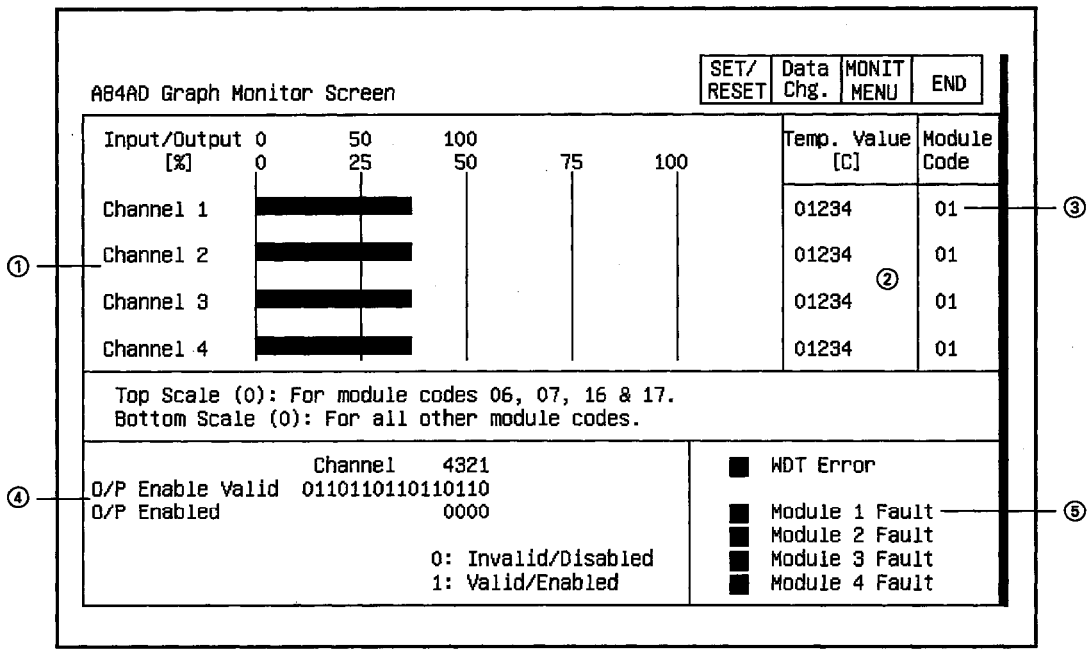
No.	Contents of display	Buffer memory address to reference (decimal)
①	The specified status for the averaging processing/sampling processing of each of the channels is displayed.	1
②	The specified status for the averaging processing of each of the channels is displayed.	1
③	The values set for the time and number of times for averaging processing of each of the channels is displayed.	2 to 5
④	When a temperature sensor input module is installed, the offset values for each of the channels is displayed.	32, 34, 36, 38
⑤	When a temperature sensor input module is installed, the gain values for each of the channels is displayed.	33, 35, 37, 39

11.26.3 I/O Monitor



No.	Contents of display
①	The ON/OFF status for the I/O signal corresponding to the PC CPU is displayed. An I/O signal is ON when it is displayed in a reverse display.

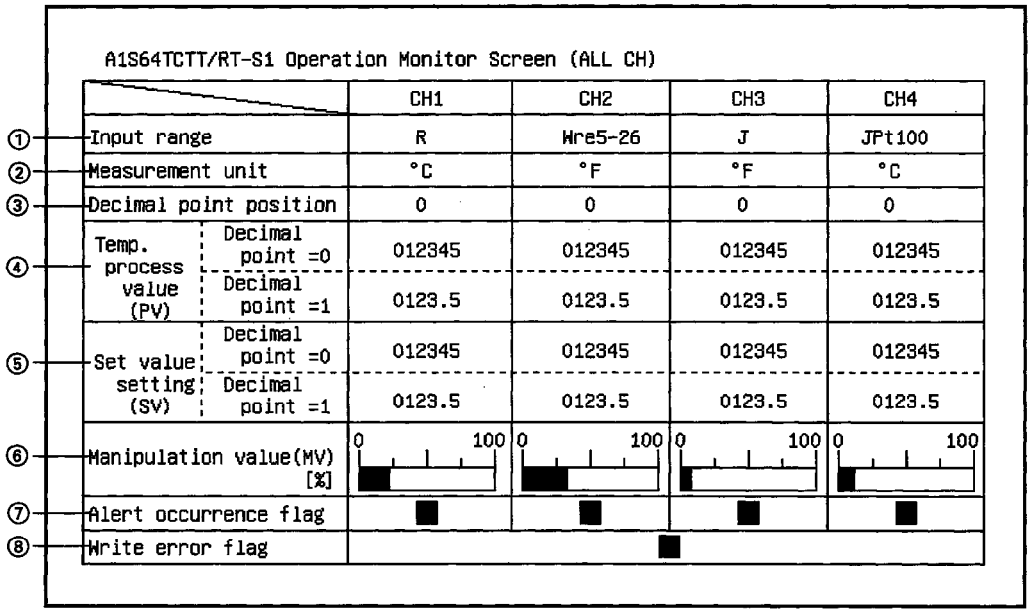
11.26.4 Monitoring Graphs



No.	Contents of display	Buffer memory address to reference (decimal)
①	The current I/O value, a value between 0 to 1000 or 0 to 2000 for the digital I/O value of the various channels, is displayed as a percentage ranging from 0 to 100%.	10 to 13
②	The temperature detection values for the various channels are displayed.	18 to 21
③	The module codes for installed modules for the various channels are displayed.	28 to 31
④	The specified effective/invalid status for the analog output enable signal for each of the channels is displayed. 0: Effective 1: Invalid	27
	The specified status for the output enable command of each of the channels is displayed. 0: The offset value is output as an analog value. 1: The analog value following D/A conversion is output.	—
⑤	A "■" is displayed when a watchdog timer error occurs.	—
	A "■" is displayed when an error occurs in a module on the various channels.	—

11.27 Monitoring the A1S64TCTT(BW)-S1 and A1S64TCRT(BW)-S1 Modules

11.27.1 Operation Monitor



No.	Contents of display	Buffer memory address to reference (hexadecimal)			
		CH1	CH2	CH3	CH4
①	The type of the thermocouple connected to each channel is displayed.	20	40	60	80
②	The temperature measurement unit set for each channel is displayed.	20	40	60	80
③	The decimal position information of the temperature measurement value, goal value, and warning setting value for the input range and temperature measurement unit setting are displayed. Display / When reading from PC CPU / When writing from PC CPU When 0: Use the data from buffer memory as is. / Write the value to be specified directly as is. When 1: Use the 1/10th of the data read as actual value. / Write the value to be specified as 10 times the value.	01	02	03	04
④	The measured temperature (PV value) detected for each channel is displayed. In the decimal point position = 0 column, the value of the detected measured temperature is displayed as is. In the decimal point position =1 column, the value 1/10th of the detected measured temperature is displayed.	09	0A	0B	0C
⑤	The goal value (SV value) set for each channel is displayed. In the decimal point position = 0 column, the value of the set goal value is displayed as is. In the decimal point position = 1 column, the 1/10th of the set goal value is displayed.	22	42	62	82
⑥	The PID-calculated values (-5.0% to 105.0%) of the temperature values read from the thermocouple of each is displayed in the graph.	0D	0E	0F	10
⑦	A "■" is displayed when a warning is indicated in each channel. The details of the warning can be verified in the warning occurrence details monitor screen.	—			
⑧	A "■" is displayed when out-of-range data is stored in the temperature adjustment module buffer memory.	—			

11.27.2 Alert details Monitor

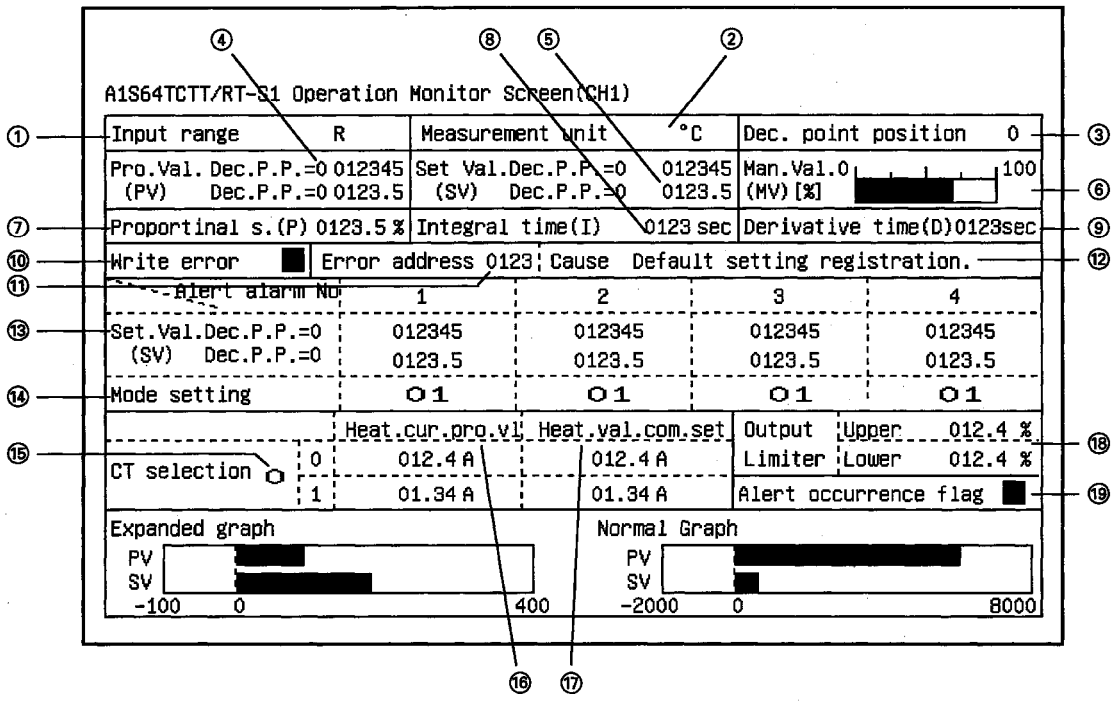
A1S64TCTT/RT-S1 Alert details

	CH1	CH2	CH3	CH4
PV exceeds the specified temperature measurement range in the input range.	■	■	□	■
PV is below the specified temperature measurement range in the input range.	□	■	■	■
Hardware error occurs.	■	□	□	□
Alert alarm 1 is turned on.	□	■	■	■
Alert alarm 2 is turned on.	■	■	□	□
Alert alarm 3 is turned on.	□	□	□	□
Alert alarm 4 is turned on.	□	□	□	■
The heater disconnection alarm is detected.	■	□	□	□
The loop disconnection is detected.	□	■	□	□
The"current error when the output is off"is detected.	□	□	□	□

①

No.	Contents of display	Buffer memory address to reference (hexadecimal)			
		CH1	CH2	CH3	CH4
①	A "■" is displayed in the column corresponding to the warning details detected for each channel.	05	06	07	08

11.27.3 Operation Monitor (CH1 to CH4)



No.	Contents of display	Buffer memory address to reference (hexadecimal)			
		CH1	CH2	CH3	CH4
①	The type of the thermocouple connected to each channel is displayed.	20	40	60	80
②	The temperature measurement unit set for each channel is displayed.	20	40	60	80
③	The decimal position information of the temperature measurement value, goal value, and warning setting value for the input range and temperature measurement unit setting are displayed. Display / When reading from PC CPU / When writing from PC CPU When 0 / Use the data from buffer memory as is. / Write the value to be specified directly as is. When 1 / Use the 1/10th of the data read as actual value. / Write the value to be specified as 10 times the value.	01	02	03	04
④	The measured temperature (PV value) detected for each channel is displayed. In the decimal point position = 0 column, the value of the detected measured temperature is displayed as is. In the decimal point position =1 column, the value 1/10th of the detected measured temperature is displayed.	09	0A	0B	0C
⑤	The goal value (SV value) set for each channel is displayed. In the decimal point position = 0 column, the value of the set goal value is displayed as is. In the decimal point position = 1 column, the 1/10th of the set goal value is displayed.	22	42	62	82
⑥	The PID-calculated values (-5.0% to 105.0%) of the temperature values read from the thermocouple of each is displayed in the graph.	0D	0E	0F	10
⑦	The ratio range (P) which is set in the PID constant setting of each channel is displayed. When 0, the 2-position control is set.	23	43	63	83

No.	Contents of display	Buffer memory address to reference (hexadecimal)			
		CH1	CH2	CH3	CH4
⑧	The integral time (I), set in the PID constant setting of each channel is displayed.	24	44	64	84
⑨	The derivative time (D), set in the PID constant setting of each channel is displayed. When 0, the PI control is set.	25	45	65	85
⑩	A "■" is displayed when out-of-range data is stored in the temperature adjustment module buffer memory.	—			
⑪	The buffer memory address for which an error was detected during the performance of a write to the temperature adjustment module buffer memory is displayed.	0			
⑫	The details of the error detected during the performance of a write to the temperature adjustment module buffer memory is displayed.	0			
⑬	The temperatures for which the warning alarms 1 to 4 set for each channel turns on are displayed.	26 to 29	46 to 49	66 to 69	86 to 89
⑭	The warning mode of warning alarm 1 to 4 set for each channel are displayed.	A0 to A3			
⑮	The current sensors connected to each channel are displayed. 0: When using CTL-12-S36-8 1: When using CTL-6-P (When using A1S64TCRTBW-S1 or A1S64TCTTBW-S1)	39	59	79	99
⑯	The heater currents detected for each channel are displayed.	19	1A	1B	1C
⑰	The standard heater current values set for each channel are displayed.	AB	AC	AD	AE
⑱	The upper/lower limits for when the movement value (MV) which are calculated with the PID calculation set for each channel is outputted to the external device are displayed.	2A 2B	4A 4B	6A 6B	8A 8B
⑲	A "■" is displayed when an warning occurs for each channel.	—			

12. Operating I/O Module Monitor Screens

This section explains how the various screens are operated in the specifal module monitor function, when monitoring input or output modules.

12.1 Specifying the Module to be Monitored

This describes how to start monitoring any desired special input or output module.

[Operation Procedure]

Display the System Configuration screen. .... See Section 11.1.1.

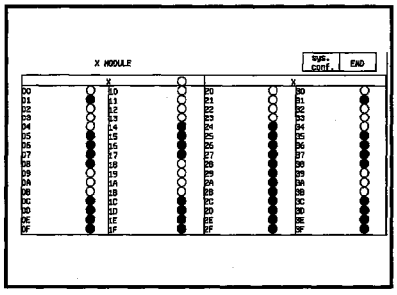
↓

Specify the module to be monitored. (Touch the position at which the module is displayed.)

(1) Of the modules installed in Slot 0 to Slot 7 of the base unit, specify a module for which "Input" or "Output" is displayed. For information on specifying special function modules, please see Section 11.1.3.

↓

Display the monitor screen for the specified module.



(2) For information on confirming the displayed contents and subsequent operation, please see Section 12.2.

* Tests cannot be conducted on input or output modules.

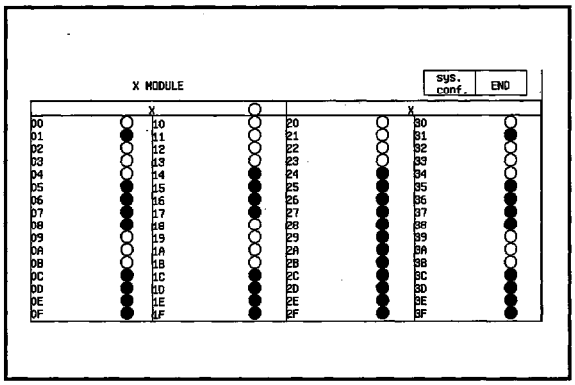
↓

To Section 12.2

12.2 Configuration and Key Functions on Monitor Screens

This section describes the configuration of monitor screens displayed by specifying the input module on the system configuration screen, and explains the functions of the keys displayed on the screen.

(1) Contents displayed on the screen (for an input module)



The statuses of input and output signals are displayed after being read out from the corresponding module.
(OS is carried out automatically.)

Statuses for up to 64 can be displayed.
Signal statuses:
● : ON
○ : OFF

①	The type of the object module (input or output module) is displayed.
②	The name of the signal being monitored (X or Y) is displayed.
③	The number and status of the input or output signal is displayed.
④	Keys used in the operations on the monitor screen indicated by (2) are displayed (touch input).

(2) Key functions

The functions of the keys used for operations on the monitor screen are indicated.

Key	Function
END	This concludes the monitoring process and returns to the screen d isplayed when the special module monitor function was first started.
sys. conf.	This concludes the current monitor and returns to the system configuration screen.

13. Error Displays and Countermeasures When Monitoring Special Modules

This table shows error messages that may be displayed when operating a special module monitor, and what action should be taken to correct the error.

Error message	Contents of error	Action to take
PC communications error	Communication could not be established with the PC CPU.	(1) To try the operation again, touch "Retry". When the operation is retried, the error message disappears and monitoring resumes automatically, so no action is required. If monitoring is not resumed for a long period of time, however, check the following: ① Connections between the PC CPU and the A870GOT (disconnected or cut cables). ② Has an error occurred in the PC CPU?

WARRANTY

Please confirm the following product warranty details before starting use.

1. Gratis Warranty Term and Gratis Warranty Range

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

[Gratis Warranty Term]

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

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

[Gratis Warranty Range]

(1) The range shall be limited to normal use within the usage state, usage methods and usage environment, etc., which follow the conditions and precautions, etc., given in the instruction manual, user's manual and caution labels on the product.

(2) Even within the gratis warranty term, repairs shall be charged for in the following cases.

1. Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.
2. Failure caused by unapproved modifications, etc., to the product by the user.
3. When the Mitsubishi product is assembled into a user's device, Failure that could have been avoided if functions or structures, judged as necessary in the legal safety measures the user's device is subject to or as necessary by industry standards, had been provided.
4. Failure that could have been avoided if consumable parts (battery, backlight, fuse, etc.) designated in the instruction manual had been correctly serviced or replaced.
5. Failure caused by external irresistible forces such as fires or abnormal voltages, and Failure caused by force majeure such as earthquakes, lightning, wind and water damage.
6. Failure caused by reasons unpredictable by scientific technology standards at time of shipment from Mitsubishi.
7. Any other failure found not to be the responsibility of Mitsubishi or the user.

2. Onerous repair term after discontinuation of production

(1) Mitsubishi shall accept onerous product repairs for seven (7) years after production of the product is discontinued. Discontinuation of production shall be notified with Mitsubishi Technical Bulletins, etc.

(2) Product supply (including repair parts) is not possible after production is discontinued.

3. Overseas service

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

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

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

5. Changes in product specifications

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

6. Product application

(1) In using the Mitsubishi MELSEC programmable logic controller, the usage conditions shall be that the application will not lead to a major accident even if any problem or fault should occur in the programmable logic controller device, and that backup and fail-safe functions are systematically provided outside of the device for any problem or fault.

(2) The Mitsubishi general-purpose programmable logic controller has been designed and manufactured for applications in general industries, etc. Thus, applications in which the public could be affected such as in nuclear power plants and other power plants operated by respective power companies, and applications in which a special quality assurance system is required, such as for Railway companies or National Defense purposes shall be excluded from the programmable logic controller applications.

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

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

GOT800 Series Operating Manual

(Expanded Functions Manual)

MODEL	SW3-A8GOT-O-SY-E
MODEL CODE	1DM181
IB(NA)-66796-C(0406)MEE	

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : 1-8-12, OFFICE TOWER Z 14F HARUMI CHUO-KU 104-6212,JAPAN
NAGOYA WORKS : 1-14 , YADA-MINAMI 5-CHOME , HIGASHI-KU, NAGOYA , JAPAN

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Specifications subject to change without notice.