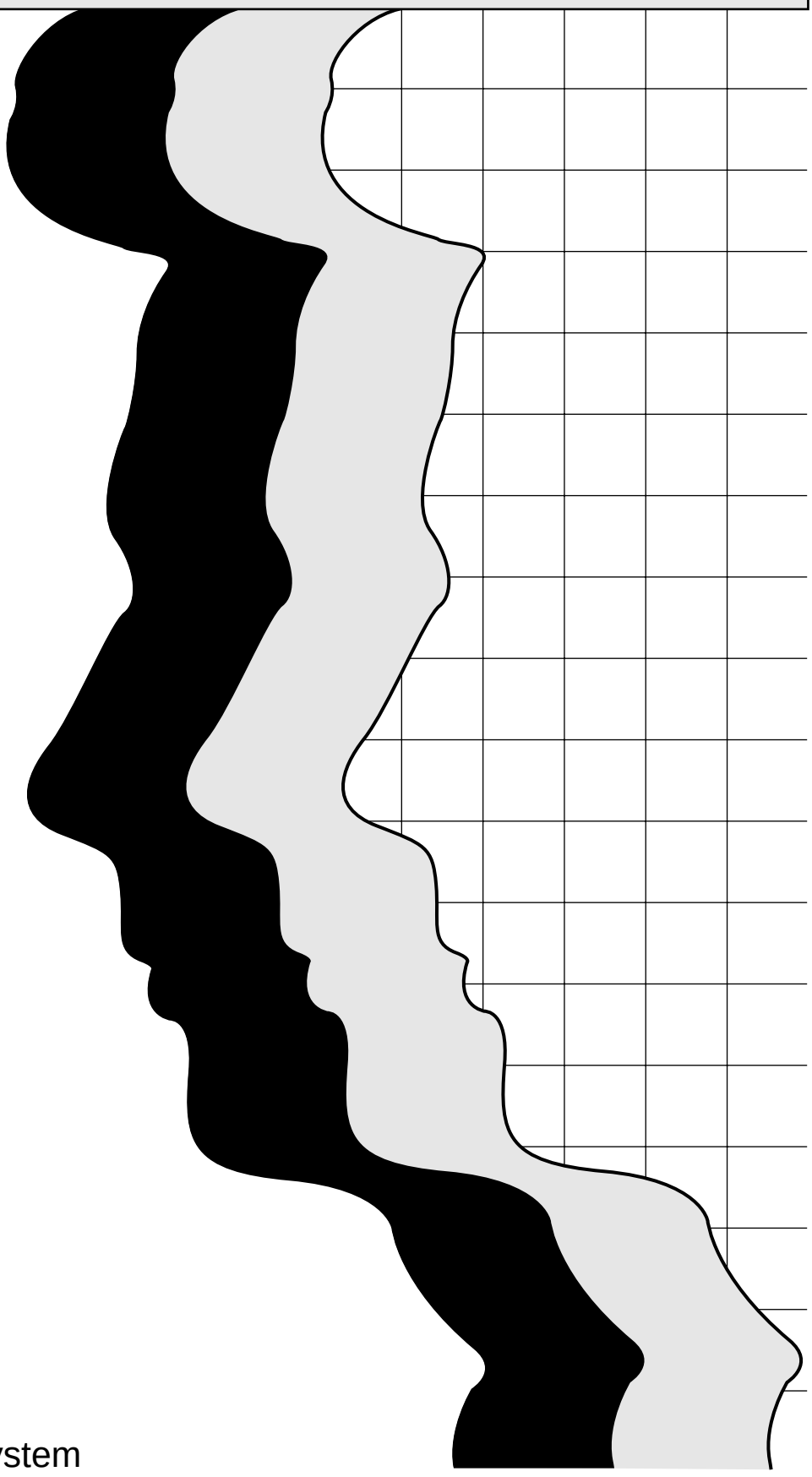
MITSUBISHI

D-20HC Handy Controller

Operation Manual



Mitsubishi ID System

Safety Precautions

(Please Be Sure to Read Before Using)

We ask that before you use the MELSEC-A/QnA Series PC that you carefully read the manual that comes with this product and the related manuals that are introduced by this manual and that you pay sufficient attention to safety and use this product correctly.

This manual divides safety precautions into two ranks: dangerous and warning.

⚠ DANGER	Here incorrect use creates a dangerous situation that could result in death or serious injury.
⚠ WARNING	Here incorrect use creates a dangerous situation that could result in somewhat serious or light injuries and that could damage the product.

Depending on the situation, items marked with warning could result in more serious consequences.

In any case, it is important to follow the directions for usage.

Take good care of the manual that comes with the product so that it can be read when necessary and be sure it is always available to the end user.

⚠ DANGER

[Precautions Relating To Design]

- Install a safety circuit external to the PC that keeps the entire system safe even when there are problems with the external power supply or the PC main unit.

  Otherwise, trouble could result from erroneous output or erroneous operation.

  (1) Outside the PC, construct mechanical damage preventing interlock circuits such as emergency stop, protective circuits, positioning upper and lower limit switches and interlocking forward/reverse operations.

  (2) When the PC detects the following problems, it will stop calculation and turn off all output.

  - The power supply unit has an over current protection unit and over voltage protection unit.
  - The PC CPUs self diagnostic functions, such as the watchdog timer error, detect problems. In addition, all output will be turned on when there are problems that the PC CPU cannot detect, such as in the I/O controller. Build a fail safe circuit exterior to the PC that will make sure the equipment operates safely at such times.

  Refer to the CPU unit's user manual for example fail safe circuits.

  (3) Output could be left on or off when there is trouble in the output unit's relay or transistor. So build an external monitoring circuit that will monitor any single output that could cause serious trouble.

- Build a circuit that turns on the external power supply when the PC main unit power is turned on. If the external power supply is turned on first, it could result in erroneous output or erroneous operation.

⚠ DANGER

[Design Precautions]

- When there are communication problems with the data link, the communication problem station will enter the following condition.

  (1) For the data link data, the data prior to the communication error will be held.

  (2) The MELSECNET (II, /B, /10) remote I/O station will turn all output off.

  (3) The MELSECNET/MINI-S3 remote I/O station will hold the output or turn all output off depending on the E.C. mode setting.

  Refer to the data link manuals regarding the method for setting the communication problem station and the operation state when there are communication problems.

  Build an interlock circuit into the PC program that will make sure the system operates safely by using the communication state information. Not doing so could result in erroneous output or erroneous operation.

⚠ WARNING

[Design Precautions]

- Do not bunch the control wires or communication cables with the main circuit or power wires, or install them close to each other.

  They should be installed 100mm or more from each other.

  Not doing so could result in noise that would cause erroneous operation.

⚠ WARNING

[Installation Precautions]

- Use the PC in an environment that meets the general specifications contained in this manual. Using this PC in an environment outside the range of the general specifications could result in electric shock, fire, erroneous operation, and damage to or deterioration of the product.
- Install so that the pegs on the bottom of the unit fit securely into the base unit peg holes. Not installing the unit correctly could result in erroneous operation, damage, or pieces of the product falling.
- When installing more cables, be sure that the base unit and the unit connectors are installed correctly. After installation, check them for looseness. Poor connections could result in erroneous input and erroneous output.
- Correctly connect the memory cassette installation connector to the memory cassette. After installation, check to be sure the connection is not loose. A poor connection could result in erroneous operation.
- Correctly push the memory cable into the memory socket. After installation, check to be sure it is not loose. A poor connection could result in erroneous operation.

DANGER

[Wiring Precautions]

- Completely turn off the external power when installing or placing wiring. Not completely turning off all power could result in electric shock or damage to the product.
- When turning on the power or operating the unit after installation or wiring work, be sure that the unit's terminal covers are correctly attached. Not attaching the terminal covers could result in electric shock.

WARNING

[Wiring Precautions]

- Be sure to ground the FG terminals and LG terminals with a special PC ground of Type III or above. Not doing so could result in electric shock or erroneous operation.
- When wiring in the PC, be sure that it is done correctly by checking the product's rated voltage and the terminal layout. Connecting a power supply that is different from the rating or incorrectly wiring the product could result in fire or damage.
- Do not connect multiple power supply units in parallel. Doing so could cause overheating, fire, or damage to the power supply unit.
- Tighten the terminal screws with the specified torque. If the terminal screws are loose, it could result in short circuits, fire, or erroneous operation.
- Be sure there are no foreign substances such as sawdust or wiring debris inside the unit. Such debris could cause fires, damage, or erroneous operation.
- External connections shall be crimped or pressure welded with the specified tools, or correctly soldered. For information regarding the crimping and pressure welding tools, refer to the I/O unit's user manual. Imperfect connections could result in short circuit, fires, or erroneous operation.

⚠ DANGER

[Startup And Maintenance Precautions]

- Do not touch the terminals while power is on. Doing so could cause shock or erroneous operation.
- Correctly connect the battery. Also, do not charge, disassemble, heat, place in fire, short circuit, or solder the battery. Mishandling of a battery can cause overheating or cracks which could result in injury and fires.
- Turn the power off when cleaning the unit or tightening the terminal screws. Conducting these operations when the power is on could result in electric shock.

⚠ WARNING

[Startup and Maintenance Precautions]

- Before conducting operations such as changing the program while the unit is operating, force output, run, stop, pause, etc., be sure to thoroughly read the manual and take due consideration for safety. Operation mistakes could cause damage to the equipment and other problems.
- Do not disassemble or modify the units. Doing so could cause trouble, erroneous operation, injury, or fire.
- Turn the power off when removing a unit. Trying to remove the unit while the power is on could damage the unit or result in erroneous operation.
- Only use specified fuses to replace burnt out fuses. Using fuses with too high capacity or using electric wires instead of the correct fuses could result in fires.

⚠ WARNING

[Disposal Precautions]

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

Revisions

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

Print Date	*Manual Number	Revision
Mar. 1996	IB (NA)-66641-A	First printing

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Introduction

Thank you for buying the Mitsubishi ID System D Series.

Before using this unit, please read this manual to be sure that you sufficiently understand the ID System D Series functions and performance to allow you to correctly operate the unit.

Please make this manual available to end users.

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About This Manual

A list of the manuals that relate to the model D-20HC Handy Controller are given below.

Related Manuals

Manual Name	Manual No. (Model Code)
The ID Interface Unit User's Manuals AJ71ID1-R4, AJ71ID2-R4, A1SJ71ID1-R4, and A1SJ71ID2-R4. These manuals explain system configuration, unit specifications, the names and settings of the different components, and the programming method when using the unit. (Sold Separately)	IB-66595 (13J818)
The Model SW0NW-AIDP and SW0IVW-AIDP ID System Software Package Operating Manual. This manual explains the operation method for the ID System Software Package that supports Japanese version MS-Windows Ver3.1. (Included In the same box as the software package)	IB-66640 (13JF26)

1. Overview

This manual explains the specifications, method of use, and operation of model D-20HC.

The D-20HC is a peripheral unit for the ID system that has functions for reading and writing to and from a data carrier and for communicating with a general purpose personal computer.

1.1 Features

For descriptions of items mentioned below please see descriptions on Page 2-2.

(1) Reading from and Writing to a Data Carrier Is Possible

Data communication with a data carrier can be performed when combined with the model D-20HC-RW Handy Controller Reader/Writer.

(2) Data Communication with a General Purpose Personal Computer Is Possible

Data can be transmitted to and from a general purpose personal computer when combined with the model SW0NW-AIDP, SW0IVW-AIVP ID System Software Package.

(3) Battery Operated Use Is Possible

The unit can be operated in places without an electrical supply by using the rechargeable Ni/MH batteries.

(4) Large Display Area

The display area was expanded by using three lines times 16 characters (half width) LCD, which makes it easy to read from and write to a data carrier.

(5) Using Chinese Characters Is Possible

Data settings can be done using alphanumeric, hiragana, katakana, and Chinese characters.

1.2 Components Included In Box

When you purchase the D-20HC, please check that the following products are included in the box.

Product Name	Quantity
Model D-20HC Handy Controller	1
Model D-20HC-PS Power Supply Adapter	1
Model D-20HC-BAT Battery	1
Model D-20HC Handy Controller Operation Manual (Japanese Language Version)	1

2. Specifications

2.1 General Specifications

Items		Specifications
Ambient Temperature	During Use	0~40°C
	When Stored	-10~50°C
Ambient Humidity	During Use	35 to 85 percent RH or less (no condensation)
	During Storage	35 to 90 percent RH or less (no condensation)
Vibration Resistance	Complies with JIS C0911 (Vibration frequency 10 to 55 Hz, acceleration rate 9.8 m/s² {1g}, amplitude 0.1 mm)	
Shock Resistance	Complies with JIS-C0912 (98m/s² {10g}, in the three directions of the x, y, z axis)	
Usage Atmosphere	Areas where there is little corrosive gas or dust is not acceptable	
Cooling Method	Self cooled	

2.2 Performance Specifications

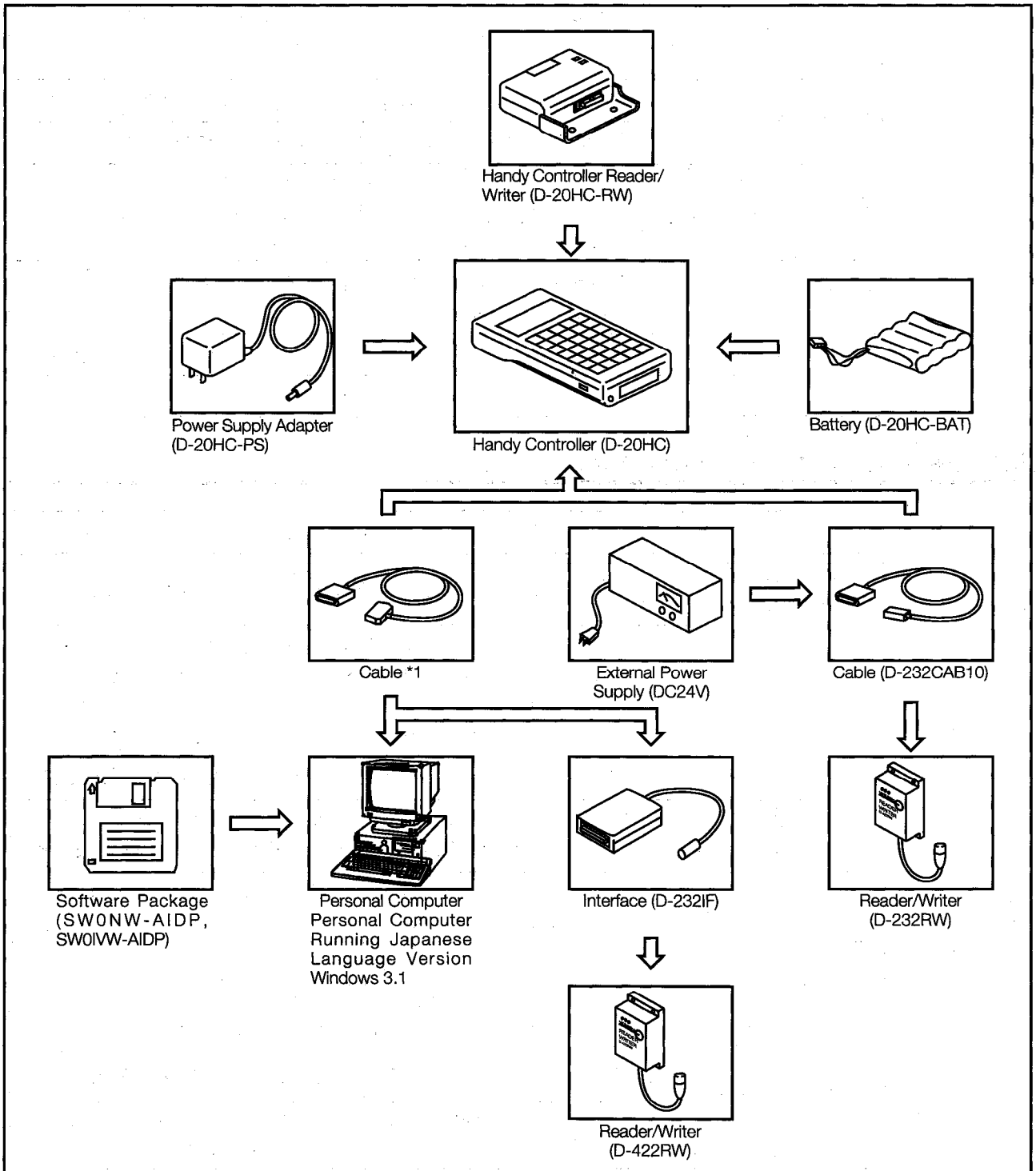
Items		Specifications		
Power Supply And Current Consumed		Built In rechargeable Ni/MH batteries (DC5V 0.25A)		
Battery		Rechargeable Ni/MH batteries DC4.8V 1100 mAh Recharging is done with the included power supply adapter (charge time 8 hours) Usage Time: approximately three hours on a full charge		
Pixels	Pixels	56 by 128 Dot graphic display liquid crystal (with back light LED)		
	Character Types and Number of Characters	Alphanumeric and kana 16 characters by 3 lines Chinese characters (JIS standard number 1) Hiragana 8 characters by 3 Lines		
Operation Method		36 Individual operation keys and chinese character conversion using romanized letter input		
Key Operation Confirmation		Buzzer sound		
User Memory Capacity		RAM 8k bytes (4k Word)		
External Interface		Expansion Interface	Top of Main Unit	Connector for the D-20HC-RW Handy Controller Reader/Writer
		RS-232C	Bottom of Main Unit	Connection with D-232RW, D-232IF, And Personal Computers
External Dimensions (mm)		(H)170 × (W) 90 × (D) 35		
Weight (kg)		0.5		

2.3 System Configuration

The system configuration and configuration equipment when using the D-20HC is as follows.

2.3.1 System Configuration

The overall configuration when using the D-20HC is shown in Figure 2.1.



*1: For Information Regarding The Cable, Refer To The Configuration Equipment List In Item 2.3.2.

Figure 2.1 Overall Configuration

2.3.2 List of Configuration Equipment

(1) The equipment required for using the D-20HC is shown below.

Product		Model	Remarks
Handy Controller		D-20HC	Portable Handy Controller
Handy Controller Reader/Writer		D-20HC-RW	Handy Controller (D-20HC) Add On Unit
Power Supply Adapter		D-20HC-PS	Power Supply For Handy Controller And D-232IF (1 Per Handy Controller)
Battery		D-20HC-BAT	Handy Controller Battery (1 Provided Per Handy Controller)
Data Carrier	ID Card	D-03C	Memory Capacity 320 Bytes (160 Words)
	ID Plate	D-03P	Memory Capacity 320 bytes (160 Words)
		D-8P	Memory Capacity 8K Bytes (4K Words)
		D-8PS	Memory Capacity 8K Bytes (4K Words)

To Communicate with the Data Carrier, the Handy Controller (D-20HC) and the Handy Controller Reader/Writer (D-20HC-RW) are required.

(2) The related equipment to use by the D-20HC is shown below.

Product	Model	Remarks	
Reader/Writer	D-232RW	Communicating with the Data Carrier (RS-232C)	
	D-422RW	Communications with the Data Carrier (RS-422)	
Interface	D-232IF	Switchable RS-422/RS-232C Interface	
Software Package	SW0NW-AIDP	Personal Computer Software Package Supports Japanese version Windows Ver3.1 (3.5" Floppy Disk)	1.25 MB Format
	SW0IW-AIDP		1.44 MB Format
Cable	D-232CAB10	For connecting the D-232RW with the Handy Controller	
	AC30R2	Dsub 25 Pin to and from Dsub 25 Pin	Cable for Data Transmission (For Connecting The D-20HC to the D-232IF and the D-20HC to the General Purpose Personal Computer)
	AC30N2A		
	FX-232CAB		
	AC30R2-9P	Dsub 9 Pin to and from Dsub 25 Pin	
	FX-232CAB-1		
	FX-232CAB-2	Dsub 14 Pin Half Pitch to and from Dsub 25 Pin	

The software package (SW0NW-AIDP/SW0IVW-AIDP) is required to communicate with a personal computer.

2.4 List of Functions

Mode	Function		Operation Purpose	Reference Item
Read	Read Entire Area		Read All the Data Carrier Data.	Item 5.2.1
	Setting Read	Address Specification Read	Reads the Data Carrier's Specified Address Data.	Item 5.2.2
		Item and Specification Read	Reads the Data Carrier's Specified Item Data.	Item 5.2.3
Write	Specification Write	Address Specification Write	Writes the Data to the Data Carrier's Specified Address.	Item 5.3.1
		Item Specification Write	Writes the Data to the Data Carrier's Specified Item.	Item 5.3.2
	Changing Data	Address Specification Change	Changes the Handy Controller's Specified Address Data.	Item 5.3.3
		Item Specification Change	Changes the handy Controller's specified item data.	Item 5.3.4
	Moving Data		Moves data between the Handy Controller blocks.	Item 5.3.5
Other	All Clear Command		Zero clears the data carrier's data.	Item 5.4.1
	Comparison Command	Address Specification Comparison	Compares the specified address data of the Handy Controller and the data carrier.	Item 5.4.2
		Item Specificaion Comparison	Compares the specified item data of the Handy Controller and the data carrier.	Item 5.4.3
	Usage Start		Puts the data carrier in the normal communication range.	Item 5.4.4
	Usage Stop		Puts the data carrier in the sleep state.	Item 5.4.5
	Total Number Of Communications		Reads the data carrier's total number of communications.	Item 5.4.6
	Memory Clear	Clear Entire Area	Zero clears all the Handy Controller's data.	Item 5.4.7
		Block Clear	Zero clears the Handy Controller's data in block units.	Item 5.4.8
	Item Name Display	Creator's Name Display	Displays the name of the person who created the format file being registered in the Handy Controller.	item 5.4.9
		Data Display	Displays the item data.	Item 5.4.10
		Display Switch	Switches the item name, item data display, and non-display.	Item 5.4.11
	Data Transmission		Transmits format files and data files between the Handy Controller and the personal computer.	Item 5.4.12
	Communication Change		Selects the add on (extension interface) or RS-232C.	Item 5.4.13
Display	Display Switch		Switches the data display between decimal, hexadecimal, and the character.	Item 5.5

3. Name and Use of Each Component

This section explains the name and use of each D-20HC component.

3.1 Usage Precautions

Following is an explanation of the usage precautions for the D-20HC.

(1) The case is made of plastic. Do not drop it or strike it forcefully.

(2) Do not disassemble the case. (Doing so could cause problems.)

(3) When the D-20HC-RW is removed, place a cover over the connector area.

(4) Do not touch the RS-232C connector pins. (Doing so could cause problems.)

(5) Do not remove the main unit's cover or loosen the cover's fastening screws. (Doing so could cause problems.)

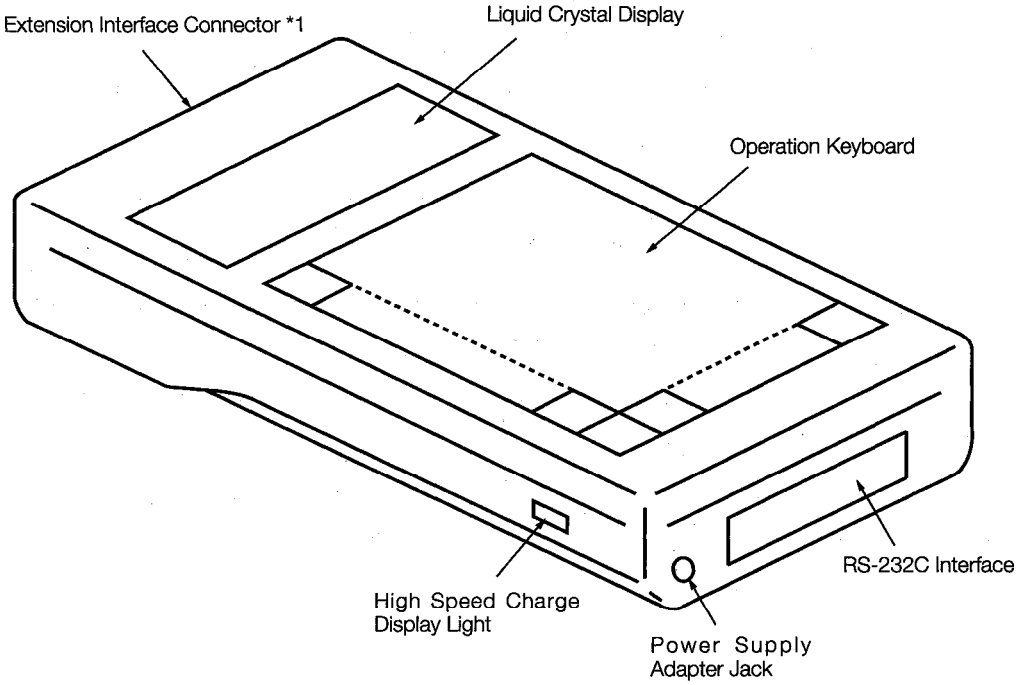
(6) If the keyboard becomes dirty, do not clean it with thinner, alcohol, or freon.

(7) Only conduct keyboard entry using your fingers. Using a pointed object for data entry could cause problems. Wearing gloves when doing key entry could cause the characters on the keys to be worn off. (When a key is pushed, a buzzer will sound to confirm the key entry.)

3.2 Names of D-20HC Components

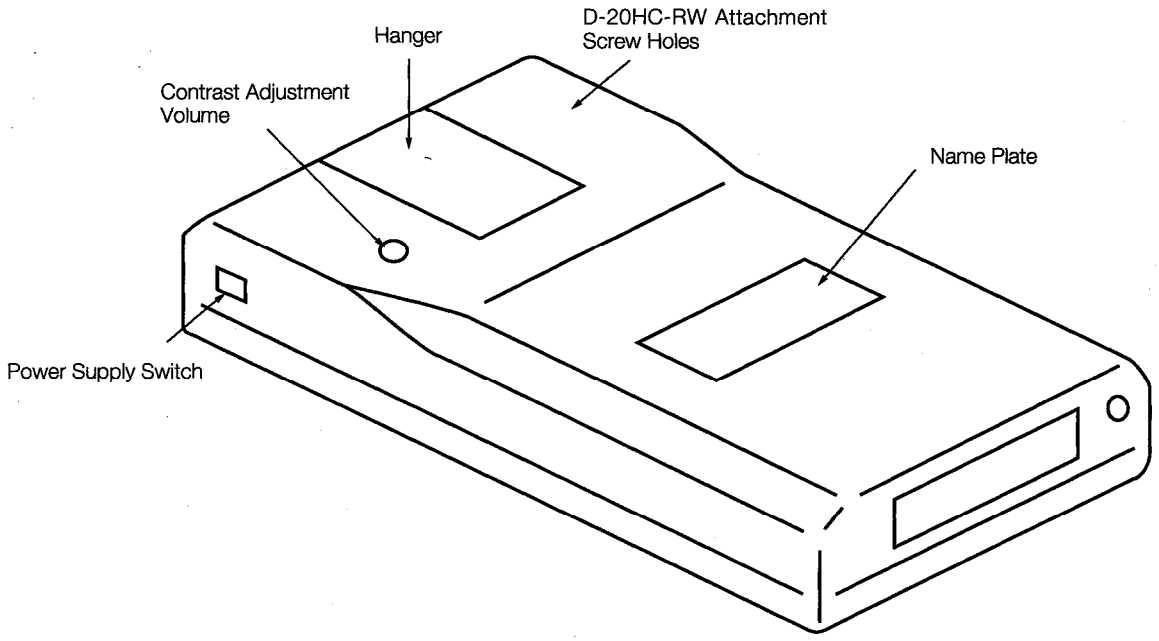
Following is shown the names of the D-20HC main unit components.

(Front)



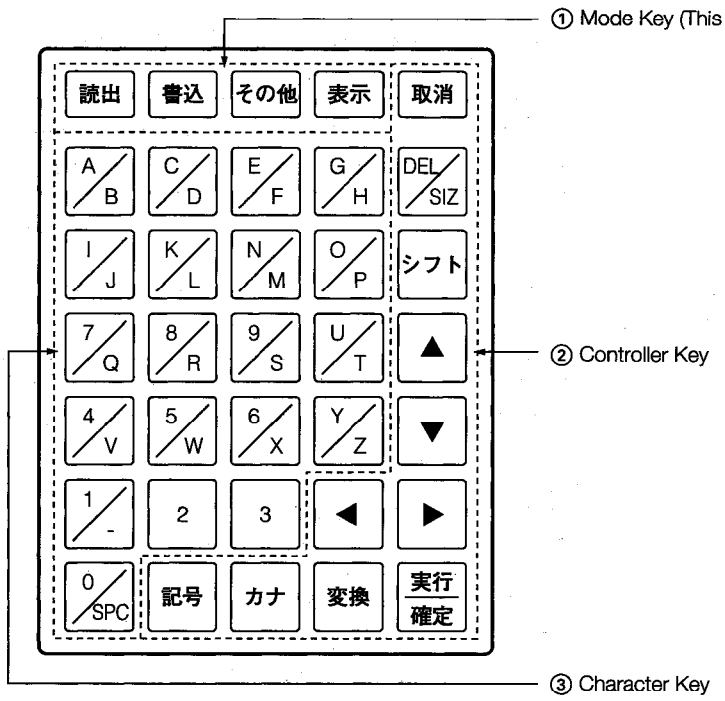
*1 The Extension Interface Connector Is for Connecting the Model D-20HC-RW Handy Controller Reader/Writer.

(Back)



3.3 Key Layout and List of Key Functions

Following is shown the key layout and functions for the D-20HC operation keyboard.



No.	Name	Key	Function Summary
①	Mode Key	読出 <read> ~ 表示 <display>	This key selects the D-20HC modes.
②	Controller Key	取消 <clear>	This key is used to undo an operation when a mistaken key operation was done.
			Returns to the previous display.
			Clears the input data and characters, etc.
		DEL/SIZ	DEL Deletes one data or character entry. SIZ When entering characters, this changes the alpha characters that are capitals to small letters or that are small letters to capital letters..
		シフト <shift>	This key is used to switch between the upper register and lower register of keys that have two functions. To see whether the upper register or lower register is currently valid, check the display.

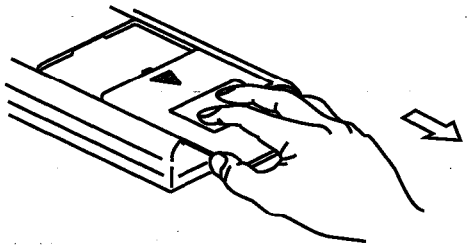
(Continued on the next page.)

No.	Name	Key	Function Summary
②	Controller Key (continued)	▲ ▼ ◀ ▶	These keys are used to specify the scroll direction of the scroll display. These keys are used to change the address and number of words.
		記号 <code>	This key makes it possible to enter codes when the display mode is in character display.
		カナ <katakana>	This key is used to change Romanized letters into katakana. When the display mode is characters, this allows half width kana input.
		変換 <transfer>	When the display mode is characters, this allows the characters to be converted to full width kana and Chinese characters.
		実行 確定 <execute/ enter>	When pushed after a series of key operations, this key executes the key operations pushed up until now.
③	Character Keys	A/B ~ 0/SPC	This key is used to input addresses, number of words, and data. Only push the シフト key when it is necessary to switch between the upper register and lower register keys.

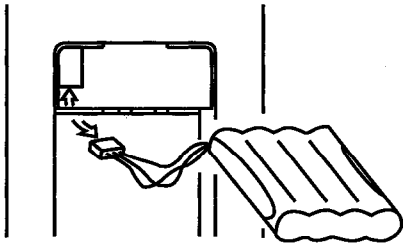
3.4 Battery Installation and Charging

Batteries are not installed in newly purchased products. Conduct charging after installing batteries.

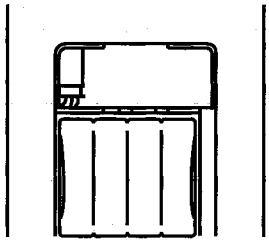
① Remove the D-20HC's back lid.



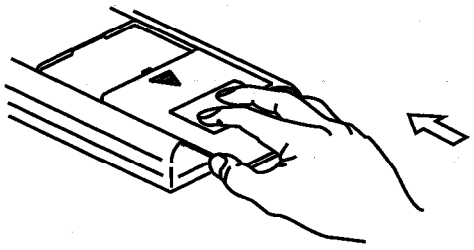
② Connect the D-20HC-BAT's connector to the D-20HC's connector.



③ Load the D-20HC-BAT into the unit.



④ Replace the back lid of the D-20HC.



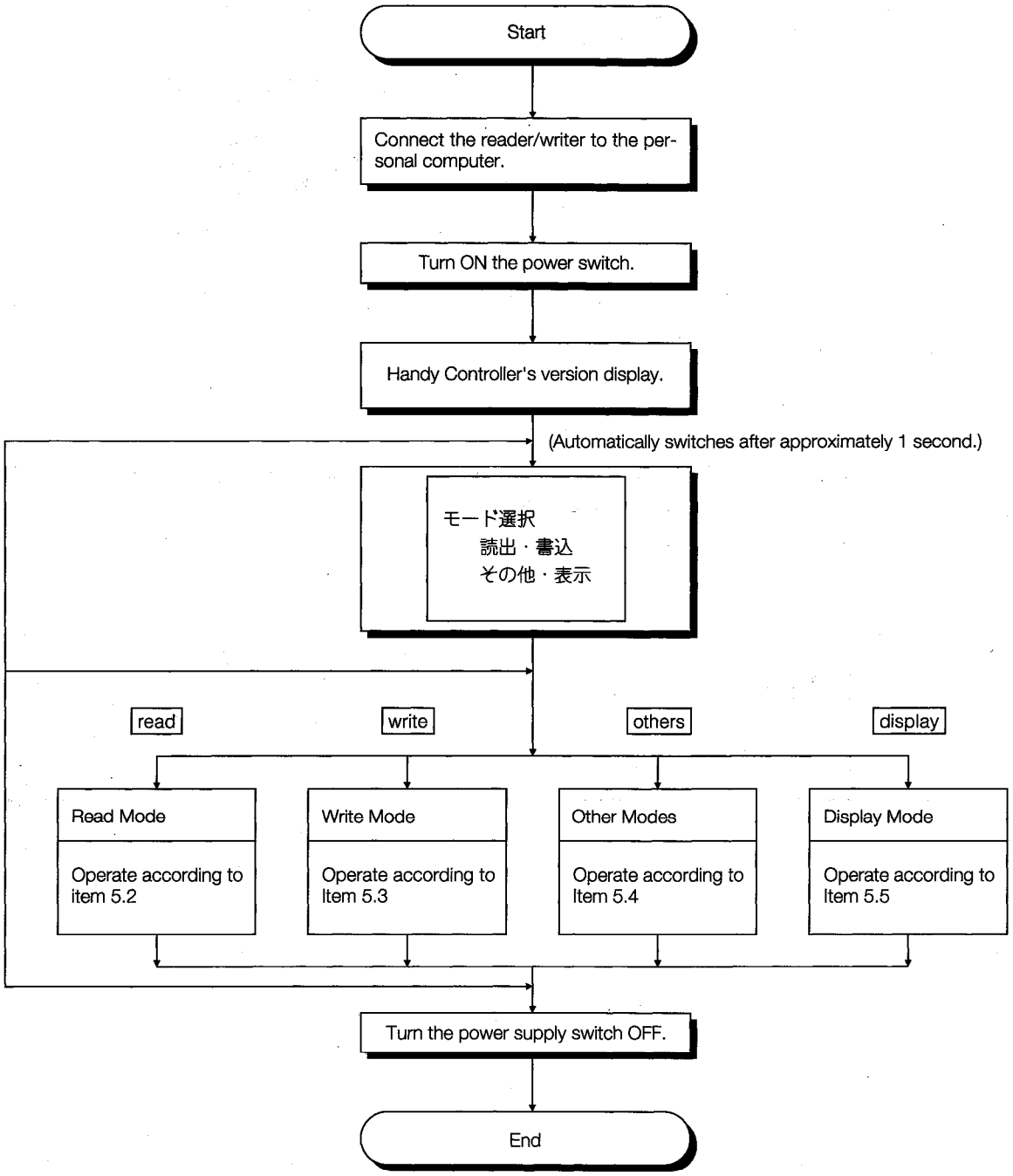
⑤ Connect the D-20HC-PS and begin charging.

MEMO

4. Operation Procedure

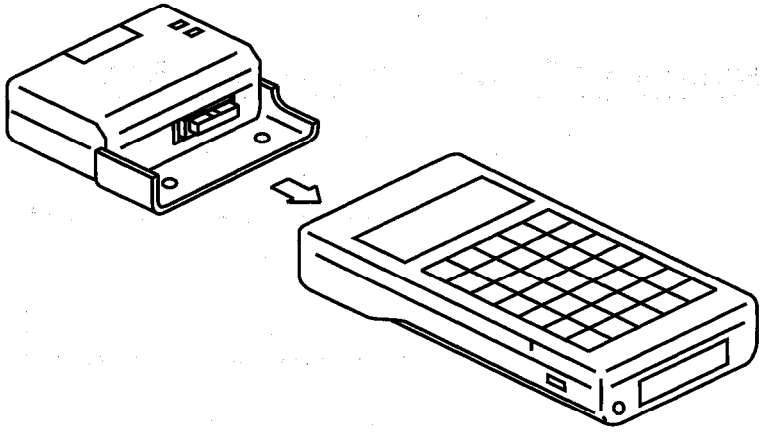
This section explains the operating procedure from connection to disconnection, the screen displays, and the basic operation when using the D-20HC.

4.1 Procedure from Boot Up to Operation End



4.1.1 Connecting to the D-20HC-RW

Communication with the data carrier can be done by connecting the D-20HC to the D-20HC-RW.



The connection procedure is as follows.

① Turn the D-20HC's power OFF.

② Remove the extension interface protection cover from the top of the D-20HC. Store the removed cover in a safe place.

③ Connect the D-20HC-RW to the top of the D-20HC, and tighten the D-20HC-RW fastening screws. The fastening torque is 39 to 49 N·cm (4 to 5kg·cm).

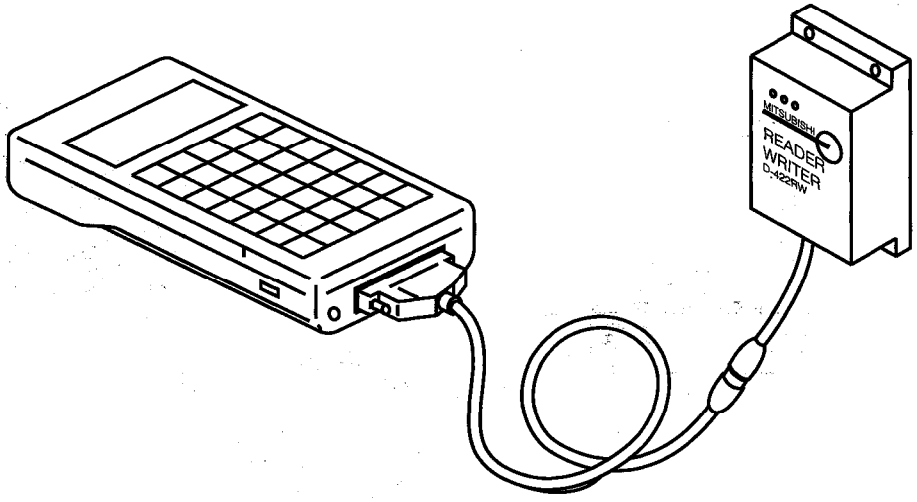
④ Turn the D-20HC power ON.

Main Point

When connecting the D-20HC-RW, turn the D-20HC's power OFF. If the power is left ON, connecting could cause problems.

4.1.2 Connecting to the Reader/Writer

Communication with the data carrier can be done by connecting to the D-20HC's reader/writer.



The connection procedure is as follows.

(1) When Connecting the D-232RW

① Turn OFF the D-20HC's power.

② Connect the D-232RW to the D-232CAB10.

③ Connect the D-20HC's RS-232C interface to the D-232CAB10.

④ Turn ON the D-20HC's power.

⑤ When changing to other modes of communication, change from the add on to the RS-232C.

(2) When Connecting the D-422RW

① Turn OFF the D-20HC's power.

② Connect the D-422RW to the D-232IF.

③ Connect the D-232IF and the RS-232C cable.

④ Connect the D-232IF power supply adapter.

⑤ Connect the D-20HC's RS-232C interface to the RS-232C cable.

⑥ Turn ON the D-20HC's power.

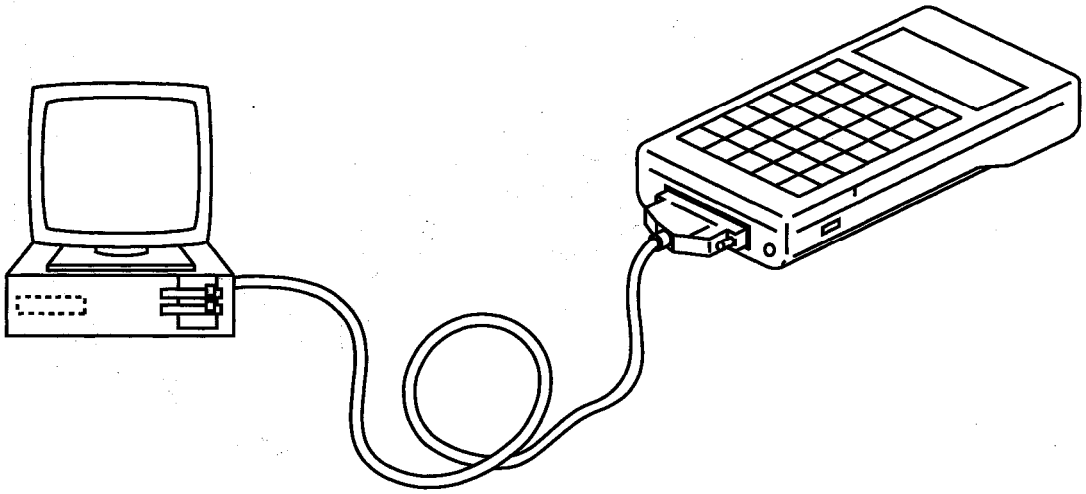
⑦ When changing to other communication modes, change from the add on to the RS-232C.

Main Point

- When connecting the cable, turn OFF the D-20HC's power. Leaving the power on could cause problems.
- When the D-20HC's power is turned OFF, the RS-232C setting becomes set to the add on, so when the power is turned ON, be sure to set it to the RS-232C.

4.1.3 When Connecting to the Personal Computer

Combining with the model SW0NW-AIDP/SW0IVD-AIDP ID System Software Package makes it possible to transmit the format files and data files to the D-20HC.



The connection procedure is as follows.

① Turn off the D-20HC's power.

② Connect the D-20HC to the personal computer using an RS-232C cable.

③ Start up the personal computer, and then boot up the ID System Software Package.

④ Turn on the D-20HC's power.

⑤ Hereafter, conduct the procedure for transmitting data.

Main Point

When connecting the cable, turn OFF the D-20HC's power. Leaving the power ON could cause problems.

4.2 Adjusting the Display

This section explains how to adjust the display of the D-20HC.

4.2.1 Adjusting the Display Contrast

After starting up the D-20HC, the display's contrast can be adjusted by turning the contrast adjustment volume knob on the back of the main unit.

4.2.2 Display Turn Off Function (This function turns OFF the D-20HC power.)

If five minutes elapse and no key entries have been made, the D-20HC's power automatically turns OFF. To turn the power ON again, first turn the power switch OFF once, and then turn it ON. (This will start the unit from initialization.)

4.3 Key Operation Fundamentals

This section explains the key entry fundamental operation after the D-20HC is started up.

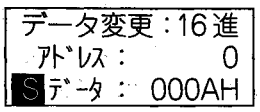
4.3.1 Shift Key Switching (Upper and Lower Registers)

The D-20HC's keys have two functions, one for the upper register and one for the lower register.

Normally, the upper register is valid, but by pressing the [シフト] key, low register keys can become valid.

When the [シフト] key is pushed, the following will be displayed.

Example



Main Points

Entering one character will cancel the [シフト] key. To again validate the lower register keys, you must again push the [シフト] key.

4.3.2 Correction Method for Mistaken Key Operation

(1) Before entering the [実行 確定] key, enter the [取消] key to undo the operation.

Entering the [取消] key, returns to the previously entered data.

(2) When the [実行 確定] key has been accidentally entered, undo the correct operation.

4.3.3 Numerical Entry

The following shows the method for entering data numerically.

(1) Entering Decimal Numbers

[Example]

When entering "365."

①		モード選択 読出・書込 その他・表示	
②	書込 <write>	ﾓｰﾄﾞ 設定書込み 選択 データ変更 データ移動	Select the write mode.
③	実行 確定	変更方法選択 ｱﾄﾞﾚｽ指定変更 項目指定変更	Select data change.
④	実行 確定	アドレスは？ ｱﾄﾞﾚｽ: 0	Select address specification change.
⑤	実行 確定	When the display mode is any other than decimal, push the 表示 key to change the mode to the decimal mode.	データ変更：10進 ｱﾄﾞﾚｽ: 0 ﾃﾞｰﾀ: 0	Specify the address.
⑥	3 → 6/X → 5/W	データ変更：10進 ｱﾄﾞﾚｽ: 0 ﾃﾞｰﾀ: 365	Enter the data.
⑦	実行 確定	データ変更：10進 ｱﾄﾞﾚｽ: 1 ﾃﾞｰﾀ: 0	The change is completed.

(2) Entering Hexadecimal Numbers

[Example]

When entering "&H4F."

①		モード選択 読出・書込 その他・表示	
②	[書込]	ﾓｰﾄﾞ 設定書込み 選択 データ変更 データ移動	Select the write mode.
③	[実行 確定]	変更方法選択 ｱﾄﾞﾚｽ指定変更 項目指定変更	Select change data.
④	[実行 確定]	アドレスは？ ｱﾄﾞﾚｽ: 0	Select address specification change.
⑤	[実行 確定]	When the display mode is any other than the hexadecimal display, press the [表示] key to change to the hexadecimal mode.	データ変更：16進 ｱﾄﾞﾚｽ: 0 ﾃﾞｰﾀ: 0000H	Specify the address.
⑥	[4/V] → [シフト] → [E/F]	データ変更：16進 ｱﾄﾞﾚｽ: 0 ﾃﾞｰﾀ: 004FH	Enter the data.
⑦	[実行 確定]	データ変更：16進 ｱﾄﾞﾚｽ: 1 ﾃﾞｰﾀ: 0000H	Change is now completed.

4.3.4 Character Input

Following is the method for entering character data.

(1) Half-Width Alphanumeric Input

[Example]

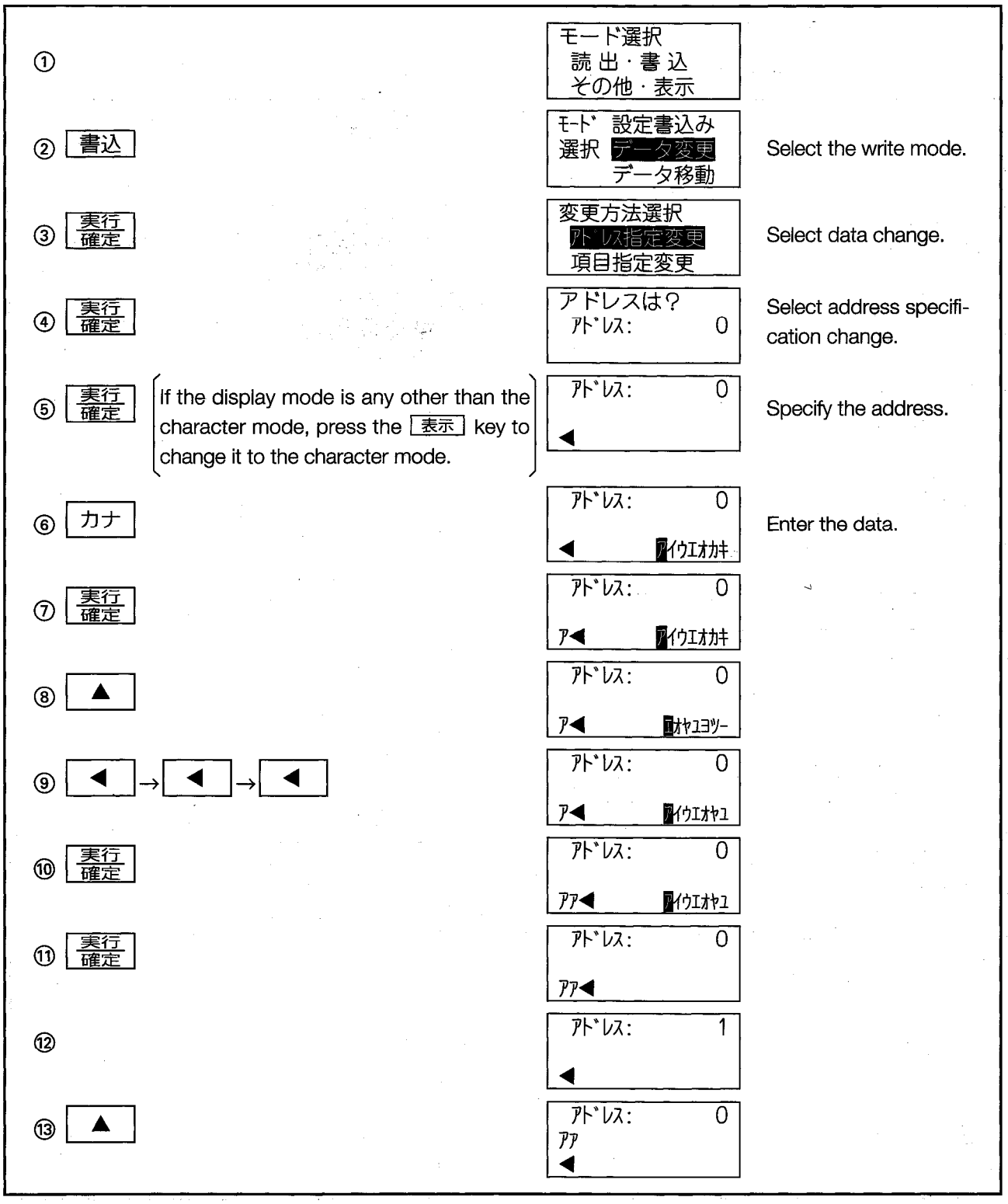
When entering "ABCabc01" from address 0.

①		モード選択 読 出・書 込 その他・表示	
②	書込	ﾓｰﾄﾞ 設定書込み 選択 データ変更 データ移動	Select the read mode.
③	実行 確定	変更方法選択 ｱﾄﾞﾚｽ指定変更 項目指定変更	Select data change.
④	実行 確定	アドレスは？ ｱﾄﾞﾚｽ: 0	Select address specification change.
⑤	実行 確定	When the display mode is any other than the character mode, press the 表示 key to change the mode to character.	ｱﾄﾞﾚｽ: 0 ◀	Specify the address.
⑥	A/B → シフト → A/B → C/D	ｱﾄﾞﾚｽ: 0 ABC◀	Enter the data.
⑦	シフト → DEL/SIZ	ｱﾄﾞﾚｽ: 0 abc◀	
⑧	A/B → シフト → A/B → C/D	ｱﾄﾞﾚｽ: 0 abcABC◀	
⑨	シフト → DEL/SIZ	ｱﾄﾞﾚｽ: 0 ABCabc◀	
⑩	0/SPC → 1/_	ｱﾄﾞﾚｽ: 0 ABCabc01◀	
⑪	実行 確定	ｱﾄﾞﾚｽ: 4 ◀	
⑫	▲	ｱﾄﾞﾚｽ: 0 ABCabc01 ◀	

(2) Half-Width Katakana Input

[Example]

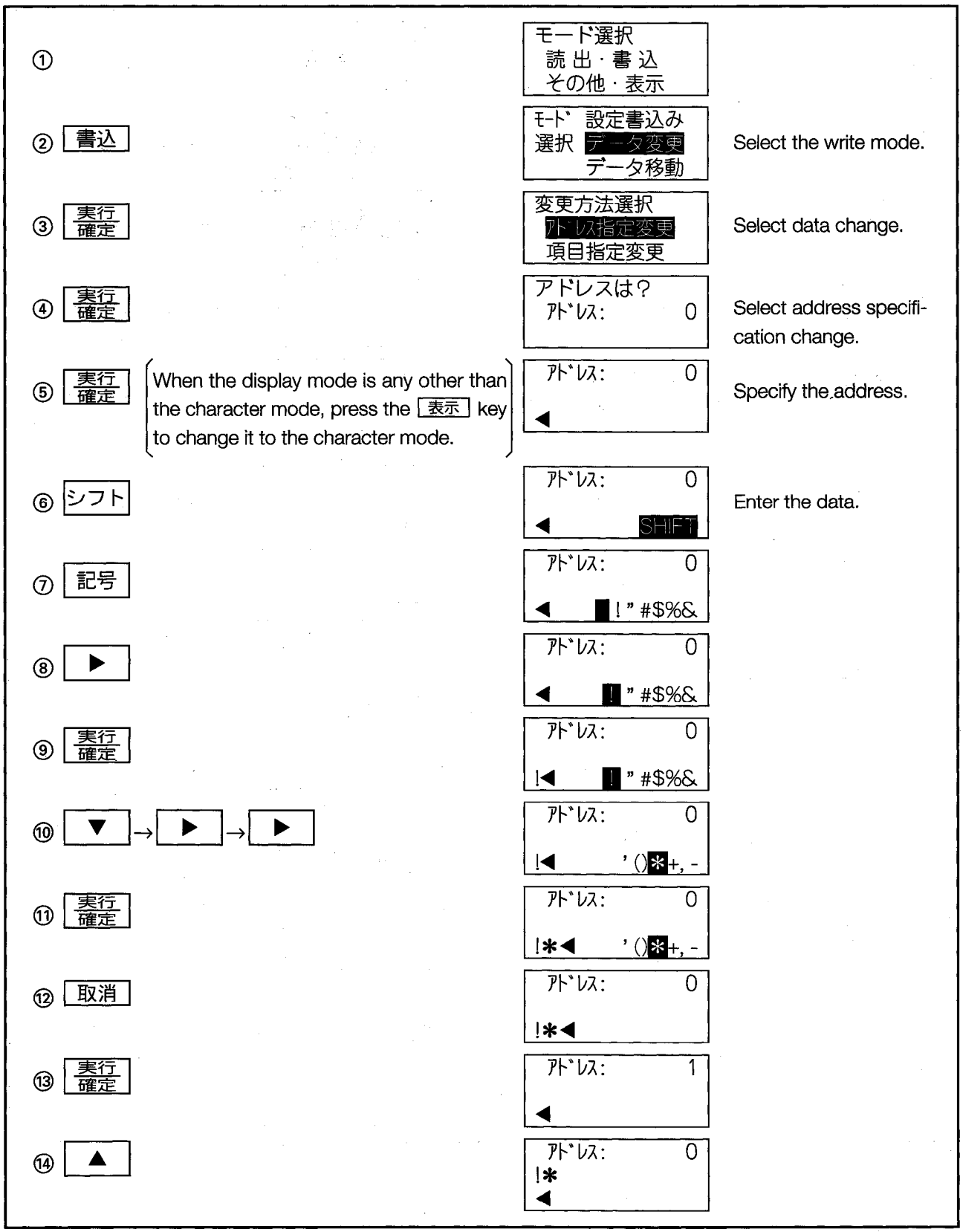
When entering " ｱｱ " from address 0.



(3) Half-Width Symbol Input

[Example]

When entering "!✱ " from address 0.



(4) Full-Width Hiragana Input (Not Using Automatic Conversion)

[Example]

When entering " あぎぴゅ " from address 0.

①		モード選択 読 出・書 込 その他・表示	
②	書込	ﾓｰﾄﾞ 設定書込み 選択 データ変更 データ移動	Select the write mode.
③	実行 確定	変更方法選択 ｱﾄﾞﾚｽ指定変更 項目指定変更	Select data change.
④	実行 確定	アドレスは？ ｱﾄﾞﾚｽ: 0	Select address specification change.
⑤	実行 確定	ｱﾄﾞﾚｽ: 0 ◀	Specify the address.
⑥	A / B	ｱﾄﾞﾚｽ: 0 A◀	Enter the data.
⑦	変換	ｱﾄﾞﾚｽ: 0 あ◀	
⑧	G / H → I / J	ｱﾄﾞﾚｽ: 1 GI◀	
⑨	変換	ｱﾄﾞﾚｽ: 1 ぎ◀	
⑩	シフト → O / P → Y / Z → U / T	ｱﾄﾞﾚｽ: 2 PYU◀	
⑪	変換	ｱﾄﾞﾚｽ: 2 ぴゅ◀	
⑫	実行 確定	ｱﾄﾞﾚｽ: 4 ◀	
⑬	▲	ｱﾄﾞﾚｽ: 0 あぎぴゅ ◀	

When the display mode is any other than the character mode, press the 表示 key to change it to the character mode.

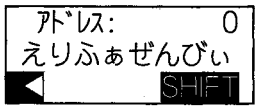
(5) Full-Width Hiragana Input (Using Automatic Conversion)

[Example]

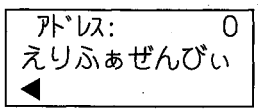
When entering " えりふぁぜんびぃ " from address 0.

①	モード選択 読出・書込 その他・表示	
② 書込	ﾓｰﾄﾞ 設定書込み 選択 データ変更 データ移動	Select the write mode.
③ 実行 確定	変更方法選択 ｱﾄﾞﾚｽ指定変更 項目指定変更	Select the data change.
④ 実行 確定	アドレスは？ ｱﾄﾞﾚｽ: 0	Select the address specification change.
⑤ 実行 確定 (When the display mode is any other than the character mode, press the 表示 key to change it to the character mode.)	ｱﾄﾞﾚｽ: 0 ◀	Specify the address.
⑥ シフト → 変換	ｱﾄﾞﾚｽ: 0	Enter the data.
⑦ E/F	ｱﾄﾞﾚｽ: 0 え	
⑧ シフト → 8/R → I/J	ｱﾄﾞﾚｽ: 1 り	
⑨ シフト → E/F → A/B	ｱﾄﾞﾚｽ: 2 ふぁ	
⑩ シフト → Y/Z → E/F	ｱﾄﾞﾚｽ: 4 ぜ	
⑪ N/M → N/M	ｱﾄﾞﾚｽ: 5 ん	
⑫ シフト → A/B → Y/Z → I/J	ｱﾄﾞﾚｽ: 6 びぃ	
⑬ 実行 確定	ｱﾄﾞﾚｽ: 8	
⑭ ▲	ｱﾄﾞﾚｽ: 8 えりふぁぜんびぃ	

⑮ シフト



⑯ 変換



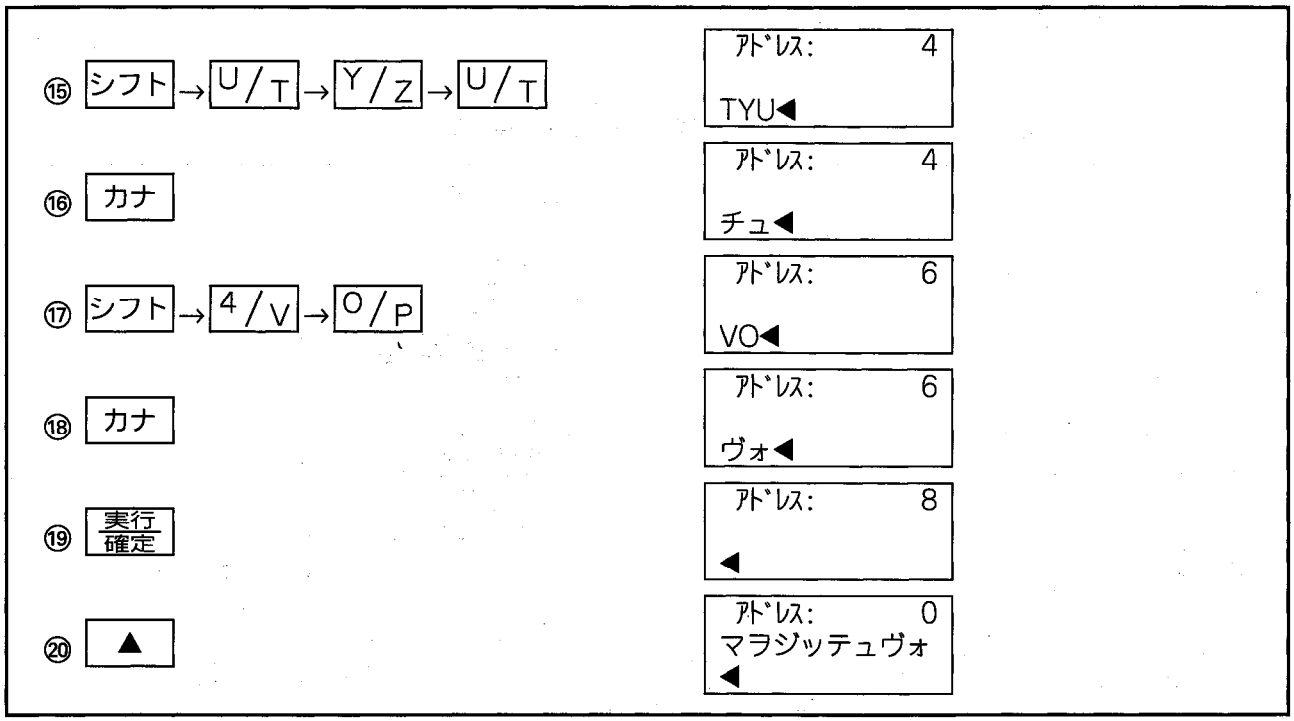
(6) Full-Width Katakana Input

[Example]

When entering " マヲジッテュヴォ " from address 0.

①		モード選択 読 出・書 込 その他・表示	
②	書込	ﾓｰﾄﾞ 設定書込み 選択 データ変更 データ移動	Select the write mode.
③	実行 確定	変更方法選択 ｱﾄﾞﾚｽ指定変更 項目指定変更	Select data change.
④	実行 確定	アドレスは？ ｱﾄﾞﾚｽ: 0	Select address specification change.
⑤	実行 確定	ｱﾄﾞﾚｽ: 0 ◀	Specify the address.
⑥	シフト → N/M → A/B	ｱﾄﾞﾚｽ: 0 MA◀	Enter the data.
⑦	カナ	ｱﾄﾞﾚｽ: 0 マ◀	
⑧	シフト → 5/W → O/P	ｱﾄﾞﾚｽ: 1 WO◀	
⑨	カナ	ｱﾄﾞﾚｽ: 1 ヲ◀	
⑩	シフト → I/J → I/J	ｱﾄﾞﾚｽ: 2 JI◀	
⑪	カナ	ｱﾄﾞﾚｽ: 2 ジ◀	
⑫	シフト	ｱﾄﾞﾚｽ: 2 ジ◀ SHIFT	
⑬	6/X → シフト → U/T → U/T	ｱﾄﾞﾚｽ: 3 XTU◀	
⑭	カナ	ｱﾄﾞﾚｽ: 3 ッ◀	

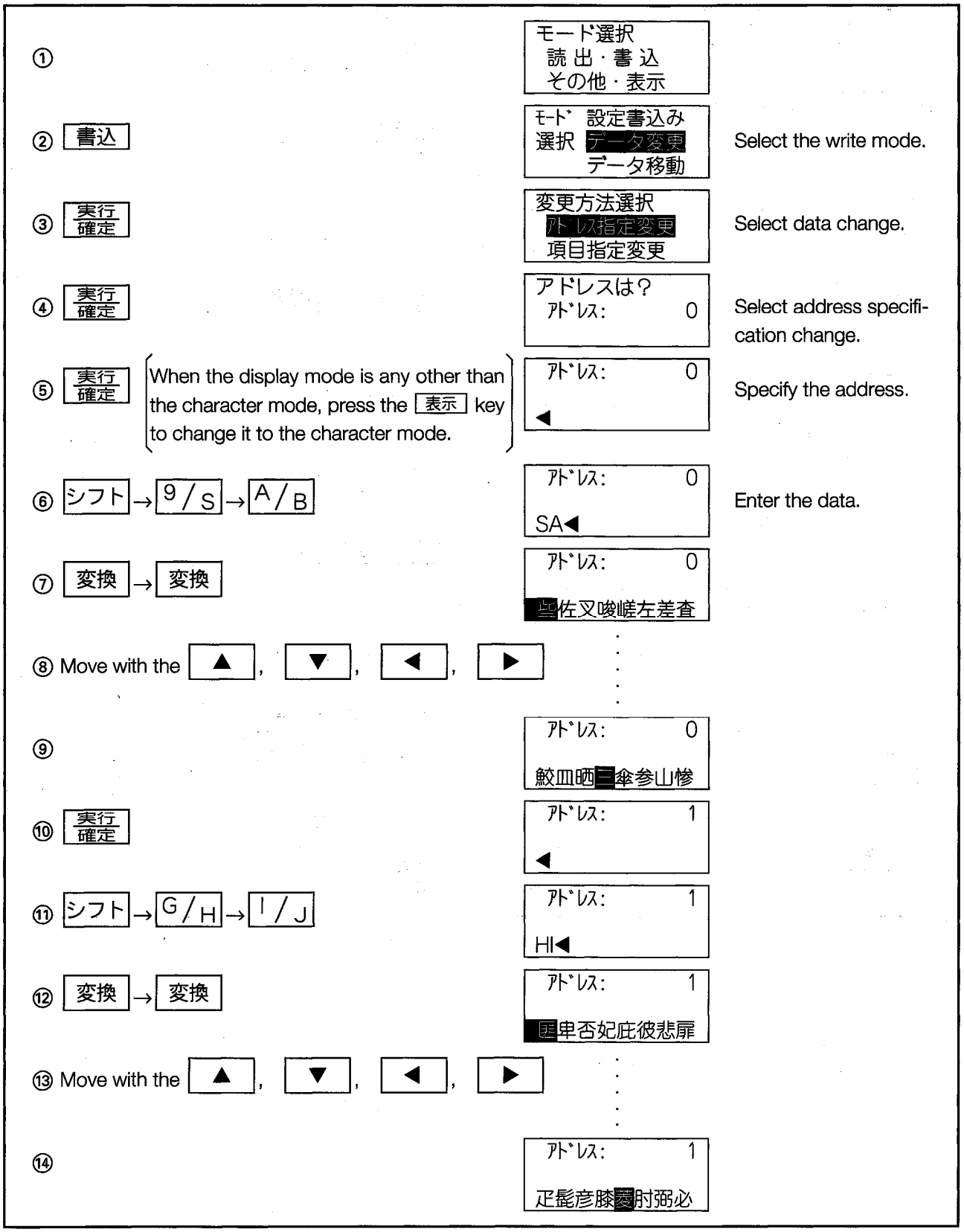
When the display mode is any other than the character mode, press the 表示 key to change it to the character mode.

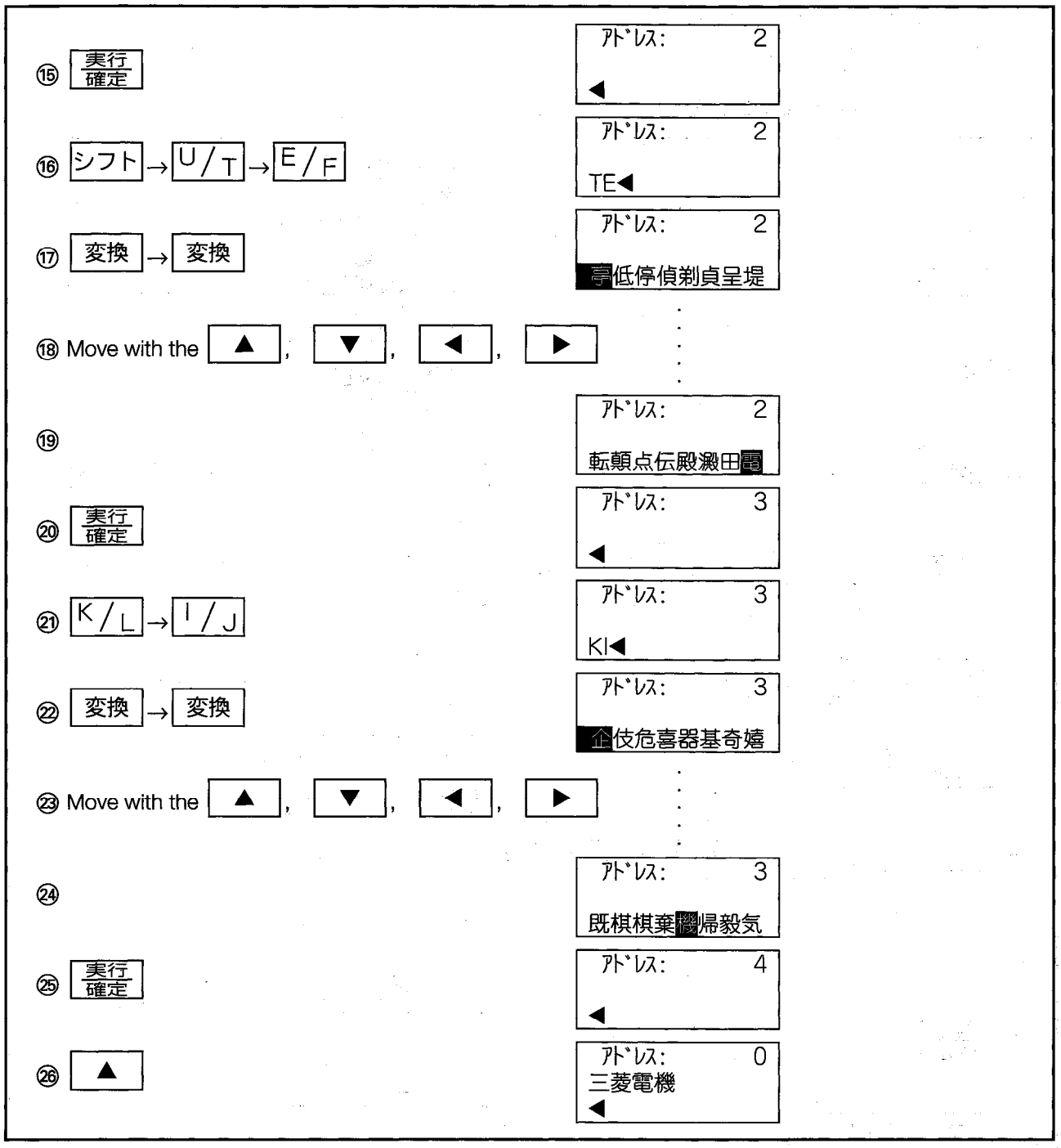

⑮ シフト → U/T → Y/Z → U/T
⑯ カナ
⑰ シフト → 4/V → O/P
⑱ カナ
⑲ 実行 確定
⑳ ▲
ｱﾄﾞﾚｽ: 4
TYU◀
ｱﾄﾞﾚｽ: 4
チュ◀
ｱﾄﾞﾚｽ: 6
VO◀
ｱﾄﾞﾚｽ: 6
ヴォ◀
ｱﾄﾞﾚｽ: 8
◀
ｱﾄﾞﾚｽ: 0
マヲジッテュヴォ
◀

(7) Chinese Character Input

[Example]

When entering " 三菱電機 " from address 0.

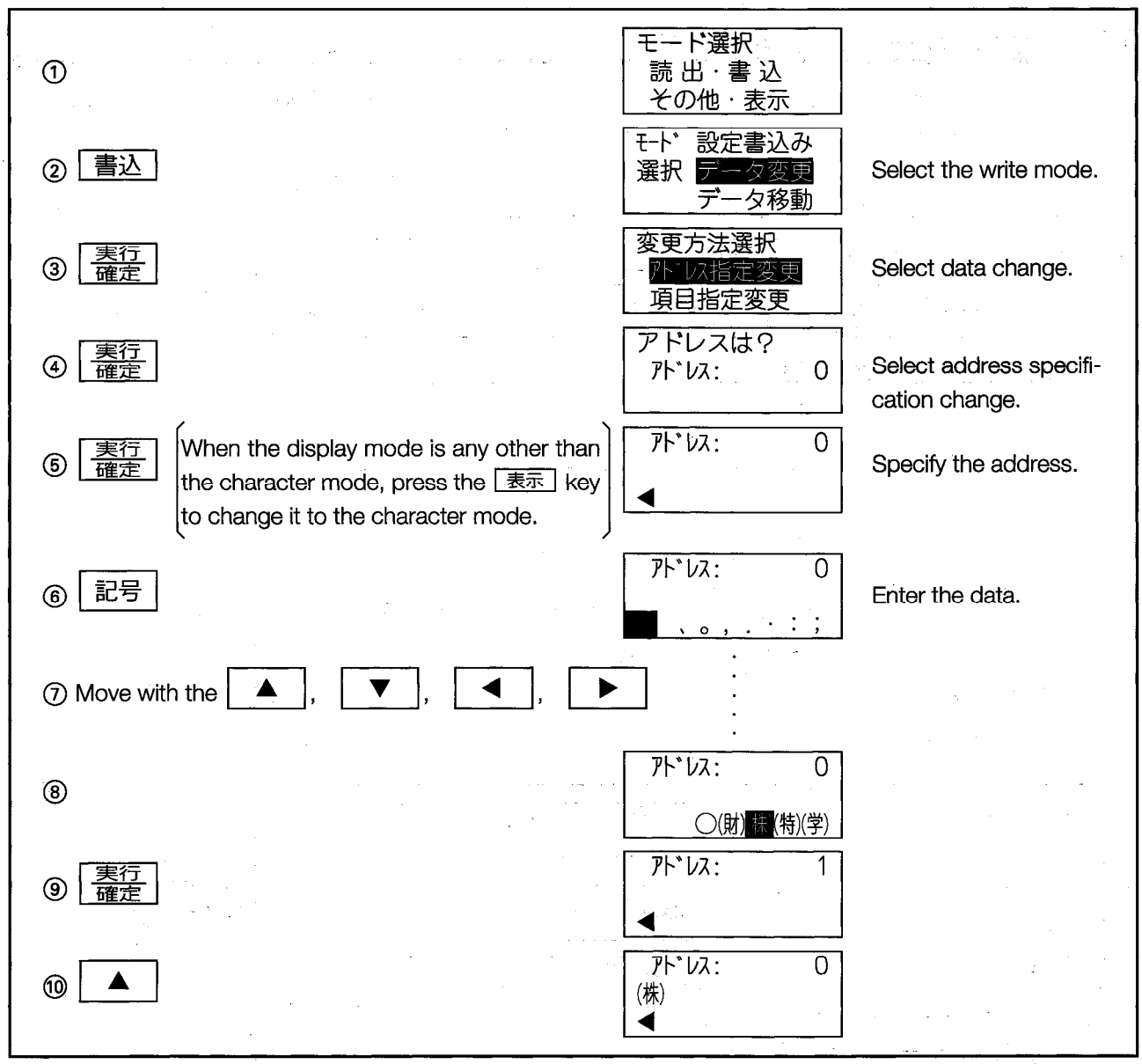



⑮ 実行 確定
ｱﾄﾞﾚｽ: 2
◀
⑯ シフト → U/T → E/F
ｱﾄﾞﾚｽ: 2
TE◀
⑰ 変換 → 変換
ｱﾄﾞﾚｽ: 2
亭低停偵剃貞呈堤
⑱ Move with the ▲, ▼, ◀, ▶
⑲
ｱﾄﾞﾚｽ: 2
転顛点伝殿澱田電
⑳ 実行 確定
ｱﾄﾞﾚｽ: 3
◀
㉑ K/L → I/J
ｱﾄﾞﾚｽ: 3
KI◀
㉒ 変換 → 変換
ｱﾄﾞﾚｽ: 3
企伎危喜器基奇嬉
㉓ Move with the ▲, ▼, ◀, ▶
㉔
ｱﾄﾞﾚｽ: 3
既棋棋棄機帰毅気
㉕ 実行 確定
ｱﾄﾞﾚｽ: 4
◀
㉖ ▲
ｱﾄﾞﾚｽ: 0
三菱電機
◀

(8) Full-Width Symbol Input

[Example]

When entering "（株）" from address 0.



5. Function Operation Methods

This section gives explanations for each of the modes.

5.1 Explanation of Operations

The explanations of the modes and functions is done using the configuration shown on the following page.

Mode	Read	Write	Other	Display
Function	Entire Area Specification Read	Setting Read (Address Specification Read)	Settings Read (Item Specification Read)	

Current Mode

Current Functions

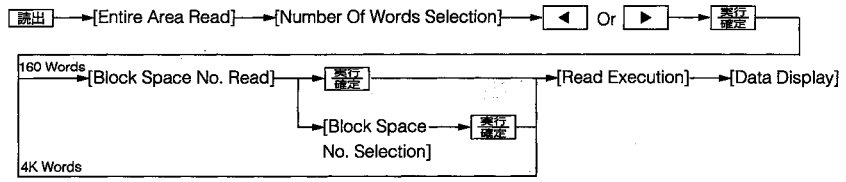
5.2 Read Mode Operations

Procedure for reading data from the data carrier.

5.2.1 Entire Area Specification Read

Reads the data from all areas of the data carrier.

[Fundamental Operation]



Basic Key Operation

[Example Operation]

When reading D-03P data 160 words to block No. 2.

① モード選択 読出・書込 その他・表示 — Mode selection screen display

② 読出 — 読出方法選択 160 設定読出 — Select the read mode.

③ 実行 確定

Key In Procedure Following Operation Example and Display Contents

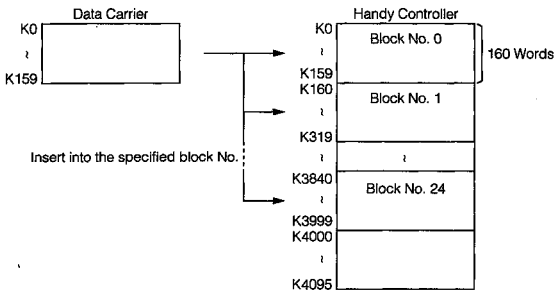
[Explanation]

(1) Reads the data for all areas of the data carrier.

(2) The data insertion destination varies depending on the data carrier's capacity and the specified block No.

- For D-03C/D-03P

  The data is inserted by a specified block No. in 160 word divisions.



Detailed Explanation of Each Key Operation

Mode	Read	Write	Other	Display

Function	Entire Area Specification Read	Setting Read (Address Specification Read)	Settings Read (Item Specification Read)

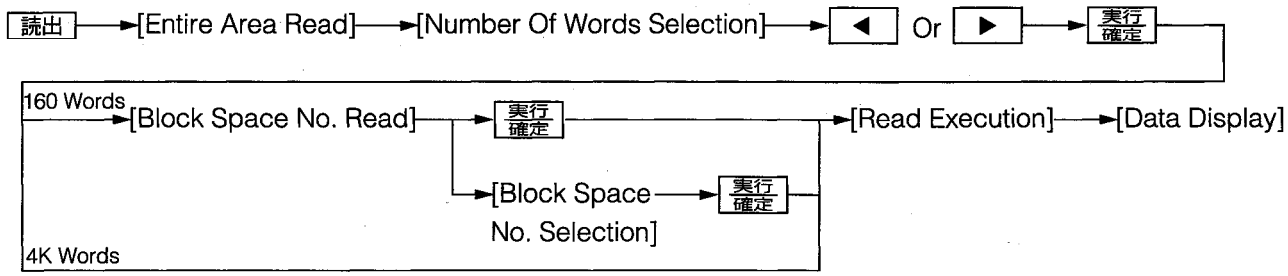
5.2 Read Mode Operations

Procedure for reading data from the data carrier.

5.2.1 Entire Area Specification Read

Reads the data from all areas of the data carrier.

[Fundamental Operation]



[Example Operation]

When reading D-03P data 160 words to block No. 2.

①	モード選択 読 出・書 込 その他・表示	Mode selection screen display
② 読出	読出方法選択 全域読出 160 設定読出	Select the read mode.
③ 実行 確定	ﾌﾞﾛｯｸNO. 0 に読み出します。 実行・取り消し	Select the block No.
④ 取消 → 2	何番のブロックに 読み出しますか？ (0-24): 2	Enter the block No.
⑤ 実行 確定	全域読出実行中AD （１６０ワード） 取消	Execute the read.
⑥	読出完了！！ （１６０ワード） 取消	The read is complete.
⑦	データ表示：16進 ｱﾄﾞﾚｽ: 320 ﾃﾞｰﾀ: 001AH	Data display

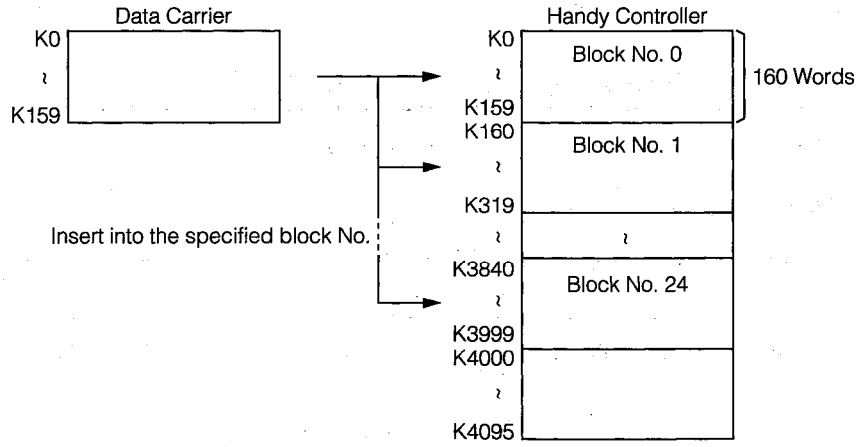
[Explanation]

(1) Reads the data for all areas of the data carrier.

(2) The data insertion destination varies depending on the data carrier's capacity and the specified block No.

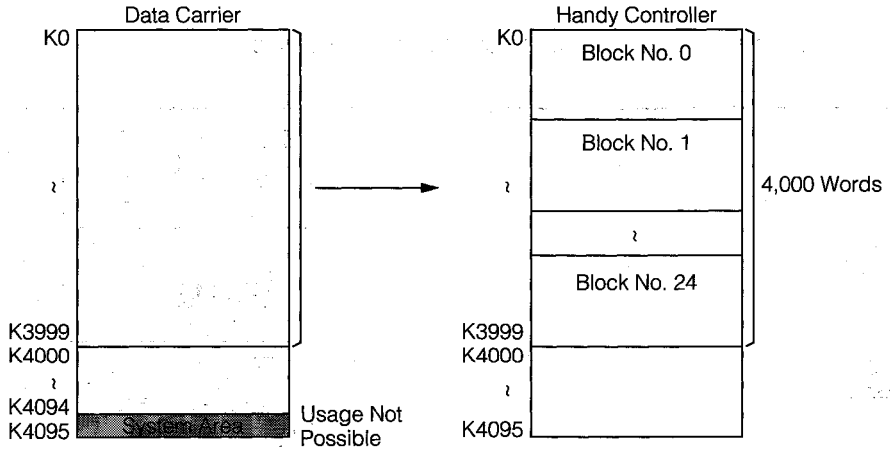
- For D-03C/D-03P

  The data is inserted by a specified block No. in 160 word divisions.



- For D-8P/D-8PS

  The entire area for block No. 0 to block No. 24 is inserted.



Main Point

Conduct address specification read when reading data areas of K4000 to K4094 from the data carrier.

(3) When an error occurs after the command is executed, press the [取消] key to cancel the command, or, when the data carrier does not exist, the following is displayed.

```
読み出しエラー！
  リトライ：実行
キャンセル：取消
```

To re-execute, press the [実行 確定] key, and to terminate, press the [取消] key.

(4) To move the address after the data is displayed, directly enter the address with the character keys, or specify it with the following keys.

[◀] ····· Specifies the address as -1 from the current address.

[▶] ····· Specifies the address as +1 from the current address.

[▲] ····· Specifies the address as -10 from the current address.

[▼] ····· Specifies the address as +10 from the current address.

(5) To change the data display units, press the [表示] key. Each time the [表示] key is pressed, the display will change from decimal, to hexadecimal, to character.

(6) To end the entire area specification read, press the mode keys ([読出], [書込], [その他]<others>), or press the [取消] key.

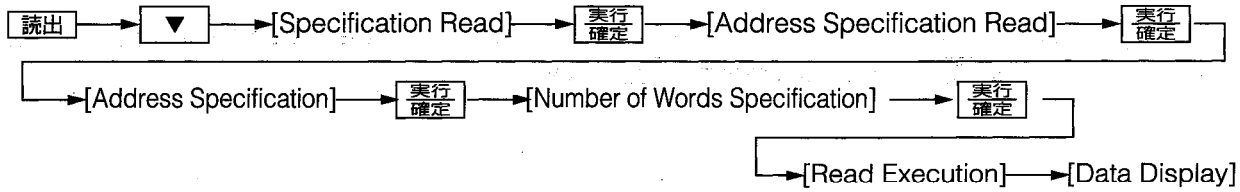
Mode	Read	Write	Other	Display

Function	Entire Area Specification Read	Setting Read (Address Specification Read)	Settings Read (Item Specification Read)

5.2.2 Settings Read (Address Specification Read)

Reads the specified word number groups data from the data carrier's specified address.

[Fundamental Operations]



[Example Operation]

When the data for ten words is read from the data carrier's address 280.

①		モード選択 読 出・書 込 その他・表示	Mode Selection Screen Display
②	読出	読出方法選択 全域読出 160 設定読出	Select the read mode.
③	▼	読出方法選択 全域読出 160 設定読出	Select the settings read.
④	実行確定	読出方法選択 ｱﾄﾞﾚｽ指定読出 項目指定読出	Select the address specification read.
⑤	実行確定 → 2 → 8/R → 0/SPC	読出アドレスは？ ｱﾄﾞﾚｽ: 280	Specify the read address.
⑥	実行確定 → 1/_ → 0/SPC	読出ワード数は？ ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 280	Specify the read number of words.
⑦	実行確定	読出し実行中 AD ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 280	Execute the read.
⑧		読出完了！！ ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 280	The read is completed.
⑨		データ表示：16進 ｱﾄﾞﾚｽ: 280 ﾃﾞｰﾀ: 0000H	Data display

[Explanation]

(1) The data is inserted from the specified address in the specified word number blocks.

(2) The specified address and number of words are as follows.

Address : 0 to 4094

Number Of Words : 1 to 4095

Main Points

If the setting for the address or the address plus number of words exceeds the data carrier's address range, an error for the command will occur approximately 20 seconds after execution.

(3) When an error occurs after command execution, press the [取消] key to cancel the command, or, if a data carrier does not exist, the following will be displayed.

```
読み出しエラー！
  リトライ： 実行
キャンセル： 取消
```

To re-execute, press the [実行 確定] key, and to terminate, press the [取消] key.

(4) To change the data display units, press the [表示] key. Each time the [表示] key is pressed, the display is changed from decimal, to hexadecimal, to character.

(5) Pressing the [取消] key after the data is displayed makes it possible to set for re-read. When the key is pushed, the following is displayed.

```
再読出しますか？
実行・取り消し
```

To re-execute, press the [実行 確定] key, or, to terminate, press the [取消] key.

(6) To end the address specification read, press the mode keys ([読出], [書込], [その他]), or press the [取消] key twice.

(7) The address for read address, number of word specification, or address move after data display can be directly entered using the character keys or using the keys specified below.

[◀] ····· Displays the -1 address from the current address.

[▶] ····· Displays the +1 address from the current address.

[▲] ····· Displays the -10 address from the current address.

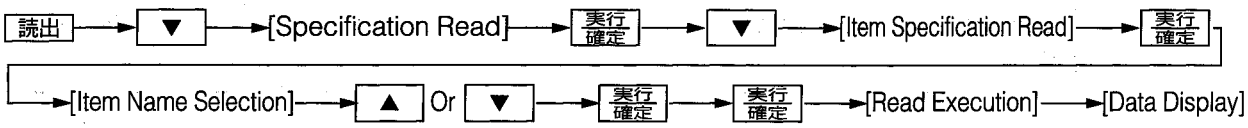
[▼] ····· Displays the +10 address from the current address.

Mode	Read	Write	Other	Display
Function	Entire Area Specification Read	Setting Read (Address Specification Read)	Settings Read (Item Specification Read)	

5.2.3 Settings Read (Item Specification Read)

Reads from the specified item data carrier.

[Fundamental Operation]



[Example Operation]

When reading the item name "part number one" data.

①		モード選択 読 出・書 込 その他・表示	Mode Selection Screen Display
②	読出	読出方法選択 全域読出 160 設定読出	Select the read mode.
③	▼	読出方法選択 全域読出 160 設定読出	Select the settings read.
④	実行 確定	読出方法選択 ｱﾄﾞﾚｽ指定読出 項目指定読出	Select the read method selection.
⑤	▼	読出方法選択 ｱﾄﾞﾚｽ指定読出 項目指定読出	Select the item specification read.
⑥	実行 確定 (When selecting other, ▲ ▼)	項目番号： 1 部品番号1 1ﾜｰﾄﾞﾃﾞｰﾀ： 0	Select the item name.
⑦	実行 確定	項目番号： 1 読み出しますか？ 実行・取消	Select read execution.
⑧		読出実行中 AD 取消	Execute the read.
⑨		読み出し完了！！	The read is complete.
⑩		項目番号： 1 部品番号1 1ﾜｰﾄﾞﾃﾞｰﾀ： 26	Data display

[Explanation]

(1) The data is inserted into the specified item name address.

(2) The item names that can be specified are only those item names that were created using the ID System Software Package.

> **Main Points**
>
> When the address setting specified by the item exceeds the data carrier's address range, an error will occur within 20 seconds after the command is executed.

(3) When a command execution error occurs, press the [取消] key to cancel the command, or, when the data carrier does not exist, the following is displayed.

```
読み出しエラー！
  リトライ： 実行
キャンセル： 取消
```

To re-execute, press the [実行 確定] key, or, to terminate, press the [取消] key.

(4) Pushing the [実行 確定] key after the data is displayed makes it possible to set the re-read.

Pressing the key displays the following.

```
再読出しますか？
実行・取り消し
```

To re-execute, press the [実行 確定] key, or, to terminate, press the [取消] key.

(5) To terminate the item read, press the [取消] key.

(6) To change the data display units, press the [表示] key. Each time the [表示] key is pressed, the display is changed from decimal, to hexadecimal, to character.

(7) Create item names using the model SW0NW-AIDP/SW0IVW-AIDP ID System Software Package. After creating the item name, use the data transmission function to transmit format files to the handy controller.

(8) Specify item setting and move item name after data display using the following keys.

[▲] ····· Displays the -1 item number from the current item number.

[▼] ····· Displays the +1 item number from the current item number.

[シフト]+[▲] ····· Displays the -5 item number from the current item number.

[シフト]+[▼] ····· Displays the +5 item number from the current item number.

Mode	Read	Write	Other	Display

Function			
	Settings Write (Address Specification Write)	Settings Write (Item Specification Write)	Changing Data (Address Specification Change)
	Changing Date (Item Specification Change)	Moving Date	———

5.3 Write Mode Operations

This operation writes data to the data carrier.

5.3.1 Settings Write (Address, Specification Write)

Writes the data to the data carrier's specified area.

[Fundamental Operation]

書込 → ▲ →[Specification Write]→ 実行確定 →[Address Specification Write]→ 実行確定

→[Address Specification]→ 実行確定 →[Number of Words Specification]→ 実行確定

→[Write Execution]→[Completion Display]

[Example Operation]

When writing ten words of data to the data carrier address 100.

①	モード選択 読出・書込 その他・表示	Mode Selection Screen Display
② 書込	機能 設定書込み 選択 データ変更 データ移動	Select the write mode.
③ ▲	機能 設定書込み 選択 データ変更 データ移動	Select the specification write.
④ 実行確定	書込方法選択 ｱﾄﾞﾚｽ指定書込 項目指定書込	Select the address specification write.
⑤ 実行確定 → 1/_ → 0/SPC → 0/SPC	書込アドレスは？ ｱﾄﾞﾚｽ: 100	Select the write address.
⑥ 実行確定 → 1/_ → 0/SPC	書込ワード数は？ ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 100	Specify the right number of words.
⑦ 実行確定	書込実行中 AD ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 100	Execute the write.
⑧	書き込み完了！！ ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 100	The write is completed.

[Explanation]

(1) The data for the specified number of words block is inserted into the data carrier's specified address.

(2) The specified address and number of words are as follows.

Address : 0 to 4094

Number of Words : 1 to 4095

Main Points

When the address or the address plus number of word setting exceeds the data carrier's address range an error will occur after the write is executed.

(3) After a command execution error has occurred, press the [取消] key to cancel the command, or, when the data carrier does not exist, the following will be displayed.

```
書き込みエラー！
  リトライ： 実行
キャンセル： 取消
```

To re-execute, press the [実行 確定] key, or, to terminate, press the [取消] key.

(4) After the data write has been completed, press the [実行 確定] key to make it possible to reconduct the write.

(5) To end the specification write, press the [取消] key.

(6) The address for the write address or the number of word specification can be directly entered using the character keys, or can be specified using the following keys.

[◀] ····· Displays the -1 address from the current address.

[▶] ····· Displays the +1 address from the current address.

[▲] ····· Displays the -10 address from the current address.

[▼] ····· Displays the +10 address from the current address.

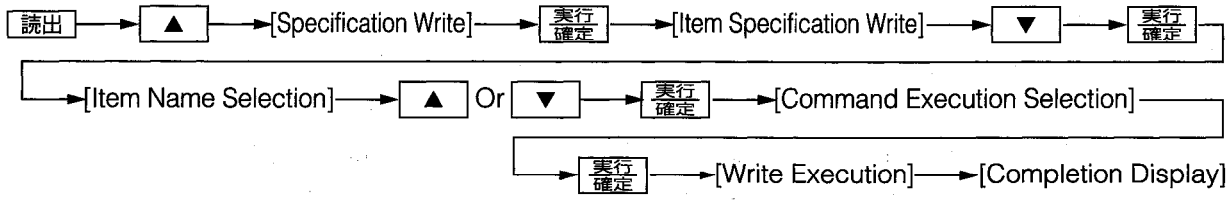
Mode	Read	Write	Other	Display

Function	Settings Write (Address Specification Write)	Settings Write (Item Specification Write)	Changing Date (Address Specification Change)
	Changing Data (Item Specification Change)	Moving Date	———

5.3.2 Settings Write (Item Specification Write)

Writes the data to the specified item data carrier address.

[Fundamental Operation]



[Example Operation]

Writes the data to the data carriers item No. 1 address.

①		モード選択 読 出・書 込 その他・表示	Mode Selection Screen Display
②	書込	機能 設定書込み 選択 データ変更 データ移動	Select the write mode.
③	▲	機能 設定書込み 選択 データ変更 データ移動	Select the specification write.
④	実行 確定	書込方法選択 ｱﾄﾞﾚｽ指定書込 項目指定書込	Select the write method selection.
⑤	▼	書込方法選択 ｱﾄﾞﾚｽ指定書込 項目指定書込	Select the item selection specification write.
⑥	実行 確定 (When selecting other, ▲ ▼ .)	項目番号： 1 部品番号1 1ﾜｰﾄﾞﾃﾞｰﾀ：2332	Select the item name.
⑦	実行 確定	項目番号： 1 書き込みますか？ 実行・取り消し	Select the write execution.
⑧		書込実行中 AD 取消	Execute the write.
⑨		書き込み完了！！	The write is completed.
⑩		項目番号： 1 部品番号1 1ﾜｰﾄﾞﾃﾞｰﾀ：2332	Data display.

[Explanation]

(1) The data is inserted into the data carrier's specified item.

(2) The specified address is as follows.

Address:0 to 4094

Main Points

When the address setting specified by the item exceeds the data carrier's address range an error will occur within twenty seconds after the command is executed.

(3) When a command execution error occurs, press the [取消] key to cancel the command, or when the data carrier does not exist, the following will be displayed.

書き込みエラー！
リトライ：実行
キャンセル：取消

To re-execute press the [実行 確定] key, or to terminate press the [取消] key.

(4) When the data read is completed press the [実行 確定] key to re-execute the read.

(5) To end the item specified read press the [取消] key.

(6) Use the model SW0NW-AIDP/SW0IVW-AIDP system software package to create item names. After creating the item names, transmit the format file to the handy controller.

(7) To specify the item name use the following keys.

[▲] ····· Displays the -1 item number from the current item number.

[▼] ····· Displays the +1 item number from the current item number.

[シフト]+[▲] ····· Displays the -5 item number from the current item number.

[シフト]+[▼] ····· Displays the +5 item number from the current item number.

Mode	Read	Write	Other	Display

Function			
	Settings Write (Address Specification Write)	Settings Write (Item Specification Write)	Changing Date (Address Specification Change)
	Changing Date (Item Specification Change)	Moving Date	———

5.3.3 Changing Data (Address Specification Change)

Changes the data address specified in the handy controller's memory.

[Fundamental Operations]

書込 → [Data Change] → 実行確定 → [Address Specification Change] → 実行確定 → [Address Specification] → 実行確定 → [Data Write] → 実行確定

[Example Operation]

When changing the data controller's address 100's data from 50 to 2000.

①	モード選択 読出・書込 その他・表示	Mode selection screen display.
② 書込	機能 設定書込み 選択 データ変更 データ移動	Select the write function.
③ 実行確定	変更方法選択 アドレス指定書込 項目指定書込	Select the data change and address specification change.
④ 実行確定 → 1/_ → 0/SPC → 0/SPC	書込アドレスは？ ｱﾄﾞﾚｽ: 100	Specify the change address.
⑤ 実行確定	データ変更：10進 ｱﾄﾞﾚｽ: 100 ﾃﾞｰﾀ: 50	Check changed address.
⑥ 2 → 0/SPC → 0/SPC → 0/SPC	データ変更：10進 ｱﾄﾞﾚｽ: 100 ﾃﾞｰﾀ: 2000	Set the change data.
⑦ 実行確定	データ変更：10進 ｱﾄﾞﾚｽ: 100 ﾃﾞｰﾀ: 2000	The data change is complete.

[Explanation]

(1) Changes the handy controller specified address data.

(2) When the input made during data input is incorrect push the [取消] key.

(3) To end press the [取消] key.

(4) To change the data display unit press the [表示] key.

Each time the [表示] key is pressed the display will change from decimal, to hexadecimal, to character.

(5) The address for the data change address can be directly entered using the character keys or can be specified using the following keys.

[◀] ····· Displays the -1 address from the current address.

[▶] ····· Displays the +1 address from the current address.

[▲] ····· Displays the -10 address from the current address.

[▼] ····· Displays the +10 address from the current address.

(6) The addresses that can be specified are as follows.

Address: 0 to 4094

Mode	Read	Write	Other	Display

Function			
	Settings Write (Address Specification Write)	Settings Write (Item Specification Write)	Changing Data (Address Specification Change)
	Changing Date (Item Specification Change)	Moving Date	———

5.3.4 Changing Data (Item Specification Change)

Changes the item address data specified in the handy controller.

[Fundamental Operation]

書込 → [Data Change] → 実行確定 → ▼ → [Item Specification Change] → 実行確定

→ [Item Name Selection] → ▲ or ▼ → [Date Write] → 実行確定

[Example Operation]

When changing the handy controller's item No. 1's data 50 to 100.

①	モード選択 読出・書込 その他・表示	Mode Selections Screen Display
② 書込	機能 設定書込み 選択 データ変更 データ移動	Select the write function.
③ 実行確定 → ▼	変更方法選択 ｱﾄﾞﾚｽ指定変更 項目指定変更	Select the date change and item specification change.
④ 実行確定 (When selecting other, ▲ ▼ .)	項目番号： 1 部品番号1 1ﾜｰﾄﾞﾃﾞｰﾀ： 50	Select the item number.
⑤ 1/_ → 0/SPC → 0/SPC	項目番号： 1 部品番号1 1ﾜｰﾄﾞﾃﾞｰﾀ： 100	Write the data.
⑥ 実行確定	項目番号： 1 部品番号1 1ﾜｰﾄﾞﾃﾞｰﾀ： 100	Data change is complete.

[Explanation]

(1) Changes the data of a specified item name.

(2) To end the data change press the [取消] key.

(3) When an input error was made when inputting the data, press the [取消] key.

(4) To change the data display units press the [表示] key. Each time the [表示] key is pressed, the character display will change from decimal, to hexadecimal, to character.

(5) The item setting is done with the following keys.

[▲] ..... Displays the -1 item number from the current item number.

[▼] ..... Displays the +1 item number from the current item number.

[シフト]+[▲] ..... Displays the -5 item number from the current item number.

[シフト]+[▼] ..... Displays the +5 item number from the current item number.

(6) Create item names using the model SW0NW-AIDP/SW0IVW-AIDP software package. After creating the item name transmit the format file to the handy controller.

Mode	Read	Write	Other	Display

Function			
	Settings Write (Address Specification Write)	Settings Write (Item Specification Write)	Changing Date (Address Specification Change)
	Changing Date (Item Specification Change)	Moving Data	

5.3.5 Moving Data

Moves the data in the handy controller's memory between blocks.

[Fundamental Operation]

書込 → ▼ → [Data Move] → 実行確定 → [Block No. Before Move] → 実行確定
→ [Block No. Before Remove] → 実行確定 → 実行確定

[Example Operation]

Moves the handy controller's block No. 1 data to block No. 10.

①	モード選択 読出・書込 その他・表示	Mode selections screen display.
② 書込	機能 設定書込み 選択 データ変更 データ移動	Select the write function.
③ ▼	機能 設定書込み 選択 データ変更 データ移動	Select the data move.
④ 実行確定 → 1/_	160ﾜｰﾄﾞﾌﾞﾛｯｸ移動 移動元ﾌﾞﾛｯｸNO. (0-24) : 1	Select the block No. before the move.
⑤ 実行確定 → 1/_ → 0/SPC	160ﾜｰﾄﾞﾌﾞﾛｯｸ移動 移動元BNO: 1 移動先BNO: 10	Select the move destination block No.
⑥ 実行確定	ﾌﾞﾛｯｸNO. 1から ﾌﾞﾛｯｸNO. 10へ 移動しますOK?	Check the data move.
⑦ 実行確定	ﾌﾞﾛｯｸNO. 1から ﾌﾞﾛｯｸNO. 10へ 移動しました!!	The data move is complete.
⑧	機能 設定書込み 選択 データ変更 データ移動	

[Explanation]

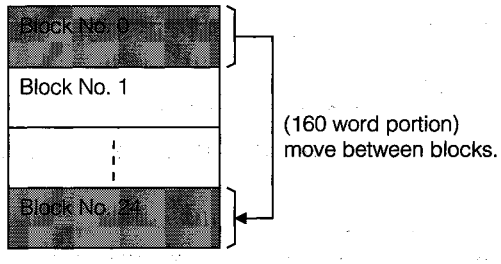
(1) Moves the data in 160 word units from one block to another block.

(2) The values that can be specified for the block No. are as follows.

Block No. before move : 0 to 24

Move destination block No. : 0 to 24

Example when moving from block No. 0 to block No. 24.



(3) Use the character keys to enter the block number. If an entry error is made press the 取消 key.

Mode	Read	Write	Other	Display

Function	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

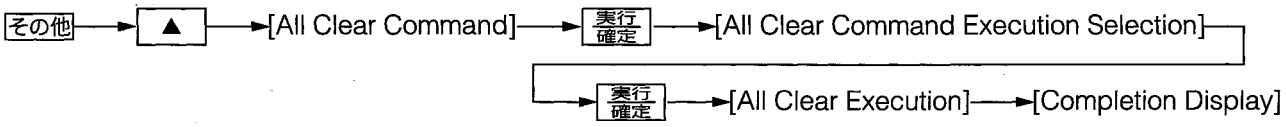
5.4 Operations for Other Modes

Commands for handy controller operation such as clear and comparison.

5.4.1 All Clear Command

Clears all of the data carrier data.

[Fundamental Operation]



[Example Operation]

Clears the data carrier data.

①		モード選択 読出・書込 その他・表示	Mode selection screen display.
②	その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③	▲	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select all clear command.
④	実行 確定	ｵｰﾙｸﾘｱ指令 AD 実行・取り消し	Check the all clear command execution.
⑤	実行 確定	ｵｰﾙｸﾘｱ指令 AD 実行・取り消し 実行中	All clear being executed.
⑥		ｵｰﾙｸﾘｱ指令 AD 実行・取り消し ｵｰﾙｸﾘｱ完了！！	All clear is complete.

[Explanation]

(1) Zero clears all of the data carrier data.

(2) If an error occurs after a command execution press the [取消] key to cancel the command, or if the data carrier does not exist the following will be displayed.

```
ｵｰﾙｸﾘｱ指令
実行・取り消し
ｵｰﾙｸﾘｱｴﾗｰ！！
```

To re-execute press the [実行 確定] key, or to terminate press the [取消] key.

(3) To end the all clear command press the [取消] key.

Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.2 Comparison Command (Address Specification Comparison)

Compares the handy controller data with the data carrier data for the specified addresses.

[Fundamental Operation]

その他 → [Comparison Command] → 実行 確定 → [Address Specification Comparison] → 実行 確定 → [Number of Words Specification] → 実行 確定 → [Comparison Execution] → [Results Display]

[Example Operation]

Compares the handy controller's memory data with the data carrier data.

①	モード選択 読出・書込 その他・表示	Mode selection screen display
② その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③ 実行 確定	比較方法選択 ｱﾄﾞﾚｽ指定比較 項目指定比較	Select a comparison command.
④ 実行 確定 → 1 / _ → 0 / SPC → 0 / SPC	比較アドレスは？ ｱﾄﾞﾚｽ: 100	Select the address specification comparison and set the comparison address.
⑤ 実行 確定 → 1 / _ → 0 / SPC	比較ワード数は？ ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 100	Specify the comparison number of words.
⑥ 実行 確定 (Display when data matches)	比較一致！！ ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 100	The comparison is completed.
(Display when data does not match)	比較不一致！！ ﾜｰﾄﾞ数: 10 ｱﾄﾞﾚｽ: 100	

[Explanation]

(1) Compares the handy controller data with the data carrier data for the specified address.

(2) When an error occurs after command execution press the [取消] key to cancel the command, or when the data carrier does not exist the following will be displayed.

```
比較エラー！！
  リトライ：実行
キャンセル：取消
```

To re-execute press the [実行 確定] key, or to terminate press the [取消] key.

(3) To end the comparison command press the [取消] key.

(4) The address for the address to be compared and the specified number of words can be directly entered using the character keys or can be specified using the following keys.

[◀] ····· Displays the -1 address from the current address.

[▶] ····· Displays the +1 address from the current address.

[▲] ····· Displays the -10 address from the current address.

[▼] ····· Displays the +10 address from the current address.

Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.3 Comparison Command (Item Specification Comparison)

Compares the handy controller data and the data carrier data for the specified item address.

[Fundamental Operation]

その他 → [Comparison Command] → 実行確定 → ▼ → [Item Specification Comparison] → 実行確定 → [Item Name Selection] → ▲ Or ▼ → 実行確定 → [Command Execution Selection] → 実行確定 → [comparison execution] → [Results Display]

[Example Operation]

Compares the data in the handy controllers memory with the data carrier data.

①	モード選択 読出・書込 その他・表示	Mode selection screen display
② その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③ 実行確定 → ▼	比較方法選択 ｱﾄﾞﾚｽ指定比較 項目指定比較	Select item specification comparison.
④ 実行確定 (To select other use, ▲ ▼.)	項目番号： 1 部品番号1 1ﾜｰﾄﾞﾃﾞｰﾀ： 0	Specify the item.
⑤ 実行確定	項目番号： 1 比較しますか？ 実行・取り消し	Check the comparison execution.
⑥ 実行確定	比較実行中 AD 取消	Comparison is being executed.
⑦ (Display when the data matches)	比較一致！！	Comparison is completed.
(Display when the data does not match)	比較不一致！！	

[Explanation]

(1) Compares the handy controller data and the data carrier data for the specified address.

(2) When an error occurs after command execution press the [取消] key to cancel the command, or when the data carrier does not exist the following will be displayed.

```
比較エラー！！
  リトライ：実行
キャンセル：取消
```

To re-execute press the [実行 確定] key, or to terminate press the [取消] key.

(3) To end the comparison command press the [取消] key.

(4) To specify the item, use the following keys.

[▲] ····· Displays the -1 item number from the current item No.

[▼] ····· Displays the +1 item number from the current item No.

[シフト]+[▲] ····· Displays the -5 item number from the current item No.

[シフト]+[▼] ····· Displays the +5 item number from the current item No.

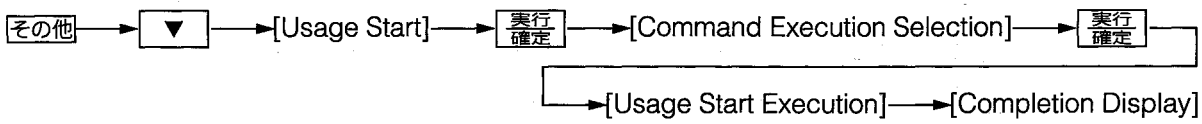
Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.4 Usage Start

Cancels the data carriers sleep state and puts it in the usage possible state.

[Fundamental Operation]



[Example Operation]

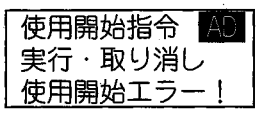
Cancels the data carriers sleep state and puts it in a usage possible state.

①	モード選択 読出・書込 その他・表示	Mode selection screen display
② その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select the other mode.
③ ▼	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	
④ 実行 確定	使用開始指令 AD 実行・取り消し	Select the usage start command.
⑤ 実行 確定	使用開始指令 AD 実行・取り消し 実行中	The usage start command is being executed.
⑥	使用開始指令 AD 実行・取り消し 使用開始完了！！	The usage start command has completed.

[Explanation]

(1) Cancels the data carriers sleep state.

(2) When an error has occurred after a command execution press the [取消] key to cancel the command, or when the data carrier does not exist the following will be displayed.



To re-execute press the [実行 確定] key, or to terminate press the [取消] key.

(3) After usage start has ended press the [実行 確定] key to re-execute the usage start.

(4) The communication distance of the data carrier in the sleep mode has become short so execute usage start with a communication distance of 20 to 30mm.

(5) To end the usage start press the [取消] key.

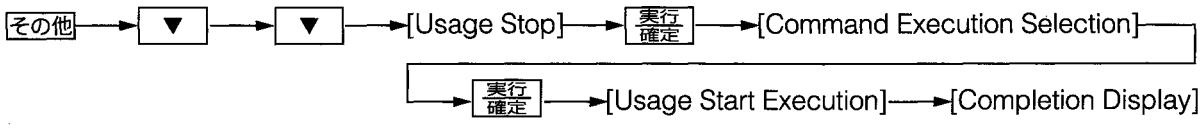
Mode	Read	Write	Other	Display

Function	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.5 Usage Stop

Puts the data carrier in the sleep state.

[Fundamental Operation]



[Operation]

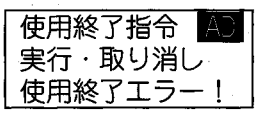
Puts the data carrier in a sleep state.

①	モード選択 読出・書込 その他・表示	Mode Selection Screen Display
② その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③ ▼ → ▼	機能 比較指令 選択 使用開始 使用終了	
④ 実行 確定	使用終了指令 AD 実行・取り消し	Select the usage stop command.
⑤ 実行 確定	使用終了指令 AD 実行・取り消し 実行中	The usage stop command is executing.
⑥	使用終了指令 AD 実行・取り消し 使用終了完了！！	The usage stop command has completed.

[Explanation]

(1) Sets the data carrier in the sleep state.

(2) When an error had occurred after command execution use the [取消] key to cancel the command, or when the data carrier does not exist the following will be displayed.



To re-execute press the [実行 確定] key, or to terminate press the [取消] key.

(3) After usage stop has been completed press the [実行 確定] key to re-execute usage stop.

(4) To end usage stop press the [取消] key.

(5) To return the data carrier that was set in the sleep state using usage stop to its original state cancel the sleep state using the usage start.

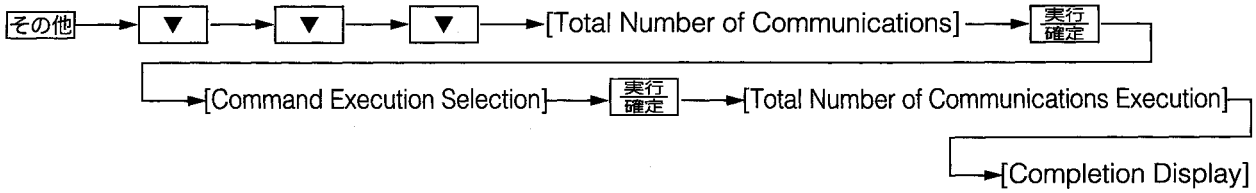
Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.6 Total Number of Communications

Reads the total number of communications to the data carrier.

[Fundamental Operations]



[Example Operations]

Reads the total number of communications made to the data carrier.

①	モード選択 読出・書込 その他・表示	Mode selection screen display
② その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③ ▼ → ▼ → ▼	機能 使用開始 選択 使用終了 総交信回数	
④ 実行 確定	総交信回数読出AD 実行・取り消し	Select total number of communications read.
⑤	読出完了！！ 総交信回数 3369回	The total number of communications read is completed.

[Explanation]

(1) Reads the total number of communications made to the date carrier.

(2) When an error occur after a command is executed press the 取消 key to cancel the command, or when the data carrier does not exist the following will be displayed.

```
総交信回数読出し
実行・取り消し
読み出しエラー！
```

To re-execute press the 実行 確定 key, or to terminate press the 取消 key.

(3) To end after the total number or communications read is completed press the 取消 key.

(4) After the total number of communications has completed press the 実行 確定 key to re-execute the total number of communications read.

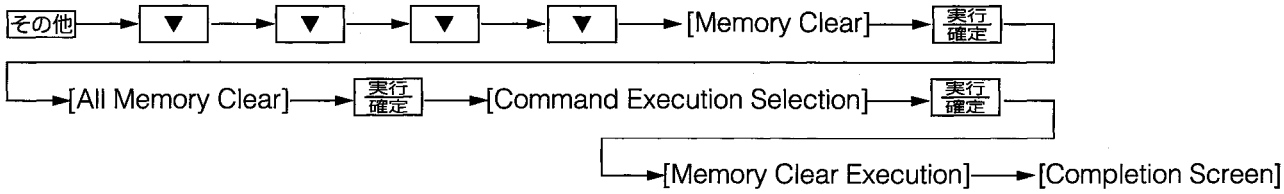
Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.7 Memory Clear (All Memory Clear)

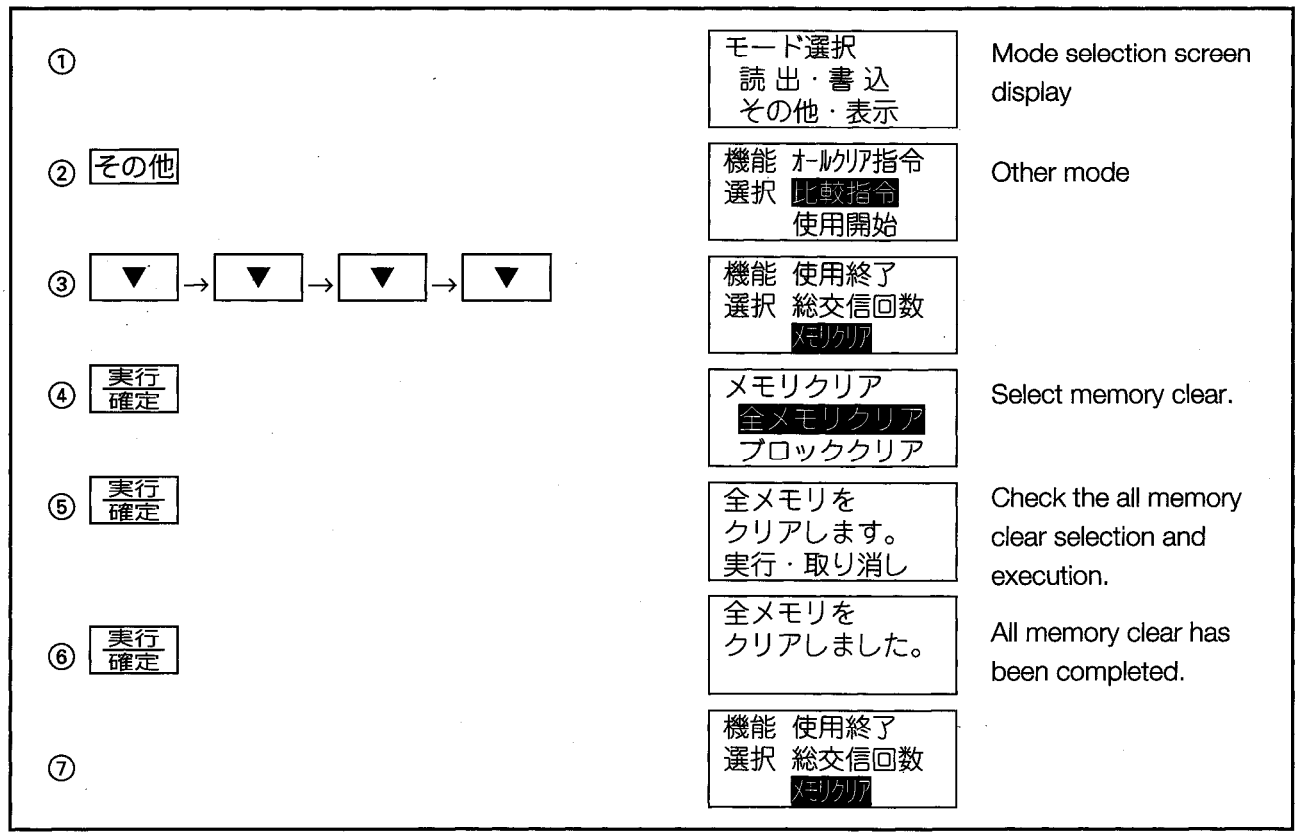
Zero clears all of the data in the handy controller.

[Fundamental Operation]



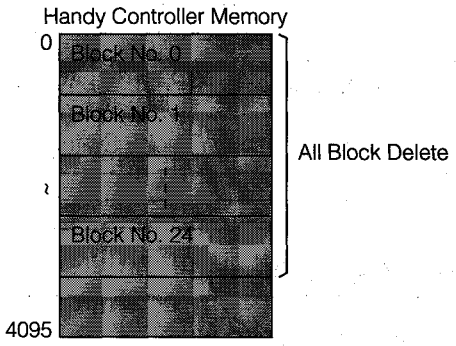
[Example Operation]

Clears all the data in the handy controllers memory.



[Explanation]

(1) Zero clears all the data in the handy controller.



Mode	Read	Write	Other	Display

Function	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.8 Memory Clear (Block Clear)

Zero clears the handy controller data in block units.

[Fundamental Operation]

その他 → ▼ → ▼ → ▼ → ▼ → [Memory Clear] → 実行 確定 → ▼

→ [Block Clear] → 実行 確定 → [Block Number Selection] → 実行 確定 → [Command Execution Selection]

→ 実行 確定 → [Memory Clear Execution] → [Completion Screen]

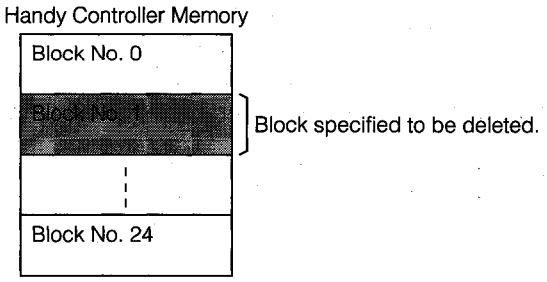
[Example Operation]

Clears the data in block No. 2 in the handy controller.

①		モード選択 読出・書込 その他・表示	Mode selection screen display
②	その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③	▼ → ▼ → ▼ → ▼	機能 使用終了 選択 総交信回数 ﾒﾓﾘｸﾘｱ	
④	実行 確定	メモリクリア 全メモリクリア ブロッククリア	Select memory clear.
⑤	▼	メモリクリア 全メモリクリア ブロッククリア	Select block clear.
⑥	実行 確定 → 2	ブロッククリア ﾌﾞﾛｯｸNO. は？ (0-24)： 2	Select block number.
⑦	実行 確定	ﾌﾞﾛｯｸNO. 2を ｸﾘｱします。 実行・取り消し	Check the block clear execution.
⑧	実行 確定	ﾌﾞﾛｯｸNO. 2を ｸﾘｱしました。	Block clear is completed.
⑨		機能 使用終了 選択 総交信回数 ﾒﾓﾘｸﾘｱ	

[Explanation]

(1) Zero clears the data in the specified block No. for the handy controller.



(2) The block numbers that can be specified are as follows.

Block Nos.: 0 to 24.

(3) Use character keys to enter the block No.

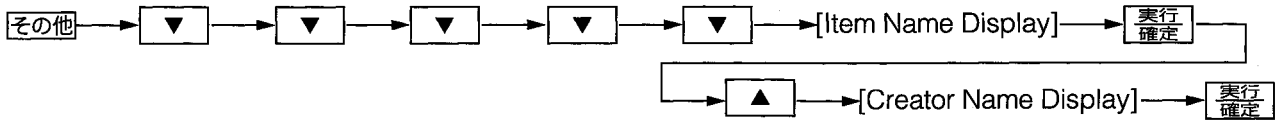
Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.9 Item Name Display (Creator Name Display)

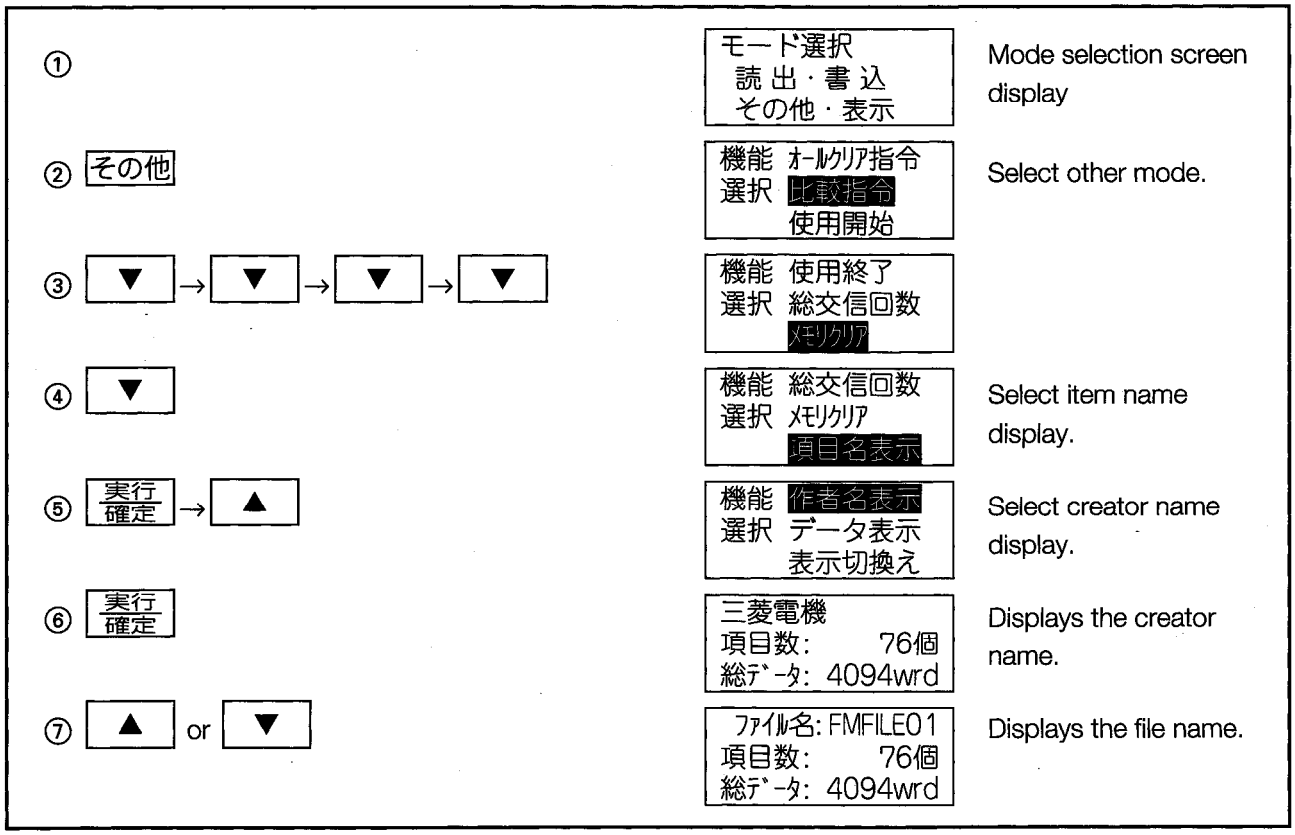
Displays the format file, creator name and file name.

[Fundamental Operation]



[Example Operation]

Displays the format file creator name created using the ID system software package.



[Explanation]

(1) Displays the format file creator name.

(2) After the creator name is displayed the display can be switched between the creator name and the file name by using the [▲], [▼] keys.

(3) To end the creator name display press the [取消] key.

(4) Follow the instructions in the model SW0NW-AIDP/SW0IVW-AIDP ID systems software package operation manual when to create format files. After creating the format file transmit it to the handy controller.

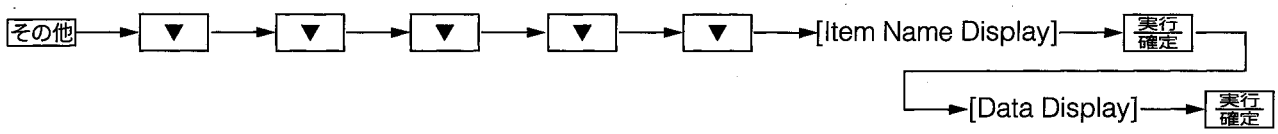
Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.10 Item Name Display (Data Display)

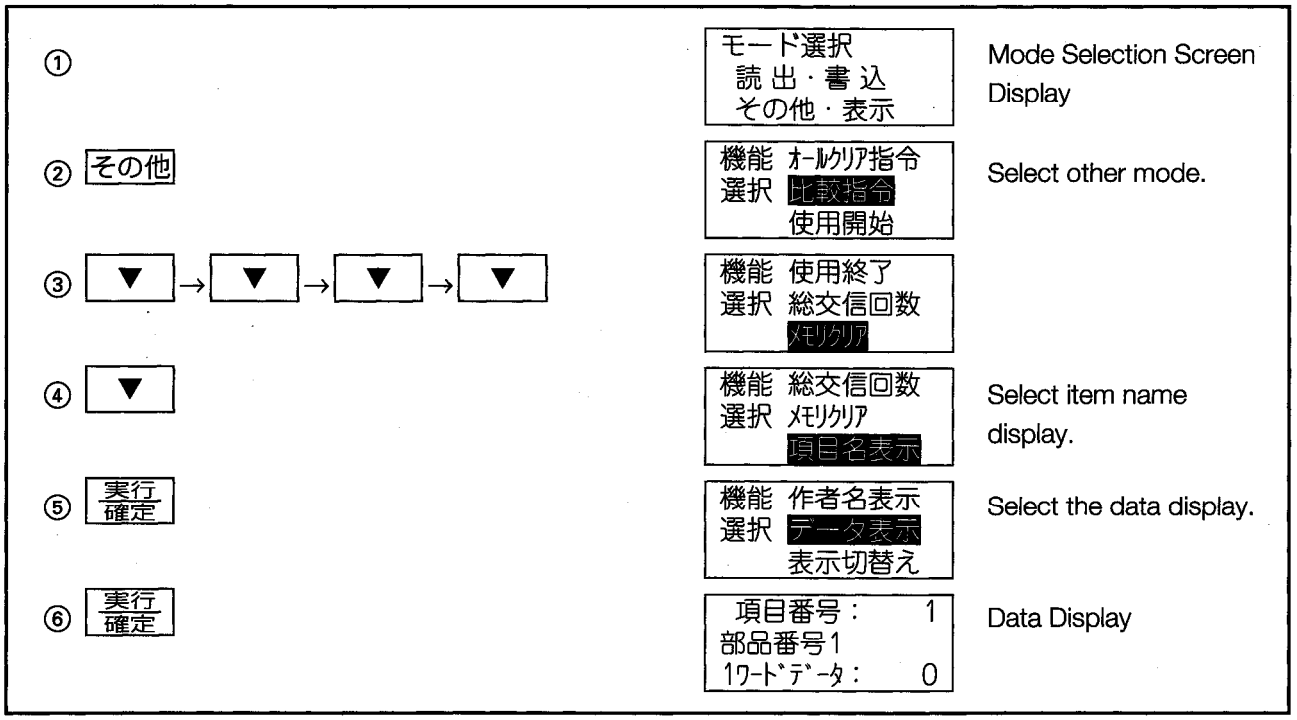
Displays the data for each specified item name.

[Fundamental Operation]



[Example Operation]

Displays the date for the item names created using the ID system software package.



[Explanation]

(1) Displays the data for the specified item names.

(2) To end the data display press the 取消 key.

(3) To change the data use the handy controller's data change or the model SW0NW-AIDP/SW0IVW-AIDP ID systems software package. When changing data using this software package transmit the data file to the handy controller.

Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.11 Item Name Display (Display Switch)

Sets whether the item name is displayed or not displayed.

[Fundamental Operation]

その他 → ▼ → ▼ → ▼ → ▼ → ▼ → [Item Name Display] → 実行 確定

▼ → [Display Switch]

[Example Operation]

Item No. 20 is not displayed.

①	モード選択 読出・書込 その他・表示	Mode Selection Screen Display
② その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③ ▼ → ▼ → ▼ → ▼	機能 使用終了 選択 総交信回数 ﾒﾓﾘｸﾘｱ	
④ ▼	機能 総交信回数 選択 ﾒﾓﾘｸﾘｱ 項目名表示	Select item name display.
⑤ 実行 確定 → ▼	機能 作者名表示 選択 データ表示 表示切替え	Select display switch.
⑥ 実行 確定 → 2 → 0/SPC	項目番号は？ 1 ～ 76 20	Display item No.
⑦ 実行 確定	項目番号： 20 現在表示です。	Display the current state.
⑧	項目番号： 20 変更しますか？ 実行・取り消し	Check the switch change.
⑨ 実行 確定	項目番号： 20 変更しますか？ 変更しました。	The switch change is complete.
⑩	機能 作者名表示 選択 データ表示 表示切替え	

[Explanation]

(1) Sets the display state of the specified item.

(2) When the display state is no display, the item name and the data are not displayed for item display (data display). To re-display them set the display.

(3) Use the character keys to enter the item No.

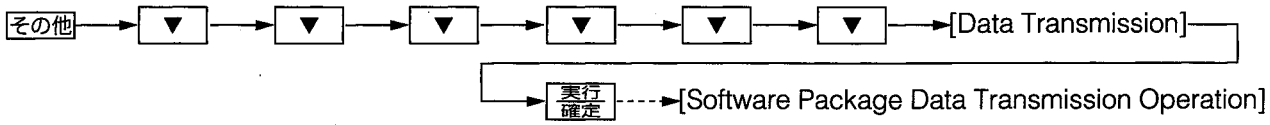
Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.12 Data Transmission

Transmits format files and data files between the handy controller and the software package.

[Fundamental Operation]



[Example Operation]

Transmits format files.

①	モード選択 読 出・書 込 その他・表示	Mode Selection Screen Display
② その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③ ▼ → ▼ → ▼ → ▼	機能 使用終了 選択 総交信回数 ﾒﾓﾘｸﾘｱ	
④ ▼ → ▼	機能 ﾒﾓﾘｸﾘｱ 選択 項目名表示 データ転送	Select data transmission.
⑤ 実行 確定	データ転送指令 実行・取り消し	Check execution.
⑥ 実行 確定	データ転送指令 待機中 取消	Execution on hold. (Waiting command from the software package)
⑦	データ転送指令 ﾌｫｰﾏｯﾄﾌｧｲﾙ送信中	Executing.
⑧	データ転送指令 実行・取り消し 完了！	Data transmission command completed.

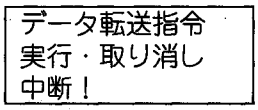
[Explanation]

(1) Transmits format files and data files between the handy controller and personal computer.

(2) When transmitting data in advance, boot up the model SW0NW-AIDP/SW0IVW-AIDP ID system software package. After the handy controller data transmission command has been executed transmission will be conducted from the software package.

(3) To end data transmission, press the [取消] key.

(4) When data transmission is terminated before completion, the following is displayed.



Press the [取消] key to end.

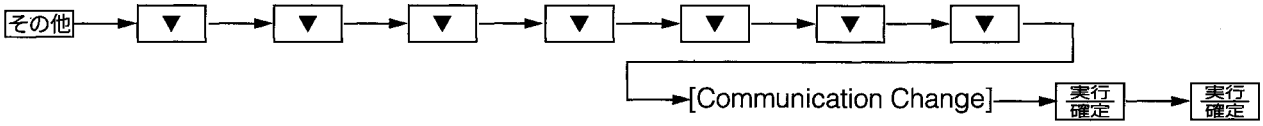
Mode	Read	Write	Other	Display

Function			
	All Clear Command	Comparison Command (Address Specification Comparison)	Comparison Command (Item Specification Comparison)
	Usage Start	Usage Stop	Total Number of Communications
	Memory Clear (All Memory Clear)	Memory Clear (Block Clear)	Item Name Display (Creator Name Display)
	Item Name Display (Data Display)	Item Name Display (Display Switch)	Data Transmission
	Communications Change	———	———

5.4.13 Communication Change

Change the communication port add on or RS-232C.

[Fundamental Operation]



[Example Operation]

Set the communication port for RS-232C.

①	モード選択 読出・書込 その他・表示	Mode Selection Screen Display
② その他	機能 ｵｰﾙｸﾘｱ指令 選択 比較指令 使用開始	Select other mode.
③ ▼ → ▼ → ▼ → ▼	機能 使用終了 選択 総交信回数 ﾒﾓﾘｸﾘｱ	
④ ▼ → ▼ → ▼	機能 項目名表示 選択 データ転送 通信変更	Select communication change.
⑤ 実行 確定	現在の通信は, アドオンに なっています。	Display the current communication setting.
⑥	変更しますか? 実行・取り消し	Check the change.
⑦ 実行 確定	RS−232Cに 変更しました。	Change has been completed.
⑧	機能 項目名表示 選択 データ転送 通信変更	

[Explanation]

(1) Change the handy controller's communication specifications. Set the settings as follows. (The default is the add on.)

* When communicating with the handy controller's reader/writer D-20HC-RW.

Add on

[Example Display]

読出実行中	AD
ﾜｰﾄﾞ数：	1
ｱﾄﾞﾚｽ：	0

← With the add-on, when a command is executed, AD is displayed.

* When communicating with a personal computer and D-232RW.

RS-232C

[Example Display]

読出実行中	RS
ﾜｰﾄﾞ数：	1
ｱﾄﾞﾚｽ：	0

← When a command is executed with the RS-232C, RS is displayed.

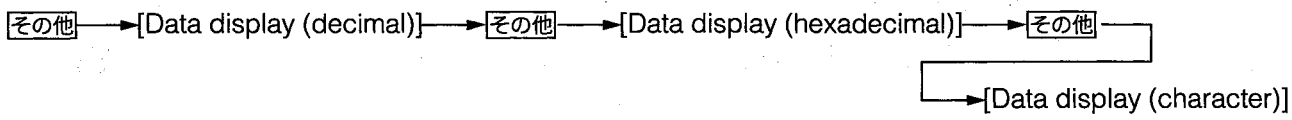
(2) When the handy controller power is turned off, communications specifications default becomes the add-on. To reconduct using the former settings, change the settings.

Mode	Read	Write	Other	Display

5.5 Display

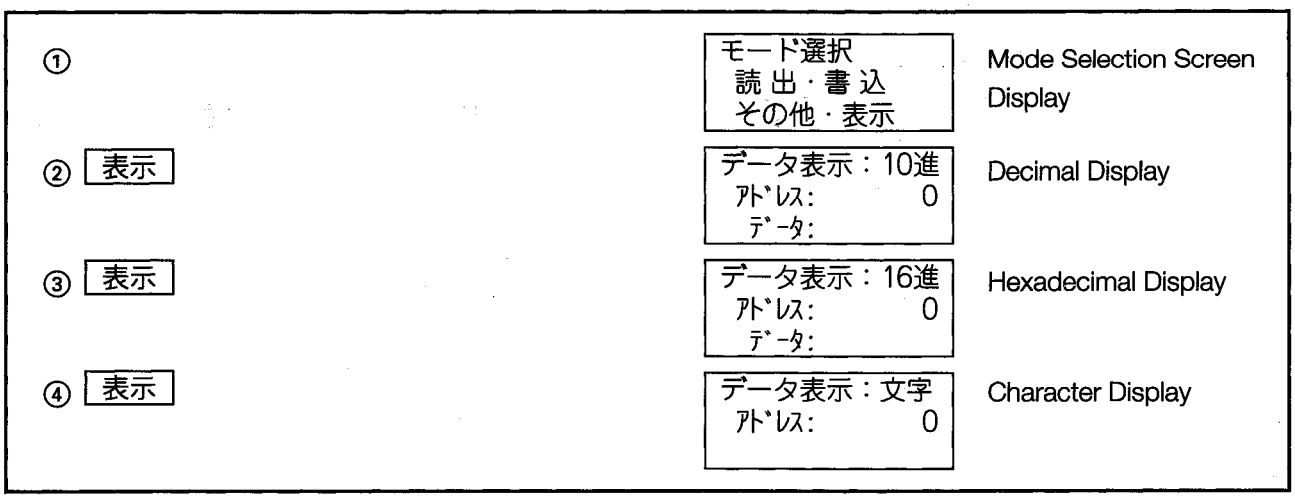
The data display can be changed between decimal, hexadecimal, and character.

[Fundamental Operation]



[Example Operation]

The data display can be changed between decimal, hexadecimal, and character.



[Explanation]

(1) Switches the data display, hexadecimal, and character.

(2) The address can be directly entered using character keys or specified using the following keys when specifying the display address.

◄ ····· Displays the -1 address from the current address.

► ····· Displays the +1 address from the current address.

▲ ····· Displays the -10 address from the current address.

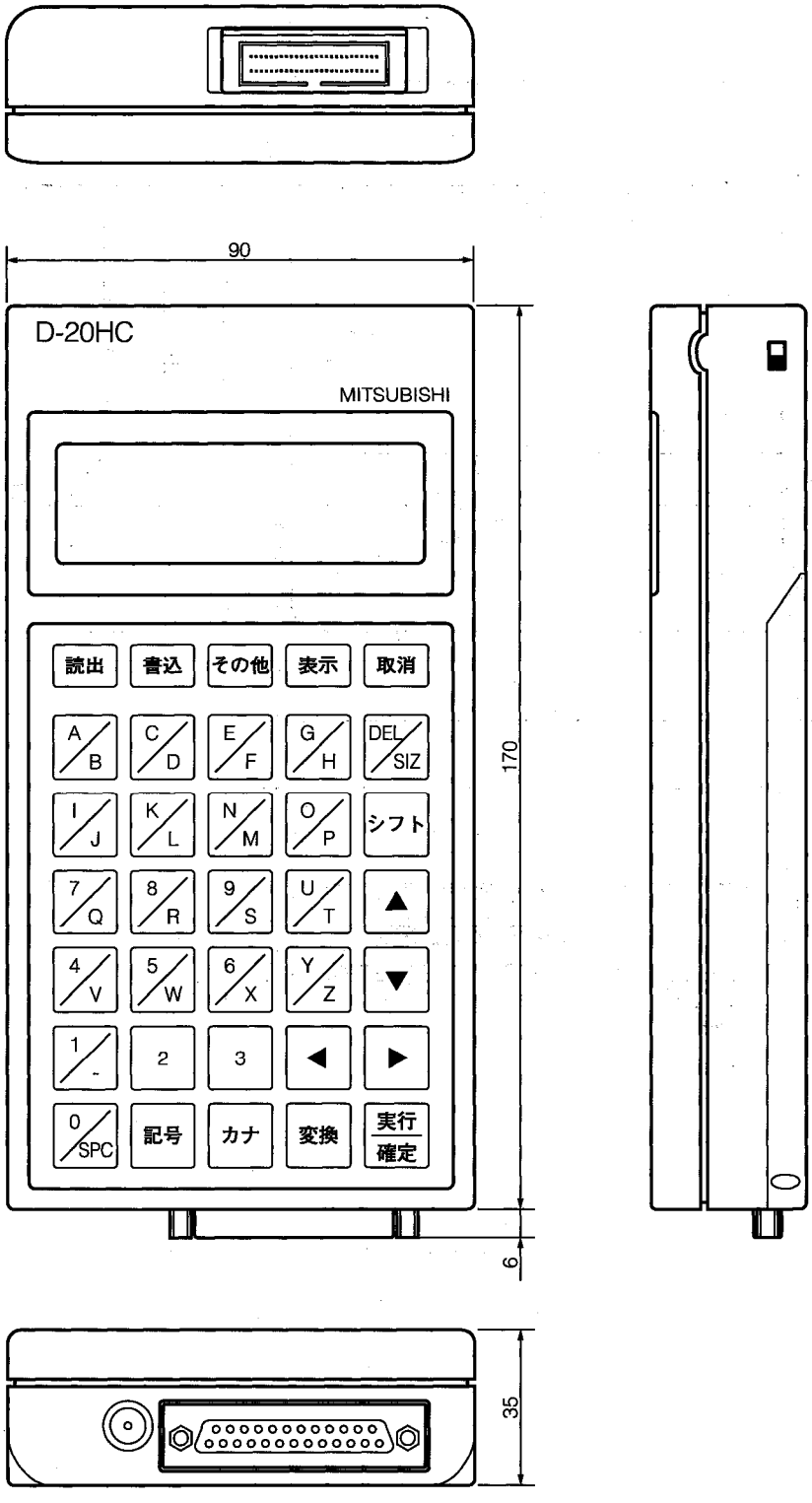
▼ ····· Displays the +10 address from the current address.

MEMO

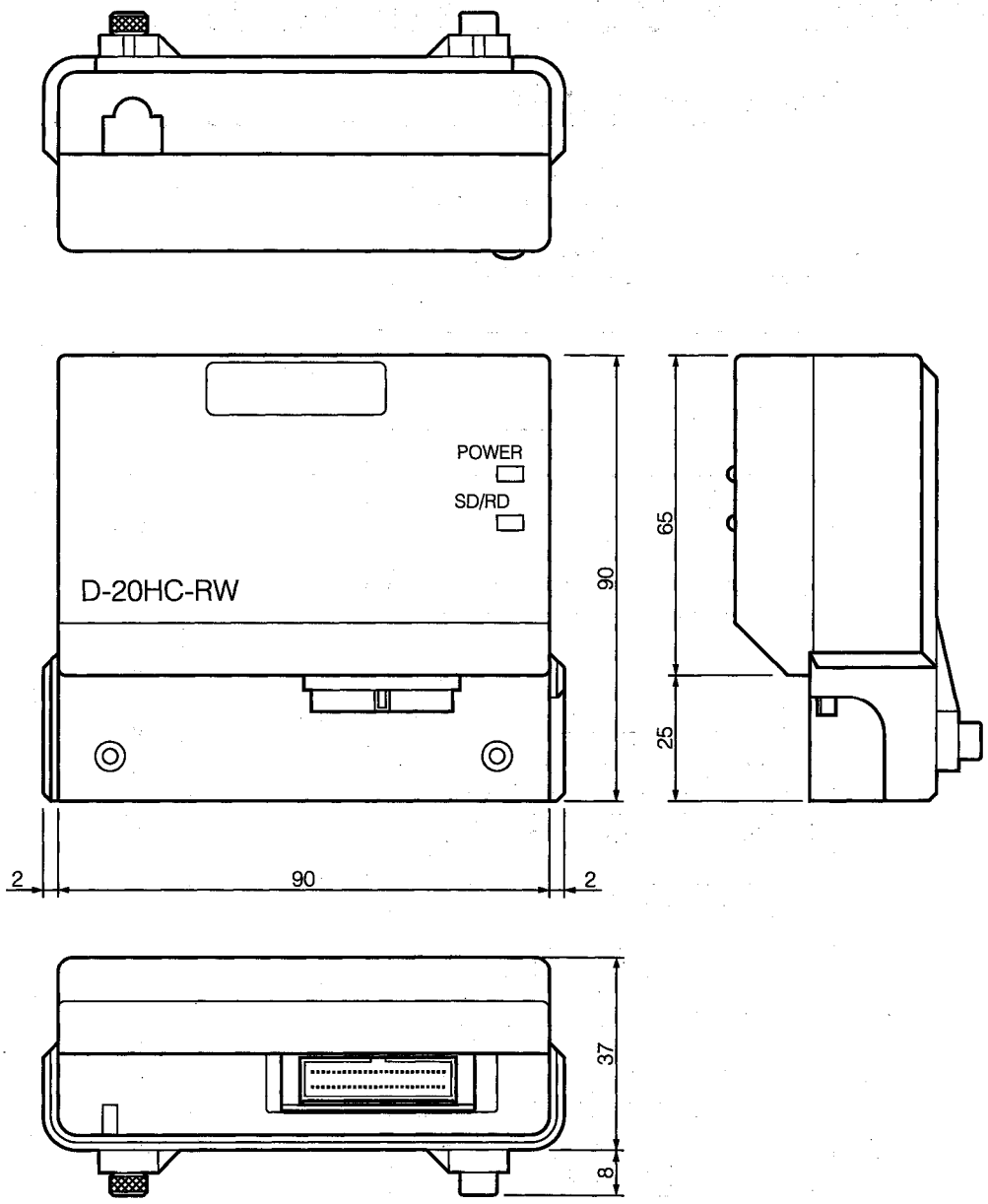
Attachments

Attachment 1. Diagram of External Dimensions

Attachment 1.1 D-20HC



Attachment 1.2 D-20HC-RW



IMPORTANT

(1) System settings should be set up so that protective devices for the PC and safety circuits are installed externally.

(2) Printed circuit boards contain components that are susceptible to static electricity. If handling printed circuit boards directly, the following precautions should be taken:

① Make sure people and work benches or tables are grounded.

② Never directly touch conductive components or electrical parts of the product.

D-20HC Handy Controller

Operation Manual

MODEL	D20HC-O-E
MODEL CODE	13JF27
IB(NA)66641-A(9603)MEE	

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : MITSUBISHI DENKI BLDG MARUNOUCHI TOKYO 100-8310 TELEX : J24532 CABLE MELCO TOKYO
NAGOYA WORKS : 1-14 , YADA-MINAMI 5 , HIGASHI-KU, NAGOYA , JAPAN

When exported from Japan, this manual does not require application to the Ministry of International Trade and Industry for service transaction permission.

Specifications subject to change without notice.