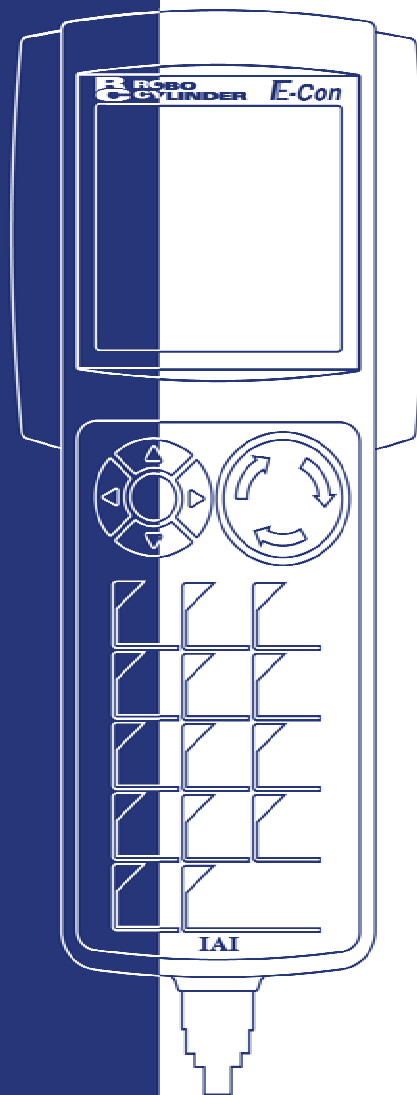




# Teaching Pendant **RCM-T、RCM-TD**

Operating Manual First edition



*IAI America Inc.*



## **Disconnection of the Teaching Pendant from the PCON/ACON/SCON/ERC2 Controller**

- \* After disconnecting the Teaching Pendant from the PCON/ACON/SCON controller with the AUTO/MANU switch, always turn the AUTO/MANU switch to AUTO.
- \* For the PCON/ACON/ERC2 controller without AUTO/MANU switch, always set the TP Operation Mode to “Monitor 2” before disconnecting the Teaching Pendant from the controller.

(Refer to “8.10 TP Operation Mode.”)

(Note) When the controller is set by connecting the Teaching Pendant to ERC2, the conditions shown below occur.

When the controller is set by connecting the Teaching Pendant to the gateway unit/SIO converter, the conditions shown below occur.

If the Teaching Pendant is disconnected while the setting of “Teach 1” or “Teach 2” remains, I/O will become invalid and control from PLC will become impossible.

If the Teaching Pendant is disconnected while the setting of “Monitor 1” remains, the maximum speed will become the safety speed set for the parameter regardless of a command from PLC.



## Support Models

The following are the versions to which we have started support:

Table 1 List of Support Models

Model Name	Support Started Version
RCP * <sup>1</sup>	V1.00
RCS * <sup>1</sup>	V1.31
E-Con * <sup>1</sup>	V1.44
RCP2 * <sup>1</sup>	V1.61
ERC * <sup>1</sup>	V1.61
ERC2	V2.00
PCON	V2.00
ACON	V2.00
SCON	V2.00

\*1: This Teaching Pendant also supports the RCP, RCS, E-Con, RCP2, and ERC controllers.

\* Check the model to connect and the version of the Teaching Pendant. If any unsupported model is connected, unexpected movement may occur.

\* The software reset function is effective for models corresponding to 1.61 or later of the support started version.

\* ERC2, PCON, ACON, or SCON cannot be used by linking to any model of those shown in \*1.

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## 1. Foreword

Thank you very much for purchasing our Teaching Pendant for the Robo Cylinder. Improper usage or mishandling may result in a product not only being unable to deliver full functions but also produce unexpected troubles or shorten the product's life. Please read this Manual carefully, and operate the product properly by paying attention to its handling. When operating the Teaching Pendant, always keep this Manual on hand and read the relevant items as required.

For the actuator and controller to be used, be sure to refer to the Instruction Manuals attached to the products.

<p><b>Caution:</b> Do not edit position data while the actuator is operating by PLC, etc. Also, do not edit any position number not actually operated.</p>
--

## 2. Before You Begin

- (1) Be sure to read this Instruction Manual for proper use of this product.
- (2) Part or all of this Instruction Manual may not be used or reproduced without permission.
- (3) For any handling and operating methods other than those described in this Instruction Manual, interpret them as "don't" or "can't."
- (4) Please take note that we shall not be liable for any effects resulting from using this Instruction Manual.
- (5) Descriptions in this Instruction Manual are subject to change due to product improvements etc., without prior notice in the future.

## **3. Safety Precautions**

- (1) Use a genuine product specified by us for wiring between the actuator and the Controller.
- (2) Keep out of the operating range of a machine such as an actuator while it is operating or in a ready state (condition in which the controller's power is ON). When using it in places where persons may approach, fence it off.
- (3) Before carrying out assembly and adjustment work or maintenance and inspection work of the machine, be sure to disconnect the power cord. While working, display the plate specified as such at an easy-to-read location. In addition, give special consideration to prevent third parties from turning on the power carelessly by hauling in the power cord to the operator. Alternatively, lock the power plug or receptacle and direct the operator to keep the key or prepare a safety plug.
- (4) When more than one operator works, advance work by determining the signal method and checking each other's safety. Especially, for work associated with axial movement regardless of power ON/OFF or motor-driven/manual operation, be sure to confirm safety by calling out to other(s) in advance.
- (5) When the user (customer) extends wiring, malfunction may occur due to faulty wiring. In this case, inspect wiring thoroughly and check it for properness before turning on the power.

## 4. Warranty and Scope of Warranty

The Teaching Pendant you purchased has been delivered upon completion of our strict shipping tests. We shall warrantee this product as follows:

### 1. Warranty term

The warranty term shall be either of the following terms, whichever is reached first.

- 18 months after our shipment
- 12 months after delivery to the place designated by you

### 2. Warranty coverage

Where a defective condition occurs during proper use conditions and obviously under the responsibility of the manufacturer, within the term above, we shall repair the product without charge. However, any items that apply to the following are excluded from the warranty coverage:

- Defects resulting from changes over time such as natural color fading of paint
- Defects resulting from use wear of consumable parts (such as a cable)
- Defects resulting from sensory phenomena such as generated noise that have no functional effects
- Defects resulting from mishandling or improper use
- Defects resulting from an inadequacy or error in maintenance and inspection
- Defects resulting from the use of any part other than our genuine parts
- Defects resulting from a modification not approved by us or our dealers
- Defects resulting from Acts of God, accident, fire, etc.

Only a delivered product shall be singly warranted, and no damage induced by the defect of the delivery product can be warranted. For repair, transport the product to our factory.

### 3. Service coverage

The cost of a delivered product does not include expenses for program creation and engineer dispatching. Therefore, the following are charged separately even within the warranty term:

- Maintenance and inspection
- Technical guidance and technical training in operating instructions
- Technical guidance and technical training on program-related matters such as program creation

## 5. Application Environment

- In order to avoid breakdown, please do not apply any type of machinery impact to the Teaching Pendant.
- Always hold onto the entire Teaching Pendant Body so that the Teaching Pendant Cable does not get pulled by unwanted cables.

<p><b>Caution:</b> This Teaching Pendant is designed exclusively for IAI RC Controllers (PCON, ACON, SCON, ERC2, RCP, RCS, E-Con, RCP2, and ERC,) and should not be used to connect with other devices.</p> <p>: Turn the controller front side PORT switch OFF before connecting to controller equipped with a PORT switch.</p>
--

## 6. Functions and Specifications of Teaching Pendant

This Teaching Pendant was created exclusively for the PCON, ACON, SCON ERC2, RCP, RCS, E-Con, RCP2, and ERC, Controllers.

Through the communication between the controllers, the RC Controller is designed to function as the Display Operation Unit to edit or display the data (parameter data, position data, etc.) that is stored inside the controller, as well as to execute teaching without using the PC Interface Software.

Utilizing a large liquid crystal display kit, the display will show each description simultaneously for easy operation.

In addition, for quick reference, a manual card is stored inside the Teaching Pendant body.

Large type LCD·········· Horizontal 21 characters Vertical 16 columns

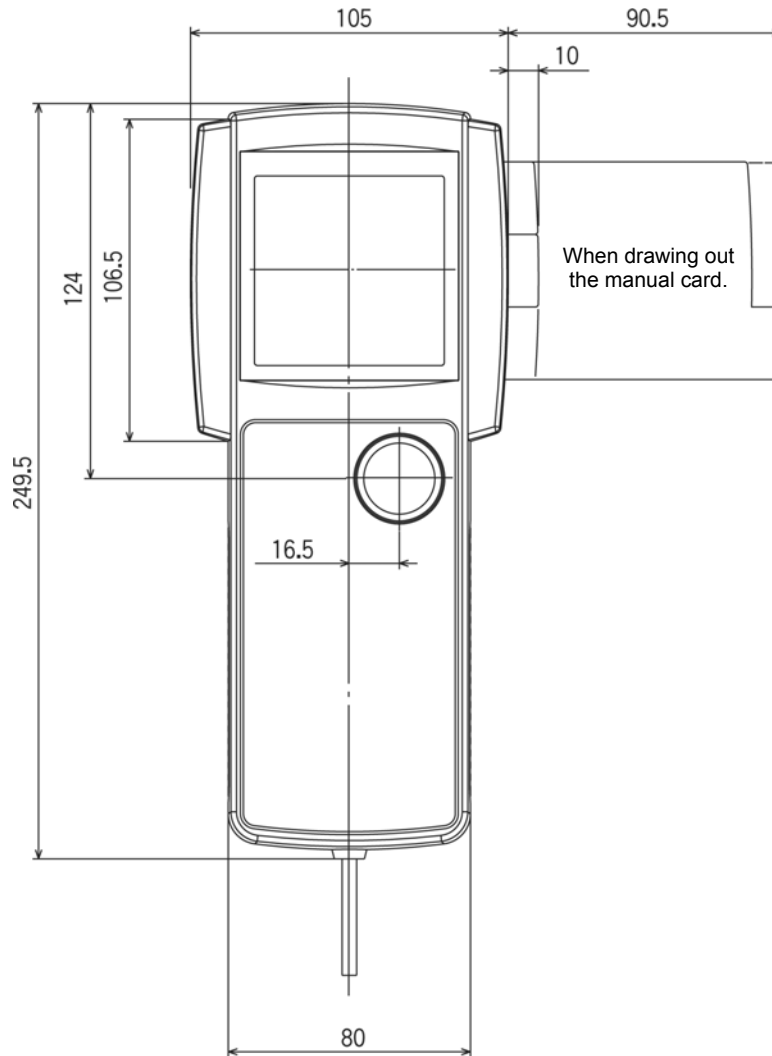
Manual card storage···· Up to 3 cards

### 6-1 Specifications

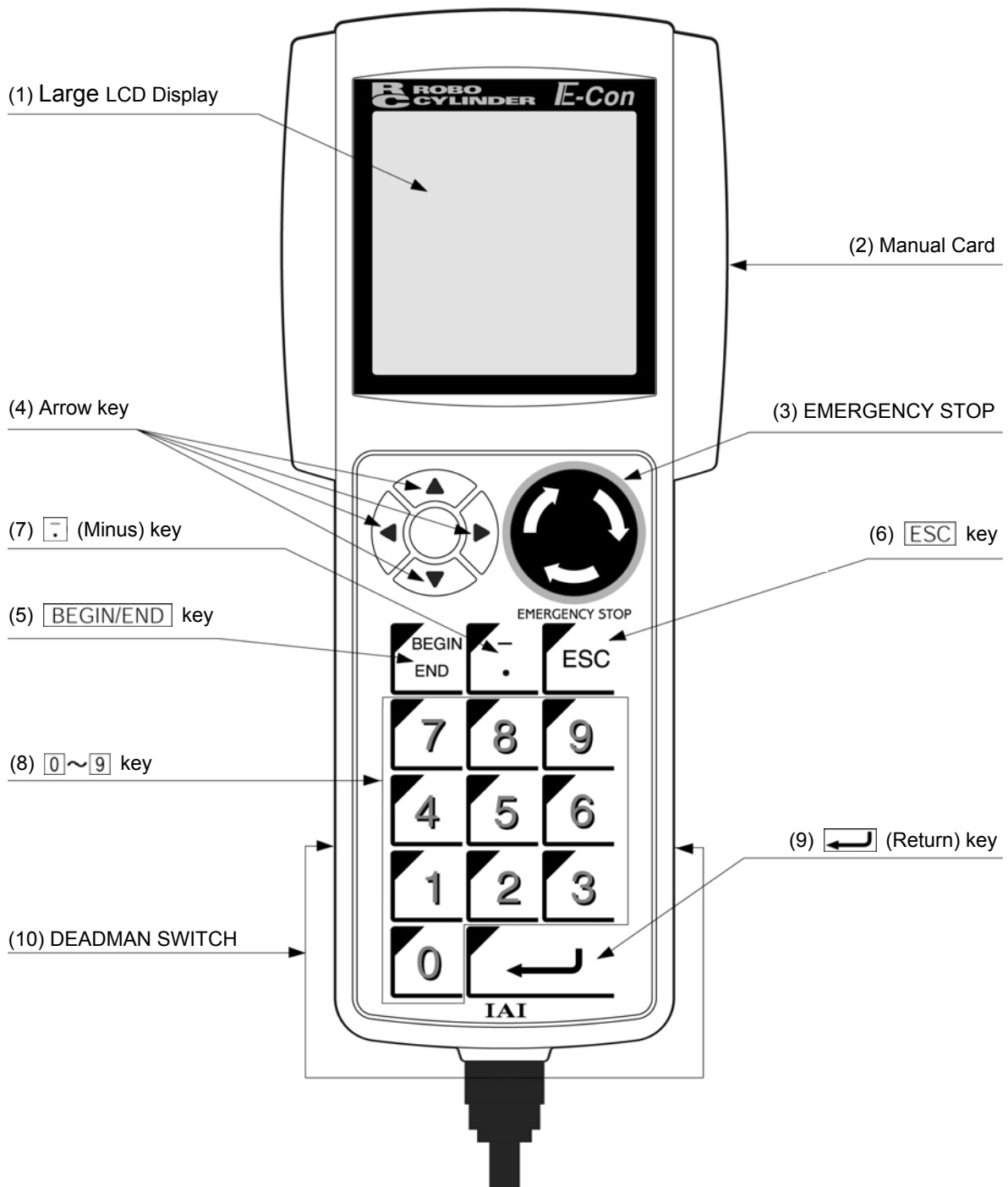
Item	Specification
Ambient Temperature & Humidity	Temperature: 0°~40°C Humidity: 85% RH or less * RH relative humidity
Operating Environment	Free of corrosive gas, especially, no excessive dust
Weight	500g
Cable Length	5m

## 6-2 External View

### External Dimensions



## 6-3 Description of Each Part



### (1) Large LCD Display

This is a liquid crystal display with a range of 62.69 × 62.69mm with a maximum of horizontal: 21 characters per column, and vertical: 16 columns per row.

## (2) Manual Card

This is a simplified operational instruction printed on 3 pages. You may observe the instruction by pulling out the Manual Card from the right side of the Teaching Pendant during operation. When not in use, the Manual Card may be stored inside the Teaching Pendant Body.

## (3) EMERGENCY STOP (Emergency Stop Push Button Switch)

This switch connects serially with the controller emergency stop signal line. Once pushed down, this switch will be in an emergency stop status and the power supply to the motor will be cut off (normally, closed: b contact).

(\* For information on the Emergency Stop Line and its status, please refer to the RC Robo Cylinder Operating Manual.)

**Caution:** If multiple controllers are connected using link cables, the EMERGENCY STOP switch is enabled only for the axis of the controller which is connected to the Teaching Pendant.

**Caution:** For the RCP2-CG (cutout relay external type) and ERC/ERC2 series, the EMERGENCY STOP switch is enabled only when the emergency stop circuit is externally installed. Always read the operating manual of the controller carefully.

## (4) Arrow key: ◀▶▲▼

Every time you press the cursor key of the Selection Display Column Selection and the cursor Move key of the Position Display Table Main Display Area, the cursor will move to the first item. When pressed for more than one second the cursor will move continuously. When the content display is composed of more than two screens (position table and monitor display), these keys scroll to the next screen.

- In the farthest right row, push down right arrow key: Next page
- In the farthest left row, push down left arrow key: Previous page
- In the bottom row, push down arrow key: Next page
- In the top row, push down top arrow key: Previous page




**(5)  key**



- By pressing this key for more than 2.5 seconds, the screen changes to the “BEGIN/END” screen and you can reconnect the axis and execute Teaching Pendant configuration.
- If entering data via key pad, you may cancel midway using this key.
- You may clear error warning.
- When an error occurs, a message for this error will appear at the very bottom of the display screen. Use this key to clear the error and to clear this message.
- Stop key during continuous movement:  
Although the continuous movement functions as a test run for several continuous positions, during this movement, this key will cause a Stop Command. Once the position move command completes, it will stop.

**(6)  key**

- Although Teaching Pendant operation is composed of several screens, using this key will return the user to the previous screen.


*Note: When you don't understand the operation, undo the operation by pressing the  key.*

**(7)  (Minus) key**

- Switches between Relative Coordinates and Absolute Coordinates. Move the cursor to the position table "No" and press the Minus key. “=” will be displayed between "No" and position to indicate it is Relative Coordinates. By pressing the Minus key one more time, “=” disappears to indicate it is in Absolute Coordinates mode.
- Position Table Column: When you push this in an area such as positioning width which allows minus input, the key functions as the “-“ (minus) and the rest as “.” (point). When you input either  or  in the beginning of the number, in the proper area, the key will automatically recognize it as O. This key is used during cursor move within the Mode Select Screen and Sub-Display Screen (e.g, continuous, step, etc.).

**(8)  key**

- This key is used for numeric input.

**(9)  (Return) key**

- This is used for data input and operation confirm.

**(10) DEADMAN SWITCH (Servo Enable Switch) \* Option Setting**

The switch mounted on both sides of the Teaching Pendant is connected serially with the Emergency Stop Switch, and causes e-stop when not pressed (normally, this switch is a "open: a-contact").

Caution: If multiple controllers are connected using link cables, the Deadman SW is enabled only for the axis of the controller which is connected to the Teaching Pendant.  
For the RCP2-CG (cutout relay external type) and ERC/ERC2 series, the Deadman SW is enabled only when the emergency stop circuit is externally installed. Always read the operating manual of the controller carefully.

## 7. Connection With the Controller

### 7-1 Connection with the Teaching Pendant

- (1) Connect the Teaching Pendant Cable to the "PORT IN" connector which is located on the front of the controller.

Always turn the PORT switch OFF first before connecting a controller having this switch.

For the locations of the main communication "Port IN" connector and PORT switch, refer to the operating manual for the controller you use.

- (2) After connecting, turn the PORT switch of the controller having this switch ON.

(If the Deadman SW is attached as an option, execute while the Deadman SW button on both sides are pressed.)

### 7-2 How to Disengage the Teaching Pendant

Hold down the BEGIN/END key which is located in the upper left corner of the key pad. Select "\*\* Complete" to finish.

Then, turn the PORT switch OFF for the controller having this switch.

Operation:

1. Hold down the **BEGIN/END** key for more than 2.5 seconds.
2. Use the Arrow key to select "\*\* Complete" Screen, and then press the Return key.
3. Turn the PORT switch OFF for the controller having this switch.
4. Remove the Teaching Pendant connector.

**Caution:** In the case of PCON, ACON, SCON, or ERC2, an instantaneous stop will be made when the Teaching Pendant is disconnected. However, this is not an error.

**Caution:** In the case of the PCON, ACON, or ERC2 controller not having the AUTO/MANU switch, set the TP Operation Mode to "Monitor 2" before disconnecting the Teaching Pendant from the controller. (Refer to "8.10 TP Operation Mode.")

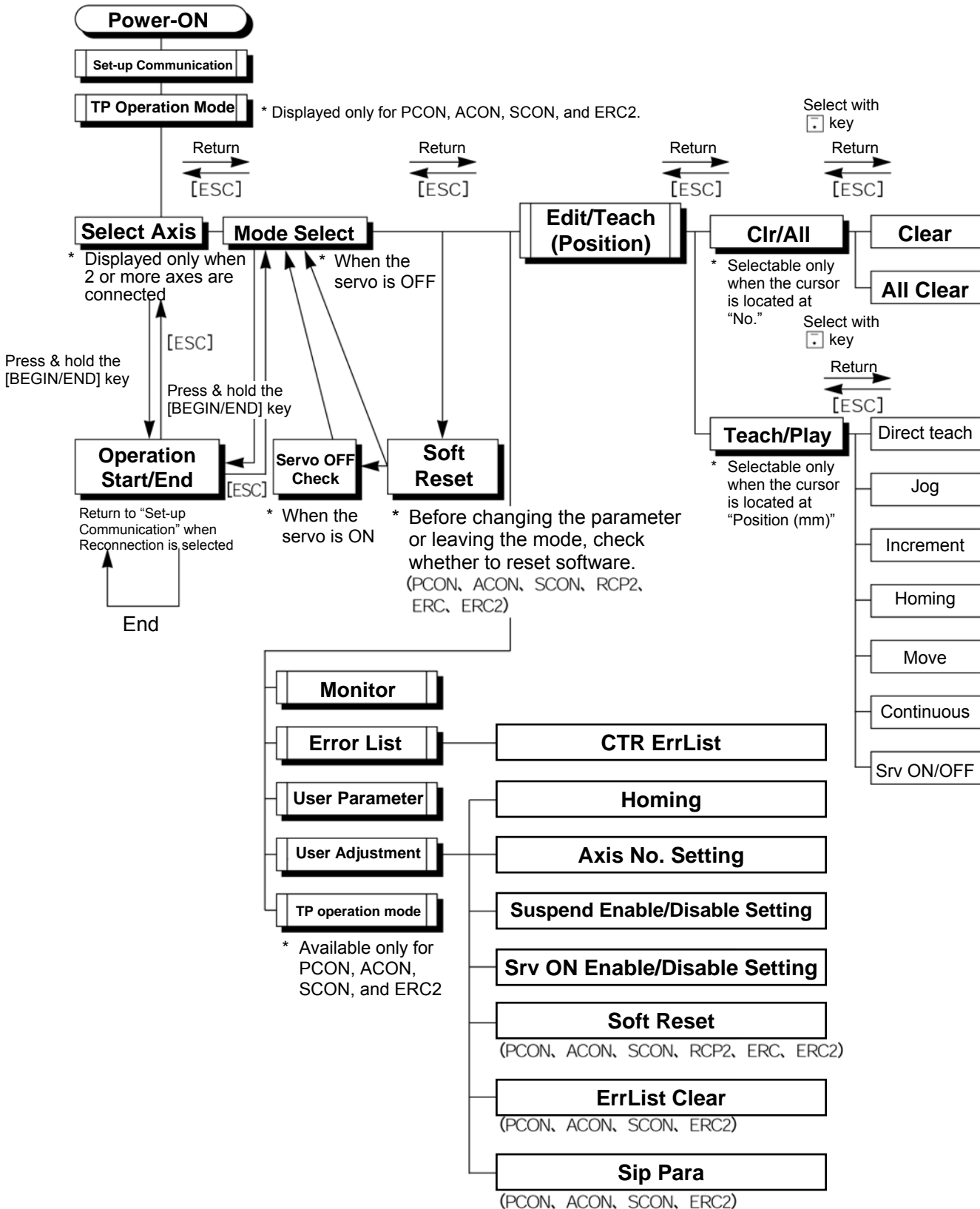
In the case of ERC2 or when controller setting is made by connecting the Teaching Pendant to the gateway unit or SIO converter:

- If the Teaching Pendant is disconnected while the setting of "Teach 1" or "Teach 2" remains, I/O will become invalid and control from PLC will become impossible.
- If the Teaching Pendant is disconnected while the setting of "Monitor 1" remains, the maximum speed will become the safety speed set for the parameter regardless of a command from PLC.

## 8. Operation: Mode Flow Chart

### (1) Positioner (PCON-PL/PO, ACON-PL/PO, SCON: Mode other than the Pulse Train Mode)

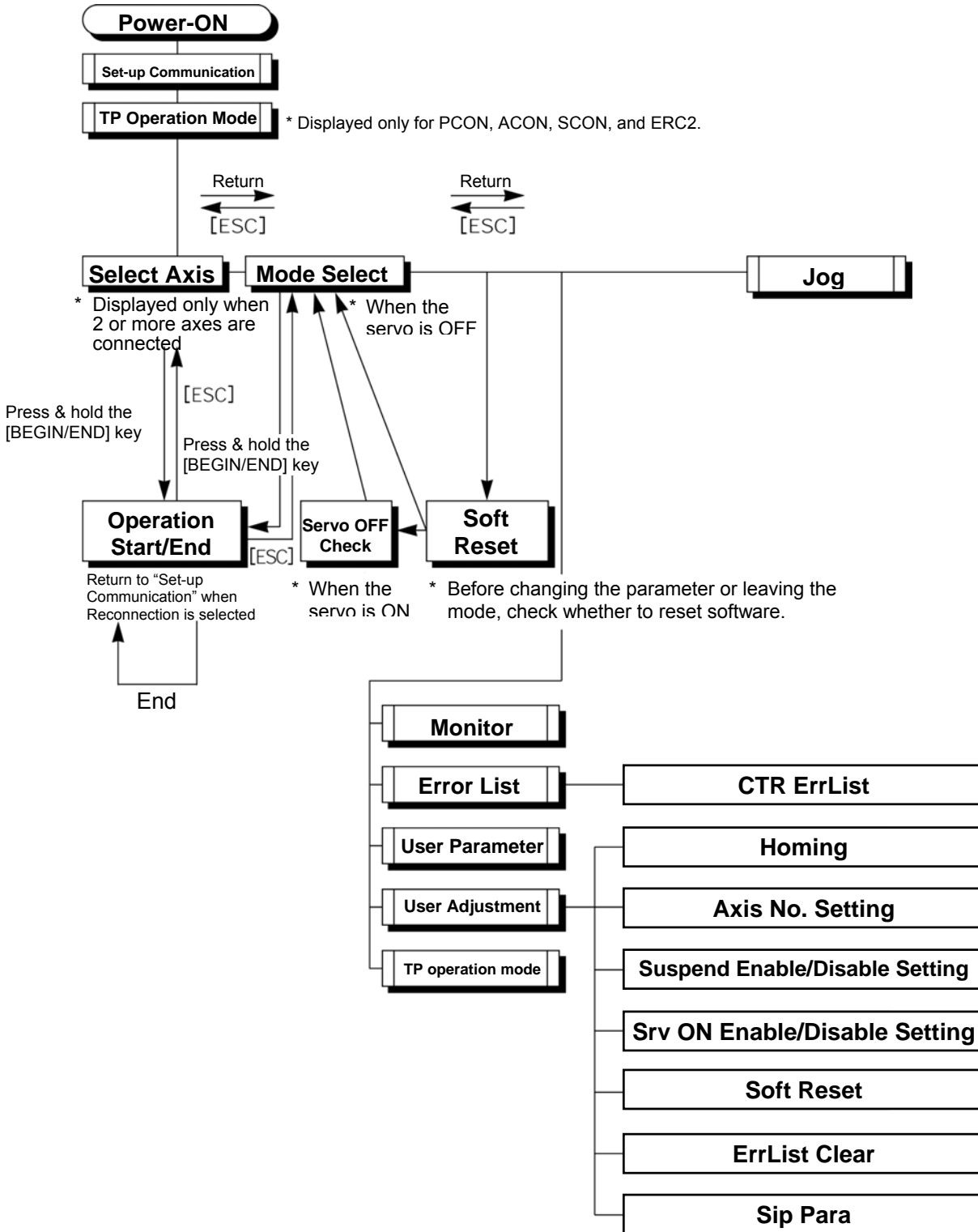
The total picture of operations performed with the Teaching Pendant has the tree structure as shown below. To return to the previous screen, press the ESC key.



## (2) Pulse Train (PCON-PL/PO, ACON-PL/PO, SCON: Pulse Train Mode)

The total picture of operations performed with the Teaching Pendant has the tree structure as shown below.

To return to the previous screen, press the ESC key.

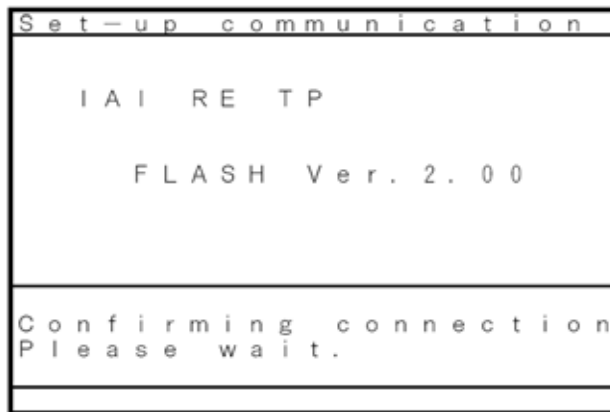


## **8-1 Initial Screen and TP Operation Mode Screen During Power – UP**

When Teaching Pendant is connected to the controller, power is supplied to the Teaching Pendant and operation starts.

In the case of a controller with a PORT switch, power will be supplied to the Teaching Pendant and operation will start once power is supplied to the Teaching Pendant.

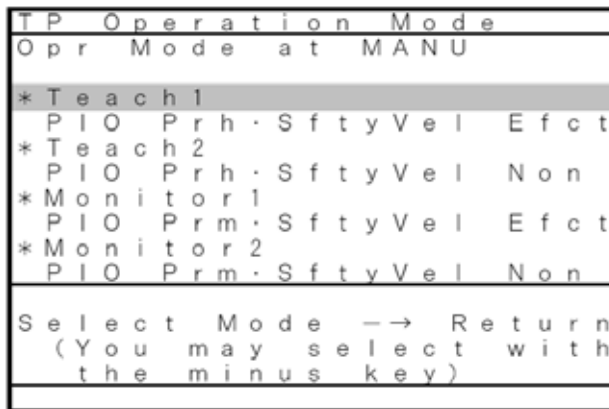
Upon power-on, the LCD display screen (hereinafter called the “screen”) displays the Teaching Pendant software version as follows:



**Fig. 8.1 Initial Screen During Power – UP**

In the case of the PCON, ACON, SCON, or ERC2 controller, the screen will automatically move to the TP Operation Mode selection screen once checking of the connection is completed.

In the case of the RCP, RCS, E-Con, RCP2, or ERC controller, the screen will automatically move to the Select Axis screen if multiple units are connected.



Select a menu item using the arrow keys (▲▼◀▶) or minus key and press the Return key. The screen will move to the Select Axis screen.






**Fig. 8.2 TP Operation Mode Selection Screen**

Select an operation mode from the following 4 menu items:

- Teach 1 (PIO Prh · SftyVel Efct)
  - PIO Prh: Enables writing of position data, parameters, etc., in the controller and commands of the actuator movement system.
  - SftyVel Efct: Keeps the maximum speed at the safety speed set for the parameter regardless of position data.
- Teach 2 (PIO Prh · SftyVel Non)
  - PIO Prh: Enables writing of position data, parameters, etc., in the controller and commands of the actuator movement system.
  - SftyVel Non: Enables movement at the speed described in position data.
- Monitor 1 (PIO Prm · SftyVel Efct)
  - PIO Prm: Enables monitoring only. Writing of position data, parameters, etc., in the controller and commands of the actuator movement system are disabled.
  - SftyVel Eft: Keeps the maximum speed at the safety speed set for the parameter regardless of a command from PLC.
- Monitor 2 (PIO Prm · SftyVel Non)
  - PIO Prm: Enables monitoring only. Writing of position data, parameters, etc., in the controller and commands of the actuator movement system are disabled.
  - SftyVel Non: Enables movement at the speed according to a command from PLC.

## 8-2 Controller Selection (when using multiple units)

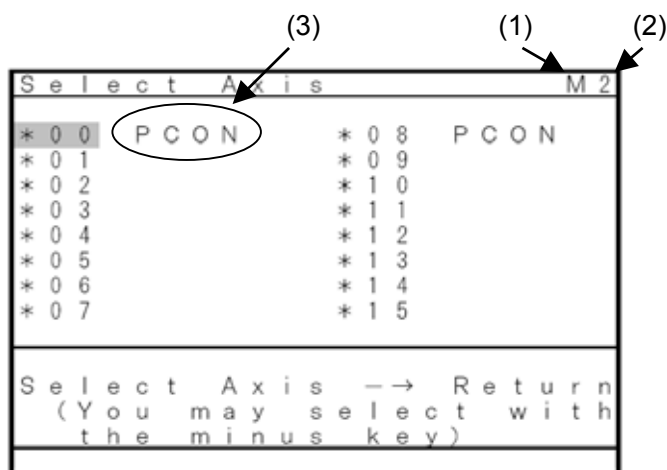
In the case of multiple units connected serially via the communication line, the axis selection screen will be displayed. For a single unit, since there is no need to select the axis, the first screen below will not appear (refer to Section 8.3 entitled Operational Mode Selection of this manual).

When a screen has a reversed character background such as **\* 0 0**, this field is selected (from now on, referred to as the "cursor location"). By pressing either arrow key switches     located on the key sheet or the  key, the cursor will move.

The controller can connect up to 16 units. However, the PCON, ACON, SCON, or ERC2 controller cannot be used by linking to the RCP, RCS, E-Con, RCP2, or ERC controller. All the controller axis numbers (0-15) will be displayed. In the case of PCON, ACON, SCON, or ERC2, a connected model will be displayed for the connected controller.

In the case of RCP, RCS, E-Con, RCP2, or ERC, "Connected" will be displayed.

By placing the cursor on the desired controller, and pressing the Return key, selection will occur. The screen will then change to the "Mode Select" screen.



**Fig. 8.3 Axis Selection Screen**

- (1) Protocol type display M: Modbus, T: proprietary protocol
- (2) Board type display 1: Flash ROM 128KB board, 2: Flash ROM 1MB board
- (3) Connection axis display: In the case of PCON, ACON, SCON, or ERC2, the model name of the connection axis such as PCON will be displayed.  
In the case of RCP, RCS, E-Con, RCP2, or ERC, "Connected" will be displayed.

The above screen shows the following three controllers are connected to the communication line:

Controller axis number: No. 00, No. 04, and No. 13

(Only the powered controller(s) will be detected when power is present for the Teaching Pendant.)

**Caution:** In the case of controllers with the PORT switch, only the powered controller(s) will be detected when the PORT switch is ON and power is present for the Teaching Pendant.

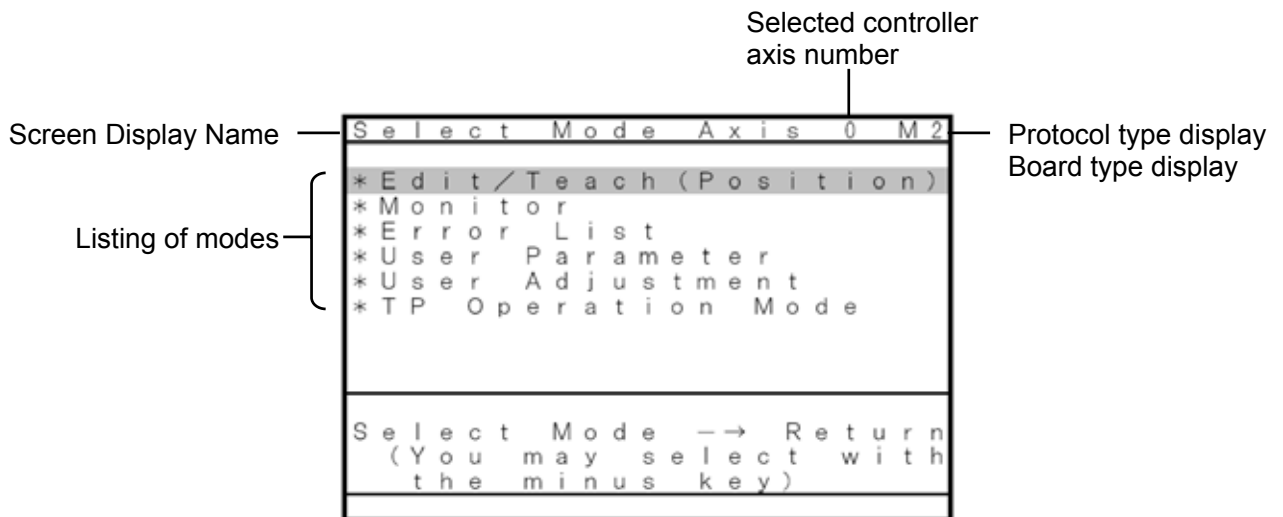
The content explained hereinafter will be based on operation in response to the selected axis (controller).



## 8-3 Operation Mode Selection

### 8-3-1 Positioner (PCON-PL/PO, ACON-PL/PO, or SCON: Mode Other than Pulse Train Mode)

In the case of the positioner controller of PCON-PL/PO, ACON-PL/PO, or SCON (mode other than the Pulse Train Mode), the Select Mode screen will be displayed in Fig. 8.4.



**Fig. 8.4 Mode Selection Screen**

For the modes, select one of the 6 options as it appears on the above screen.

To select it, move the cursor to the mode desired and with an arrow key switch or  key switch and confirm it with the Return key.

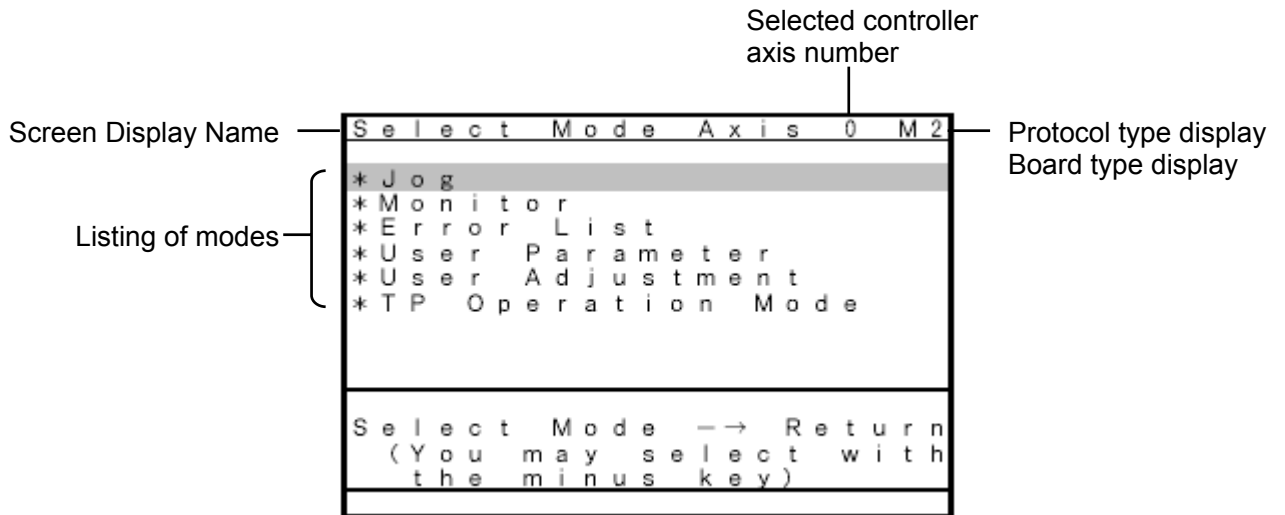
**Caution:** The “\* TP Operation Mode” will be displayed only for PCON, ACON, SCON, or ERC2.

#### Category of Modes

1. \* Edit/Teach (Position) Teach and Edit function for position table  
(Refer to 8.4 and 8.5)
2. \* Monitor Controller status display (Refer to 8.6)
3. \* Error list Alarm content detailed display (Refer to 8.7)
4. \* User Parameter Setting of axis zone signal output range and axis attributes (Refer to 8.8)
5. \* User Adjustment Executing homing and axis number setting of controller series. (Refer to 8.9)
6. \* TP Operation Mode Setting of operation mode (Refer to 8.10). Displayed only for PCON, ACON, SCON, or ERC2.

## 8-3-2 Pulse Train (PCON-PL/PO, ACON-PL/PO, or SCON: Pulse Train Mode)

In the case of the PCON-PL/PO, ACON-PL/PO, or SCON controller (pulse train mode), the Select Mode screen shown in Fig. 8.5 will be displayed.



**Fig. 8.5 Mode Selection Screen**

For the modes, select one of the 6 options as it appears on the above screen.

To select it, move the cursor to the mode desired and with an arrow key switch or  key switch and confirm it with the Return key.

### Category of Modes

- |                        |  |
|------------------------|--|
| 1. * Jog               | Servo ON, homing, jogging, increment movement (Refer to 8.5.8)                             |
| 2. * Monitor           | Controller status display (Refer to 8.6)   |
| 3. * Error list        | Alarm content detailed display (Refer to 8.7)  |
| 4. * User Parameter    | Setting of axis zone signal output range and axis attributes (Refer to 8.8)                |
| 5. * User Adjustment   | Executing homing and axis number setting of actuator-integrated controller. (Refer to 8.9) |
| 6. * TP Operation Mode | Setting of operation mode (Refer to 8.10).   |

## 8-4 Edit/Teaching

### 8-4-1 PCON, ACON, SCON, or ERC2

When “\* Edit/Teach (Position)” mode is selected, the contents of the position table saved in the controller will be displayed.

\* In the case of PCON-PL/PO, ACON-PL/PO, or SCON (Pulse Train mode), they will not be displayed.

Editing axis number

Edit / Teach Axis 0		
No.	Position mm	Vel mm/s
0		*
1		*
2		*
3		*
4		*
5		*
6		*
7		*

Sub Display Area: Clr / All : No → Return  
Teach / Play : Position → Return  
Error Display Area: [Srv xxx Pos-xxxx.xx]

**Fig. 8.6 Position Data Table Display Screen**

**Caution:** Use the arrow keys (▲▼◀▶) to move the cursor within the main display area. When the cursor is located inside the sub display area, use the  key to move the cursor.

#### Screen Display Descriptions:

The screen display is divided into the following 5 areas for use:

- Title Display Area: Displays the current mode and the selected controller axis number
- Main Display Area: Displays the movement position data saved in the controller
- Sub Display Area: Used for sub command assignment such as position add and delete
- Status Display Area: Display servo status and current location
- Error Display Area: Displays messages during editing

The position data main display area is divided and displayed as below.  
 You can change the screens by continuing to press the arrow keys (▲▼◀▶).

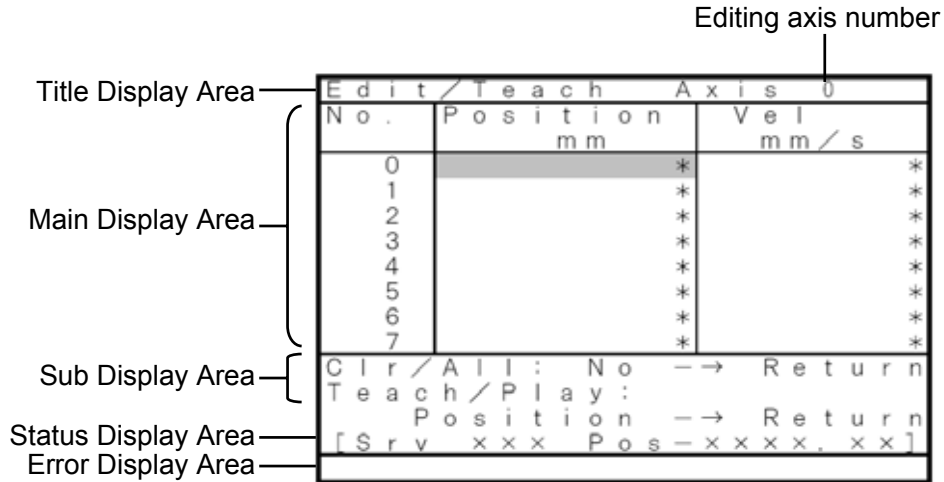
No.	Position mm	Vel mm/s	Acc G	Dcl G	Push %	LoTh %	Range mm	Zone+ mm	Zone- mm	AccDcl Mode	Cmnd Mode	Stop Mode
0	*	*	*	*	*	*	*	*	*	*	*	*
1	*	▲	*	*	▲	*	▲	*	*	*	*	*
2	*	*	*	*	*	*	*	▲	*	*	*	*
3	*	*	*	*	*	*	*	*	▲	*	*	*
4	*	*	*	*	*	*	*	*	*	*	*	*
5	*	*	*	*	*	*	*	*	*	*	*	*
6	*	*	*	*	*	*	*	*	*	*	*	*
7	*	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*	*	*	*
9	*	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*	*
11	*	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*	*
13	*	*	*	*	*	*	*	*	*	*	*	*
14	*	*	*	*	*	*	*	*	*	*	*	*
15	*	*	*	*	*	*	*	*	*	*	*	*

Note) When the cursors on the position data table main display area are flashing, you can change the right-and-left areas by pressing the [BEGIN/END] key and [ ] key simultaneously.  
 (If you continue pressing the [BEGIN/END] key for 2 sec. or more, the screen will change to the "BEGIN/END" screen.)

Note) The position number changes according to the model and PIO pattern.

### 8-4-2 RCP, RCS, E-Con, RCP2, or ERC

When “\* Edit/Teach (Position)” mode is selected, the contents of the position table saved in the controller will be displayed.



**Fig. 8.7 Position Data Table Display Screen**

**Caution:** Use the arrow keys (▲▼◀▶) to move the cursor within the main display area. When the cursor is located inside the sub display area, use the  key to move the cursor.

#### Screen Display Descriptions:

The screen display is divided into the following 5 areas for use:

- Title Display Area: Displays the current mode and the selected controller axis number
- Main Display Area: Displays the movement position data saved in the controller
- Sub Display Area: Used for sub command assignment such as position add and delete
- Status Display Area: Display servo status and current location
- Error Display Area: Displays messages during editing

The position data main display area is divided and displayed as below.

You can change the screens by continuing to press the arrow keys (▲▼◀▶).

No.	Position mm	Vel mm/s	Acc G	Push %	Range mm	Acc MAX
0	*	*	*	*	*	*
1	*	*	▶	▶	*	*
2	*	*	▶	▶	*	*
3	*	*	*	*	*	*
4	*	*	*	*	*	*
5	*	*	◀	◀	*	*
6	▼	*	▶	▶	*	*
7	*	▲	*	*	▲	▼
8	▼	▲	*	*	▲	▼
9	*	▶	◀	◀	*	*
10	*	*	◀	◀	*	*
11	*	*	*	*	*	*
12	*	*	*	*	*	*
13	*	*	▶	▶	*	*
14	*	*	▶	▶	*	*
15	*	*	*	*	*	*

Note)

When the cursors on the position data table main display area are flashing, you can change the right-and-left areas by pressing the **BEGIN/END** key and **◻** key simultaneously.

(If you continue pressing the **BEGIN/END** key for 2 sec. or more, the screen will change to the "BEGIN/END" screen.

Note) The position number is 0 to 63 for E-Con (RCP2 according to the parameter setting).

## 8-5 Position Data Table Contents

### 8-5-1 Position Data Table Contents for PCON, ACON, SCON, and ERC2

The setting items of the position data table are No., Position, Vel, Acc/Dcl, Push, LoTh, Range, Zone+, Zone-, AccDcl Mode, Cmnd Mode, and Stop Mode. They are displayed in 10 screens.

The items of Zone+, Zone-, AccDcl Mode, and Stop Mode are enabled (ON) or disabled (OFF) according to the controller type.

List of ON/OFF of Position Table According to Model

Position Table	Zone +/-		AccDcl Mode			Stop Mode	
			Trapezoid	S-shape	First-order Delay	Full Servo	Auto Servo OFF
ERC2	<input type="radio"/>	PIO pattern: 3	<input type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
ERC2-SE	<input type="radio"/>	-	<input type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
PCON-C/CG/CF	<input type="radio"/>	PIO pattern: 0, 1, 2, 4, 5	<input type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
-CY	<input type="radio"/>	PIO pattern: 1	<input type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
-SE	<input type="radio"/>	-	<input type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
ACON-C/CG	<input type="radio"/>	PIO pattern: 0, 1, 2, 4, 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-CY	<input type="radio"/>	PIO pattern: 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-SE	<input type="radio"/>	-	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
SCON positioner	<input type="radio"/>	PIO pattern: 0, 1, 2, 4, 5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- (1) No. Indicates the position data number.  
 To specify relative coordinates, move the cursor here and press the minus key. The “=” sign will appear between No. and Position.  
 By pressing the minus key again, “=” disappears and the screen returns to absolute coordinates.

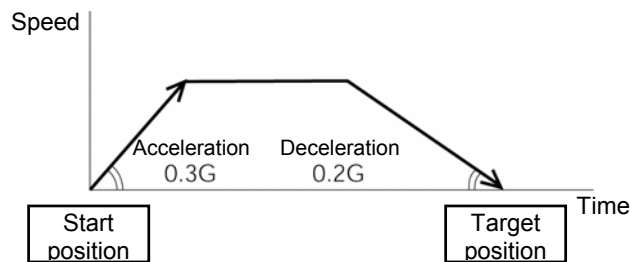
**Warning:** Always specify absolute coordinates for the 3-point type of PCON-C/CG, ACON-C/CG, and SCON-C and the proximity switch type of PCON-CY and ACON-CY.  
 If you specify relative coordinates, a position data error will occur.

- (2) Position: Input the target position to move the actuator to, in [mm].
- Absolute Coordinates: Input the target location by determining the distance between the original point and target position. No negative value can be input.
  - Relative Coordinates: Input the target location by determining the distance between the current position and target position. Any negative value can be input (if coordinates are in the negative direction).

**Caution:** In the case of PCON, ACON, SCON, or ERC2, there are cases where the input value to “Push” may be rounded off to a multiple of the minimum resolution of the controller (during data acquisition from the controller).

(3) Vel: Input the speed at which the actuator will be moved, in [mm/sec].  
The initial value will depend on the actuator type.

(4) Acc/Dcc: Input the acceleration/deceleration at which the actuator will be moved, in [G].  
Basically, use acceleration/deceleration within the catalog rated value range.  
The input range allows larger value input than the catalog rated values, on the assumption that the tact time will be reduced if the transfer mass is significantly smaller than the rated value.  
Make the numeric value smaller if transfer work vibrates and causes trouble during acceleration/deceleration.



The acceleration will become sudden if the numeric value is made larger, and it will become gradual if the numeric value is made smaller.

**Caution:** Enter appropriate values for Vel and Acc/Dec in such a way as to prevent excessive impact or vibration from being applied to the actuator in consideration of the installation conditions and the shape of transferred work by referring to the “List of Actuator Specifications” in the Appendix.  
Increasing such values largely relates to the transfer mass and the actuator characteristics vary depending on the model, consult IAI regarding the input-limiting values.

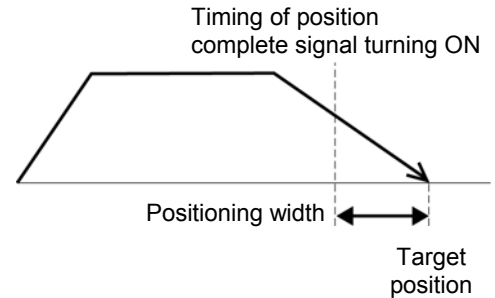
(5) Push: - Select the positioning operation or push operation.  
The default value is “0.”  
0: Normal positioning operation  
Other than 0: Indicates the current-limiting value and indicates the push operation.



(6) LoTh: - This field is invalid.  
The default value is 0.

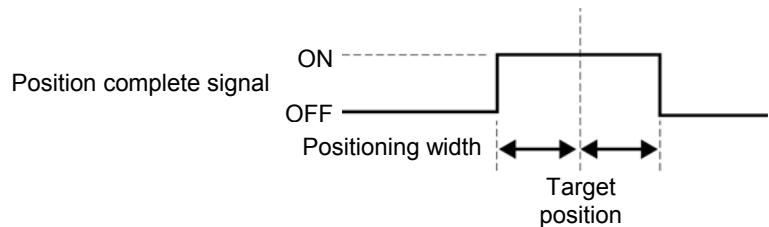
(7) Range: - The “positioning operation” and “push operation” have different meanings.  
Positioning operation:  
It defines the distance to the target position from a position at which the position complete signal turns ON.  
The default value is 0.1 mm.

Since increasing the positioning width value hastens the next sequence operation, it becomes a factor for tact time reduction. Set the optimum value by considering the balance of the entire equipment.



However, it defines the width of the position complete signal for the 3-point type of PCON-C/CG, ACON-C/CG, and SCON and the proximity switch type of PCON-CY and ACON-CY.

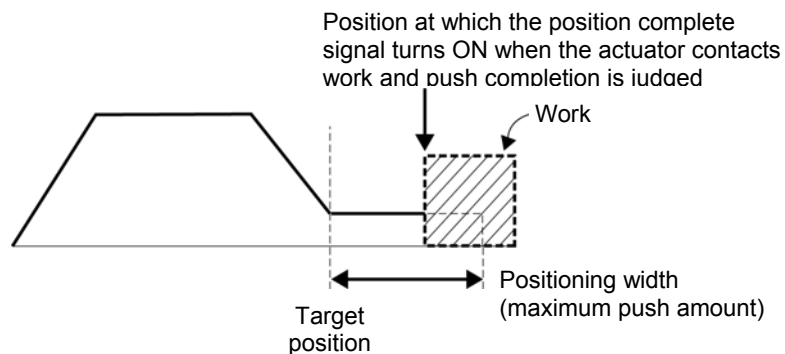
### 3-point type and proximity switch type



Push operation:

It defines the maximum push amount from the target position in the push operation.

Set the positioning width in such a way as to prevent positioning completion before the actuator contacts work by considering mechanical variations of work.

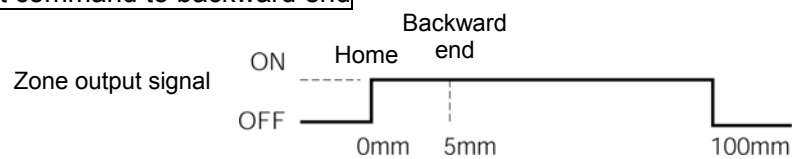


- (8) Zone +/-: - It defines the zone where the zone output signal of the standard type turns ON.  
Individual setting is available for each target position to give flexibility.

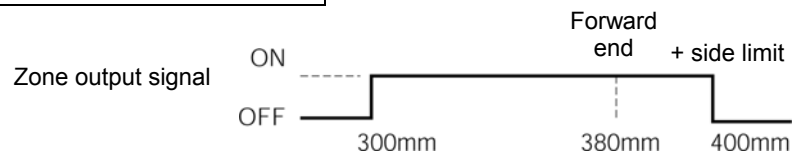
[Setting example]

No.	Position [mm]	Zone+ [mm]	Zone- [mm]	Comment
0	5.00	100.00	0.00	Backward end
1	380.00	400.00	300.00	Forward end
2	200.00	250.00	150.00	Midpoint

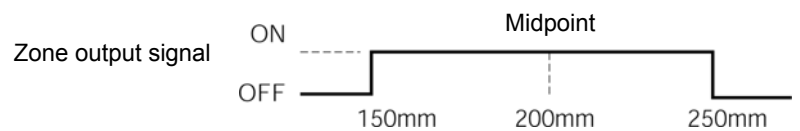
### Movement command to backward end



### Movement command to forward end

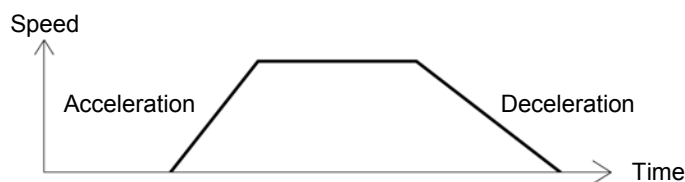


### Movement command to midpoint



- (9) Acc/Dcl Mode: - It defines the acceleration/deceleration characteristics.  
The default value is 0.  
0: Trapezoid pattern  
1: S-shaped motion  
2: First-order delay filter

### Trapezoid pattern

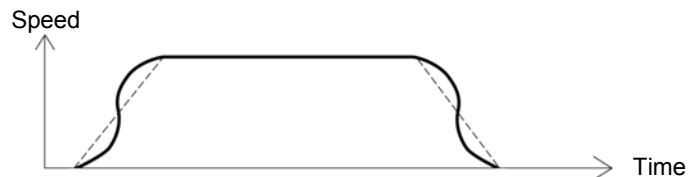


\* Set the acceleration and deceleration in the "Acc" and "Dcl" fields of the position table.

## S-shaped motion

A curve, which is gradual at the beginning of acceleration but rises sharply halfway, is drawn.

Use it in the applications for which you want to set the acceleration/deceleration high due to tact time requirement but desire a gradual curve at the beginning of movement or immediately before stop.



- \* Set the degree of the S-shaped motion with the parameter No. 56 [S-shaped motion ratio setting]. The setting unit is % and the setting range is between 0 and 100.

(The above is the image graph when 100% setting is made.)

If "0" is set, the S-shaped motion becomes invalid.

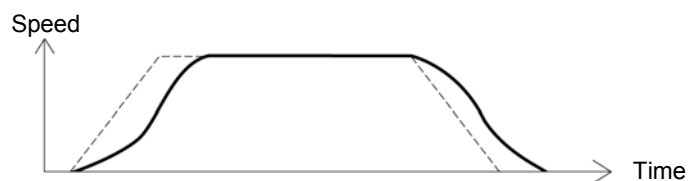
However, it will not be reflected in jogging/increment movement by PC or Teaching Pendant operation.

(Note) It cannot be set for the ERC2 or PCON controller. The parameter No. 56 is reserved.

## First-order delay filter

More gradual acceleration/deceleration curves are drawn than the linear acceleration/deceleration (trapezoid pattern).

Use this in the applications by giving micro vibrations to work during acceleration/deceleration not desired.



- \* Set the degree of the first-order lag with the parameter No. 55 (constant for the position command first-order filtering). The setting unit is 0.1 msec and the setting range is between 0.0 and 100.0.

If "0" is set, the first-lag filter will become invalid.

However, it will not be reflected in jogging/increment movement by PC or Teaching Pendant operation.

(Note) It cannot be set for the ERC2 or PCON controller. The parameter No. 55 is reserved.

(10) Cmd Mode: - This field is invalid.  
The factory setting is 0.

- (11) Stop Mode: - It defines the power saving method on standby after completion of positioning to the target position set in the "Position" field of the position number.
- 0: Invalid power saving method \* The default setting is 0 (invalid).
  - 1: Auto servo OFF method. Delay time defined with the parameter No. 36
  - 2: Auto servo OFF method. Delay time defined with the parameter No. 37
  - 3: Auto servo OFF method. Delay time defined with the parameter No. 38
  - 4: Full servo control method

### Full servo control method

The holding current can be reduced by servo-controlling the pulse motor.

The degree of reduction varies depending on the actuator model, load condition, etc., but the holding current decreases approximately by a factor of 2 to 4.

No displacement occurs since this method maintains the servo ON status.

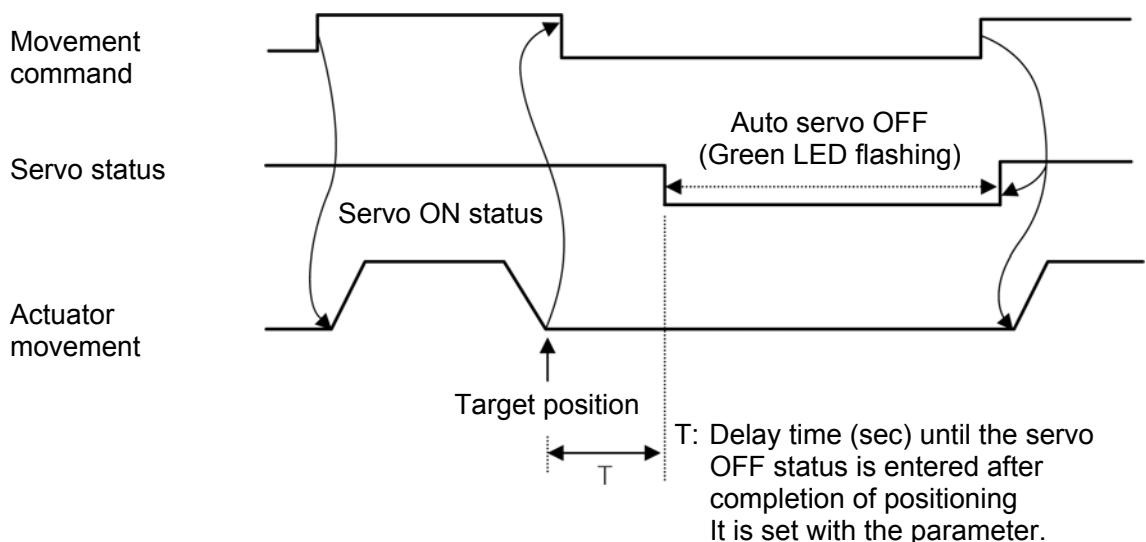
The actual holding current can be checked on the monitoring screen of PC-compatible software.

### Auto servo OFF method

When a given length of time has elapsed after completion of positioning, the servo OFF status is automatically entered.

(Since the holding current does not flow, the power consumption can be saved by the same amount.)

When a movement command is subsequently given from PLC, the status returns to the servo ON and the actuator starts to move.



## 8-5-2 Position Data Table Contents for RCP, RCS, E-Con, RCP2, and ERC

The setting items of the position data table are No., Position, Vel, Acc/Dcl, Push, Range, and Acc only MAX. They are displayed in 4 screens.

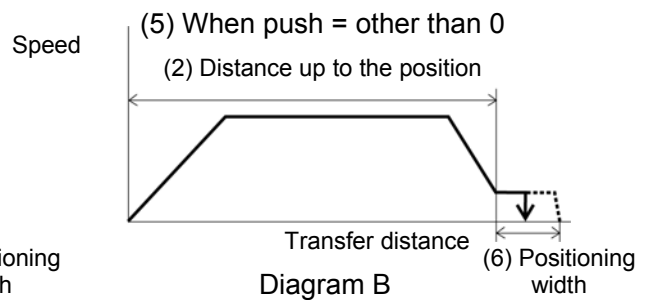
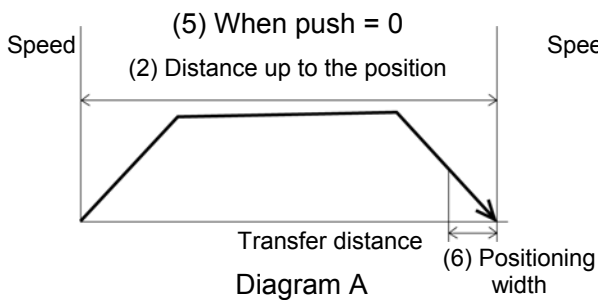
- (1) No. Indicates the position data number.  
To specify relative coordinates, move the cursor here and press the minus key. The “=” sign will appear between No. and Position.  
By pressing the minus key again, “=” disappears and the screen returns to absolute coordinates.
- (2) Position: Input the target position to move the actuator to, in [mm].
- Absolute Coordinates: Input the target location by determining the distance between the original point and target position. No negative value can be input.
  - Relative Coordinates: Input the target location by determining the distance between the current position and target position. Any negative value can be input (if coordinates are in the negative direction).

**Caution:** In the case of PCON, ACON, SCON, or ERC2, there are cases where the input value to “Push” may be rounded off to the multiple of the minimum resolution of the controller (during data acquisition from the controller).

- (3) Vel: Input the speed at which the actuator will be moved, in [mm/sec].  
The initial value will depend on the actuator type.
- (4) Acc/Dcc: Input the acceleration/deceleration at which the actuator will be moved, in [G].  
The initial value will depend on the actuator type.
- (5) Push:
- Select the positioning operation or push operation.  
The default value is “0.”  
0: Normal positioning operation  
Other than 0: Indicates the current-limiting value and indicates the push operation.
  - In the case of push mode, data number is the servo motor current control value during push. Uses a value that matches the actuator with a maximum value of 100%.

Time

- (6) Range:
- Enter the positioning completion detection width in mm (distance to the target position) in the positioning mode.
  - The distance to the target position indicates that the value input here is the upstream distance prior to reaching the target position, and the position complete signal is output when the actuator enters that upstream range.  
The default value will depend on the actuator type. (see diagram A)
  - Enter the maximum push amount (distance from the target position) in the push mode. [mm] (see diagram B)
  - When the push direction is a minus direction from the displayed coordinate, a “minus” sign should be placed in the range column.



- (7) Acc only MAX: - Selects either the assigned acceleration or the maximum acceleration. Inputs are either 1 or 0. The default value is set as 0.

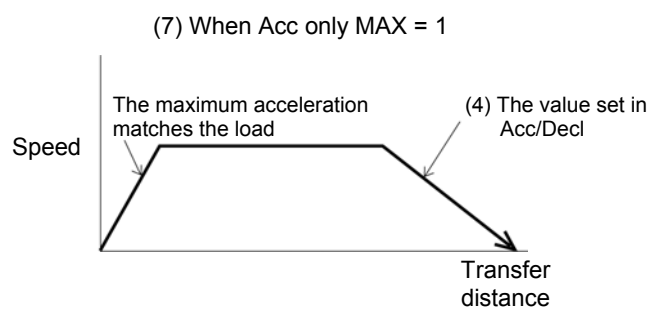
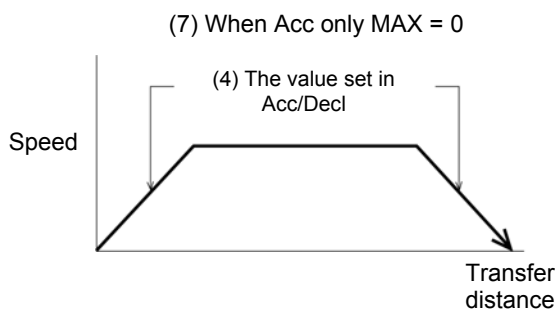
0: Assigned acceleration

The value placed in (4) will be used as the actual acceleration value and deceleration value.

1: Maximum acceleration

This will automatically utilize the maximum acceleration matched to the load.

Deceleration remains as the assigned value in (4).



### 8-5-3 Data New Input

The following 4 ways to input new position data exist:

- (1) Manual Input      Manually enter the position data directly from the Teaching Pendant key pad. (For the input example, see page 34.)
  
- (2) Direct Teach      Turn the servo controller OFF, manually move the slider to match the desired location, and read and command that location into the position table. (For the input example, see page 43.)
  
- (3) Jog                Use the arrow key to jog move and match the desired location, and read that location (current position) into the position table. (For the input example, see page 46.)  
If you continue pressing the arrow key, the actuator will move at a specified speed (1, 10, 30, 50, 100 mm/sec). However, only the maximum speed will be gained if the maximum speed is slower than the specified speed.
  
- (4) Increment        Use the arrow key to incrementally move and match the desired location, and read that location (current position) into the position table. (For the input example, see page 49.)  
If you press the arrow key once, the actuator will move by a specified pitch (0.03, 0.10, 0.50 [mm]). If you continue pressing the arrow key, the actuator will move by jogging at 1 mm/sec. in 2 sec. The speed will then increase every one second. Finer movement than jogging is possible.

Examples of each operation will be explained as follows.

**Caution:** When input position data is performed first after power-on or method of (2), (3), or (4), it is required to perform home return operation in advance. (Increment specification)  
: Jog and Increment movement prior to homing incomplete status is possible up to the slider end. Visually, perform the interference check.


## 1) Homing

Perform temporary stop reset and servo ON input in advance.




Alternatively, disable servo ON input and temporary stop reset with User Adjustment.

(There is no servo ON input for RCP.)

**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.

	Operation	Screen	Reference																														
1.	Select the “* Edit/Teach” and press the Return key.	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may select with the minus key)</p>	The cursor will move by the arrow key or  key.																														
2.	Match the cursor to the position. The number can be anywhere.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 45%;">Edit/Teach</th> <th style="width: 50%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>		Edit/Teach	Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Data unregistered position data will display “*” sign.
	Edit/Teach	Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
3.	Press the Return key.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 45%;">Edit/Teach</th> <th style="width: 50%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>		Edit/Teach	Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	For numeric values, press just the Return key.
	Edit/Teach	Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															



	Operation	Screen	Reference																														
4.	Use the  key for the cursor and move to “* Home.”	<table border="1" data-bbox="643 315 1000 595"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td><b>*</b></td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="643 595 1000 725">           * Direct Teach (Servo OFF)            * Jog *Increment <b>*Home</b>            * Move *Continuous            [Srv ON      Pos      0.00]         </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	<b>*</b>	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Use the  key to move the cursor in the sub display area.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	<b>*</b>	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
5.	Press the Return key.	<table border="1" data-bbox="643 775 1000 1055"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td><b>*</b></td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="643 1055 1000 1184">           * Direct Teach (Servo OFF)            * Jog *Increment <b>*Home</b>            * Move *Continuous            [Srv ON      Pos      0.00]         </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	<b>*</b>	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Automatically executes home.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	<b>*</b>	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
6.	Press the  key will turn the mode into Ten key Card Mode.	<table border="1" data-bbox="643 1234 1000 1514"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td><b>*</b></td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="643 1514 1000 1644">           * Direct Teach (Servo OFF)            * Jog *Increment <b>*Home</b>            * Move *Continuous            [Srv ON      Pos      0.00]         </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	<b>*</b>	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	<b>*</b>	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

## 2) Numeric Input

**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.

Example 1: 2 point continuous loop move 30mm <-> 250mm, Speed 300mm/sec

Operation	Screen	Reference																														
1. Select * Edit/Teach and press the Return key.	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="checkbox"/> key.																														
2. Match the cursor to the position of the position number column you wish to input.  The mode will automatically turn into the ten key input mode.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white; text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>1</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>2</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>3</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>4</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>5</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>6</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>7</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return</p> <p>[Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	The cursor will move with the arrow key. Any remaining data will be written over.  Data unregistered position data will display "*" sign.
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	*	*																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														
3. Input <input type="text" value="3"/> <input type="text" value="0"/> here, and press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white; text-align: center;">30</td> <td style="text-align: center;">*</td> </tr> <tr> <td>1</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>2</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>3</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>4</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>5</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>6</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>7</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return</p> <p>[Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	In order to stop during numeric input, press the <input type="button" value="BEGIN/END"/> key to cancel the input.  Example) With the left operation, by pressing <input type="button" value="BEGIN/END"/> immediately after inputting after inputting <input type="text" value="3"/> <input type="text" value="0"/> , the status will return to the "*" display.
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	30	*																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														

Operation	Screen	Reference																														
4.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Position mm</th> <th style="text-align: left;">Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>30.00</td> <td>100</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)            Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30.00	100	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>During new position data registration, the initial values set with the user parameters for velocity, acceleration, deceleration, etc., will be input automatically.</p> <p>In the left screen, the initial value is set as 100mm/sec.</p>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	30.00	100																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														
5.	<p>Input <b>300</b> here, and press the Return key again (the cursor automatically moves, If change is not needed, press the Return key again.)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Position mm</th> <th style="text-align: left;">Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>30.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)            Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30.00	300	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	30.00	300																														
1	*	*																														
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Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	30.00	300																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														

	Operation	Screen	Reference																														
7.	Input <b>250</b> here, and press the Return key again.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>30.00</td> <td>300</td> </tr> <tr> <td>1</td> <td><b>250</b></td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)                              Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30.00	300	1	<b>250</b>	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	In order to stop during numeric input, press the <b>BEGIN/END</b> key to cancel the input.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	30.00	300																															
1	<b>250</b>	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
8.		<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>30.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>250.00</td> <td><b>100</b></td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)                              Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30.00	300	1	250.00	<b>100</b>	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	The cursor will automatically move to speed.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	30.00	300																															
1	250.00	<b>100</b>																															
2	*	*																															
3	*	*																															
4	*	*																															
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6	*	*																															
7	*	*																															
9.	Input <b>300</b> here, and press the Return key.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>30.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>250.00</td> <td><b>300</b></td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)                              Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30.00	300	1	250.00	<b>300</b>	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	30.00	300																															
1	250.00	<b>300</b>																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

Example 2: 2 point continuous loop move Push operation 10mm position <-> 80mm position (Push range 5mm)

	Operation	Screen	Reference																				
1.	Select * Edit/Teach and press the Return key..	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="checkbox"/> key.																				
2.	Match the cursor to the position of the position number column you wish to input. The mode will automatically turn into the ten key input mode.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm / Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td><b>*</b></td> </tr> <tr> <td>1</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach	Axis 1	No.	Position mm / Vel mm/s	0	<b>*</b>	1	*	2	*	3	*	4	*	5	*	6	*	7	*	The cursor will move with the arrow key. Any remaining data will be written over.  Data unregistered position data will display “*” sign.
Edit/Teach	Axis 1																						
No.	Position mm / Vel mm/s																						
0	<b>*</b>																						
1	*																						
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3	*																						
4	*																						
5	*																						
6	*																						
7	*																						
3.	Input <input type="text" value="10"/> here, and press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm / Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td><b>10</b></td> </tr> <tr> <td>1</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach	Axis 1	No.	Position mm / Vel mm/s	0	<b>10</b>	1	*	2	*	3	*	4	*	5	*	6	*	7	*	In order to stop during numeric input, press the <input type="button" value="BEGIN/END"/> key to cancel the input.  Example) With the left operation, by pressing <input type="button" value="BEGIN/END"/> immediately after inputting after inputting <input type="text" value="10"/> , the status will return to the “*” display.
Edit/Teach	Axis 1																						
No.	Position mm / Vel mm/s																						
0	<b>10</b>																						
1	*																						
2	*																						
3	*																						
4	*																						
5	*																						
6	*																						
7	*																						

	Operation	Screen	Reference																														
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Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	10.00	100																															
1	*	*																															
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6.	Input <b>80</b> here, and press the Return key.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Position mm</th> <th style="text-align: left;">Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="text-align: center;">10.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>1</td> <td style="text-align: center;">80</td> <td style="text-align: center;">*</td> </tr> <tr> <td>2</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>3</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>4</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>5</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>6</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>7</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)            Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	10.00	100	1	80	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	
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8.	Press the ► key when the cursor is located at "Vel."	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Acc G</th> <th style="text-align: left;">Dcl G</th> </tr> </thead> <tbody> <tr><td>0</td><td>0.05</td><td>0.05</td></tr> <tr><td>1</td><td>0.05</td><td>0.05</td></tr> <tr><td>2</td><td>*</td><td>*</td></tr> <tr><td>3</td><td>*</td><td>*</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Acc and Dcl can be individually set.            [Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Acc G	Dcl G	0	0.05	0.05	1	0.05	0.05	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	The screen will switch.										
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9.	Press the ► key when the cursor is located at "Acc." The cursor position will move to "Dcl." Press the ► key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Push %</th> <th style="text-align: left;">LoTh %</th> <th style="text-align: left;">Range mm</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0.10</td></tr> <tr><td>1</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>2</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>3</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>4</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Push = 0: PTP else: Push            Push, Range &gt; 0: Forward                              &lt; 0: Backward            [Srv ON      Pos      0.00]</p>	Edit/Teach			Axis 1	No.	Push %	LoTh %	Range mm	0	0	0	0.10	1	*	*	*	2	*	*	*	3	*	*	*	4	*	*	*	5	*	*	*	6	*	*	*	7	*	*	*	The screen will switch.
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


Operation		Screen			Reference																																								
10.	<p>Input the current value during push.</p> <p>In this example, input 30%.</p> <p>Input <b>[3][0]</b>, and then press the Return key.</p>	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th colspan="2">Axis 1</th> </tr> <tr> <th>No.</th> <th>Push %</th> <th>LoTh %</th> <th>Range mm</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0.10</td></tr> <tr><td>1</td><td><b>30</b></td><td>0</td><td>0.10</td></tr> <tr><td>2</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>3</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>4</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Push = 0: PTP else: Push            Push, Range &gt; 0: Forward            &lt; 0: Backward            [Srv ON Pos 0.00]</p>			Edit/Teach		Axis 1		No.	Push %	LoTh %	Range mm	0	0	0	0.10	1	<b>30</b>	0	0.10	2	*	*	*	3	*	*	*	4	*	*	*	5	*	*	*	6	*	*	*	7	*	*	*	* For push control, refer to the Controller Operating Manual.
Edit/Teach		Axis 1																																											
No.	Push %	LoTh %	Range mm																																										
0	0	0	0.10																																										
1	<b>30</b>	0	0.10																																										
2	*	*	*																																										
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5	*	*	*																																										
6	*	*	*																																										
7	*	*	*																																										
11.	<p>Input the maximum push range during push into the Range.</p> <p>In this example, input 5 mm.</p> <p>Input <b>[5]</b> and press the Return key.</p>	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th colspan="2">Axis 1</th> </tr> <tr> <th>No.</th> <th>Push %</th> <th>LoTh %</th> <th>Range mm</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td><td>0</td><td>0.10</td></tr> <tr><td>1</td><td>30</td><td>0</td><td><b>5.00</b></td></tr> <tr><td>2</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>3</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>4</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Push = 0: PTP else: Push            Push, Range &gt; 0: Forward            &lt; 0: Backward            [Srv ON Pos 0.00]</p>			Edit/Teach		Axis 1		No.	Push %	LoTh %	Range mm	0	0	0	0.10	1	30	0	<b>5.00</b>	2	*	*	*	3	*	*	*	4	*	*	*	5	*	*	*	6	*	*	*	7	*	*	*	
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7	*	*	*																																										



Example 3: Relative Coordinates pitch movement 30 mm → 40 mm → 50 mm....

	Operation	Screen	Reference																														
1.	Select * Edit/Teach and press the Return key.	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="button" value="←"/> key.																														
2.	Match the cursor to the position of the position number column you wish to input. The mode will automatically turn into the ten key input mode.	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The cursor will move with the arrow key. Any remaining data will be written over.</p> <p>Data unregistered position data will display "*" sign.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
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4	*	*																															
5	*	*																															
6	*	*																															
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3.	Input <input type="text" value="30"/> here, and press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">30</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>In order to stop during numeric input, press the <input type="button" value="BEGIN/END"/> key to cancel the input.</p> <p>Example) With the left operation, by pressing <input type="button" value="BEGIN/END"/> immediately after inputting <input type="text" value="30"/>, the status will return to the "*" display.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	30	*																															
1	*	*																															
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6	*	*																															
7	*	*																															

	Operation	Screen	Reference																				
4.	The cursor will move automatically to the Vel. If there are no changes, press the Return key.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm      Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="text-align: center;">30.00      <b>100</b></td> </tr> <tr><td>1</td><td style="text-align: center;">*      *</td></tr> <tr><td>2</td><td style="text-align: center;">*      *</td></tr> <tr><td>3</td><td style="text-align: center;">*      *</td></tr> <tr><td>4</td><td style="text-align: center;">*      *</td></tr> <tr><td>5</td><td style="text-align: center;">*      *</td></tr> <tr><td>6</td><td style="text-align: center;">*      *</td></tr> <tr><td>7</td><td style="text-align: center;">*      *</td></tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)                              Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach	Axis 1	No.	Position mm      Vel mm/s	0	30.00 <b>100</b>	1	*      *	2	*      *	3	*      *	4	*      *	5	*      *	6	*      *	7	*      *	<p>During new position data registration, the initial values set with the user parameters for velocity, acceleration, deceleration, etc., will be input automatically.</p> <p>In the left screen, the initial value is set as 100mm/sec.</p>
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6	*      *																						
7	*      *																						
5.	The cursor moves to the next (No.1) position automatically. Press the ◀ key to move the cursor to No.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm      Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="text-align: center;">30.00      100</td> </tr> <tr> <td>1</td> <td style="text-align: center;"><b>*</b>      *</td> </tr> <tr><td>2</td><td style="text-align: center;">*      *</td></tr> <tr><td>3</td><td style="text-align: center;">*      *</td></tr> <tr><td>4</td><td style="text-align: center;">*      *</td></tr> <tr><td>5</td><td style="text-align: center;">*      *</td></tr> <tr><td>6</td><td style="text-align: center;">*      *</td></tr> <tr><td>7</td><td style="text-align: center;">*      *</td></tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)                              Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach	Axis 1	No.	Position mm      Vel mm/s	0	30.00      100	1	<b>*</b> *	2	*      *	3	*      *	4	*      *	5	*      *	6	*      *	7	*      *	
Edit/Teach	Axis 1																						
No.	Position mm      Vel mm/s																						
0	30.00      100																						
1	<b>*</b> *																						
2	*      *																						
3	*      *																						
4	*      *																						
5	*      *																						
6	*      *																						
7	*      *																						
6.	Press the  key here.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm      Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="text-align: center;">30.00      100</td> </tr> <tr> <td><b>1</b></td> <td style="text-align: center;">*      *</td> </tr> <tr><td>2</td><td style="text-align: center;">*      *</td></tr> <tr><td>3</td><td style="text-align: center;">*      *</td></tr> <tr><td>4</td><td style="text-align: center;">*      *</td></tr> <tr><td>5</td><td style="text-align: center;">*      *</td></tr> <tr><td>6</td><td style="text-align: center;">*      *</td></tr> <tr><td>7</td><td style="text-align: center;">*      *</td></tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)                              Position -- &gt; Return            [Srv ON      Pos      0.00]</p>	Edit/Teach	Axis 1	No.	Position mm      Vel mm/s	0	30.00      100	<b>1</b>	*      *	2	*      *	3	*      *	4	*      *	5	*      *	6	*      *	7	*      *	Relative coordinate mode
Edit/Teach	Axis 1																						
No.	Position mm      Vel mm/s																						
0	30.00      100																						
<b>1</b>	*      *																						
2	*      *																						
3	*      *																						
4	*      *																						
5	*      *																						
6	*      *																						
7	*      *																						

	Operation	Screen	Reference																														
7.	Press the ► key to move the cursor to the Position.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>30.00</td> <td>100</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)            Position -- &gt; Return            [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30.00	100	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The “=” sign will be displayed between No. and position to indicate that it is the relative coordinate mode.</p> <p>By pressing the  key, “=” disappears and returns the mode to the absolute coordinate mode.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	30.00	100																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
8.	Input   here, and press the Return key.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>30.00</td> <td>100</td> </tr> <tr> <td>1</td> <td>10.00</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)            Position -- &gt; Return            [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30.00	100	1	10.00	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The relative repositioning rate plus 10 mm are input.</p> <p>To input the relative repositioning rate in the negative direction, press the  key prior to numeric input.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	30.00	100																															
1	10.00	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
9.		<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>30.00</td> <td>100</td> </tr> <tr> <td>1</td> <td>10.00</td> <td>100</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)            Position -- &gt; Return            [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	30.00	100	1	10.00	100	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The cursor will move automatically to the Vel.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	30.00	100																															
1	10.00	100																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

### 3) Direct Teach



(Method: Manually moving the actuator, matching to the desired position, and teaching that position into the position table)


When direct teach operation is performed first after power-on, it is required to perform home return operation in advance. (Refer to page 32.) (Increment specification)


**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.

Example: 2 point continuous loop Point A --> Point B, speed 300mm/sec

	Operation	Screen	Reference																														
1.	Select * Edit/Teach and press the Return key..	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="checkbox"/> key.																														
2.	Match the cursor to the position of the position number column you wish to input.  The mode will automatically turn into the ten key input mode.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The cursor will move with the arrow key. Any remaining data will be written over.</p> <p>Data unregistered position data will display "*" sign.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
3.	Press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	The numeric value will input the Return key only.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

	Operation	Screen	Reference																				
4.	Use  key to move the cursor, and then select *Direct Teach and press the Return key (upon pressing the Return key, status will be in servo off. The diagram on the right shows display before pressing.)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white; text-align: center;">*</td> </tr> <tr> <td>1</td> <td style="text-align: center;">*</td> </tr> <tr> <td>2</td> <td style="text-align: center;">*</td> </tr> <tr> <td>3</td> <td style="text-align: center;">*</td> </tr> <tr> <td>4</td> <td style="text-align: center;">*</td> </tr> <tr> <td>5</td> <td style="text-align: center;">*</td> </tr> <tr> <td>6</td> <td style="text-align: center;">*</td> </tr> <tr> <td>7</td> <td style="text-align: center;">*</td> </tr> </tbody> </table> <p style="margin-top: 5px;"> <b>* Direct Teach (Servo OFF)</b>            * Jog * Increment * Home            * Move * Continuous            [Srv ON      Pos      0.00]         </p>	Edit/Teach	Axis 1	No.	Position mm	0	*	1	*	2	*	3	*	4	*	5	*	6	*	7	*	Use the  key to move the cursor inside the sub display area.
Edit/Teach	Axis 1																						
No.	Position mm																						
0	*																						
1	*																						
2	*																						
3	*																						
4	*																						
5	*																						
6	*																						
7	*																						
5.	Manually move the slider and match to the desired position.  Press the Return key.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white; text-align: center;">*</td> </tr> <tr> <td>1</td> <td style="text-align: center;">*</td> </tr> <tr> <td>2</td> <td style="text-align: center;">*</td> </tr> <tr> <td>3</td> <td style="text-align: center;">*</td> </tr> <tr> <td>4</td> <td style="text-align: center;">*</td> </tr> <tr> <td>5</td> <td style="text-align: center;">*</td> </tr> <tr> <td>6</td> <td style="text-align: center;">*</td> </tr> <tr> <td>7</td> <td style="text-align: center;">*</td> </tr> </tbody> </table> <p style="margin-top: 5px;">           Direct Teach (Servo OFF)            Return -&gt; Acquire             [Srv OFF      Pos      100.00]         </p>	Edit/Teach	Axis 1	No.	Position mm	0	*	1	*	2	*	3	*	4	*	5	*	6	*	7	*	<p>The controller status will be displayed on the bottom row of the screen.</p> <p style="margin-left: 40px;">             Servo Control: OFF              Position:            100.00           </p> <p>Use the ▲▼ key to move the cursor of the main screen and change the inputting position number.</p>
Edit/Teach	Axis 1																						
No.	Position mm																						
0	*																						
1	*																						
2	*																						
3	*																						
4	*																						
5	*																						
6	*																						
7	*																						

	Operation	Screen	Reference																				
6.	Use the  key to move the cursor to * YES. Press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm / Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> </tr> <tr> <td>1</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> </tr> </tbody> </table> <p>Acquire position No. 0?            * NO    * <b>Yes</b></p> <p>[Srv OFF    Pos    0.00]</p>	Edit/Teach	Axis 1	No.	Position mm / Vel mm/s	0	*	1	*	2	*	3	*	4	*	5	*	6	*	7	*	Pressing the Return key will read the position.
Edit/Teach	Axis 1																						
No.	Position mm / Vel mm/s																						
0	*																						
1	*																						
2	*																						
3	*																						
4	*																						
5	*																						
6	*																						
7	*																						
7.	Manually move the slider and match to the next desired position.  Press the Return key.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm / Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>100.00    300</td> </tr> <tr> <td>1</td> <td style="background-color: black; color: white;">*</td> </tr> <tr> <td>2</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> </tr> </tbody> </table> <p>Direct Teach (Servo OFF)            Return -&gt; Acquire</p> <p>[Srv OFF    Pos    100.00]</p>	Edit/Teach	Axis 1	No.	Position mm / Vel mm/s	0	100.00    300	1	*	2	*	3	*	4	*	5	*	6	*	7	*	The position data number will automatically select the next number (auto increment). As for the speed and Acc/Dec value, the initial value set in the user parameter will automatically input.  In the example at the left, the initial value is 300mm/sec. (Only during new position data input).
Edit/Teach	Axis 1																						
No.	Position mm / Vel mm/s																						
0	100.00    300																						
1	*																						
2	*																						
3	*																						
4	*																						
5	*																						
6	*																						
7	*																						

	Operation	Screen	Reference																														
8.	Use the  key to move the cursor to * YES. Press the Return key again.	<table border="1" data-bbox="651 309 1007 593"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>100.00</td> <td>300</td> </tr> <tr> <td>1</td> <td><b>*</b></td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="651 595 1007 660">Acquire position No. 1? * NO <b>* Yes</b></p> <p data-bbox="651 685 1007 719">[Srv OFF Pos 30.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	100.00	300	1	<b>*</b>	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Pressing the Return key will read the position.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	100.00	300																															
1	<b>*</b>	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
9.	Press the <b>ESC</b> key twice.	<table border="1" data-bbox="651 763 1007 1048"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>100.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>30.00</td> <td>300</td> </tr> <tr> <td>2</td> <td><b>*</b></td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="651 1050 1007 1137">Clr/All: No --&gt; Return Teach/Play: (Ten key Match) Position --&gt; Return</p> <p data-bbox="651 1140 1007 1173">[Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	100.00	300	1	30.00	300	2	<b>*</b>	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	The screen will return to the Edit/Teach main screen. At this time, the servo control will turn ON.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	100.00	300																															
1	30.00	300																															
2	<b>*</b>	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
10.	Press the <b>ESC</b> key gain.	<p data-bbox="651 1218 1007 1252">Select Mode Axis 1</p> <p data-bbox="651 1254 1007 1288"><b>* Edit/Teach (Position)</b></p> <ul data-bbox="651 1290 1007 1444" style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr data-bbox="651 1489 1007 1500"/> <p data-bbox="651 1541 1007 1641">Select Mode --&gt; Return (You may also select the minus key)</p>	The screen will return to the mode select screen.																														

## 4) Jog Teach

(Method: Tagging the actuator, matching to the desired position, and teaching that position into the position table)

If you continue pressing the arrow key, the actuator will move at a specified speed (1, 10, 30, 50, 100 [mm/sec]).

However, only the maximum speed will be gained if the maximum speed is slower than the specified speed.








When jog operation is performed first after power-on, it is required to perform home return operation in advance. (Refer to page 32.) (Increment specification)


**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.





Example: 2 point continuous loop Point A --> Point B, speed 300mm/sec

	Operation	Screen	Reference																														
1.	Select * Edit/Teach and press the Return key..	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="button" value="-"/> key.																														
2.	Match the cursor to the position of the position number column you wish to input. The mode will automatically turn into the ten key input mode.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return</p> <p>[Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The cursor will move with the arrow key. Any remaining data will be written over.</p> <p>Data unregistered position data will display "*" sign.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															



	Operation	Screen	Reference																				
3.	Press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm / Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">* * *</td> </tr> <tr> <td>1</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>2</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>3</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>4</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>5</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>6</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>7</td> <td style="text-align: center;">* *</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)                              Position -- &gt; Return            [Srv ON        Pos        0.00]</p>	Edit/Teach	Axis 1	No.	Position mm / Vel mm/s	0	* * *	1	* *	2	* *	3	* *	4	* *	5	* *	6	* *	7	* *	The numeric value will input the Return key only.
Edit/Teach	Axis 1																						
No.	Position mm / Vel mm/s																						
0	* * *																						
1	* *																						
2	* *																						
3	* *																						
4	* *																						
5	* *																						
6	* *																						
7	* *																						
4.	Use  key to move the cursor, and then select * Jog and press the Return key.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm / Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">* * *</td> </tr> <tr> <td>1</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>2</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>3</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>4</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>5</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>6</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>7</td> <td style="text-align: center;">* *</td> </tr> </tbody> </table> <p>* Direct Teach (Servo OFF)            *  * Increment * Home            * Move * Continuous            [Srv ON        Pos        0.00]</p>	Edit/Teach	Axis 1	No.	Position mm / Vel mm/s	0	* * *	1	* *	2	* *	3	* *	4	* *	5	* *	6	* *	7	* *	Use the  key to move the cursor inside the sub display area.
Edit/Teach	Axis 1																						
No.	Position mm / Vel mm/s																						
0	* * *																						
1	* *																						
2	* *																						
3	* *																						
4	* *																						
5	* *																						
6	* *																						
7	* *																						
5.	Select speed with the  key. Move the slider with the  key and match it to the desired position.  ► : Plus direction of display coordinates ◀ : Minus direction of display coordinates  Press the Return key.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Edit/Teach</th> <th style="width: 45%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm / Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">* * *</td> </tr> <tr> <td>1</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>2</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>3</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>4</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>5</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>6</td> <td style="text-align: center;">* *</td> </tr> <tr> <td>7</td> <td style="text-align: center;">* *</td> </tr> </tbody> </table> <p>Jog (&lt;- · -&gt; key)            Speed 1 2 <b>3</b> 4 5 -&gt; Fast            Return --&gt; Acquire            [Srv ON        Pos        500.00]</p>	Edit/Teach	Axis 1	No.	Position mm / Vel mm/s	0	* * *	1	* *	2	* *	3	* *	4	* *	5	* *	6	* *	7	* *	 : Speed select  Using the  key, move the main screen cursor to change the inputting position number. Vel 1: 1 mm/sec Vel 2: 10 mm/sec Vel 3: 30 mm/sec Vel 4: 50 mm/sec Vel 5: 100 mm/sec However, only the maximum speed will be gained if the maximum speed is slower than the specified speed.
Edit/Teach	Axis 1																						
No.	Position mm / Vel mm/s																						
0	* * *																						
1	* *																						
2	* *																						
3	* *																						
4	* *																						
5	* *																						
6	* *																						
7	* *																						

	Operation	Screen	Reference																														
6.	<p>Use the  key to move the cursor to * YES. Press the Return key again.</p>	<table border="1" data-bbox="638 313 1005 593"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="638 593 1005 660">Acquire position No. 0? * NO    * Yes</p> <p data-bbox="638 683 1005 728">[Srv ON    Pos    500.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>Pressing the Return key will read the position.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
7.	<p>Match to the next desired position.  Press the Return key.</p>	<table border="1" data-bbox="638 772 1005 1052"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>500.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="638 1052 1005 1153">Jog (&lt;- · -&gt; key) Speed 1 2 <b>3</b> 4 5 -&gt; Fast Return --&gt; Acquire</p> <p data-bbox="638 1176 1005 1220">[Srv ON    Pos    100.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	500.00	300	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The position data number will automatically select the next number (auto increment). As for the speed and Acc/Dec value, the initial value set in the user parameter will automatically input. In the example at the left, the initial value is 300mm/sec.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	500.00	300																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

	Operation	Screen	Reference																														
8.	Use the  key to move the cursor to * YES. Press the Return key again.	<table border="1" data-bbox="651 315 1005 593"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>500.00</td> <td>300</td> </tr> <tr> <td>1</td> <td><b>* *</b></td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="651 595 1005 660">Acquire position No. 1? * NO <b>* Yes</b></p> <p data-bbox="651 685 1005 719">[Srv OFF Pos 100.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	500.00	300	1	<b>* *</b>	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Pressing the Return key will read the position.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	500.00	300																															
1	<b>* *</b>	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
9.	Press the  key. Then press the  key gain.	<table border="1" data-bbox="651 770 1005 1048"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>500.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>100.00</td> <td>300</td> </tr> <tr> <td>2</td> <td><b>* *</b></td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="651 1050 1005 1137">Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return</p> <p data-bbox="651 1140 1005 1173">[Srv ON Pos 100.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	500.00	300	1	100.00	300	2	<b>* *</b>	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	The screen will return to the Edit/Teach main screen.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	500.00	300																															
1	100.00	300																															
2	<b>* *</b>	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
10.	Press the  key.	<p data-bbox="651 1225 1005 1258">Select Mode Axis 1</p> <p data-bbox="651 1261 1005 1294"><b>* Edit/Teach (Position)</b></p> <ul data-bbox="651 1296 1005 1451" style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr data-bbox="651 1496 1005 1500"/> <p data-bbox="651 1547 1005 1641">Select Mode -- &gt; Return (You may also select the minus key)</p> <hr data-bbox="651 1644 1005 1648"/>	The screen will return to the mode select screen.																														

## 5) Increment

(Method: Incremental movement using arrow key, matching to the desired position, and teaching that position into the position table)


If you press the arrow key once, the actuator will move by a specified pitch (0.03, 0.10, 0.50 [mm]).







If you continue pressing the arrow key, the actuator will move by jogging at 1 mm/sec. The speed will increase every one second. Finer movement than jogging is possible.


When increment movement is performed first after power-on, it is required to perform home return operation in advance. (Refer to page 32.) (Increment specification)

**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.

Example: 2 point continuous loop Point A --> Point B, speed 300mm/sec

	Operation	Screen	Reference																											
1.	Select * Edit/Teach and press the Return key..	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or  key.																											
2.	Match the cursor to the position of the position number column you wish to input. The mode will automatically turn into the ten key input mode.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th data-bbox="643 1288 675 1344">No.</th> <th data-bbox="675 1288 869 1344">Edit/Teach Position mm</th> <th data-bbox="869 1288 997 1344">Axis 1 Vel mm/s</th> </tr> </thead> <tbody> <tr> <td data-bbox="643 1344 675 1377">0</td> <td data-bbox="675 1344 869 1377" style="background-color: black; color: white;">*</td> <td data-bbox="869 1344 997 1377">*</td> </tr> <tr> <td data-bbox="643 1377 675 1411">1</td> <td data-bbox="675 1377 869 1411">*</td> <td data-bbox="869 1377 997 1411">*</td> </tr> <tr> <td data-bbox="643 1411 675 1444">2</td> <td data-bbox="675 1411 869 1444">*</td> <td data-bbox="869 1411 997 1444">*</td> </tr> <tr> <td data-bbox="643 1444 675 1478">3</td> <td data-bbox="675 1444 869 1478">*</td> <td data-bbox="869 1444 997 1478">*</td> </tr> <tr> <td data-bbox="643 1478 675 1512">4</td> <td data-bbox="675 1478 869 1512">*</td> <td data-bbox="869 1478 997 1512">*</td> </tr> <tr> <td data-bbox="643 1512 675 1545">5</td> <td data-bbox="675 1512 869 1545">*</td> <td data-bbox="869 1512 997 1545">*</td> </tr> <tr> <td data-bbox="643 1545 675 1579">6</td> <td data-bbox="675 1545 869 1579">*</td> <td data-bbox="869 1545 997 1579">*</td> </tr> <tr> <td data-bbox="643 1579 675 1612">7</td> <td data-bbox="675 1579 869 1612">*</td> <td data-bbox="869 1579 997 1612">*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return</p> <p>[Srv ON Pos 0.00]</p>	No.	Edit/Teach Position mm	Axis 1 Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The cursor will move with the arrow key. Any remaining data will be written over.</p> <p>Data unregistered position data will display “*” sign.</p>
No.	Edit/Teach Position mm	Axis 1 Vel mm/s																												
0	*	*																												
1	*	*																												
2	*	*																												
3	*	*																												
4	*	*																												
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6	*	*																												
7	*	*																												

Operation	Screen	Reference																														
<p>3. Press the Return key again.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Position mm</th> <th style="text-align: left;">Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td style="background-color: black; color: white;">*</td><td>*</td></tr> <tr><td>1</td><td>*</td><td>*</td></tr> <tr><td>2</td><td>*</td><td>*</td></tr> <tr><td>3</td><td>*</td><td>*</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)                              Position -- &gt; Return            [Srv ON        Pos        0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The numeric value will input the Return key only.</p>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	*	*																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														
<p>4. Use  key to move the cursor, and then select * Increment and press the Return key.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Position mm</th> <th style="text-align: left;">Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td style="background-color: black; color: white;">*</td><td>*</td></tr> <tr><td>1</td><td>*</td><td>*</td></tr> <tr><td>2</td><td>*</td><td>*</td></tr> <tr><td>3</td><td>*</td><td>*</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>* Direct Teach (Servo OFF)            * Jog * <b>Increment</b> * Home            * Move * Continuous            [Srv ON        Pos        0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>Use the  key to move the cursor inside the sub display area.</p>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	*	*																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														
<p>5. Select speed with the  key. Move the slider with the  key and match it to the desired position.</p> <p style="margin-left: 20px;">▶ : Plus direction of display coordinates            ◀ : Minus direction of display coordinates</p> <p>Press the Return key.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Position mm</th> <th style="text-align: left;">Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td style="background-color: black; color: white;">*</td><td>*</td></tr> <tr><td>1</td><td>*</td><td>*</td></tr> <tr><td>2</td><td>*</td><td>*</td></tr> <tr><td>3</td><td>*</td><td>*</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>* Increment -&gt; Jog (&lt;- · -&gt; key)            Distance 0.03 <b>0.10</b> 0.05            Return --&gt; Acquire            [Srv ON        Pos        0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p> : Increment distance select</p> <p>When () is pressed for more than 2 seconds, jog movement is possible. (Upon that, the speed will increase to 1, 10, 30, 50, and 100 mm/sec every one second. However, only the maximum speed will be gained if the maximum speed is slower than the specified speed.)</p> <p>When the desired position is far, move close to this function, and release the arrow key once, and return to the increment for detail adjustment.</p>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	*	*																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														

Operation	Screen	Reference																														
<p>6. Use the  key to move the cursor to * YES. Press the Return key again.</p>	<table border="1" data-bbox="646 313 997 593"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="646 593 933 660">Acquire position No. 0? * NO * <b>Yes</b></p> <p data-bbox="646 683 997 728">[Srv ON Pos 10.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>Pressing the Return key will read the position.</p>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	*	*																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														
<p>7. Match to the next desired position.  Press the Return key.</p>	<table border="1" data-bbox="646 768 997 1048"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>10.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="646 1048 981 1137">* Increment --&gt; Jog (&lt;- · -&gt; key) Distance 0.03 0.10 0.05 Return --&gt; Acquire</p> <p data-bbox="646 1137 997 1182">[Srv ON Pos 10.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	10.00	300	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	<p>The position data number will automatically select the next number (auto increment).</p> <p>As for the speed and Acc/Dec value, the initial value set in the user parameter will automatically input.</p> <p>In the example at the left, the initial value is 300mm/sec. (Only when new position data is input)</p>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	10.00	300																														
1	*	*																														
2	*	*																														
3	*	*																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														

	Operation	Screen	Reference																														
8.	Use the <input type="checkbox"/> key to move the cursor to * YES. Press the Return key again.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>10.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>* <input type="checkbox"/></td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Acquire position No. 1?            * NO <input type="checkbox"/> * Yes <input checked="" type="checkbox"/></p> <p>[Srv OFF    Pos    90.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	10.00	300	1	* <input type="checkbox"/>	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Pressing the Return key will read the position.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	10.00	300																															
1	* <input type="checkbox"/>	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
9.	Press the <input type="checkbox"/> key. Then press the <input type="checkbox"/> key again.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>10.00</td> <td>300</td> </tr> <tr> <td>1</td> <td>90.00</td> <td>300</td> </tr> <tr> <td>2</td> <td>* <input type="checkbox"/></td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)            Position -- &gt; Return</p> <p>[Srv ON    Pos    90.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	10.00	300	1	90.00	300	2	* <input type="checkbox"/>	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	The screen will return to the Edit/Teach main screen.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	10.00	300																															
1	90.00	300																															
2	* <input type="checkbox"/>	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
10.	Press the <input type="checkbox"/> key.	<p>Select Mode Axis 1</p> <p>* <b>Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return            (You may also select the minus key)</p>	The screen will return to the mode select screen.																														

#### 8-5-4 Data Modification

You may write over all of the position data.

Similar to new input, the following 4 cases exist:

- (1) Manual Input: Manually enter the position data directly from Teaching Pendant key pad.
- (2) Direct Teach: Turns the servo OFF, manually move the slider to the desired location, and read that location (current position) into the position table.
- (3) Jog: Use the arrow keys to jog to the desired location, and read that location (current position) into the position table.
- (4) Increment: Use the arrow keys to incrementally move and read that location (current position) into the position table.

Caution during data modification:

- \* As for manual input, the data entered will erase the old data.
- \* The position will be updated only when the Return key is pressed to read in the current location (direct teach, jog, increment). It does not influence speed and others.
- \* Once the position data is cleared, the previous data will not remain anywhere, therefore, when the next position data is set, the position move is selected as a default.

When clearing to re-set the push assign position data, be sure to confirm all items of the position data to input required data.

#### 8-5-5 Clear • All Clear

In this section, we will give specific examples of how to clear data in the position table.

- (1) Clear: Resets the assigned position data. The data will become unregistered. (For the input example, see page 53.)
- (2) All Clear: Resets all of all position data. (For the input example, see page 55.)



1) Clear

(Method: To clear the position data of assigned location)

**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.

Example: Clear the row of position data number 2.

	Operation	Screen	Reference																														
1.	Select * Edit/Teach and press the Return key..	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="checkbox"/> key.																														
2.	Match the cursor to the position of the position number column.	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td>100.00</td> <td>100</td> </tr> <tr> <td>2</td> <td>200.00</td> <td>100</td> </tr> <tr> <td>3</td> <td>300.00</td> <td>100</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	Data unregistered position data will display "*" sign.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
2	200.00	100																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
3.	Press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td>100.00</td> <td>100</td> </tr> <tr> <td><b>2</b></td> <td>200.00</td> <td>100</td> </tr> <tr> <td>3</td> <td>300.00</td> <td>100</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	<b>2</b>	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
<b>2</b>	200.00	100																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

	Operation	Screen	Reference																														
4.	Use <input type="checkbox"/> key to move the cursor, and then select * Clear and press the Return key.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td><b>2</b></td><td>200.00</td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Select Clr/All: No --&gt; Return  <input type="checkbox"/> Clear <input type="checkbox"/> All Clear</p> <p>[Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	<b>2</b>	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p>Use the <input type="checkbox"/> key to move the cursor inside the sub display area.</p> <p>Use the ▲▼ key to move the cursor of the main screen and change the clear position number.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
<b>2</b>	200.00	100																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
5.	Confirm the screen display. If you wish to delete, move the cursor to * Yes using the <input type="checkbox"/> key and press the Return key.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td><b>2</b></td><td>200.00</td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Clear Position No. 2?  <input type="checkbox"/> NO <input checked="" type="checkbox"/> Yes</p> <p>[Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	<b>2</b>	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p>When the screen switches to this screen, the cursor will be at * No.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
<b>2</b>	200.00	100																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
6.		<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td><b>2</b></td><td>*</td><td>*</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Select Clr/All: No --&gt; Return  <input type="checkbox"/> Clear <input type="checkbox"/> All Clear</p> <p>[Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	<b>2</b>	*	*	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p>The cursor row will clear (unregistered status).</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
<b>2</b>	*	*																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
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7.	Press the <input type="checkbox"/> key.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td><b>2</b></td><td>*</td><td>*</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>* Increment -&gt; Jog (&lt;- · -&gt; key)  Distance 0.03 0.10 0.05  Return --&gt; Acquire</p> <p>[Srv ON Pos 10.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	<b>2</b>	*	*	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p>The screen will return to the Edit/Teach main screen.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
<b>2</b>	*	*																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

1) All Clear

(Operation: To clear all position data)

	Operation	Screen	Reference																														
1.	Select * Edit/Teach and press the Return key..	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="checkbox"/> key.																														
2.	Match the cursor to the position of the position number column.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Position mm</th> <th style="text-align: left;">Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>1</td> <td style="text-align: center;">100.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>2</td> <td style="text-align: center;">200.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>3</td> <td style="text-align: center;">300.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>4</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>5</td> <td style="text-align: center;">500.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>6</td> <td style="text-align: center;">600.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>7</td> <td style="text-align: center;">700.00</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	500.00	100	6	600.00	100	7	700.00	100	The position can be anywhere.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
2	200.00	100																															
3	300.00	100																															
4	*	*																															
5	500.00	100																															
6	600.00	100																															
7	700.00	100																															
3.	Press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Edit/Teach</th> <th style="text-align: left;">Axis 1</th> </tr> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Position mm</th> <th style="text-align: left;">Vel mm/s</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><b>0</b></td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>1</td> <td style="text-align: center;">100.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>2</td> <td style="text-align: center;">200.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>3</td> <td style="text-align: center;">300.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>4</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td>5</td> <td style="text-align: center;">500.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>6</td> <td style="text-align: center;">600.00</td> <td style="text-align: center;">100</td> </tr> <tr> <td>7</td> <td style="text-align: center;">700.00</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	<b>0</b>	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	500.00	100	6	600.00	100	7	700.00	100	
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
<b>0</b>	*	*																															
1	100.00	100																															
2	200.00	100																															
3	300.00	100																															
4	*	*																															
5	500.00	100																															
6	600.00	100																															
7	700.00	100																															

	Operation	Screen	Reference																														
4.	Use <input type="checkbox"/> key to move the cursor, and then select * Clear and press the Return key.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td><b>0</b></td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td>100.00</td> <td>100</td> </tr> <tr> <td>2</td> <td>200.00</td> <td>100</td> </tr> <tr> <td>3</td> <td>300.00</td> <td>100</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>500.00</td> <td>100</td> </tr> <tr> <td>6</td> <td>600.00</td> <td>100</td> </tr> <tr> <td>7</td> <td>700.00</td> <td>100</td> </tr> </tbody> </table> <p>Select Clr/All: No --&gt; Return            * Clear <b>* All Clear</b></p> <p>[Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	<b>0</b>	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	500.00	100	6	600.00	100	7	700.00	100	
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
<b>0</b>	*	*																															
1	100.00	100																															
2	200.00	100																															
3	300.00	100																															
4	*	*																															
5	500.00	100																															
6	600.00	100																															
7	700.00	100																															
5.	Confirm the screen display. If you wish to delete, move the cursor to * Yes using the <input type="checkbox"/> key and press the Return key.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td><b>0</b></td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td>100.00</td> <td>100</td> </tr> <tr> <td>2</td> <td>200.00</td> <td>100</td> </tr> <tr> <td>3</td> <td>300.00</td> <td>100</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>500.00</td> <td>100</td> </tr> <tr> <td>6</td> <td>600.00</td> <td>100</td> </tr> <tr> <td>7</td> <td>700.00</td> <td>100</td> </tr> </tbody> </table> <p>Clear all position data?            * NO <b>* Yes</b></p> <p>[Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	<b>0</b>	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	500.00	100	6	600.00	100	7	700.00	100	When the screen switches to this screen, the cursor will be at * No.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
<b>0</b>	*	*																															
1	100.00	100																															
2	200.00	100																															
3	300.00	100																															
4	*	*																															
5	500.00	100																															
6	600.00	100																															
7	700.00	100																															
6.		<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td><b>0</b></td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Select Clr/All: No --&gt; Return            * Clear <b>* All Clear</b></p> <p>[Srv ON      Pos      0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	<b>0</b>	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	All position data will be cleared showing “*” sign indicating “unregistered.”
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
<b>0</b>	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

## 8-5-6 Move

You may move towards a position registered in the position data table (1 step move) and continuously move through the continuous position data.

In this section, the move will differ from jog and increment move used with the arrow key. This will be moved towards a position that was registered in the position data table within the controller.


Use this move for test operation etc.

- (1) Move            1 step move from the current location to the assigned position number registered in the position table.
- (2) Continuous    Continuous operation from the assigned position data number to the continuous position data number until an empty location is reached.

\* What is Continuous?

In the case of the position data similar to the table below, when a Continuous command is executed from the position No., the place where data exists continuously (to the position before unregistered data (\*)) will operate as one group (Example: Position No.2 → No. 3 → No. 1 → No.2 and so on).

No.	mm	mm/s	G
0	*	*	*
1	100.00	20	0.05
2	200.00	33	0.11
3	333.33	100	0.22
4	*	*	*
5	555.55	333	0.22
6	666.66	444	0.11
7	777.77	777	0.07



Specific examples will be provided to explain operation procedures.

**Caution:** With regard to PCON, ACON, SCON, and ERC2, complete positions will be output. The positioning complete output will not turn ON when push mode does not encounter a force. When move or Continuous is performed first after power-on, it is required to perform home return operation in advance. (Refer to page 32.) (Increment specification)






## 1) Move

(Operation: Registered position data number assigned move)

**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.

Example: Current position → move towards position number 2, 3

	Operation	Screen	Reference																											
1.	Select * Edit/Teach and press the Return key..	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="checkbox"/> key.																											
2.	Match the cursor to the position of the position number column you wish to move.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th data-bbox="643 1016 675 1043">No.</th> <th data-bbox="675 1016 868 1093">Edit/Teach Position mm</th> <th data-bbox="868 1016 997 1093">Axis 1 Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td><b>200.00</b></td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	No.	Edit/Teach Position mm	Axis 1 Vel mm/s	0	*	*	1	100.00	100	2	<b>200.00</b>	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	The cursor will move by the arrow key. For any unregistered data, the display will show "*" sign.
No.	Edit/Teach Position mm	Axis 1 Vel mm/s																												
0	*	*																												
1	100.00	100																												
2	<b>200.00</b>	100																												
3	300.00	100																												
4	*	*																												
5	*	*																												
6	*	*																												
7	*	*																												
3.	Press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th data-bbox="643 1467 675 1494">No.</th> <th data-bbox="675 1467 868 1543">Edit/Teach Position mm</th> <th data-bbox="868 1467 997 1543">Axis 1 Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td><b>200.00</b></td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>	No.	Edit/Teach Position mm	Axis 1 Vel mm/s	0	*	*	1	100.00	100	2	<b>200.00</b>	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	Input only the Return key without inputting any numeric value.
No.	Edit/Teach Position mm	Axis 1 Vel mm/s																												
0	*	*																												
1	100.00	100																												
2	<b>200.00</b>	100																												
3	300.00	100																												
4	*	*																												
5	*	*																												
6	*	*																												
7	*	*																												

	Operation	Screen	Reference																														
4.	Use  key to move the cursor, and then select * Move and press the Return key.	<table border="1" data-bbox="646 313 997 593"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td><b>200.00</b></td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p data-bbox="646 593 997 728">           * Direct Teach (Servo OFF)            * Jog * Increment * Home  <b>* Move</b> * Continuous            [Srv ON Pos 0.00]         </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	<b>200.00</b>	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p data-bbox="1061 309 1487 425">Use the  key to move the cursor inside the sub display area.</p> <p data-bbox="1061 481 1487 638">Use the  key to move the cursor of the main screen and change the moving position number.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
2	<b>200.00</b>	100																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
5.	Select speed using the  key, and press the Return key.	<table border="1" data-bbox="646 750 997 1030"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td><b>200.00</b></td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p data-bbox="646 1030 997 1164">           Move (1 position)            Speed <b>10%</b> 50% 100%            Return --&gt; position Move            [Srv ON Pos 0.00]         </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	<b>200.00</b>	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p data-bbox="1061 745 1487 996">Speed is divided into 3 levels and can be selected using the  key. Move to the position No.2 position. The cursor will automatically move to No.3 position.</p> <p data-bbox="1061 1008 1487 1377">(Note) When PCON, ACON, SCON, or ERC2 is connected, the maximum speed will be the safety speed set for the parameter if the MANU operation mode is set to the Teach Mode 1 (safety speed: valid).</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
2	<b>200.00</b>	100																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
6.	When moving towards No.3 position continuously, press the Return key again.	<table border="1" data-bbox="646 1393 997 1673"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td>200.00</td><td>100</td></tr> <tr><td>3</td><td><b>300.00</b></td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p data-bbox="646 1673 997 1807">           Move (1 position)            Speed <b>10%</b> 50% 100%            Return --&gt; position Move            [Srv ON Pos 200.00]         </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	<b>300.00</b>	100	4	*	*	5	*	*	6	*	*	7	*	*	<p data-bbox="1061 1388 1487 1467">The cursor will automatically move to the No. 1 position.</p>
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
2	200.00	100																															
3	<b>300.00</b>	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

	Operation	Screen	Reference																											
7.	Press the <b>[ESC]</b> key twice, and return to the edit/teach screen.	<table border="1"> <thead> <tr> <th data-bbox="643 300 676 338">No.</th> <th data-bbox="676 300 868 389">Edit/Teach Position mm</th> <th data-bbox="868 300 995 389">Axis 1 Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td>200.00</td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p data-bbox="643 591 995 719">           Move (1 position)            Speed <b>10%</b> 50% 100%            Return --&gt; position Move            [Srv ON Pos 300.00]         </p>	No.	Edit/Teach Position mm	Axis 1 Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	The screen will return to the Edit/Teaching main screen.
No.	Edit/Teach Position mm	Axis 1 Vel mm/s																												
0	*	*																												
1	100.00	100																												
2	200.00	100																												
3	300.00	100																												
4	*	*																												
5	*	*																												
6	*	*																												
7	*	*																												
8.	Press the <b>[ESC]</b> key twice, and return to the edit/teach screen.	<table border="1"> <thead> <tr> <th data-bbox="643 736 676 775">No.</th> <th data-bbox="676 736 868 826">Edit/Teach Position mm</th> <th data-bbox="868 736 995 826">Axis 1 Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td>200.00</td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p data-bbox="643 1032 995 1160">           Clr/All: No -- &gt; Return            Teach/Play: (Ten key Match)            Position -- &gt; Return            [Srv ON Pos 300.00]         </p>	No.	Edit/Teach Position mm	Axis 1 Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	The screen will return to the Edit/Teaching main screen.
No.	Edit/Teach Position mm	Axis 1 Vel mm/s																												
0	*	*																												
1	100.00	100																												
2	200.00	100																												
3	300.00	100																												
4	*	*																												
5	*	*																												
6	*	*																												
7	*	*																												

**Caution:** When moving towards position in push mode.  
 After the actuator pushes the work and position complete output turns ON, the actuator is in a state of continuously pressing the work.  
 Be extremely careful about handling at this time.








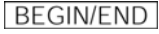




## 1) Continuous Move

(Operation: Registered position data number assigned continuous move)

**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.

Example: Current position → Continuous move towards position numbers 1 to 3

	Operation	Screen	Reference																														
1.	Select * Edit/Teach and press the Return key.	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="checkbox"/> key.																														
2.	Match the cursor to the position of the position number column you wish to move first.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 45%;">Edit/Teach</th> <th style="width: 50%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>100.00</td> <td>100</td> </tr> <tr> <td>2</td> <td>200.00</td> <td>100</td> </tr> <tr> <td>3</td> <td>300.00</td> <td>100</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>		Edit/Teach	Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	The cursor will move by the arrow key. For any unregistered data, the display will show "*" sign.
	Edit/Teach	Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
2	200.00	100																															
3	300.00	100																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
3.	Press the Return key again.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 45%;">Edit/Teach</th> <th style="width: 50%;">Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td style="background-color: black; color: white;">100.00</td> <td>100</td> </tr> <tr> <td>2</td> <td>200.00</td> <td>100</td> </tr> <tr> <td>3</td> <td>300.00</td> <td>100</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv ON Pos 0.00]</p>		Edit/Teach	Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	Input only the Return key without inputting any numeric value.
	Edit/Teach	Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
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4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

Operation	Screen	Reference																														
<p>4. Use  key to move the cursor, and then select * Continuous and press the Return key.</p>	<table border="1" data-bbox="646 313 997 593"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td>200.00</td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>* Direct Teach (Servo OFF)            * Jog * Increment * Home            * Move * <b>Continuous</b>            [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p>Use the  key to move the cursor inside the sub display area.</p> <p>Use the  key to move the cursor of the main screen and change the moving position number.</p>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	*	*																														
1	100.00	100																														
2	200.00	100																														
3	300.00	100																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														
<p>5. Select speed using the  key, and press the Return key.</p> <p>Continuous operation starts. In the example at the right, the position numbers 1-3 are continuously executed.</p> <p>The cursor moves to the position currently moving.</p>	<table border="1" data-bbox="646 750 997 1030"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td>200.00</td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Continuous            Speed <b>10%</b> 50% 100%            Return --&gt; Continuous            [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p>Speed is divided into 3 levels and can be selected using the  key.</p> <ul style="list-style-type: none"> <li>- Continuous operation stop:  Stop after moving to the position.</li> <li>- Continuous operation stop:  Immediately stop on the spot (Note) When PCON, ACON, SCON, or ERC2 is connected, the maximum speed will be the safety speed set for the parameter if the MANU operation mode is set to the Teach mode 1 (safety speed: valid).</li> </ul>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	*	*																														
1	100.00	100																														
2	200.00	100																														
3	300.00	100																														
4	*	*																														
5	*	*																														
6	*	*																														
7	*	*																														
<p>6. When stopping continuous operation, press the key switch .</p> <p>Operation stops after movement to the position currently moving. While moving, press the  key to stop immediately. (When performing continuous operation again, press the Return key.)</p>	<table border="1" data-bbox="646 1563 997 1843"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr><td>0</td><td>*</td><td>*</td></tr> <tr><td>1</td><td>100.00</td><td>100</td></tr> <tr><td>2</td><td>200.00</td><td>100</td></tr> <tr><td>3</td><td>300.00</td><td>100</td></tr> <tr><td>4</td><td>*</td><td>*</td></tr> <tr><td>5</td><td>*</td><td>*</td></tr> <tr><td>6</td><td>*</td><td>*</td></tr> <tr><td>7</td><td>*</td><td>*</td></tr> </tbody> </table> <p>Continuous            Speed <b>10%</b> 50% 100%            Return --&gt; Continuous            [Srv ON Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	<p>If you continue pressing the  key, the screen will change to BEGIN/END.</p>
Edit/Teach		Axis 1																														
No.	Position mm	Vel mm/s																														
0	*	*																														
1	100.00	100																														
2	200.00	100																														
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Operation		Screen		Reference																													
7.	Press the <b>ESC</b> key twice.	<table border="1"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>*</td> <td>*</td> </tr> <tr> <td>1</td> <td>100.00</td> <td>100</td> </tr> <tr> <td>2</td> <td>200.00</td> <td>100</td> </tr> <tr> <td>3</td> <td>300.00</td> <td>100</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	100.00	100	2	200.00	100	3	300.00	100	4	*	*	5	*	*	6	*	*	7	*	*	The screen will return to the Edit/Teaching main screen.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	100.00	100																															
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7	*	*																															
		Clr/All: No -- > Return Teach/Play: (Ten key Match) Position -- > Return [Srv ON    Pos    0.00]																															

**Caution:** When moving towards position in push mode.

After the actuator pushes the work and position complete output turns ON, the actuator is in a state of continuously pressing the work.

Be extremely careful about handling at this time.




However, in the case of continuous move, the actuator will move to the next position after position complete output turns ON.

## 8-5-7 Servo ON/OFF

Servo ON/OFF can be performed.

**Caution:** Operating instructions are described on the screens of PCON, ACON, SCON, and ERC2.

	Operation	Screen	Reference																														
1.	Select * Edit/Teach and press the Return key..	<p>Select Mode Axis 1</p> <p><b>* Edit/Teach (Position)</b></p> <ul style="list-style-type: none"> <li>* Monitor</li> <li>* Error list</li> <li>* User Parameter</li> <li>* User Adjustment</li> <li>* TP Operation Mode</li> </ul> <hr/> <p>Select Mode -- &gt; Return (You may also select the minus key)</p>	The cursor will move by the arrow key or <input type="checkbox"/> key.																														
2.	Match the cursor to the position. The number can be anywhere.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Edit/Teach</th> <th style="text-align: center;">Axis 1</th> </tr> <tr> <th style="text-align: center;">No.</th> <th style="text-align: center;">Position mm</th> <th style="text-align: center;">Vel mm/s</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">7</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv OFF Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Data unregistered position data will display “*” sign.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
3.	Press the Return key.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Edit/Teach</th> <th style="text-align: center;">Axis 1</th> </tr> <tr> <th style="text-align: center;">No.</th> <th style="text-align: center;">Position mm</th> <th style="text-align: center;">Vel mm/s</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">7</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> </tbody> </table> <p>Clr/All: No -- &gt; Return Teach/Play: (Ten key Match) Position -- &gt; Return [Srv OFF Pos 0.00]</p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Input only the Return key without inputting any numeric value.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
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7	*	*																															

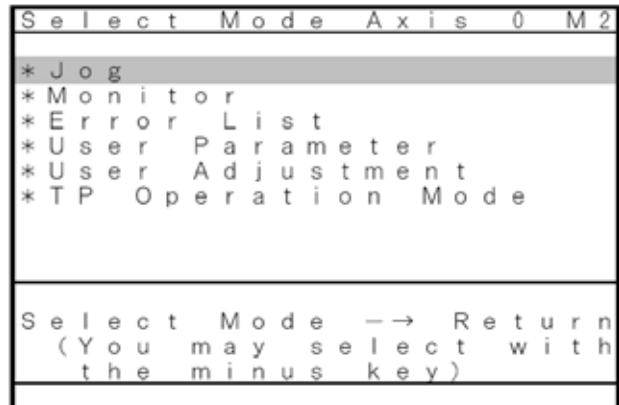
	Operation	Screen	Reference																														
4.	Use the  key to move the cursor to "Srv."	<table border="1" data-bbox="646 313 997 593"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="646 593 997 728">           * Direct Teach (Servo OFF)            * Jog * Increment * Home            * Move * Continuous  <b>[Srv OFF Pos 0.00]</b> </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Use the  key to move the cursor inside the sub display area.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
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4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
5.	Press the Return key.	<table border="1" data-bbox="646 754 997 1034"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="646 1034 997 1169">           * Direct Teach (Servo OFF)            * Jog * Increment * Home            * Move * Continuous  <b>[Srv ON Pos 0.00]</b> </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	Every time the Return key is pressed, the servo will turn ON and OFF.
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															
6.	Press the  key to change the mode to the ten key input mode.	<table border="1" data-bbox="646 1196 997 1476"> <thead> <tr> <th colspan="2">Edit/Teach</th> <th>Axis 1</th> </tr> <tr> <th>No.</th> <th>Position mm</th> <th>Vel mm/s</th> </tr> </thead> <tbody> <tr> <td>0</td> <td style="background-color: black; color: white;">*</td> <td>*</td> </tr> <tr> <td>1</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>*</td> <td>*</td> </tr> </tbody> </table> <p data-bbox="646 1476 997 1610">           * Direct Teach (Servo OFF)            * Jog * Increment * Home            * Move * Continuous  <b>[Srv ON Pos 0.00]</b> </p>	Edit/Teach		Axis 1	No.	Position mm	Vel mm/s	0	*	*	1	*	*	2	*	*	3	*	*	4	*	*	5	*	*	6	*	*	7	*	*	
Edit/Teach		Axis 1																															
No.	Position mm	Vel mm/s																															
0	*	*																															
1	*	*																															
2	*	*																															
3	*	*																															
4	*	*																															
5	*	*																															
6	*	*																															
7	*	*																															

## 8-5-8 Pulse Train (PCON-PL/PO, ACON-PL/PO, SCON: Pulse Train Mode) Based Jogging

In the case of the PCON-PL/PO, ACON-PL/PO, or SCON controller (pulse train mode), if you select “\* Jog,” servo ON/OFF, homing, jogging, or increment movement can be performed.

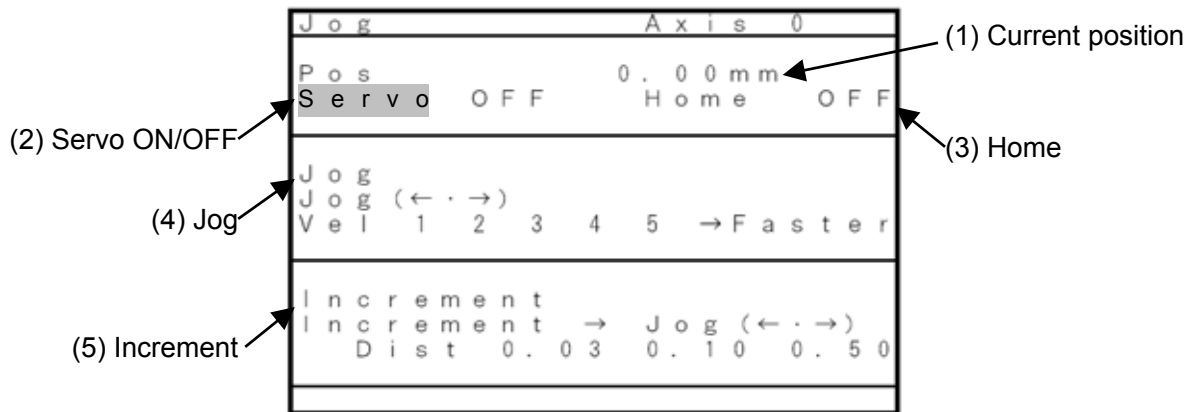
Select “\* Jog” on the Select Mode screen and press the Return key.

(Use the ▲▼ key or  key to move the cursor.)



The Jog screen will be displayed.

To select, Servo, Home, Jog, and Increment, use the ▲▼key or [ ] key to move the cursor.



(1) Current position: Indicates the current position. If you press the [X] key, the display will change to the pulse display.

(2) Servo: If you press the Return key, the serve ON/OFF status will be reversed.

(3) Home: If you press the Return key, home return operation will be executed.

(4) Jog: Can perform jogging. Select Jog and press the Return key.

The cursor will move to Vel 1. Select Vel with the [X] key.

1: 1 mm/sec, 2: 10 mm/sec, 3: 30 mm/sec, 4: 50 mm/sec, 5: 100 mm/sec

However, only the maximum speed will be gained if the maximum speed is slower than the specified speed.

If you press the arrow key (◀▶), the cursor will move.

If you press the ◀ key, the cursor will move in the positive direction of the display coordinates. If you press the ▶ key, the cursor will move in the negative direction of the display coordinates.

(5) Increment: Can perform increment movement. Select Increment and press the Return key.

The cursor will move to the distance of 0.03 mm. Select Dist (0.03 mm, 0.1 m, 0.5 mm). If you press the arrow key (◀▶), the cursor will move.

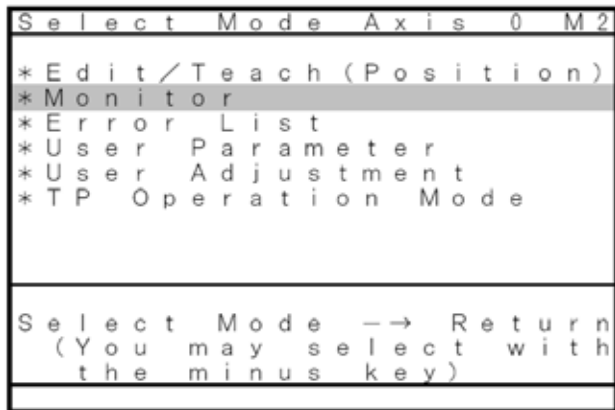
If you press the ◀ key, the cursor will move in the positive direction of the display coordinates. If you press the ▶ key, the cursor will move in the negative direction of the display coordinates.

If you continue pressing the arrow key (◀▶) for 2 sec. or more, jog movement can be performed.

The speed will increase every one sec. from 1 to 10, 30, 50, and 100 mm/sec. However, only the maximum speed will be gained if the maximum speed is slower than the specified speed.

## 8-6 Monitor

The I/O status and current position will be displayed for all the controllers connected on the serial communication line.



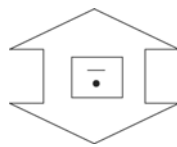
Select \* Monitor on the Select Mode screen and press the Return key.

(Use the ▲▼ key or  key to move the cursor.)

(Note) In the case of the PCON-PL/PO, ACON-PL/PO, or SCON controller (pulse train mode), “Edit/Teach (Position)” will be displayed as “Jog.”



Monitor		Axis 0	
PIO Pattern		P01	
in		out	
ST0	OFF	LS0	ON
ST1	OFF	LS1	OFF
ST2	OFF	LS2	OFF
SON	OFF	SV	ON
		HEND	ON
		*ALM	ON



(1)	Monitor	Axis 0	
(2)	Servo	OFF	ErrNo. 000
(3)	Pos	0 pulse	
(4)	Vel	0 pps	
(5)	Current Rate	0.0%	
(6)	Special input port		
	--	OFF	--
	--	OFF	ON
	--	OFF	OFF
	HMCK	OFF	OFF
	--	OFF	ON
	--	OFF	OFF
	--	OFF	ON
	ENBL	ON	OFF
(7)	PCON	Ver. AE030000	

The left figure shows an example of the PCON-CY controller.

\* The display contents vary depending on the controller or controller's I/O pattern.

For details, refer to the operating manual of each controller.

If you press the ◀▶ key, the axis to monitor can be changed.

To end monitoring, press the **ESC** key.

\* Since only 12 ports of input and output can be displayed on one screen, change the page using the ▲▼ key in the case of a model with 13 ports or more.

If you press the **□** key, the screen will change.

\* The display of special input port varies depending on the axis to connect.

If you press the ◀▶ key, the axis to monitor can be changed.

To end monitoring, press the **ESC** key.

- (1) Displays the servo ON/OFF status of the axis.
- (2) Displays the error number when an error occurs.
- (3) Displays the axis position in [mm].

In the case of the PCON-PL/PO, ACON-PL/PO, or SCON controller (pulse train mode), if you press the **0** key, the display will change to the pulse display. (Refer to the following page.)

- (4) Displays the speed of the moving axis in [mm/sec].

In the case of the pulse train model, if you press the **0** key, the display will change to the PPS display.

- (5) Displays the percent rated current in [%].

If you press the **1** key, the Current value will be displayed. In the case of PCON, ACON, SCON, or ERC2 controller, if you press the **1** key again, the display will return to the Current Rate display. (Refer to the following page.)

- (6) Displays the special input ports such as HMCK (home check sensor).
- (7) Displays the model and version of the connecting controller.

Pulse Position Display  
: PCON-PL/PO, ACON-PL/PO, SCON (Pulse Train Mode)

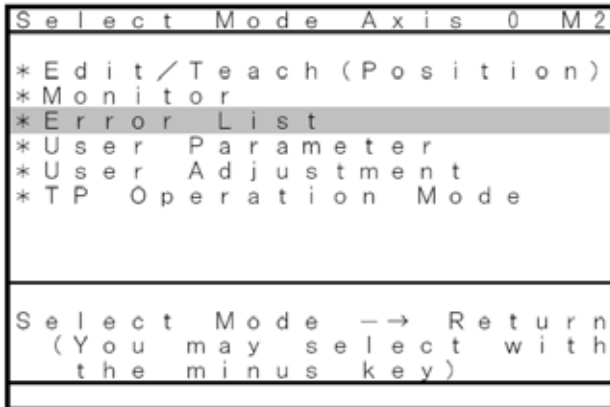
Monitor		Axis 0	
Servo	OFF	ErrNo.	000
Pos			0 pulse
Vel			0 pps
Current Rate			16.5%
Special input port			
--	OFF	--	ON
--	OFF	--	ON
--	OFF	--	OFF
HMCK	OFF	--	OFF
--	OFF	--	ON
--	OFF	--	OFF
--	OFF	--	ON
ENBL	ON	--	OFF
PCON		Ver. AE030000	

Current Value (mA) Display

Monitor		Axis 0	
Servo	OFF	ErrNo.	000
Pos			0.00mm
Vel			0.00mm/s
Current			198mA
Special input port			
--	OFF	--	ON
--	OFF	--	ON
--	OFF	--	OFF
HMCK	OFF	--	OFF
--	OFF	--	ON
--	OFF	--	OFF
--	OFF	--	ON
ENBL	ON	--	OFF
PCON		Ver. AE030000	

## 8-7 Error List

Errors occurring after the connection of the Teaching Pendant and those occurring after a controller's power-on will be displayed.

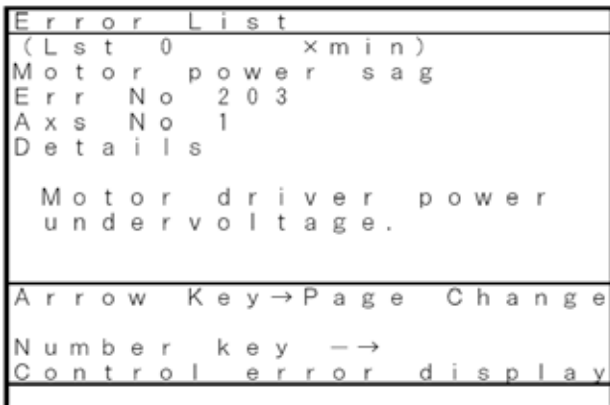


Select “\* Error List” on the Select Mode screen and press the Return key.

(Use the ▲▼ key or  key to move the cursor.)

(Note) In the case of the PCON-PL/PO, ACON-PL/PO, or SCON controller (pulse train mode), “Edit/Teach (Position)” will be displayed as “Jog.”

### Teaching Pendant Error List



An error occurring after the connection (PORT ON) of the Teaching Pendant will be displayed.

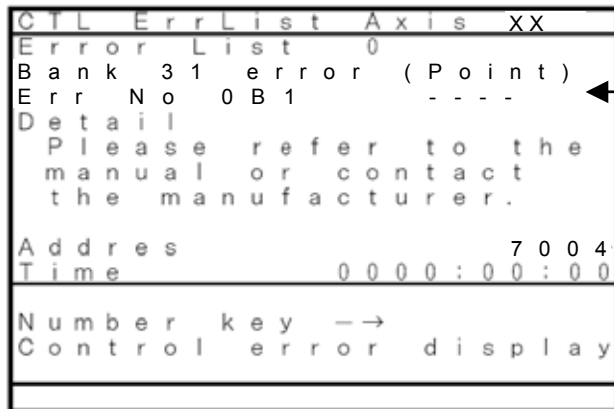
The figure at the left shows an example of the RCP2 controller.

Errors which occurred in the past can be displayed using the arrow key.

If you press any of the ten-key “0” to “8” from this screen, an error which occurred after a controller's power-on will be displayed. (Controller error list)

The number of Teaching Pendant error lists is 30 (0 - 29).

## Controller Error List



Alarm detail code  
(In the case of 0, ----will be displayed.)

If you press any of the ten key “0” to “8,” an error which occurred after a controller’s power-on will be displayed. For the numbers of 10 or larger, press  and any of the ten key “0” to “5.”

Note: The function of displaying errors after a controller’s power-on is supported by the Teaching Pendant FLASH Ver. 1.61 or later.

In the case of PCON, ACON, SCON, or ERC2, the alarm list contents will be maintained even after the power is turned OFF.

The previous eight alarm-level errors including the last (latest) error and one last-detected error of the warning level will be displayed.

The relationship between the ten key number and the displayed error is as shown below. The error display can also be changed by the arrow key.

### Display of PCON, ACON, SCON and ERC2

Ten key	
0	Alarm-level error detected last
1	Alarm-level error detected 1-time before
2	Alarm-level error detected 2-times before
3	Alarm-level error detected 3-times before
4	Alarm-level error detected 4-times before
5	Alarm-level error detected 5-times before
6	Alarm-level error detected 6-times before
7	Alarm-level error detected 7-times before
8	Alarm-level error detected 8-times before
9	Alarm-level error detected 9-times before
<input checked="" type="checkbox"/> 0	Alarm-level error detected 10-times before
<input checked="" type="checkbox"/> 1	Alarm-level error detected 11-times before
<input checked="" type="checkbox"/> 2	Alarm-level error detected 12-times before
<input checked="" type="checkbox"/> 3	Alarm-level error detected 13-times before
<input checked="" type="checkbox"/> 4	Alarm-level error detected 14-times before
<input checked="" type="checkbox"/> 5	Alarm-level error detected 15-times before

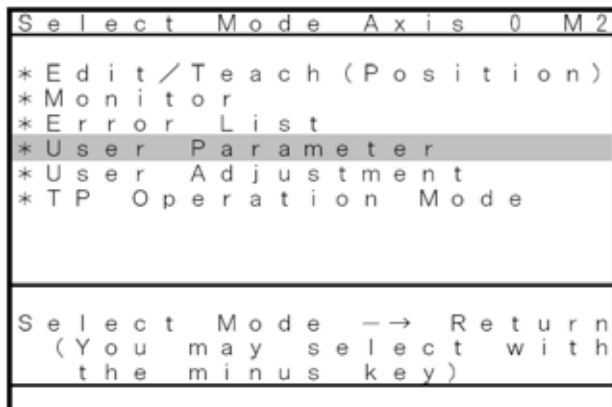
### Display of RCP, RCS, E-Con, RCP2 and ERC

Ten key	
0	Alarm-level error detected last
1	Alarm-level error detected 1-time before
2	Alarm-level error detected 2-times before
3	Alarm-level error detected 3-times before
4	Alarm-level error detected 4-times before
5	Alarm-level error detected 5-times before
6	Alarm-level error detected 6-times before
7	Alarm-level error detected 7-times before
8	Warning-level error detected last

If you press the  key, the screen will return to the Teaching Pendant error list screen.

## 8-8 User Parameters

Parameters are displayed and edited.



Select “\* User Parameter” on the Select Mode screen and press the Return key.

(Use the ▲▼ key or  key to move the cursor.)

(Note) In the case of the PCON-PL/PO, ACON-PL/PO, or SCON controller (pulse train mode), “Edit/Teach (Position)” will be displayed as “Jog.”

On the following page, user parameter display examples of the PCON-CY controller are provided.

\* The contents will vary depending on each controller. Refer to the operating manual of each controller.

There are 6 screens for user parameters.

Each screen can be changed using the ◀▶ key.

When changing a parameter, move the cursor to the parameter value to be changed. Input a numeric value with the ten-key pad and press the Return key.

(To move the cursor, use the ▲▼ key.)

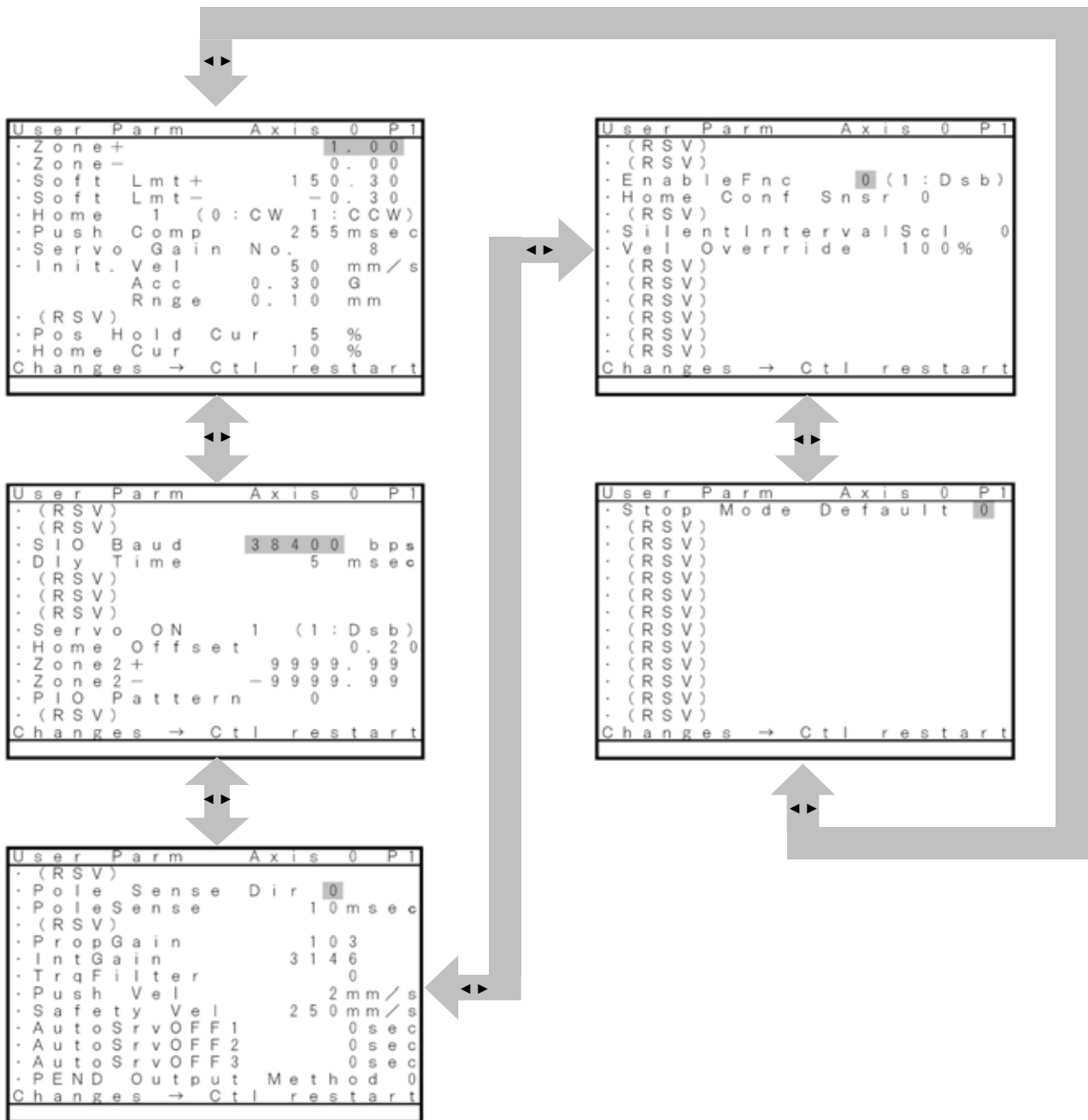
Restore the controller power after making parameter changes.

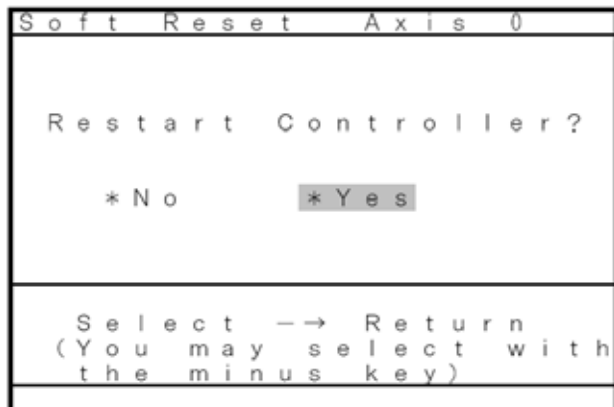
In the case of any model which supports the software reset (restart) function (PCON, ACON, SCON, ERC, RCP2, ERC2), the screen can be moved to the Soft Reset screen by pressing the  key.

(When software has been reset, it is not required to restore the power.)

Note: The changed parameter will become valid by restoring the power or resetting software.

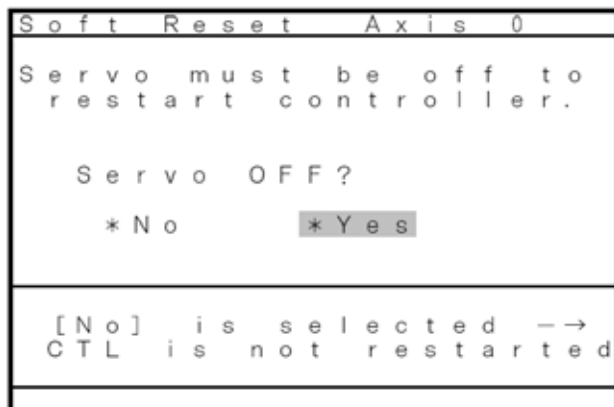
## Examples of PCON-CY Controller





When resetting software, Select “\* Yes” and press the Return key.

(When stopping software reset, select “\* No” and press the Return key. The screen returns to the Select Mode screen.)



When the servo is ON, the screen will move to the servo OFF confirmation screen.

When restarting the controller, select “\* Yes” and press the Return key. Since the servo is automatically turned OFF, it is not required to turn SON input OFF.

(When stopping software reset, select “\* No” and press the Return key.)

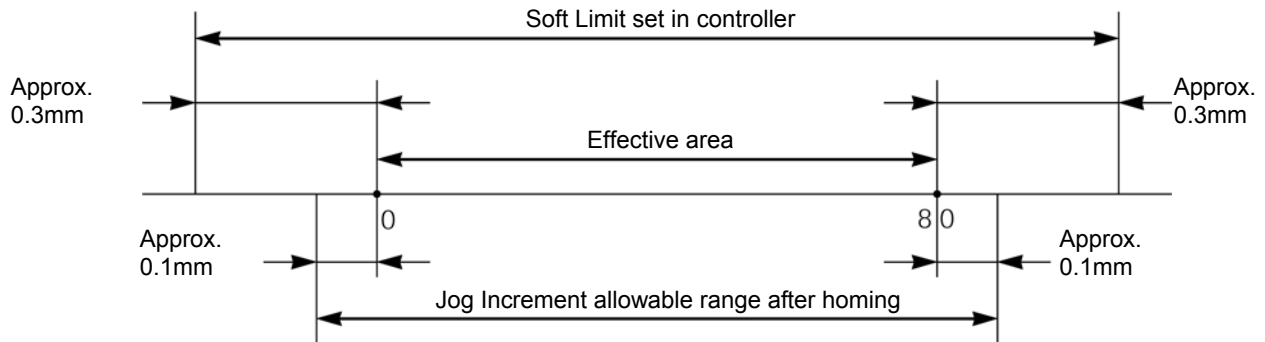
The screen will return to the Select Mode screen regardless of whether you select “Yes” or “No.”

- When soft limit is modified at the customer site, please set a value which extends 0.3mm outside of the effective area.

Example: When setting the effective area between 0mm~80mm

Soft limit + side: 80.3

Soft limit - side: -0.3



**Caution:** Please restore the controller power after making parameter changes. Alternatively, reset software in the case of any model which supports the software reset function. Although pressing the emergency switch or port switch ON/OFF will rewrite the parameter, there may be ones that will not be changed.

\* Regarding parameter, please refer to the Controller Operating Manual.



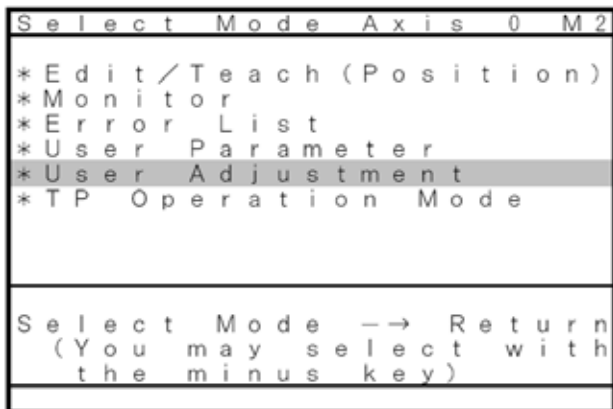
## 8-9 User Adjustment

### 8-9-1 Pause, servo ON input enable and disable setting, homing operation, axis number setting

Sets enable or disable of pause, servo on input.

Execute homing.

Set the axis number of the controller (PCON, ACON, ERC2, RCP-RSI, RCP-RMI, ERC, etc.).



Select “\* User Adjustment” on the Select Mode screen and press the Return key.

(Use the ▲▼ key or  key to move the cursor.)

(Note) In the case of the PCON-PL/PO, ACON-PL/PO, or SCON controller (pulse train mode), “Edit/Teach (Position)” will be displayed as “Jog.”

```

User Adjust Axis 0
Adjust 0
1: Homing
2: Axis No alloc.
90: STP Efct, 91: Non
   → SON, RES
During I/O-function
changes, controller
need to restart.
Adjust No Return → Exec
  
```

- If you input 1 into Adjust No. and press the Return key, homing will be performed.
- Temporary stop effect: 90  
Input 90 into Adjust No. and press the Return key.  
After that, turn off the controller power.
- Temporary stop non-effect: 91  
Input 91 into Adjust no. and press the Return key.  
After that, turn off the controller power.
- Servo ON input effect: 92  
Input 92 into Adjust no. and press the Return key.  
After that, turn off the controller power.
- Servo ON input non-effect: 93  
Input 93 into Adjust No. and press the Return key.  
After that, turn off the controller power.
- Axis number setting  
Move the cursor to Adjust No. with the ▼ key.  
Input the axis number and press the Return key.  
Input 2 into Adjust No. and press the Return key.  
After that, turn off the controller power.
- \* In the case of the PCON-C/CG and other controllers for which the axis number is set with the rotary switch on the front panel of the controller, axis number setting is not available.

**Caution:** Caution: Do not input any numeric value other than 1, 2, 3, 4, 90, 91, 92, 93, and 5119 into Adjust No.  
In the case of the RCP or RCP2 controller, 0 or 2 is set to parameter No. 25 (PIO pattern) (when there is no servo ON input), do not input 92 into Adjust No., either. The controller will be inoperable due to no servo ON input.

## 8-9-2 Software Reset

Software reset (controller restart) will be performed.

\* The software reset function is supported by Ver. 2.00 or later.

The compatible models are PCON, ACON, SCON, RCP2, ERC, and ERC2.

```
Select Mode Axis 0 M2
*Edit/Teach (Position)
*Monitor
*Error List
*User Parameter
*User Adjustment
*TP Operation Mode

Select Mode → Return
(You may select with
the minus key)
```

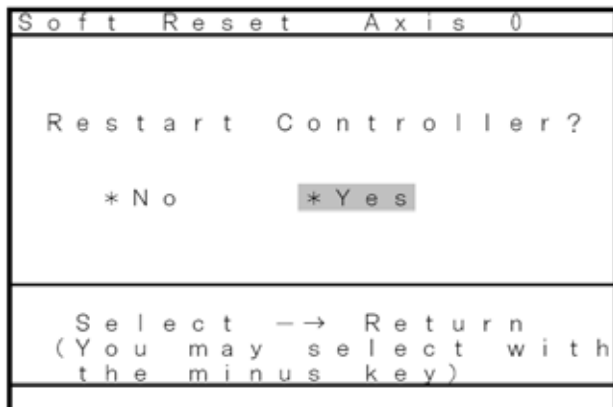
Select “\* User Adjustment” on the Select Mode screen and press the Return key.

(Use the ▲▼ key or  key to move the cursor.)

```
User Adjust Axis 0
Adjust 0
1: Homing
2: Axis No alloc.
alloc. 0
90: STP Efct, 91: Non
→ SON, RES
During I/O-function
changes, controller
need to restart.

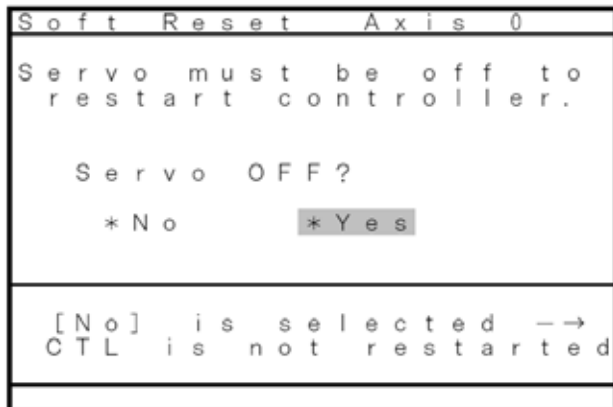
Adjust No Return → Exec
```

Input 4 into Adjust and press the Return key.



When resetting software, select “\* Yes” and press the Return key.

(When stopping software reset, select “\* No” and press the Return key. The screen will return to the Select Mode screen.)



When the servo is ON, the screen will move to the servo OFF confirmation screen.

When restarting the controller, select “\* Yes” and press the Return key. Since the servo is automatically turned OFF, it is not required to turn SON input OFF.

(When stopping software reset, select “\* No” and press the Return key.)

The screen will return to the Select Mode screen regardless of whether you select “\* Yes” or “\* No.”

## 8-9-3 Error List Clear

All the contents of the error lists will be cleared.

- \* The error list clear function is supported by Ver. 2.00 or later.  
The compatible models are PCON, ACON, SCON, and ERC2.

```
Select Mode Axis 0 M2
*Edit/Teach(Position)
*Monitor
*Error List
*User Parameter
*User Adjustment
*TP Operation Mode

Select Mode → Return
(You may select with
the minus key)
```

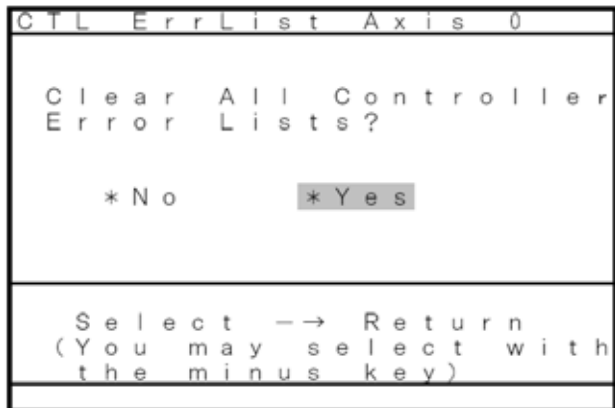
Select “\* User Adjustment” on the Select Mode screen and press the Return key.

(Use the ▲▼ key or  key to move the cursor.)

```
User Adjust Axis 0
Adjust 0
1: Homing
2: Axis No alloc.
alloc. 0
90: STP Efct, 91: Non
→ SON, RES
During I/O-function
changes, controller
need to restart.

Adjust No Return → Exec
```

Input 3 into Adjust and press the Return key.



When clearing the error list, select “\* Yes” and press the Return key.

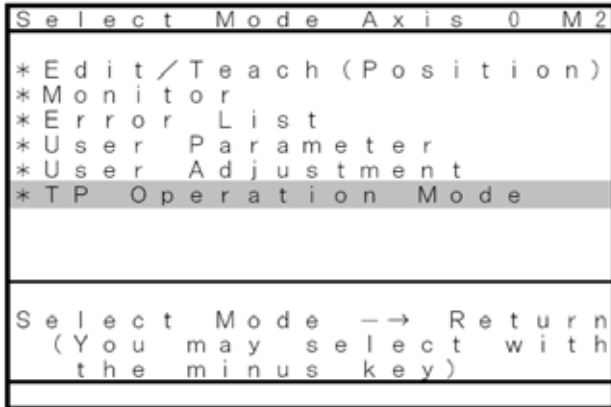
(When stopping error list clear, select “\* No” and press the Return key.)

The screen will return to the Select Mode screen regardless of whether you select “\* Yes” or “\* No.”

## 8-10 TP Operation Mode

The operation mode will be set in the manual mode (MANU).

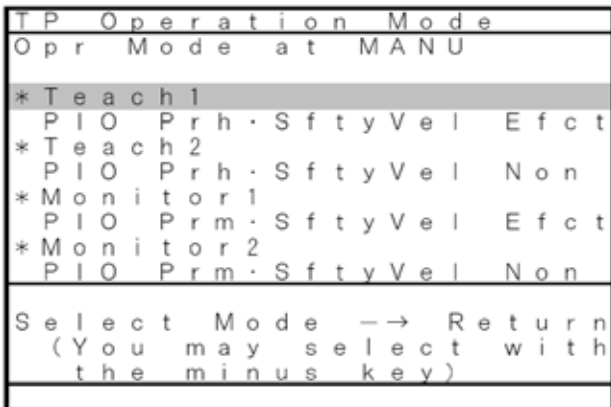
The compatible models are PCON, ACON, SCON, and ERC2.



Select “\* TP Operation Mode” on the Select Mode screen and press the Return key.

(Use the ◀▶ key or  key to move the cursor.)

(Note) In the case of PCON-PL/PO, ACON-PL/PO, or SCON controller (pulse train mode), “Edit/Teach (Position)” will be displayed as “Jog.”



Select the menu using the arrow keys (▲▼◀▶) or minus key and press the Return key. The screen will move to the Select Controller screen.

Fig. 8.3 Operation Mode Selection Screen

Select the operation mode from the following 4 menu items:

- Teach 1 (PIO Prh · SftyVel Efct)

PIO Prh: Enables writing of position data, parameters, etc., in the controller and commands of the actuator movement system.

SftyVel Efct: Keeps the maximum speed at the safety speed set for the parameter regardless of the position data.

- Teach 2 (PIO Prh · SftyVel Non)

PIO Prh: Enables writing of position data, parameters, etc., in the controllers and commands of the actuator movement system.

SftyVel Non: Enables movement at the speed described in the position data.

- Monitor 1 (PIO Prm · SftyVel Ect)

PIO Prm: Enables monitoring only. Writing of position data, parameters, etc., in the controller and commands of the actuator movement system are disabled.

SftyVel Ect: Keeps the maximum speed at the safety speed set for the parameter regardless of the command from PLC.

- Monitor 2 (PIO Prm · SftyVel Non)

PIO Prm: Enables monitoring only. Writing of position data, parameters, etc., in the controller and commands of the actuator movement system are disabled.

SftyVel Non: Enables movement at the speed according to the command from PLC.



## 8-11 End

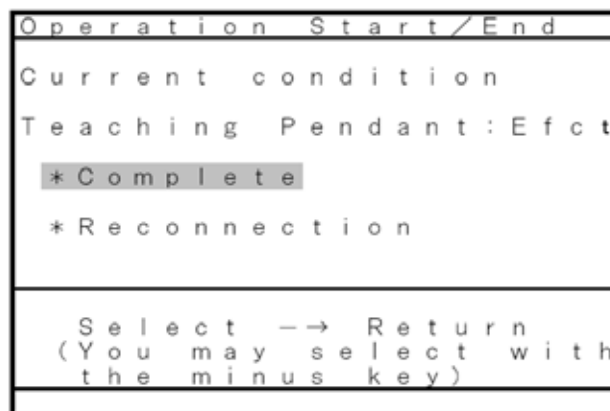
Before removing the Teaching Pendant from the RC controller, be sure to execute End.

Operation:

1. Press the **BEGIN/END** key for more than 2.5 seconds.
2. Moving the cursor to \* Complete, press down the Return key.

In the case of any controller with a PORT switch, turn the controller PORT switch to OFF and remove the Teaching Pendant connector.

You will be able to reopen the connection from the initial screen by selecting "\*\* Reconnect" and pressing down the Return key.



**Caution:** When multiple axes are connected with a controller link cable, after recycling power of a controller that is not directly connected to the Teaching Pendant, please execute a reconnect.

**Caution:** In the case of the PCON, ACON, or ERC2 controller with no AUTO/MANU switch, set the TP operation mode to "Monitor 2" before removing the Teaching Pendant. (Refer to "8.10 TP Operation Mode.")

In the case of ERC2 or when the controller is set by connecting the Teaching Pendant to the gateway unit/SIO converter, the conditions shown below occur.

- If the Teaching Pendant is disconnected while the setting of "Teach 1" or "Teach 2" remains, I/O will become invalid and control from PLC will become impossible.
- If the Teaching Pendant is disconnected while the setting of "Monitor 1" remains, the maximum speed will become the safety speed set for the parameter regardless of a command from PLC.

## 9. Message Area

In the message screen, content during error and warning will be displayed.

Code No.	Error Label	Error Reset	Reference
000~07F	Controller Warning	Yes	Controller rejects command
080~0FF	Controller Error	Note	Error inside the controller
100~1FF	DIP* Message	Yes	Input error, guide message, etc.
200~2FF	DIP* Movement Release	Yes	Movement continuation impossible
300~3FF	DIP Cold Start Error	No	DIP Power install or reconnect are necessary.

TP: Teaching Pendant

Note) Refer to “9.3 Controller Error.”

- \* In the case of any error with error reset “Yes,” if you press the **BEGIN/END** key, the error will be reset. All the error lists in the controller can be cleared with error list clear of User Adjustment. (Refer to 8.9.3.)

### 9-1 Warning Label Error (Code No. 000h – 07Fh)

Warning message is cleared by recovery procedure as follows:

Release operation:

1. First, confirm the cause of the warning and resolve the problem.
2. Press down **BEGIN/END** key.

Warning is probably due to the following possibilities:

- RS485 communication abnormality
- Teaching Pendant operational mistake

#### a) RS 485 communication related abnormality

Indicates occurrence of any abnormality on the RS485 communication line.

Code No: 05Ah, 05Bh, 05Dh, 05Eh, 07Fh (Communication error detected by the controller)

- Cause:
- (1) Teaching Pendant is in conflict with other devices (PLC or PC.)  
For example, when move command is delivered by PIO signal from teaching while communicating to other devices (PLC), “075h” will occur during homing.
  - (2) Influence by foreign noise or connections is not properly installed.  
The Teaching Pendant and RC controller execute packet communication (move instruction, data transfer, etc.) at all times. At this time, when data changes due to noise, the RC controller will determine that it is incorrect data and will reject the data.

- Solution:
- (1) Confirm the above causes. In the case of frequent warning occurrences, please separately set the signal cable and power line.
  - (2) Be sure to use one unit to operate the RC controller.  
See to it that the Teaching Pendant will not conflict with the PIO signal.

## 9-2 Teaching Pendant Message Level Error

Teaching Pendant Operational Mistake:

When you attempt to input an incorrect value, the message label error will occur.

Code No: 112h, 113h, 114h, 118h, 11Eh, 11Fh, etc. (keypad input value is incorrect.)

## 9-3 Controller Error

An alarm detected from the controller side can be displayed.

This is a serious error due to an abnormality related to servo control and electricity. Please read through the RC Controller operating manual carefully for error compliance.

If any errors of the below code numbers occur, it is required to perform the error reset of the controller (press the **BEGIN/END** key) to reset it in the case of a movement release level error. It is required to perform the reset of the controller software in the case of a cold start level error. (Refer to 8.9.2.) With regard to the controllers not equipped with the software reset function, it is required to turn on the power again.

Code No: 0B0h, 0B1h, 0B8h, 0B9h, 0BBh, 0BCh, 0BDh, 0BEh

0C0h, 0C1h, 0D0h, 0D1h, 0D8h, 0E0h, 0E8h, 0E9h, 0EAh, 0F8h

For details of error codes, refer to the operating manual of the controller you use.

## \* Appendix

### Parameter (Shipment) Initialization Method

Parameters will be changed (initialized) to shipment parameters.

The compatible models are PCON, ACON, SCON, and ERC2.

**Caution:** Please take note that if parameter (shipment) initialization is performed, user-set parameters will be changed to shipment parameters.

```
Select Mode Axis 0 M2
*Edit/Teach (Position)
*Monitor
*Error List
*User Parameter
*User Adjustment
*TP Operation Mode

Select Mode → Return
(You may select with
the minus key)
```

Select “\* User Adjustment” and press the Return key.

(Use the ◀▶ key or  key to move the cursor.)

```
User Adjust Axis 0
Adjust 0
1: Homing
2: Axis No alloc.
alloc. 0
90: STP Efct, 91: Non
SON, RES
During I/O-function
changes, controller
need to restart.
Adjust No Return→Exec
```

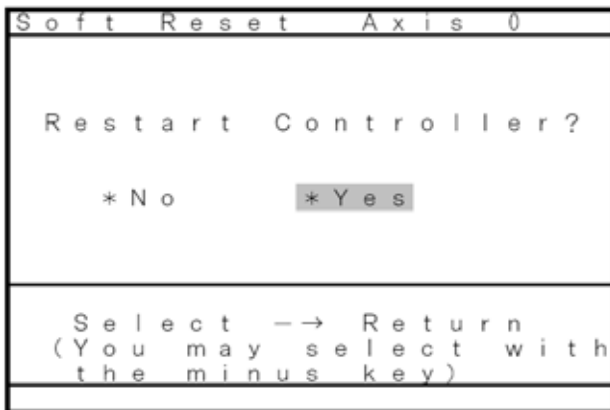
Input 5119 into Adjust and press the Return key.

```
Sip Para Axis 0
Do you initialize
shipment parameter?
*No *Yes
Restart controller
after initialize.
```

When performing parameter (shipment) initialization, select “\* Yes” and press the Return key.

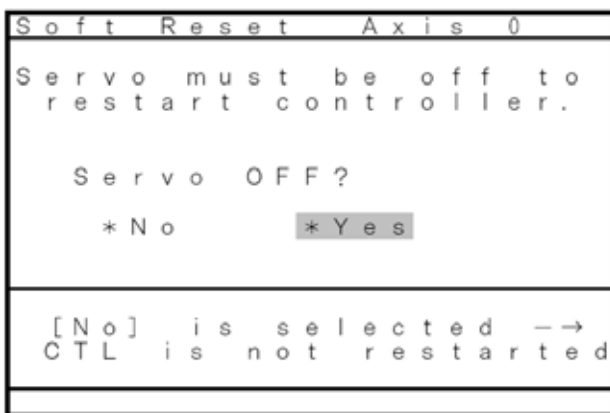
When parameter (shipment) initialization is completed, the screen will return to the Soft Reset screen.

(When stopping parameter (shipment) initialization, select “\* No” and press the Return key.



When resetting software, select “\* Yes” and press the Return key.

(When stopping software reset, select “No” and press the Return key. The screen will return to the Select Mode screen.)



When the servo is ON, the screen will move to the servo OFF confirmation screen.

When restarting the controller, select “\* Yes” and press the Return key. Since the servo is automatically turned OFF, it is not required to turn SON input OFF.

(When stopping software reset, select “\* No” and press the Return key.)

The screen will return to the Select Mode screen regardless of whether you select “\* Yes” or “\* No.”

**Caution:** If software reset has not been executed, parameters have been rewritten to shipment parameters but operation will not be performed with shipment parameters.  
After the next reset or power-on, the parameters will be effective.

## Teaching Pendant error table

Listed in the table are Teaching Pendant specific error.

For error of controller, refer to the Operating Manual of each controller.

Code	Message name	Description
112	Input Incorrect Error	An incorrect value was entered for a parameter. (Example) 9601 was entered as the serial communication speed by mistake. Reenter a correct value.
113	Input Under Error	The entered value is smaller than the setting range.
114	Input Over Error	The entered value is larger than the setting range. Refer to the actuator specifications or parameter table and reenter a correct value.
115	Homing Incomplete	The current position was written when home return was not yet completed. Execute home return again.
117	No Move Data	Target position is not set under the selected position number. Enter the target position first.
11E	Pair Data Mismatch	The values indicating the magnitude relationship of a pair of data are incorrect. (Example) The same value was entered in both the parameters for + and – soft limits. Reenter correct values.
11F	Absolute Value Error	The minimum movement toward the target position is determined by the lead length of the drive system and resolution of the encoder. This message indicates that the entered target value is smaller than the minimum movement. (Example) If the lead length is 20mm, the encoder's resolution is 800 pulses and accordingly the minimum movement becomes $20 \div 800 = 0.025$ mm/pulse. In this case, this message will be displayed if 0.02mm is entered as the target position.
121	Push search end over	The final position in push operation exceeds the soft limit. This has no negative effect if the actuator contacts the work. If the actuator misses the work, however, the soft limit will be reached and this message is displayed as a warning. Change either the target position or positioning band.
122	Allocate, multi-axes connect	Address was assigned when multiple axes were connected. Assign each address only when one axis is connected.
133	Change to axis number prohibit	In the case of the PCON-C/CG, ACON-C/CG, or SCON controller, the axis number is set with the rotary switch on the front panel. It cannot be set with the Teaching Pendant.
180	Change to axis number OK	These messages are displayed to confirm operation. (They do not indicate an operation error or other abnormality.)
181	Controller initialize OK	
182	Home Change All Clear	
183	IO function changed	
201	Emergency Stop	An emergency stop condition was detected. (This is not an error.) It is displayed for PCON, ACON, SCON, and ERC2.
202	Emergency Stop	This message indicates an emergency stop condition. (This is not an error.) It is displayed for PCON, ACON, SCON, and ERC2.
203	Motor voltage drop	This message indicates the motor drive power shut-off condition due to an open circuit between the MPI terminal and MPO terminal. (Note) If this message occurs when a circuit between the MPI terminal and MPO terminal is closed, a controller failure is suspected.
204	ABS battery voltage drop	This message indicates that the battery voltage dropped when the power was turned ON.
20A	During movement, Servo OFF	This message indicates that the servo ON signal (SON) was turned OFF by the PLC while the actuator was moving, and that the servo turned OFF and the movement was disabled as a result.

Code	Message name	Description
20C	During movement, CSTR-ON	This message indicates that the start signal (CSTR) became "1" by the PLC while the actuator was moving, and that duplicate movement commands occurred as a result.
20D	During movement, STP-OFF	This message indicates that the temporary stop signal (*STP) was turned OFF by the PLC while the actuator was moving, and the movement was disabled as a result.
20E	Soft limit over	This message indicates that a soft limit was reached.
210	HOME-ON during operation	This message indicates that a home return signal (HOME) became ON from PLC and duplicate movement commands occurred during movement operation.
211	JOG-ON during operation	This message indicates that a home return signal (HOME) became ON from PLC and duplicate movement commands occurred during movement operation.
220	Write in AUTO prohibited	This messages indicates that parameter writing operation was performed in the AUTO mode of the PCON-C/CG, ACON-C/CG, or SCON controller.
221	Write in Monitor mode prohibited	This message indicates that position data or parameter writing operation was performed in the Monitor mode.
222	Operation in AUTO prohibited	This message indicates that actuator movement operation was performed in the AUTO mode.
223	Operation in Monitor mode prohibited	This message indicates that actuator movement operation was performed in the Monitor mode.
301 302 304 305 306 308 30A 30B	Over Run Error (M) Framing Error (M) SCI R-QUE OV (M) SCI S-QUE OV (M) Termi R-BF OV (M) Response Time Out (M) Packet R-QUE Packet S-QUE OV	<p>These messages indicate an error in the serial communication with the controller.</p> <p>Cause: [1] Garbage data due to the effect of noise [2] Duplicate slave numbers when multiple controllers are controlled by serial communication.</p> <p>Action: [1] Adjust the wiring in a manner eliminating the effect of noise and review the installation of equipment, etc. [2] Change the slave numbers to avoid duplication.</p> <p>If the message is still displayed after taking the above actions, please contact IAI.</p>
307 309	Memory Command Reject Termi Light Address Error	<p>This message indicates that the command was refused in the serial communication with the controller.</p> <p>This message indicates that an indeterminate WRITE address error occurred in the serial communication with the controller.</p> <p>These conditions do not occur in normal operation. Should they occur, record the entire error list before cutting off the power for use in the cause investigation. Also, contact IAI.</p>
30C	No Connect Error	<p>This message indicates that no controller axis number is recognized.</p> <p>Cause: [1] The controller is not operating properly. [2] Only the supplied communication cable (SGA/SGB) is disconnected. [3] If a SIO converter is used, 24V is supplied to the converter but the link cable is not connected. [4] The ASDRS switch settings are duplicated by mistake when multiple connectors are linked.</p> <p>Action: [1] Check if the RDY lamp on the controller is lit. If the lamp is not lit, the controller is faulty. [2] If a spare Teaching Pendant is available, replace the current pendant with the spare unit, or with a PC, and see if the message disappears. [3] Supply power after connecting the link cable between the converter and controller. [4] Make sure the ADRS switch settings are not duplicated.</p> <p>If the message is still displayed after taking the above actions, please contact IAI.</p>







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