KOGANEI

iB-Move
Support Software

Instruction Manual Ver. 1.0

Contents

※ For details on the main unit and controller, refer to the instruction manual for the iB-Move series main unit and controller IBM2A-C.

1. Outline of software

1-1. Outline

This software communicates with the iB-Move controller, and displays the controller settings, trial operation/ operation states of the actuator and other information.

■ Setting/saving data
Points (operation mode, position, speed, acceleration, deceleration, pressing level), parameters and other information are input and edited, and then saved to file.

■ Trial operation
Operation is started, origin return executed and current position displayed based on preset points and parameters.

■ Indicators
These indicate I/O signals, current position, alarms, errors, communication status, and other information.

1-2. Operating environment conditions

■ Target actuator/controller
- Actuator Model: **IBM2A5** x □-□-□/**IBM2A10** x □-□-□/**IBM2A16** x □-□-□
- Controller Model: **IBM2A-C1-A1**

■ Computer operating environment
- OS
  Windows 2000, Windows XP
- Computer system
  - □ Hardware requirements: PC with a Pentium CPU
  - □ Software requirements: Microsoft .NET Framework Version 2.0 or later[Note 1]
    Windows Installer 3.0 or later[Note 2]
    Internet Explorer 5.0 or later
  - □ Memory: At least 64 MB of available memory
  - □ Free space on hard disk: At least 50 MB[Note 3]
  - □ Display: Min. resolution 800 x 600 (1024 x 768 or more recommended)
  - □ USB port: USB port is available

Note 1: When Microsoft .NET Framework Version 2.0 or later is not installed, execute the file "dotnetfx.exe" on the CD. Installation starts after you agree to the terms of the licensing agreement.
2: When Windows Installer 3.0 or later is not installed, execute the file "WindowsInstaller-KB893803-v2-x86.exe" on the CD. Installation starts after you agree to the terms of the licensing agreement.
3: At least 300 MB of free space is required on the hard disk to install "dotnetfx.exe" and "WindowsInstaller-KB893803-v2-x86.exe".

2. Preparing for use

2-1. Preparations

■ How to install the support software

Copy the file "IBM2A_Series. Support Soft English_Ver_1.exe" to a suitable folder on the hard disk and double-click the file.

After the file is unzipped, select "setup.exe" to execute the setup.

The installation program is started up.

Follow the on-screen instructions to install the software.

Note 1: If an old version is installed, first uninstall the old version before executing the setup.

Note 2: Login with administrator's rights to install the software.

Enter the login name using single-byte alphanumeric characters.

■ How to uninstall the support software

① At [Settings - Control Panel]-[Add and Delete Applications] in the Windows menu, select "iB-Move_ SupportSoft" from the list of programs, and click the [Add and Delete] button.

② The deletion program is started up. Follow the on-screen instructions to delete the software.

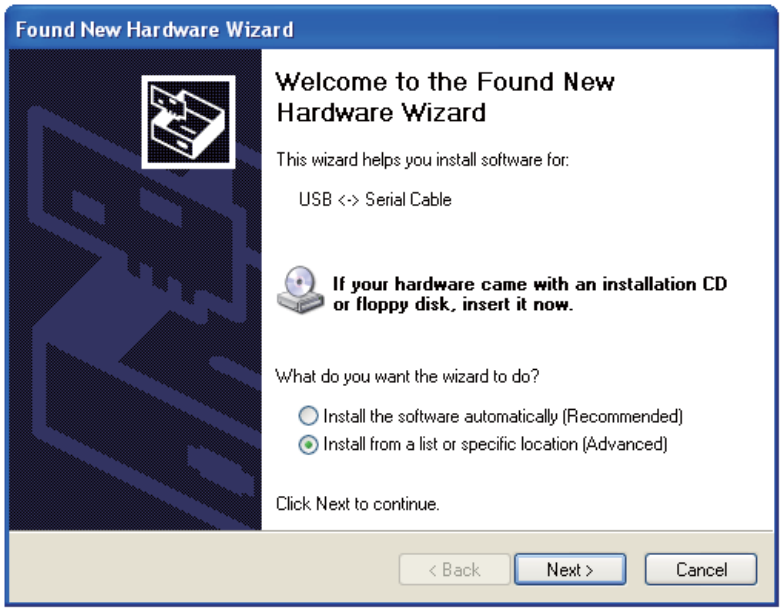
2-2. Connecting the USB-RS485 converter to the PC

■ How to install the driver

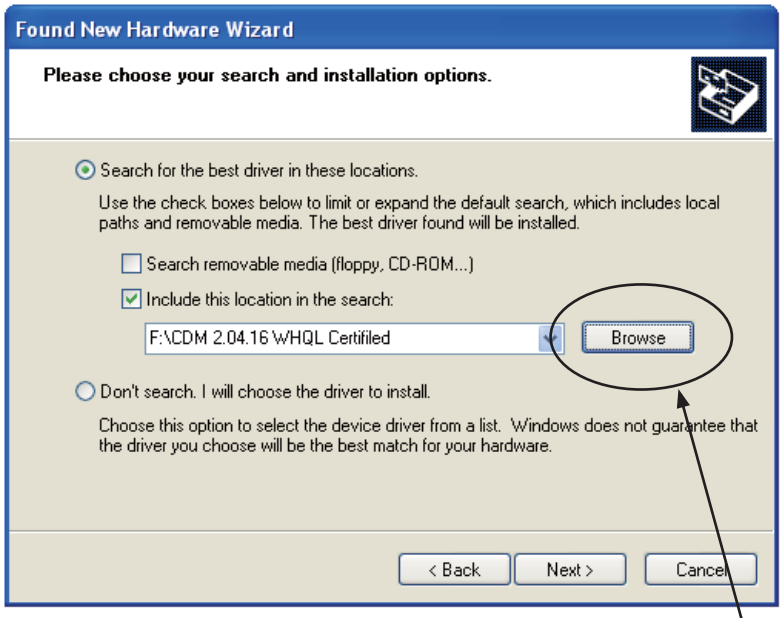
① Connect the PC to the USB-RS485 converter using the USB cable.

The screen shows the following after connection.

Select "Install from list or specified directory" and click the [Next] button.



② Select "Search for optimum driver in next directory" and click [Browse].



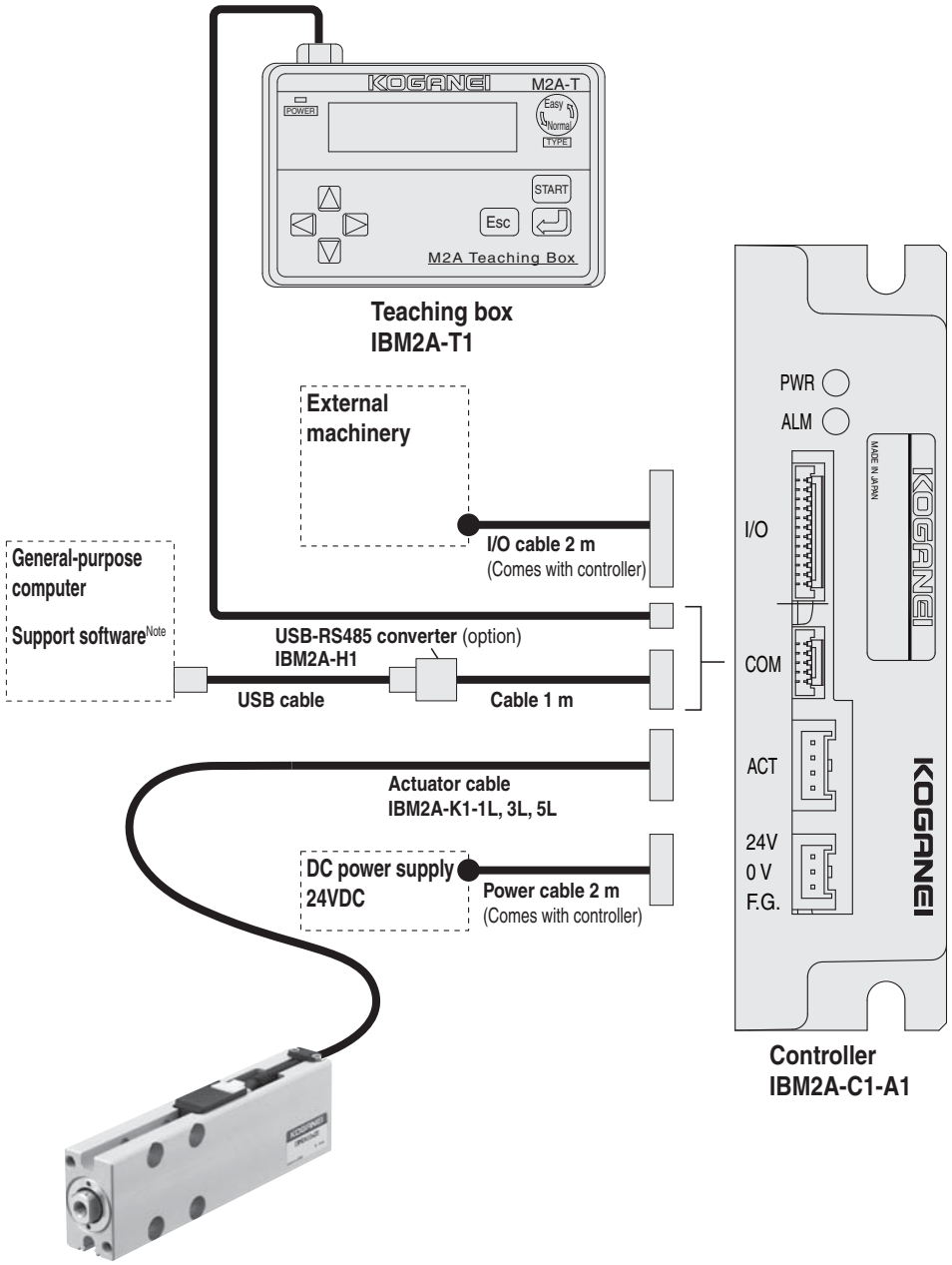
Browse button

③ Select the "CDM 2.04.16 WHQL Certified" folder in the file that was unzipped in "2-1 Preparations."

④ Click the [Next] button. Installation is started and installation of the driver is completed.

2-3. Connecting the USB-RS485 converter to the controller

・Connect the cable connector from the USB-RS485 converter to the "COM" connector on the controller.



Note: A USB-RS485 converter is required to use the computer support software that comes with the product.

3. Software startup

3-1. Procedure for software startup to COM port selection

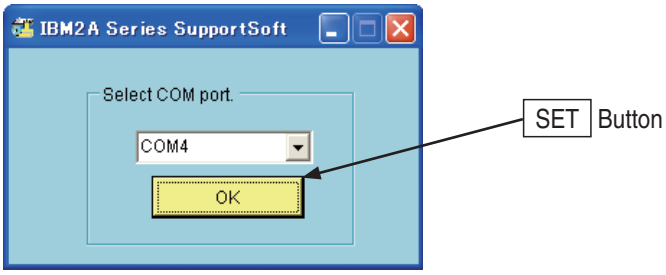
Double-click the file "iB-Move_SupportSoft.exe" to start up the software.

First, select the communication port.

Since this support software automatically searches for and displays the COM port to which the USB is connected when the software is started up, select the COM port of the USB-RS485 converter from the pulldown menu.

After selecting the COM port, click the SET button.

To use this software without the connection, select "Not connected".



■ Online: When "COM port" is selected

Connect the USB-485 converter to the controller beforehand, and then turn the controller on.

After selecting the COM port, the point data and parameter data of the currently connected controller are automatically acquired.

If data cannot be acquired, the model selection window is displayed. For details on the model selection window, see the following item "Offline: When "Not connected" is selected."

To "4-2 Support software operation window"

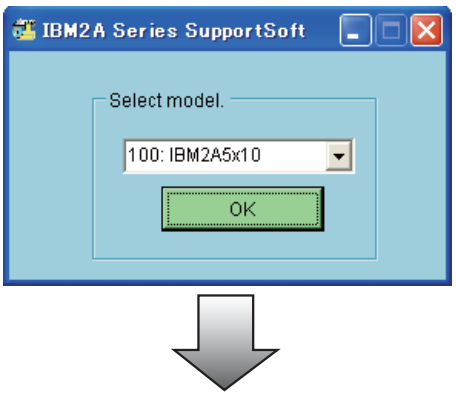
■ Offline: When "Not connected" is selected

After selecting COM port: "Not connected", the model selection window is displayed.

Select the main unit model.

When "Not connected" is selected, points and parameters can only be edited.

After selecting "Not connected", click the SET button.



To "4-2 Support software operation window"

4. Operations

4-1. Basic operation procedure

The following describes the procedure for basic operations.

① When the actuator number is not for the actuator to which the controller is connected, initialize parameters by [Tools]-[Initialization (parameters)].

Note: Be sure to set the actuator number for the connected actuator.
Before the actuator and controller are shipped from the factory as a set, the parameters are initialized to match the actuator number of the set.

② From the parameter field in the setting area, set the parameters to match the operating conditions.

③ From the point field in the setting area, click [PNT] and input the point data.

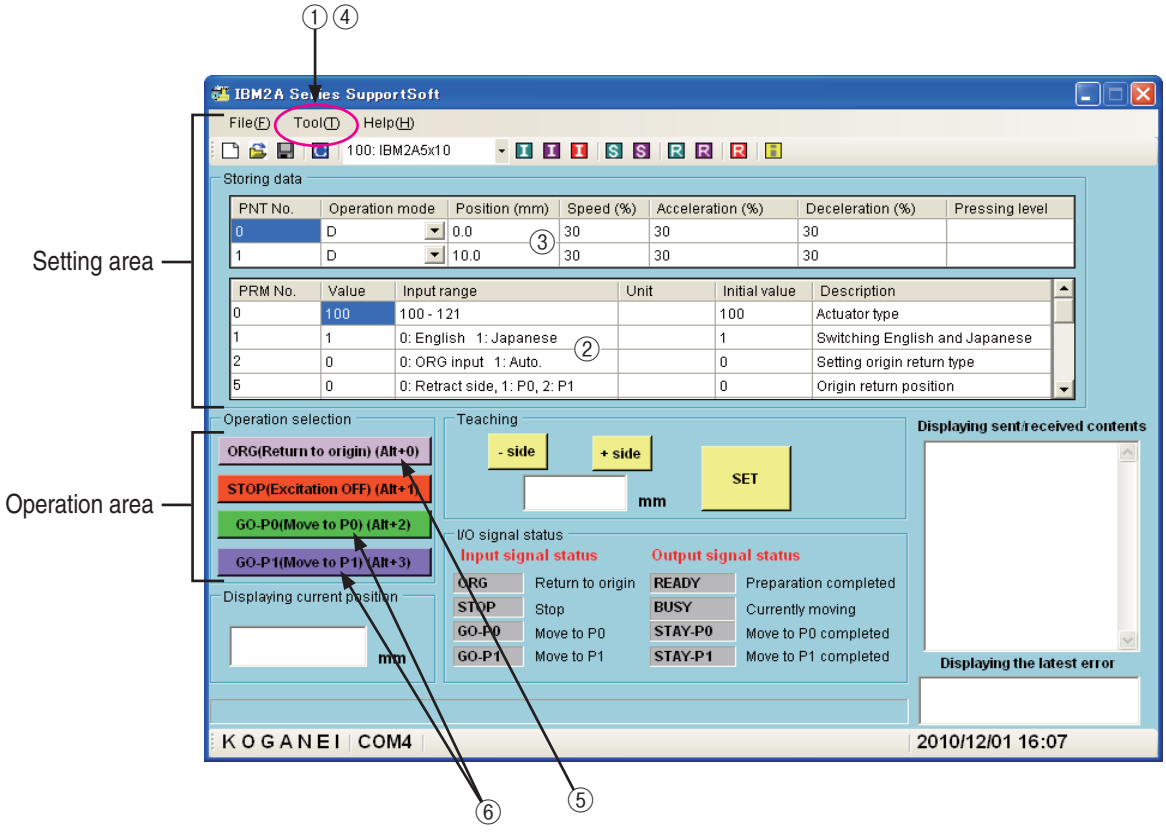
④ Send the points and parameters by [Tools]-[Send].

⑤ Execute origin return by the [Origin return] button in the operation area.

⑥ Operate by the [GO-P0] button or [GO-P1] button in the operation area.

Caution: When the actuator type selection field is changed, the support software window is changed but the actuator type for the controller is not changed.

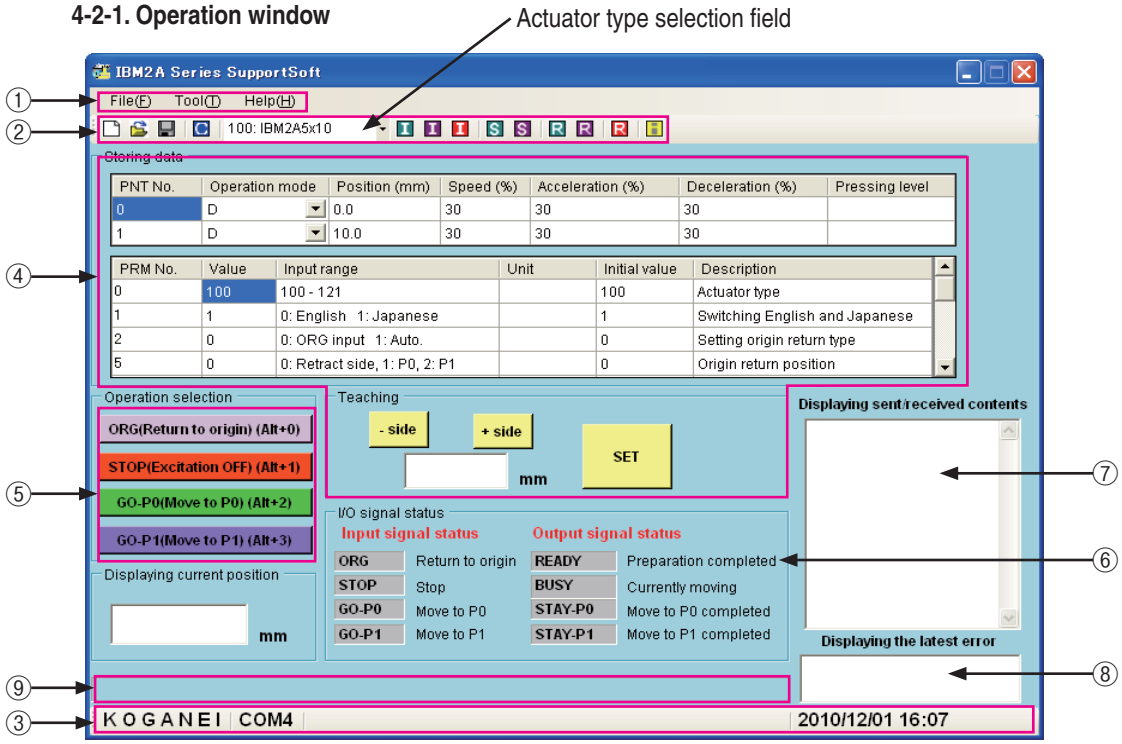
Caution: When operating the main unit in the operation area, be sure to provide an external emergency stop or stop function.



4-2. Support software operation window

The following describes the support software operation window.

4-2-1. Operation window



① : Menu bar
② : Tool bar
③ : Status bar
④ : Setting area
⑤ : Operation area
⑥ : I/O monitor area
⑦ : Communication display area
⑧ : Alarm/error display area
⑨ : Send/receive status bar

4-2-2. Description of operation window functions

No.	Name	Meaning
①	Menu bar	The pulldown menu number 1 layer menu is displayed. ■ File ■ Tools ■ Help Three pulldown menus are displayed on the menu bar by individual function. ■ File ・New: Deletes the setting values in the window to return it to its initial state. ・Open: Reads setting values from a saved file to display them in the window. The actuator type selection field is changed according to the opened file. The operation window (parameter defaults/input range, etc.) also is changed according to the actuator type. ・Save: Saves setting values (point/parameter data). ・Exit: Exits the software.

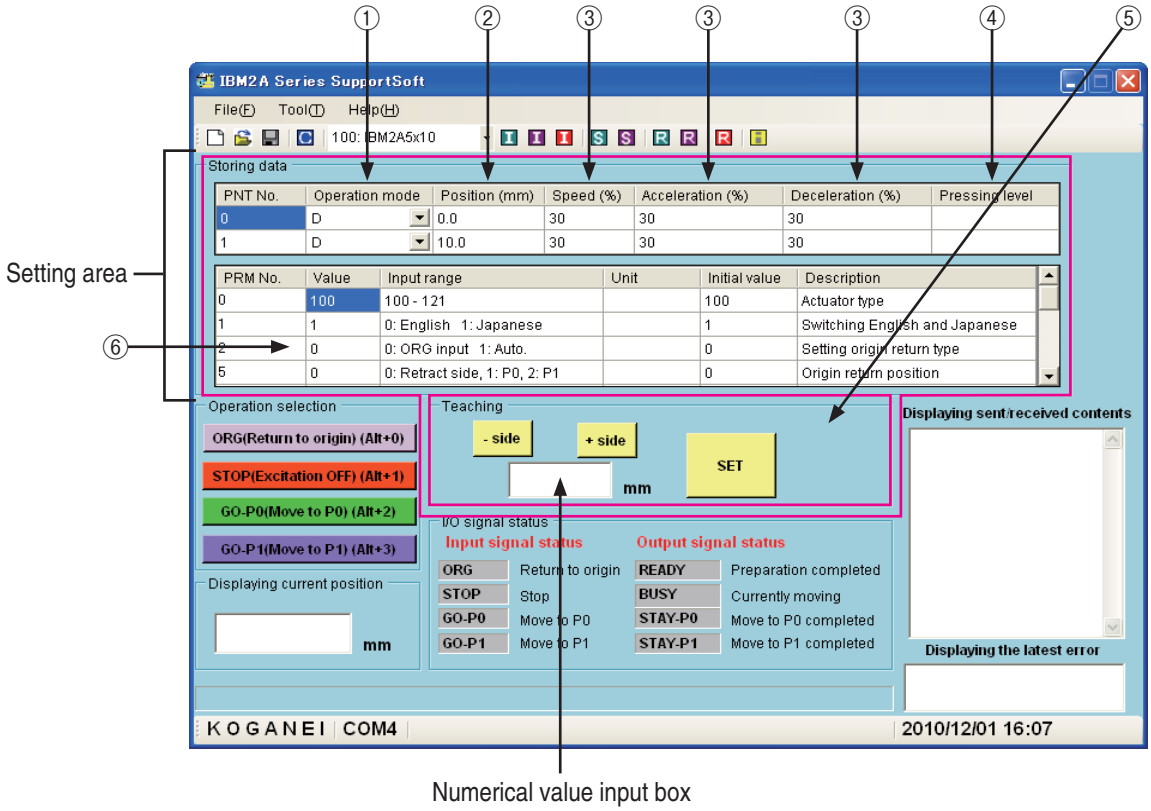
<table>
<tr><th>No.</th><th>Name</th><th>Meaning</th></tr>
<tr><td>①</td><td>Menu bar</td><td>■ Tools
・Send (point): Sends points to the controller.
・Send (parameter): Sends parameters to the controller.
・Receive (point): Receives points from the controller.
・Receive (parameter): Receives parameters from the controller.
The actuator type selection field is changed to the received actuator type. The operation window (parameter defaults/input range, etc.) also is changed according to the actuator type.
・Initialize: Initializes the point/parameter/error history.
The actuator type selection field is also changed when parameters are initialized. The operation window (parameter defaults/input range, etc.) is also changed according to the actuator type.
<table><tr><td>Model</td><td>IBM2A5 x 10-□-□</td><td>IBM2A5 x 20-□-□</td><td>IBM2A10 x 20-□-□</td><td>IBM2A10 x 30-□-□</td><td>IBM2A16 x 32-□-□</td><td>IBM2A16 x 48-□-□</td></tr><tr><td>Actuator number</td><td>100</td><td>101</td><td>110</td><td>111</td><td>120</td><td>121</td></tr></table>・COM setting: Resets the communication port to be used for communication with the controller. (3-1. Procedure for software startup to COM port selection)
・Error history display: A history of the latest errors to have occurred that is held internally on the controller is displayed. (This is displayed in the ⑧ alarm/error display area.)
■ Help
・Displays the version information of the controller and support software.</td></tr>
<tr><td>②</td><td>Tool bar</td><td>Handy buttons used as shortcuts for menu commands
[File]
New Open[Note 1] Save
[Communication]
COM setting
[Initialize]
Initialize: Points (dark green)
Initialize: Parameters (purple)[Note 2] <Actuator type selection field[Note 3]>
Initialize: Error history (red)
[Send]
Send: Points (dark green) Send: Parameters (purple)
[Receive]
Receive: Points (dark green) Receive: Parameters (purple)[Note 4]
Receive: Error history (red)
[Other]
Acquiring version information
Note 1: The actuator type selection field is changed according to the opened file. The operation window (parameter defaults/input range, etc.) is also changed according to the actuator type.
2: Select the actuator type to be initialized from the actuator type selection field on the right of the I button.
3: When the actuator type selection field is changed, the operation window (parameter defaults/input range, etc.) is also changed.
4: The actuator type selection field is changed to the received actuator type. The operation window (parameter defaults/input range, etc.) is also changed according to the actuator type.</td></tr>
</table>

No.	Name	Meaning
③	Status bar	・Connected port name ・Date ・Time
④	Setting area	・Enter the point/parameter data and set this as the operation data.
⑤	Operation area	・Operation start and origin return are executed based on the preset points. Also, the current position is displayed in the current position display box.
⑥	I/O monitor area	・Displays the output state of the READY, BUSY, STAY-P0, and STAY-P1 signals. ・Displays the input state of the ORG, STOP, GO-P0, and GO-P1 signals. Gray: OFF Red: ON Orange: Acquisition error
⑦	Communication display area	・Send/receive details display: Displays the send data and return data.
⑧	Alarm/error display area	・Latest error details display: The latest error that occurred is displayed. NG details and STOP details are displayed.
⑨	Send/receive status bar	When communication is done, the send/receive bar is displayed.

4-3. Operation methods in the setting area

The following describes the details of the setting area in the operation window.

4-3-1. Point/parameter data setting window



① : Operation mode
② : Position
③ : Speed/acceleration/deceleration
④ : Pressing level
⑤ : Teaching setting area
⑥ : Parameters

[Description of function]

No.	Name	Operation method	Remarks
①	Setting mode	・Sets the operation mode of each point. [Input Method] ■ Setting cell input Input directly in the mode cell or select from the mode cell. The table below shows the items that can be input in each mode.	D: Positioning (absolute position) H: Pressing

Mode	Position	Speed / Acceleration / Deceleration	Pressing level
D	Can be input	Can be input	—
H	Can be input	Can be input	Can be input

<table>
<tr><th>No.</th><th>Name</th><th>Operation method</th><th>Remarks</th></tr>
<tr><td>②</td><td>Position</td><td>・Inputs the position of each point.
There are two ways of inputting the position.

[Input Method]
■ Direct input in setting cell
Directly input the numerical value in the "Position" cell.
After inputting, set with the [ENTER] key.
■ Teaching playback
Operate the actuator by the teaching playback buttons [– side] [+ side] in the teaching setting area and set the position.
<Procedure>
・Teaching setting area
Set the position by the teaching playback buttons. If the origin return command appears, follow the on-screen instructions.
・The position is copied to the position cell of the selected number by the [SET] buttons.</td><td>☆After setting numerical values, be sure to click the [SET] button.

☆ <Setting input range>
<table><tr><td>Model</td><td>IBM2A5 x 10
-□-□</td><td>IBM2A5 x 20
-□-□</td></tr><tr><td>Range</td><td>0.0 to 10.0 mm</td><td>0.0 to 20.0 mm</td></tr></table>
<table><tr><td>Model</td><td>IBM2A10 x 20
-□-□</td><td>IBM2A10 x 30
-□-□</td></tr><tr><td>Range</td><td>0.0 to 20.0 mm</td><td>0.0 to 30.0 mm</td></tr></table>
<table><tr><td>Model</td><td>IBM2A16 x 32
-□-□</td><td>IBM2A16 x 48
-□-□</td></tr><tr><td>Range</td><td>0.0 to 32.0 mm</td><td>0.0 to 48.0 mm</td></tr></table>
(Enter down to 1 digit past the decimal point within the allowable stroke range.)</td></tr>
<tr><td>③</td><td>Speed/
acceleration/
deceleration</td><td>・Sets the speed/acceleration/deceleration of each point.

[Input Method]
■ Setting cell input
Directly input numerical values to the "Speed", "Acceleration" or "Deceleration" cells.
After inputting, set with the [ENTER] key.</td><td>☆ The speed numerical value becomes the ratio to the maximum speed. The deceleration becomes the ratio to the maximum acceleration/ deceleration.

☆ <Setting input range>
1 to 100 (%)</td></tr>
<tr><td>④</td><td>Pressing level</td><td>・Sets the pressing level of each point.

[Input Method]
■ Setting cell input
Directly input the numerical value in the "Pressing level" cell. After inputting, set with the [ENTER] key.</td><td>☆ <Setting input range>
Mode H only: 1 to 10
※ For details, refer to the main unit Instruction manual.</td></tr>
<tr><td>⑤</td><td>Teaching
setting area</td><td>・Sets the teaching settings.

*See ② Position setting item.</td><td></td></tr>
<tr><td>⑥</td><td>Parameters</td><td>・Displays and changes parameters that can be set.
The "Value" cell is the currently set value.

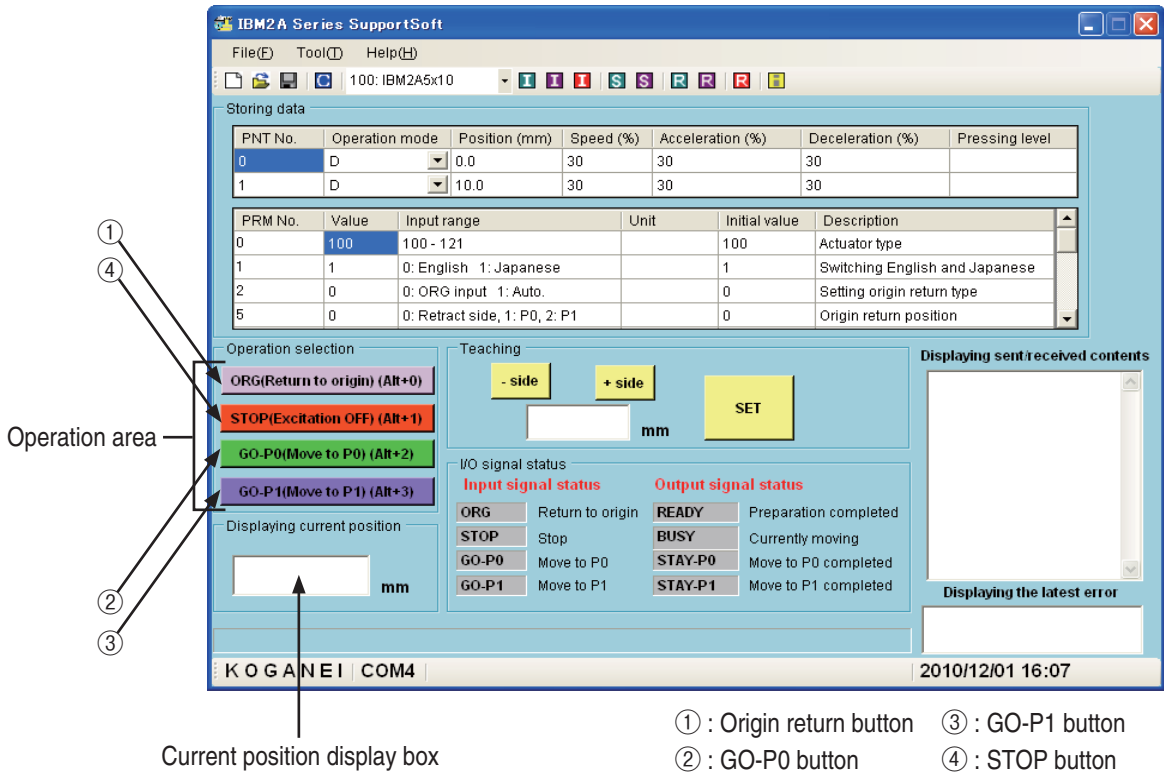
[How to change parameters]
Select the cell to the value of the parameter to change, and input numerical values directly. After inputting, set with the [ENTER] key.</td><td>☆ <Setting input range>
Input within the numerical value of the setting range column.
☆ Parameter No. 0 (actuator type) cannot be changed from the parameter data setting window. Do this by [Tools]-[Initialization (parameters)].</td></tr>
</table>

4-4. Operation methods in the operation area

The following describes the details of the operation area in the operation window.

After completing the various settings (points/parameters), send the data to the controller by [Tools]-[Send (point)]/[Send (parameter)]. If the settings are left unsent, operation will not be according to the settings executed on the support software.

[Setting window]



① : Origin return button ③ : GO-P1 button

② : GO-P0 button ④ : STOP button

[Description of function]

No.	Name	Operation method	Caution
①	Origin return	・Execute origin return. Clicking the operation area - [Origin return] button moves the actuator to the origin.	☆ When the origin return position has been changed, movement is executed once to the default device origin and then to the newly set position.
②	GO-P0	・Executes operation according to preset conditions. Clicking the operation area - [GO-P0] button executes operation according to the points and parameters of the PNT No. 0 selected in the setting area.	
③	GO-P1	・Executes operation according to preset conditions. Clicking the operation area - [GO-P1] button executes operation according to the points and parameters of the PNT No. 1 selected in the setting area.	
④	STOP	・Stops the actuator and turns excitation off. Clicking the operation area - [STOP] button stops the actuator and turns excitation off.	☆ Origin return will not be completed, so execute origin return after inputting STOP.

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February, 2011 Ver. 1.0 X425105

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Feb 28, 2011 Ver. 1.0 AB