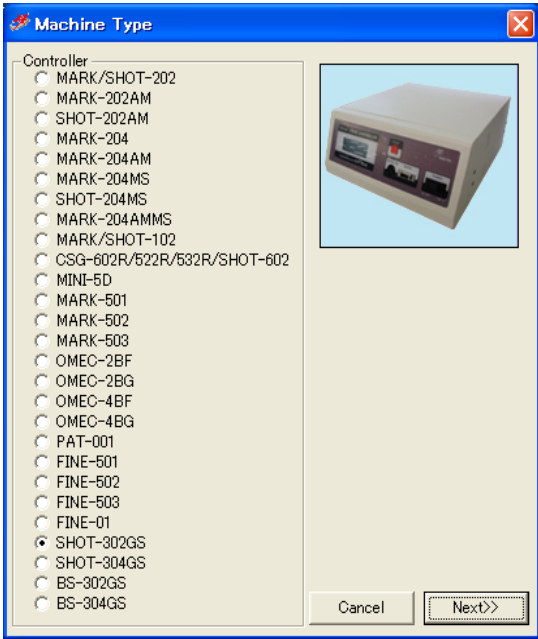# SGCommander operation manual

1. Wizard

The wizard will be opened on window as below when you run SGCommander .

Please set the parameters according to the directions in the windows.

① Choose type of Controller

Please choose the controller／driver type which you are going. to use.

BS-302GS
BS-304GS
⎬ Go to ②

Mark(SHOT)-2XX series
Mark(FINE)-5XX series
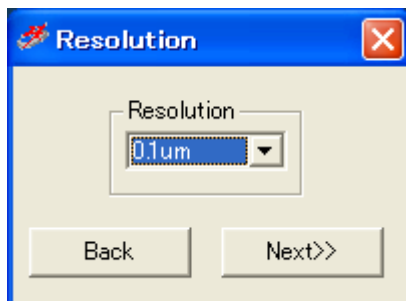SHOT-3XX series
FINE-01
FINE-01γ
SHOT-702
⎬ Go to ③

Mark(SHOT)-102   Go to ④

CSG(SHOT)-XXR series
MINI-5D
PAT-001
OMEC-XXX series
PKA-ID-02
⎬ Go to ⑤

② Set resolution （Only for BS-302GS / 304GS）

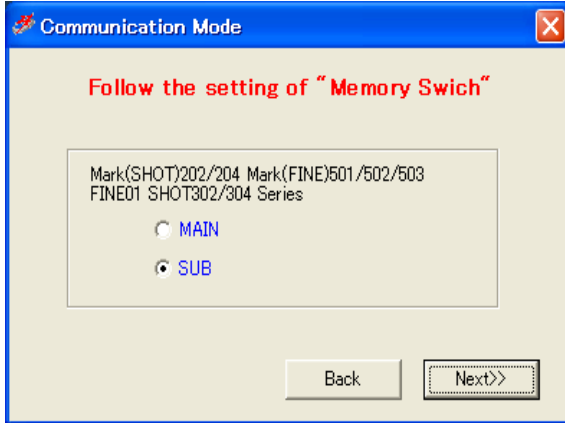Please set the resolution of the controller.

（Go to ⑤）

③ Choose communication mode

　（Only for Mark(SHOT)-2XX,Mark(FINE)-5XX,SHOT-3XX series,FINE-01,FINE-01γ ,SHOT-702）

　Choose communication mode according to the memory switch COMM/ACK of the controller.
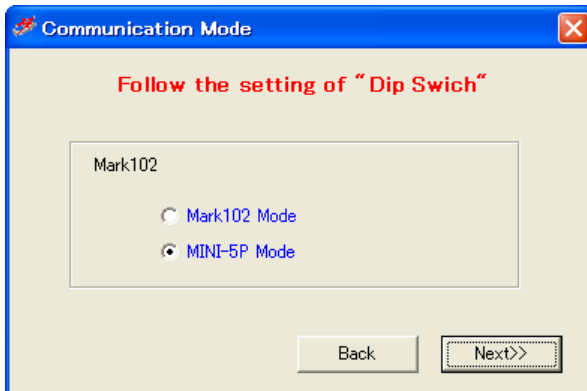
　（Go to ⑤）

④ Choose communication mode 　（Only for Mark(SHOT)-102）

　Choose communication mode according to the Dip Switches of the controller.

　（Go to ⑤）

⑤ Set communication Properties
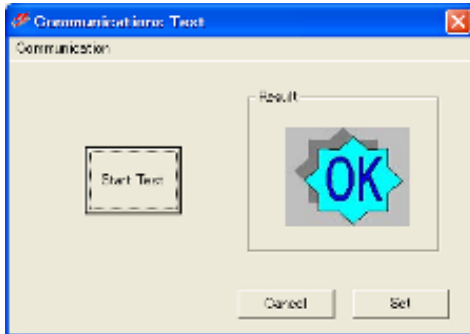
　Set RS232C interface parameters
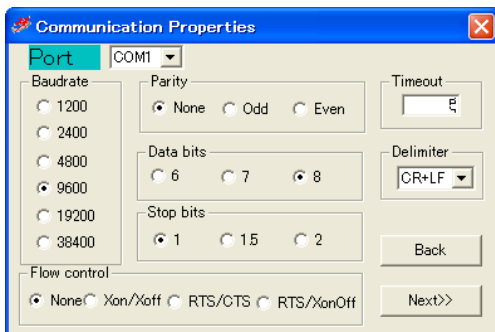
⑥ Communication test

Click the test button, then a result will be displayed like below.

The main window will be closed if you clicked the Set button.

If the result is NG, please check the interface parameters, the controller setting and cables, then
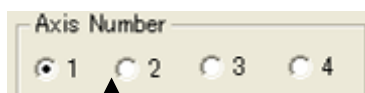
try the communication test again.

Main window

2. Stage operation

The stages which are connected to the controller can be driven by clicking the buttons in the window.
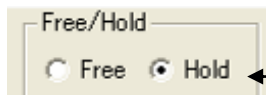

Choose aixs number

Select the moving direction(+ or −),then click the JOG button, and start moving the Stage.

If you stop the stage , click the stop button.

Select if the motor excitation is Free or Hold.
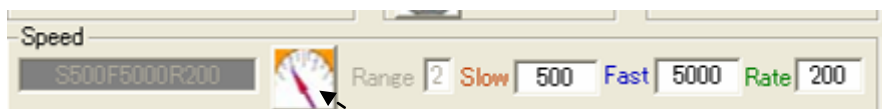
Input the Speed Value S,F,R and click the button to fix the speed setting.

Display the current Position of a moving axis on the window

Move the stage to the mechanical origin

Move the stage to the logical origin

Set the current position to the logical origin.

Input the amount of travel pulse

Stop the stage

Click the button, move the stage specified distance

Stage will keep moving while pushing down the button of the mouse

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■ The operation window for BS-302GS/304GS （It is different from the others）

① coordinate list

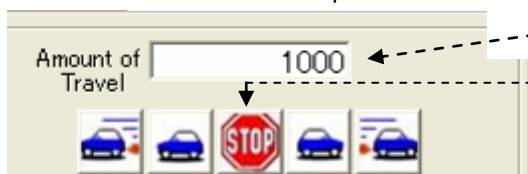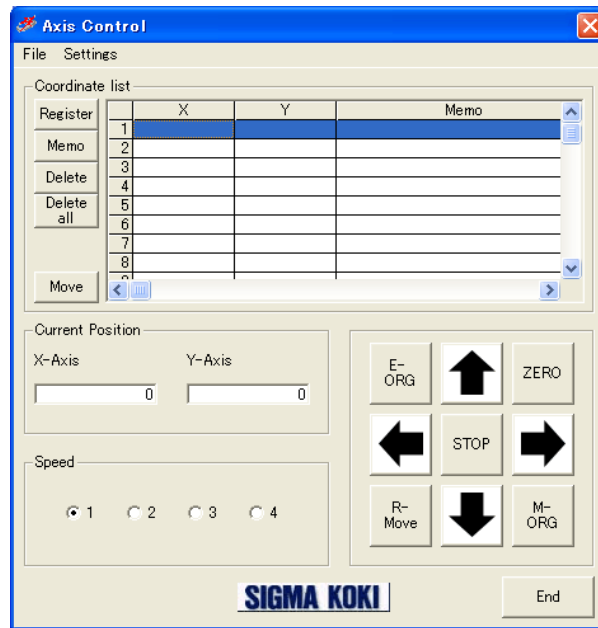It can register coordinate list till 99 lines here.
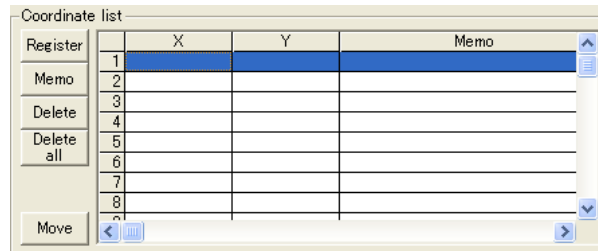
（1）Register button

   Register the current position to the chosen line of the coordinate list.

（2）Memo button

   Click the memo button, a window for input will appear. Input memo and click the OK button, the

   memo will be stored into the memo cell.

（3）Delete button

   Delete the chosen line of the list.

（4）Delete all button

   Delete the all lines of the list.

（5）Move button

   Move the stage to the position of the chosen line.

② Speed

（1）click and choose the speed from speed 1～4 which is set by speed setting window .

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③ Move button

(1) ZERO button

Set the current position as a logical origin and clear the coordinate display as zero.

(2) E-ORG button

Drive the stage to the logical origin.
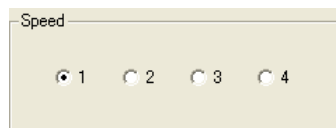
(3) STOP button

Stop the moving stage.

(4) M-ORG button

Move stage to the mechanical origin.

(5) R-Move /JOY button

The display will be changed when being clicked.

(6) Arrow button

(When JOY moving)

The X or Y stage will keep moving while pushing down the left button of the mouse.

The stage will stop when the button is released.

(When relative moving)

Click those arrows to drive the stage specified distance at the chosen speed.

The distance (mm) and speed (mm/s) are set by the below window.
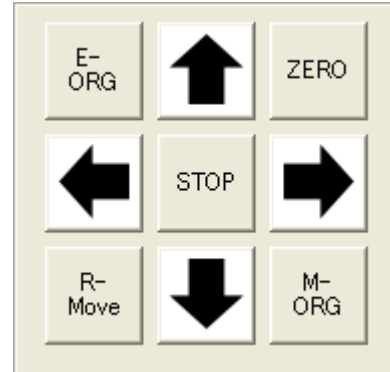
④ File menu

(1) Save coordinate list

Save the contents of coordinate list to a file.

(2) Load coordinate list

Read out the coordinate list from a specified file and display it on a window.

⑤ Settings menu

A stage operation setting window will be displayed.

⑥ Settings window

（1）Use Axis

Assign X axis and Y axis.

（2）Axis Direction

Set the move direction of X axis and Y axis.

（3）Speed

Set the four speeds of X axis and Y axis respectively.

The speed 1～4 here definite the speeds in the operation
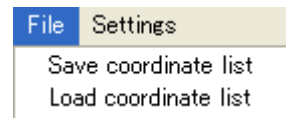
window.

（4）Acceleration time

Set the acceleration and deceleration time of X axis and

Y axis.
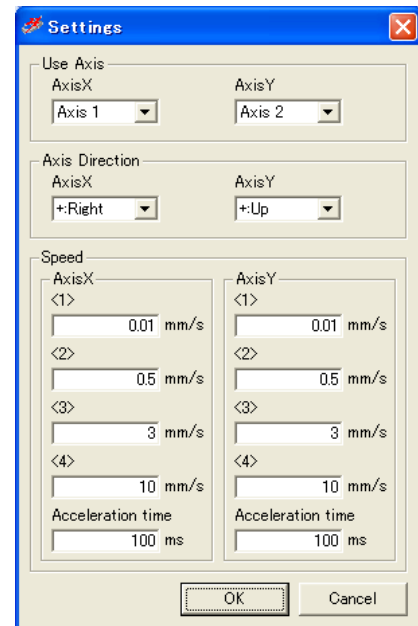
3．Terminal

The controller will be controlled by commands on the terminal window.

Send commands to control the controller and stages.

Or check the current status of stages and I/O interfaces with status checking command（Q:） or

I/O checking command（I:） etc.

The window is similar to the Hyperterminal of Windows. It can change or confirm the setting with a

communication between PC and controller.

Input the character string into it and push Enter key, the command will be sent.

The returned data will be displayed in the text box below.

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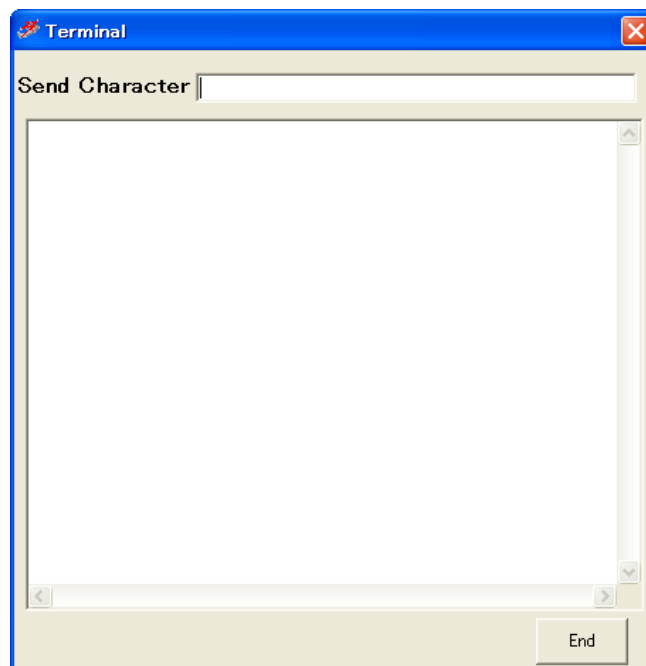
4．program

（Only for Mark/SHOT-2XX,series, Mark-5XXseries（from ROM version2.00）, FINE-5XXseries, SHOT-3XXseries, FINE-01and -01γ ）
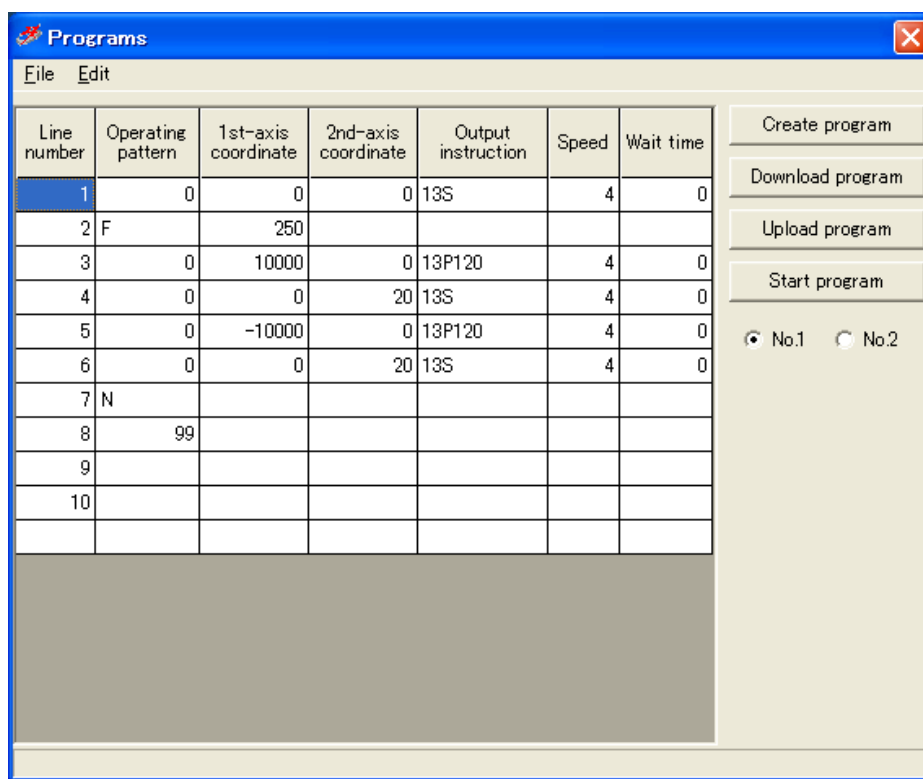
① Programming

・ When composing a program, please click the Create program button, there will be a programming window.

・ When clicking 「New」 button, there is a blank window with blank cells. Please fill in the data into them.

・ Click the 「Develop」 button after inputting movement range and pitch, a program will be created automatically.

・ You can download or upload the program from or to controller, and drive stages by the program.
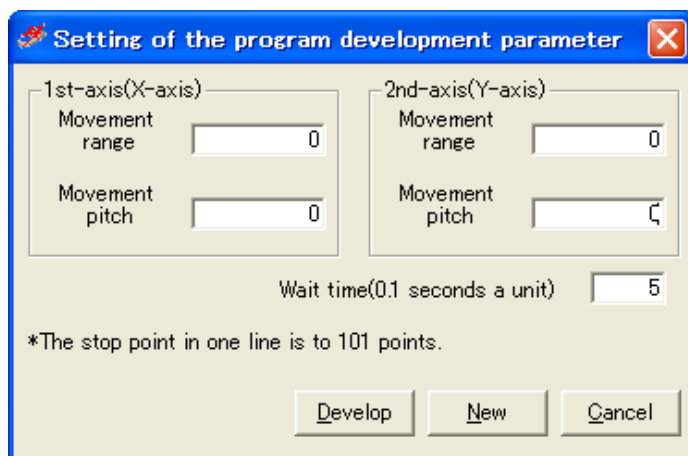
② Edit program

・The program can be edited, such as insert/copy/add/cut etc. with line edit of dropdown menu.

※Please reset the line numbers after line edit.

・Please move the cursor to overwrite or amend the data.
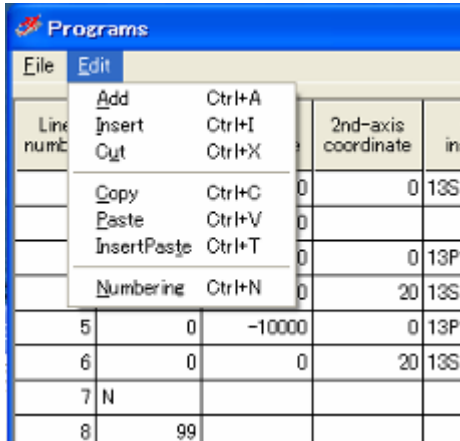
③ Download program

The program in the main window can be downloaded or sent to the controller.

A message [Download is successful] will be displayed on the window, if the download finished normally.

・The controller can store two programs. (No1/No2).

Please choose the No1 or No 2, when you download a program.

④ Upload program

Upload a program from the controller.

A message [Upload is successful] will be displayed on the window when the upload finished normally.

・The controller can store two programs. (No1/No2).

Please choose the No1 or No 2, when you upload a program.

・The uploaded program can be saved as a CSV file.

And an edited (amended) CSV file can be opened with file menu too.

⑤ Execute program

・Execute the program which is stored in the controller and drive motorized stages or I/O interfaces.

・The controller can store two programs. (No1/No2).

Please choose the No1 or No 2, when you execute a program.

5. memory switch

（Only for Mark/SHOT-2XX, Mark/FINE-5XX, SHOT-3XXseries, FINE-01 and -01γ , PKA-ID-02, SHOT-702）
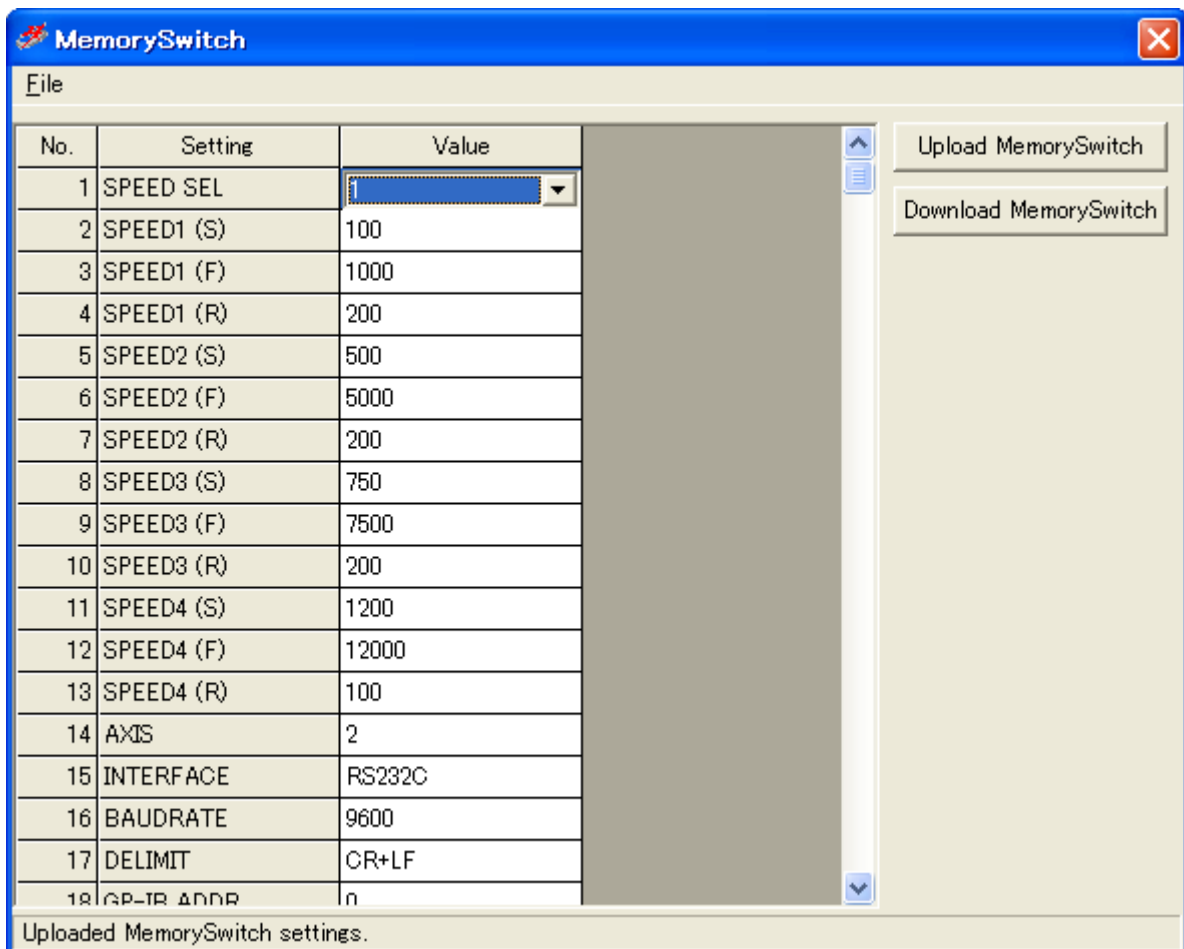
① Upload memory switch

・Upload the contents of the memory switch from the controller.

・A message of 「The upload is successful」 will be displayed, if the upload is finished normally. And the contents of memory switch will be showed on the window.

・The uploaded program can be saved as a CSV file.

And an edited (amended) CSV file can be opened with file menu too.

② Download memory switch

・ The contents of memory switch in the window can be downloaded to the controller.

A message [Download is successful] will be displayed on the window, if the download finished normally.

6. Excel Instruction

（Only for Mark/SHOT-2XX, Mark/FINE-5XX, SHOT-3XX series, FINE-01 and 01γ , PAT-001, OMEC-XXX series, PKA-ID-02,SHOT-702.）

Excel Instruction

Excel Book

[   ] [Ref]

ATTENTION:
Name of the Excel-sheet shall be "sigma".
A-row and B-row of Excel are able to be used for the stage controll.

[START] [STOP] [End]
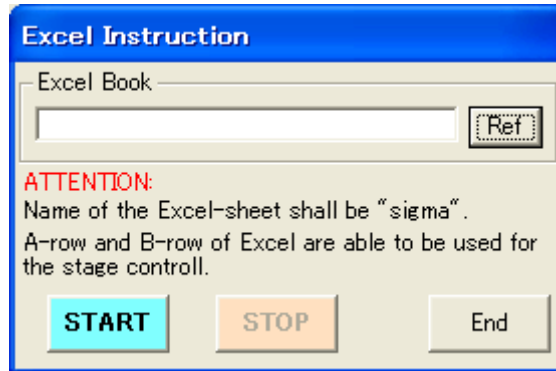
・The instructions for a controller in an Excel book can be executed to control stages.

・Click the Ref button to choose a Excel book..

Click the START button to run it.

Click the STOP button to stop it.

・Please name the sheet starting with "sigma".

・Please input the instructions into A column for axis 1、B column for axis 2、Column for axis 3 and D column for axis 4.

（It is necessary to fill in the columns as many as the axis numbers of the controller. But you can fill some characters into the columns which are not used freely, such as ＊ etc.）

・Description method：

　　　　Number・・・The relative movements of the stage

　　　　H ・・・・Move to mechanical origin. (PKA-ID-02 can not use this instruction)

　　　　R ・・・・Set the current position as a logical origin.

　　　　RH・・・・Move to logical origin.

・Example：

	A	B	C	D	E
1	1000	2000	＊	＊	
2	1000	2000	＊	＊	
3	3000	4000	＊	＊	
4	3000	4000	＊	＊	
5					
6					
7					
8					

|◄ ◄ ► ►| \ sigma / Sheet2 / Sheet3 / |◄|

※ This works only for the listed motorized stage controllers.

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