

sketchbook2

Operation guide

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We would like to thank you for making a MarkinBOX marking machine your choice for meeting your marking and traceability needs. To help you use your MarkinBOX, this manual contains detailed information. Please read these instructions carefully and keep this document for future reference. As certain precautions for proper product usage are provided in the attached document titled "sketchbook2 Startup guide," please be sure to also review that as well before operating the product.

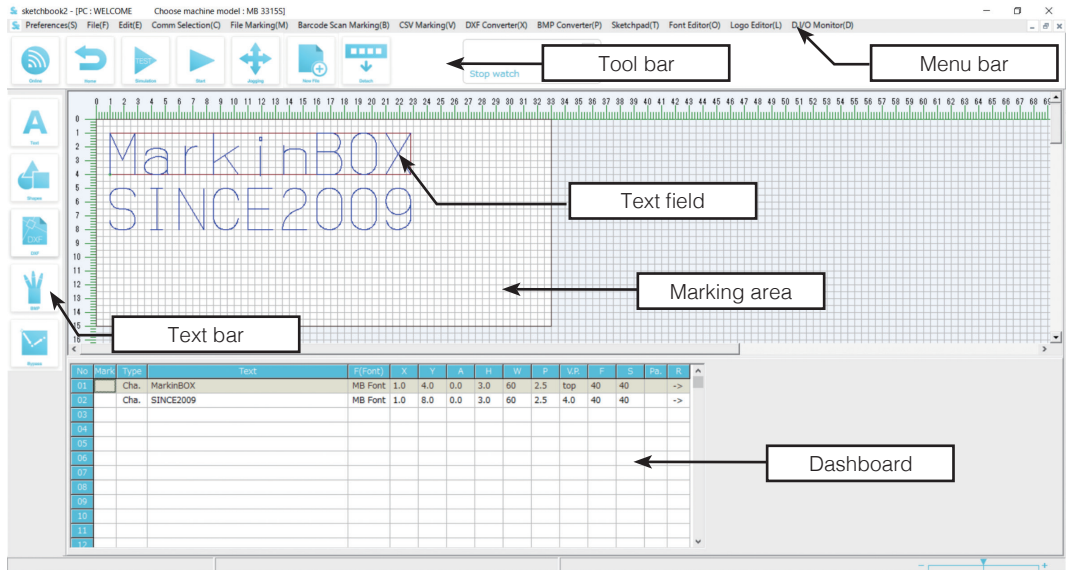
TOKYO CHOKOKU MARKING PRODUCTS CO.,LTD.

This is a translation of the original instruction and the original instruction is in Japanese

1. Basic Specifications of sketchbook2


Marking methods	- MB mode (Click the start/stop button for the marking head to start a marking) *Enable to store data even after off the power. - PC mode (Click the start icon for the computer to start a marking)
Marking force setting	- 0 (no marking) – 99 (strong force)
Marking speed setting	- 1 (slow) – 99 (fast)
Default font setting	- MB font (original font) - 5x7 font (speed prioritized) - PC font (outline type, available only when connected to a computer)
Enterable number of characters into a text field	- Up to 50 characters (half-width alphanumeric characters)
Creatable number of text fields into a file	- Up to 50 fields
Storable number of files in the MB2S controller	- Up to 255 files
Enterable characters into 2D codes (DM, QR)	- 0-9, A-Z, a-z, and various symbols
Enterable number of characters into 2D codes (DM, QR)	- Up to 50 characters
Creatable number of serial settings in a file	- Up to 4 serial settings
Creatable number of digits of serial characters	- Up to 8 digits, 1 – 99999999
Available digits options for calendar marking	- Year : 4, 2 or 1 digit(s) - Month : 2 or 1 digit(s) - Day : 2 or 1 digit(s) - Time : hour 2 digits, minutes 2 digits, seconds 2 digits - Julian date : 3 digits
Shift marking	- 24 hours, up to 5 shifts
Storable number of logos into the MB2S controller	- Up to 31 logos
Convertible DXF data types	- Straight lines, circles, ovals, and polygons *Splines and letters cannot be supported.
Available types of bitmap (BMP) marking	- Fill - Outline
Different user-level setting using passwords	- Administrators (full functions) - Operators (limited functions)

2. Explanation of the Home Screen








1) Explanation of the Tool Bar

<p>Online</p>	<p>Communication icon Allows the user to choose between the online and offline modes.</p>
<p>Home</p>	<p>Home icon Returns the pin back to the original position.</p>
<p>Simulation</p>	<p>Simulation icon Allows the user to perform a marking simulation. After clicking this icon, press the start/stop button for the marking head to run a simulation. To end the simulation, either click this icon or press and hold down the start/stop button for the marking head.</p>
<p>Start</p>	<p>Start icon MB mode : Send marking data. Press the start/stop button for the marking head to start a marking process. PC mode : Start a marking process.</p>
<p>Jogging</p>	<p>Jogging icon Allows the user to move the pin to a desired position while visually observing it.</p>
<p>New File</p>	<p>New File icon (all clear) Clears all current data and creates a new file. In the MB mode, it will cancel the marking data memory function.</p>

	<p>Tool bar Detach / Attach icon Allows the user to detach the tool bar and move it to a desired position. To restore it to the original position, click the Attach icon.</p>
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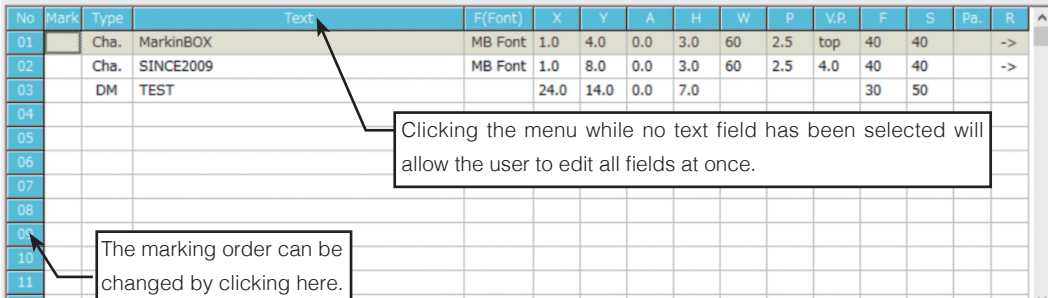
2) Explanation of the Text Bar

	<p>Text icon Creates a text field.</p>
	<p>Shapes icon Creates various types of shapes.</p>
	<p>DXF icon Capture DXF data (data that have been converted using the DXF converter).</p>
	<p>BMP icon Capture MBP data (data that have been converted using the BMP converter).</p>
	<p>Bypass icon Creates a bypass point.</p>

3) Explanation of the Dashboard

How to edit the dashboard

Shift key + click	Select an entire column.
Ctrl key + click	Select multiple columns.
Double click on a cell	Allows to directly enter data into cells.



The screenshot shows a grid with columns: No, Mark, Type, Text, F(Font), X, Y, A, H, W, P, V.P, F, S, Pa, R. Row 01 contains 'Cha. MarkinBOX' in the Text column. Row 02 contains 'Cha. SINCE2009'. Row 03 contains 'DM TEST'. Callout 1 points to the 'Text' column header: 'Clicking the menu while no text field has been selected will allow the user to edit all fields at once.' Callout 2 points to the 'No' column header: 'The marking order can be changed by clicking here.'

Explanation of the Menu on the Dashboard

Mark	Choose whether to perform marking or not.	W	Edit the width of characters.
Type	View the text type.	P	Edit the pitch.
Text	Edit text.	V.P.	Edit the vertical pitch (in the direction of the Y-axis).
F(Font)	Select a font.	F	Edit the marking force.
X	Edit the value on the X-axis.	S	Edit the speed.
Y	Edit the value on the Y-axis.	Pa.	Choose whether to enable or disable the pause function.
A	Edit angles.	R	Choose the reverse mode (marking in the reverse direction).
H	Edit the height of characters.		

3. How to Create Text Fields

- 1) Click anywhere in the marking area or on the “A” icon on the left text bar and perform drawing (click and draw).
- 2) After the frame for a text field has been created, choose a text style.
- 3) On the properties window, enter text using half-width alphanumeric characters. Press the “Done” button or the “Enter key” to confirm the entry. **If the color of the field turns red, it means that the entered text has gone outside the marking area.** Adjust the X and/or Y coordinate values or adjust the height or pitch of characters until it turns blue.
- 4) The size of characters can be expanded freely by moving the frame of the text field containing the characters vertically or horizontally.

4. How to Perform Marking Tasks

- MB mode

- 1) Go to “Preferences” → “General settings” → “Choose mark mode”. Then select “MB mode” and press the “Done” button to confirm the setting.
- 2) Click the “Start” icon on the tool bar and send marking data to the controller.
- 3) Press the start/stop button for the marking head to start a marking process. The marking data will be stored in flash memory, so the marking process can continue to be performed even if the power is turned off and then turned back on again later.




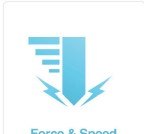

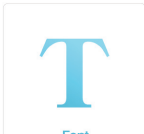

- PC mode

- 1) Go to “Preferences” → “General settings” → “Choose mark mode”. Then select “PC mode” and press the “Done” button to confirm the setting.
- 2) Click the “Start” icon on the tool bar and start a marking process.

5. Explanation of Properties

Double clicking or right clicking a text field and then selecting “Properties” will show the properties window. On the properties window, the user can create or adjust various settings, including marking force/speed, X- and Y-axis coordinate values, fonts, serial characters and date marking.

* standard window

	<p>Marking execution/non-execution button Switches between “execute marking” or “unexecute marking.”</p>
	<p>Done button After changing settings, be sure to click this button to confirm them.</p>
	<p>Character height and width icon Allows to set the height, width, and pitch of characters. Character width will be set in proportion on the height of characters.</p>
	<p>Marking force and speed icon Easy settings : The user can automatically set text quality by selecting a marking force (strong, medium or soft) and speed (fast, medium or slow). Advanced settings : The user can select any desired marking force (0-99) and marking speed (1-99).</p>
	<p>Jogging icon Allows to select any desired X-axis coordinate value, Y-axis coordinate value, and angle. Jogging icon : When turned on, the user can set any desired point while visually observing the movement of the pin. Reference point : Allows to change reference point coordinates.</p>
	<p>Font style The user can choose either a proportional font (space between characters is adjusted) or a pitch font (pitch between the centers of characters is adjusted) for all fonts. MB font (default font) : An original font created by MarkinBOX. 5x7 font : A dot-based font consisting of 7 (height) by 5 (width) dots. It is effective for increasing the marking speed. PC font : Mark using selected Windows font. Go to “Preferences” → “Font” and then “Choose PC font type”. The font will be outline-type. This font style is available only when being connected to a computer.</p>
	<p>More icon Mirror : Turn on to mark mirror characters. Pause : Turn on to pause the marking process at each text field. This will pause the process at the marking start position. Pressing the start/stop button will resume the marking process. Reverse : Turn on to mark in the reverse direction, which will shorten the required time. Calendar : Enter settings for date marking or shift marking tasks (see the relevant sections below). Serial : Enter settings to mark serial numbers (see the relevant section below). Logo : Allows to mark logos that have been created on the “Logo Editor” (see the relevant section below).</p>

6. Arc Marking

- 1) Click anywhere in the marking area or on the “A” icon on the left text bar and perform drawing (click and draw).

- 2) After the frame for a text field has been created, choose the "Arc" icon.
- 3) On the properties window, enter text using half-width alphanumeric characters. Press the "Done" button or the "Enter key" to confirm the entry. **If the color of the field turns red, it means that the entered text has gone outside the marking area.** Adjust the X and/or Y coordinate values or adjust the height or pitch of characters until it turns blue.
- 4) Move the three points (start point, middle point and end point) on the bottom line of the text field by clicking and drawing. Press the "Enter key" to confirm the entry.
- 5) Go to "Properties" → "Jogging (arc position settings)" for more detail setting options.




Tip: To adjust the radius and pitch, go to "Jogging (arc position settings)" → "Reference point".

Selecting a center point and reducing the angle to zero degrees will allow to adjust easier based on the center.

7. 2D Code Marking

- 1) Click anywhere in the marking area or on the "A" icon on the left text bar and perform drawing (click and draw).
- 2) After the frame for a text field has been created, select the "2D code" icon.
- 3) On the properties window, enter text using half-width alphanumeric characters. Press the "Done" button or the "Enter key" to confirm the entry.

Properties window (2D code)

 <p>Data Matrix</p>	<p>2D code type icon Switches between Data Matrix and QR code</p>
 <p>Link & Dimensions</p>	<p>Field link and dimensions icon Allows to create a link between the content of a text field and a 2D code. The user must first create a text field and then select it to set up a link. In addition, Data Matrix needs to choose a number of dimensions. Choose a number of dots depending on the size.</p>
 <p>One-way</p>	<p>Marking direction icon One-way : Choose this option to mark high-grade 2D codes. Two-way : Choose this option to perform marking in a shorter time.</p>

8. Shape Marking

- 1) Click anywhere in the marking area or on the "Shapes" icon on the left text bar and perform drawing (click and draw).
- 2) After the frame for a text field has been created, select the shapes.
- 3) On the properties window, the detailed settings are able to make.
- 4) After the detailed settings have been created, press the "Start" icon to start a marking process.

9. Bypass Setting (working around obstacles)

This function allows to program pin movement paths. It is effective for avoiding obstacles and marking a dot in exactly the desired locations.

- 1) Click anywhere in the marking area or on the "Bypass" icon on the left text bar and perform drawing (click and draw).
- 2) An 'X' mark will appear in the marking area. Proceed to create the detailed settings on the properties window.

Tip: If marking force is set to 0 then no marking will be performed. If the marking force is set to a certain value, a dot will be able to mark. It allows also to set a pause duration, which will pause the marking process for up to 15 seconds.

10. Serial Marking

- 1) Create a text field while being connected to the MB2S controller. Then go to "Properties" → "More" → "Serial."
- 2) Choose a format.
- 3) Enter a maximum value, minimum value, and current value for numeric or alphabetical characters.
- 4) Choose a reset method.
- 5) Choose a number of repetitions and also a number of skips.
- 6) Press the "Done" button to confirm the entry. After the entry has been confirmed, the serial numbers will be indicated in the text field in the marking area. The appeared symbol will be in the form of '@S[n-N]' (where n=the current value and N=the serial number that has been entered).

Tip: Only single serial setting can be created for each text field. To enter more than 1 in a file, separate text fields must be created. Furthermore, maximum 4 serial settings can be made per file.

Format	0001	Select this format to create a serial setting that includes a zero, e.g., 001, 002... 099... 999, etc.
	1...	Select this format to create a serial setting that will be aligned to the left without any zero, e.g., 1, 2... 99... 999, etc.
	...1	Select this format to create a serial setting that will be aligned to the right without any zero, e.g., 1, 2... 99... 999, etc.
	A,B,C...	Select this format to count up alphabetical characters, e.g., A, B... Z, etc.
Numeric character	Max. value	Enter any desired value up to 8 digits (maximum permitted value is 99999999).
	Min. value	Enter a minimum value to which the value will be reset after the maximum value has been reached.
	Present value	Indicates the current value. The serial marking process can also be started from any value that is entered here.
Alphabetic character	Max. value	Select a maximum alphabetical value between A – Z.
	Min. value	Select a minimum value between A – Z, to which the value will be reset after the maximum value has been reached.
	Present value	Indicates the current value. The count-up marking process can also be started from any value that is entered here.

Reset	MAX	The value will be reset when the maximum value is reached.
	YEAR	The value will be reset when the year changes (on January 1st).
	MONTH	The value will be reset when the month changes (on the first day of each month).
	DAY	The value will be reset when the date changes (at 24:00 each day).
	TIME	The value will be reset at a specified time.
	SHIFT	The value will be reset at a specified shift.
	STOP	The marking process will be stopped after the maximum value has been reached. When it is stopped, an alarm will be displayed.
Repetition		Set this value to make serial marking repetitively, e.g., 001, 001, 002, 002... The maximum number of repetitions that can be set is 10.
Skip number		Set this value to make serial marking with skips, e.g., 001, 003, 005... The maximum number of skips that can be set is 10.

11. Calendar Marking

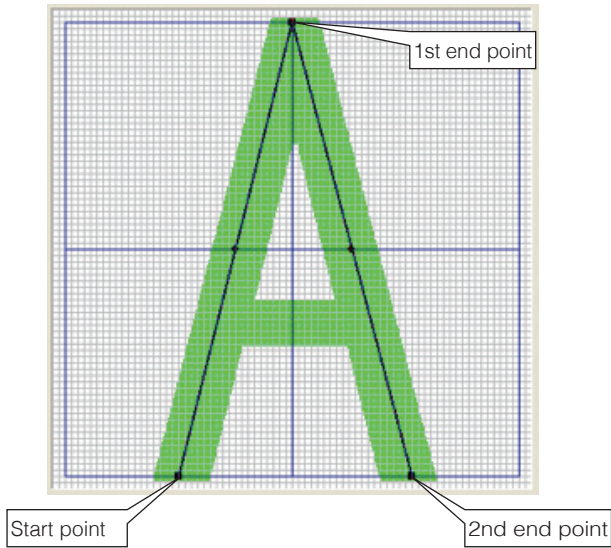
- 1) Go to "Preferences" → "Calendar" while being connected to the MB2S controller. Then enter a desired single-digit-indication character for DAY, MONTH, and YEAR, and press the "Done" button to confirm the entry.
- 2) Create a text field, and then go to "Properties" → "More" → "Calendar."
- 3) Click desired calendar buttons for marking.
- 4) Press the "Done" button to confirm the entry. After the entry has been confirmed, the calendar will be indicated in the text field in the marking area. The symbol will be displayed in the format @C[XX].

Year	YYYY	Select this option to indicate years in 4 digits, e.g., 2017, 2018.
	YY	Select this option to indicate years using their last 2 digits, e.g., 17, 18.
	Y	Select this option to indicate years using their last 1 digit, e.g., 7, 8, or by using another symbol. Be sure to go to "Preferences" → "Calendar," and press the "YEAR" button to enter settings properly beforehand.
Month	MM	Select this option to indicate months using 2 digits, e.g. 01, 02.
	M	Select this option to indicate months using 1 digit, e.g., 1, 2, or by using another symbol. Be sure to go to "Preferences" → "Calendar," and press the "MONTH" button to enter settings properly beforehand.
Date	DD	Select this option to indicate days using 2 digits, e.g. 01, 02.
	D	Select this option to indicate days using 1 digit, e.g., 1, 2, or by using another symbol. Be sure to go to "Preferences" → "Calendar," and press the "DAY" button to enter settings properly beforehand.
	JJJ	Select this option to indicate dates in the Julian date which will be displayed dates using the numbers 001 through 365.
Time	hh	Select this option to indicate hours using 2 digits, e.g. 01, 12.
	mm	Select this option to indicate minutes using 2 digits, e.g. 01, 30.
	ss	Select this option to indicate seconds using 2 digits, e.g. 01, 30.

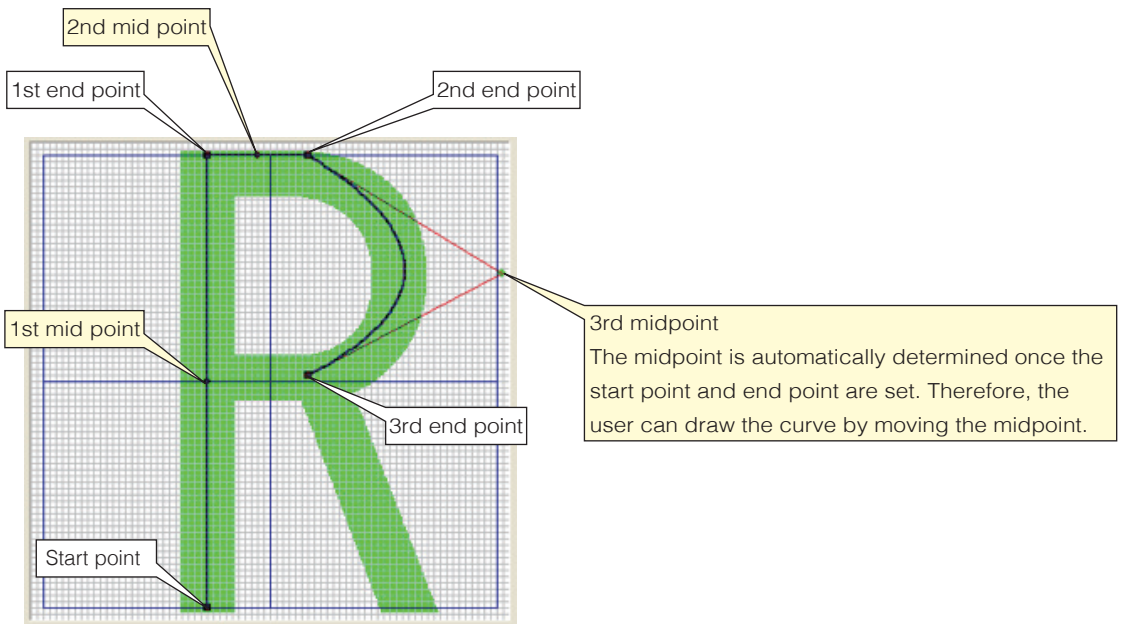
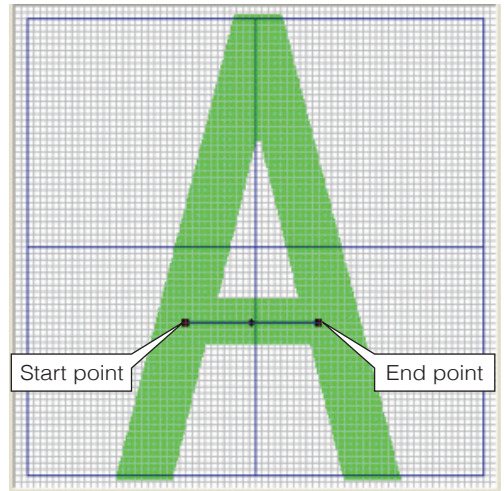
12. Font Editor and Logo Editor

This function allows the user to create various fonts and logos that can be registered into the MB2S controller. It displays the browsed BMP and JPEG images so that the user can trace over them. Each group will consist of lines that can be drawn in one stroke. For example, the following are the steps it takes to draw the letter 'A', which will consist of two groups.

Group No.1



Group No.2



How to create new font

- 1) Click the “Font Editor” on the menu bar.
- 2) Click the “Add” button and draw lines. Press the “Add” button to add more groups as needed. The user may register up to 31 points per group.
- 3) To make corrections, click on the group in the group list to be edited and edit the points using the mouse. The user may also directly enter coordinate values in the point list to make corrections.
- 4) To delete any group as a whole, click on the desired group in the group list and press the “Delete” button. The user may also delete the point by pressing the “Delete” button in the point list.
- 5) After the font has been created, click the “Save” button and specify where to save the file.
- 6) After pressing the “Done” button and confirming the entry, save the file to the MB2S controller.

How to edit previously saved fonts

- 1) Click the “Font Editor” on the menu bar.
- 2) Press the “Read” button. Enter the text to be edited in the “TEXT” section and press the “Done” button.
- 3) Click the “Browse” button to open the image and make any adjustments as needed by expanding, contracting, or moving the image.
- 4) Click on the groups to be edited from the group list and edit them by performing drawing actions on the applicable points, moving them to the desired positions. The user may also directly enter coordinate values in the point list.
- 5) After the editing is complete, click the “Save” button. To save as same name, click the “Yes” button. To save as a different name, click the “No” button and save as a new font in a specified location.
- 6) After pressing the “Done” button and confirming the entry, save the file to the MB2S controller.

How to create new logo

- 1) Click the “Logo Editor” on the menu bar.
- 2) Click the “Browse” button and open a browsed image (it must be a BMP or JPEG to browse a logo). After the file has been opened, make any adjustments as needed by expanding, contracting, or moving the image.
- 3) Click the “Add” button and draw lines by tracing over the image. Press the “Add” button to add more groups as needed. The user may register up to 31 points per group.
- 4) To make corrections, click on the group in the group list to be edited and edit the points using the mouse. The user may also directly enter coordinate values in the point list.
- 5) To delete any group as a whole, click on the desired group in the group list and press the “Delete” button. The user may also delete the point by pressing the “Delete” button in the point list.
- 6) After the logo has been created, click the “Save” button and choose logo No. where to save the file.
- 7) After pressing the “Done” button and confirming the entry, save the file to the MB2S controller.

How to edit previously saved logos

- 1) Press the “Read” button. Select the logo No. to be edited in the “LOGO” section and press the “Done” button.
- 2) The logo will be displayed on the preview. Click on the groups to be edited from the group list and edit them by performing drawing actions on the applicable points, moving them to the desired

positions. The user may also directly enter coordinate values in the point list.

- 3) After the editing is complete, click the "Save" button. To save as same name, click the "Yes" button. To save as a different name, click the "No" button and save as a new logo in a specified location.
- 4) After pressing the "Done" button and confirming the entry, save the file to the MB2S controller.

How to delete fonts and logos

- 1) Click the "Read" button. Enter or select the text or logo to be deleted in the "TEXT" or "LOGO" section and press the "Done" button.
- 2) The text or logo will be displayed on the preview. Click the "Delete" button to delete it.

Tip: The font being selected will only become effective as the marking font if it is sent to the controller. Therefore, be sure to send the font file to the controller before start the marking process.

13. Logo Marking

*Please refer to the relevant section for instructions on how to create logos.


- 1) Click anywhere in the marking area or on the "A" icon on the left text bar and perform drawing (click and draw).
- 2) After the frame for a text field has been created, select the "Logo" icon ("M" symbol).
- 3) On the logo entry screen, select and capture a logo that has been created beforehand. The symbol that will be in the format @L[nn] (where nn=the logo number).
- 4) The selected logo will appear in the marking area. Detailed settings are able to make on the properties window. After the detailed settings have been created, press the start icon to start the marking process.






14. Shift Marking

- 1) Go to "Preferences" → "Calendar" → "SHIFT" while being connected to the MB2S controller. Then enter a desired symbol, shift start time, and shift end time, and then press the "Done" button to confirm the entry.
- 2) Create a text field, and then go to "Properties" → "More" → "Calendar."
- 3) Click the Shift "S" button.
- 4) Press the "Done" button to confirm the entry. After the entry has been confirmed, the shift symbol will be indicated in the text field in the marking area. The symbol will appear in the format of @C[S].

15. File Marking

Go to "File Marking" on the menu bar while being connected to the MB2S controller. Up to 255 files can be stored in the MB2S controller.

	<p>Send a file icon</p> <p>Send a file to the MB2S controller. A maximum of 8 half-width characters can be added to the file name.</p>
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 <p>Read File</p>	<p>Retrieve a file icon Retrieve a file from the MB2S controller.</p>
 <p>Delete File</p>	<p>Delete a file icon Delete a file in the MB2S controller.</p>
 <p>Send All Files</p>	<p>Send multiple files icon Send multiple selected files to the MB2S controller. The file that can be sent are as below. 1. File that have been read into the computer once clicking by the "Read All Files" icon. 2. File with character "F001_" added to the data name (eg, F001_test. The numbers can be added from F001 to F255.).</p> <p>Note : All files saved in the controller will be replaced by this function.</p>
 <p>Read All Files</p>	<p>Retrieve all files icon Retrieve all files being stored in the MB2S controller.</p>
 <p>Delete All Files</p>	<p>Delete all files icon Deletes all files being stored in the MB2S controller.</p>

16. Barcode Scan Marking

This function allows to transfer data that has been read from the barcode reader and perform marking.

- 1) Connect the barcode reader to a computer with sketchbook2 installed.
- 2) Create a text field so that data read from the barcode reader can be transferred to it.
- 3) Go to "Barcode Scan Marking" on the menu bar.
- 4) In "Linked Field," select a text field number that has been created beforehand.
- 5) In "Scan Digits," choose the correct number of digits included in each barcode that will be scanned, in order to perform marking accurately. If there is no need to specify the number of digits, select "None."
- 6) While making sure that the cursor is placed within the text field, start the scanning process using the barcode reader.
- 7) The characters to be marked will be automatically transferred to the text field and start the marking process.

17. CSV Marking

This function allows to transfer any Excel file being used as a database as a CSV file and perform marking.

- 1) Save Excel data as a CSV file (where values are separated by commas). Set up the data so that the

columns (A, B, C...) contain Field No. 1, Field No. 2, Field No. 3..., while the rows (1,2,3...) contain the data sets in the order in which they should be marked.

- 2) Create a text field.
- 3) Go to "CSV Marking" on the menu bar.
- 4) Browse the CSV data that has been created beforehand.
- 5) After browsing the data, press the start button. The characters to be marked will be automatically transferred to the text field.

	A	B	C
1	LA, USA	Nov.2016	0001
2	LA, USA	Nov.2017	0002
3	LA, USA	Nov.2018	0003
4	LA, USA	Nov.2019	0004
5	LA, USA	Nov.2020	0005
6	LA, USA	Nov.2021	0006
7	LA, USA	Nov.2022	0007
8	LA, USA	Nov.2023	0008

18. DXF Converter

This function allows to convert DXF data into the MarkinBOX file format (*.fdx) and then perform marking.

- 1) Go to "DXF Converter" on the menu bar.
- 2) Select the DXF data to mark and then capture the data. After the data has been captured, it will be displayed in the marking area. Make any adjustments to the data as needed by expanding or contracting the image etc.
- 3) Press the "Convert" button to convert the data into the *.fdx format and then save the file.
- 4) Click anywhere in the marking area or on the "DXF" icon on the left text bar and perform drawing (click and draw).
- 5) Select the saved *.fdx data and then capture it.
- 6) The selected DXF data will appear in the marking area. Detailed settings are able to make on the properties window.
- 7) After the detailed settings have been created, press the start icon to start the marking process.
 - *The types of compatible DXF data include straight lines, circles, ovals, and polygons. Data containing splines and letters are not support.
 - *Only single FDX data can be captured each file. Multiple FDX data cannot be captured into one file.
 - *Marking tasks can be performed during being connected to a computer.
 - *File marking cannot be performed.

19. BMP Converter

This function allows to convert bitmap (BMP) data into the MarkinBOX file format (*.mbp) and then perform marking.

- 1) Go to "BMP Converter" on the menu bar.
- 2) Select the BMP data to mark and then capture the data. After the data has been captured, it will be displayed in the preview section on the right. Perform drag actions to select objects and trim them. Make any adjustments to the data as needed by expanding, contracting, and moving the image.
- 3) After the image has been set, press the "Next" button to proceed to the next screen.
- 4) Use the "Density" and "Contrast" buttons and the arrow keys to adjust the density and contrast of the dots as needed.
- 5) Choose either "Fill" or "Outline."
- 6) After the settings are complete, press the "Convert" button to convert the data into the *.mbp format

and then save the file.

- 7) Click anywhere in the marking area or on the “BMP” icon on the left text bar and perform drawing (click and draw).
- 8) Select the saved *.mbp data and then capture it.
- 9) The selected BMP data will appear in the marking area. Detailed settings are able to make on the properties window.
- 10) After the detailed settings have been created, press the start button to start the marking process.
 - *Only single MBP data can be captured each file. Multiple MBP data cannot be captured into one file.
 - *Marking tasks can be performed during being connected to a computer.
 - *File marking cannot be performed.

20. Rotary Device

MB S-Rotary

S-Rotary device is necessary (option).

- 1) Go to “Preferences” → “Cylinder” and choose “S-Rotary” icon.
- 2) Click the “Digits” and choose digits which you like to mark continuously (Max 5 digits).
- 3) Click the “Interval” and choose seconds which you like pause after marking (Max 5 sec.).
- 4) Press the “Done” button to confirm the entry.
- 5) Create a text field and start the marking process.

MB Chuck Rotary

Chuck Rotary device is necessary (option).

- 1) Go to “Preferences” → “Cylinder” and choose “Chuck Rotary” icon.
- 2) Choose the use in the “Rotary device”.
- 3) Choose rotary direction.
- 4) Choose chuck size.
- 5) Enter a workpiece diameter in mm.
- 6) Move the pin to the start position by using X and Y axis arrow icons. Allows to set value by direct input also.
- 7) Press the “Done” button to confirm the entry and the pin back to home.
- 8) Create a text field (use angle function depend on the rotary position) and start the marking process.

21. D.I/O Monitor

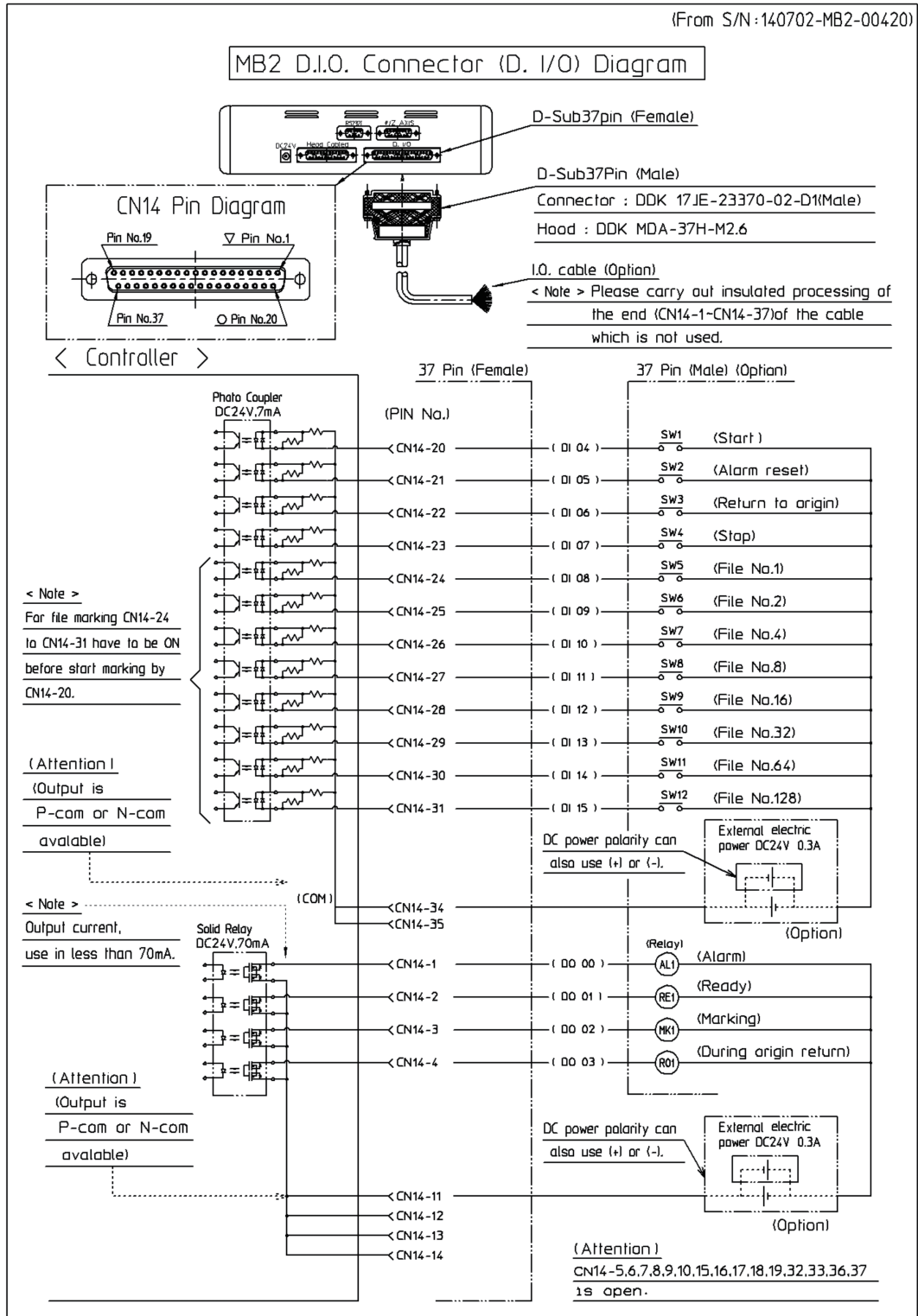
This function allows to simulate the operation of the MB2S controller when use a connectivity with an external device such as a PLC through a D-Sub37-pin connector. Go to “D.I/O Monitor” on the menu bar and then select the “Simulation Mode” at the top of the screen by checking the box. This will activate the button, which the user can press to check the D.I/O operation of the MB2S controller. For more details on wiring information, refer to the “D.I/O diagram of the MB2S Controller for External Connections” in Appendix.

22. Maintenance Settings

This function allows to count the number of times the pin vibrates so that they can be reminded to perform maintenance on the pin, pin holder, etc. with predefined frequency. Go to "Preferences" → "Maintenance."

- 1) Enter the number of vibrations that will determine the frequency with which to perform maintenance of the pin, pin holder, etc.
- 2) Select "Yes" to show a reminder at the time the predefined number of vibrations has been reached by checking the box.
- 3) Select the output method and then press the "Done" button.
- 4) When the predefined number of vibrations has been reached while performing marking tasks, press the "Reset" button to set the value back to zero.

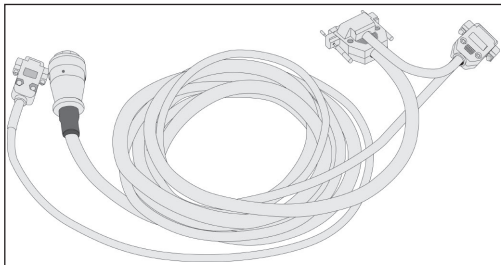
Appendix 1 D.I/O Diagram of the MB2S Controller for External Connections



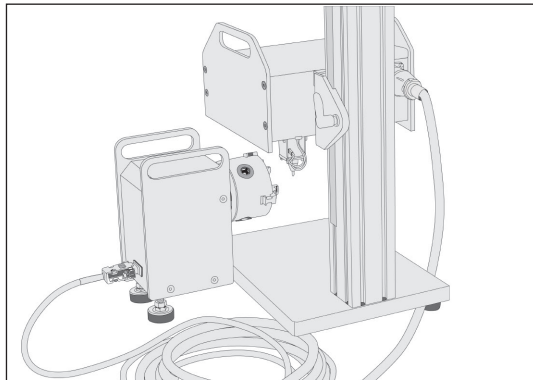
Appendix 2 Connection images for Chuck Rotary

The below image is available for all models. Please set up all connection being off power.

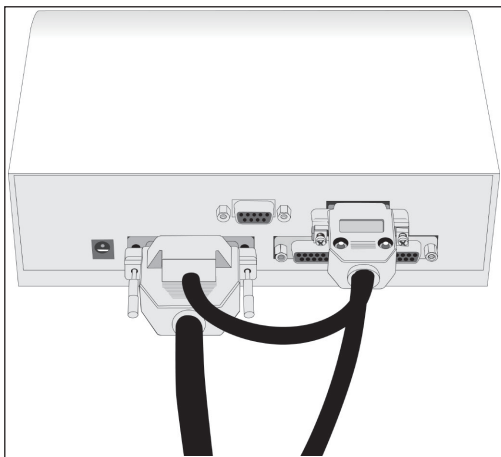
Head cable image



Connection image for the marking head



Connection image for the controller



Contact for Inquiries

Please contact our distributor if you have inquiry for operation and malfunction.

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