

For CG-AR series users

Support document of cutting with register marks (ERROR C36 MARK DETECT)

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Mimaki Engineering Co., Ltd.

Ver:1.00

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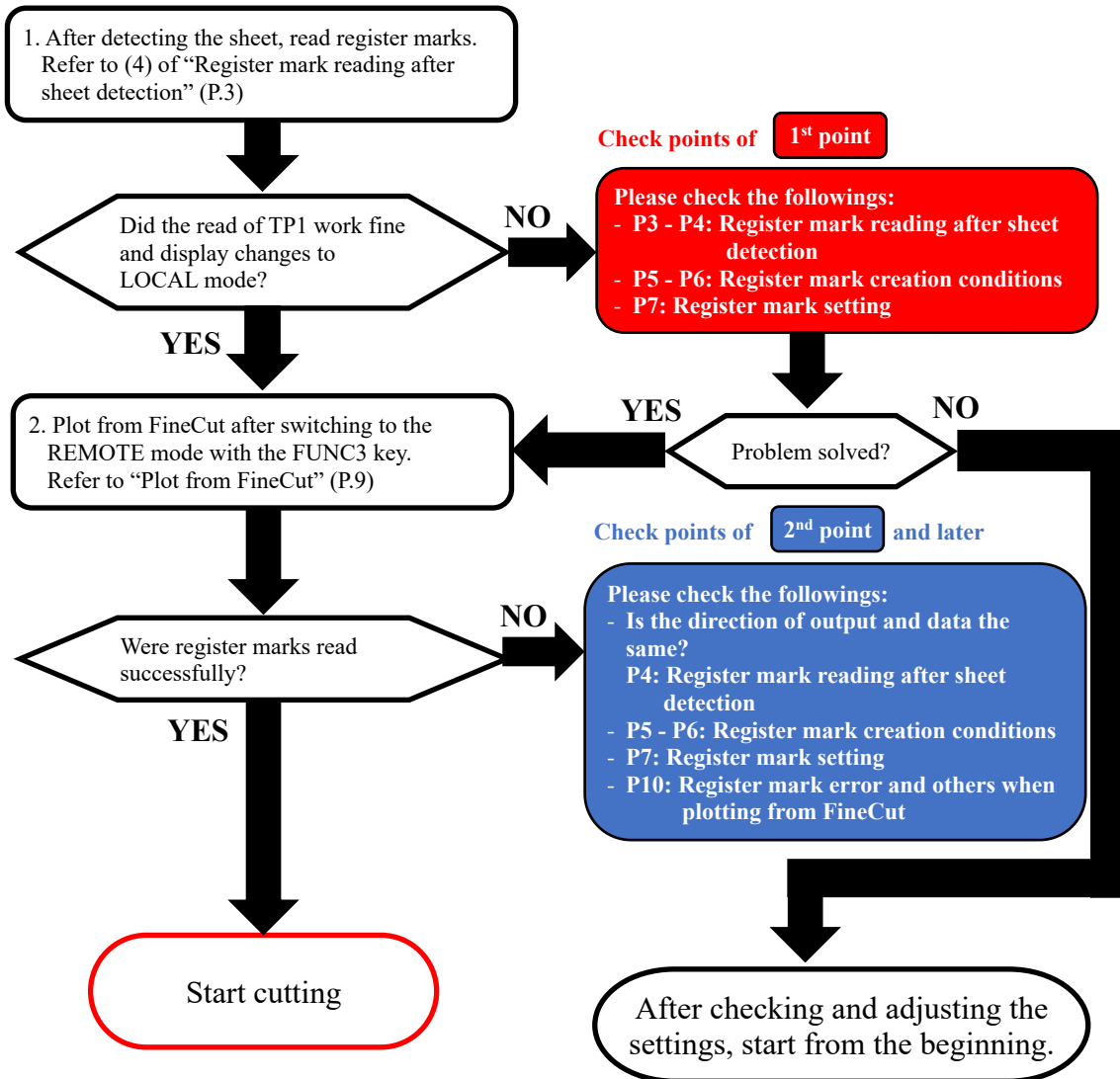
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When did “ERROR C36 MARK DETECT” occur?

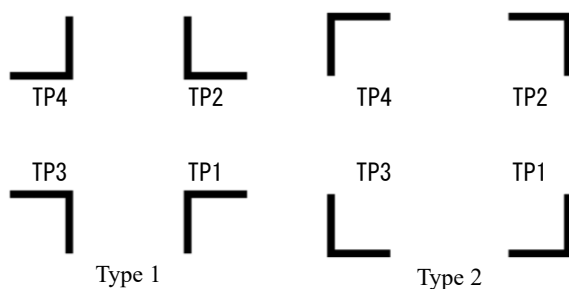
* In this document, the sheet is set in rear side, and the register mark detection setting is set to 1 point (recommended setting).

* Hereafter, “FineCut/Coat9” is referred to as “FineCut” in this document.

Please check the flow chart below and check and deal with the corresponding parts.



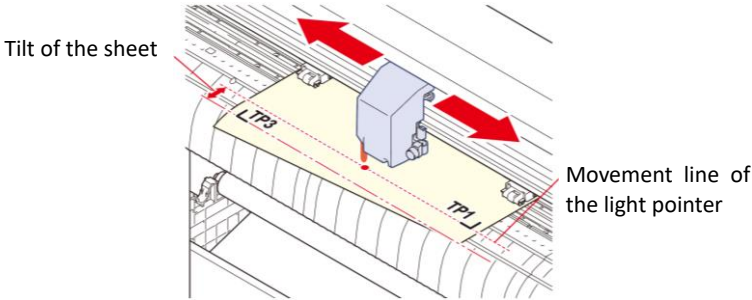
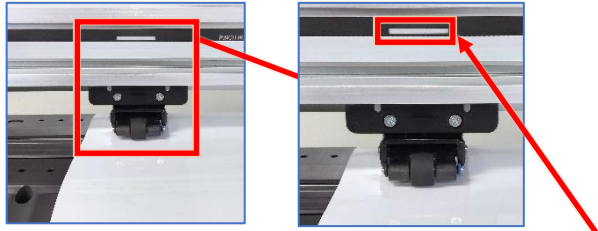
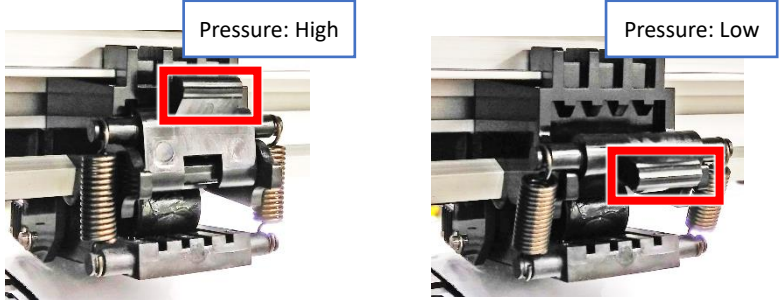
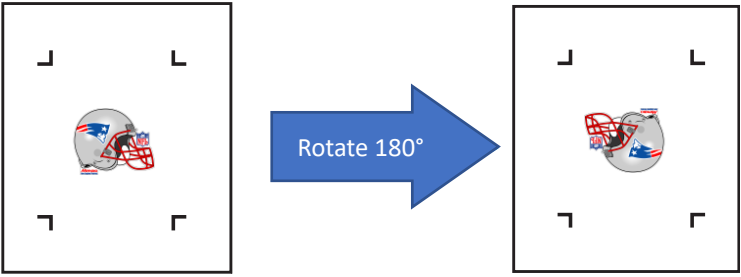
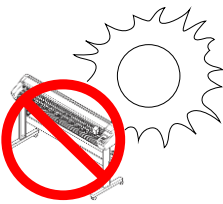
Refer to the figure below for the positional relationship of the register marks.



* “ERROR C37 MARK ORG” and “ERROR C38 MARK SCALE” can also be dealt with by checking the items described in this document.

1. Register mark detection after sheet detection

<p>1st point</p> <p>(1) Are the register marks created with FineCut?</p> <p>Register marks created with Illustrator cannot be read. Only register marks created with FineCut can be detected.</p>		<p>OK Created with FineCut</p> <p>NG Created with Illustrator</p>
<p>1st point</p> <p>(2) Is the sheet white and the black register marks?</p> <p>Colored sheets and colored register marks cannot be detected. In that case, try with a register mark that fills in the area around the register mark.</p>		
<p>1st point</p> <p>(3) Is there any bleeding on the register marks? Are you enlarging the image when printing?</p> <p>When printing the image, do not enlarge or reduce it.</p>		<p>Set the line width of the register marks to between 0.5mm and 1.0mm.</p>
<p>1st point</p> <p>(4) Is the register mark detection start position correct when detecting the register marks on the plotter?</p>	<p>Specify the position using the bottom-right register mark (TP1).</p>	

<p>2nd point</p> <p>(5) Is the sheet tilted?</p>	<p>When the clamp lever is raised, the light pointer will illuminate.</p> <p>You can manually move the carriage left and right. Move the carriage between TP1 and TP2 and observe the movement line of the light pointer to confirm the tilt of the sheet.</p> 
<p>1st point 2nd point</p> <p>(6) Is the pinch roller property positioned?</p> <p>Go around the back of the main unit and check the clamp lever pressure. If the positioning of the pinch roller is incorrect or if there is a difference in clamp lever pressure at both ends, it may cause misalignment during transport.</p>	<p>Set the pinch roller under the “PINCH ROLLER SETTINGS” mark.</p>  <p>“PINCH ROLLER SETTINGS” mark</p> <p>Are there any differences in pressure at both ends?</p> 
<p>1st point</p> <p>(7) Rotate the sheet 180 degrees and try detecting the register marks.</p> <p>If there is any debris or dirt in a specific area, it may cause errors during register mark detection at the same position.</p>	
<p>1st point</p> <p>(8) Are you working in direct sunlight or directly under fluorescent lights?</p>	<p>There is possibility that the register mark sensor is being triggered by the reflection of fluorescent light on the sheet.</p> 

2. Register marks creating condition

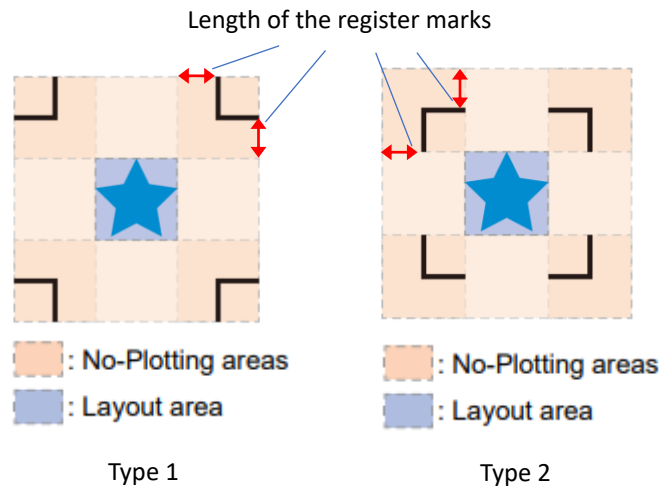
<p>2nd point</p> <p>(1) Is there any object obstructing the area around the register marks? If there are objects in unprintable area, errors may occur in case of sheet misalignment or other issues.</p> <p>(2) Is there a distance of 20mm or more from register mark TP1 to the front edge of the sheet? (For Type 2, it should be 20mm or more + half the length of one side of the register mark.)</p>	<p>When the register mark is Type 1 (outward-facing register mark)</p> <p>When [EXPANDS] is "OFF"</p> <p>5 mm or more</p> <p>Pinch roller</p>
<p>2nd point</p> <p>(3) Is there a space of 45 mm or more from the TP2 register mark to the rear edge of the sheet (for Type 2, 45 mm or more + half the length of one side of the register mark)?</p>	<p>When the register mark is Type 2 (inward register mark)</p> <p>When [EXPANDS] is "OFF"</p> <p>Longer than the register mark's length</p> <p>Pinch roller</p>
<p>1st point 2nd point</p> <p>(4) Are the pinch rollers touching the register marks?</p>	<p>When [EXPANDS] is "OFF"</p> <p>Longer than the register mark's length</p> <p>Pinch roller</p>
<p>2nd point</p> <p>(5) Is there a distance between register marks TP1 and TP2 within the range of 50mm or more and 3000mm or less?</p>	<p>2nd point</p> <p>(6) Is the distance between TP1 and TP2 register marks within the range of 50mm or more and 3000mm or less?</p>

* When the [EXPANDS] option is turned on, the cutting range expands beyond the outer edge or the pinch roller.

1st point

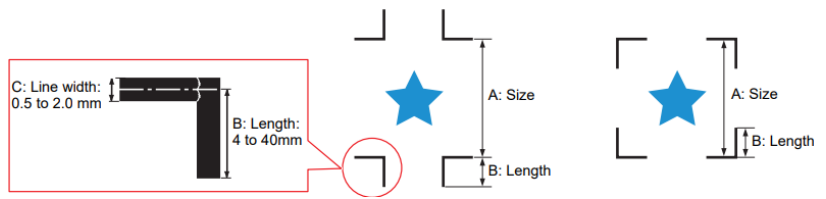
(7) Is there any data or dirt in the unprintable area?

The area around the register marks (from the corners of the register marks to an area equal to the length of the register marks) is an unprintable area. Ensure that no data is printed in this area and it remains free from dirt. Incorrect register mark detection or register mark reading error could occur.



2nd point

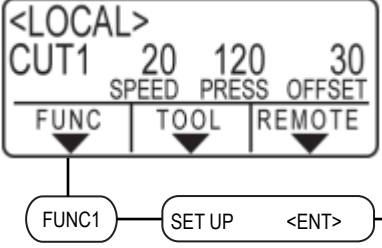
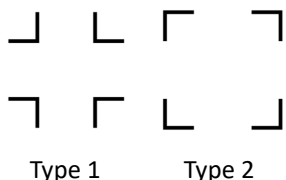
(8) Is the length of one side of the register marks appropriate in relation to the distance between the register marks?



Register mark size (A)	Register mark length (B)	Register mark line width (C)
200 mm or less	4 mm or more	0.5 mm
201 to 500 mm	8 mm or more	
501 to 1000 mm	15 mm or more	1.0 mm
1,001 to 2000 mm	25 mm or more	
2,001 mm or more	35 to 40 mm	

* The recommended size for the register marks will be displayed when creating them in FineCut.

3. Register mark setting

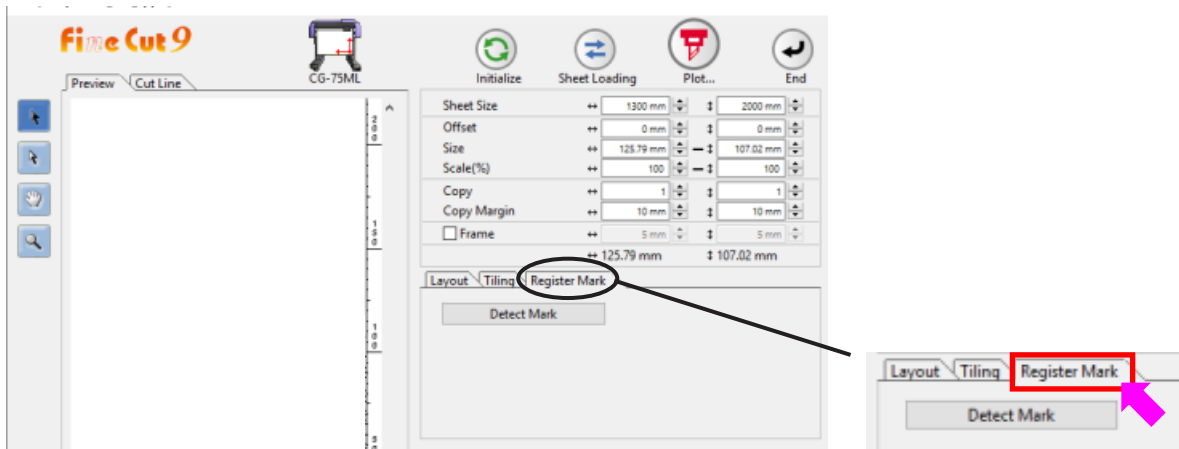
<p>Execute the menu. [MARK DETECT]</p>	 <p>* Press the up/down key to change the setting, press the [ENTER] key to confirm the settings or proceed to the next menu.</p>
<p>1st point</p> <p>(1) How many register marks are being used for REGISTER MARK DETECT?</p> <p>MARK DETECT: 1pt</p>	<p>Default setting is “OFF”.</p> <p>When using FineCut, set the plotter to 1-point detection, and in FineCut, set it to 4-point detection.</p>
<p>2nd point</p> <p>(2) Do you set scale compensation?</p> <p>DIST.REVI: OFF</p>	<p>Default setting is “OFF”.</p> <p>When using FineCut, set [DIST.REVI.] to OFF.</p>
<p>1st point 2nd point</p> <p>(3) What is the length of one side of the register mark?</p> <p>SIZE: 10mm</p>	<p>Default setting is “10 mm”.</p> <p>Setting range: 4 mm to 40 mm</p> <p>Input a value that matches the size of one side of the register mark created in FineCut.</p>
<p>1st point</p> <p>(4) What is the length of the offset values?</p> <p>OffsetA: 0.00mm</p> <p>OffsetB: 0.00mm</p>	<p>Default setting is “0 mm” for both [OffsetA] and [OffsetB].</p> <p>[Offset A] is used for adjusting the feed direction, and [Offset B] is used for adjusting horizontal direction. The offset represents the distance of movement from the origin of the register mark, so it is typically set to 0.00mm. (If there are values already entered, simply press the ENTER key.)</p>
<p>1st point</p> <p>(5) Which shape are you using for register marks?</p> <p>FORM: Type 1</p>	<p>Default setting is “Type 1”.</p> <p>Ensure that the register mark shape set on the plotter matches the register mark shape created in FineCut.</p> <p>Outward = Type 1, Inward = Type 2</p> 
<p>(6) How many copies do you set?</p> <p>COPIES A (↑): 1</p> <p>COPIES B (-): 1</p>	<p>Default values for both [COPIES A] and [COPIES B] are “1”.</p> <p>[COPIES A] is used for specifying the feed direction, and [COPIES B] is used for specifying the lateral direction.</p> <p>Please avoid making any changes to these values when using FineCut.</p>

<p>2nd point</p> <p>(7) What are you setting the high-speed limit to?</p> <p>SPD LIMIT: 15cm/s</p>	<p>Default setting is “0”.</p> <p>It is recommended to set the speed to 15cm/s to 20cm/s when the sheet is sliding and the register marks cannot be read properly.</p>
<p>(8) Do you set [SKEW CHECK] off?</p> <p>SKEW CHECK: OFF</p>	<p>Default setting is “OFF”.</p> <p>Sets the allowable sheet shift amount for continuous copying. Normally, it should be left as “OFF”.</p>
<p>1st point 2nd point</p> <p>(9) What are you setting as [DETECT MODE]?</p> <p>DETECT MODE: FAST</p>	<p>Default setting is “FAST”. (High speed)</p> <p>If the register mark detection is not functioning properly, set it to “PREC” (precision) mode.</p>
<p>1st point 2nd point</p> <p>(10) What are you setting as [SENSOR LEVEL]?</p> <p>SENSOR LEVEL: 4</p>	<p>Default setting is “4”.</p> <p>If the register marks are falsely detected, lower the value. If they are not detected, increase the value.</p>
<p>1st point 2nd point</p> <p>(11) What are you setting as [MARK FILL UP]?</p> <p>MARK FILL UP: OFF</p>	<p>Default setting is “OFF”.</p> <p>If you filled in the register marks using FineCut, set it to “ON”.</p>
<p>(12) What are you setting as [DATA ID CODE]?</p> <p>DATA ID CODE: OFF</p>	<p>Default setting is “OFF”.</p> <p>Set it to “ON” when using the ID cut function.</p>

4. Plotting from FineCut

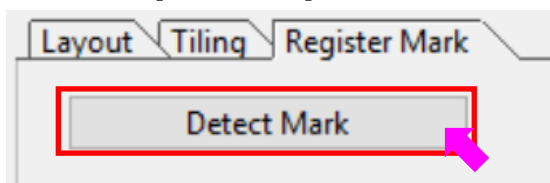
Please follow the operation instructions.

1. Launch FineCut and click on the [Register Mark] tab in the plot screen.

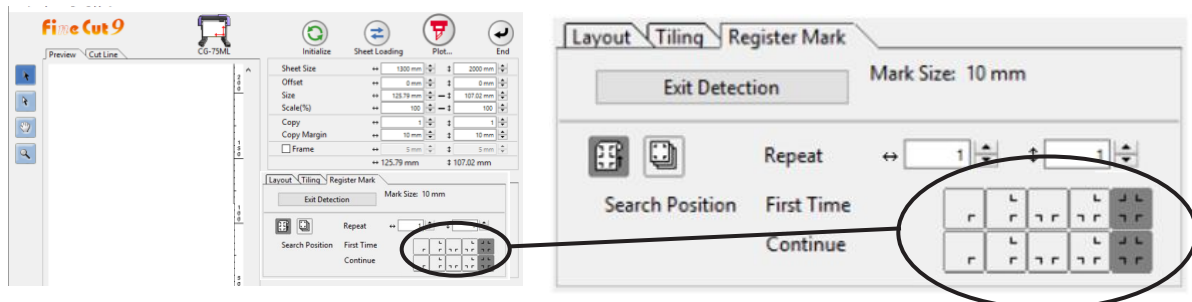


* Rotate the sheet beforehand to ensure it is in the same orientation, and then click on the [Register Mark] tab.

2. Click on the [Detect Mark] button.



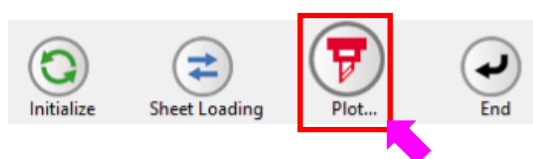
3. The screen will switch after recognizing the dimensions within the registration marks area.



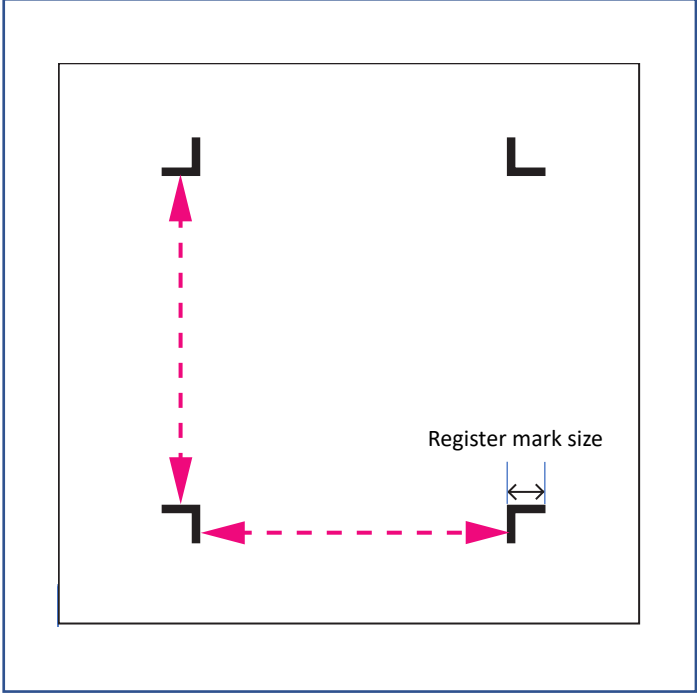
Set the registration mark detection to “4 points detection” for the “First Time”.

Subsequent (continue) detection will also have higher accuracy when using 4-point detection.

4. Click on the [Plot] button.



5. Register mark error when plotting via FineCut and the other errors

<p>2nd point</p> <p>(1) In case of an error during registration mark detection from the second mark onwards:</p>	<p>Measure the distance between the registration marks on the printed material and compare it with the specified registration mark distance in your data. If the measured distance between the registration marks deviates by more than twice the registration mark size, it may result in a registration mark error.</p> <p>(Example: If the register mark size is 10 mm, an error occurs if the measured distance between the registration marks deviates by 20mm or more.)</p> 
<p>(2) Other errors</p>	<p>For other registration mark errors, the troubleshooting method is the same as Error C36 MARK DETECT.</p> <p>- ERROR C37 MARK ORIGIN</p> <p>This error occurs during continuous registration mark copying when the origin position, detected based on the registration marks, falls outside the cutting area due to media skew or other factors</p> <p>- ERROR C38 MARK SCALE</p> <p>This error occurs during continuous register mark copying when a registration mark is skipped, and the subsequent registration mark is detected, resulting in significant scale correction beyond $\pm 30\%$.</p>

6. Troubleshooting

Q. Register mark detection pointer is not turned on.

A. Is the register mark detection setting turned off? Set it to “1pt”.

[SETUP] -> [MARK DETECT] -> [MARK DETECT]

Q. The register mark detection is not capturing the registration marks on the backside.

A1. Is there a margin of 45 mm or more from the back end of the register marks? Check (3) in “2. Register marks creating condition”. If the margin is insufficient, try extending the sheet by adding an additional piece.

A2. Is the sheet not properly aligned and set? Please Try resetting the sheet so that the register marks are straight.

Q. When cutting large-sized (exceeding 1m) data with register marks, there may be occurrences of cutting misalignment.

A. Try reducing the cutting speed to a slower setting (around 5 cm/s) and set the sheet setting (SHEET TYPE) to “HEAVY” to prevent misalignment.

[SETUP] -> [SHEET TYPE]

Q. When issuing a cut command using FineCut, the registration mark detection completes successfully, but the cutting process does not start.

A. Is there any cutting data? Check in Illustrator by going to “View” -> “Outline” to see if there is any data other than the registration marks.

Q. When giving the command for register mark cutting from FineCut, the cutting starts without detecting the register marks.

A. Have you forgotten to press the “Detect Mark” (register mark recognition) button in FineCut?
Refer to “4. Plotting from FineCut” and check if the area inside the register marks is displayed as the cutting area when you press the “Detect Mark” button on the FineCut plot screen.

Q. The cuts are misaligned overall.

A. Try adjusting “Offset A” and “Offset B” settings in the register mark detection settings.

[SETUP] -> [MARK DETECT] -> [OffsetA]

If the cut is shifted downwards, increase the value.

If the cut is shifted upwards, decrease the value.

[SETUP] -> [MARK DETECT] -> [OffsetA]

If the cut is shifted to the left, decrease the value.

If the cut is shifted to the right, increase value.

Q. The cut is shifted to the left or right.

A. Is the pinch roller pressure set symmetrically from left to right?

Set both ends to the “high (strong)” position to ensure symmetrical pressure.

Q. The length of the cut is shrinking

A. Try setting the high speed limit [SPD LIMIT] in the register mark detection menu to 20 cm/s or lower.

GO to [SETUP] -> [MARK DETECT] -> [SPD LIMIT] to adjust the value.

This document was created based on calls received from users.

If you cannot solve the problem even after checking the contents of the document, or if you have any questions, please contact your local dealer for assistance.

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