



**Craft ROBO**

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**CC100-20**

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MANUAL NO. CC100-UM-251

**SERVICE MANUAL**

**GRAPHTEC**



# HISTORY OF REVISIONS

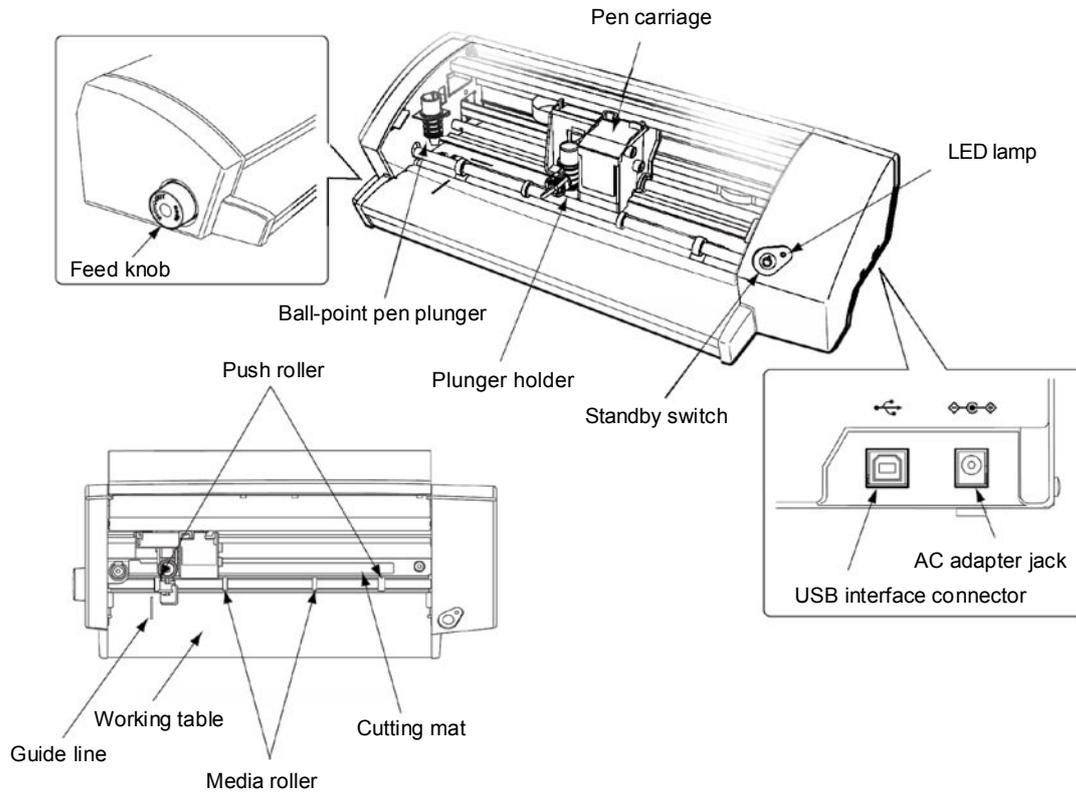
No.	Date issued	Description of revision	Page	Edition
1	04.08.11	First printing	All	01
2	04.11.25	CC100-20-ALR (Wishblade) parts added.	2-1,6-1,6-4	02

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# 1 PARTS NAMES and FUNCTIONS



- Pen carriage ..... Drives the cutter pen to the left or right
- Ball-point pen plunger ..... Used to plot using a ball-point pen
- Plunger holder ..... Holds the cutter pen and drives it in the vertical direction
- Standby switch ..... Used to set media in place, and to start or stop the main unit
- Feed knob ..... Drives media back and forth
- USB interface connector ..... Used to connect the USB cable
- AC adapter jack ..... Used to connect the cable for the AC adapter
- Cutting mat ..... Cutting or plotting work is performed on it
- Push roller ..... Pushes down on the media to hold it in place
- Media roller ..... Carries media
- Working table..... Work is performed on it
- Guide line ..... Used as a guide when media is set in place
- LED lamp..... Lights up when the unit is ready to operate and flashes when data is received

## 2 RECOMMENDED PARTS LIST

No.	Part No.	Description	QTY	Remarks
1	796212000	Main Board Assembly	1	
2	796212001	Pen Carriage Assembly	1	
3	796212002	Pinch Roller Assembly	1	
	796212006	Pinch Roller Assembly, Letter	1	For USA model.
4	796212003	Carriage Board Assembly	1	
5	796212004	Auto Registration Mark Sensor Assembly	1	
6	682124050	Standby Switch	1	PR304505
7	621240200	Motor Gear Assembly	2	Common part for X and Y
8	692124120	Flexible Cable for Auto Registration Mark Sensor	1	FPC304502
9	692124112	Y Flexible Cable	1	FPC304501B
10	796212005	Y Home Sensor Assembly	1	D3C-2220
11	621242001	Feed Roller Shaft	1	
	621240410	Feed Roller Shaft, Letter	1	For USA model.
12	621242030	X Feed Gear	1	
13	621243051	Y Belt	1	460TN15-7.0W
14	621243200	Y Drive Gear Pulley	1	
15	621243221	Y Idler Pulley	1	
16	500052392	AC adapter YC-1048GRC1208P	1	UL, 117V
	500052390	AC adapter YC-1048GRC1175P	1	CE, 220V
	500052407	AC adapter YC-1048GRC1210P	1	CCC, 240V
	500052418	AC adapter YC-1048GRC1247P	1	BS, 240V
	500051951	AC adapter SA45-3129	1	Japanese, 100V

### 3 LIST OF TOOLS

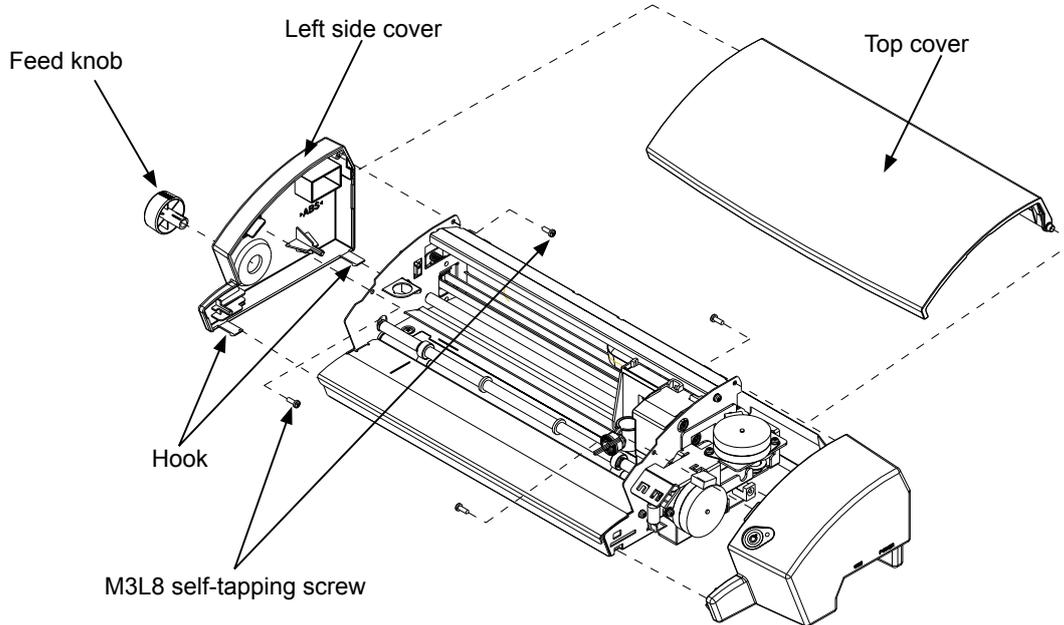
No.	Adjustment Item	Jig	Tool
1	Firmware update	Verup.exe (Firmware update program file)	PC, USB I/F cable
2	Pen force adjustment	Blade and blade holder, optionset.exe (Electrical adjustment program)	Colex gauge (150 g, 300 g), PC, USB I/F cable
3	Distance adjustment	Blade and blade holder, optionset.exe (Electrical adjustment program)	Glass scale 300 mm, PC, USB I/F cable
4	Auto Registration adjustment	Blade and blade holder, optionset.exe (Electrical adjustment program)	PC, USB I/F cable

## 4 DISASSEMBLY AND REASSEMBLY

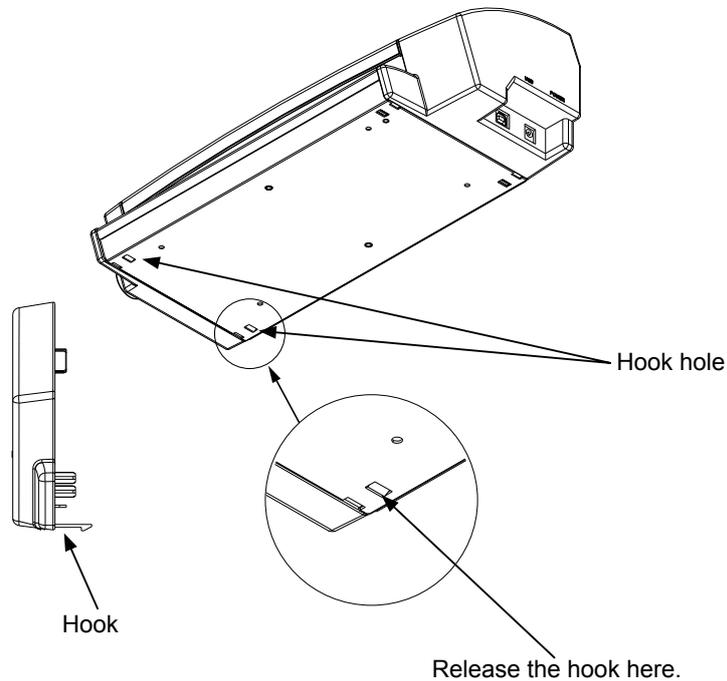
### 4.1 How to Replace the Left Side Cover

#### Disassembly

- (1) Pull the feed knob from the left side of the unit, and then detach the feed knob.



- (2) Remove the two M3L8 self-tapping screws holding the left side cover.  
 (3) Release the bottom two hooks of the left side cover, and then detach the left side cover.



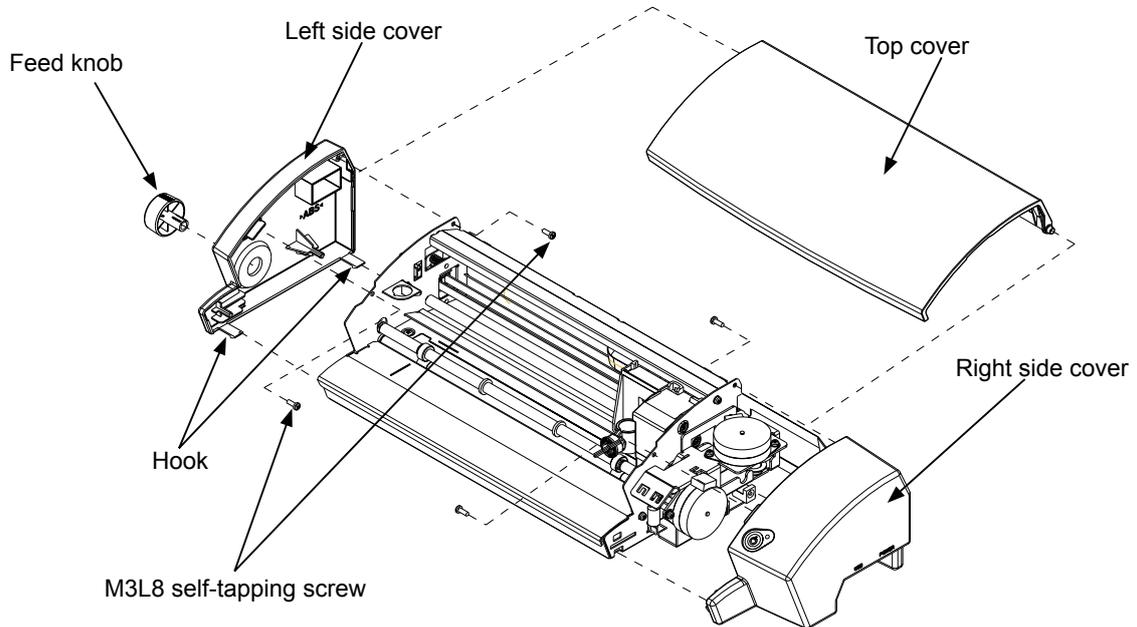
#### Reassembly

- (1) To attach the left side cover, perform the above "Disassembly" procedure in reverse.

## 4.2 How to Replace the Top Cover

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Pull out the top cover from the right side cover to detach the top cover.



### Reassembly

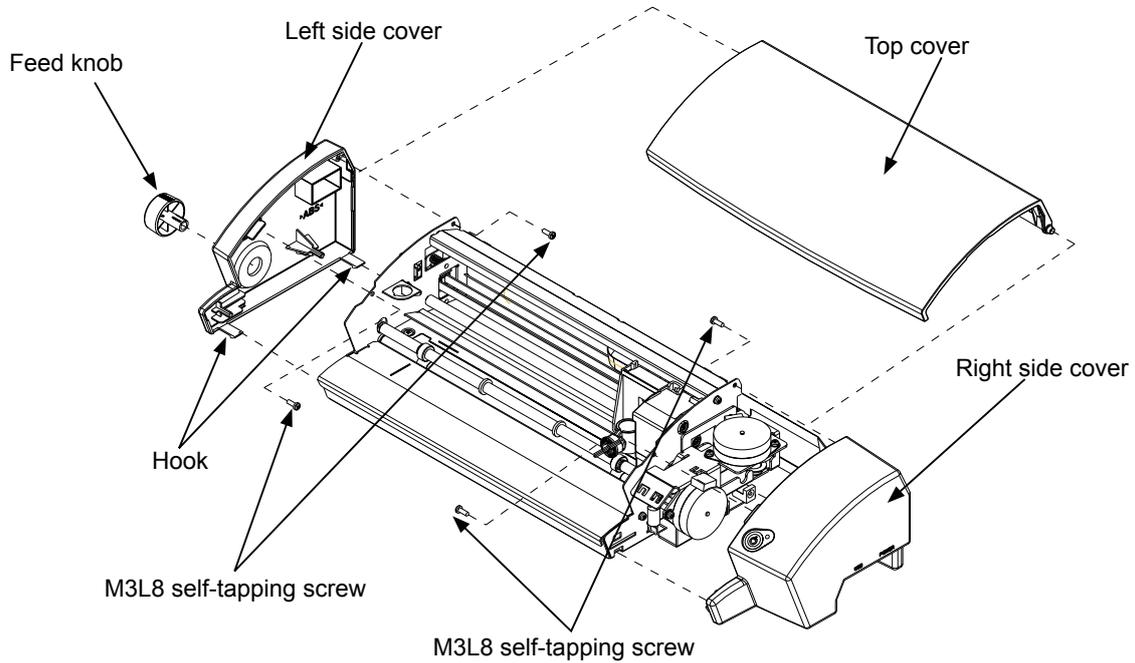
- (1) To attach the top cover, perform the above "Disassembly" procedure in reverse.

## 4.3 How to Replace the Right Side Cover

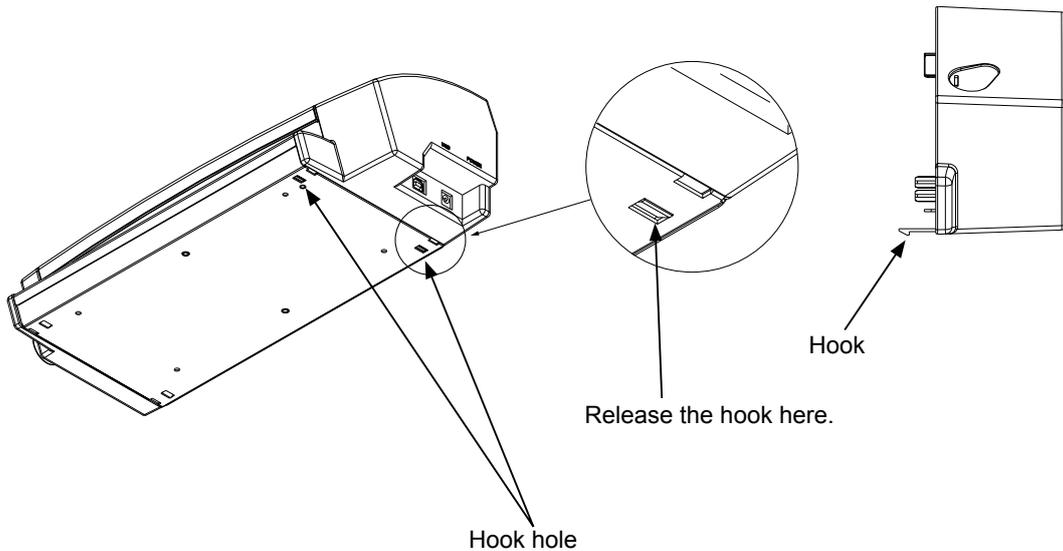
### Disassembly

- (1) Remove the two M3L8 self-tapping screws holding the right side cover.

**Note:** Hold the right side cover after you have removed the screws; there is a flexible cable inside the cover.



- (2) Release the bottom two hooks of the right side cover, and then detach the right side cover.



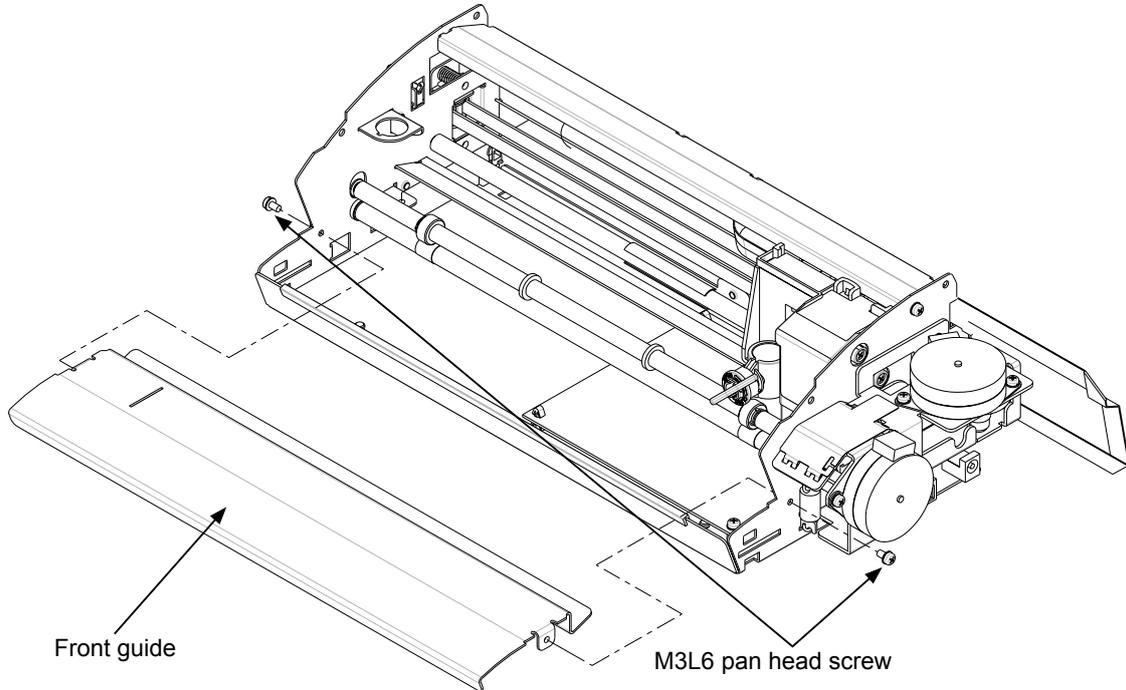
### Reassembly

- (1) To attach the right side cover, perform the above "Disassembly" procedure in reverse.

## 4.4 How to Replace the Front Guide

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Remove the two M3L6 pan head screws holding the front guide, and then detach the front guide.



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**Note:** Do not scratch the main frame when you are detaching the front guide.

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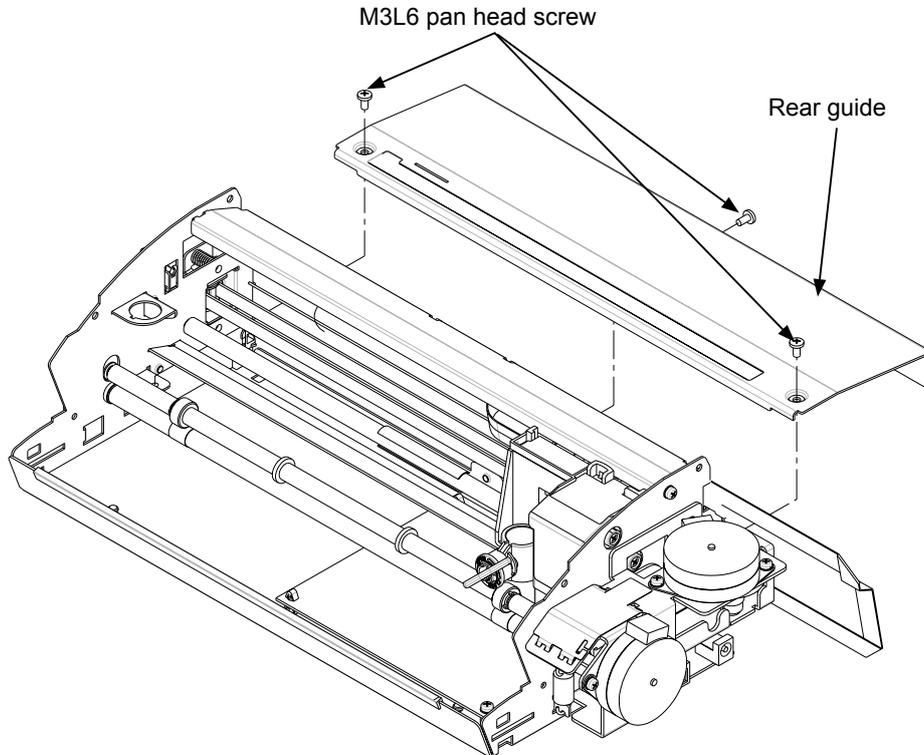
### Reassembly

- (1) To attach the front guide, perform the above "Disassembly" procedure in reverse.

## 4.5 How to Replace the Rear Guide

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Remove the three M3L6 pan head screws holding the rear guide, and then detach the rear guide.



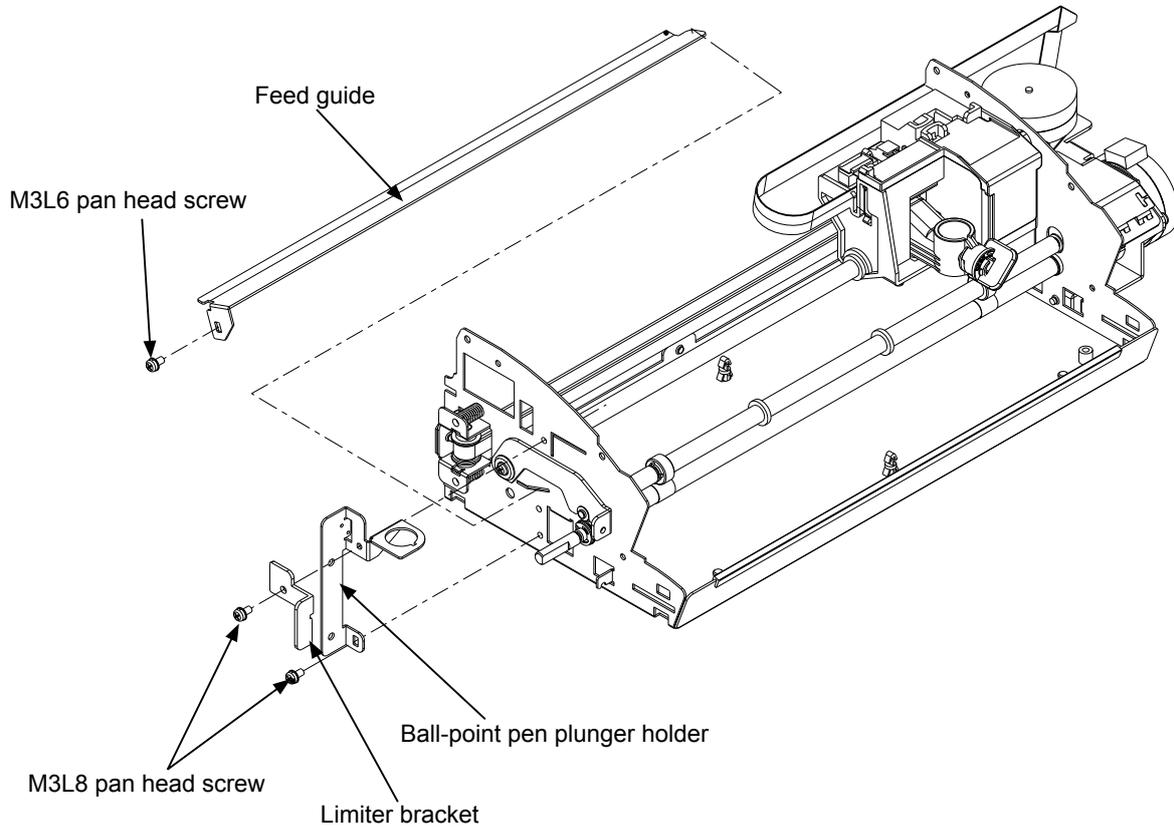
### Reassembly

- (1) To attach the rear guide, perform the above "Disassembly" procedure in reverse.

## 4.6 How to Replace the Feed Guide

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Remove the two M3L8 pan head screws holding the ball-point pen plunger holder with the limiter bracket, and then detach the ball-point pen plunger holder and the limiter bracket.



- (5) Remove the M3L6 pan head screw holding the feed guide, and then detach the feed guide.

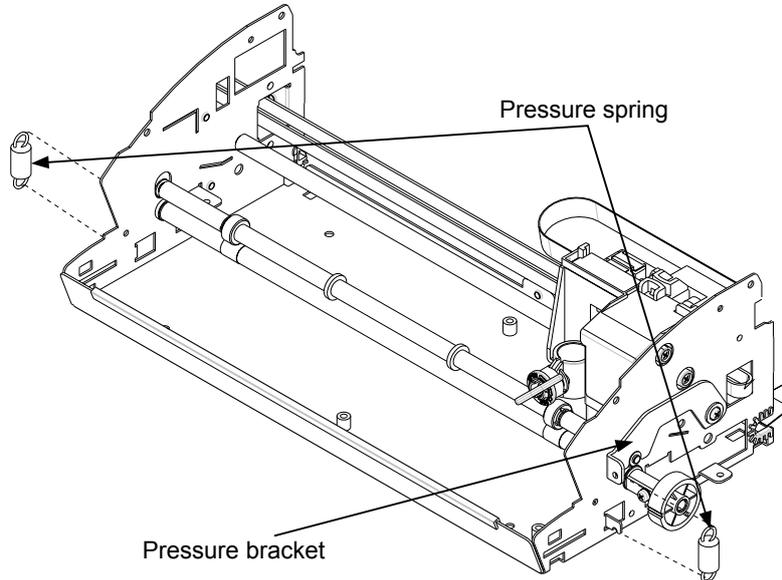
### Reassembly

- (1) To attach the feed guide, perform the above "Disassembly" procedure in reverse.

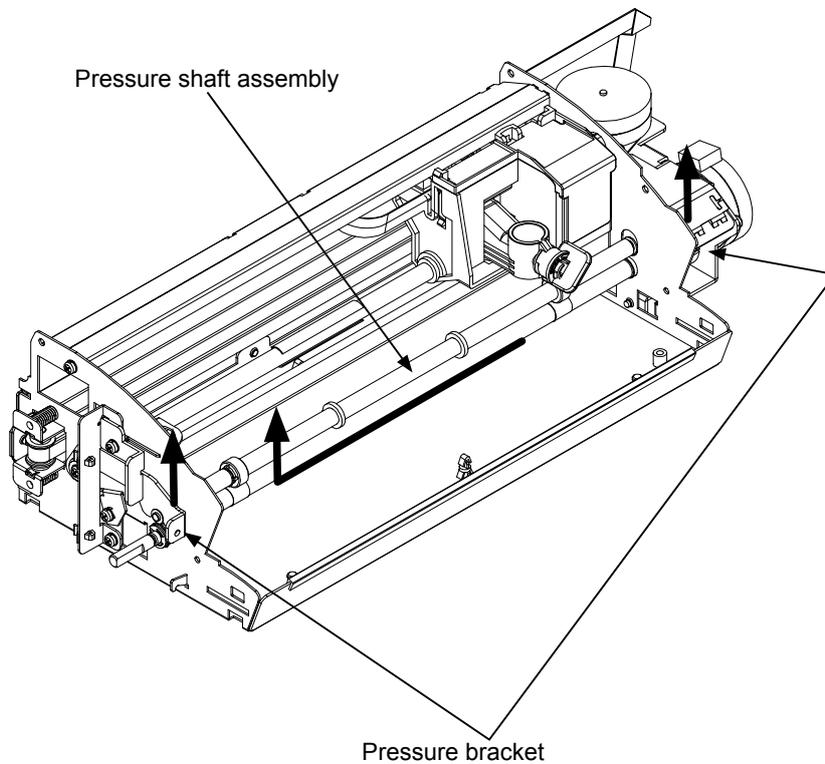
## 4.7 How to Replace the Pinch Roller Shaft Assembly

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the two pressure springs from the pressure bracket.



- (5) Lift up both sides of the pressure bracket, slide the pressure shaft assembly to the left side, and then detach the pressure shaft assembly from the right side.



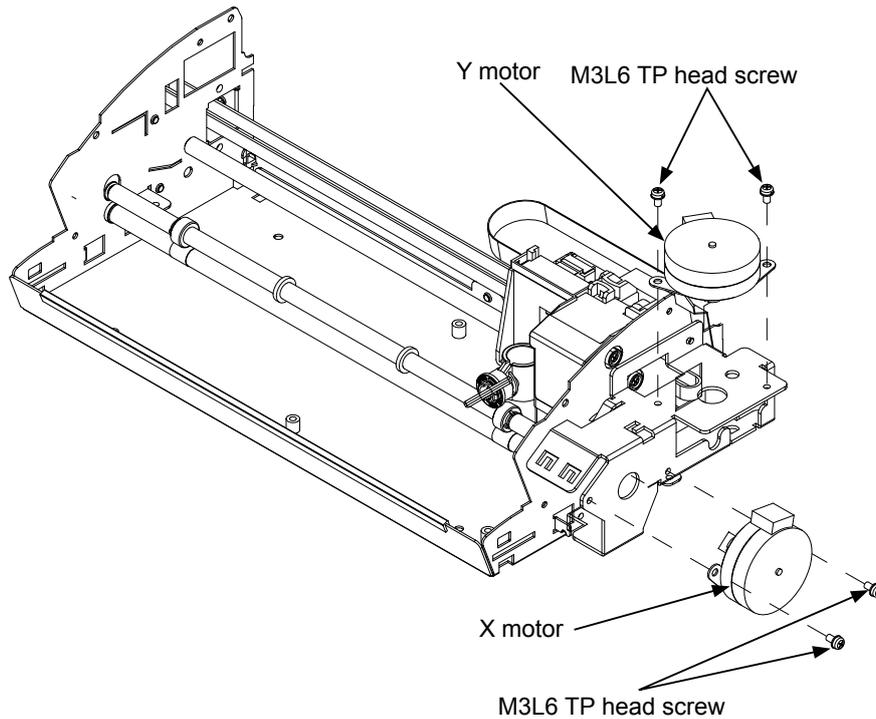
### Reassembly

- (1) To attach the pinch roller shaft assembly, perform the above "Disassembly" procedure in reverse.

## 4.8 How to Replace the Y Motor

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the two pressure springs from the pressure bracket (see Section 4.7).
- (5) Detach the rear guide (see Section 4.5).
- (6) Disconnect the Y motor cable which is connected to J5 on the main board.
- (7) Remove the two M3L6 TP head screws holding the Y motor, and then detach the Y motor.



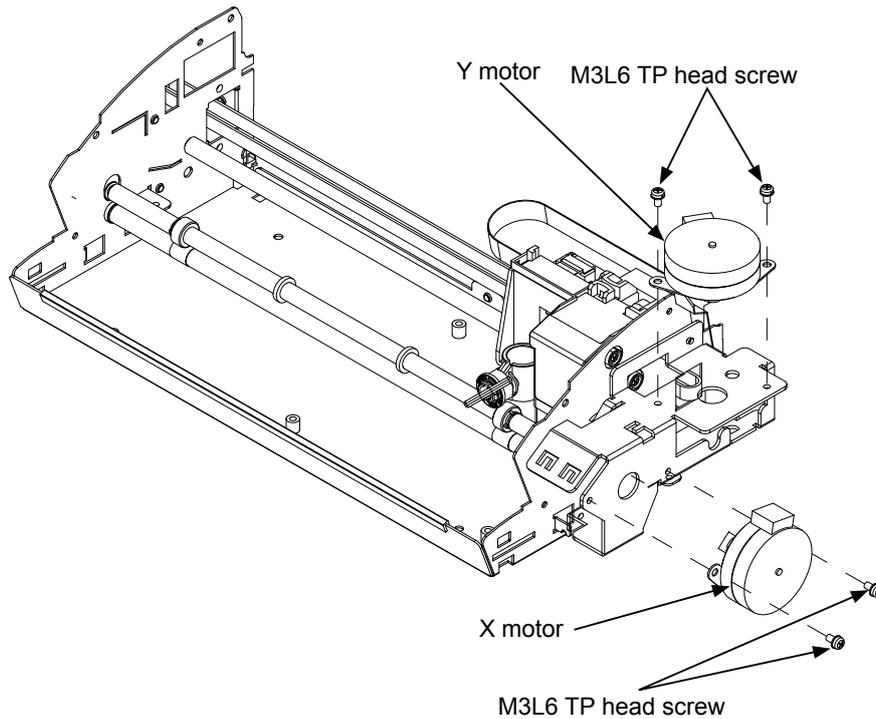
### Reassembly

- (1) To attach the Y motor, perform the above "Disassembly" procedure in reverse.

## 4.9 How to Replace the X Motor

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the two pressure springs from the pressure bracket (see Section 4.7).
- (5) Detach the rear guide (see Section 4.5).
- (6) Disconnect the X motor cable which is connected to J4 on the main board.
- (7) Remove the two M3L6 TP head screws holding the X motor, and then detach the X motor.



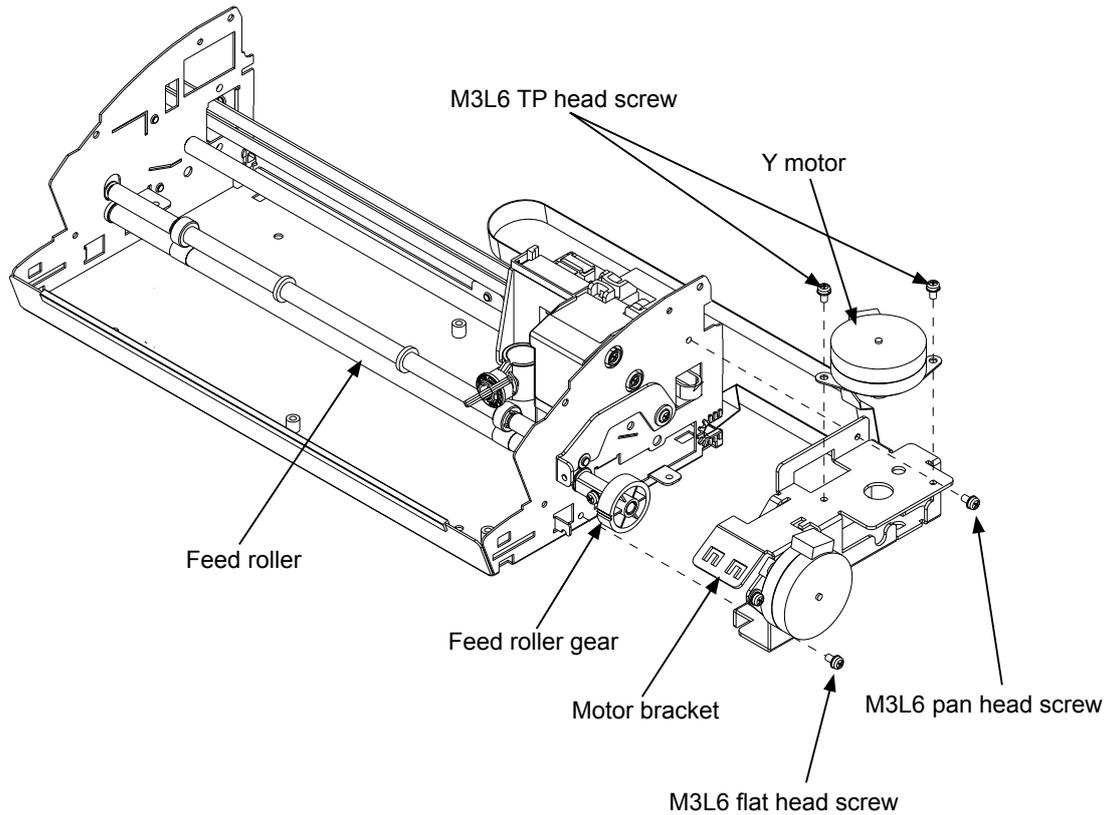
### Reassembly

- (1) To attach the X motor, perform the above "Disassembly" procedure in reverse.

## 4.10 How to Replace the Feed Roller

### Disassembly

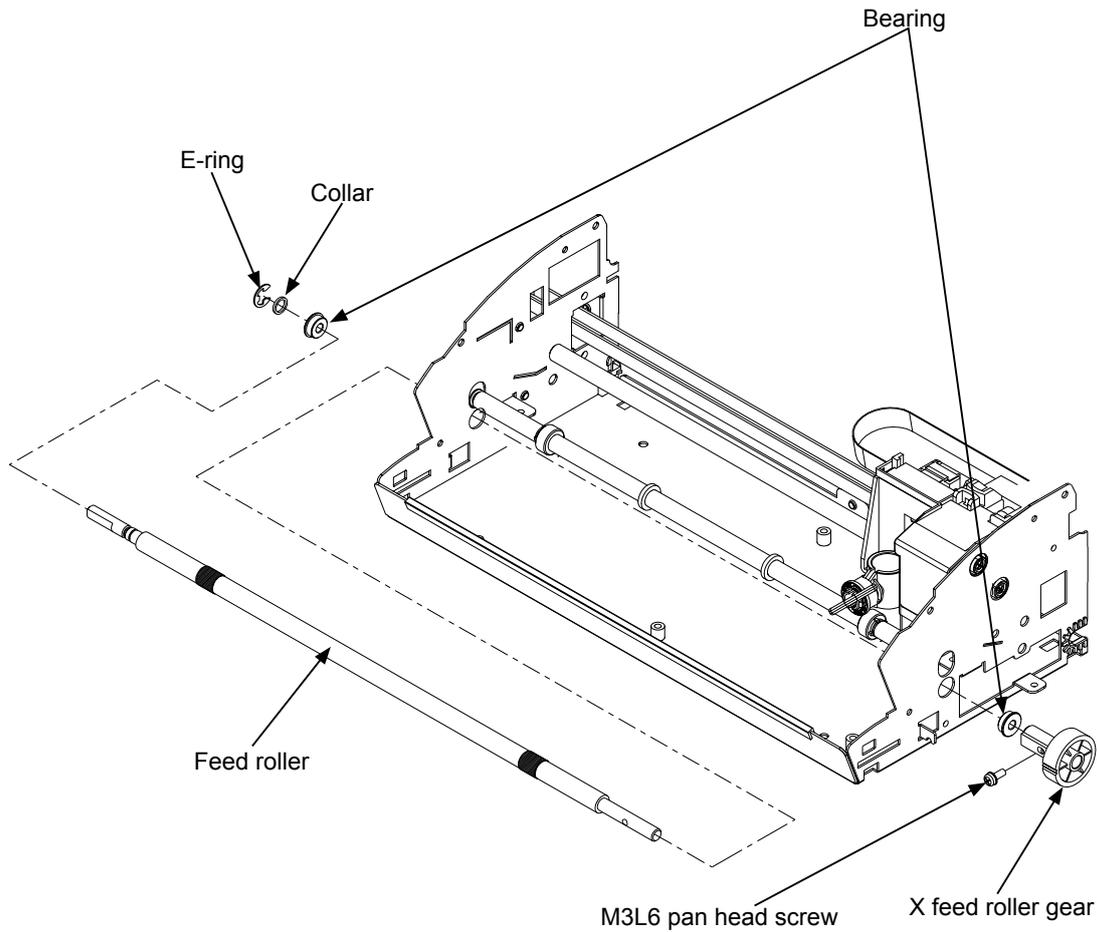
- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the two pressure springs from the pressure bracket (see Section 4.7).
- (5) Detach the front guide (see Section 4.4).
- (6) Detach the Y motor (see Section 4.8).
- (7) Remove the M3L6 flat head screw and the M3L6 pan head screw holding the motor bracket, and then detach the motor bracket.



- (6) Disconnect the X motor cable which is connected to J4 on the main board.

#### 4 DISASSEMBLY AND REASSEMBLY

- (7) Remove the two M3L8 TP head screws holding the Y motor, and then detach the Y motor.



- (8) Remove the M3L6 pan head screw holding the X feed roller gear, and then detach the X feed roller gear.
- (9) Detach the E-ring from the left side of the feed roller.
- (10) Detach the two bearings and the collar from the feed roller, and then detach the feed roller from the main unit.

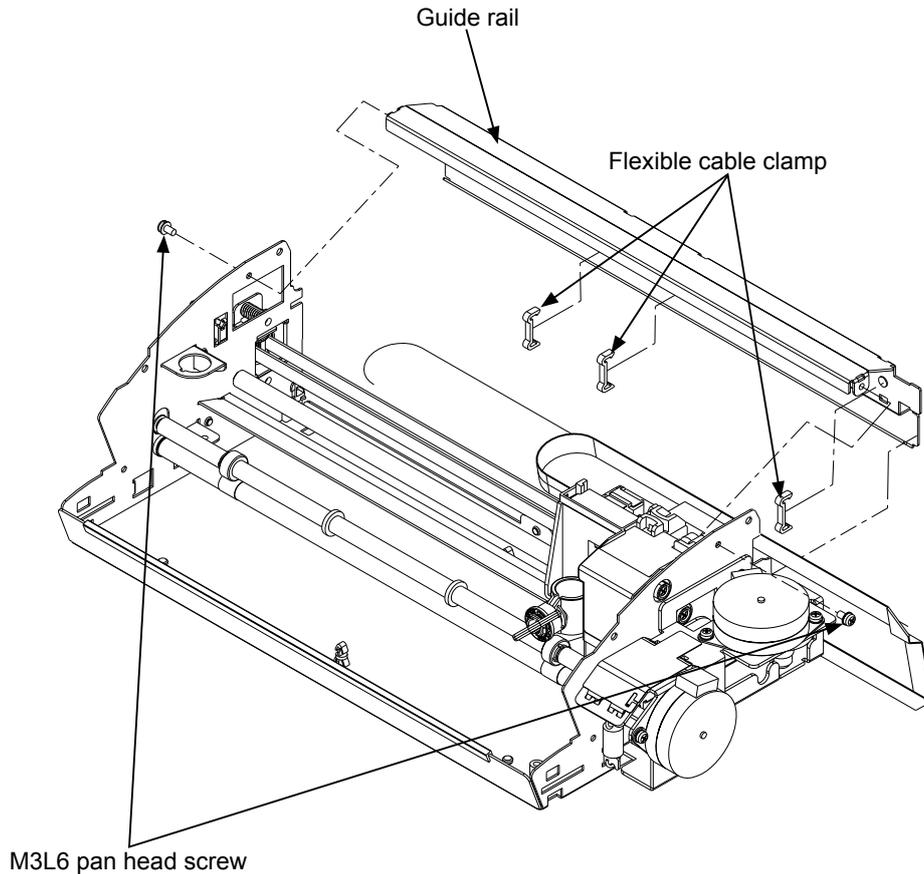
#### Reassembly

- (1) To attach the feed roller, perform the above "Disassembly" procedure in reverse.

## 4.11 How to Replace the Main Board

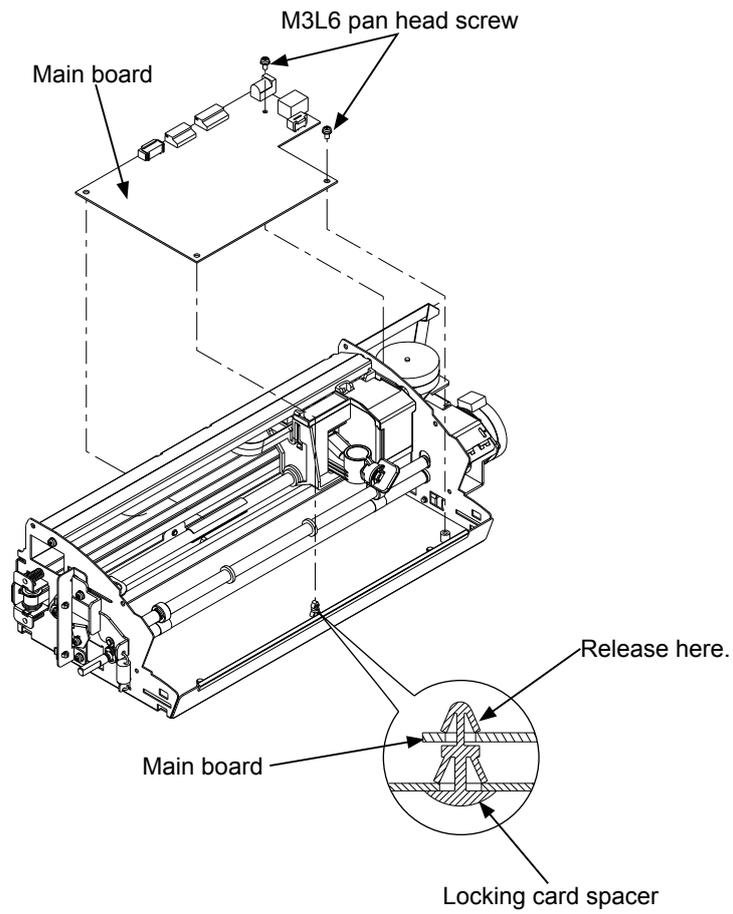
### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the front guide (see Section 4.4).
- (5) Detach the rear guide (see Section 4.5).
- (6) Remove the two M3L6 pan head screws holding the guide rail, and then detach the guide rail.



- (7) Detach the three flexible cable clamps from the guide rail, and then detach the Y flexible cable from the guide rail.
- (8) Disconnect all the cables from the main board (J2, J4, J5, J8, J9).

- (9) Remove the two M3L6 pan head screws holding the main board.



- (10) Release the two locking card spacers holding the main board, and then detach the main board.

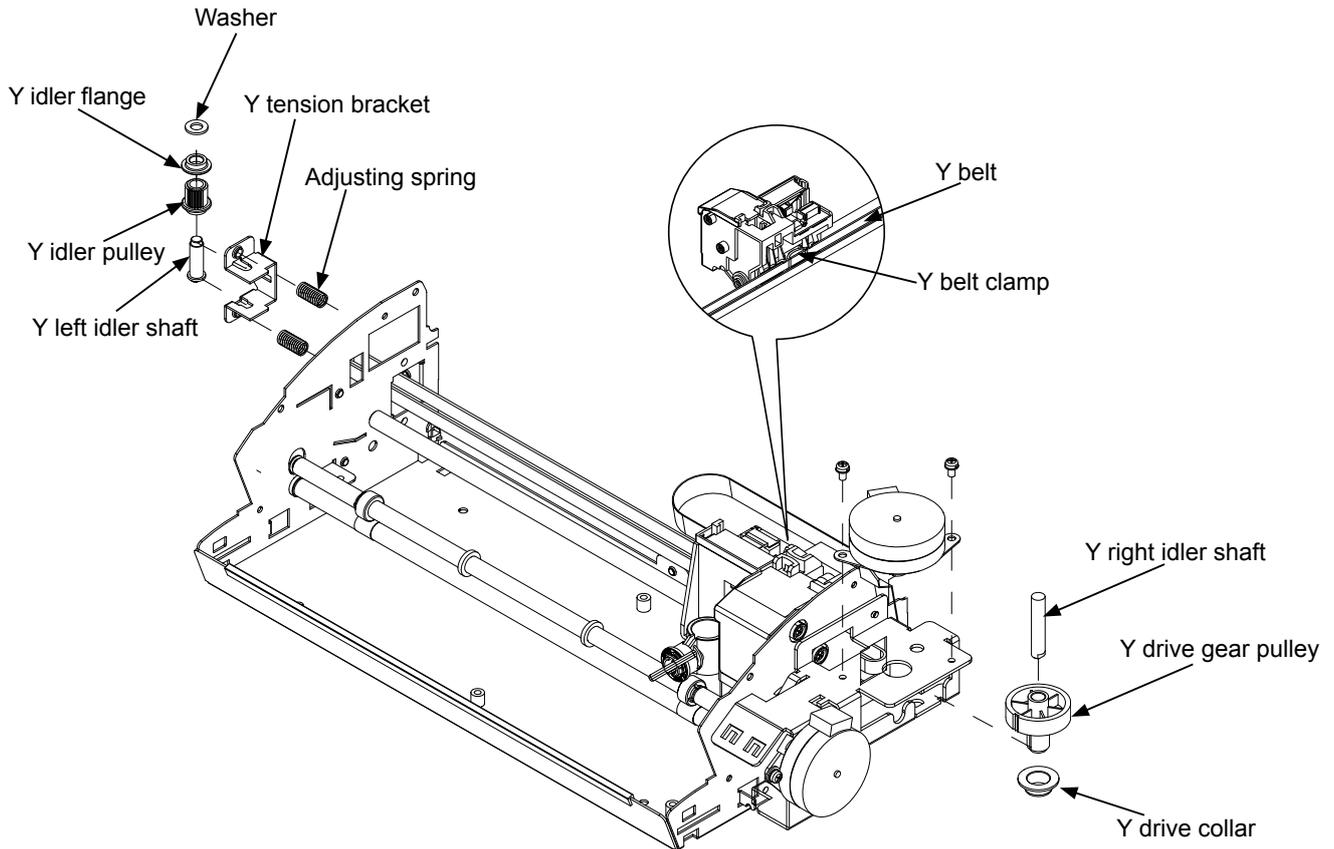
**Reassembly**

- (1) To attach the main board, perform the above "Disassembly" procedure in reverse.

## 4.12 How to Replace the Y Belt

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the guide rail (see Section 4.11).
- (5) Detach the Y flexible cable from the guide rail (see Section 4.11).
- (6) Detach the two adjusting springs from the Y tension bracket.



- (7) Detach the Y tension bracket.
- (8) Detach the Y motor (see Section 4.8).
- (9) Detach the motor bracket (see Section 4.10).
- (10) Pull out the Y right idler shaft from the Y drive pulley, and then detach the Y drive pulley.
- (11) Detach the Y left idler shaft from the Y idler pulley.
- (12) Detach the Y belt from the belt clamp on the rear of the carriage.

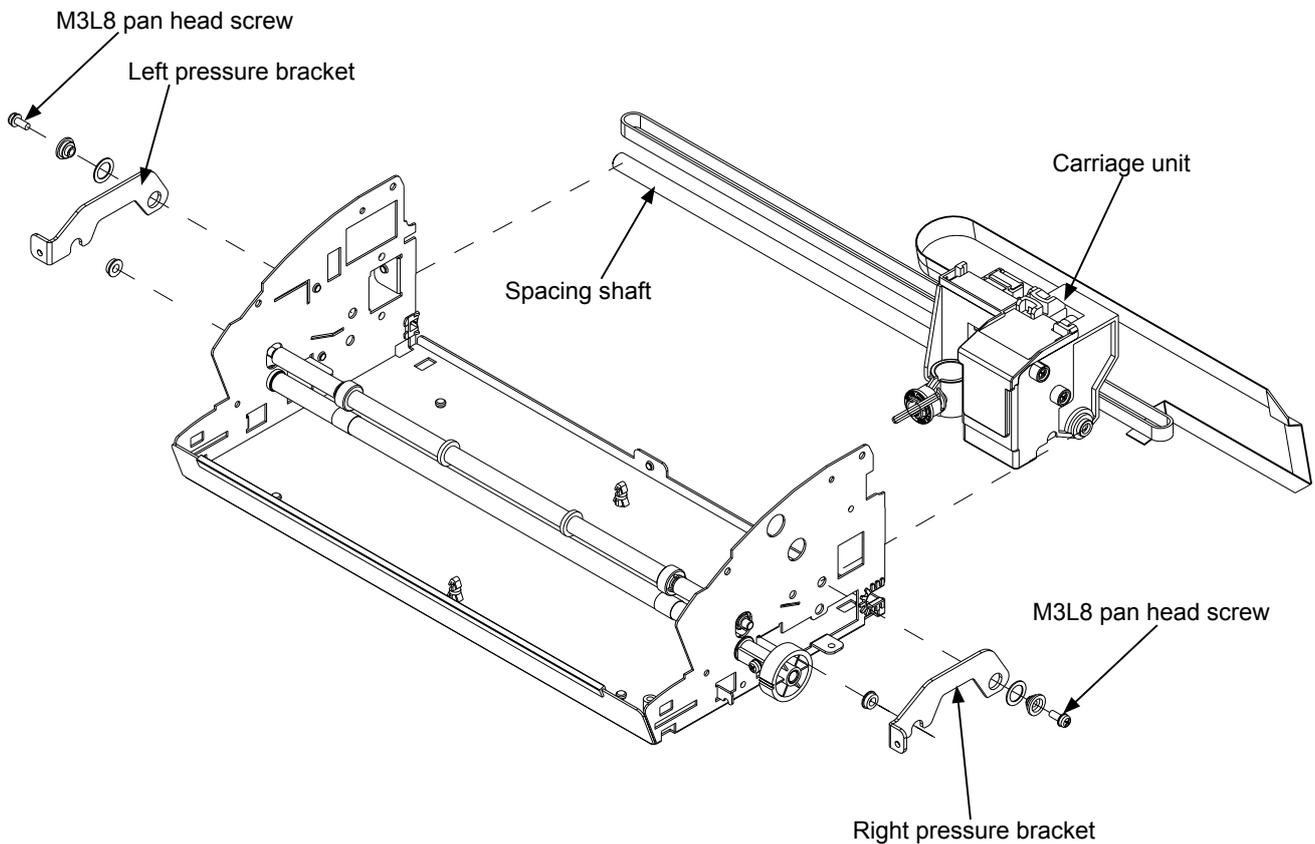
### Reassembly

- (1) To attach the Y belt, perform the above "Disassembly" procedure in reverse.

## 4.13 How to Replace the Carriage Unit

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the guide rail (see Section 4.11).
- (5) Detach the Y flexible cable from the guide rail (see Section 4.11).
- (6) Disconnect the Y flexible cable from J101 on the carriage board.
- (7) Detach the two adjusting springs from the Y tension bracket (see Section 4.12).
- (8) Detach the Y motor (see Section 4.8).
- (9) Detach the motor bracket (see Section 4.10).
- (10) Detach the Y drive pulley (see Section 4.12).
- (11) Detach the two pressure springs from the pressure bracket (see Section 4.7).
- (12) Remove the two M3L8 pan head screws holding the left and right pressure brackets, and then detach both the pressure brackets.



- (13) Detach the spacing shaft from the carriage unit.

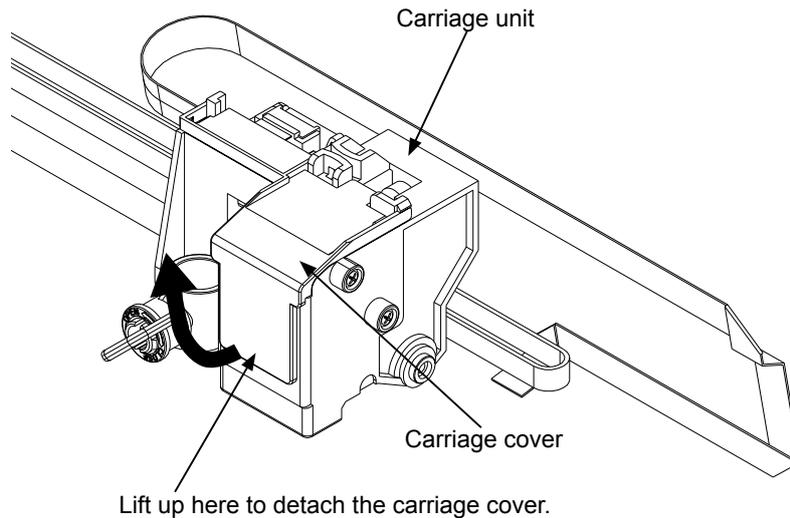
### Reassembly

- (1) To attach the carriage unit, perform the above "Disassembly" procedure in reverse.

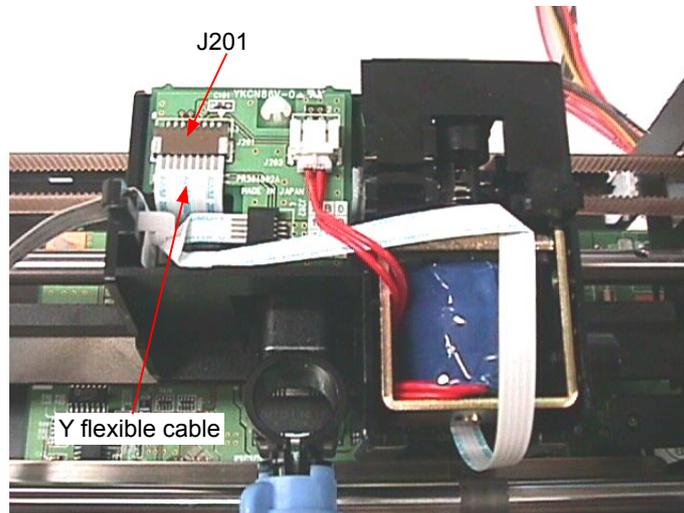
## 4.14 How to Replace the Y Flexible Cable

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the rear guide (see Section 4.5).
- (5) Detach the guide rail (see Section 4.11).
- (6) Detach the Y flexible cable from the guide rail (see Section 4.11).
- (7) Lift up the bottom of the carriage cover, and then detach the carriage cover from the carriage.



- (8) Disconnect the Y flexible cable from J201 on the carriage board.

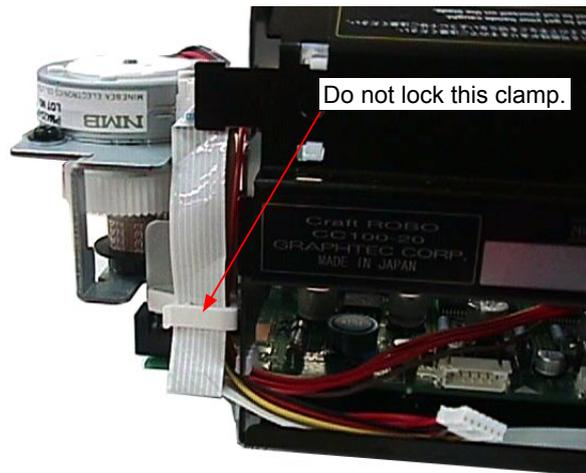


- (9) Disconnect the Y flexible cable from J8 on the main board, and then detach the Y flexible cable.

**Reassembly**

(1) To attach the Y flexible cable, perform the above “Disassembly” procedure in reverse.

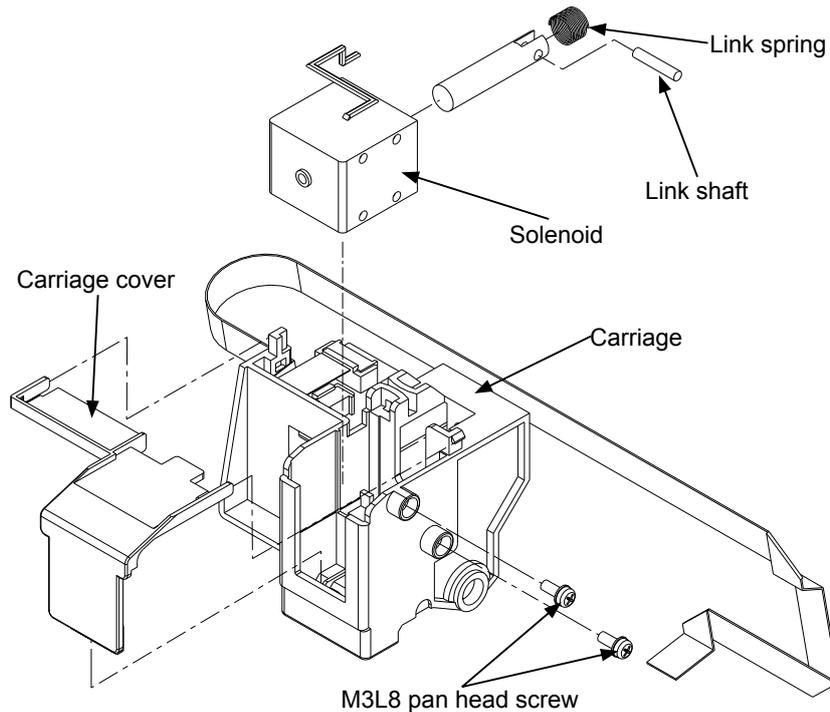
**Note:** Do not lock the clamp when you are installing the Y flexible cable to the clamp shown in the figure below.  
If you do so, the flexible cable may be damaged by the clamp.



## 4.15 How to Replace the Solenoid

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the guide rail (see Section 4.11).
- (5) Detach the carriage cover from the carriage (see Section 4.14).
- (6) Disconnect the solenoid cable from the carriage board.
- (7) Remove the two pan head screws holding the solenoid, and then detach the solenoid.



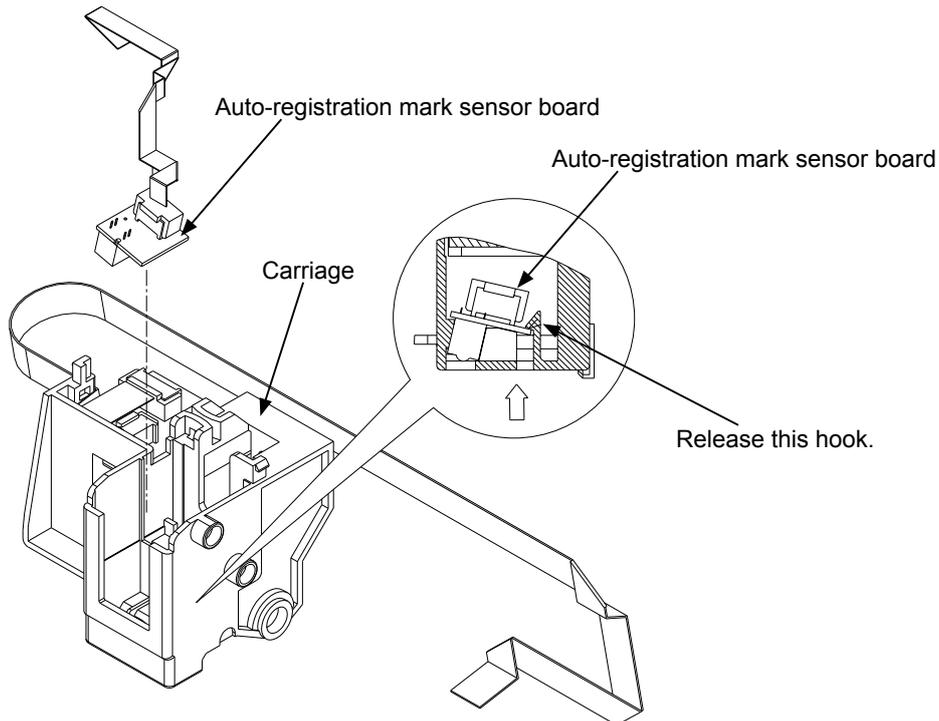
### Reassembly

- (1) To attach the solenoid, perform the above “Disassembly” procedure in reverse.

## 4.16 How to Replace the Auto-Registration Mark Sensor Board

### Disassembly

- (1) Detach the left side cover (see Section 4.1).
- (2) Detach the top cover (see Section 4.2).
- (3) Detach the right side cover (see Section 4.3).
- (4) Detach the guide rail (see Section 4.11).
- (5) Detach the carriage cover from the carriage (see Section 4.14).
- (6) Detach the solenoid (see Section 4.15).
- (7) Release the hook holding the auto-registration mark sensor board, and then detach the auto-registration mark sensor board from the carriage.



### Reassembly

- (1) To attach the auto-registration mark sensor board, perform the above "Disassembly" procedure in reverse.

## 5 ELECTRICAL ADJUSTMENTS

### 5.1 Updating the System Firmware

To update the system firmware you need to have the following files. In addition, you need to use a computer and a USB cable.

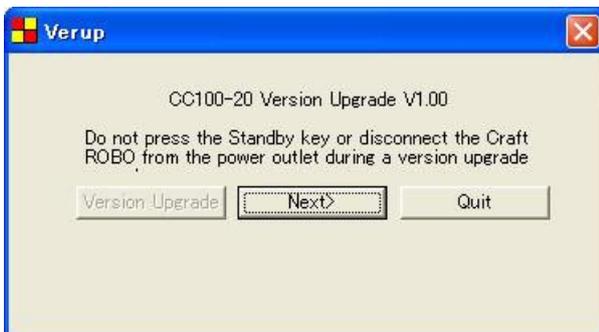
- VerupEnglish.exe : CC100-20 update software file
- GITKUSBP.dll : CC100-20 software dll file
- main.mot : CC100-20 firmware file

#### How to update the system firmware

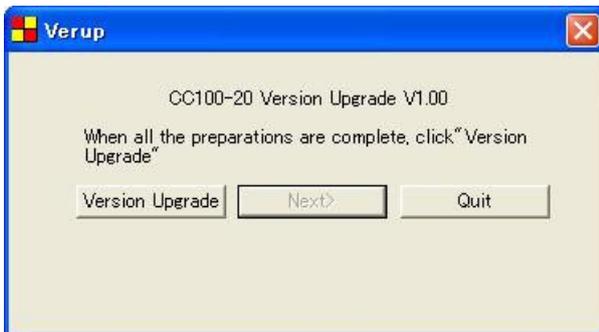
- (1) Copy the three upgrade software files to the same directory in the PC.
- (2) Connect the computer and the CC100-20 via the USB interface.
- (3) Connect the power cable to turn on the power.
- (4) Turn on the standby switch of the CC100-20.
- (5) Execute VerupEnglish.exe.
- (6) The following menu is displayed. Confirm the note shown in the menu.



- (7) Click the Next button to display the following menu.



- (8) Click the Next button to display the following menu.



- (9) Click the Version Upgrade button to start upgrading when you are ready to upgrade.

(10) The following menu will appear during the firmware upgrade procedure.



(11) The following menu will appear when the upgrade is complete.



(12) The Standby LED blinks when the upgrade is complete.

(13) Click the OK button to close the VerupEnglish.exe program.

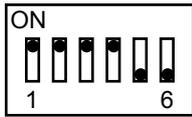
(14) Turn off the power. (disconnect the power cable from the CC100-20.)

- 
- Note:**
- Do not use the computer for any other purpose while you are upgrading the firmware.
  - If you fail to upgrade the firmware, perform the following procedure.
    - (1) Connect the power cable to the CC100-20 while pressing the standby switch for more than 5 seconds.
    - (2) Confirm that the standby LED is blinking.
    - (3) Turn off the power.
    - (4) Perform the upgrade procedure again.
-

## 5.2 DIP Switch Settings

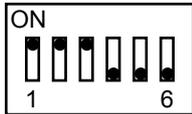
### Factory presets (Normal Mode)

Set bits 1, 2, 3 and 4 to ON



### NOV-RAM clear mode

Set bits 1, 2 and 3 to ON



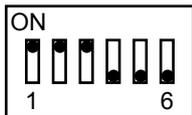
## 5.3 Clearing the Non-Volatile RAM

When you replace the main board, you must clear the Non-Volatile RAM (NOV-RAM). If you clear the Non-Volatile RAM, you will lose the setup parameters for each adjustment. Set up the adjustment values to the main board after you clear the Non-Volatile RAM.

### How to clear the Non-Volatile RAM

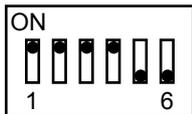
- (1) Set the DIP switch to the NOV-RAM clear mode as shown below.

Set bits 1, 2 and 3 to ON



- (2) Connect the power cable to turn on the power.
- (3) The Standby LED blinks when the NOV-RAM clear operation is complete.
- (4) Turn off the power. (disconnect the power cable from the CC100-20.)
- (5) Return the DIP switch setting to the normal mode as shown below.

Set bits 1, 2, 3 and 4 to ON



## 5.4 Using the Adjustment Software

This adjustment software is used for the pen force adjustment, the auto-registration mark sensor adjustment and the distance adjustment.

To adjust the CC100-20 you need to have the following files. In addition, you need to use a computer and a USB cable.

- OptionSetEnglish.exe : CC100-20 adjustment software file
- GITKUSBP.dll : CC100-20 software dll file

### How to use the adjustment software

- (1) Copy the above two software files to the same directory in the PC.
- (2) Connect the computer and the CC100-20 via the USB interface.
- (3) Connect the power cable to turn on the power.
- (4) Turn on the standby switch of the CC100-20.
- (5) Execute Optionset.exe.
- (6) The following menu is displayed.

The screenshot shows the 'OptionSet' software interface. The window title is 'OptionSet' and the subtitle is 'CC100-20 Advanced Functions & Adjustment Menus V1.20'. The interface includes the following sections and controls:

- Running test (Force fixed to 1):** 20 times, with an 'Enter' button.
- Force adjustment:** Force 1 down/up: 153, Force 2 down/up: 166, Force 3 down/up: 215.
- Registration mark sensor white level adjustment:** 'Adjust' button. Instruction: '(move the sensor over a sheet of white paper and then click the "Adjust" button)'. Force 1: 3.
- Registration mark sensor position:** 'Scan' button, X: 0, Y: 0 (0.1mm).
- Distance adjustment (200x150):** 'Plot' button, X: 14 (0.1mm), Y: 0 (0.1mm).
- Motor free status:** 'Left', 'Up', 'Down', 'Right', 'Origin', 'Move to far right' buttons.
- Initial Blade Position:** Radio buttons for '2 mm below' and 'Outside the cutting area'.
- Movement up to W command:** Radio buttons for 'Move in pen up status' and 'Move in pen down status'.
- Move command:** Radio buttons for 'Move directly to end point' and 'Move through all points'.
- Y home sensor:** Radio buttons for 'Enabled' and 'Disabled'.
- Step size:** 0.05mm.
- Excitation off period:** 5 minutes (1 - 100).
- Pen lower speed:** 0, Registration mark scanning speed: 5.
- Backlash:** 0.
- Registration mark sensing threshold:** X: 8, Y: 7.
- Number of pre-feed operations:** 3.
- Buttons:** 'Set', 'Cancel', 'Return user settings to defaults'.

Red dashed boxes and arrows highlight specific areas, with corresponding text boxes on the right:

- Force adjustment:** Used for the pen force adjustment.
- Registration mark sensor white level adjustment:** Used for the auto-registration mark sensor position adjustment.
- Registration mark sensor position:** Used for the distance adjustment.
- Motor free status buttons:** How to use the Move button: Click the button to move, and click again to stop.
- Registration mark sensing threshold:** Used for the auto-registration mark sensor threshold adjustment.
- Return user settings to defaults:** Return to the factory presets.
- Set button:** Close this software and store the settings to the Nov-RAM.
- Close button:** Close this software. (This does not store the settings.)

Note 1: Do not turn off the standby switch while adjusting the CC100-20. If you do so, the CC100-20 will not receive any commands from the adjustment software. If you turn off the standby switch while adjusting the CC100-20, perform the following procedure.

- (1) Click the Cancel button to exit the adjustment software.
- (2) Connect the power cable to the CC100-20.
- (3) Turn on the standby switch of the CC100-20.
- (4) Execute OptionSetEnglish.exe again.

Note 2: The OptionSetEnglish.exe software will not start if the standby switch is off or the power is off. The OptionSetEnglish.exe software displays the menu shown below at this time.



## 5.5 Adjusting the Pen Force

This adjustment will set the pen force using the OptionSetEnglish.exe software.

If you replace the main board, use the following procedure to input the recorded adjustment values.

If you replace the solenoid and/or the pen block assembly, you must adjust the pen force using the following procedure.

### How to adjust the pen force

- (1) Mount a 0.9 mm diameter cutter pen (PHP32-CB09N without the blade) in the pen holder.
- (2) Connect the computer and the CC100-20 via the USB interface.
- (3) Connect the power cable to turn on the power.
- (4) Turn on the standby switch of the CC100-20.
- (5) Execute Optionset.exe.
- (6) Click the Force 1 down/up button to lower the pen.



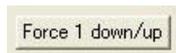
- (7) If the pen does not lower completely during the force 1 adjustment, change the pen lower speed from 0 to 1.



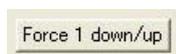
- (8) Use the 100 g force gauge to measure the actual force.  
To get the correct force, gently lift the pen up by hand, lower the pen, and then measure the actual force after you click the force button.
- (9) If the measured value is not within the specification range (65 g to 70 g), change the value at the right side of the Force 1 down/up button so that it is 65 g to 70 g for the actual force.



- (10) Click the Force 1 down/up button again to apply the input value.



- (11) Use the 100 g force gauge to measure the changed force to confirm it.
- (12) Click the Force 1 down/up button again to raise the pen.



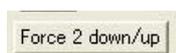
- (13) Click the Force 2 down/up button to lower the pen.



- (14) Use the 300 g force gauge to measure the actual force.  
To get the correct force, gently lift the pen up by hand, lower the pen, and then measure the actual force after you click the force button.
- (15) If the measured value is not within the specification range (100 g to 110 g), change the value at the right side of the Force 2 down/up button so that it is 100 g to 110 g for the actual force.

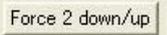


- (16) Click the Force 2 down/up button again to apply the input value.

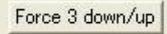


- (17) Use the 300 g force gauge to measure the changed force to confirm it.

(18) Click the Force 2 down/up button again to raise the pen.

A rectangular button with a light beige background and a thin black border, containing the text "Force 2 down/up".

(19) Click the Force 3 down/up button to lower the pen.

A rectangular button with a light beige background and a thin black border, containing the text "Force 3 down/up".

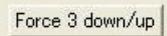
(20) Use the 300 g force gauge to measure the actual force.

To get the correct force, gently lift the pen up by hand, lower the pen, and then measure the actual force after you click the force button.

(21) If the measured value is not within the specification range (175 g to 180 g), change the value at the right side of the Force 3 down/up button so that it is 175 g to 180 g for the actual force.

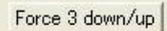
A rectangular button with a light beige background and a thin black border. On the left, it contains the text "Force 3 down/up". On the right, it features a numeric display showing "215" with small up and down arrow icons on either side.

(22) Click the Force 3 down/up button again to apply the input value.

A rectangular button with a light beige background and a thin black border, containing the text "Force 3 down/up".

(23) Use the 300 g force gauge to measure the changed force to confirm it.

(24) Click the Force 3 down/up button again to raise the pen.

A rectangular button with a light beige background and a thin black border, containing the text "Force 3 down/up".

(25) Click the Set button to close the adjustment software and store all the settings to the Nov-RAM.

A rectangular button with a light beige background and a thin black border, containing the text "Set".

## 5.6 Adjusting the Auto-Registration Mark Sensor Sensitivity

### How to adjust the auto-registration mark sensor sensitivity

- (1) Connect the computer and the CC100-20 via the USB interface.
- (2) Connect the power cable to turn on the power.
- (3) Load an A4 (Letter) size sheet of paper in the CC100-20. The paper color must be white, and it is recommended that high-quality paper made for ink-jet printers be used.
- (4) Turn on the standby switch of the CC100-20.
- (5) Execute Optionset.exe.
- (6) Use the Pen Position buttons to move the auto-registration mark sensor position to a white area on the paper. Make sure there are no dirty areas or any printing directly under the sensor.



- (7) Click the Adjust button to adjust the white level of the sensor.



- (8) The following menu will appear when the white level adjustment is complete.



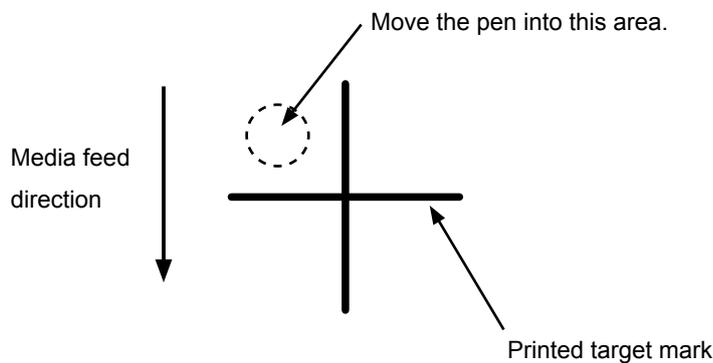
- (9) Confirm the value shown in the above menu.  
If the value is 0 or 255 there is a problem with the sensor or the circuit.
- (10) Click the OK button to close the white level adjustment display.
- (11) Click the Set button to close the adjustment software and store all the settings to the Nov-RAM.



## 5.7 Adjusting the Offset of the Auto-Registration Mark Sensor

### How to adjust the Offset of the Auto-Registration Mark Sensor

- (1) Connect the computer and the CC100-20 via the USB interface.
- (2) Connect the power cable to turn on the power.
- (3) Load an A4 (Letter) size sheet of paper with a backing sheet in the CC100-20. The paper must have a printed target cross mark. The cross mark specifications are 30 mm line length, and 0.3 to 0.5 mm line width.
- (4) Mount the cutter pen with the cutter blade and the blue blade adjustment cap.
- (5) Turn on the standby switch of the CC100-20.
- (6) Execute Optionset.exe.
- (7) Use the Pen Position buttons to move the cutter pen to the printed cross mark area.



- (7) Click the Scan button to scan the printed cross mark. The plotter then cuts a cross mark based on the reading of the printed cross mark.



- (8) Confirm the offset between the printed cross mark and the cut cross mark.  
You do not need to make any adjustments if the cut lines are not on top of the printed cross mark.
- (9) Input the offset value(s) if the cut lines are not on top of the printed cross mark.



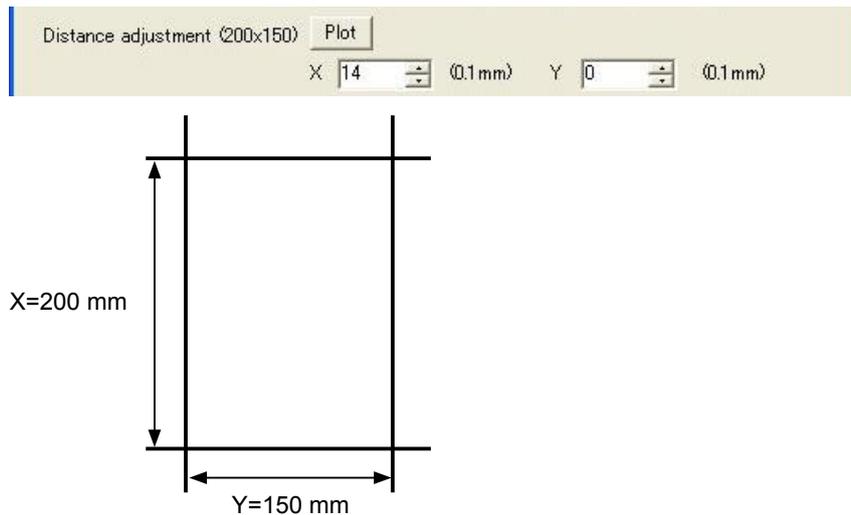
- (10) Click the Set button to close the adjustment software and store all the settings to the Nov-RAM.



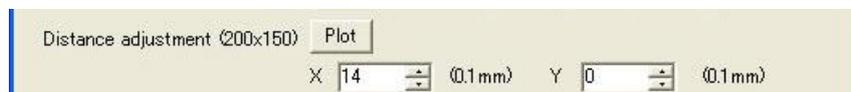
## 5.8 Adjusting the Distance Accuracy

### How to adjust the Distance Accuracy

- (1) Connect the computer and the CC100-20 via the USB interface.
- (2) Connect the power cable to turn on the power.
- (3) Load an A4 (Letter) size sheet of paper with a backing sheet in the CC100-20.
- (4) Mount the cutter pen with the cutter blade and the blue blade adjustment cap.
- (5) Turn on the standby switch of the CC100-20.
- (6) Execute Optionset.exe.
- (7) Click the Plot button to cut the test pattern.



- (8) Measure the X-axis and Y-axis distances.
- (9) Input the values to the input boxes shown below.



The formula of the input value is as follows:

Input value for X-axis = (200mm - measured distance) x 10

For example:

If you measured 200.2 mm for the X-axis, then input -2 for the adjustment value.

- (10) Click the Set button to close the adjustment software and store all the settings to the Nov-RAM.

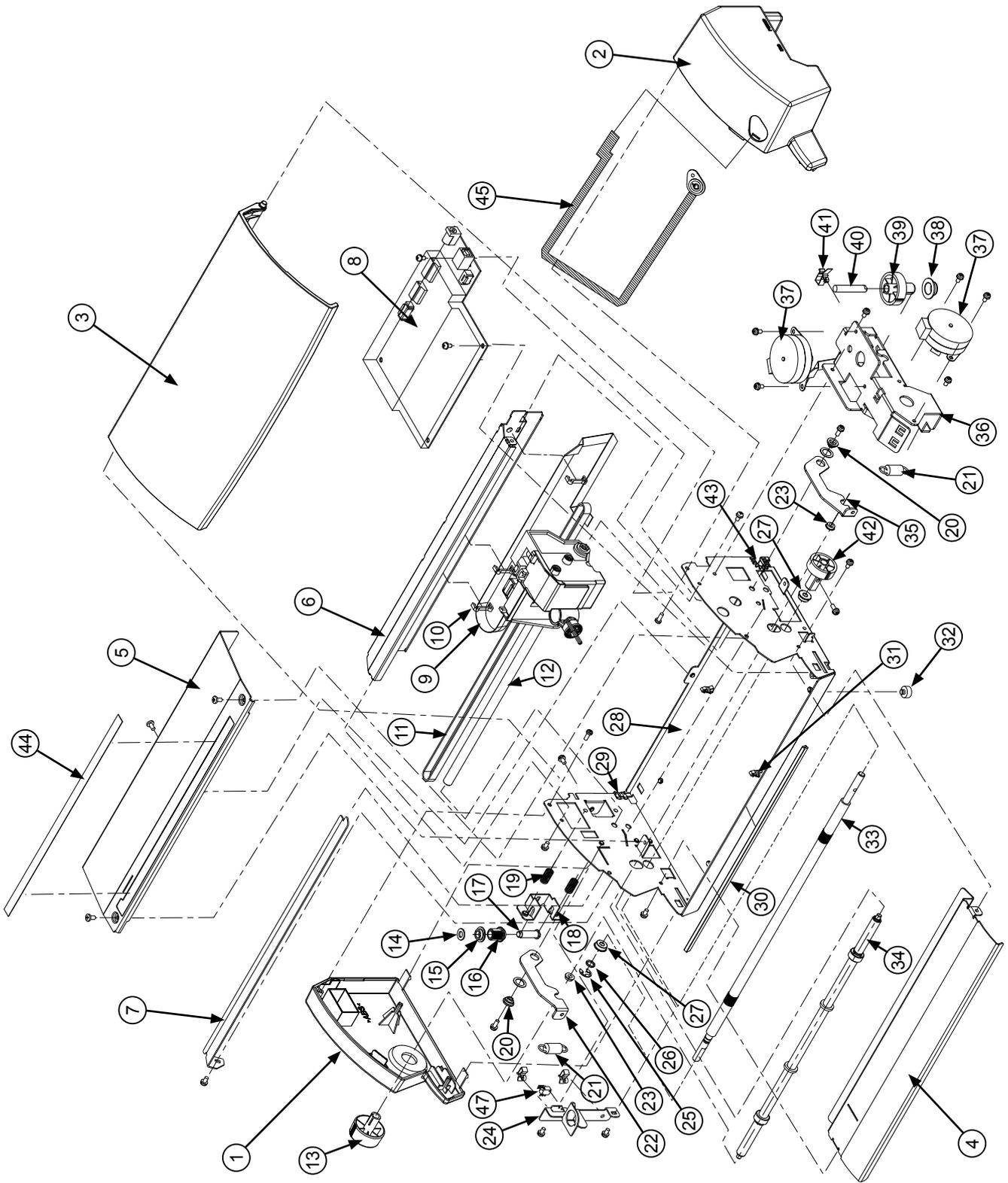


# 6 PARTS LIST

## 6.1 Main Unit Parts

No.	Part No.	Description	Q'ty	Remarks
1	621248011	Left Side Cover	1	
2	621248003	Right Side Cover	1	
3	621248024	Top Cover	1	
	621240430	Top Cover (CC100-20-ALQ)		Wishblade
4	621240054	Front Guide	1	
	621240401	Front Guide, Letter	1	For USA model
5	621240064	Rear Guide	1	
6	621240032	Guide Rail	1	
	621248100	Caution Label	1	
	621248100	Model Label	1	
	621240440	Model Label WB	1	Wishblade
7	621240082	Feed Guide	1	
8	796212000	Main Board Assembly	1	
9	692124112	Y Flexible Cable	1	FPC304501B
10	621243070	Flexible Cable Clamp	3	
11	621243051	Y Belt	1	460TN15-7.0W
12	621242072	Pressure Shaft	1	
13	621242123	Feed Knob	1	
14	621243280	Washer ø5	1	
15	621243260	Y Idler Flange	1	
16	621243221	Y Idler Pulley	1	
17	621243230	Y Idler Shaft Left	1	
18	621243241	Y Tension Bracket	1	
19	621243250	Adjusting Spring	2	
20	621242060	Collar	2	
21	621242130	Pressure Spring 30	2	
22	621242050	Left Pressure Bracket	1	
23	621242090	Bearing PSB	2	
24	621240112	Ball-point Pen Plunger Holder	1	
25		E-ring D5	1	
26	621242021	X Collar	1	
27	621242010	Bearing RFS	2	
28	621240004	Main Frame Assembly	1	
29	621240130	Edge Guard	1	
30	621240190	Frame Edge	1	
31	621243060	Locking Card Spacer	2	
32	621240090	Foot	5	
33	621242000	Feed Roller Shaft	1	
	621240410	Feed Roller Shaft, Letter	1	For USA model
34	796212002	Pinch Roller Assembly	1	
	796212006	Pinch Roller Assembly, Letter	1	For USA model
35	621242040	Right Pressure Bracket	1	
36	363111031	Foot	4	
37	621240200	Motor Gear Assembly	2	Uses the same part for the X and Y motor.
38	621243270	Y Drive Collar	1	
39	621243200	Y Drive Gear	1	
40	621243210	Y Idler Shaft Right	1	
41	621240160	Mini Clamp	2	
42	621242030	X Feed Gear	1	
43	621240150	Bush	1	
44	621240071	Cutting Mat	1	
45	682124050	Standby Switch	1	PR304505
46	621240090	Cushion	1	
47	796212005	Y Home Sensor Assembly	1	

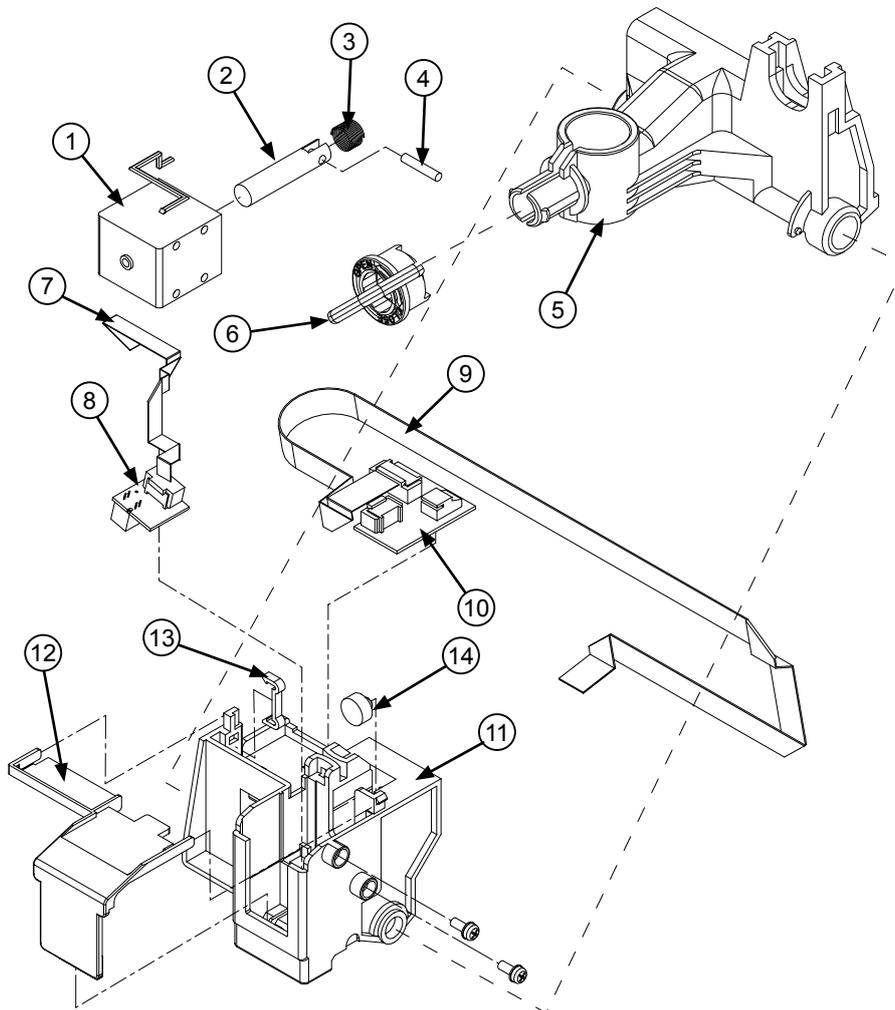
Main Unit Parts



### 6.2 Carriage

No.	Part No.	Description	Q'ty	Remarks
1	500051940	Solenoid	1	SCD-0829FT
2	500051940	Solenoid	1	
3	621243030	Reset Spring	1	
4	380162100	Pin	1	
5	621240064	Rear Guide	1	
6	621243042	Lock Lever	1	
7	692124120	Auto-registration Sensor Flexible Cable	1	FPC304502
8	796212004	Auto-registration Sensor Board Assembly	1	
9	692124112	Y Flexible Cable	1	
10	772124520	Relay Board	1	
11	621243004	Carriage	1	
12	621243030	Carriage Cover	1	
13	621243070	Flexible Cable Clamp	1	
14	621240090	Cushion	1	

#### Carriage



### 6.3 Other

No.	Part No.	Description	Q'ty	Remarks
1	621249800	Packing Box	1	
	621249850	Packing Box for CC100-20-ALQ	1	Wishblade
2	621249731	Accessory Box	1	
3	500052392	AC adapter YC-1048GRC1208P	1	UL,117V
	500052390	AC adapter YC-1048GRC1175P	1	CE, 220V
	500052407	AC adapter YC-1048GRC1210P	1	CCC, 240V
	500052418	AC adapter YC-1048GRC1247P	1	BS, 240V
	500051951	AC adapter SA45-3129	1	Japanese,100V
4	621249200	User Guide CD, CC100-CDM02M	1	Use for only Graphtec model.
5	621249110	Setup Manual	1	English
	621249130	Setup Manual, Wishblade	1	Wishblade
	621249120	Setup Manual, WGI	1	WGI
6	621249060	Beginners Manual	1	English
	621249080	Beginners Manual, Wishblade	1	Wishblade
	621249120	Beginners Manual, WGI	1	
7	500052043	USB Cable, Wishblade	1	
8	621249300	Cutter Plunger	1	
9	621249370	Cutter Plunger Cap 01	1	
10	621249320	Cutter Plunger Cap 02	1	
11	621249330	Cutter Plunger Cap 03	1	

# 7 BLOCK DIAGRAM

