Copyboard

NF-20

SERVICE MANUAL

PLUS

31.1.2014. Ver.1.2

CONTENTS

1. COMPLIANCE OF SAFE REPAIR 3
1-1. Cautions during Product Movement 3
1-2. Cautions during disassemblying and assembling ...3
2. SPECIFICATIONS 4
2-1. Product Specifications 4
2-2. Names of the Parts.....5
2-3. Control Panel 7
2-4. Meaning of Error Messages 8
3. TROUBLE SHOOTING 9
4. DISASSEMBLY AND ASSEMBLY 10
4-1. Tolls Required 10
4-2. Caution.....10
4-3. Disassembly and Assembly Procedures 10
4-4. Disassembly and Assembly 11
5. ADJUSTMENT.....18
5-1. Calibration.....18
5-2. Changing the Internal Program of NF-20 Main Set....19
5-3. Test mode.....20
6. DEVICE SETTING.....21
6-1. CB Setup (operating the copyboard's buttons).....21
7. CABLE AND CABLE CONNECTION 24
8. PARTS LIST 25
1. PANEL SIDE 25
2. MAIN BOARD CIS UNIT CABLE 27
3. SHEET FRAME 29
4. ACCESSORIES 31
5. CARTON 32
6. NF-20-T.....33
7. SCREWS & WASHERS 35

1. COMPLIANCE OF SAFE REPAIR

Be sure to read this Service Manual before providing services. In the PLUS Copyboard, full consideration is taken to ensure the safety for a fire, electric shock, injury, harmful radiation, and substance. Therefore, observe the notice described in this Service Manual so that the safety is kept when providing services. Moreover, be sure to observe the notice described in the User's Manual.

Pay attention to the following during service inspection.

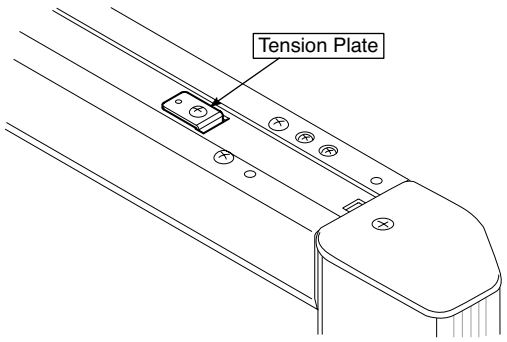
1-1. Cautions during Product Movement

• It is necessary to remove the products when making the service of products put on the wall. At that time, hold the product by two or more persons to prevent the product from dropping or a person from falling down.

1-2. Cautions during disassembling and assembling

1. When doing repairs, make sure that power plug is pulled out to insure safety.
2. Make sure that parts and screws and wiring, etc. are returned to their original positions. Tube, tape and other insulation materials have been used for safety reasons. The internal wiring has been designed to avoid direct contact with hot parts or parts under high voltage when using clamps or other tools.
3. The parts used in this device have special safety features such as flame-resistance and anti-voltage properties. When replacing parts, always use parts supplied from the factory.
4. After finishing operations make sure that all parts and wires have been returned to their original position and that there has been no deterioration of the area around the location that was worked on.
5. Be sure to use an earth band (wrist band) during repair and inspection.
6. Aluminum is used for this product as materials. During assembling and disassembling, be careful not to mistake the type of screws. Depending on the screw used, the screw hole is damaged and parts may be unable to be fixed properly.

CAUTION: Never remove the two tension plates at the top and bottom because they fix a spring.



2.SPECIFICATIONS

2-1. Product Specifications

BOARD TYPE (Model name)			NF-20
Form	Installation method		Wall- hanging or self-standing type (T-legged)*1
	External dimensions (T-shaped legs*1)		W830 × D72 × H955 mm
	Main unit weight		10 kg
	External dimensions of the T-legged stand (including the main body)*1		W830 × D674 × H1850*3 mm
	T-shaped legs weight*1*2		8.3 kg
Board	Panel size		H650 × W910 mm
	Effective reading size		H630 × W900 mm
	Number of Pages		2
	Paging		Endless in one direction (Horizontal scrolling)
	Drive method		Sheet movement
	Reading method		CIS (Contact Image Sensor)
	Reading illumination light source		RGB,LED
	Reading resolution		Main scanning direction (vertical sheet surface) 1.92 dots/mm (50 dpi or equivalent) Sub scanning direction (horizontal sheet surface) 1.92 dots/mm (50 dpi or equivalent)
	Reading time		Black & white: approx. 8 Sec. Color: approx. 8 Sec.
Interface	Board	File format	JPEG, PNG, PDF
		Screen size	Standard type: 624 x 824 dots (fixed) Hijh-Resolution:1248 x 1728 dots (fixed)
	External memory	Type	USB Flash memory
		Compatible FAT types	FAT 16, 32
		Interface	USB2.0
	Network	LAN port	RJ-45(10Base-T/100Base-TX)
	Printing	Printing resolution	300 dpi or equivalent
		No. print colors	8-tone color or 2-tone monochrome
		Printer interface	USB 2.0
Added functions	Clock		Used for the timestamp and for file dating properties
	PC connection		Images can be acquired and device settings made via USB (using a browser)
Power supply	AC power adapter		Input : AC100–240V/50–60 Hz, Max 0.75 A Output : DC 12 V, 3.0 A
	PC consumption		In standby: 3W, During operation: 8W (not including printer)
Operating conditions	Temperature:		10–35°C
	Humidity:		30–85% (No condensation)
Miscellaneous	Ruled lines		34 mm cross-ruled squares
	Miscellaneous		Dedicated markers (black, red, blue, and green)
Operating environment	Web browser		Windows :Internet Explorer 8.0 or greater Macintosh : Safari 5 or greater * Enable JavaScript

Remarks

*1: T-legged (stand) is sold separately. The height of the stand can be adjusted in 2 steps - 1850 and 1650 mm. The inclination angle can be adjusted in three steps - 0, 7 and 10 degrees.

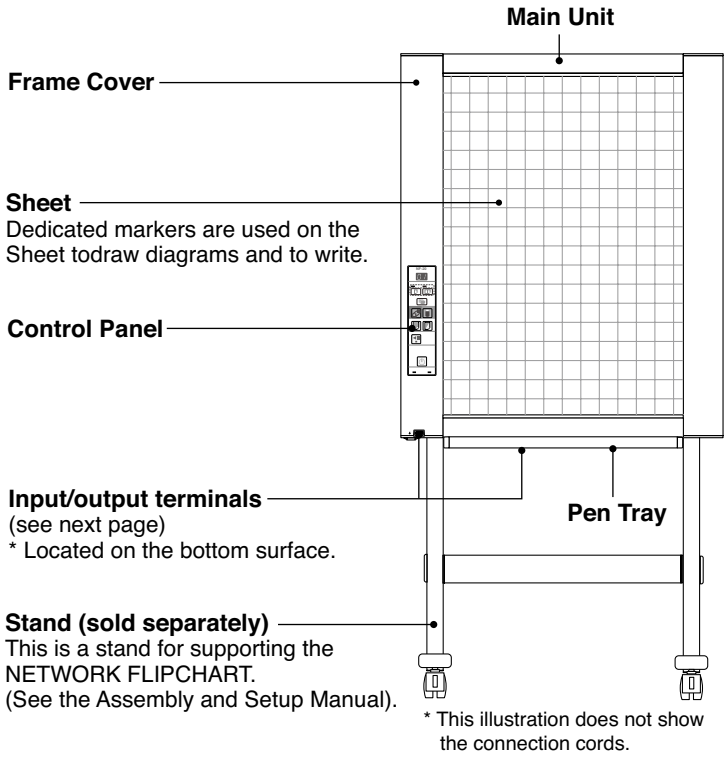
*2: Printer tray is sold separately.

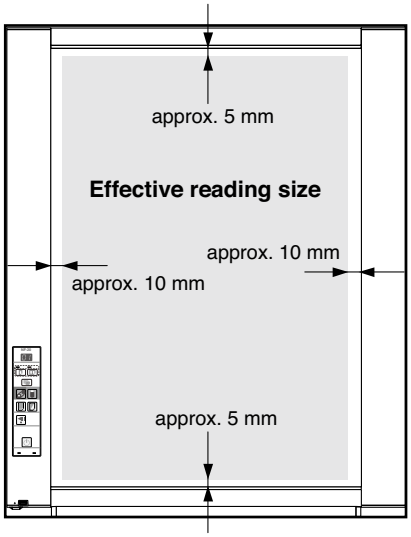
*3: The maximum dimension is indicated for the height (H).

• Please note that for quality improvement purposes, specifications and design are subject to change without prior notice.

2-2. Names of the Parts

Front



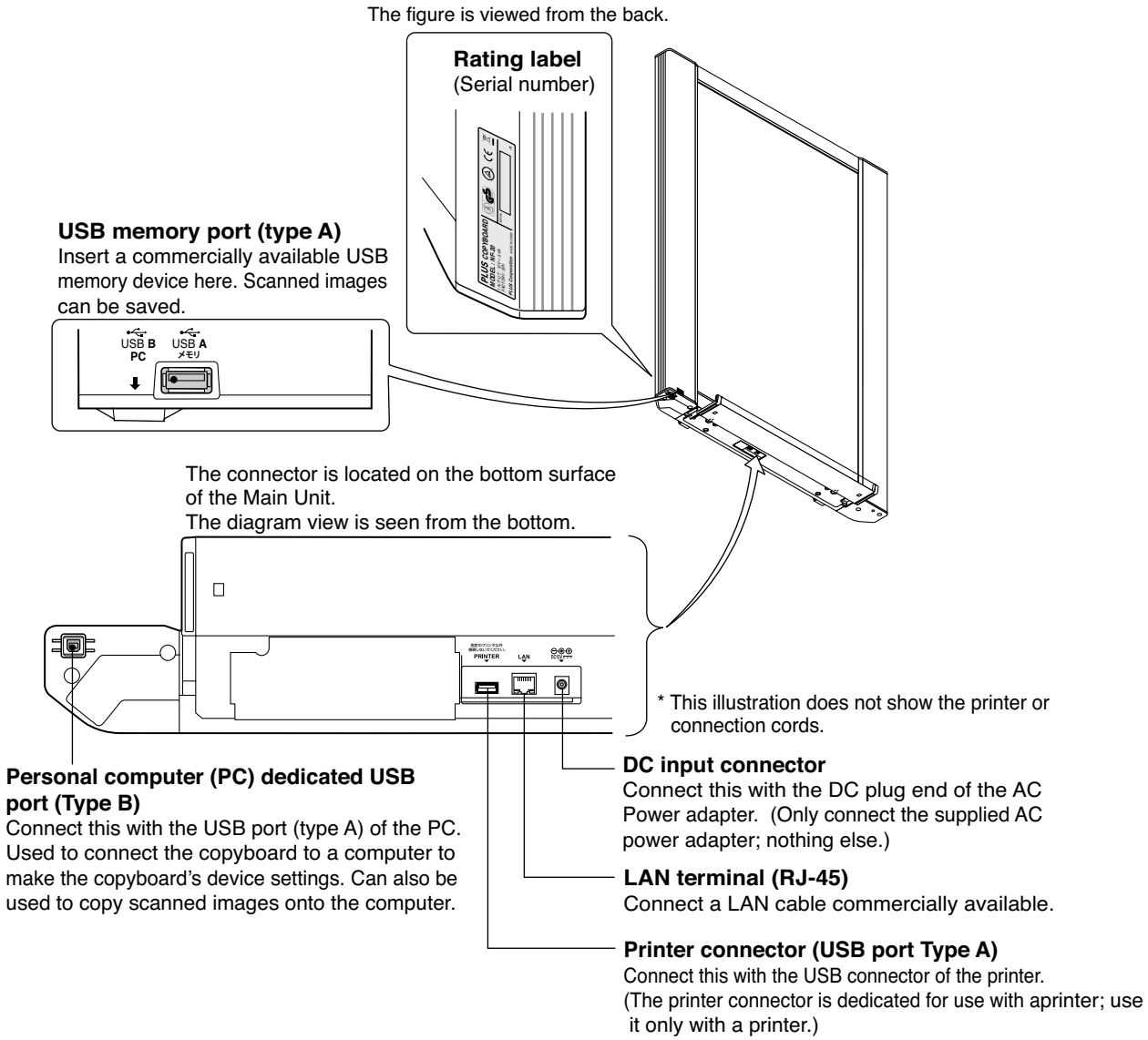


Effective Reading Size
The area that can be copied is the gray area of the diagram.

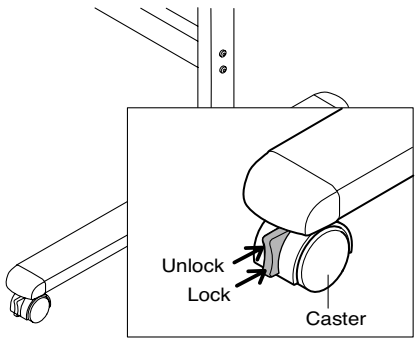
Note
- It might not be possible to print or copy when storing to USB memory or personal computer any portions that are drawn outside of this range.

SPECIFICATION

Input/output terminals

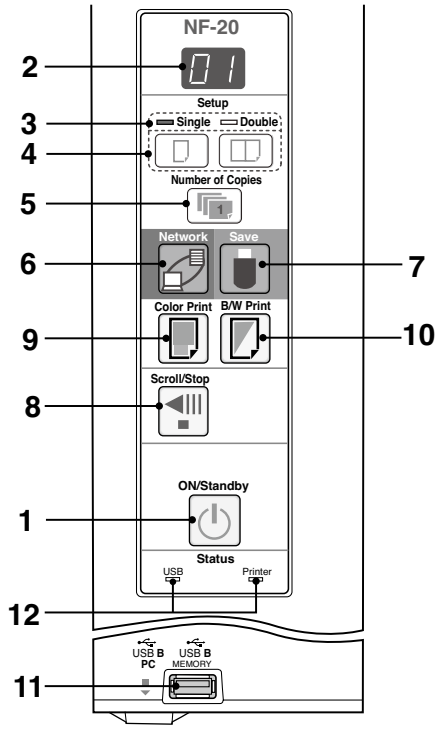


Locking/unlocking the stand's Casters
After installation, Lock the Casters with the stoppers. When moving the stand, Unlock the Caster's stoppers.
The stoppers are locked when the bottom is pressed. Press the top to Unlock them.



2-3. Control Panel

When pressing a button, please press the center area (the square bulge). The button may not work if it is pressed on a corner.



1 ON/Standby ⏻ button
Turns the NETWORK FLIPCHART's power on and off (standby mode).

2 Display window
The number of copies, operating status and error messages are displayed on the 7-segment LEDs.

3 Single-sided / double-sided indicator
The single-sided / double-sided setting condition is indicated by the status of the lamps (orange in color).
When the single-sided lamp is turned on: Single-sided scanning (currently visible face)
When the double-sided lamp is turned on: Doublesided scanning on the front and back

4 Single-sided / Double-sided button
This button sets up the scanning mode for either singlesided scanning (of the currently visible face) or simulta neous doublesided scanning.
When the double-sided button is pressed, double-sided scanning will be cancelled if other operating buttons are not pressed within the next minute and the device will then return to the single-sided scanning mode.
When the power supply is switched off, the device goes into the single-sided scanning mode.

5 Number of Copies ( )/Test print button
Press this button to set the number of copies to be printed (max. 10). The number of copies is displayed on the display window.
* " P " is displayed during test printing.

6 Network button
Move the sheet to scan one or both sides of the sheet and then store the scanned image in the storage location.
The data is saved either on the NETWORK FLIPCHART or in a folder on the FTP server, as previously set.

7 Save button (USB memory storage)
Move the sheet to scan one or both sides of the sheet and then store the scanned image in the USB memory stick.
When connected to a computer by USB cable, the image is stored in the NETWORK FLIPCHART's internal memory.

8 Scroll/Stop button
Scrolls the sheet one screen portion left, then stops automatically. A press of this button while scrolling will stop the scrolling.

9 Color Print ( ) button
Move the sheet to scan one or both sides of the sheet and then print out the number of sheets shown in the display window in color.

10 B/W Print ( )button
Move the sheet to scan one or both sides of the sheet and then print out the number of sheets shown in the display window in monochrome.

11 USB A Memory port (USB Type A)
Connect a USB memory stick commercially available.

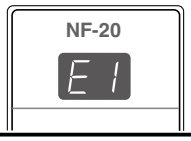
12 Status
The connection status of the main body, USB memory, network or printer is indicated by the on / off status of the lamps.
When the function is working normally, the status lamp will light up in green. When there is an error, the status lamp will light up in red (see table below).
Check according to the error display in the display window.
See Page 8 for information on the errors and the error resolution methods.

Display window	Meaning	USB indicator	Printer indicator
E1	Printer problem	Off	Lit red
EL	An unsupported printer is connected		
E2	USB Memory not recognized	Lit red	Off
E3	USB Memory storage problem		
US	USB memory not connected		
FL	Memory is full		
USb※	Warning that disconnection of USB memory has been forgotten		
E4	Reading error	Flashing red	Flashing red
ES	System error		
EH	Time setting error		
E8	Security protection	Off	Off
E9	Color printed prohibited		
L1	LAN cable disconnected		
L2	FTP server recognition error		
L3	FTP server connection failure		
L4	FTP server writing failure		
LS	Network or other error		
LE	Network setting reset error		
HE	Header/footer writing error		

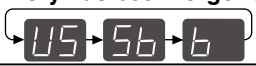
* The letters "USB" scroll on the display.

SPECIFICATION

2-4. Meaninig of Error Messages



If any of the following flashing indications appear in the display window of the control panel, please check the matters described below.
Error messages flash for 5 seconds, then stop flashing, remaining lit.

Error Display Number	Problem and Solution	
E1 **Printer not connected No printing paper Printer problem**	• Is the printer cable connected? • Is power being supplied to the printer? • When the printer uses an AC Power Adapter, is the cable disconnected somewhere?	• Connect the printer properly and switch on the printer power.
	• Has paper been set in the printer?	• Turn the power of the printer off and then on again, and load the printer with A4 or Letter size paper.
	• Is the printer error indicator flashing (or lit)?	• Read the printer instruction manual.
E2 **USB Memory not recognized**	• Is the USB Memory unformatted.	• This unit supports the FAT and FAT 32 formats. Perform the formatting with the personal computer.
	• Is a USB Memory that is not supported by the Copyboard being used?	• The file formats for USB memory devices that can be used on this copyboard are FAT and FAT32.
	• Is the USB Memory device plugged in fully?	• Please check the operation with a personal computer.
	• Is the USB Memory damaged?	—
E3 **USB Memory storage problem**	• An error occurred during USB Memory storage.	• Please perform USB Memory storage again. • Do not insert or remove the USB Memory during processing.
E4 **Reading problem**	• There is a lighting fault of the reading light source, or a read signal error.	• Unplug the power plug from the power outlet and then plug it in again.
E5 **System error**	• There is a Memory or internal fault.	• Unplug the power plug from the power outlet and then plug it in again.
E8 **Security protection**	• The operation is set to “Disable” in the security settings.	• Change the setting of the desired item to “Enable”.
E9 **Color printing prohibited**	• Coloring printing is set to “Disable”.	• Change the color printing setting to “Enable”.
US **USB Memory not connected**	• USB Memory device is not plugged into the Main Unit.	• Plug the USB Memory device into the USB port.
FL **USB Memory is full**	• There is no available space.	• Please delete unnecessary data using a personal computer.
EL **An unsupported printer is connected**	• A printer that is not supported by the Copyboard has been connected.	• Press the ON/Standby button and switch off the power. When a record is required, switch on the power and save to USB Memory.
EH **Time setting error**	• An error has arisen when setting the time.	• Start setting the date/time over from the beginning.
When the “USB” letter display is flowing...Warning that disconnection of USB Memory has been forgotten 	• Did you press the ON/Standby button while the USB Memory device was plugged into the Main Unit?	• A USB Memory device is plugged into the main unit. When the USB Memory device is disconnected, the power will be switched off and the unit will enter the standby mode.
L1 **LAN cable disconnected**	• No cable is connected to the LAN terminal.	• Connect the LAN cable properly.
L2 **FTP server recognition error**	• The user name or password is wrong.	• Input the correct user name and password.
L3 **FTP server connection failure**	• The FTP server’s IP address is wrong.	• Consult the network administrator then set the FTP server’s IP address.
L4 **FTP server writing failure**	• There is no FTP storage folder.	• Consult the network administrator then set the FTP storage folder.
L5 **IP address not set, other network error**	• An error other than one indicated by L1 to L4 has occurred.	• Unplug the power cord from the power outlet then plug it back in.
LE **Network settings reset errorfailure**	• An error has occurred in resetting the network settings.	• The network reset number is wrong. Input the correct number and repeat the operation.
HE **Header/footer writing errorfailure**	• This occurs when the size of the inserted image is too large.	• Adjust the image then repeat the operation. operation.

 If the problem persists, please contact your nearby PLUS Corporation sales office, dealer, or store.

3.TROUBLE SHOOTING

By checking operations, it is possible to carry out judgments on malfunction to a certain extent. Carry out the following checks before disassembling the equipment.

1. Press the Standby (On) button and turn on the power.
   Is the power turned on?

   No →
   - The AC Adapter is disconnected from the wall outlet.
   - The AC Adapter is defective.
   - The Main Board Assy DC jack part is defective.
   - The SW Board Assy is defective.
   - The connectors of the SW Harness is disconnected.

   Yes ↓

   Does the Error display appear?

   Yes →
   The error display (E5) appears. (See section 2-4. Error display)
   - The Main Board Assy is defective.

   ↓

   Flashing indicator keeps "rotating" sequentially.

   Yes →
   - The Main Board Assy is defective.
   - The SW Board Assy is defective.

   No ↓

2. Press the Scroll / Stop button.
   Does the sheet operate normally?

   No →
   - The connectors of the Motor Harness is disconnected.
   - The loser of the Timing Belt, the slack.
   - The Sheet Motor Unit is defective.
   - The Main Board Assy is defective.

   Yes ↓

3. Press the Color print / B/W Print button (when a printer is used).
   Does the error display (E1) appear?

   Printer failure. (See section 2-4. Error display.)
   - The printer is defective. (See the Instruction manual of a printer.)
   - The power of a printer is not turned on.
   - Printer paper is exhausted.
   - A Printer is not connected definitely.
   - The Main Board Assy is defective.

   No ↓

   Is the object written in the board printed normally?

   No →
   A part of image is displayed black.
   - The Main Board Assy is defective.
   - The white level calibration is adjustment.
   - Misalignment of CIS Unit: Replace the CIS Unit for improvement.
   - Foreign matter adheres to the CIS Unit.

   An image (print) is rubbed.
   - Deterioration of CIS Unit.
   - The marker (written character) becomes blurred.
   - The ink cartridge (Drum Unit) is exhausted.

   A specific color is not printed or the printed color is improper (when a color printer is used).
   - The ink of a printer is exhausted.
   - The ink cartridge of a printer is defective.

   Yes ↓

4. Press the Save button (when a USB Memory is used).
   Do the error displays (E2, E3 and US) appear?

   Yes →
   Error display: E2 is displayed. (See section 2-4. Error display)
   - A USB Memory is not formatted.
   - An incompatible USB Memory is used.
   - A USB Memory is defective.
   - A USB Memory port is defective.

   Error display: E3 is displayed.
   - Memory storage error: Repeat save operation again.
   - The Main Board Assy is defective.

   No ↓

   Is the object written in the board stored normally?

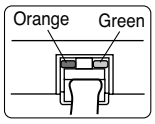
   No →
   black line is put in a picture.
   - Foreign matter adheres to the CIS Unit.
   - The CIS Unit is defective: Replace the CIS Unit for improvement.

   An image is rubbed.
   - Deterioration of CIS Unit.
   - The marker (written character) becomes blurred.

   Yes ↓

5. Confirm the Main board Assy and LAN Port, (RJ-45), LED display. (During network connection)

*The LED (green, orange) of a LAN port can be confirmed when you remove the cable cover of a main board. The current communication state can be grasped by confirming the LED.



Normal operation

- When a network can be connected normally → Green blinks, Orange Off (During 10Base-X)
- When a network can be connected normally → Green blinks, Orange Lit (During 10Base-X)
- When a network cannot be connected → Green Off, Orange Off (During non-connection such as disconnection the LAN cable)

4.DISASSEMBLY AND ASSEMBLY

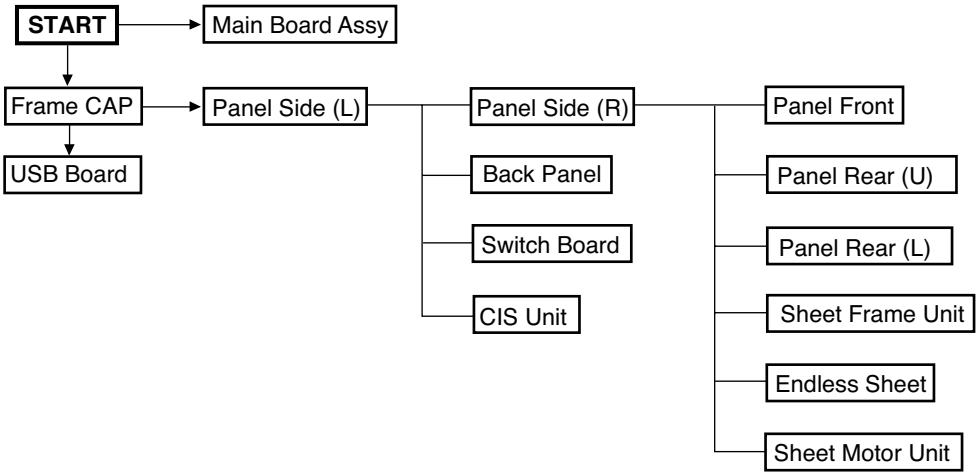
4-1. Tools Required

- Phillips screwdriver (+) No. 2
- Phillips screwdriver (–)

4-2. Caution

- See “1. Compliance of Safety Repair and Safety Inspection” before disassembling and assembling.
- Put on gloves so that you do not cut your hand at the sharp edge of a frame during disassembly and assembly.
- See “7. Wiring Diagram” and “8. Parts List” for the parts name or wiring.
- The point especially requiring attention when handling parts or performing disassembly and assembly contains a caution. Be sure to follow this caution.

4-3. Disassembly and Assembly Procedures



4.4. Disassembly and Assembly

This section describes one example of disassembly and assembly procedures. For the actual operation, disassemble and assemble the required parts with reference to “4-3. Disassembly and Assembly Procedures”.

* Remove the main set from the stand and proceed with the Endless Sheet. (Perform the operation on a mat.)
* Remove the Pen Tray before performing the procedure below.

1) Remove the Main Board Assy. (See Figs. 1 and 2.)

1.Remove the”S-1" screw shown in the figure 1 and then remove the Cable Cover.
2.Remove the”S-3" screws shown in the figure 2 and then remove the Main Board Shield.

Note: If a screw is tightened too tightly, a screw hole may be broken.

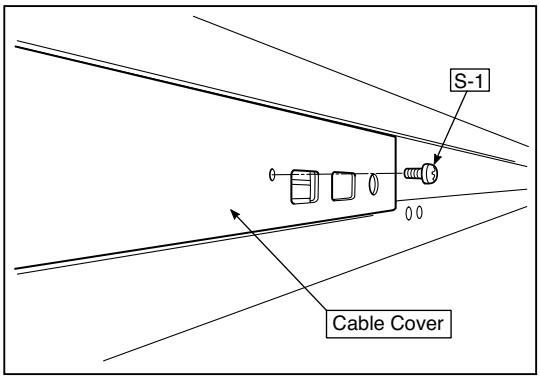


Fig.1

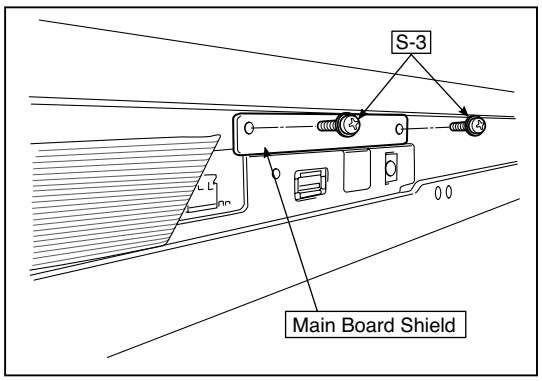


Fig.2

3.Disconnect the connector (CN1,2,3,6) connected to the Main Board Assy shown in the figure 3.(See Figs. 3 and 4,5.)
4.Remove the”S-1" screws shown in the figure 4 and then remove the Main Board Assy from the Main Board Shield.
5.When replacing the Main Board Assy shown in the figure 5, insert the Main Board Assy from the oblique direction so that the parts mounted at the rear of the Main Board Assy are not damaged.

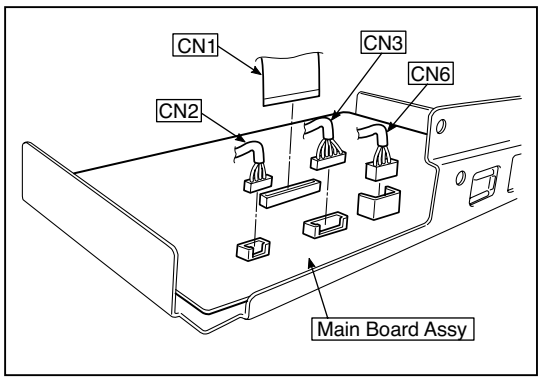


Fig.3

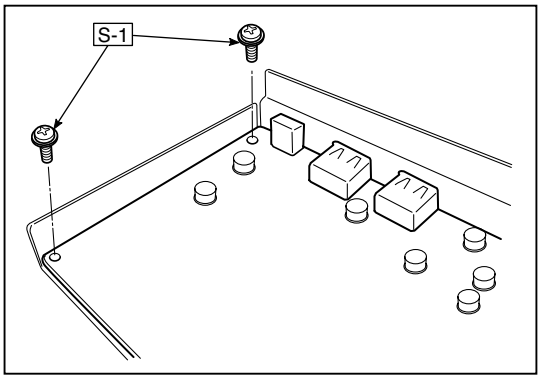


Fig.4

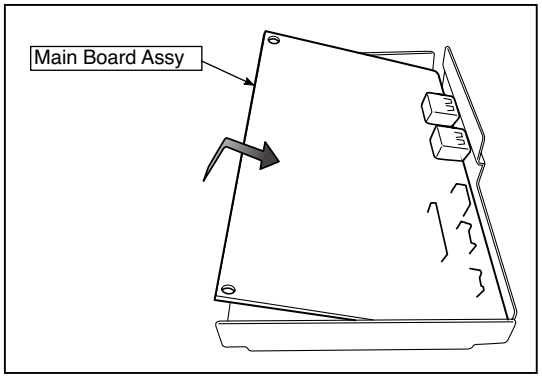


Fig.5

DISASSEMBLY AND ASSEMBLY

2) Remove the Frame Cap PC. (See Fig. 6.)

1.Remove the “S-2” screws shown in the figure 6 and then remove the Frame Cap PC.

2.Disconnect the connector connected to the USB Board shown in the figure 7.

3.Remove the “S-3” screws shown in the figure 8 and then remove the USB Board.

Note: Fix an insulating sheet to the screws when installing the USB Board Cover.

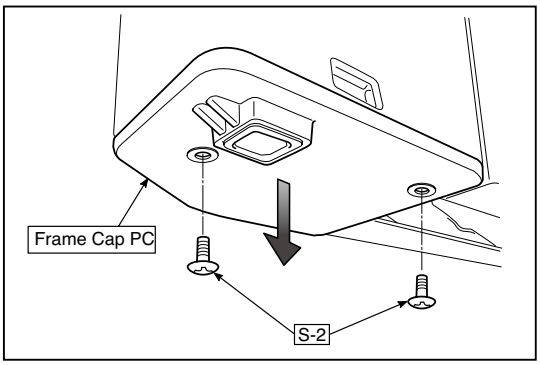


Fig.6

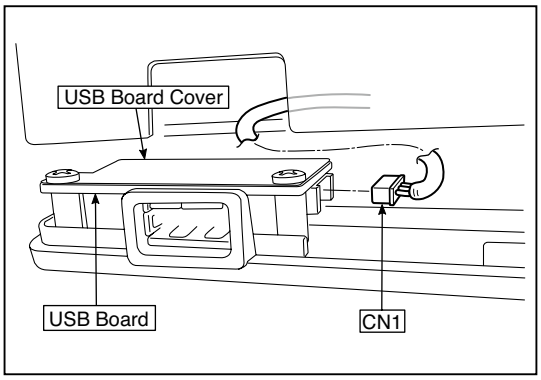


Fig.7

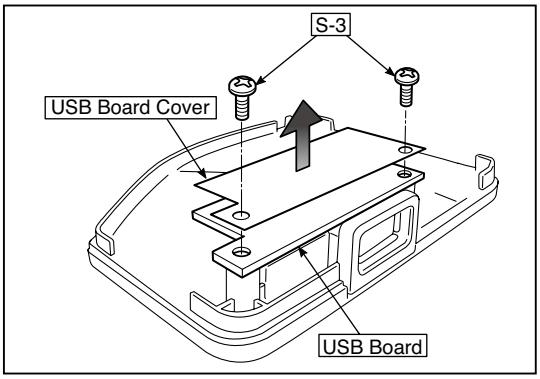


Fig.8

3) Remove the Frame Cap. (See Fig. 9.)

1.Remove the “S-2” screws shown in the figure 9 and then remove the Frame Cap.

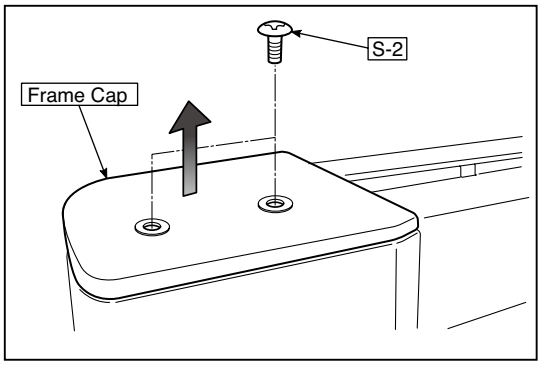


Fig.9

4) Remove the Panel side L. (See Fig. 10)

1.Remove the “S-4” screws shown in the figure10. Disconnect the connector connected to the Switch Board and then remove the Panel Side L.

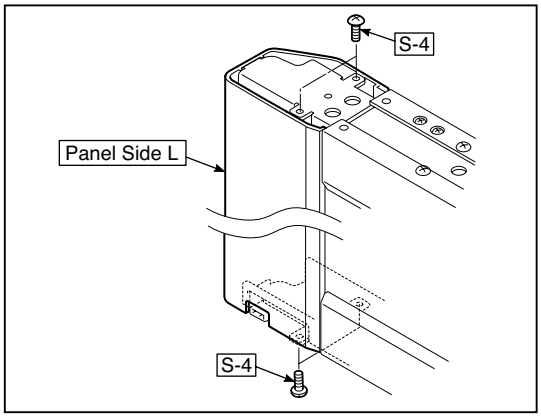


Fig.10

5) Remove the Panel Side R. (See Fig. 11)

1 Remove the “S-4” screws shown in the figure 11 and then remove the Panel Side R.

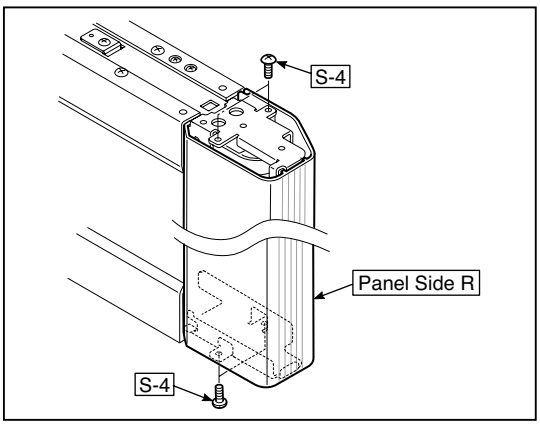


Fig.11

6) Remove the Back Panel. (See Fig. 12)

1.Slide the Back Panel and remove it shown in the figure 12.

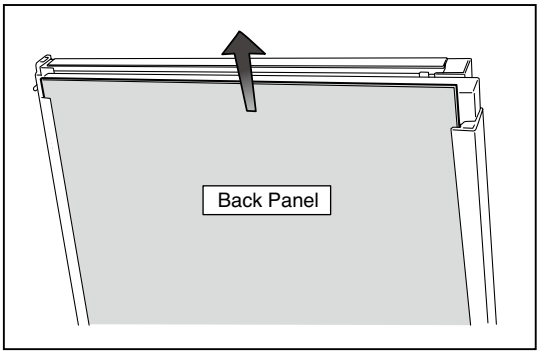


Fig.12

7) Remove the SW Board. (See Fig. 13.14)

1.Remove the SW Panel shown in the figure13.
2.Remove the Connector
3.Slide the white protrusion (resin) at the rear of a SW Panel from the top of the SW Panel surface to the bottom while pushing it with fingers.

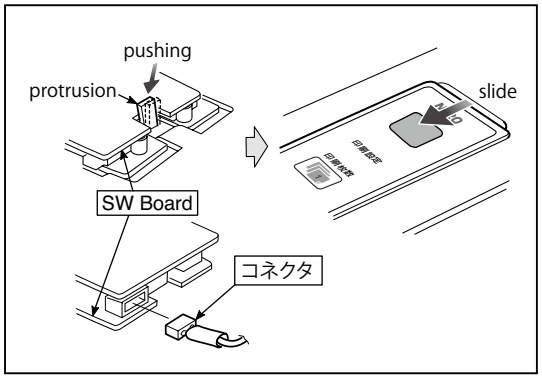


Fig.13

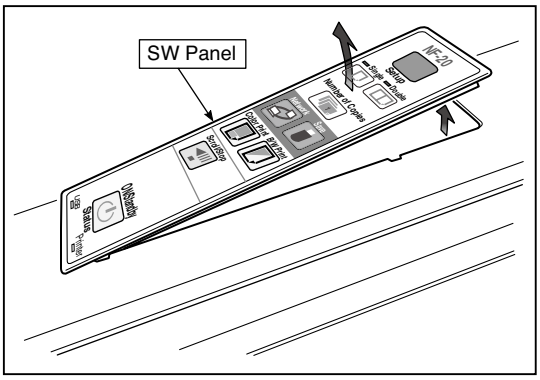


Fig.14

4.Remove the “S-3” screws shown in the figure 15 and then remove the SW Board.

Note: Pay attention to the wire drawing of the SW Cable during assembling.

1.Put the protrusion from the bottom of the SW Panel when returning the SW Panel to the former position.
2.Slide the protrusion in the direction indicated by the arrow.
3.Confirm that the hook of the SW Panel is completely put in the notch of the Panel Side (L).

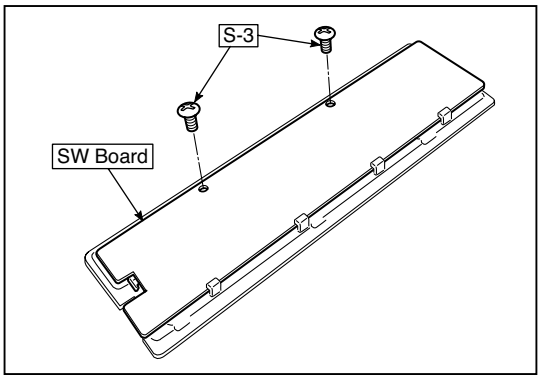


Fig.15

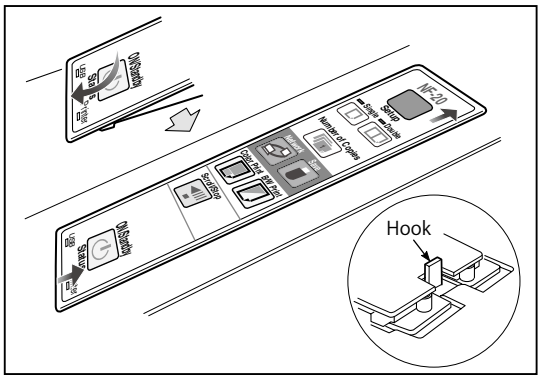


Fig.16

8) Remove the CIS Unit. (See Fig. 17.18)

1.Disconnect the CIS Cable (FFC), shown in the figure 17, from a connector.
2.Remove the “S-2” screws shown in the figures18 and 19 and then remove the CIS Unit.

* At that time, operate while holding it with hands so that the CIS Unit does not fall. Pay attention to the top and bottom when installing the CIS Unit.
* The CIS Unit with a CIS Support (see Fig. 20) is located in the upper position.
* When a CIS Unit is replaced, be sure to perform White level calibration. See page 19 3.White level calibration

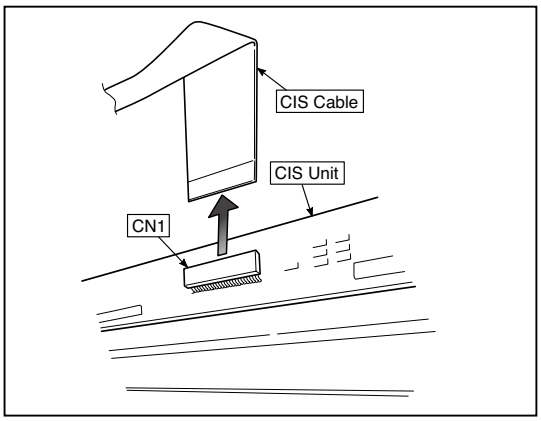


Fig.17

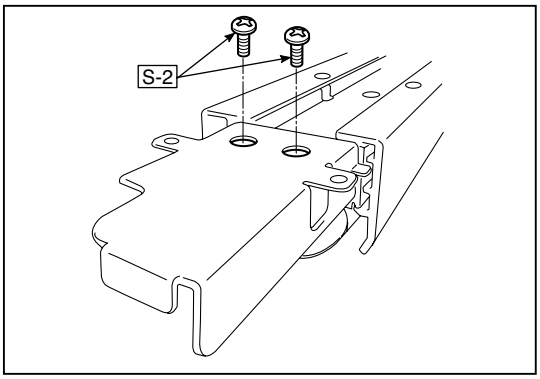


Fig.18

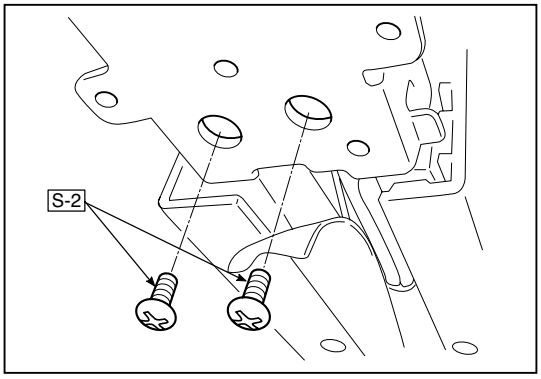


Fig.19

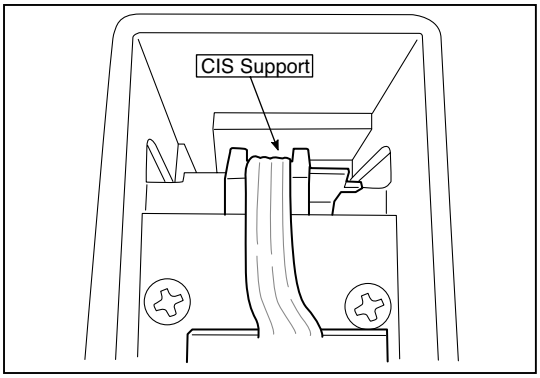


Fig.20

9) Remove the Panel Front Upper and Panel Rear Upper. (See Fig. 21)

1.Remove the “S-4” screws shown in the figure 21 and then remove the Panel Front Upper and Panel Rear Upper).

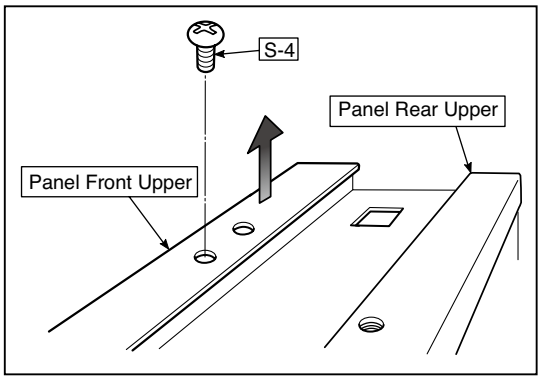


Fig.21

10) Remove the Panel Front Lower and Panel Rear Lower (See Fig. 22)

1.Remove the “S-4” screw shown in the figure 22 and then remove the Panel Front Lower and Panel Rear Lower.

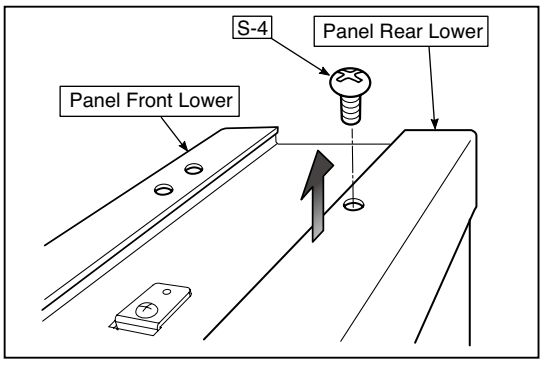


Fig.22

DISASSEMBLY AND ASSEMBLY

11) Replace the Endless sheet.

1. Remove the “S-2” screws shown in the figure 23.
2. Remove the Panel Plate shown in the figure 24.
3. Remove the stopper “S-4” screws in the (two upper and lower) Tension Roller Bases shown in the figure 25.
4. Push the Tension Roller Base block shown in the figure 26 into the inside and fix the Tension Roller Bases.

Notes:

- Be careful not to damage or fold it when handing the Endless Sheet.
- Replace it by two persons during replacement of the Endless Sheet.

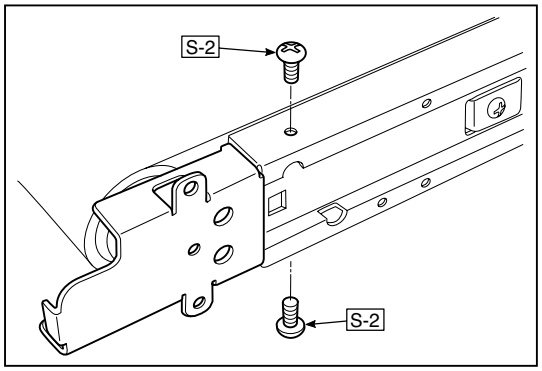


Fig.23

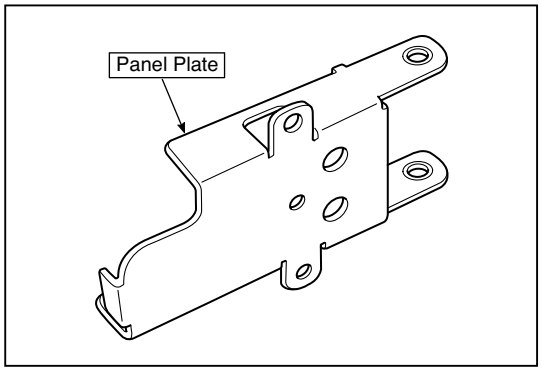


Fig.24

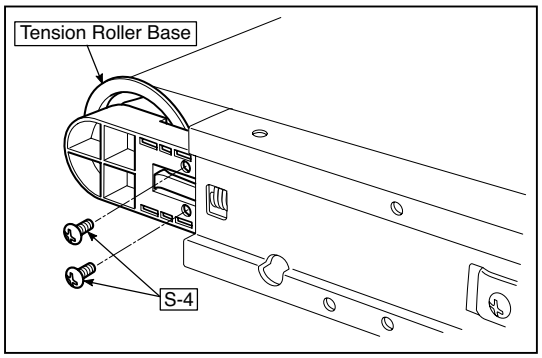


Fig.25

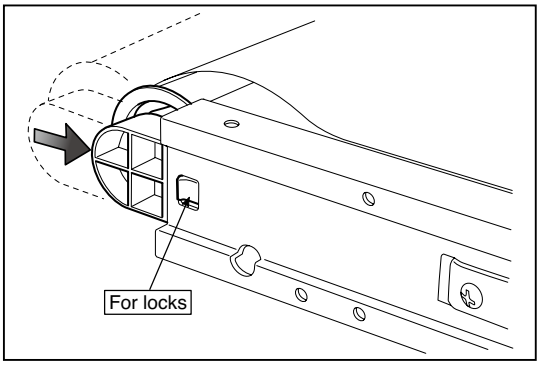
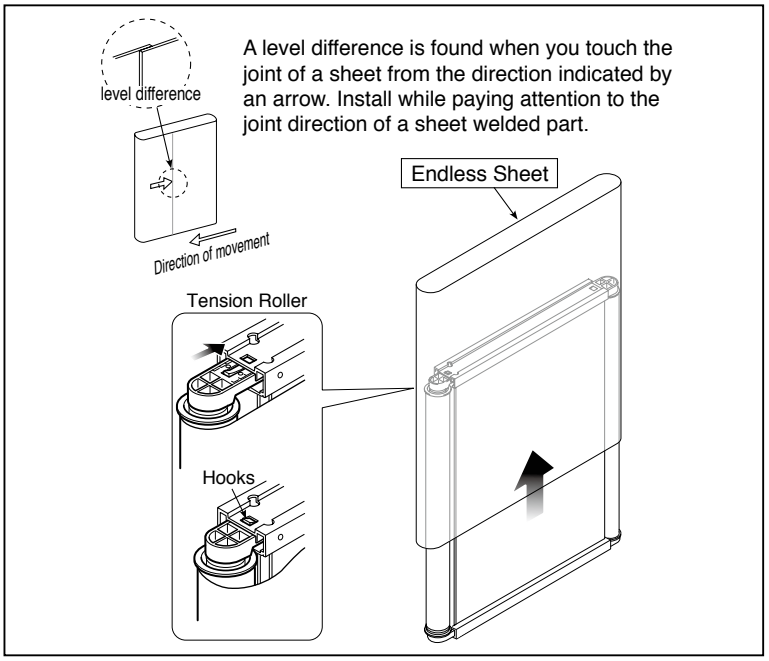


Fig.26



12) Replace the Sheet Motor Unit. (See Fig. 27)

1. Remove the “S-4” screws shown in the figure 27.
2. Disconnect the connector of the Sheet Motor Unit.

Note: Be careful not to interfere with the Sheet Guide Bar when installing the Sheet Motor Unit.

*Doing so causes vibration or strange noise to occur.

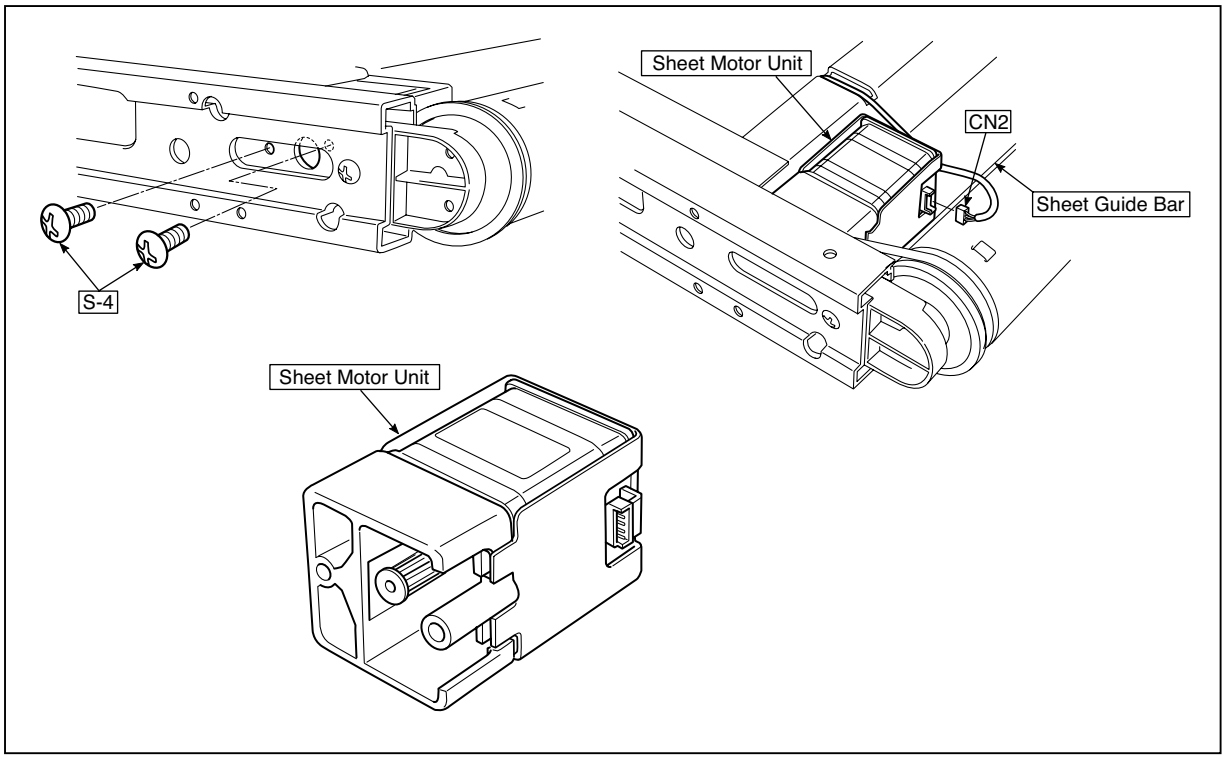


Fig.27

5. ADJUSTMENT

5-1. Calibration

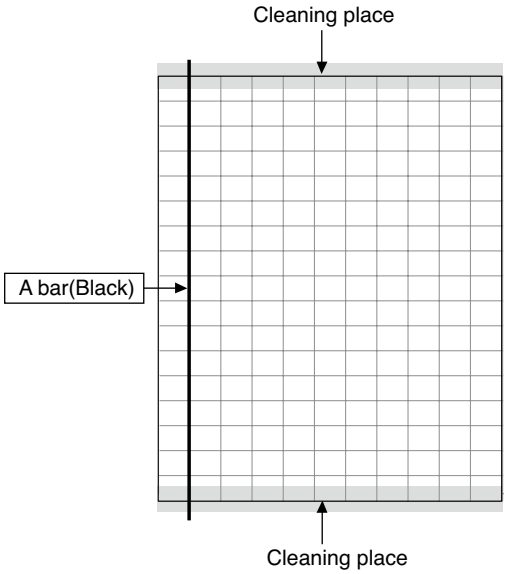
Calibration is required in the following cases.

- When a Main Board Assy is replaced
- When an Endless Sheet is replaced
- When a Sheet Frame Unit is replaced

For the replacement of a CIS Unit in the market, usually, use a unit that has been adjusted at a factory.

* Be sure to replace the CIS Unit if any failure is not improved irrespective of white calibration readjustment when it occurs in an image.

[Calibration]



[Preparation]

Enter a vertical line (black) between the upper and lower ends of an Endless Sheet.

* Clean the (both sides of) endless sheet and then perform calibration.

[Calibration mode]

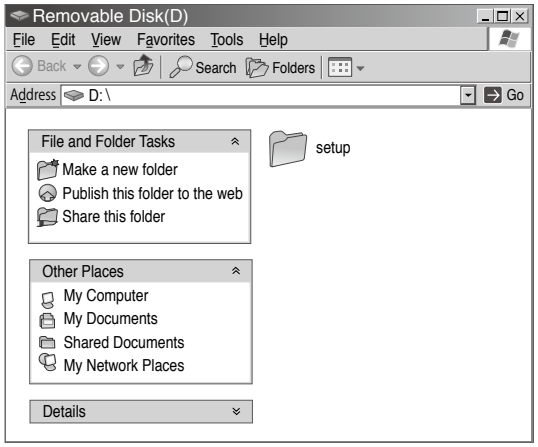
- Insert the plug of an AC Adapter into the main set so as to apply an electric current (in the Standby state).
- Press the Save button three times while pressing and holding the Power (ON/Standby) button.
  Segment display in test adjustment mode: <AP>
- Press the Feed/Stop button. Segment display: “01”.
- Press the Save button.
- Segment display appears when the Endless Sheet rotates for normal termination: <AA>

1) Calibration is started, ·····<1. >
2) Initialization,·····<1.0>
3) The first vertical line is being detected,·····<1.1>
4) The vertical line after one cycle is being detected,·····<1.2>
5) When no vertical line can be detected, and·····<1.2.>
6) When calibration succeeds·····<AA >

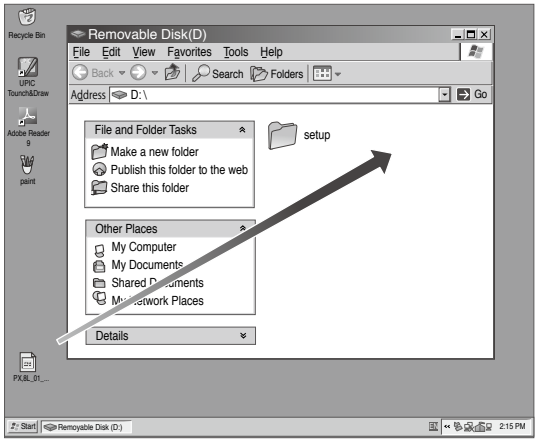
5-2. Changing the Internal Program of NF-20 Main Set
[How to rewrite program using PC]

Equipment used
1) Firmware data for NF-20
2) PC main set (OS: Windows XP/Windows Vista/Windows7)
3) USB Cable

1. Connect the PC and Copyboard main set using a USB Cable.
2. Insert the plug of an AC Adapter into the DC jack of the Copyboard main set and turn on the power.
3. A screen appears when the Copyboard is recognized as a removable disk.
   If any screen is not opened, open the removable disk of the Copyboard using Explorer.



4. Copy the firmware data “PX13H_NF20_XX_XX.brm”, to be updated, to the removable disk. (Drag & Drop)



5. The display window of the Copyboard main set automatically changes to “UP” blinking display.
6. Press the Save button. The display window changes to rotation display. A program then begins to be rewritten.
7. Rewrite operation is completed when the display window changes to “AA” blinking display.
8. Pull out the plug of the AC Adapter once, turn on the power gain, and then confirm the version of firmware in a test mode.

ADJUSTMENT

5-3. Test mode

1. Program version display

- Insert the plug of an AC Adaptor into the main set to apply the electric current (in the Standby state).
- Press the Save button three times while pressing and holding the Power (ON / Standby) button.
  Test / adjustment mode segment display: <A.P>
- Press the (Feed / Stop) button three times. Segment display: <03>
- The segment display changes every time you press the Save button.
  The first : Application major version
  The second : Application minor version
  The third : Boot loader major version
  The fourth : Boot loader minor version
  The fifth : Switch major version
  The sixth : Switch minor version
  The seventh : Date setting: US: North America: EU: Other than North America
  The eighth : Result indication: (Blinking) <AA> : Success <EE> : Failure

* To terminate the segment display, press the Power (ON / Standby) button two times and set the display window to <01>.

2. Printer test mode

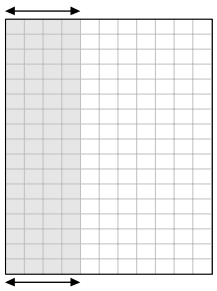
- Insert the plug of an AC Adaptor into the main set to apply the electric current (in the Standby state).
- Press the Save button three times while pressing and holding the Power (ON / Standby) button.
  Test/adjustment mode segment display: <A.P>
- Press the Feed / Stop button eight times. Segment display: <08>
- Press the Save button.
- Segment display appears after confirming a printing result: <AA> blinking
- Press the Power (ON / Standby) button. The current state returns to test mode <A.P>.

* A test pattern (based on color-bar dot display) of yellow, magenta, cyan, and black is printed when a color ink jet printer is connected.

3. White level calibration

Preparation

1. Clean the four-measure area on the left of an endless sheet.
2. Feed the endless sheet manually in the left direction by about three measures.



- Insert the plug of an AC Adaptor into the main set to apply the electric current (in the Standby state).
- Press the Save button three times while pressing and holding the Power (ON / Standby) button.
  Test / adjustment mode segment display: <A.P>
- Press the (Feed / Stop) button sixteen times. Segment display: <16>
- Press the Save button.
- Segment display: <AA> blinks. (Completion)
- Press the Power (ON / Standby) button. The current state returns to test mode <A.P>.

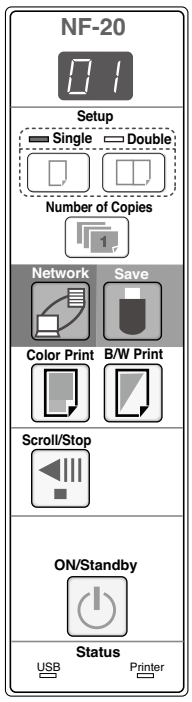
6.DEVICE SETTINGS

There are three ways to make the device settings: using the copyboard's operation buttons to make the settings ("CB Setup"), making the settings using a USB connection (simple network settings, and making the settings via LAN (detailed settings: "CB Setup" and "Network Setting".

6-1. CB Setup (operating the copyboard's buttons)

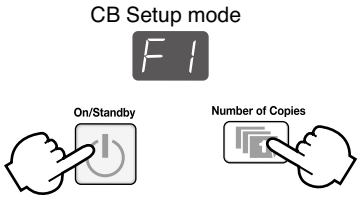
Basic setting operation

- Check that the power is on (that the display window is lit).
- When in the "CB Setup" mode, the copyboard will return to the normal mode if no buttons are operated for 10 seconds, so operate the buttons within 10 seconds.



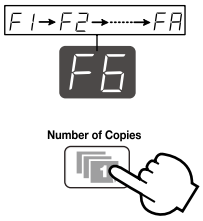
1 Switch to the CB Setup mode

While pressing the Power button, press the Number of Copies button, then release the Power button. The copyboard switches to the CB Setup mode.
"F1" appears on the display window.
"F1" is the time setting.



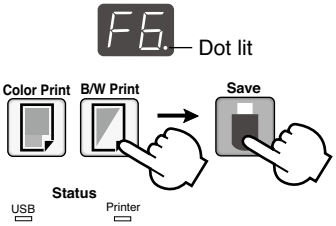
2 Select "the function number", then press the Save button

Press the Number of Copies button (the function switches each time the button is pressed, returning to F1 after FA) to select the desired function number, then press the Save button to set that function number.
For the item names of the function numbers, see the "Table of Function Numbers and Settings" on the following page.
• When the Save button is pressed, the function number to be changed is set and a dot lights (ex.: "F6.").



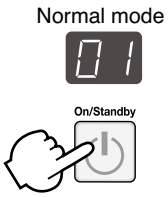
3 Select "the setting", then press the Save button

Press the Color Print or B/W Print button, check the setting, then press the Save button to set.
Check the setting according to whether the USB and Printer Status indicators are lit or off. See the "Table of Function Numbers and Settings" on the following page.



4 Exit the CB Setup mode

Press the Power button. The copyboard returns to the normal mode.
The display window returns to the number of copies display.



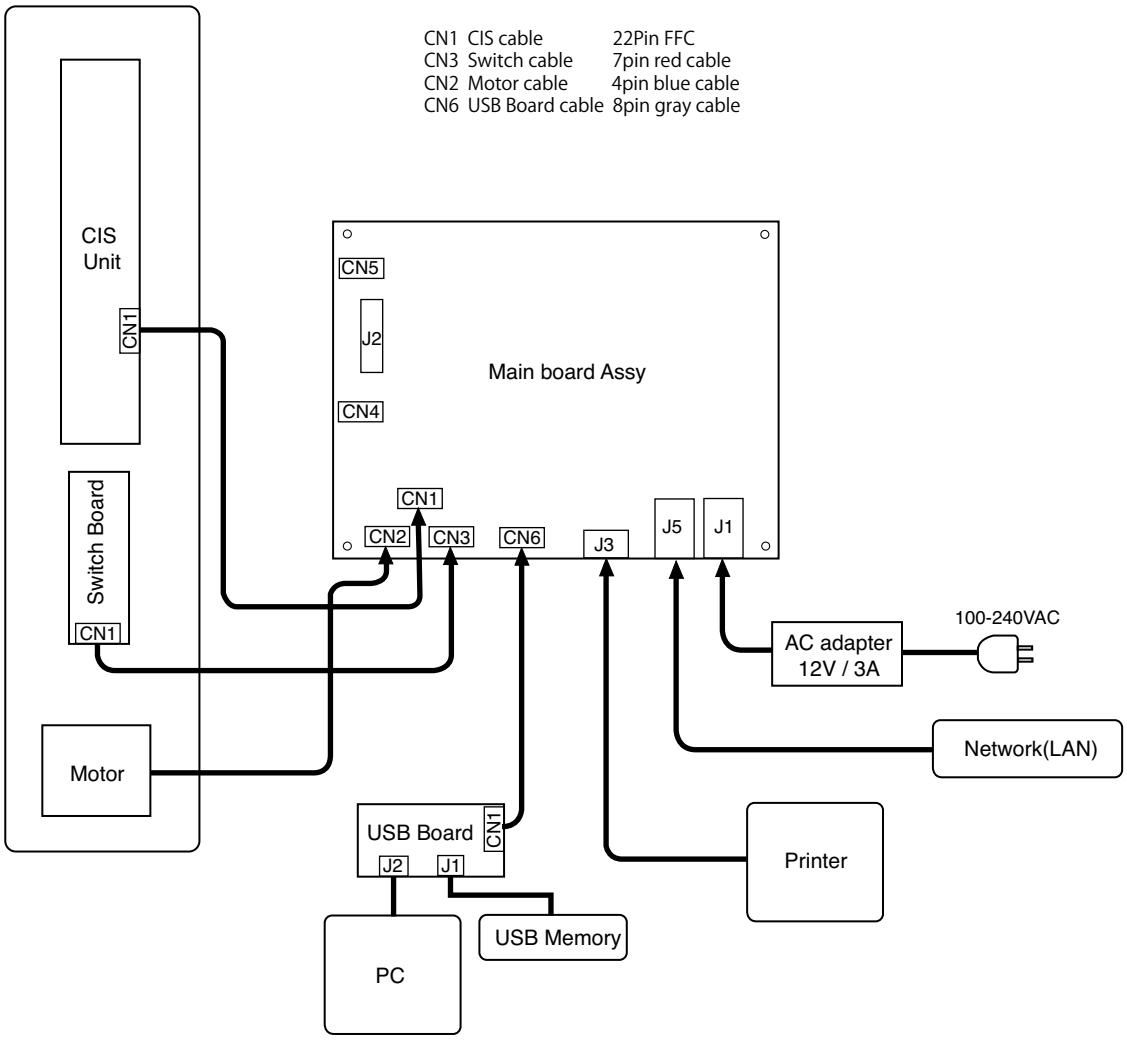
DEVICE SETTINGS

Table of Function Numbers and Settings

Function Number	Setting Item	Description	Setting	Status Indicators	
F1	Time Setting	The date and time are stamped on the printing paper and recorded in the file information when files are stored.	Year, month, day, hours, minutes	Not lit	
F2	Paper Size	Selection of whether to print in A4 paper size or letter size. • This operates when the copyboard is connected to a printer.	A4*	USB ■ (Lit)	Printer □ (Off)
			Letter	USB □ (Off)	Printer ■ (Lit)
F3	Aspect Ratio Setting	Selection of the image's vertical-to-horizontal ratio (aspect ratio) when printing. Equal Ratio: The image is printed with the same ratio as the copyboard's sheet surface. Compressed: The image is compressed in the horizontal direction to the ratio of A4 or letter size paper for printing (ex: circles become ellipses).	Compressed*	USB ■ (Lit)	Printer □ (Off)
			Equal Ratio	USB □ (Off)	Printer ■ (Lit)
F4	Color Printing	If this is set to [Invalid], color printing is not possible. Valid: When this is set, color printing is possible. Invalid: When this is set, color printing is not possible.	Valid*	USB ■ (Lit)	Printer □ (Off)
			Invalid	USB □ (Off)	Printer ■ (Lit)
F5	Resolution	Selection of the image file's resolution. Standard: The vertical/horizontal size of the scanned image is set to 1/2. The amount of data is 1/4 that of when "High Resolution" is selected. High Resolution: The image file has the same resolution as the scanned mage (vertical/horizontal size of 1/1). The picture quality is better than when "Standard" is selected.	Standard	USB ■ (Lit)	Printer □ (Off)
			High Resolution*	USB □ (Off)	Printer ■ (Lit)
F6	Graphics File Format	Selection of the format in which image files are saved. Scanned images are converted into JPEG (extension ".jpg"), PNG (extension ".png") or PDF (extension ".pdf") format.	JPEG	USB ■ (Lit)	Printer □ (Off)
			PNG*	USB □ (Off)	Printer ■ (Lit)
			PDF	USB ■ (Lit)	Printer ■ (Lit)
F7	Header/Footer	Setting of whether or not to output the header/footer information registered on the copyboard. "Off": The header/footer information is not output. "On": The header/footer information is output when printing and when saving image files. Note: • Headers and footers refer to the information at the top and bottom margins, respectively, of printed pages or images. Titles, company names or other characters or images can be inserted so that the same information is provided on all pages. • For instructions on creating and registering headers and footers, see "Creating and Registering Headers and Footers". • Depending on the type of printer, the colors may differ from the actual graphic image.	Off*	USB ■ (Lit)	Printer □ (Off)
			On	USB □ (Off)	Printer ■ (Lit)

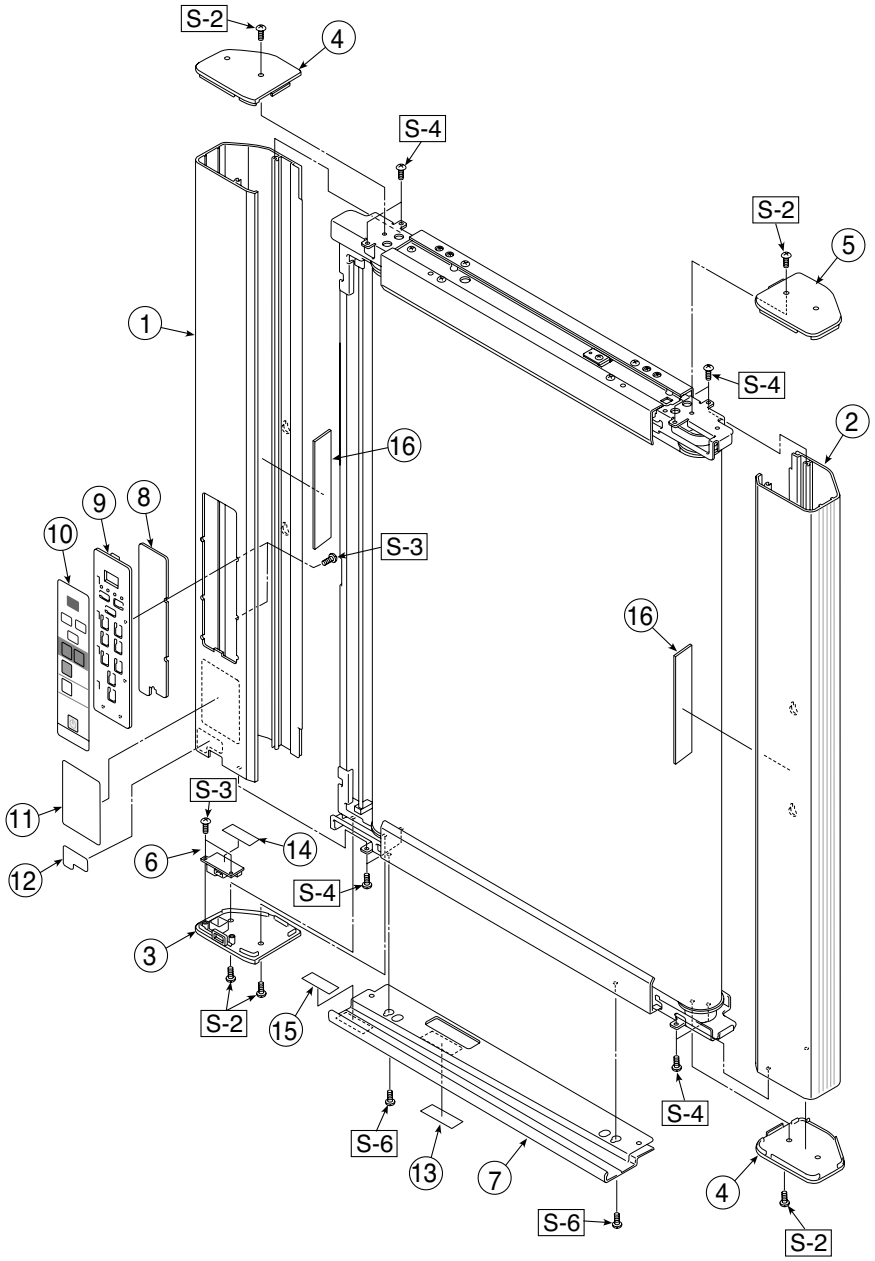
Function Number	Setting Item	Description	Setting	Status Indicators	
F8	Erase Reminder	Setting of whether or not to notify the user that characters or diagrams drawn on the back side of the copyboard's sheet surface have not been erased. This is effective for confidential meetings, etc. Disable: The Erase Reminder function does not work. (Setting upon factory shipment) Enable: When the Power button is pressed to turn the power off, the display window on the copyboard's operation panel flashes and the copyboard automatically moves to the non-erased surface, after which the power turns off. • The Erase Reminder function may not work properly due to dirt on the sheet adhesive or marker traces.	Disable*	USB ■ (Lit)	Printer □ (Off)
			Enable	USB □ (Off)	Printer ■ (Lit)
F9	Time Day Stamp Format	Selection of the format in which the date and time are displayed. Examples of displays: YYYY/M/D 2011/1/23 01:23 DD-MMM-YYYY 23-Jan-2011 01:23 MMM-DD-YYYY Jan-23-2011 01:23	YYYY/M/D*	USB ■ (Lit)	Printer □ (Off)
			DD-MMM-YYYY	USB □ (Off)	Printer ■ (Lit)
			MMM-DD-YYYY	USB ■ (Lit)	Printer ■ (Lit)
FA	Reset Device Settings	This restores the copyboard device settings at F2 to F9 to their defaults (settings upon factory shipment). The settings marked " * " are the defaults. (1) Select FA, then press the Save button. "FA." is displayed (with the dot lit). (2) Press the Save button again. The settings are reset.	—	—	—
FC	Network Enabled mode	Selection of the network enabled mode. Group: Setting for storing data on the copyboard or FTP server Public: Setting for storing just single panel of data on the copyboard one at a time and acquiring it via a browser or smartphone application. * After the selection is made, the system reboots when the Save button is pressed.	Group (Initialization)	USB ■ (Lit)	Printer □ (Off)
			Public	USB □ (Off)	Printer ■ (Lit)

7. CABLE AND CABLE CONNECTION



8. PARTS LIST

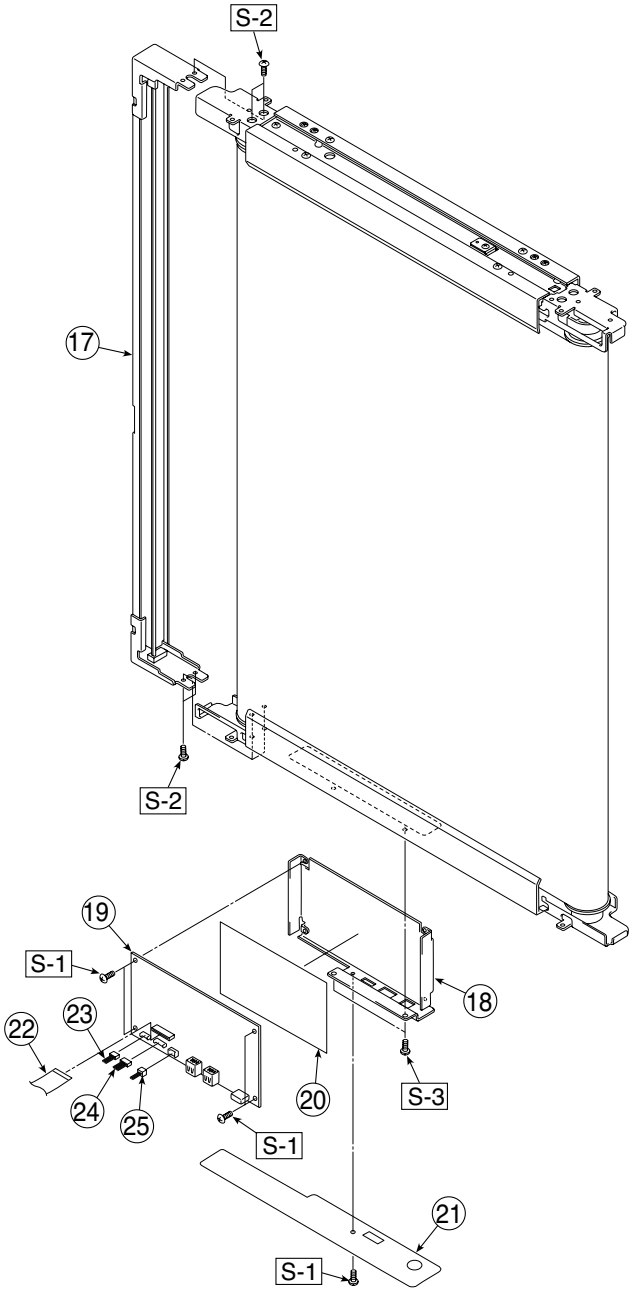
1. PANEL SIDE



PARTS LIST

1. PANEL SIDE				
No	**PARTS NAME**	**PARTS No.**	**Q' ty**	**REMARK**
1	Panel Side L NF-20	726117100	1	
2	Panel Side R NF-20	726117200	1	
3	Frame Cap PC	726120400	1	
4	Frame Cap B	726120601	2	
5	Frame Cap A	726120501	1	
6	USB Board Assy	726580200	1	
7	Tray Unit NF-20	302033	1	
8	SW Board N-204 / NF-20	726580700	1	
9	SW Panel	726121100	1	
10	SW Sheet NF-20 (O/S)	726159400	1	
11	Status Guide Label N-20 (O/S)	726461200	1	
12	USB Label (O/S)	726152900	1	
13	I/F Label N-20 / N-204 / C-20 (O/S)	726153300	1	
14	USB Board Insulator	726951200	1	
15	Caution Label (O/S)	726153800	1	
16	Hole Cover Sheet NF-20	726163100	2	

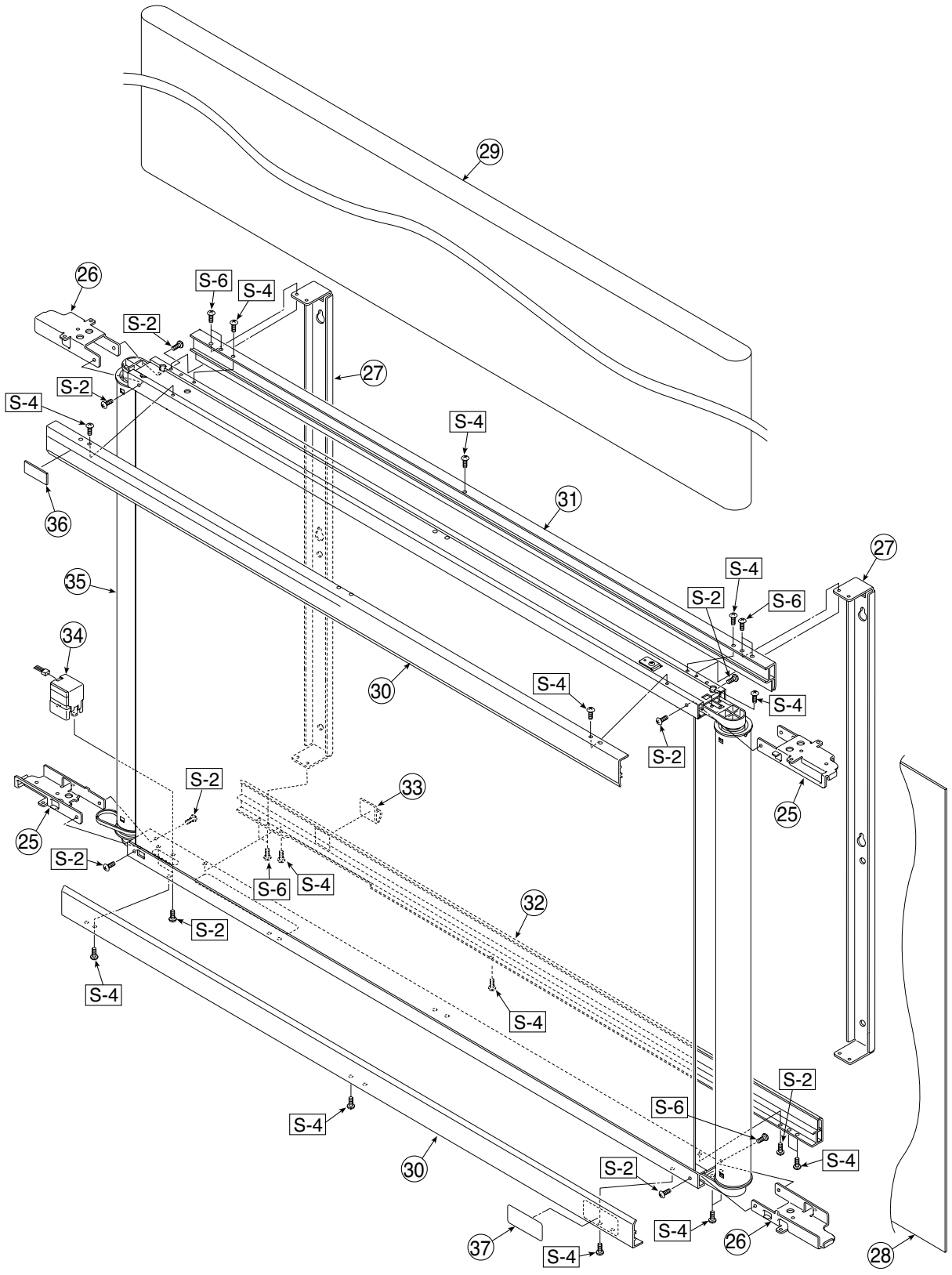
2. MAIN BOARD. CIS UNIT. CABLE



PARTS LIST

2. MAIN BOARD. CIS UNIT. CABLE				
No	**PARTS NAME**	**PARTS No.**	**Q' ty**	**REMARK**
17	CIS Unit M-18 / N-20 / F-20	302008	1	
18	Main Board Shield	726135500	1	
19	Main Board Assy NF-20	726581150	1	
20	Main Board Sheet	726951100	1	
21	Cable Cover N-20 / C-20	726123200	1	
22	CIS Cable	726590200	1	
23	Motor Cable	726590100	1	
24	SW Cable	726590300	1	
25	USB Cable	726590500	1	

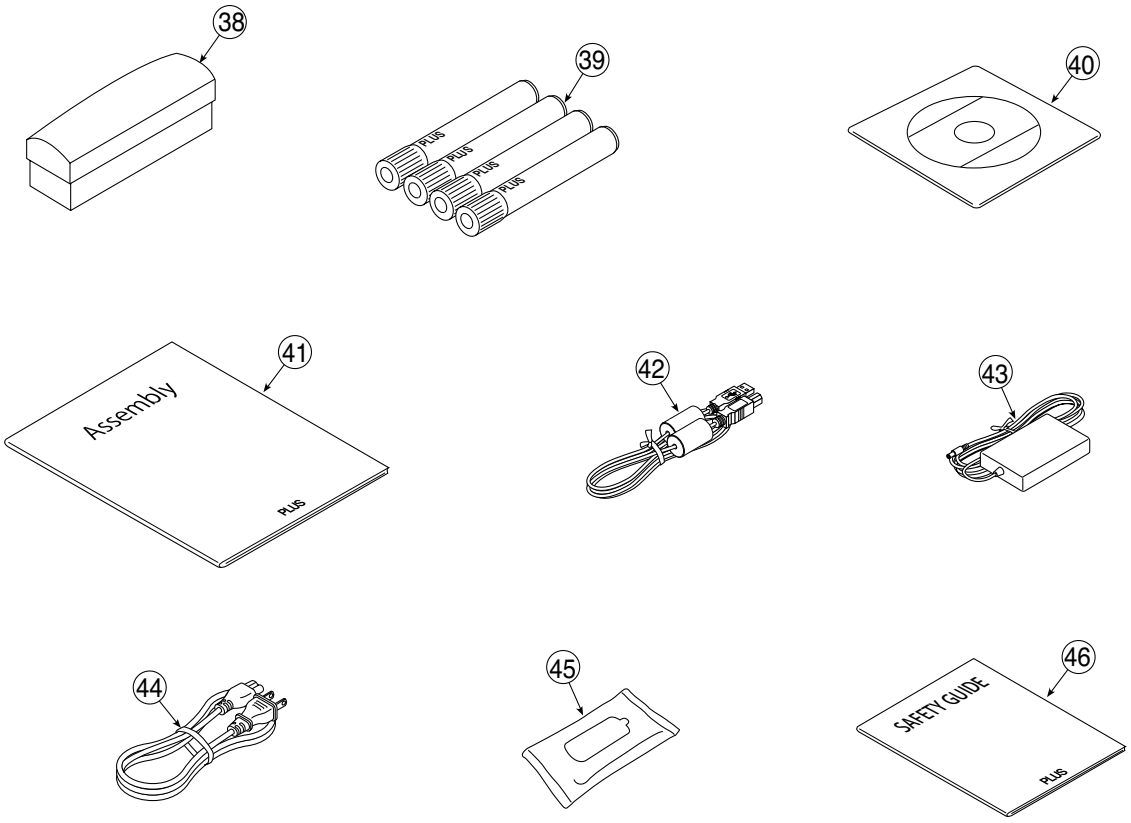
3. SHEET FRAME



PARTS LIST

3. SHEET FRAME				
No	**PARTS NAME**	**PARTS No.**	**Q' ty**	**REMARK**
26	Panel Plate A	726130100	2	
27	Panel Plate B	726130201	2	
28	Back Panel Unit NF-20	302034	1	
29	Endless Sheet NF-20	302035	1	
30	Panel Front Upper NF-20	726117400	1	
31	Panel Front Lower NF-20	726117300	1	
32	Panel Rear Upper NF-20	726127100	1	
33	Panel Rear Lower NF-20	726127200	1	
34	Cable Clamp	726129100	1	
35	Sheet Motor Unit	726090007	1	
36	Sheet Frame Unit NF-20	302036	1	
37	Cleaning Label (O/S)	726153500	1	

4. ACCESSORIES

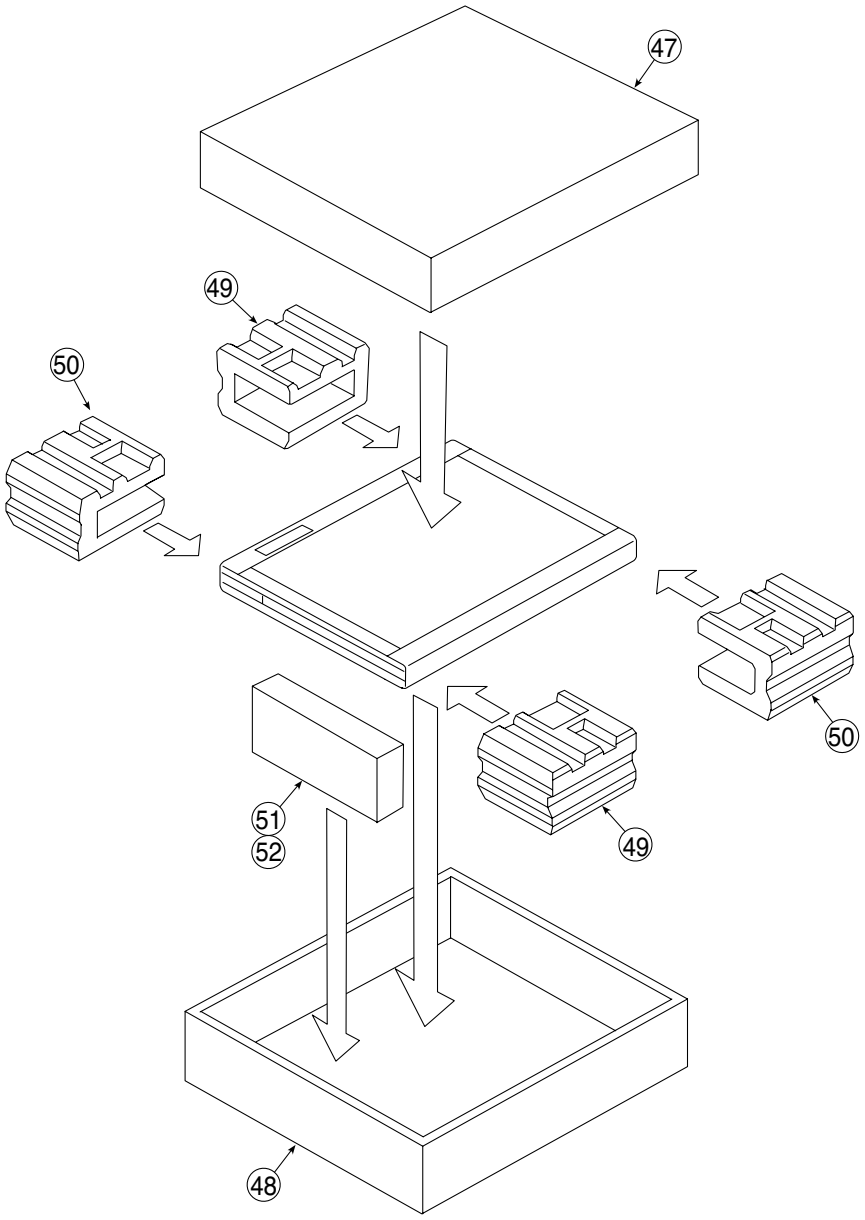


4. ACCESSORIES

No	PARTS NAME	PARTS No.	Q' ty	REMARK
38	Eraser	44369	1	
39	Maker Set	-	1	No Parts Supply
-	Marker Black	423283	1	
-	Marker Red	423284	1	
-	Marker Blue	423285	1	
-	Marker Green	423286	1	
40	Manual CD-ROM NF-20 (O/S)	726567500	1	
41	Assembly Manual NF-20	726467900	1	
42	USB Cable 3m	715258900	1	
43	AC Adapter	726590400	1	
44	Power Code (2.5m) BS	715259300	1	
	Power Cable (2.5m) CEE	715259200	1	
	Power Cable 2.5m) SAA	715259500	1	
	Power Cable 2.5m) UR	715259400	1	
	Power Cable 2.5m) GB	-	1	No Parts Supply
	Power Cable 2.5m) EK	715261302	1	
45	White Board Cleaner	-	1	No Parts Supply
46	Safety Guide	726460800	1	

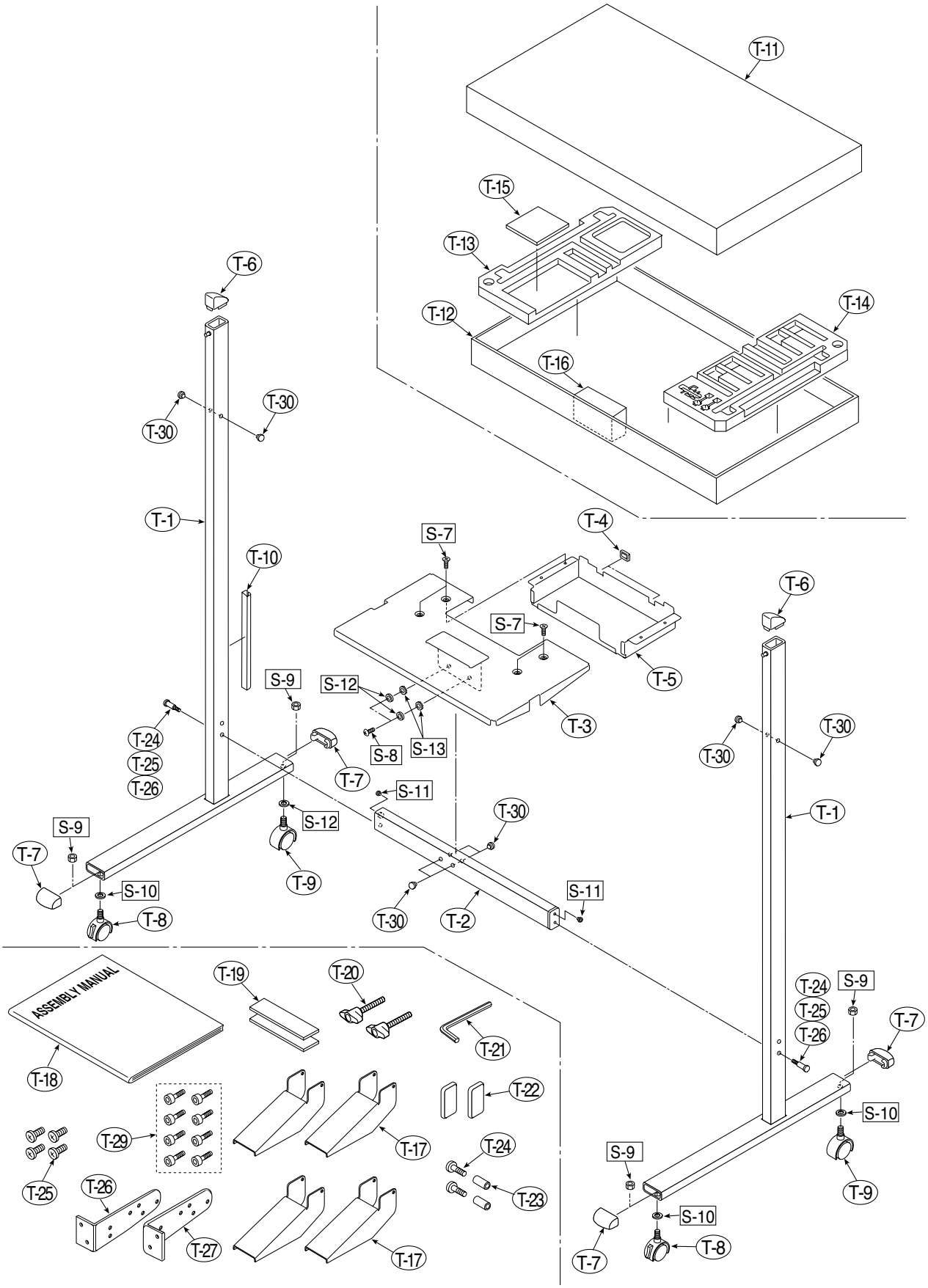
PARTS LIST

5. CARTON



5. CARTON				
No	**PARTS NAME**	**PARTS No.**	**Q' ty**	**REMARK**
-	Carton Unit NF-20	302037	1	
47	Carton Upper	-	1	No Parts Supply
48	Carton Lower	-	1	No Parts Supply
49	Packing A	-	2	No Parts Supply
50	Packing B	-	2	No Parts Supply
51	Accessary Box	-	1	No Parts Supply
52	Parts Pad	-	1	No Parts Supply

6. NF-20-T


T-11
T-15
T-13
T-14
T-12
T-16
T-6
T-30
T-30
T-1
T-10
T-4
S-7
S-7
T-5
T-3
S-9
S-12
S-13
S-8
T-24
T-25
T-26
T-7
S-11
S-12
T-9
S-9
T-7
S-10
T-8
T-30
T-2
S-11
T-6
T-30
T-30
T-1
ASSEMBLY MANUAL
T-18
T-19
T-20
T-21
T-22
T-29
T-17
T-24
T-23
T-25
T-26
T-27
T-17
T-24
T-25
T-26
S-9
T-7
S-10
T-9
S-9
S-10
T-7
T-8

PARTS LIST

6.NF-20T				
No	**PARTS NAME**	**PARTS No.**	**Q' ty**	**REMARK**
T-1	T Stand NF-20	-	2	No Parts Supply
T-2	Side Bar NF-20	726337000	1	
T-3	Printer Table (Stand Type)	726135900	1	
T-4	Edge Holder	723191100	2	
T-5	Adapter Holder	726136100	1	
T-6	Stand Cap Upper	726321200	2	
T-7	Stand Cap Lower	726321100	4	
T-8	Front Caster	714660400	2	
T-9	Back Caster	714660500	2	
T-10	Cable Cover Stand	726129200	1	
-	Carton Unit (Stand) N-F20	302038	1	
T-11	Stand Carton Upper	-	1	No Parts Supply
T-12	Stand Carton Lower	-	1	No Parts Supply
T-13	Stand Packing A	-	1	No Parts Supply
T-14	Stand Packing B	-	1	No Parts Supply
T-15	Stand Packing C	-	1	No Parts Supply
T-16	Carton Side Bar Par (NF-20)	-	1	No Parts Supply
T-17	Stand Stabilizer	726334700	4	
T-18	Assembly Sheet (Stand) NF-20	726467900	1	
T-19	Fastener Rayer Set 25 x 80	726090039	1	
T-20	Fixed Knob	110340700	2	
T-21	Hexagon Wrench	959030050	1	
T-22	Screw Cap	726334500	2	
-	Screw Unit (Stand) NF-20	726090042	1	
T-23	M5 Collar	-	2	No Parts Supply
T-24	M5-40 Row Head Hexagon Bolt	-	2	No Parts Supply
T-25	M4-8 Thib Head Hexagon Bolt	961540810	4	
T-26	Angle Adjustment Brackets (R)	726131500	1	
T-27	Angle Adjustment Brackets (L)	726131600	1	
T-28	Grommet	726951500	8	
T-29	M5-8 Thin Head Hexagon Bolt	964250870	8	

7. SCREWS & WASHERS				
No	**PARTS NAME**	**PARTS No.**	**Q' ty**	**REMARK**
S-1	M3-6 +Pan Head Double Sems Screw	952530610	5	
S-2	Low Head Cross Recessed Head Screw M4-8	961540810	20	
S-3	M3-8 +Bind Head P-tight	963230810	6	
S-4	Low Head Cross Recessed Head Screw M4-12	963941210	20	
S-5	M4x10 +Pan Head Sems Screw	962141010	8	
S-6	M4x20 Truss Head P-tight	963742010	2	
S-7	M4x8 +Bind Head	951240850	4	
S-8	Low Head Cross Recessed Head Screw M5-40	964254070	2	
S-9	Hexagon Nut W3/8	965216810	4	
S-10	No2-10 Flat Washer	957210210	4	
S-11	Hexzgon Bolt M5x20	964352050	2	
S-12	M5 Spring Washer	957350030	2	
S-13	M5 Plain Washer	957150930	2	

PLUS Corporation
Stationery Company