SERVICE MANUAL

PC SCALE PRINTER

SM-5500 SERIES
SM-5000BS

Edition 3

Table of Content

i) Notice

DIGI®

The material contained in this document is proprietary and for information only and is subject to change without notice. Teraoka Weigh-System Pte Ltd assumes no responsibility for any errors or damages arising from misinterpretation of any procedure.

Screen displays, operating procedures and supporting features might vary with different software version releases.

Teraoka Weigh-System Pte Ltd

4, Leng Kee Road

#06-01 SIS Building

Singapore 159088

ii) Safety Information

The operator of the equipment shall comply with the safety and warning indications and procedures outlined in this document. Teraoka Weigh-System Pte Ltd assumes no responsibility or liability for failure to comply with these requirements.

- To avoid electric shock, use only the supplied power cords and ensure product is connected to a properly grounded supply.
- Ensure product is placed on a firm and level surface before operation.
- Avoid overloading the product beyond its rated maximum capacity.
- Care shall be taken during the following operations
  - Receipt paper tearing – to prevent injuries from cutting from paper cutter
  - Changing of labels and receipt paper - to prevent injuries from cutting from paper cutter and movable printer mechanism.
- Repair and servicing of product, shall only be carried out by trained and qualified personnel.

Disclaimer:

Specifications are subject to change without notice. All dimensions shown are approximate. Please be aware that Teraoka Weigh-System Pte Ltd has indicated that its hardware and software used in the product may require additional updates in the future as our product is continually under development. The need for such updates most likely applies to the Printer software.

CAUTIONS:

FOR PLUGGABLE EQUIPMENT, THAT THE SOCKET-OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

POUR LE MATÉRIEL RACCORDÉ PAR PRISE DE COURANT, LE SOCLE DE PRISE DE COURANT DOIT ÊTRE INSALLÉ À PROXIMITÉ DU MATÉRIEL ET DOIT ÊTRE AISÉMENT ACCESSIBLE.

FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE.

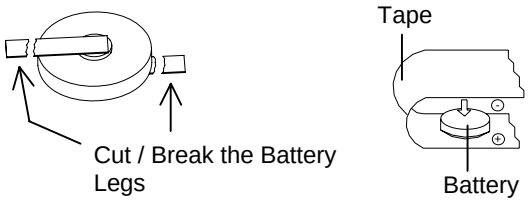
POUR NE PAS COMPROMETTRE LA PROTECTION CONTRE LES RISQUES D'INCENDIE, REMPLACER PAR UN FUSIBLE DE MÊME TYPE ET DE MÊME CARACTÉRISTIQUES NOMINALES.

DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS

IL Y A DANGER D'EXPLOSION S'IL Y A REMPLACEMENT INCORRECT DE LA BATTERIE. REMPLACER UNIQUEMENT AVEC UNE BATTERIE DU MÊME TYPE OU D'UN TYPE RECOMMANDÉ PAR LE CONSTRUCTEUR. METTRE AU RÉBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS DU FABRICANT.

WARNING DISPOSAL:

THE BATTERY MAY BE REGULATED BY NATIONAL OR LOCAL REGULATION. PLEASE FOLLOW THE INSTRUCTIONS OF PROPER REGULATION. AS ELECTRIC CAPACITY IS LEFT IN A DISCARDED BATTERY AND IT COMES INTO CONTACT WITH OTHER METALS, IT COULD LEAD TO DISTORTION, LEAKAGE, OVERHEATING, OR EXPLOSION, SO MAKE SURE TO CUT/BREAK THE BATTERY LEGS AND COVER THE (+) AND (-) TERMINALS WITH FRICTION TAPE OR SOME OTHER INSULATOR BEFORE DISPOSAL.



iii) Safety Regulations

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:
FCC Radiation Exposure Statement:
This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

iv) Treatment And Recovery of WEEE

Component listing of Hazardous Material

To all user of DIGI product in the European Union

Thank you for using DIGI product.

Product marked with this symbol indicates that it was sold on or after 13th August 2005, which means it should not be disposed of with general household waste. Please note that our product is for industrial/professional use only.

Treatment and recovery of WEEE involves removing hazardous substances (such as those covered in the RoHS Directives) as well as PCBs and liquids. Only licensed operators meeting WEEE regulations will be able to handle and recover WEEE.

Please contact your DIGI office or DIGI distributor when the product has reached the end of its life. They will advise you regarding the product take-back.

With your co-operation we are aiming to reduce environmental pollution from waste electrical and electronic equipment and preserve natural resource through re-use and recycling. Please do not hesitate to ask your DIGI office or DIGI distributor, if you require further information.

Items required to be removed from product at end of product life as listed in WEEE Annex II

Items	Y	N	Identification	Removal procedure	Comments
o Fluids		●			
o Polychlorinated biphenyls (PCB) containing capacitors.		●			
o Mercury containing components, such as switches or backlighting lamps.		●			
o Printed circuit boards of mobile phones.		●			
o Toner cartridges, liquid and pasty, as well as color toner.		●			
o Plastic containing brominated flame-retardants.		●			
o Asbestos waste.		●			
o Cathode ray tubes.		●			
o Chlorofluorocarbons (CFC), hydro chlorofluorocarbons (HCFC) orhydrofluorocarbons (HFC), hydrocarbons (HC).		●			
o Gas discharge lamps.		●			
o Components containing		●			

Items	Y	N	Identification	Removal procedure	Comments
refractory ceramic fibred as described in Commission Directive 97/69/EC of 5 December 1997. o					
o Components containing radioactive substances. o		●			
o External electric cables. o	●		AC Power Cord.		
o Batteries. 1. Lithium Battery.	●			- *9.1.6 Disassembly of CPU and Base Board* - *Remove the Battery from Base Board location BT1.*	*Refer to Safety Information → Warning Disposal*
o Other printed circuit boards greater than 10 square centimeters. **Bench (B):** 1) CPU Board	●		- *9.1.2 Disassembly of CPU and Base Board – Item 1.*	- *9.1.2 Disassembly of CPU and Base Board.* (Step 1 ~ 2)	
2) Base Board			- *9.1.2 Disassembly of CPU and Base Board – Item 2.*	- *9.1.2 Disassembly of CPU and Base Board.* (Step 1 ~ 2)	
3) AD Board			- *9.1.4 Disassembly of Power Unit and AD Board – Item 3.*	- *9.1.1 Disassembly of Platter Support,* → - *9.1.3 Disassembly of Top Cover and Customer (LCD) Display.* (Step 1 ~ 2) → - *9.1.4 Disassembly of Power Unit and AD Board.*	
4) Power Unit			- *9.1.4 Disassembly of Power Unit and AD Board – Item 4.*	- *9.1.1 Disassembly of Platter Support,* → - *9.1.3 Disassembly of Top Cover and Customer (LCD) Display.* (Step 1 ~ 2) → - *9.1.4 Disassembly of Power Unit and AD Board.*	
5) Display Board			- *9.1.6 Disassembly of Display Board and Operator (8.4" TFT LCD) Display → Item 5.*	- *9.1.6 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display.*	

Items	Y	N	Identification	Removal procedure	Comments
Pole (P): 1) CPU Board			- *9.2.4 Disassembly of CPU and Base Board – Item 1.*	- *9.2.4 Disassembly of CPU and Base Board.* (Step 1 ~ 2)	
2) Base Board			- *9.2.4 Disassembly of CPU and Base Board – Item 12*	- *9.2.4 Disassembly of CPU and Base Board.* (Step 1 ~ 2)	
3) AD Board			- *9.2.6 Disassembly of Power Supply Unit and AD Board – Item 3.*	- *9.2.6 Disassembly of Power Supply Unit and AD Board.*	
4) Power Unit			- *9.2.6 Disassembly of Power Supply Unit and AD Board – Item 4*	- *9.2.6 Disassembly of Power Unit and AD Board.*	
5) Display Board			- *9.2.8 Disassembly of Display Board and Operator (TFT 8.4" LCD) Display – Item 5*	- *9.2.8 Disassembly of Display Board and Operator (TFT 8.4" LCD) Display.* (Step 1 ~ 2)	
Elevated (EV): 1) CPU Board			- *9.3.6 Disassembly of CPU and Base Board – Item 1.*	- *9.3.6 Disassembly of CPU and Base Board.* (Step 1 ~ 2)	
2) Base Board			- *9.3.6 Disassembly of CPU and Base Board – Item 2.*	- *9.3.6 Disassembly of CPU and Base Board.* (Step 1 ~ 2)	
3) AD Board			- *9.3.8 Disassembly of Power Unit & AD Board - Item 3.*	- *9.3.1 Disassembly of Platter Support,* → - *9.3.2 Disassembly of Pole Block.* (Step 1 ~ 2) → - *9.3.7 Disassembly of Elevated Type Top Cover.* (Step 1 ~ 2) → - *9.3.8 Disassembly of Power Unit & AD Board.*	
4) Power Unit			- *9.3.8 Disassembly of Power Unit & AD Board - Item 4.*	- *9.3.1 Disassembly of Platter Support,* → - *9.3.2 Disassembly of Pole Block.* (Step 1 ~ 2) → - *9.3.7 Disassembly of Elevated Type Top Cover.* (Step 1 ~ 2) → - *9.3.8 Disassembly of Power Unit & AD Board.*	

Items	Y	N	Identification	Removal procedure	Comments
5) Display Board			- *9.3.3 Disassembly of Key Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display – Item 5.*	- *9.3.3 Disassembly of Key Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display.* (Step 1 ~ 2)	
Elevated Electroluminescent Display (EVEL): 1) CPU Board			- *9.4.6 Disassembly of CPU & Base Board → Item 1.*	- *9.4.6 Disassembly of CPU & Base Board.* (Step 1 ~ 2)	
2) Base Board			- *9.4.6 Disassembly of CPU & Base Board → Item 2.*	- *9.4.6 Disassembly of CPU & Base Board.* (Step 1 ~ 2)	
3) AD Board			- *9.4.8 Disassembly of Power Supply Unit And AD Board → Item 3.*	- *9.4.1 Disassembly of Platter Support,* → - *9.4.2 Disassembly of Pole Block.* (Step 1 ~ 2) → - *9.4.7 Disassembly of Elevated Type Top Cover.* (Step 1 ~ 2) → - *9.4.8 Disassembly of Power Unit & AD Board.*	
4) Power Unit			- *9.4.8 Disassembly of Power Supply Unit And AD Board → Item 4.*	- *9.4.1 Disassembly of Platter Support,* → - *9.4.2 Disassembly of Pole Block.* (Step 1 ~ 2) → - *9.4.7 Disassembly of Elevated Type Top Cover.* (Step 1 ~ 2) → - *9.4.8 Disassembly of Power Unit & AD Board.*	
5) Display Board			- *9.4.3 Disassembly of Key Scan & TS Board, Inverter Board And Operator Display → Item 5.*	- *9.4.3 Disassembly of Key Scan & TS Board, Inverter Board And Operator Display.* (Step 1 ~ 5)	
SM-5000BS: 1) CPU Board			- *9.5.3 Disassembly of CPU & Base Board → Item 1.*	- *9.5.3 Disassembly of CPU & Base Board.* (Step 1 ~ 2)	
2) Base Board			- *9.5.3 Disassembly of CPU & Base Board → Item 2.*	- *9.5.3 Disassembly of CPU & Base Board.* (Step 1 ~ 2)	

Items	Y	N	Identification	Removal procedure	Comments
3) AD Board			- *9.5.5 Disassembly of Power Supply Unit And AD Board → Item 3.*	- *9.5.5 Disassembly of Power Supply Unit And AD Board.*	
4) Power Unit			- *9.5.5 Disassembly of Power Supply Unit And AD Board → Item 4.*	- *9.5.5 Disassembly of Power Supply Unit And AD Board.*	
5) Display Board			- *9.5.2 Disassembly of Pole Block → Item 5.*	- *9.5.2 Disassembly of Pole Block.* (Step 7 ~ 8)	
o Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 cm2 and all those back-lighted with gas discharge lamps.					
Bench Type:					
1) LCD (Operator Display)			- *9.1.6 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display → Item 6.*	- *9.1.6 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display.*	
2) LCD (Customer Display)			- *9.1.3 Disassembly of Top Cover and Customer (LCD) Display → Item 7.*	- *9.1.3 Disassembly of Top Cover and Customer (LCD) Display.*	
Pole Type:					
1) LCD (Operator Display)			- *9.2.8 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display → Item 6.*	- *9.2.8 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display.*	
2) LCD (Customer Display)			- *9.2.3 Disassembly of Customer (LCD) Display → Item 7.*	- *9.2.3 Disassembly of Customer (LCD) Display.*	
Elevated Type:					
1) LCD (Operator Display)			- *9.3.3 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display → Item 6.*	- *9.3.3 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display.*	
2) LCD (Customer Display)			- *9.3.4 Disassembly of Customer (LCD) Display (Item 7.*	- *9.3.4 Disassembly of Elevated Type Customer (LCD) Display.*	

Items	Y	N	Identification	Removal procedure	Comments
EVEL Type: 1) LCD (Operator Display)			- *9.4.3 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display → Item 6.*	- *9.4.3 Disassembly of Key_Scan & TS Board, Inverter Board and Operator (8.4" TFT LCD) Display.*	
2) Luminescent LCD (Customer Display)			- *9.4.4 Disassembly of Customer Display→ Item 8.*	- *9.4.4 Disassembly of Customer Display.*	
BS Type: 1) LCD (Operator Display)			- *9.5.2 Disassembly of Pole Block → Item 6.*	- *9.5.2 Disassembly of Pole Block.* (Step 7 ~ 9)	

1. GENERAL

1.1 Model Specification

Model : SM-5500

Variation :

Description:		Type:		Dimension (DxWxH in mm):
Bench	-	SM-5500B	-	446 (adjustable) x 385 x 148
Pole	-	SM-5500P	-	531 (adjustable) x 385 x 581
Elevated (with 2nd Printer)	-	SM-5500EV	-	482 x 385 x 517
Elevated (without 2nd Printer)	-	SM-5500EV	-	470 x 385 x 511
Elevated Electroluminescent Display (Without 2nd Printer)	-	SM-5500EVEL	-	470 x 385 x 567
Elevated Electroluminescent Display (With 2nd Printer)	-	SM-5500EVEL	-	481 x 385 x 638
Elevated Plus (With 2nd Printer)	-	SM-5500EVPLUS	-	480 (adjustable) x 385 x 471
Elevated Plus (Without 2nd Printer)	-	SM-5500EVPLUS	-	469 (adjustable) x 385 x 426
Pole Electroluminescent Display	-	SM-5500PEL	-	508 x 385 x 410
Self-Service (Without 2nd Printer)	-	SM-5000BS	-	436 x 385 x 578

CPU : IMX31 533MHz

System Memory : On Board 512MB DDR SDRAM 133MHz

SD Card : 2GB & above

Operating System : LINUX

Capacity :
: 6kg (less than 3kg, e = 1g / more than 3kg, e = 2g)
: 15kg (less than 6kg, e= 2g / more than 6kg, e = 5g)
: 30kg (less than 15kg, e = 5g / more than 15kg, e = 10g)
: 30lb (less than 15lb, e = 0.005lb / more than 30lb, e = 0.01lb)

Accuracy :
: Internal resolution 1/60000
: Display resolution 1/3000 (Multi-Interval)

Display :

		Operator	Customer
B / P / EV	-	8.4” TFT VGA with Touch Panel	264 x 64 dots STN LCD 3 color
EVEL	-	8.4” TFT VGA with Touch Panel	256 x 120 dots EL Display Panel
EV Plus	-	8.4” TFT VGA with Touch Panel	12.1” TFT SVGA LCD

	BS	-	12.1" TFT SVGA LCD with Touch Panel ----

Printing : **Base Printer**

Print Media	-	Label with liner and linerless, Receipt paper
Paper Width	-	Maximum 80mm (Label & Receipt)
Print Speed	-	150mm/s* (Label with liner and linerless, Receipt paper) ** Subject to the sensitivity of print media*
Max Roll Diameter	-	ϕ125 mm
Thermal Head Life	-	100km abrasion life / 100 million pulse (heater IC life)

: **2nd Printer (Option on EV model only)**

Print Media	-	Receipt paper
Print Width	-	76mm
Print Speed	-	150mm/s* ** Subject to the sensitivity of print media*
Max Roll Diameter	-	ϕ100mm
Paper Thickness	-	60µm – 75µm
Thermal Head Life	-	100km abrasion life / 100 million pulse (heater IC life)
Cutter Life	-	1 million cuts
Pattern Roller Engagement Life	-	More then 10,000 times *(Recommend receipt roll OD (80mm) & Core (20mm) about Length (80m) able to support)*

Barcode Scanner *(Optional)* : Symbol Scanner SE4500

I/O Interface :
- 1 x Ethernet 10/100 Base T
- 2 x RS-232 ports
- 1 x RJ11 Cash Drawer
- 1 x USB V2.0
- 1 x SD socket

Optional Interface :
- Wi-Fi AP2001g
- External SVGA Display (not applicable on Electroluminescent Display models)

*Specifications are subject to change without notice

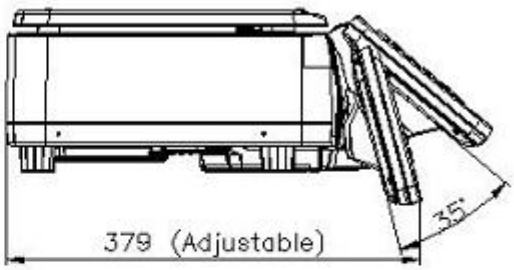
1.2 Operating Specification

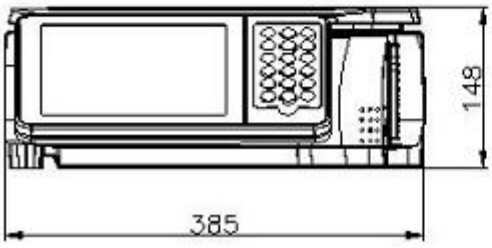
Power Source	:	AC Supply 100V / 230V *(Selectable by Power Unit Jumper Setting)*
Frequency	:	50 / 60Hz
Operating Temperature	:	-10 °C to +40 °C
Operation Humidity	:	15% to 85%RH

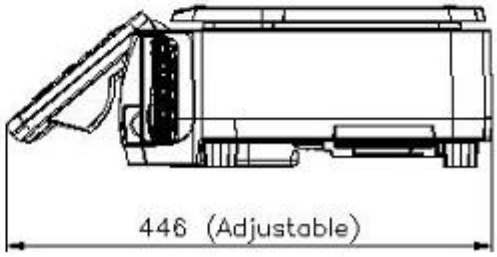
*Specifications are subject to change without notice

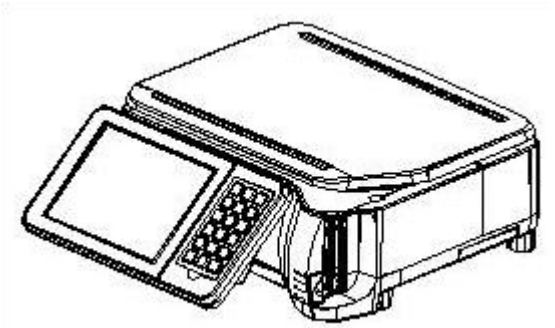
1.3 Overall Dimension (in mm)

1.3.1 Bench (B)

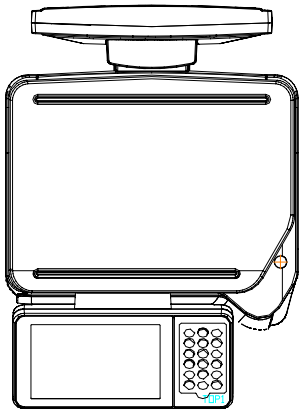


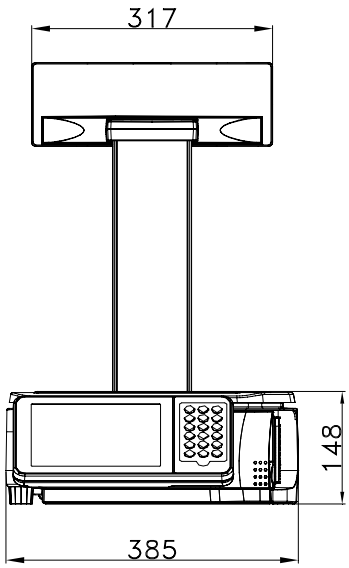


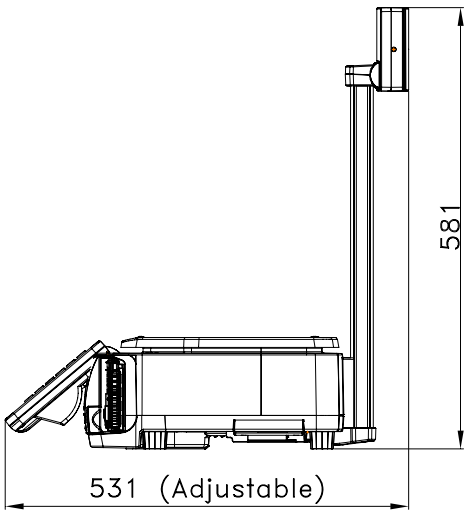


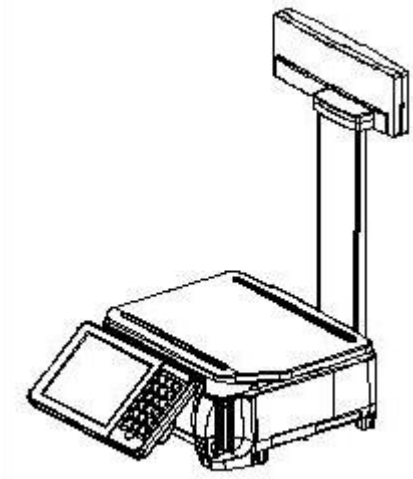


1.3.2 Pole (P)

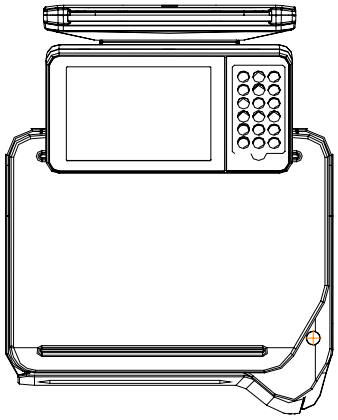


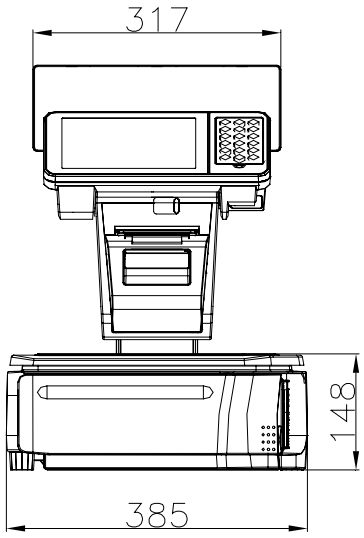


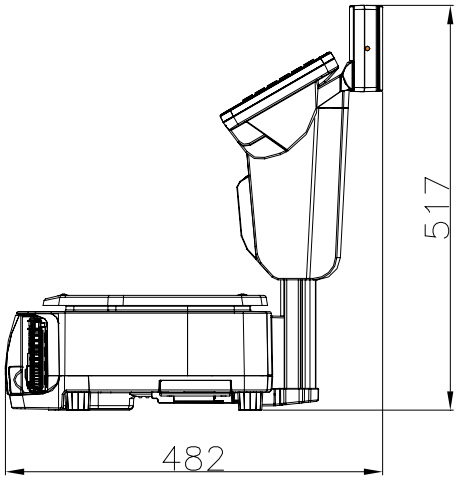


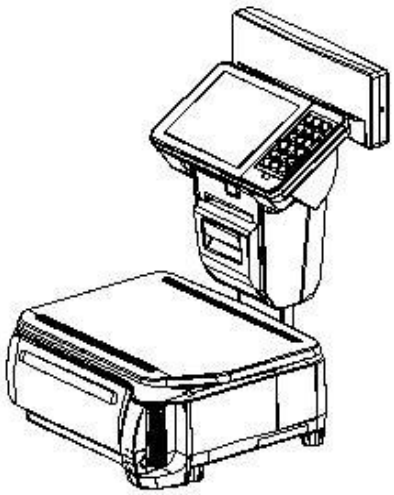


1.3.3 Elevated (With 2nd Printer) (EV)

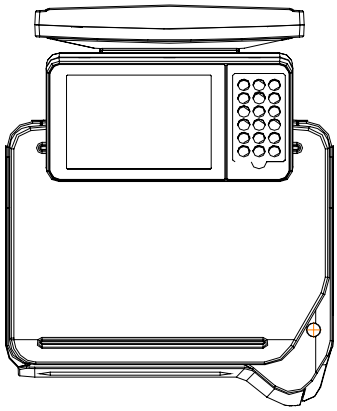


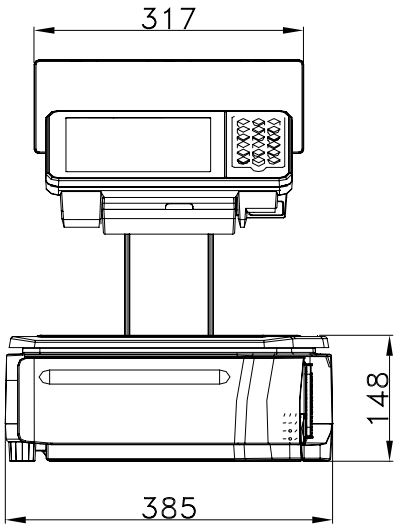


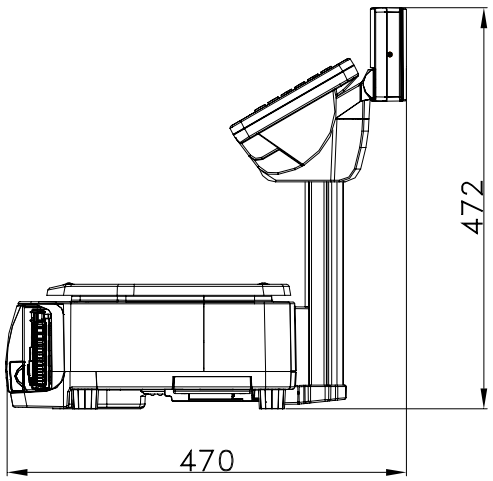


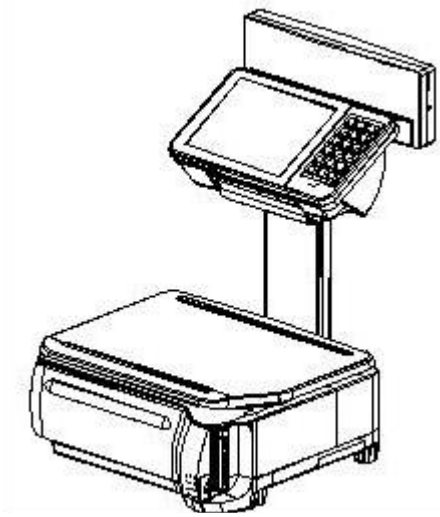


1.3.4 Elevated (Without 2nd Printer) (EV)

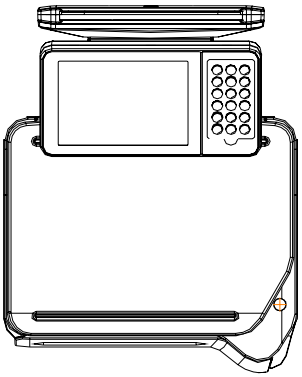


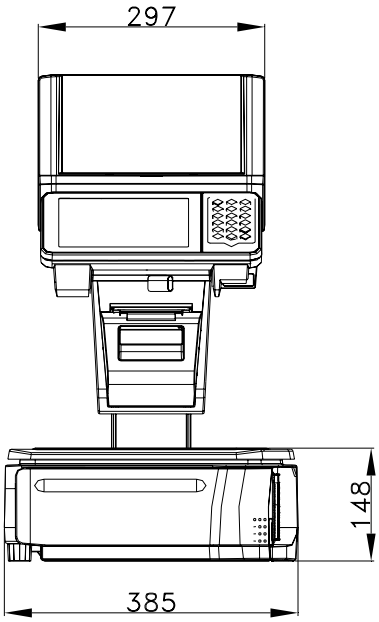


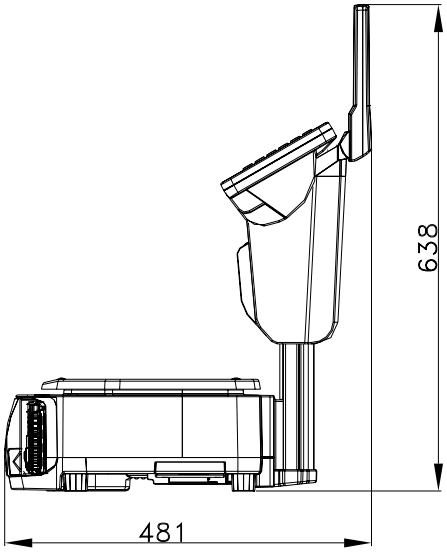




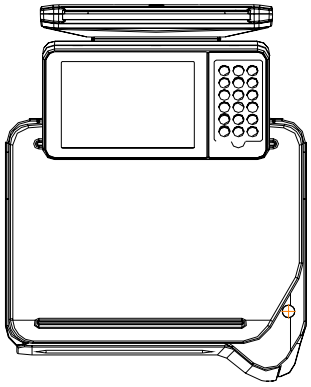
1.3.5 Elevated Electroluminescent Display (With 2nd Printer) (EVEL)

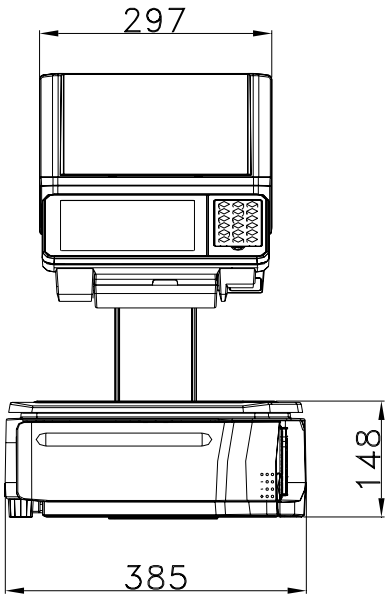


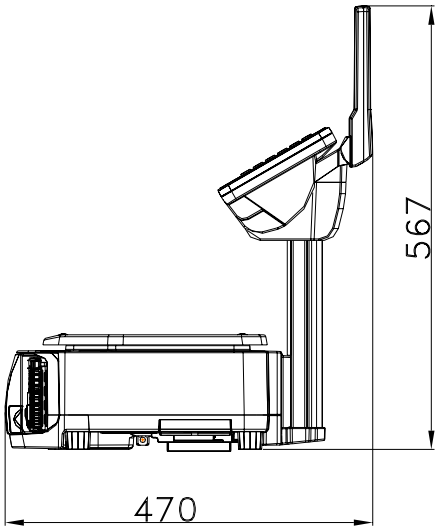


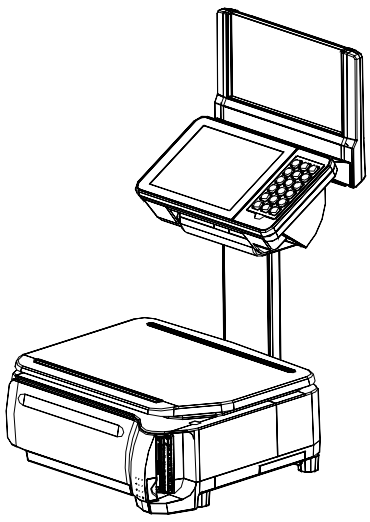


1.3.6 Elevated Electroluminescent Display (Without 2nd Printer) (EVEL)

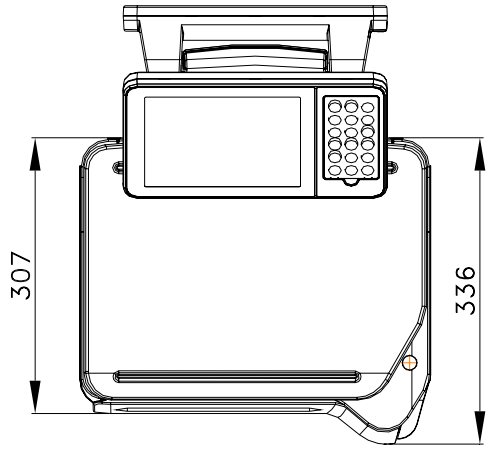


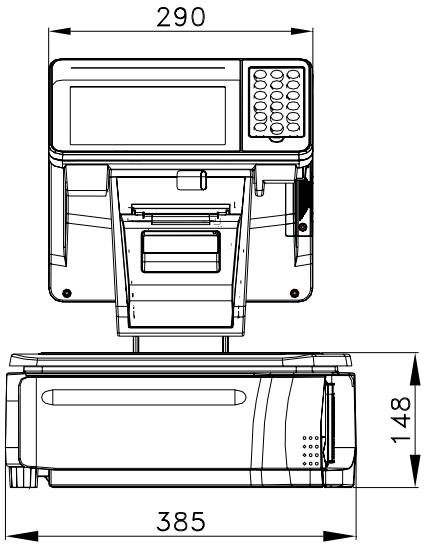


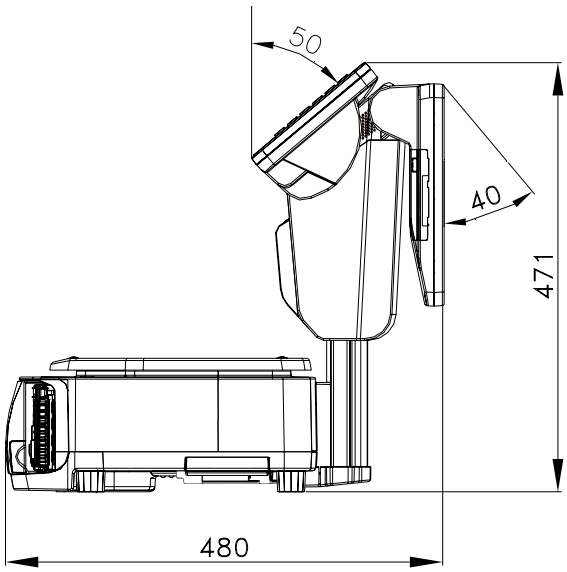


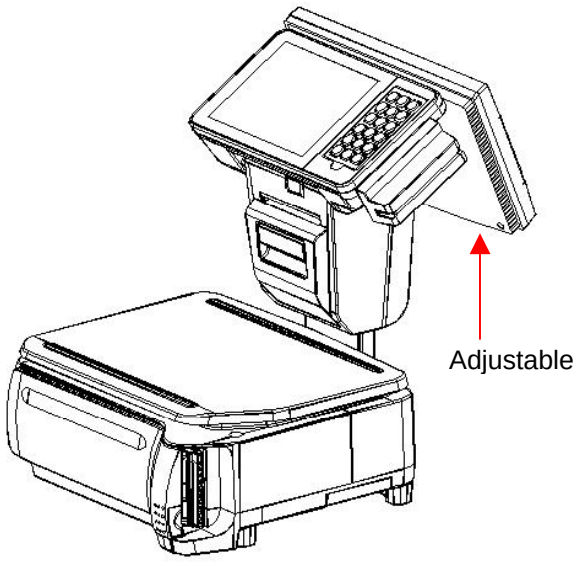


1.3.7 Elevated PLUS (With 2nd Printer) (EV-PLUS)

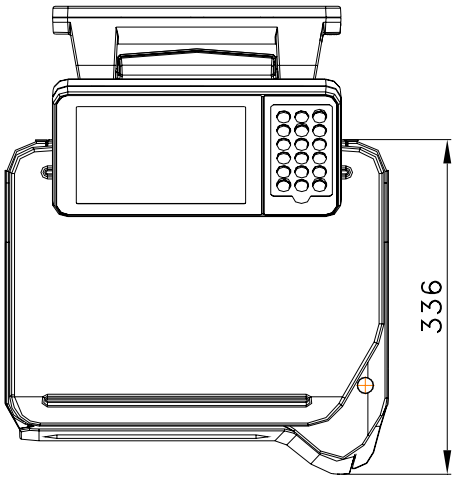


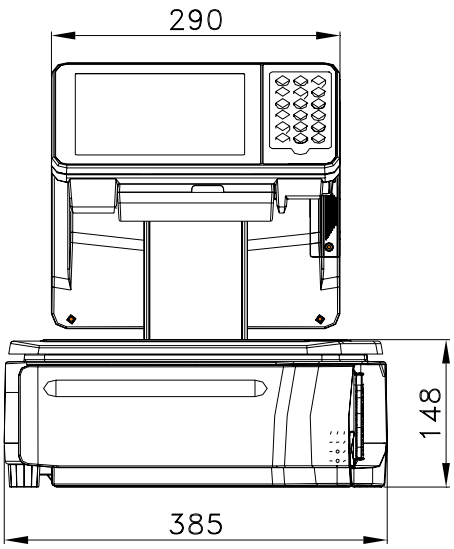


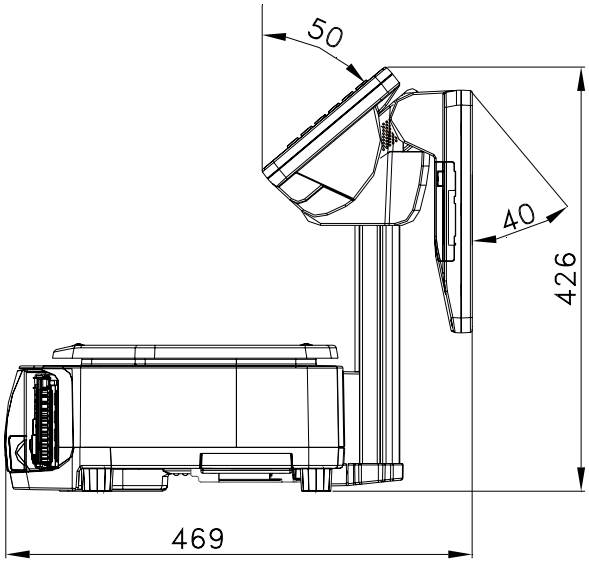


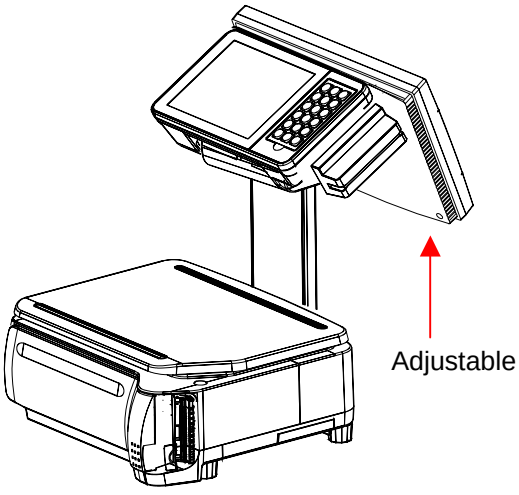


1.3.8 Elevated PLUS (Without 2nd Printer) (EV-PLUS)

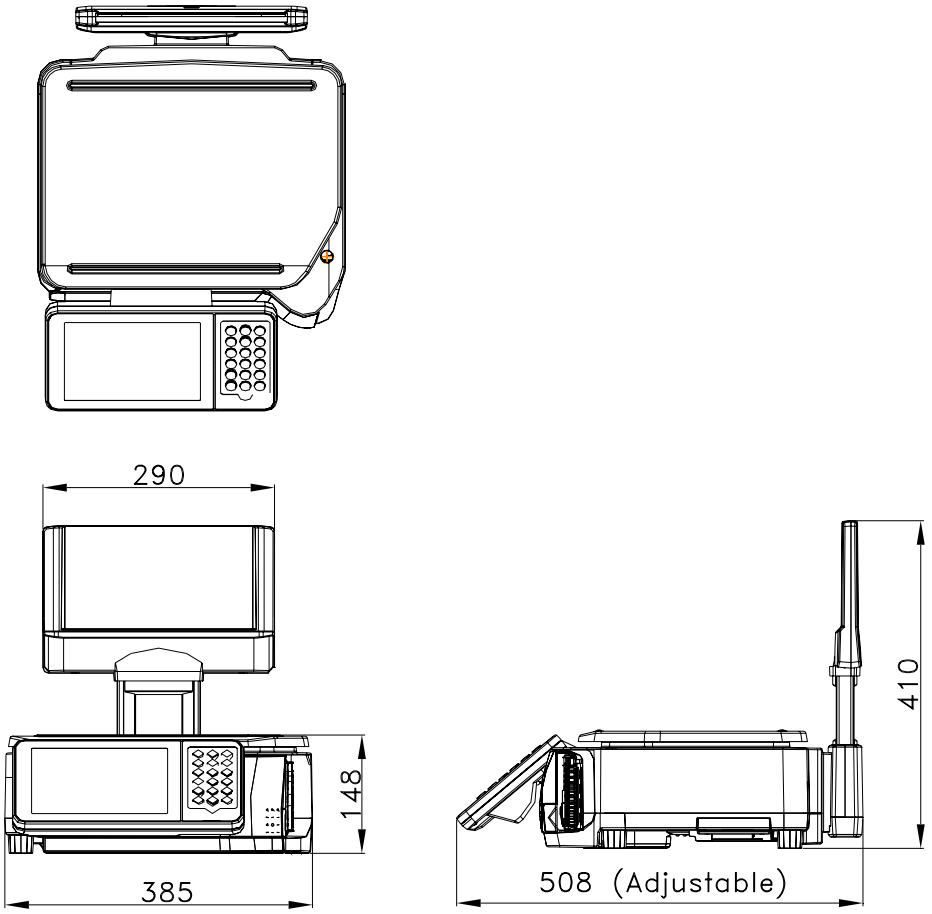


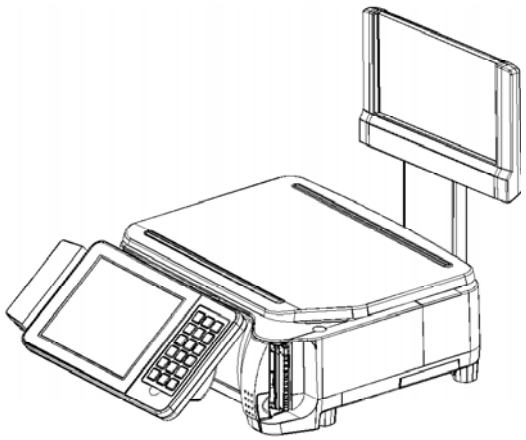




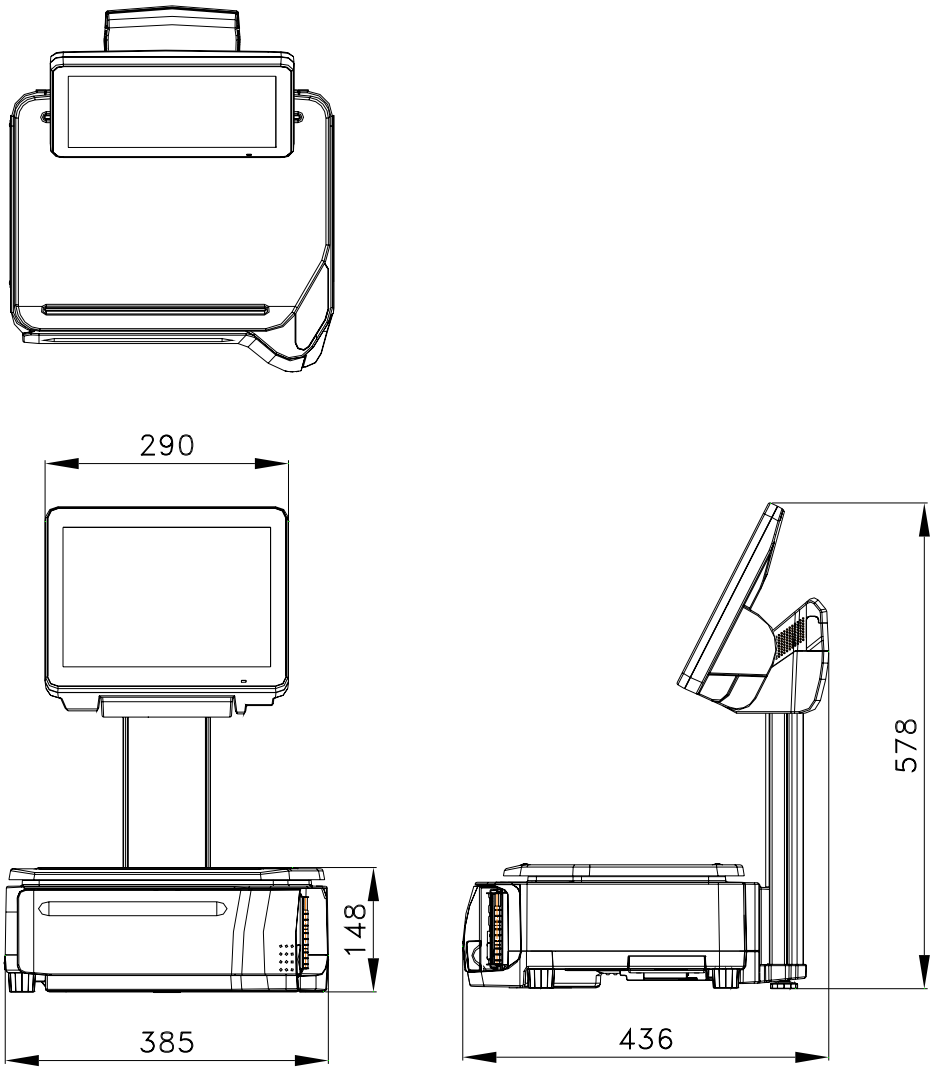


1.3.9 Pole Electroluminescent Display (PEL)





1.3.10 Self-Service (SM-5000BS)

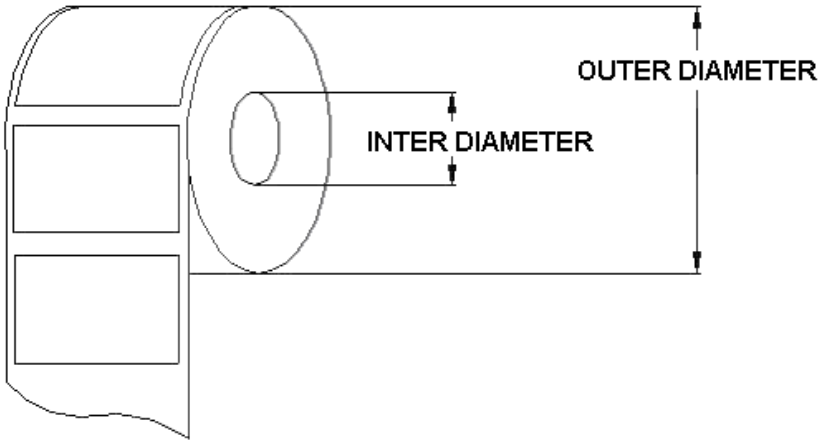


1.4 Label & Receipt Specifications

1.4.1 Base Printer

Outer diameter of rolls:	Maximum 105mm
Inner diameter of rolls:	Minimum 40mm
Wide of receipt:	80mm (Max.)
Wide of label:	80mm (Max.) *(max width (liner) is 82mm and max width for printing is 80mm)*

WIDE OF LABEL/RECEIPT



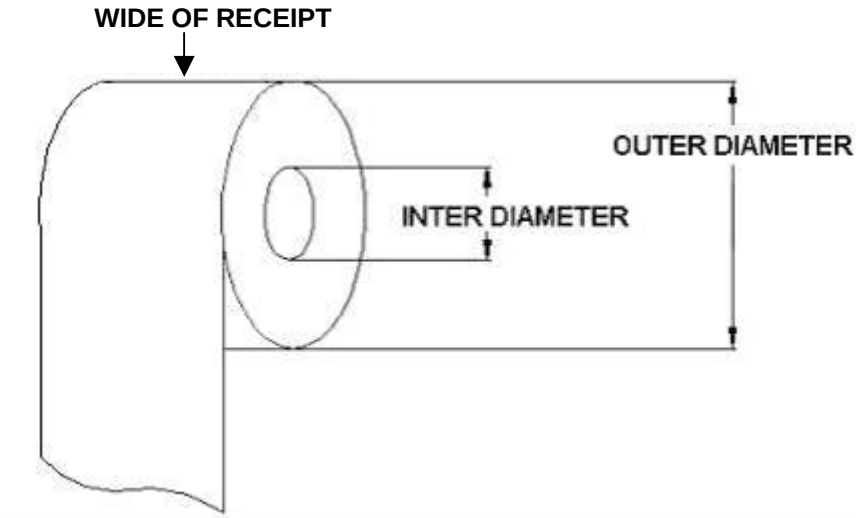
LABEL TYPE	LABEL SIZE	PCS/ROLL
T1	60 x 28	1400
T2	60 x 31	1300
T3	60 x 34	1200
T4/T10	60 x 40	1000
T5/T11	60 x 43	960
T6	60 x 46	900
T7/T12	60 x 49	840
T8	60 x 55	750
T9	60 x 37	1100
S	40 x 28	1400
A / B	40 x 46	900
C	40 x 62	670
F1 – F99 (Free format)	80 (max) x 120 (max)	-

***REMARKS**:*

i) LABEL SIZE is in Width X Length and in millimeter unit.
ii) F1 to F99 is self-design free format label. Please note the minimum and maximum size.

1.4.2 2nd Printer Receipt Paper

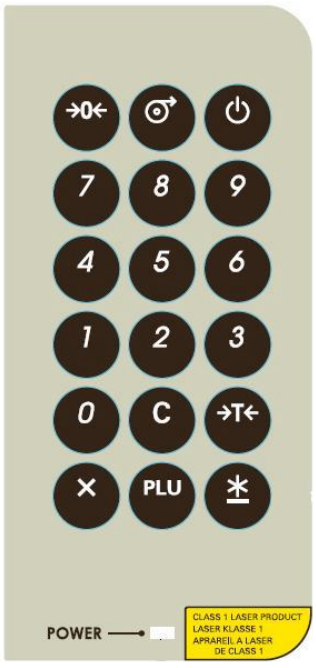
Outer diameter of rolls:	Maximum 80mm
Inner diameter of rolls:	Minimum 12mm
Wide of receipt:	Maximum 80mm



2. KEY SHEET AND DISPLAY

2.1 Key Sheet Layout And Key Function

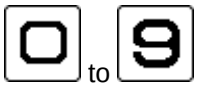
2.1.1 Key Sheet Layout



*Actual legends and symbols may differ depending on local regulations and requirements.

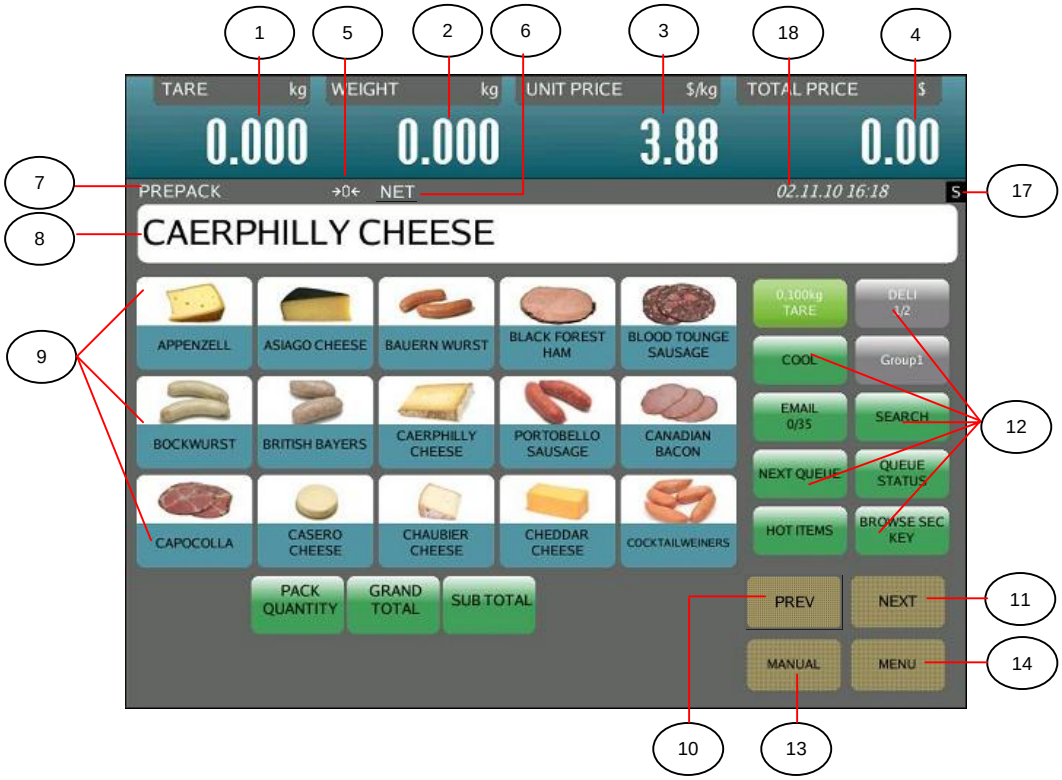
2.1.2 Key Function

Refer to the followings for detail explanation for each key on the key panel.

Symbol	Key Represent	Key Function
	❖ ON/ OFF Key	❖ Turn on/off the display.
	❖ 0-9 key	❖ Enter numeric data.
	❖ REZERO Key	❖ Reset weight to "0".
	❖ TARE Key	❖ Set or Clear the tare value.
	❖ CLEAR Key	❖ Clear entered data.
	❖ PLU Key	❖ Calling up PLU in Registration mode. ❖ Used as ENTER key in programming mode.
	❖ MULTIPLY Key	❖ Multiply the number for non-weighing product. ❖ Used as ESCAPE key in Programming mode
	❖ PRINT Key	❖ Printing label or receipt in Registration mode.
	❖ FEED Key	❖ Feed label or receipt.

2.2 Operator And Customer Display And Indicator Layout

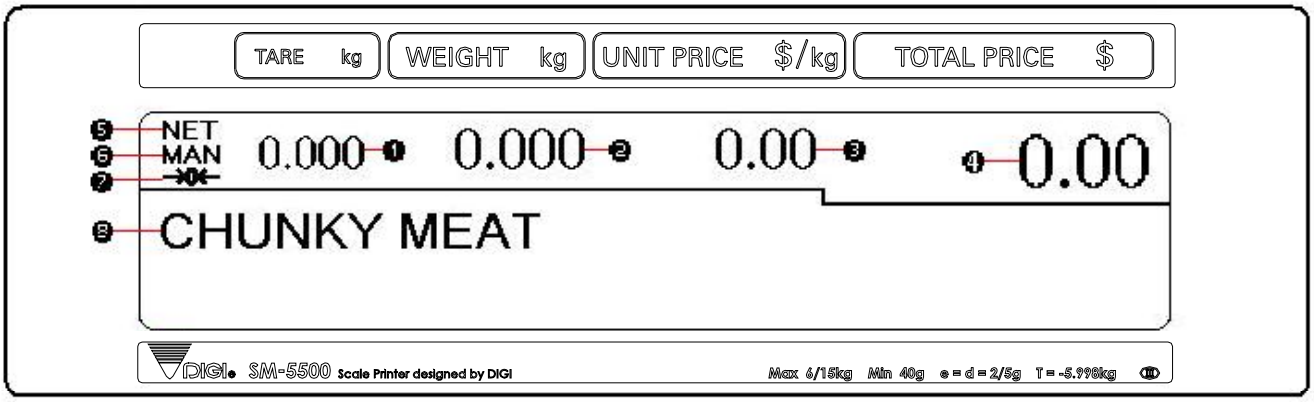
2.2.1 Operator Display



No.	Area /Function	USAGE
1	Preset Tare Display	Display Preset Tare
2	Weight Display	Display Weight value
3	Price Display	Display Unit Price
4	Total Price Display	Display Total Price
5	Zero Indicator	Display when Scale is stable at the zero point
6	Net Indicator	Display when Tare Subtraction is being performed
7	Mode Status Indicator	Indicate the current status (Manual Mode or Prepack Mode)
8	Commodity Name	Shows the Commodity Name of the called up PLU
9	Preset keys	Used for calling up PLUs / Function keys
10	Previous Page keys	Turn to previous page of Preset / Function keys
11	Next Page keys	Turn to next page of Preset / Function keys
12	Function keys	Used for calling up Clerk / Function keys
13	Prepack/Manual key	Toggle between Prepack Mode and Manual Mode
14	Menu key	Return to MENU MODE Screen
15	Message Display	Shows operation instructions
16	Scale Description	Display the Scale description
17	Scale Indicator	Shows S when Scale is configure SERVER
		Shows C when Scale is configure CLEINT
		Shows L when Client is OFF LINE
18	Date & Time	Show the current Date and Time.

REMARKS:
1) PREV & NEXT keys will appears when there is more than 1 page of Preset/Function keys.
2) When in Prepack Mode, the Function keys at the bottom if the screen will not be shown.
3) Re-phrase image in Reg. Preset keys, need to select in Programming of Preset Keys.

2.2.2 Customer Display



No.	Area /Function	Usage
1	Preset Tare Display	Display Preset Tare
2	Weight Display	Display Weight value
3	Unit Price Display	Display Unit Price
4	Total Price Display	Display Total Price
5	Zero Indicator	Display when Scale is stable at the zero point
6	Net Indicator	Display when Tare Subtraction is being performed
7	Mode Status Indicator	Indicate the current status (**MAN** - Manual Mode or **PPK** - Prepack Mode)
8	Commodity Name	Shows the Commodity Name of the called up PLU

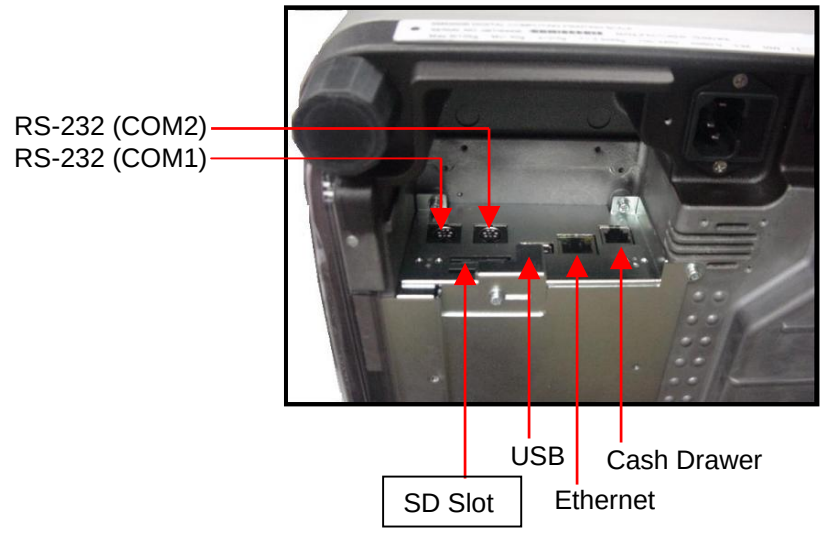
3. SOFTWARE FUNTIONAL STRUCTURE

MENU	REGISTRATION	WEIGH MODE			
	PROGRAMMING	PLU			
		PRESET			
		PRINTFMT			
		PLU RELATED			
		TRACEABILITY			
		SETUP			
		ELABEL			
	MAINTENANCE	MAINTENANCE	SCALE	W&M SPEC	W&M SCALE
					W&M TARE
					W&M PRICE
					W&M OPERATION
				CALIBRATION	
				IR COUNT (INTERNAL COUNT)	
				AUDIT TRIAL	
			PRINTER	PRINTER SPEC	PRINTER 1
					PRINTER 2
				PRINTER TEST	STATUS
					SENSOR
					FIRMWARE
					THERMAL
			HARDWARE TEST	INPUT	
				USB	
				RS232	
				ETHERNET	
				DRAWER	
				LCD	
			DATABASE	SERVER IP	
				INIT	
				BACKUP	
				RESTORE	
				LOAD DEFAULT DATA	
				DATABASE MIGRATION	
			SCALE IP (ETHERNET IP – eth0)		
			DATA AND TIME	DATE	
				TIME	
			SERVICE ADVANCE	DEFAULT DATA	
				USB BACKUP RESTORE	
				W&M USER MAINTAIN	
				DST CONFIG	
				TOUCH SCREEN CALIBRATION	
				MAC ADDRESS	
				RF BRIDGE	
				ELABEL ID CONFIG	
				CONFIG FIREWALL	
				TRUETYPE FONT CONFIG	
				VNC PASSWORD	
			SERIAL PORT	/DEV/TTY/S0	
				/DEV/TTY/S1	
			SVGA CUSTOMER DISPLAY	MAINTENANCE	INITIALIZE PLAYLIST
					RESET DEFAULT
					REBOOT
					UPGRADE FIRMWARE
				SETUP	
			QUEUE SYSTEM	QUEUE SERVER	
				QUEUE CONFIG	
			SCHEDULE REBOOT	HOUR	
				MINUTE	
		USER SPEC	BARCODE	ITEM BARCODE	
				TOTAL BARCODE	

			MULTI BARCODE
			COMMUNICATION
			LABEL
			RECEIPT
			SETTING
		MODULE SPEC	PASSWORD
			E-LABEL & HI TOUCH
			QUEUE SYSTEM & TURN CHIME
			OTHER
		SCALE SPEC	SCALE PRICE
			SCALE TARE
			SCALE TAX
			SCALE OPERATION
		SYSTEM INFO	SCALE
			SUBCPU
			DATABASE
			BOOT FLASH
			OS VERSION
			MEMORY
			DISK SPACE
	OFF	Switch off the power supply	

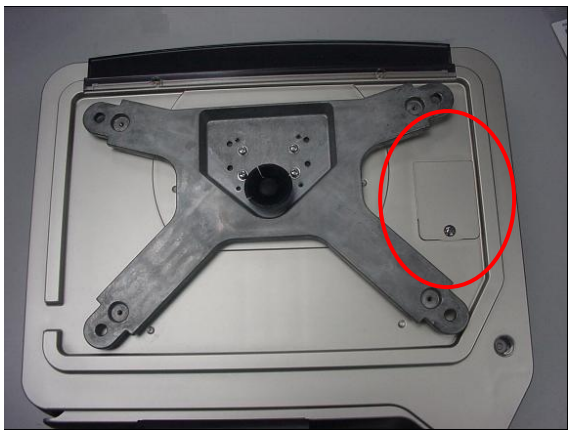
4. I/O PORTS, SPAN SWITCH AND W&M SEALING LOCATION

4.1 I/O Ports

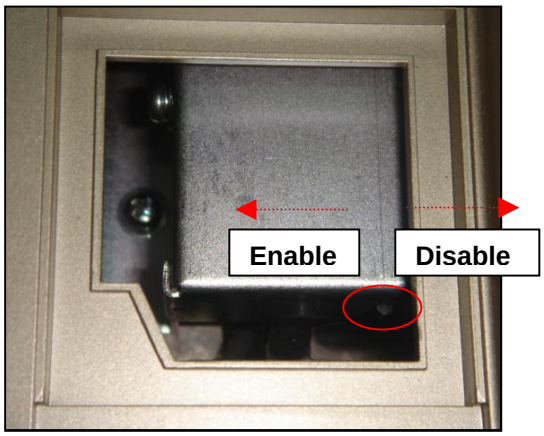


SD Card Insert Direction

4.2 Span Switch



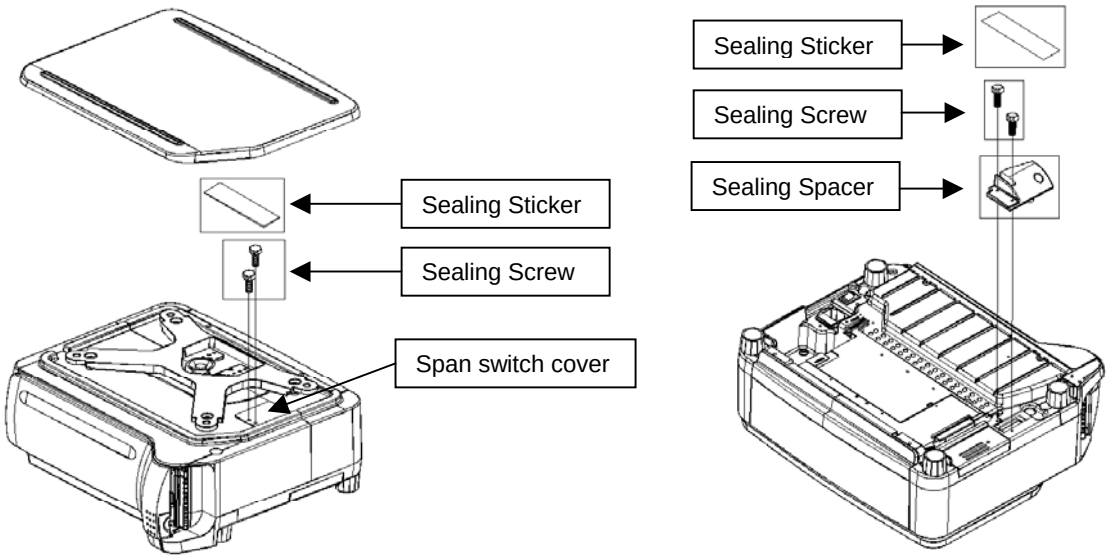
Open the Span Switch protective cover.



Push Span Switch Right/Left to **Enable/Disable.**

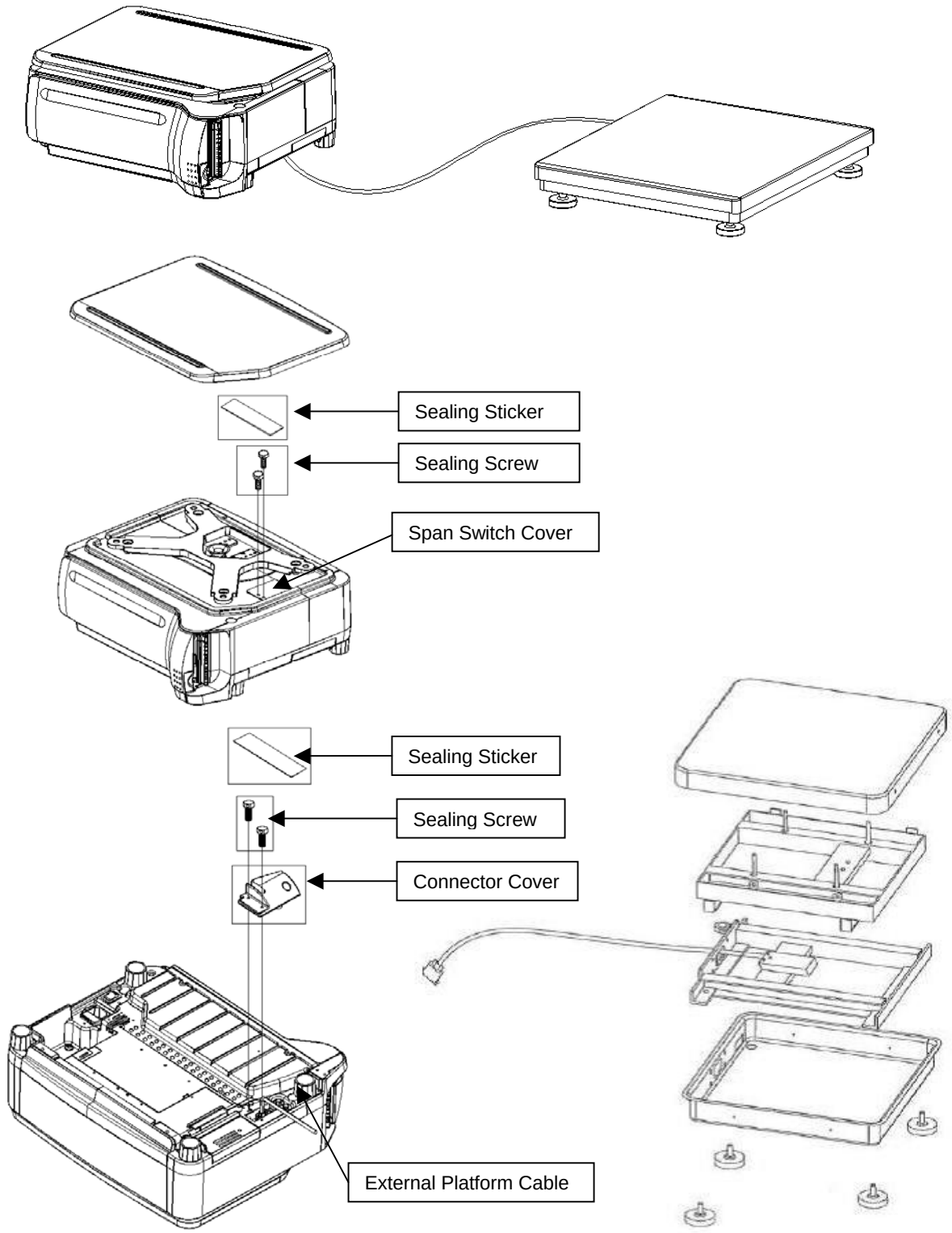
4.3 Location of Sealing Screw/Sticker

SM-5500 Model Variant & Sealing Position **TAW 0815**



Note: We can use Sealing Screw or Sealing Sticker on the Span Switch Cover.

SM-5500 Models with External Load Cell Variant & Sealing Position TAW 0823

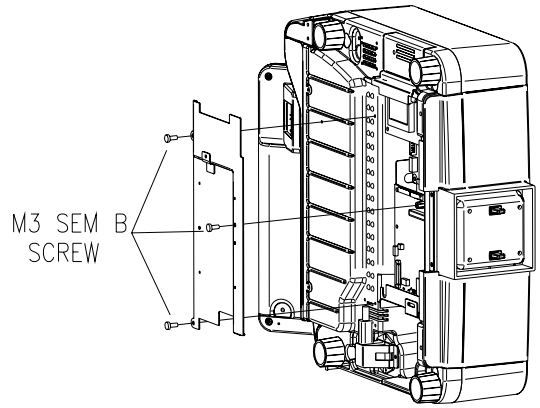
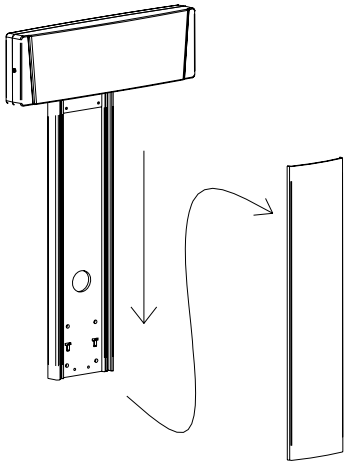


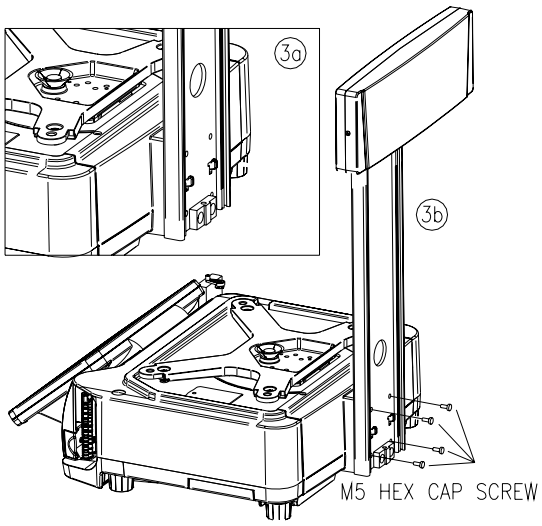
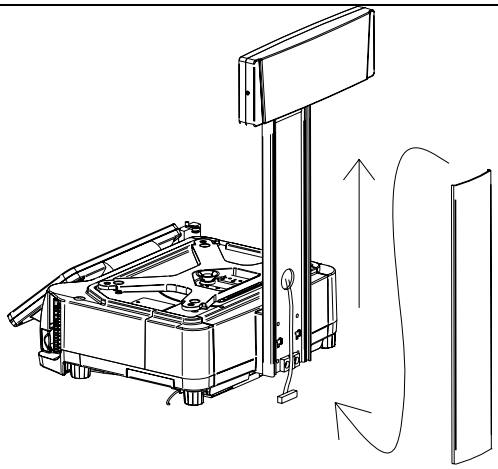
Note: We can use Sealing Screw or Sealing Sticker on the Span Switch Cover.

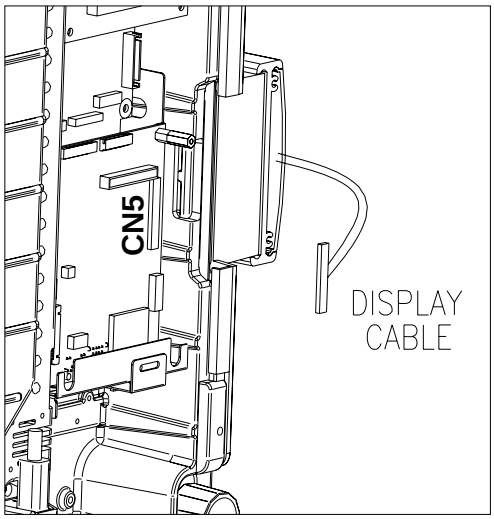
5. INITIAL SETUP

5.1 Pole Assembly

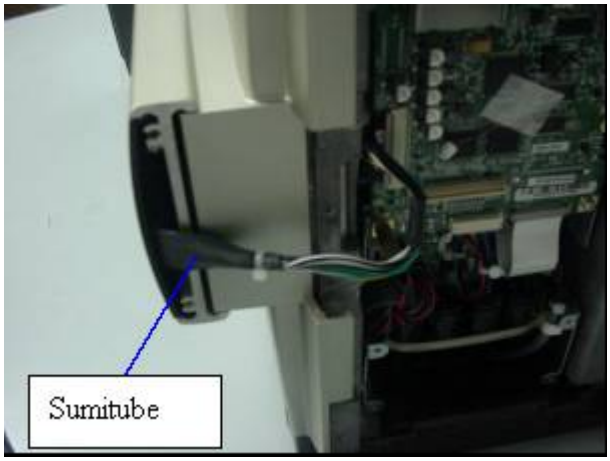
5.1.1 SM-5500P

	
1. Remove Bottom Cover by unscrewing 3-M3 SEM_B SCREW (To be used back). Caution: To avoid scratches, use soft material under the scale body.	2. Remove Pole Rear Long Cover (To be used back).

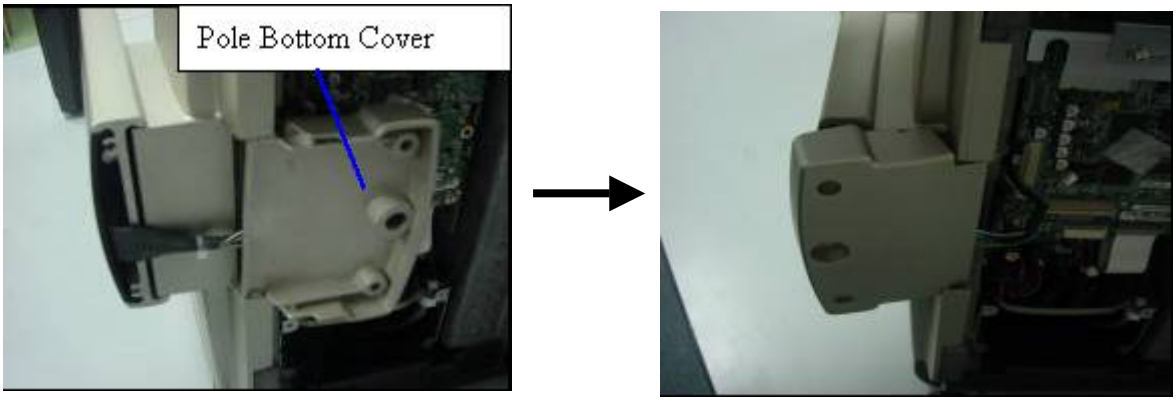
	
3. Locate Pole to the scale Hook (refer to 3a), then tighten 4pcs M5 Hex Cap screws (refer to 3b).	4. Insert Pole Rear Long Cover and make sure that Display Cable is long enough to connect to CPU board.



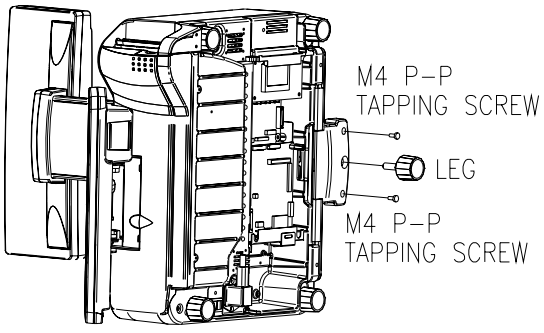
5. Connect Display cable to CPU Board CN5.



6. Make sure that Sumitube is located as shown in the picture.

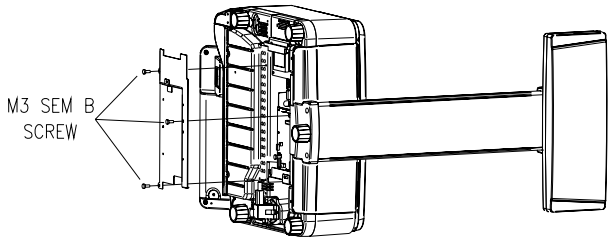


7. Locate Pole Bottom cover, and then rotate the Pole Bottom Cover as shown



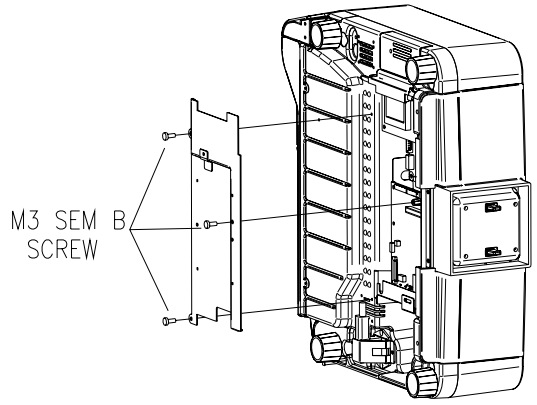
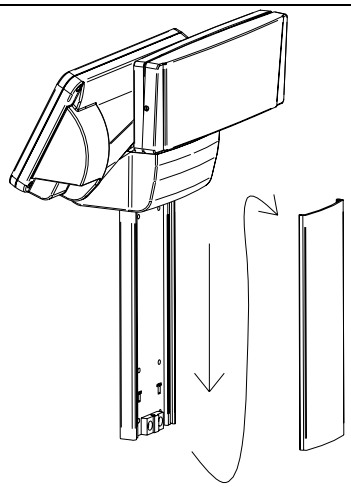
8. Press Pole Bottom Cover down and tighten 2pcs M4 P-P Tapping screws and assemble the Leg.

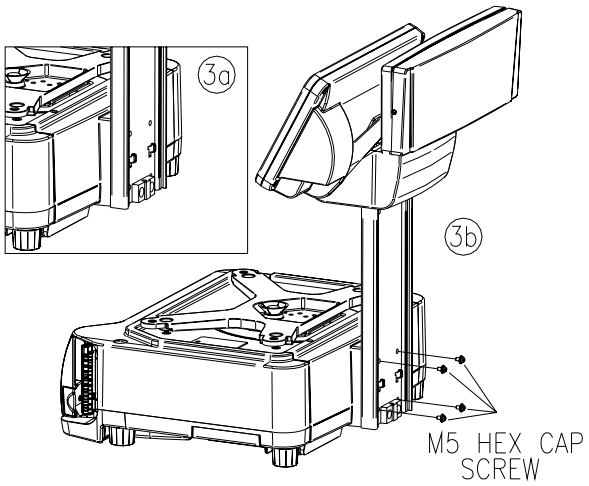
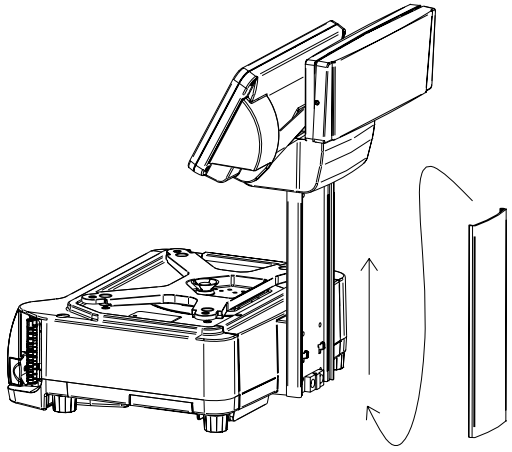
Caution:
To avoid scratches, use soft material under the scale body and display.

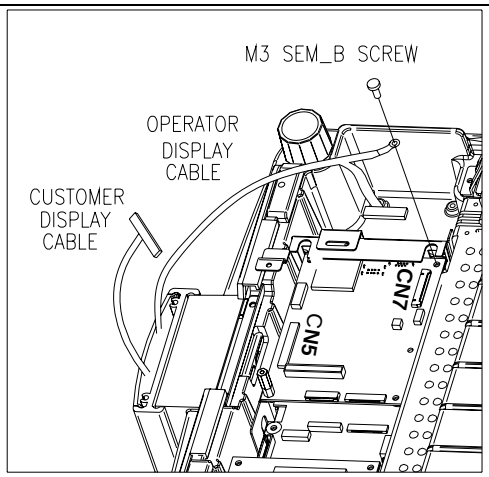


9. Tighten Bottom Cover back by using 3pcs M3 Sems B screw. Completed.

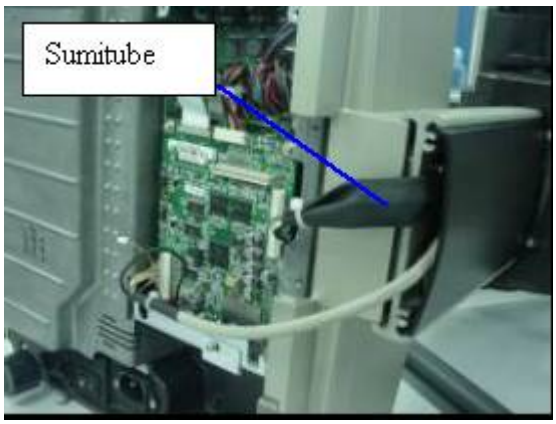
5.1.2 SM-5500EV

	
1. Remove Bottom Cover by unscrewing 3pcs M3 SEMS_B screw (To be used back).	2. Remove EV Pole Rear Long Cover (To be used back).

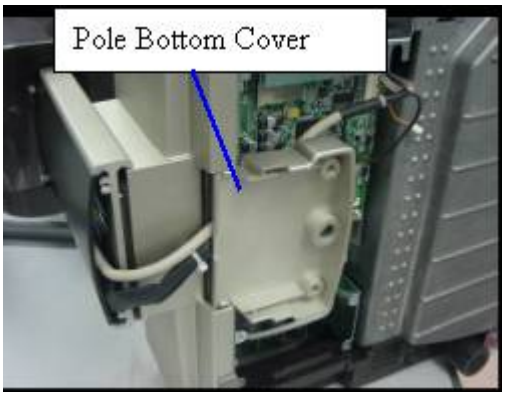
	
3. Locate EV Pole to the scale Hook (refer to 3a), then tighten 4pcs M5 Hex Cap screws (refer to 3b).	4. Insert EV Pole Rear Long Cover and make sure that Display Cable is long enough to connect to CPU board.



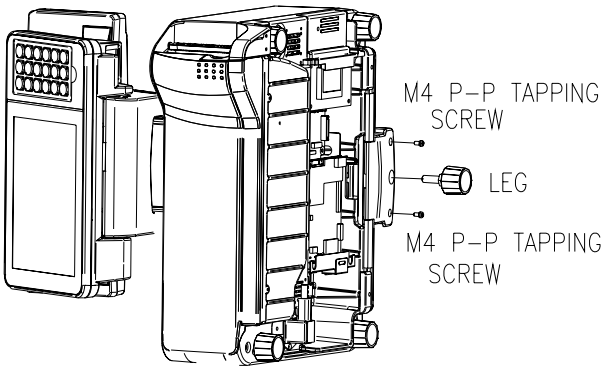
5. Connect Customer Display cable to CPU Board CN5, and connect Operator Display cable to CPU Board CN7, then tighten ground wire as shown in the picture.



6. Make sure that Sumitube is located as shown in the picture.

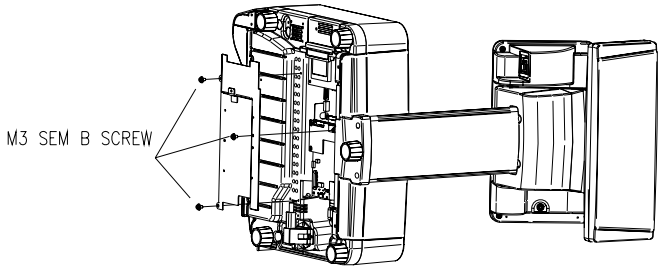


7. Locate Pole Bottom cover, and then rotate the Pole Bottom Cover as shown.



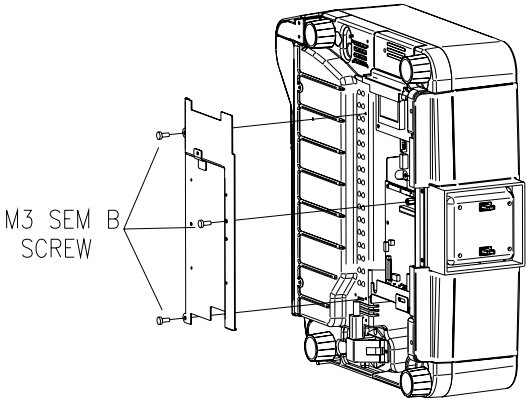
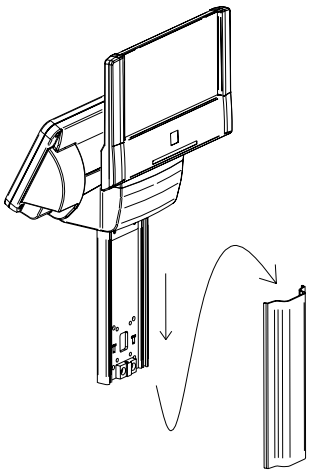
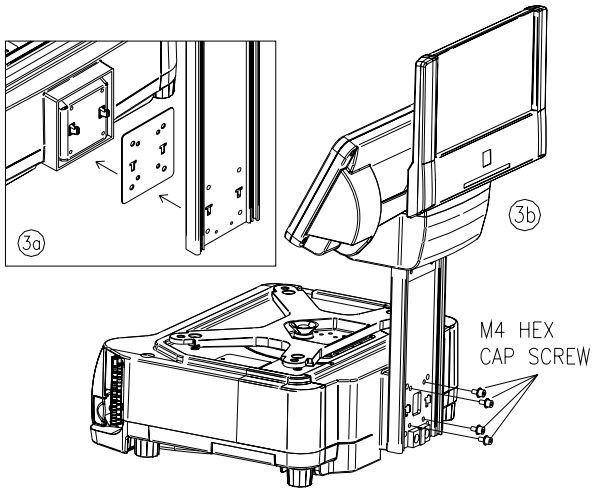
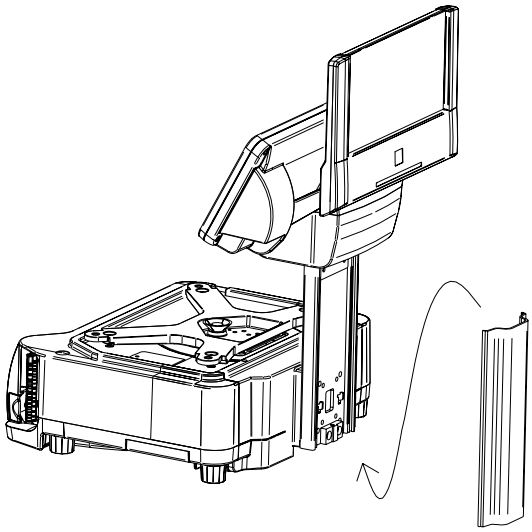
8. Press Pole Bottom Cover down and tighten 2pcs M4 P-P Tapping screws and assemble the Leg.

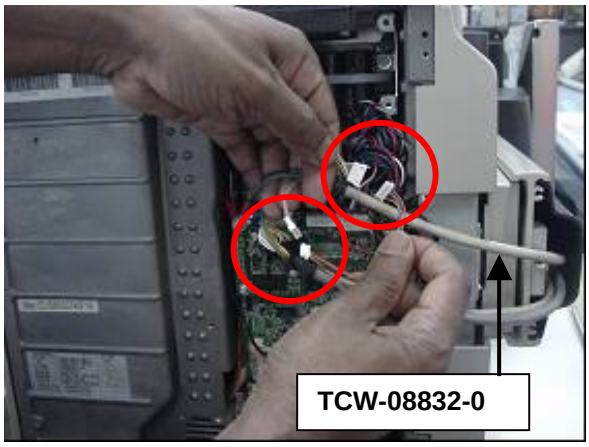
<u>Caution:</u>
To avoid scratches, use soft material under the scale body and display.



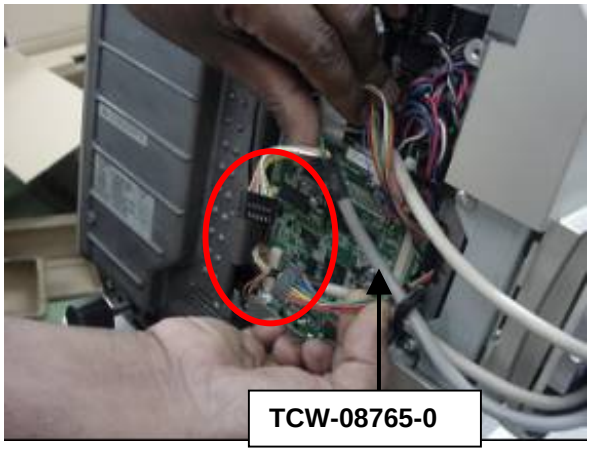
9. Tighten Bottom Cover back by using 3 M3 SEM_B screws. Completed.

5.1.3 SM-5500EVEL

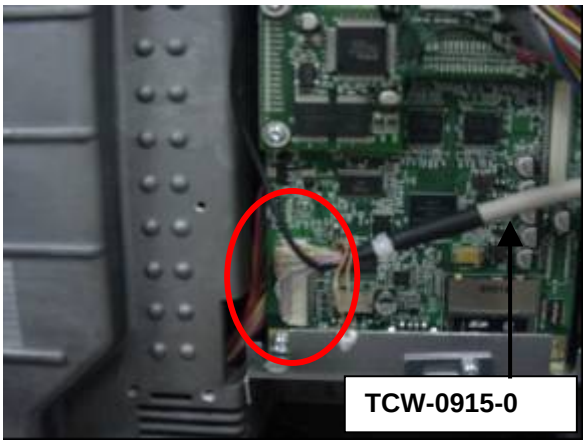
	
1. Remove Bottom Cover by unscrewing 3pcs M3 SEMS_B screw (To be used back).	2. Remove EVEL Pole Rear Long Cover (To be used back).
	
3. Locate EVEL Pole to the scale Hook (refer to 3a), then tighten 4pcs M4 Hex Cap screws (refer to 3b).	4. Insert EV Pole Rear Long Cover and make sure that Display Cable is long enough to connect to CPU board.



5. Follow the directions and connect the cables as shown.

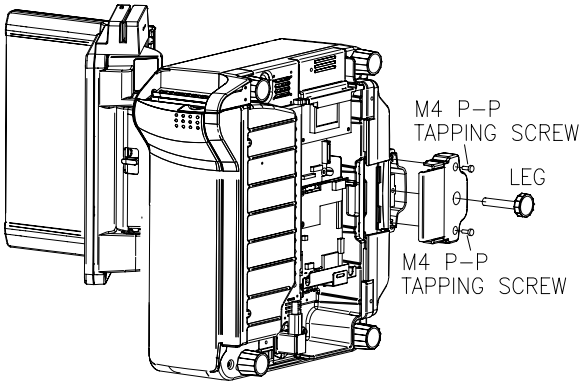


6. Follow the direction and connect the cables as shown.



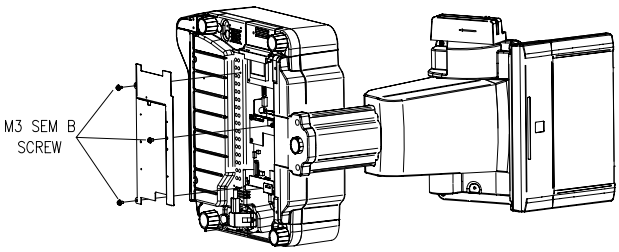
7. Connect Display cable to CPU Board CN7.

8. Fix all grounding wires as shown.



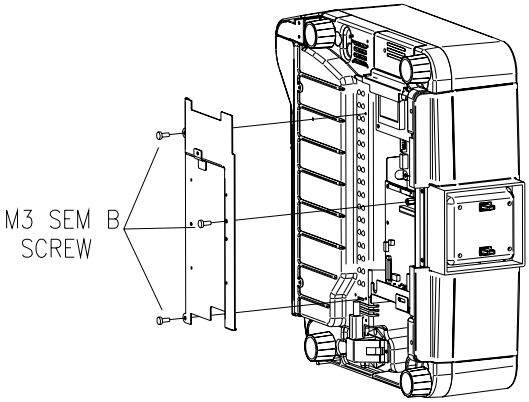
9. Tighten Pole Bottom Cover down by 2pcs M4 P-P Tapping Screws, and fix the leg.

Caution: To avoid scratches, use soft material under the scale body and display.

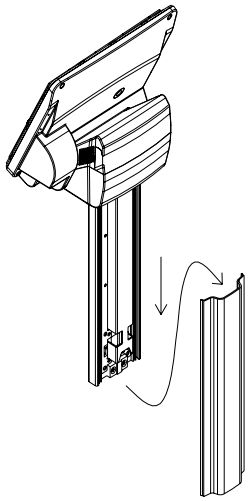


10. Tighten Bottom Cover back by using 3pcs M3 SEM_B screws. Completed.

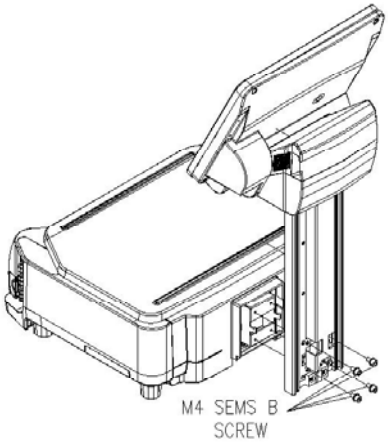
5.1.4 SM-5000BS



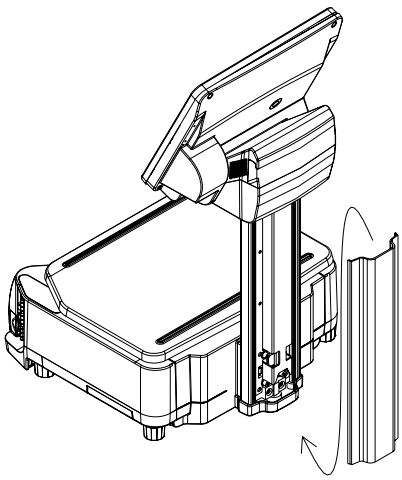
1. Remove Bottom Cover by unscrewing 3pcs M3 SEMS_B screw (To be used back).



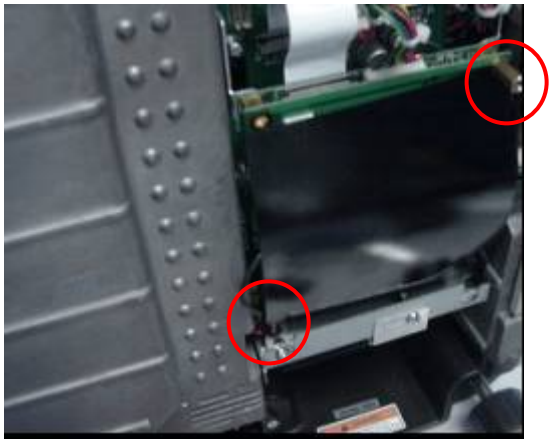
2. Remove Pole Rear Cover (To be used back).



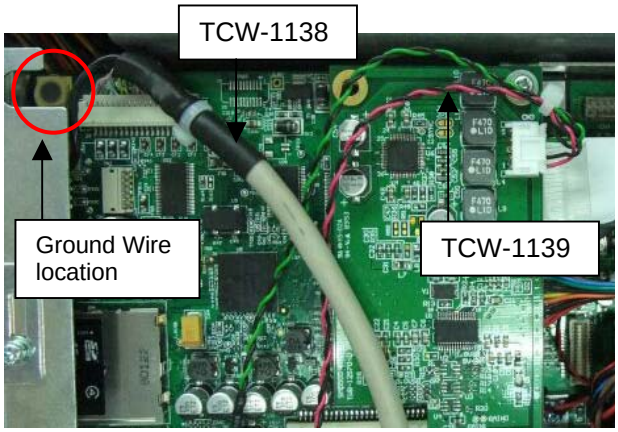
3. Locate Pole and spacer to Scale Hook, then tighten 4pcs Sems B screw.



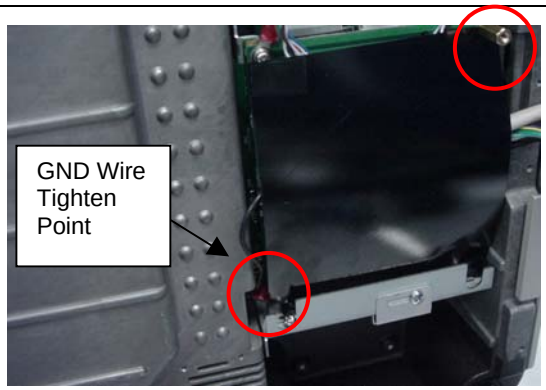
4. Insert Pole Rear Long Cover and make sure that Display Cable is long enough to connect to CPU board.



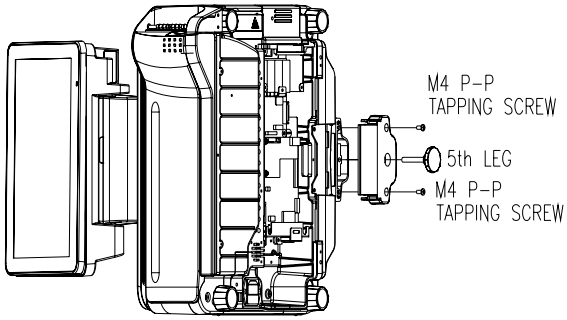
5. Unscrew the indicated screw and axis, and take out the insulator.



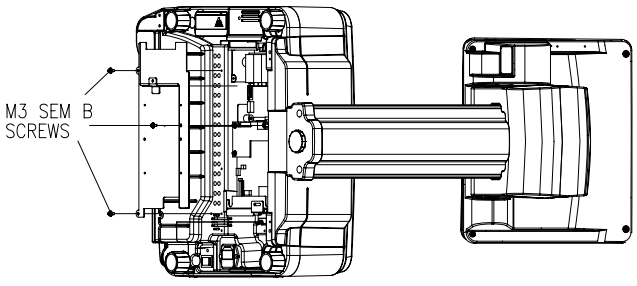
6. Connect Audio cable to CN3 on



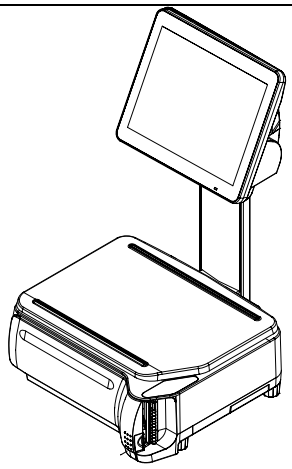
7. Fix back the insulator by using unscrewed screw and axis, please ensure the GND wire tighten with insulator as shown.



8. Press Pole Bottom cover down and tighten 2pcs M4 P-P Tapping screw and fix 5th leg.



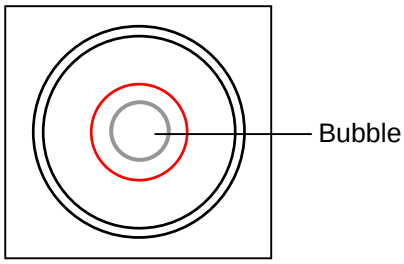
9. Tighten Bottom Cover back by using 3pcs M3 Sems B screws.



10. Insert Platter into the Platter Support. Completed.

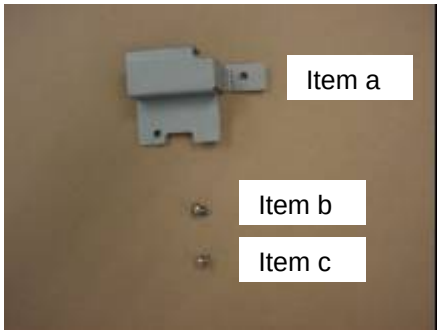
5.2 Level Adjustment

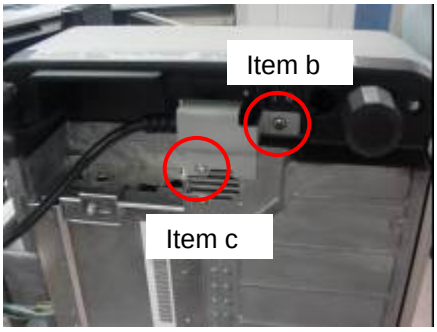
Place the scale on the flat surface and adjust the four legs until the bubble on the level is in the center as shown.



5.3 AC Cord Mounting

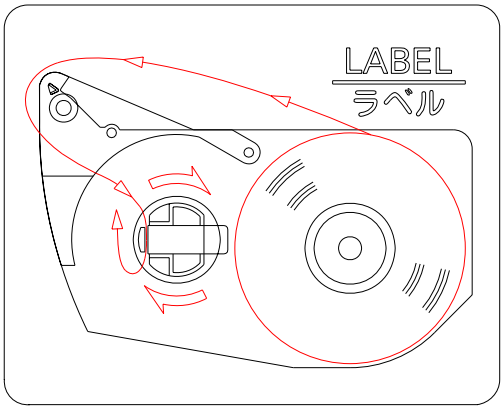
This bracket installation is for avoiding the power cord easier to come out.

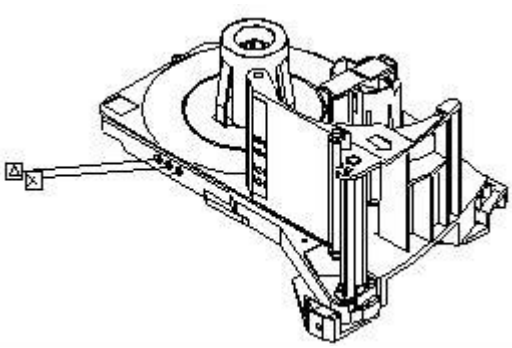
	
1. a) Bracket BX (44016701805000) b) M4 Self-tapping screw (1pc) c) M3 Sems B screw (1pc)	2. Plug in the Power Cord to AC inlet.

	
3. Assembly the Bracket BX with M4 self-tapping screw and M3 Sems B screw.	4. Completed. SM-5500 scale with Power cord.

5.4 Cassette Loading

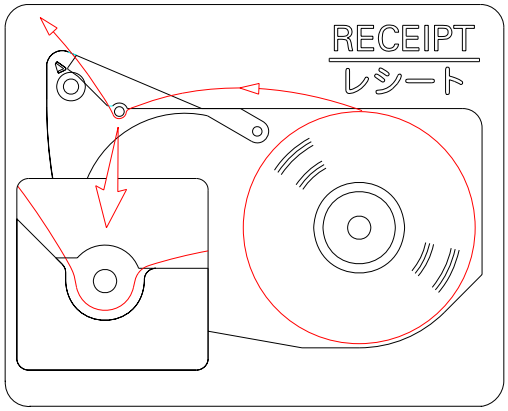
5.4.1 Label Printing

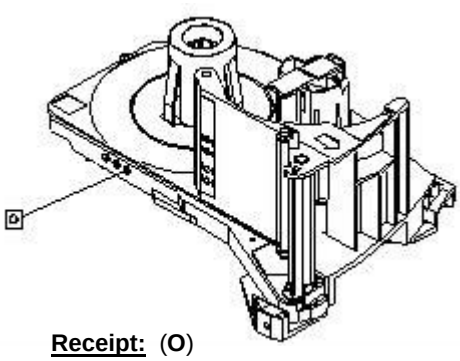




Label: (**ΔX**)
These stickers are paste and set as the default factory setting.

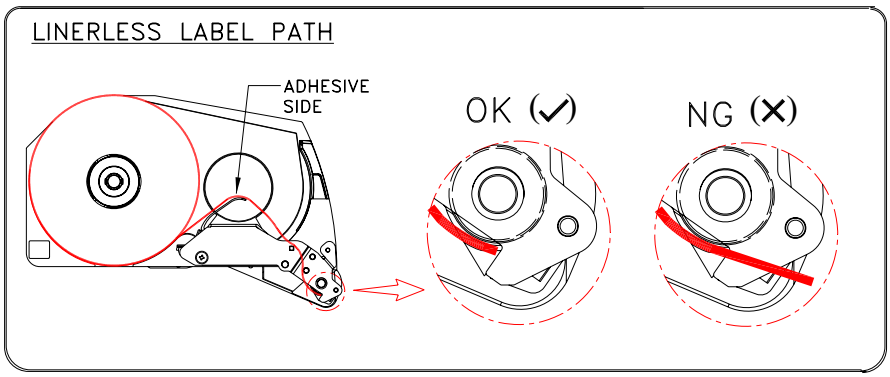
5.4.2 Receipt Printing





Receipt: (**O**)
This sticker is given together with the accessory items, for customer to set as an option. Paste the sticker to the third hole without removing the original label sticker.

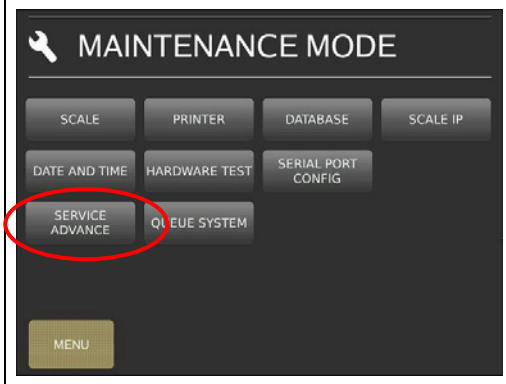
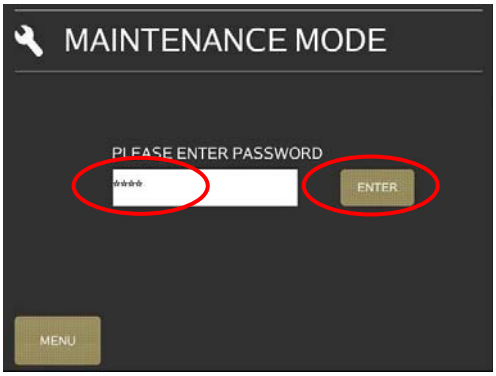
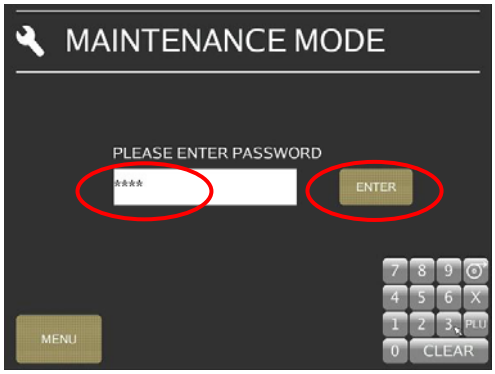
5.4.3 Linerless Label Printing



5.5 Software Setup

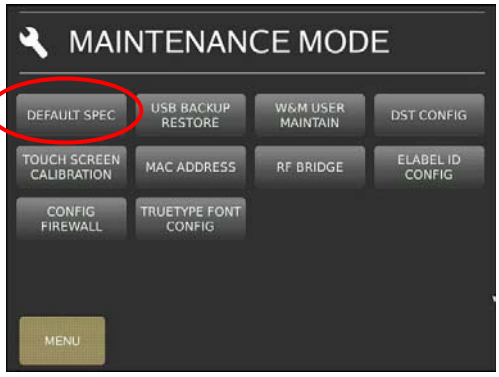
5.5.1 Default Country SPEC

*Note: Ensure the Span Switch is set to **[Enable]**.*

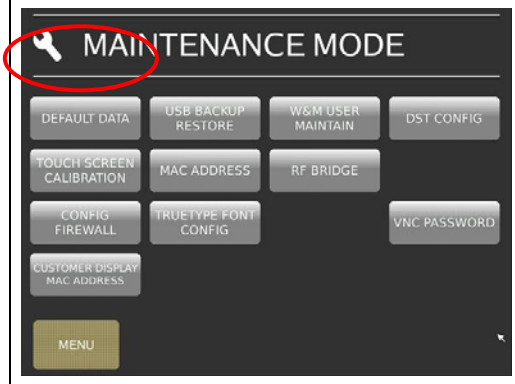
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SERVICE ADVANCE]** to go to Service Advance mode.	
2) Keying the Password and select **[ENTER]** button. **SM-5500 Srs** →	
SM-5000BS →	

3) Select **[DEFAULT SPEC]**.

SM-5500 Srs →

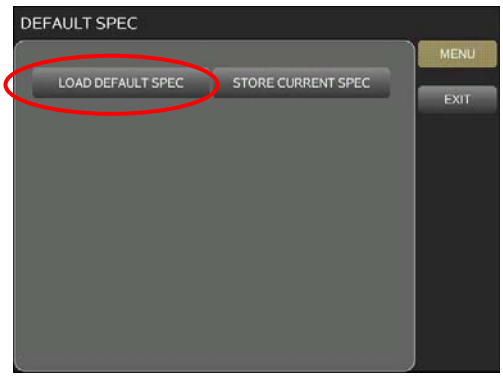


SM-5000BS →

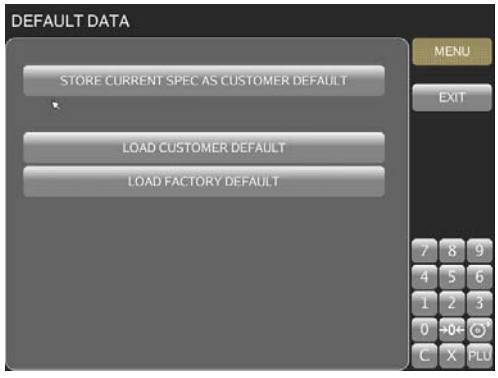


4) In DEFAULT SPEC mode, select **[LOAD DEFAULT SPEC]**.

SM-5500 Srs →

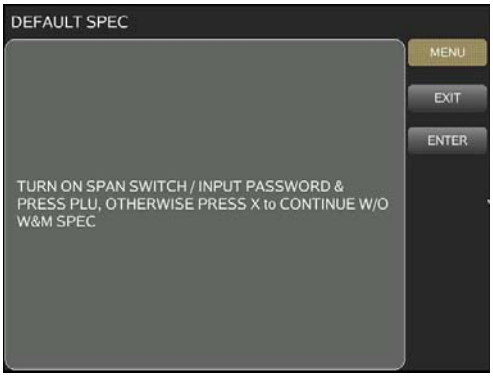


SM-5000BS →

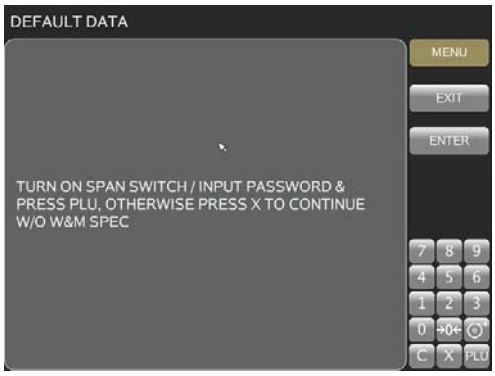


5) If message appear as shown, select **[MENU]** to go back to DEFAULT SPEC mode. Turn ON Span Switch and proceed to Step 2 again.

SM-5500 Srs →

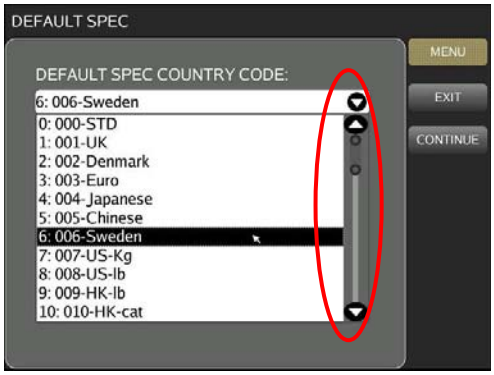


SM-5000BS →

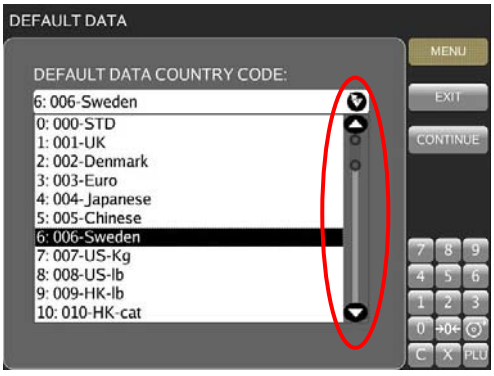


6) Touch ▼ icon to select the country.

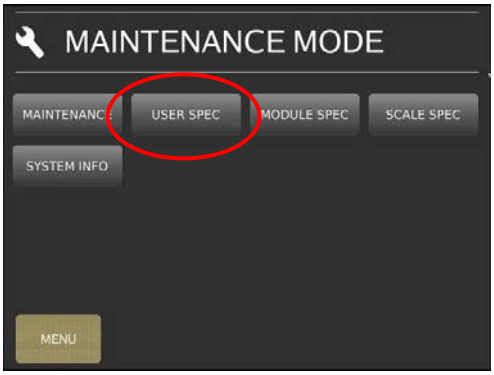
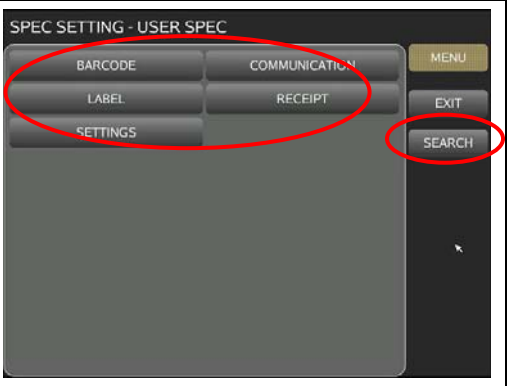
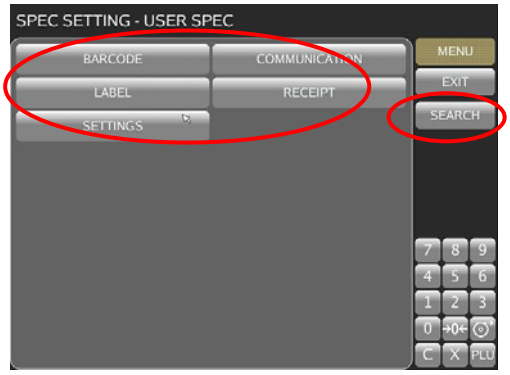
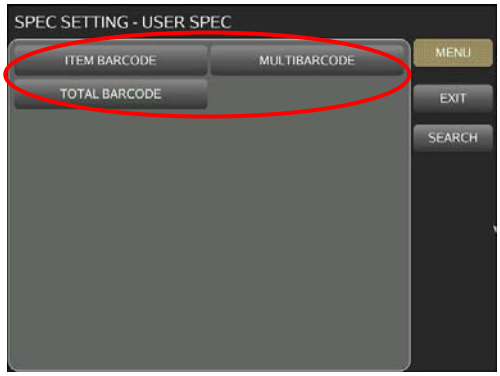
SM-5500 Srs →



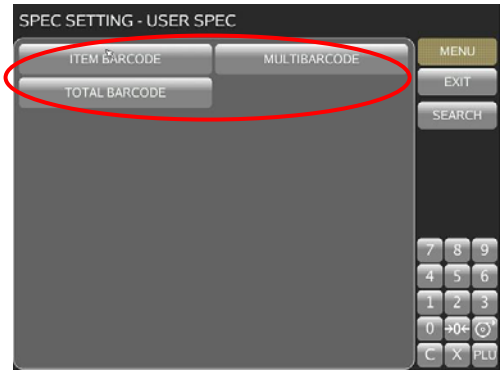
SM-5000BS →



5.5.2 User SPEC

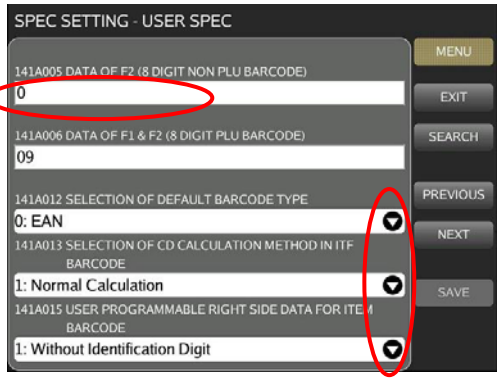
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[USER SPEC]**.	
2) In USER SPEC mode, select the desired SPEC option, e.g. **[BARCODE]**. ***Note:*** *Refer to Section 5.5.5.1 on SEARCH function procedures* **SM-5500 Srs** →	
SM-5000BS →	
3) Select the desired SPEC option, e.g. **[ITEM BARCODE]**. **SM-5500 Srs** →	

SM-5000BS →

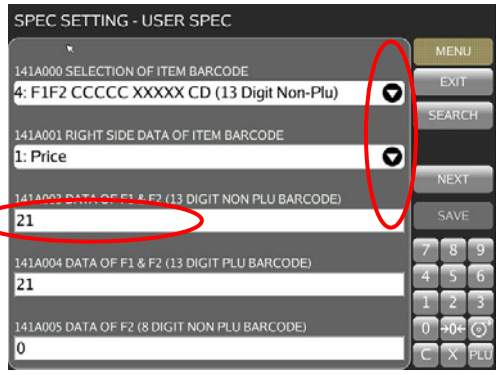


4) Touch the column and enter new setting or touch the icon to select the new setting.

SM-5500 Srs →

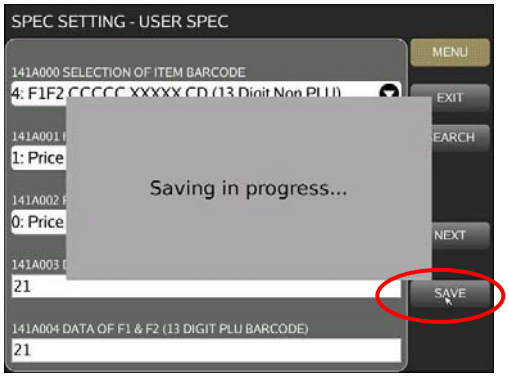


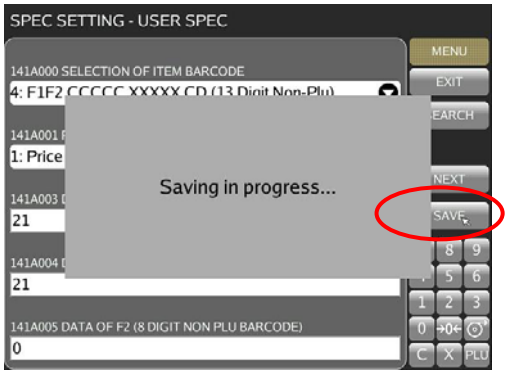
SM-5000BS →



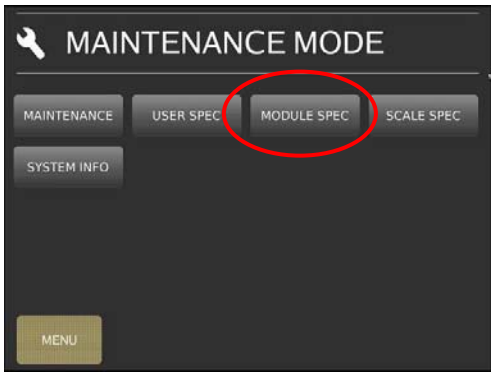
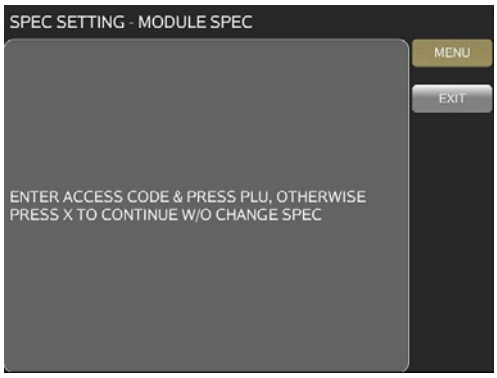
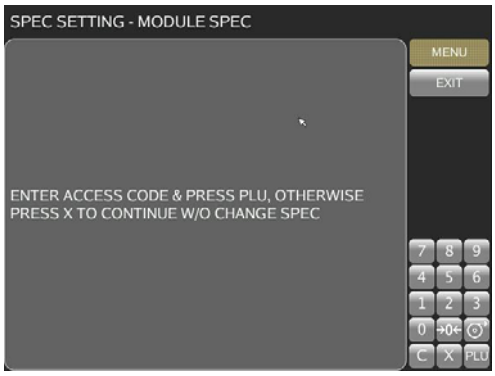
5) Select **[SAVE]** button to save the changed setting.

SM-5500 Srs →



SM-5000BS →	

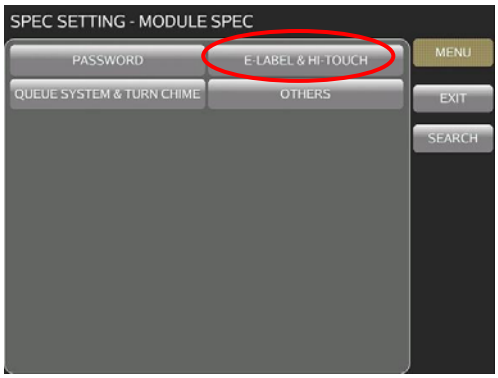
5.5.3 Module SPEC

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MODULE SPEC]**.	
2) Enter the Password and press **[PLU]** key button. **SM-5500 Srs →**	
SM-5000BS →	

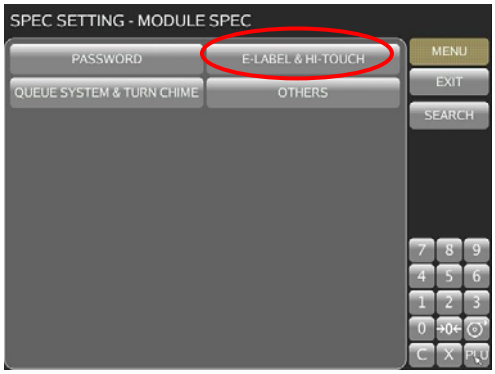
3) In MODULE SPEC mode, select the desired SPEC option, e.g. **[E_LABEL & HI-TOUCH]**.

Note:
Refer to Section 5.5.5.1 on SEARCH function procedures:

SM-5500 Srs →

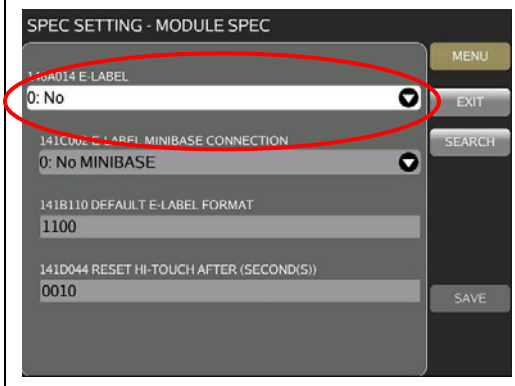


SM-5000BS →

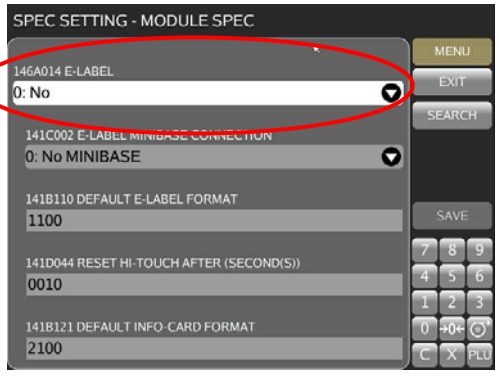


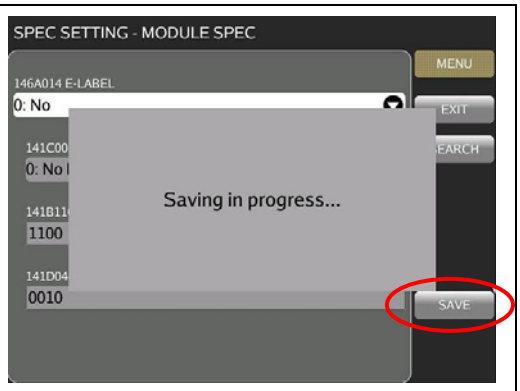
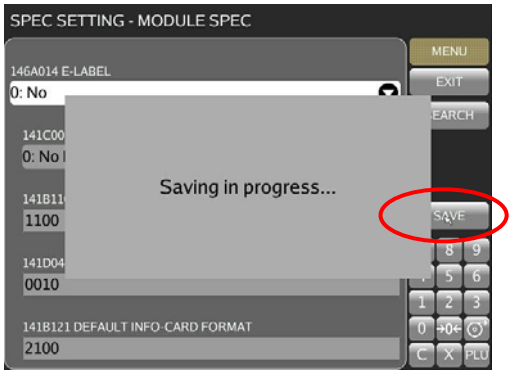
4) Touch the column and enter new setting or touch the icon to select the new setting.

SM-5500 Srs →

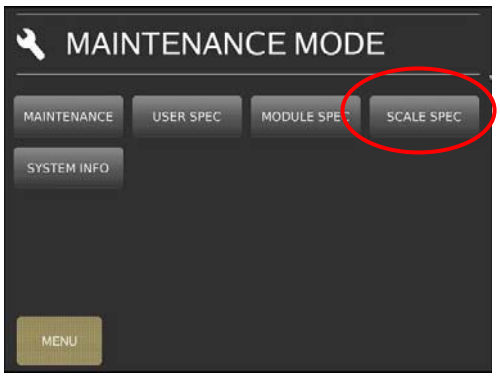
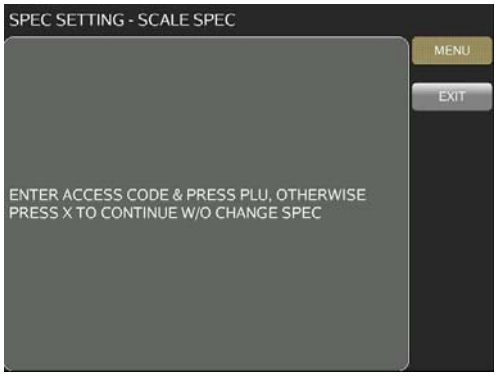


SM-5000BS →

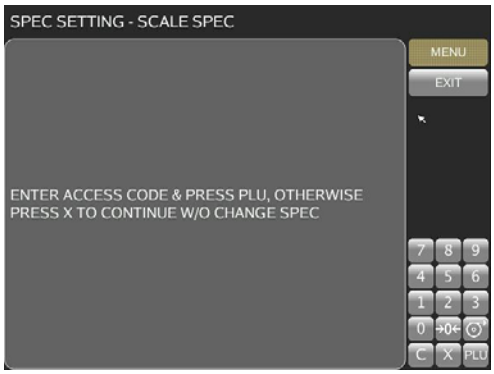


5) Select **[SAVE]** button to save the changed setting. **SM-5500 Srs** → **SM-5000BS** →	 

5.5.4 Scale SPEC

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[SCALE SPEC]**.	
2) Enter the Password and press **[PLU]** key button. **SM-5500 Srs** →	

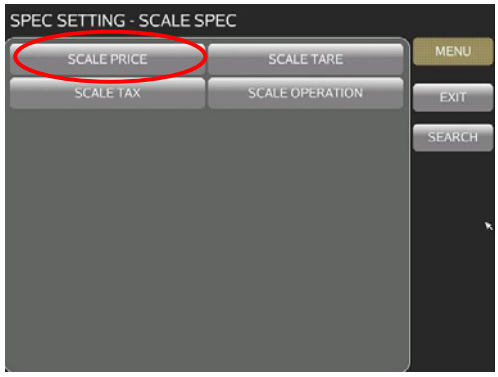
SM-5000BS →



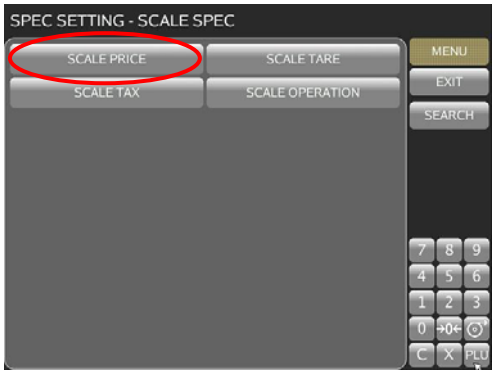
3) In SCALE SPEC mode, select the desired SPEC option, e.g. **[SCALE PRICE]**.

Note:
Refer to Section 5.5.5.1 on SEARCH function procedures:

SM-5500 Srs →

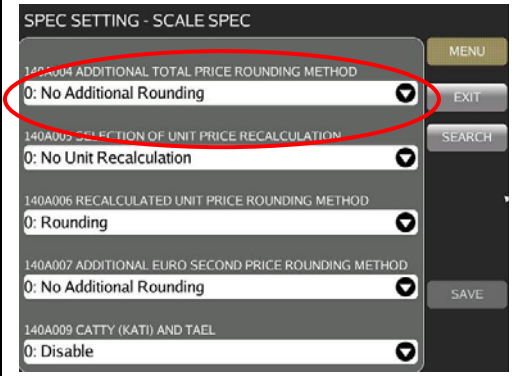


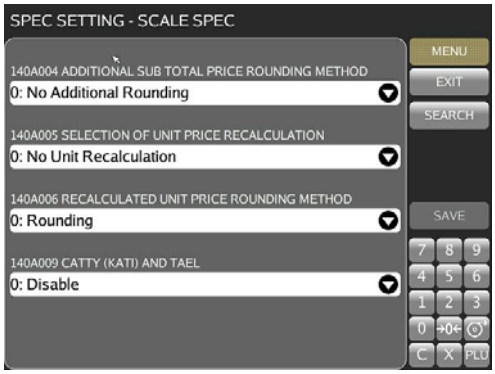
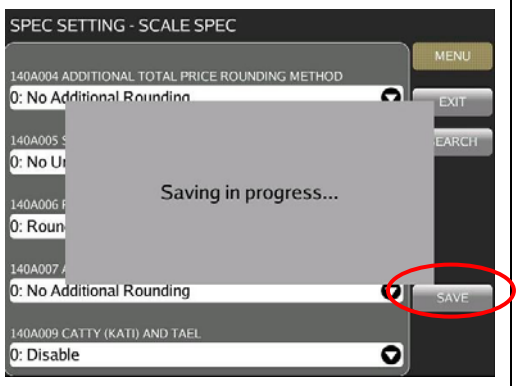
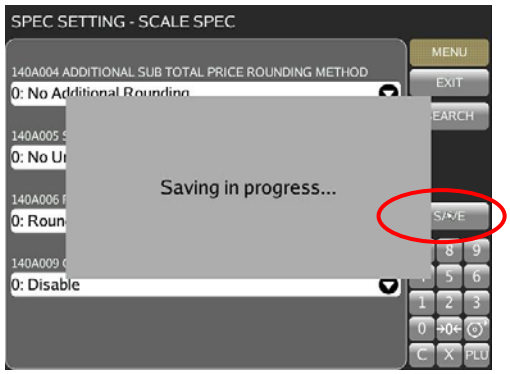
SM-5000BS →



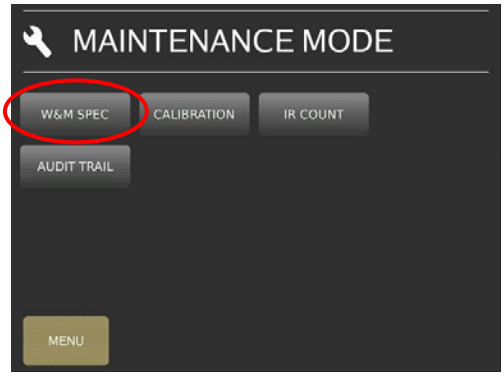
4) Touch the column and enter new setting or touch the ▼ icon to select the new setting.

SM-5500 Srs →



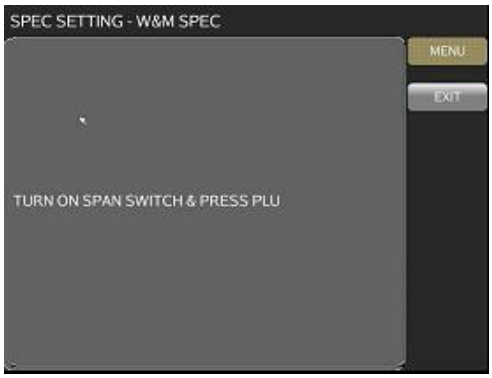
SM-5000BS →	
5) Select **[SAVE]** button to save the changed setting. **SM-5500 Srs →**	
SM-5000BS →	

5.5.5 Weigh & Measure SPEC

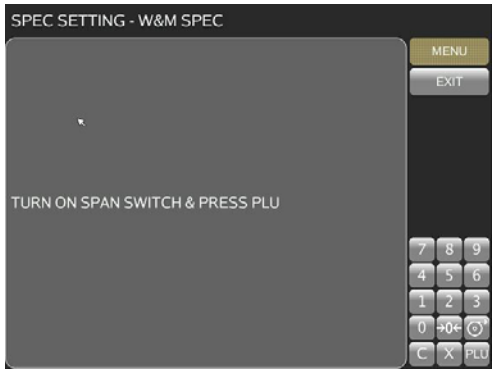
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SCALE]** → **[W&M SPEC]** to go to W&M (Weigh & Measure) SPEC mode.	

2) Enter the Password and press **[PLU]** key button.

SM-5500 Srs →



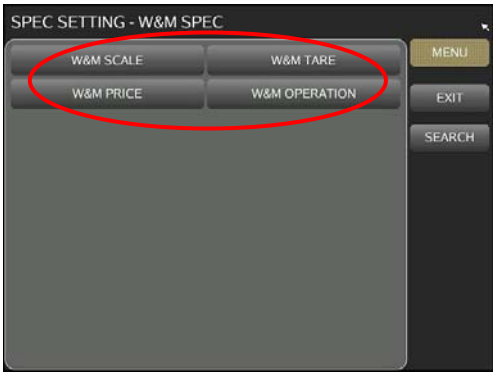
SM-5000BS →



3) In W&M SPEC mode, select desired SPEC option, e.g. **[W&M SCALE]**.

Note:
Refer to Section 5.5.5.1 on SEARCH function procedures

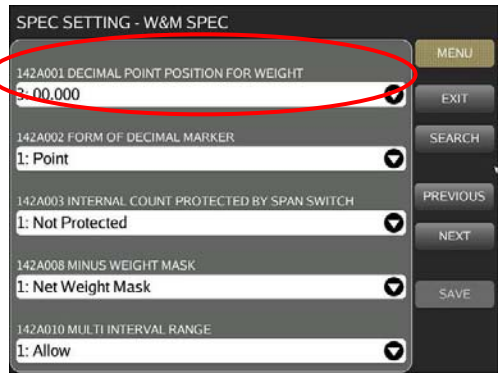
SM-5500 Srs →



SM-5000BS →

4) Touch the column and enter new or touch the icon to select the new setting.

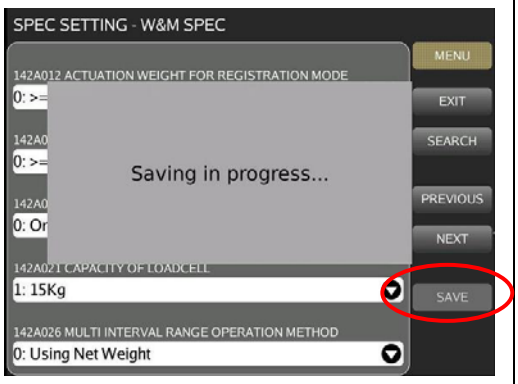
SM-5500 Srs →



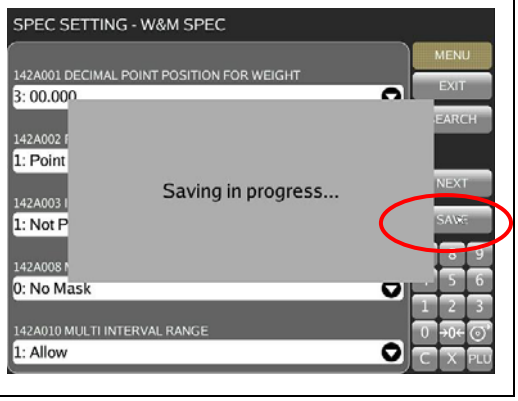
SM-5000BS →

5) Select **[SAVE]** button to save the changed setting.

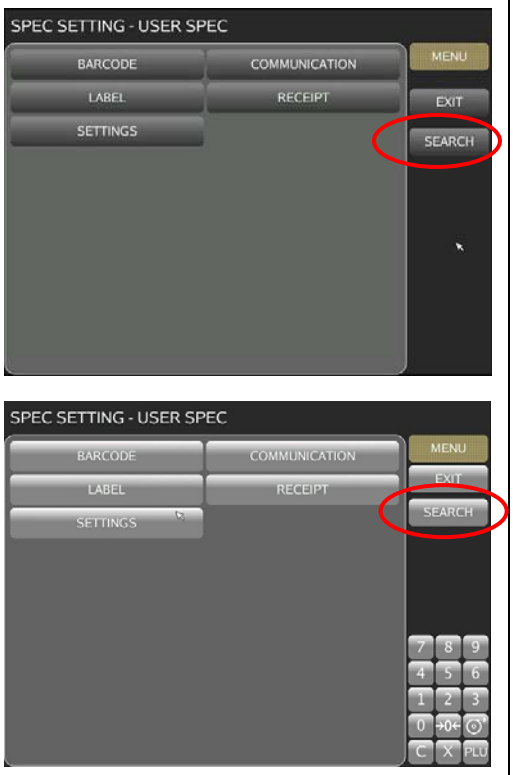
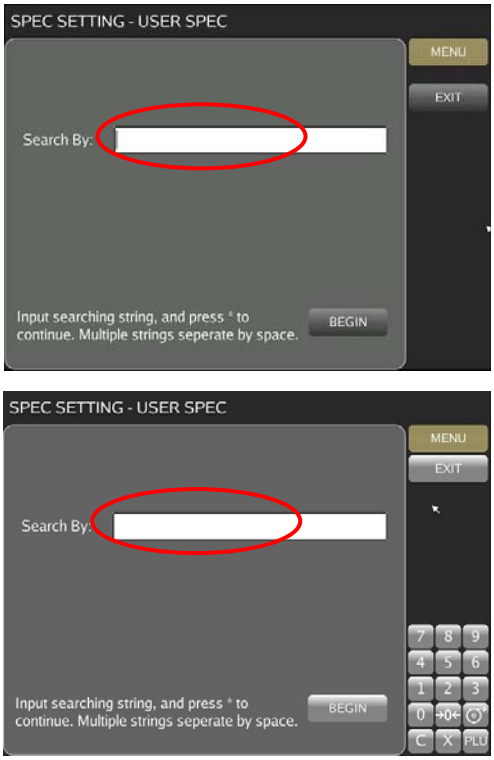
SM-5500 Srs →

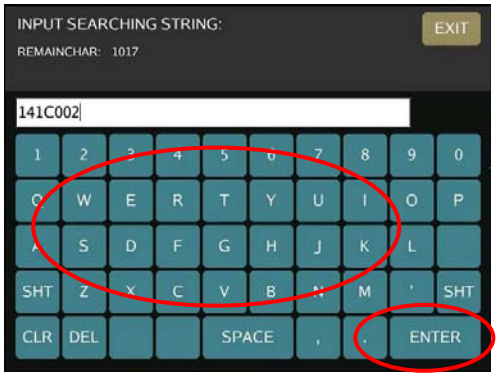


SM-5000BS →

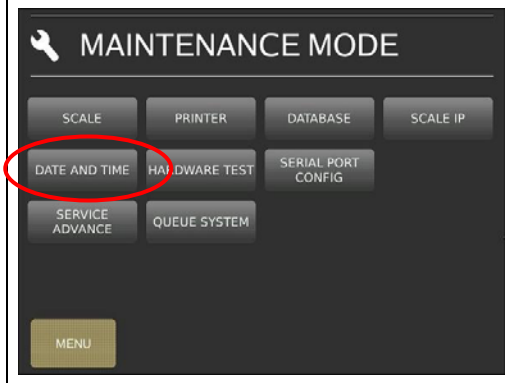
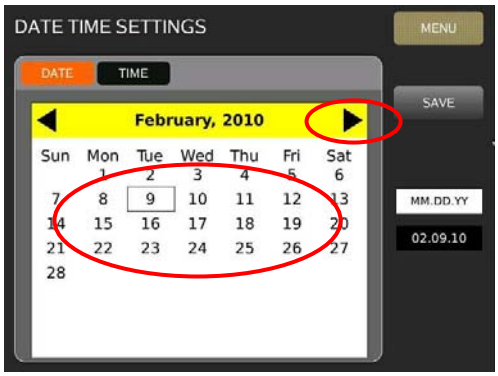
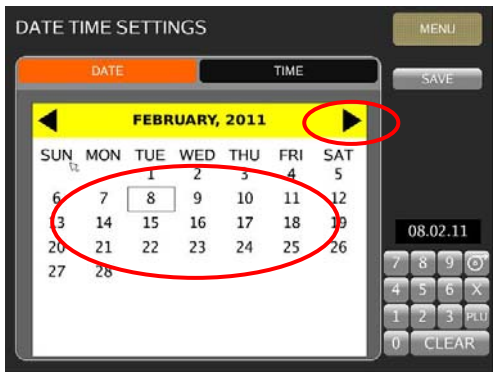
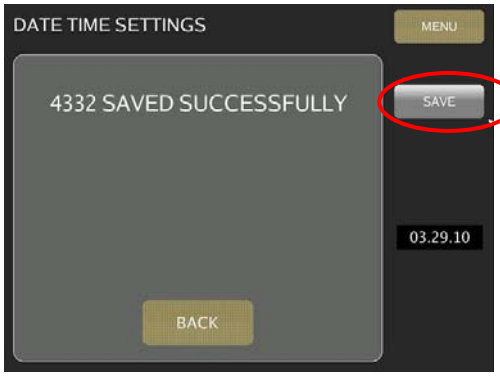


5.5.5.1 SEARCH Function Procedure:

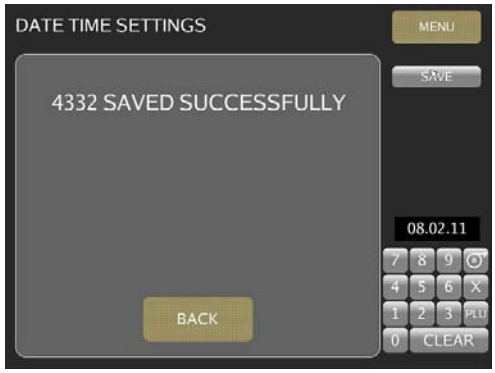
Procedure	Picture
1) Touch **[SEARCH]** button. **SM-5500 Srs →** **SM-5000BS →**	
2) Touch the “Search By” column area. **SM-5500 Srs →** **SM-5000BS →**	

3) Keyboard screen will pop out. Enter the SPEC no. or key word follow by **[ENTER]** button.	
4) Message will display on screen indicating the search results as shown.	 **Spec found**  **Spec not found**
5) All related SPEC would display on the screen.	

5.5.6 Date And Time

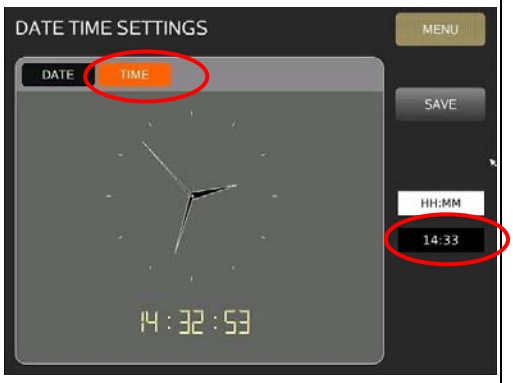
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[DATE AND TIME]** to go to Date And Time menu.	
2) At Date mode, use ▶ arrow key to select the "Year" and select the date. **SM-5500 Srs** →	
SM-5000BS →	
3) Select **[SAVE]** button to save the changed setting. **SM-5500 Srs** →	

SM-5000BS →



4) Select **[TIME]** to go to Time mode, then press "Number" button to enter the time.

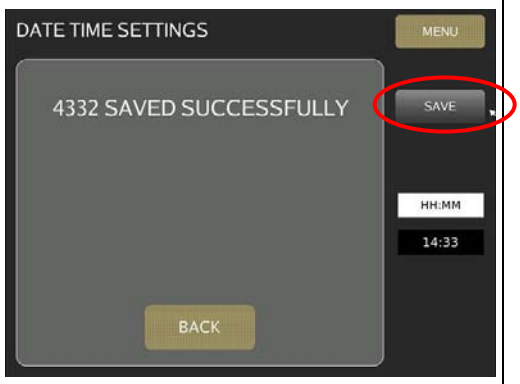
SM-5500 Srs →

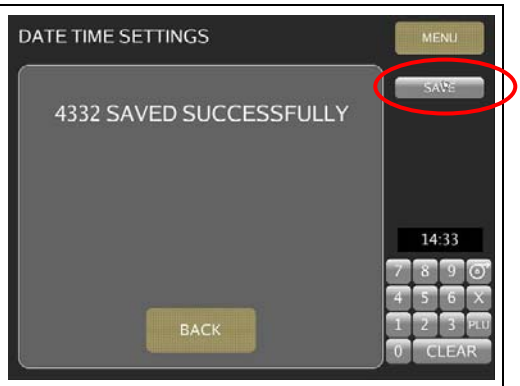


SM-5000BS →

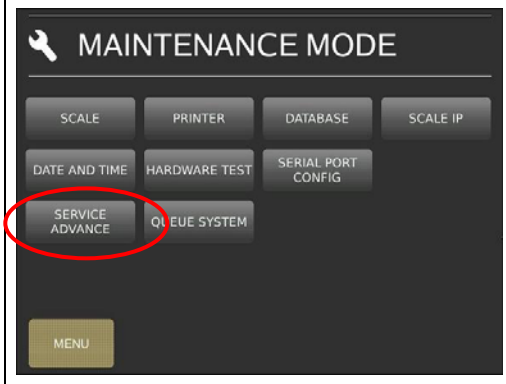
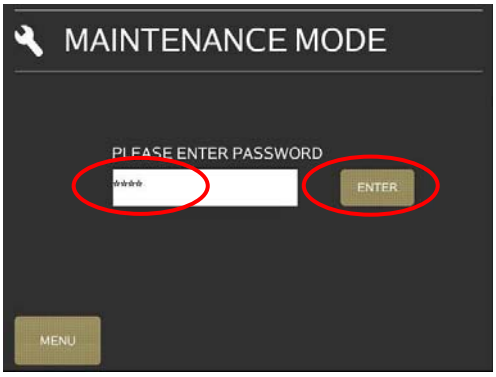
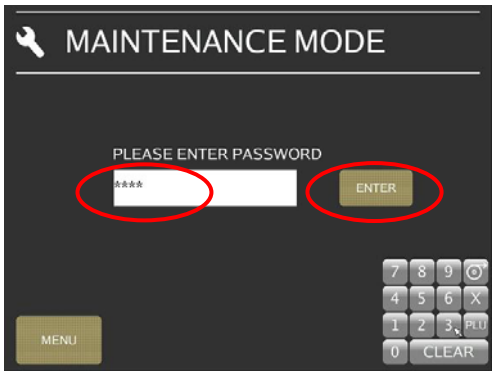
5) Select **[SAVE]** button to save the change setting.

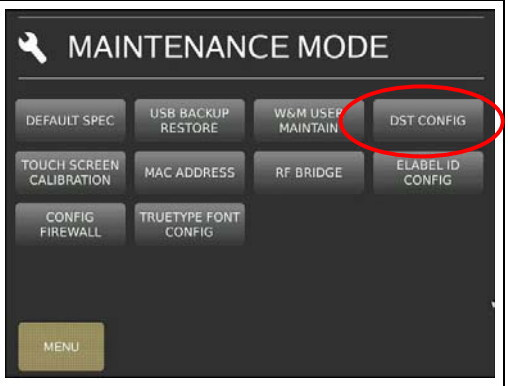
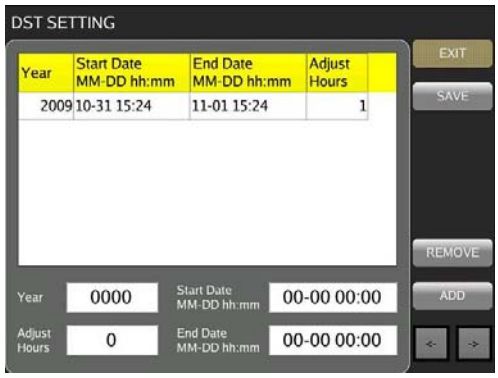
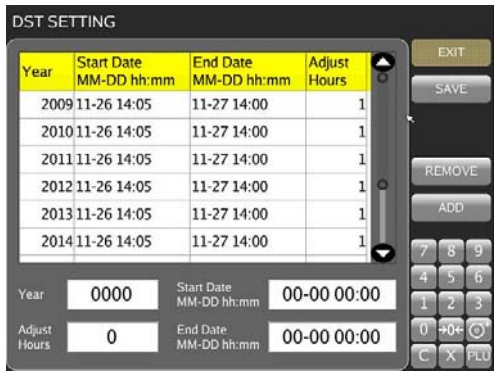
SM-5500 Srs →



SM-5000BS →	

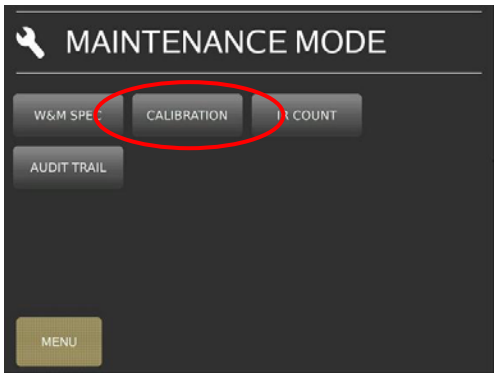
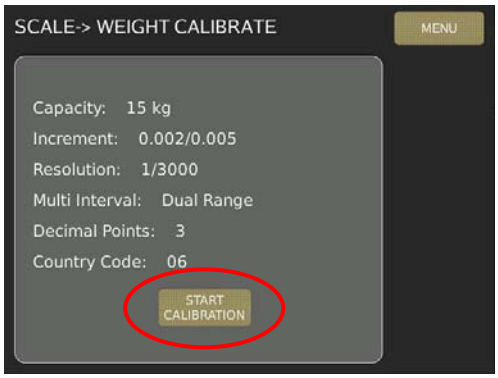
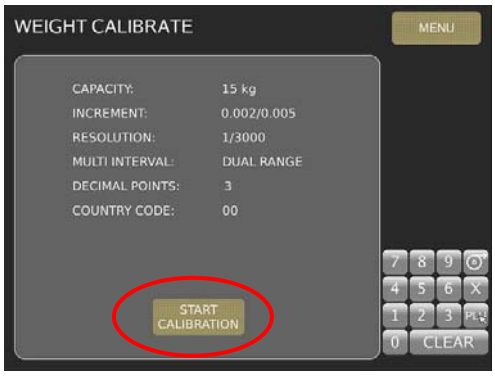
5.5.7 Daylight Saving Time

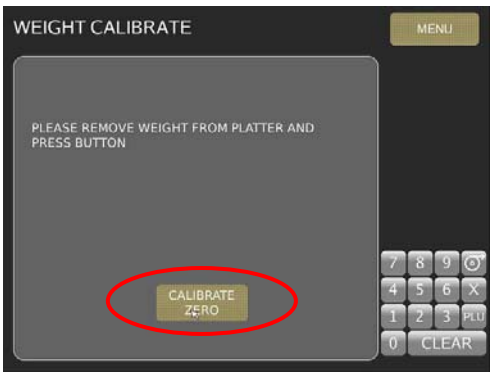
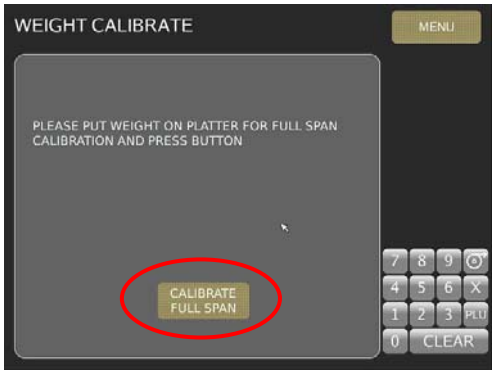
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SERVICE ADVANCE]** to go to Service Advance mode.	
2) Keying the Password and select **[ENTER]** button. SM-5500 Srs →	
SM-5000BS →	

3) In Service Advance mode, select **[DST CONFIG]**.	
4) Keying the “Year”, Start Date”, “End Date” and “Adjust Hours”, then select **[ADD]** button to adding the setting and select **[SAVE]** button to save the change setting. **SM-5500 Srs →**	
SM-5000BS →	

5.6 Span Adjustment (Weight Calibration)

*Note: Ensure the Span Switch is set to **[Enable]**.*

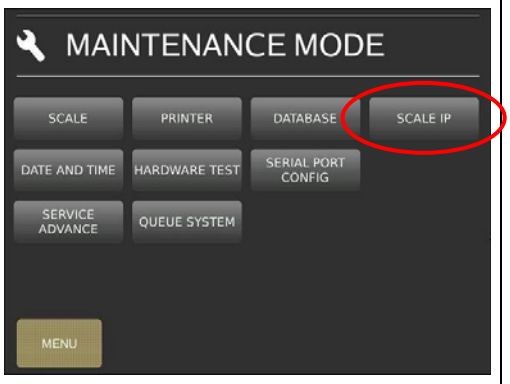
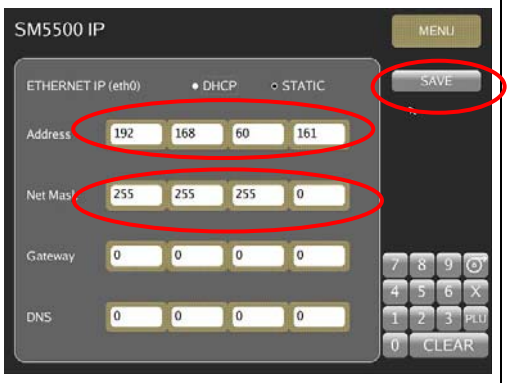
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SCALE]** → **[CALIBRATION]** to go to calibration mode.	
2) In Calibration mode, touch **[START CALIBRATION]**. **SM-5500 Srs** →	
SM-5000BS →	
3) Ensure there is no weight on the platter, and touch **[CALIBRATE ZERO]**. **SM-5500 Srs** →	

SM-5000BS →	
4) Put capacity weight **[e.g. 15Kg]** on the platter and touch **[CALIBRATE FULL SPAN]**. **SM-5500 Srs →**	
SM-5000BS →	
5) Screen shows “Calibrate complete” indicating the process is completed.	

6. SYSTEM SETUP

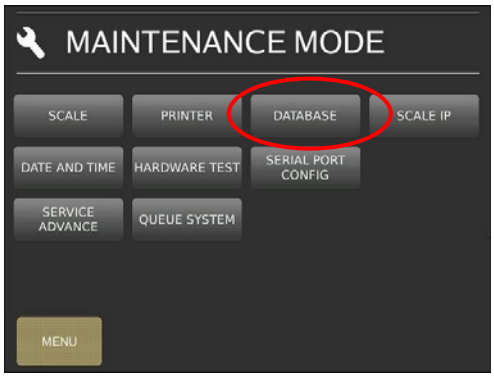
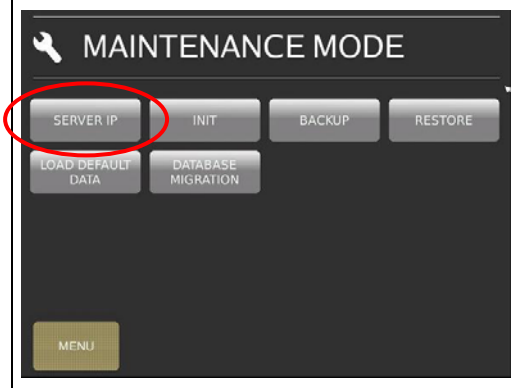
6.1 Network Setup

6.1.1 IP Address Setup

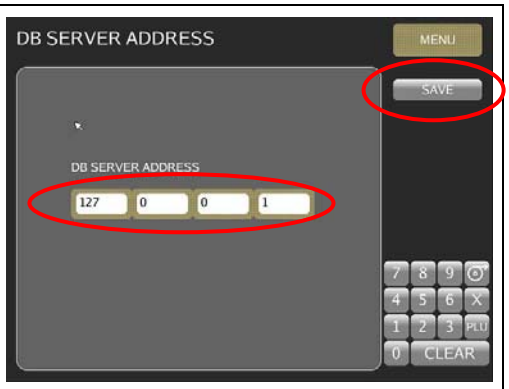
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SCALE IP]** to go to SCALE IP mode.	
2) Enter setting (Address, Net Mask, Gateway, DNS) according and touch **[SAVE]** button. **SM-5500 Srs** →	
SM-5000BS →	
3) Select **[YES]** button to save the changed setting. ***Note:*** *If select **[NO]** button will return to SCALE IP mode.* **SM-5500 Srs** →	

SM-5000BS →	

6.1.2 Database IP Address

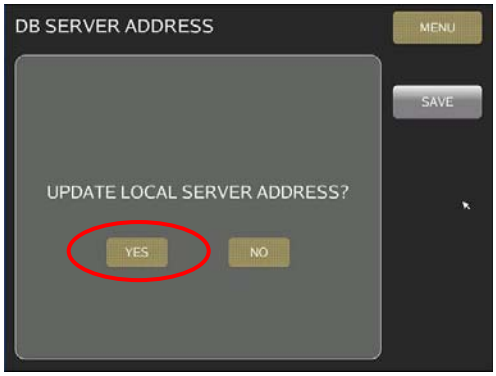
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SCALE IP]** to go to SCALE IP mode.	
2) In Database menu, select **[SERVER IP]**.	
3) Keying the Database Server IP address and touch **[SAVE]** to continue. **Example:** DB Server Address: **27.0.0.1** (default) **SM-5500 Srs →**	

SM-5000BS →

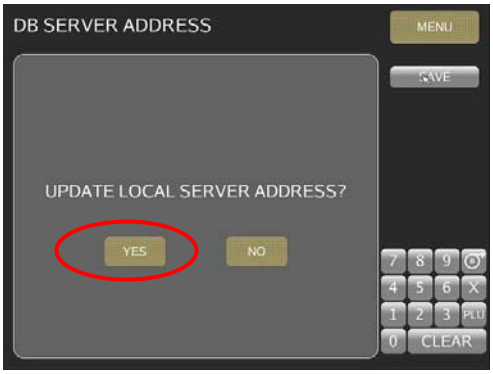


4) Select **[YES]** to save the changed setting.

SM-5500 Srs →

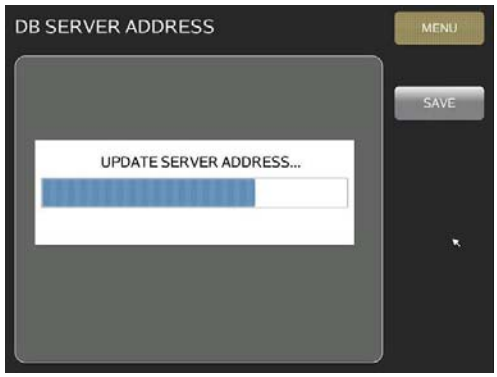


SM-5000BS →

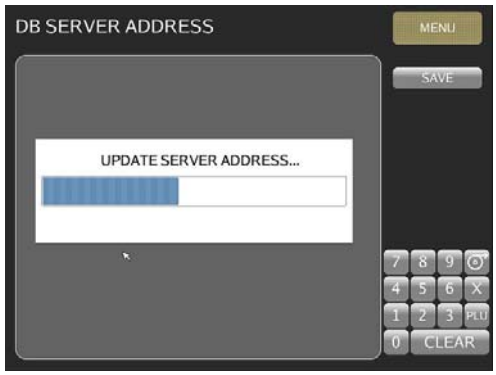


5) Waiting for progress updated server address.

SM-5500 Srs →

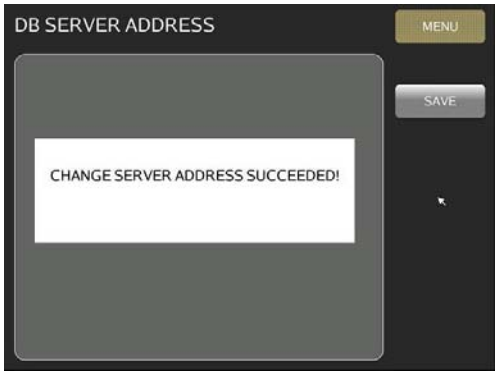


SM-5000BS →



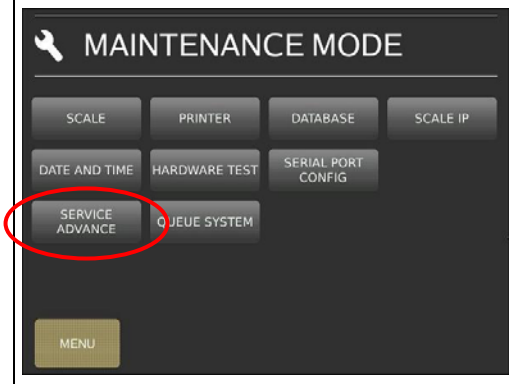
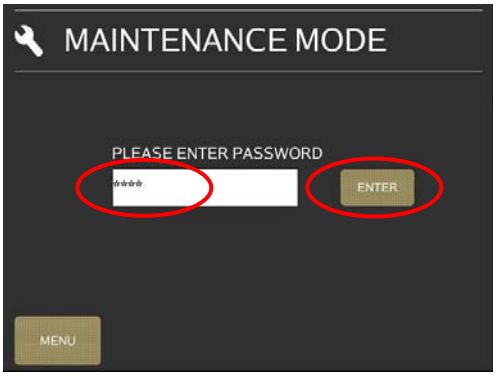
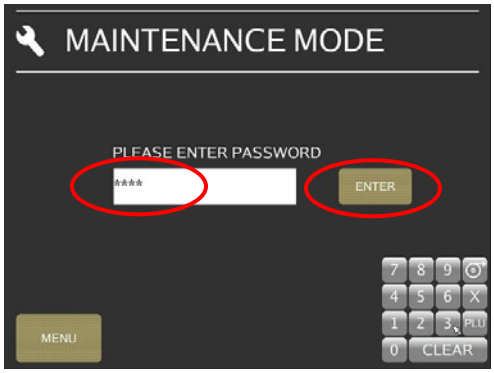
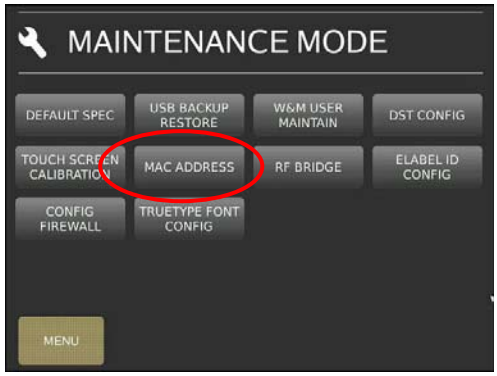
6) Server Address updated successfully.

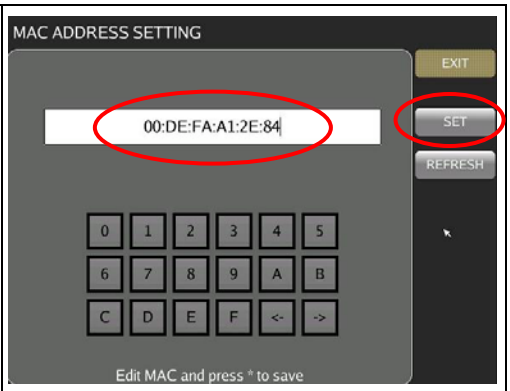
SM-5500 Srs →



SM-5000BS →

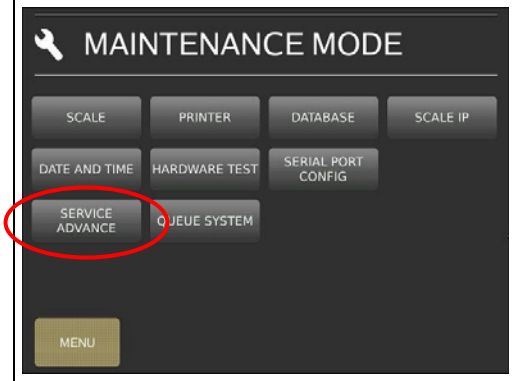
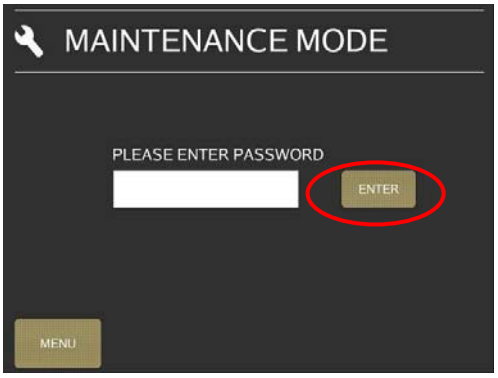
6.1.3 Scale MAC Address

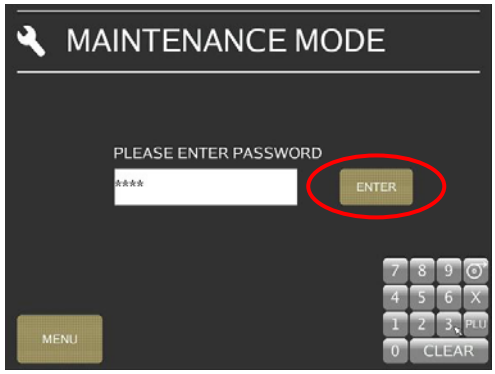
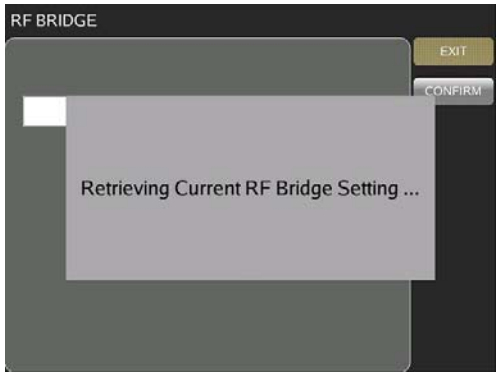
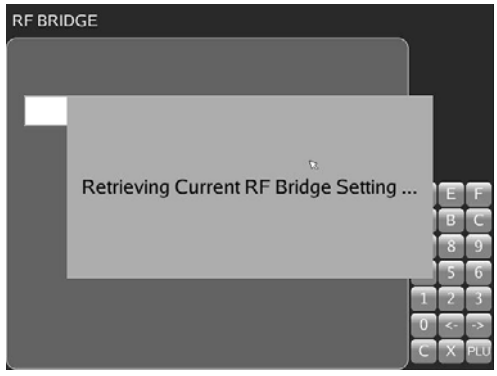
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SERVICE ADVANCE]** to go to Service Advance maintenance mode.	
2) Keying the Password and select **[ENTER]** button. **SM-5500 Srs** →	
SM-5000BS →	
3) In Service Advance mode, touch **[MAC ADDRESS]**.	

4) Editing the MAC Address and then press ✱ (Print) key or select **[SET]** button to save the changed setting.	
5) MAC Address changing successfully.	

6.1.4 WLAN (RF Bridge) Setup

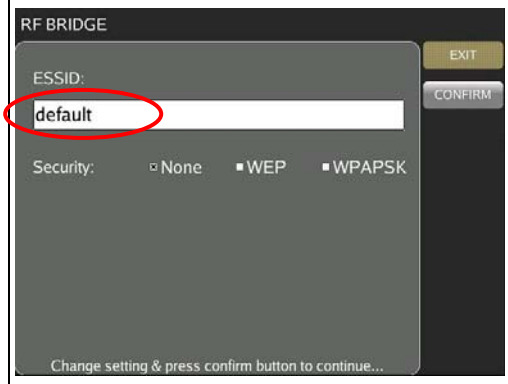
Ensure the RF Bridge Kit is plug-in to scale.

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SERVICE ADVANCE]** to go to Service Advance maintenance mode.	
2) Keying the Password and select **[ENTER]** button. **SM-5500 Srs →**	

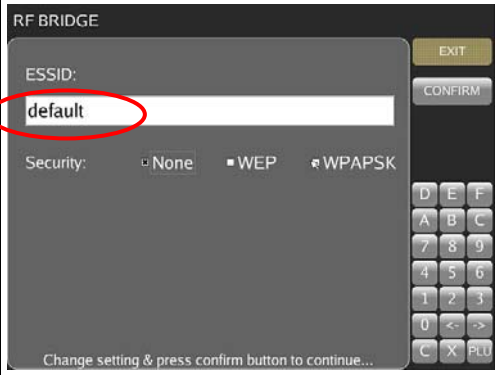
SM-5000BS →	
3) In Service Advance mode, touch **[RF BRIDGE]**.	
4) Scale will retrieve the current RF Bridge setting. **SM-5500 Srs →**	
SM-5000BS →	

5) Touch the ESSID column area.

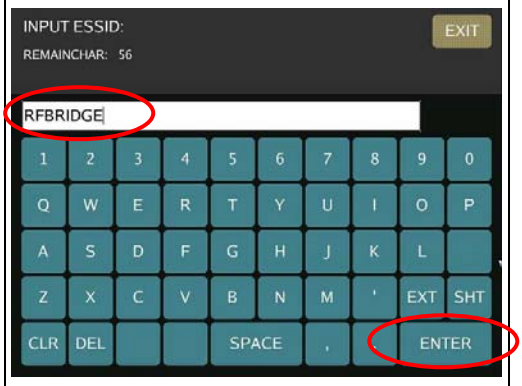
SM-5500 Srs →



SM-5000BS →

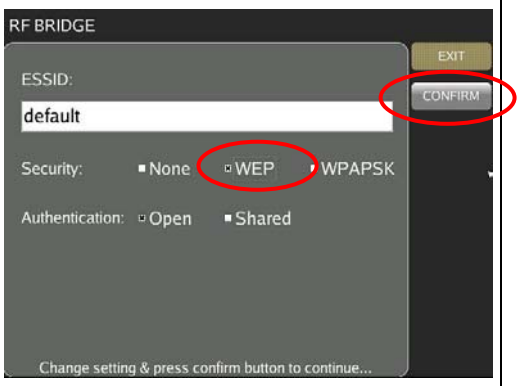


6) Change any ESSID name for Access Point e.g. **[RFBRIDGE]** and select **[ENTER]**.

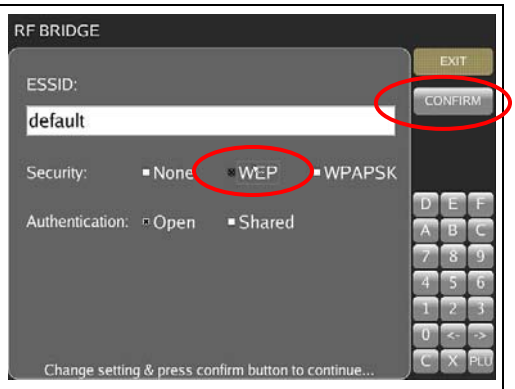


7) Select **[WEP]** for Authentication setting, and touch **[CONFIRM]** button to go to WEP key setting.

SM-5500 Srs →

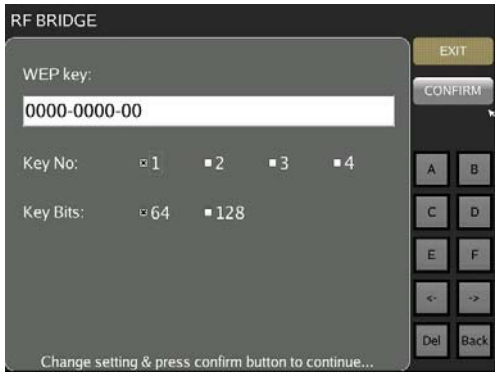


SM-5000BS →

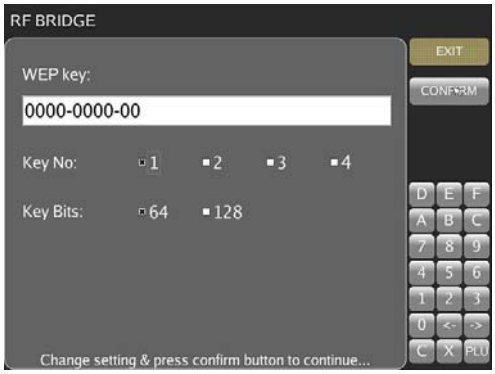


8) Select the desired “Key No” and “Key Bits” then keying the WEP key. After that touch **[CONFIRM]** button to save the changed setting.

SM-5500 Srs →



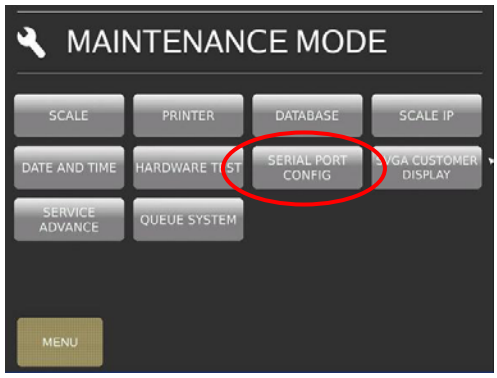
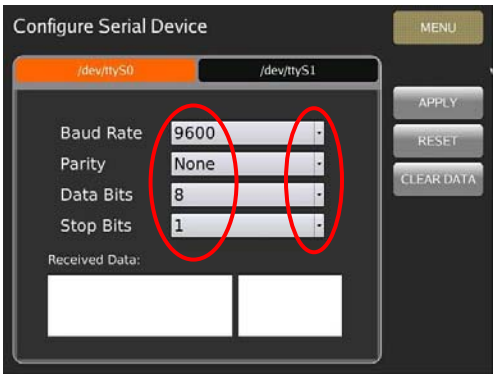
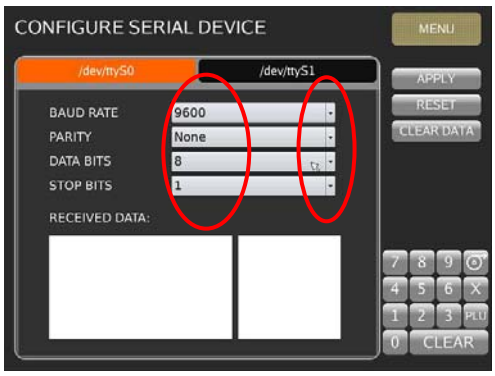
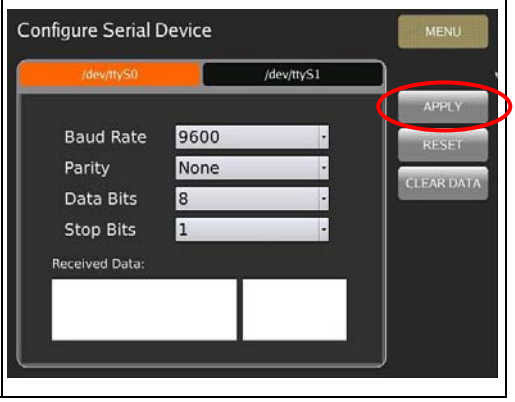
SM-5000BS →



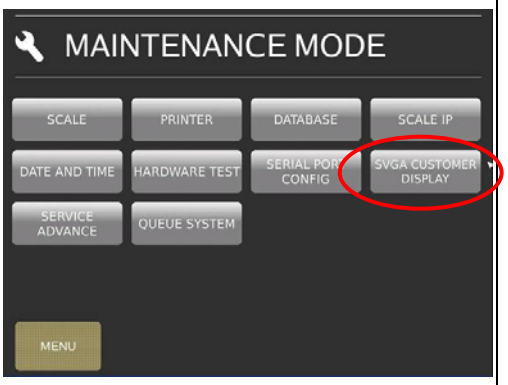
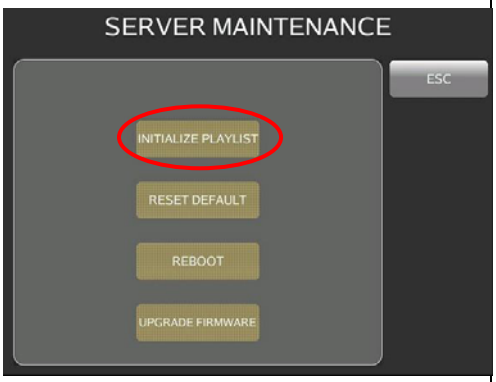
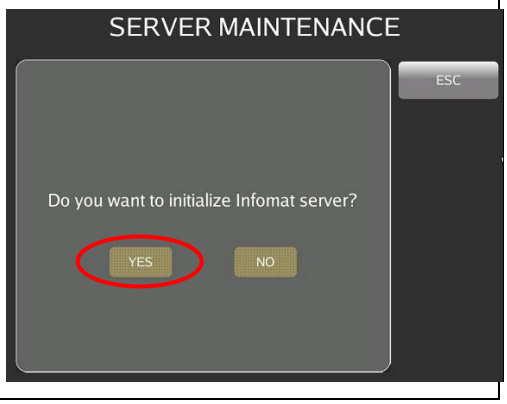
9) Waiting for setting changed.

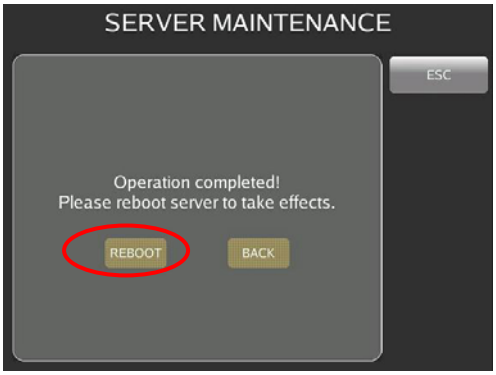
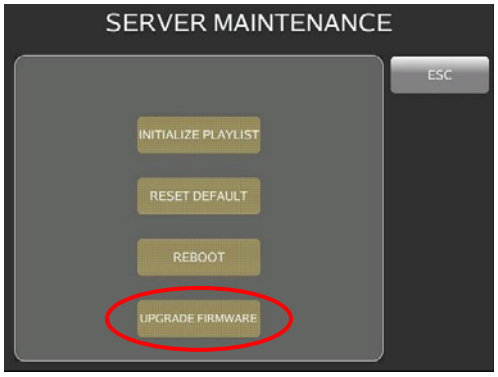
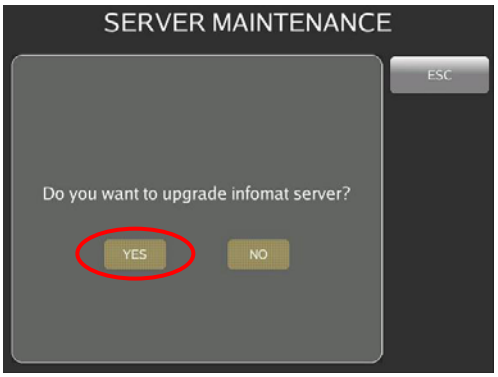
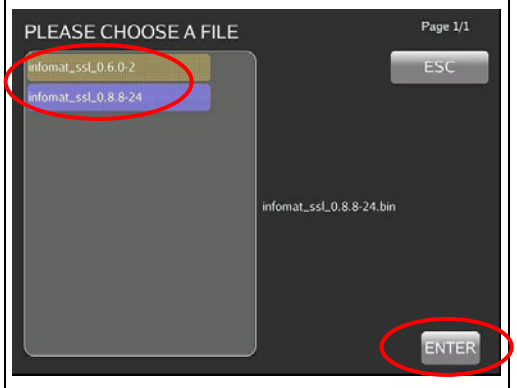
6.2 Base Station (BS-02) Setup

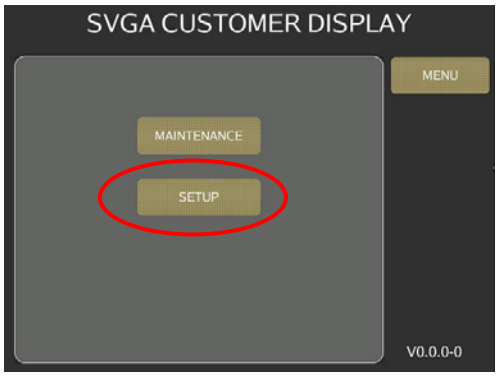
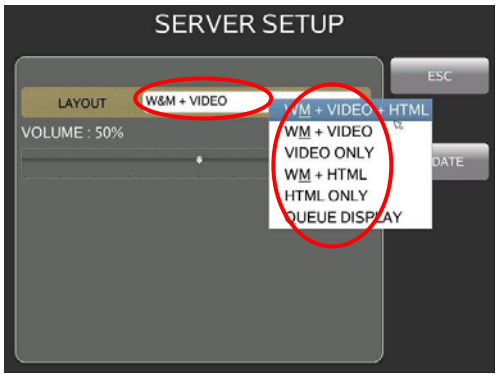
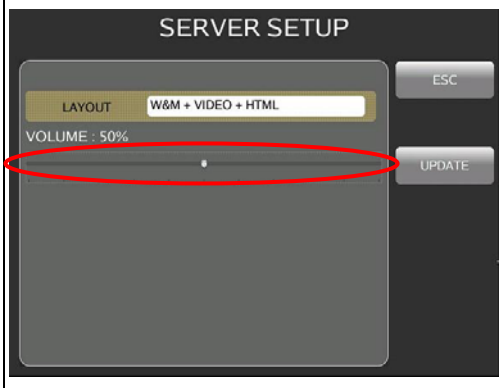
6.2.1 Serial Port Configuration

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SERIAL PORT CONFIG]**.	
2) Select the Com port **[/dev/tty/S0]** *(Com 1)* or **[/dev/tty/S1]** *(Com 2)*, then use ▼ key to change the setting. ***Example:*** *Baud Rate:* ***9600*** *Parity:* ***None*** *Data Bits:* ***8*** *Stop Bits:* ***1*** **SM-5500 Srs** →	
SM-5000BS →	
3) Touch **[APPLY]** to confirm save change setting.	

6.3 External SVGA Display Setup

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SVGA CUSTOMER DISPLAY]**.	
2) In SVGA Customer Display menu, select **[MAINTENANCE]** to go to server maintenance mode.	
3) Select **[INITIALIZE PLAYLIST]**. ***Note:*** *RESET DEFAULT – Change the setting for default setting.* *REBOOT – Rebooting the Server.*	
4) Select **[YES]**.	

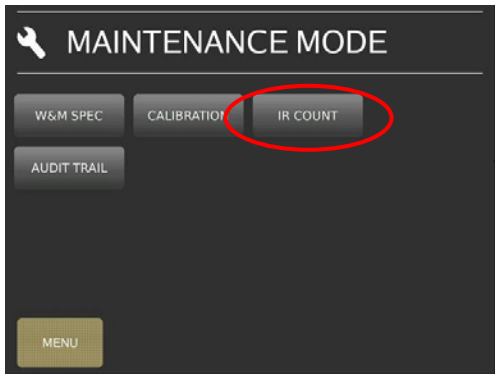
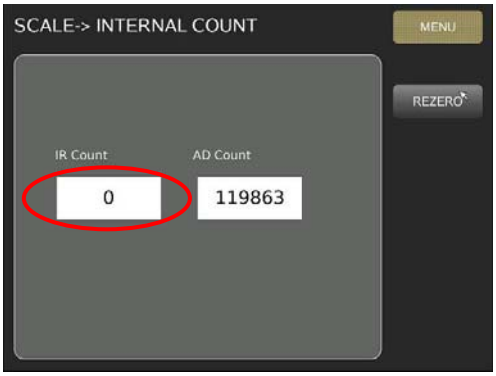
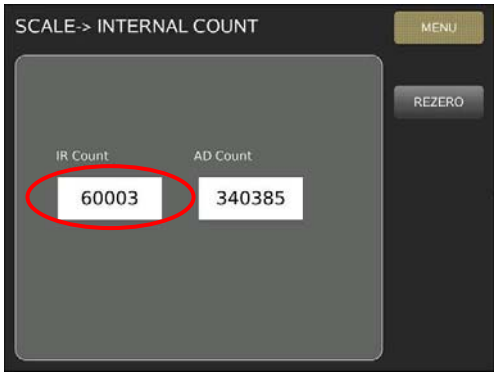
5) Once operation is completed, machine requested the server rebooting to take effects, select **[REBOOT]**.	
6) If upgrade the server firmware version, select **[UPGRADE FIRMWARE]**.	
7) When upgrade firmware confirmation message appear, select **[YES]**.	
8) Select the firmware upgrading file, and then touch **[ENTER]**.	

9) Waiting for connecting the server.	
10) In SVGA Customer Display menu, touch **[SETUP]** to go to server setup mode.	
11) In server setup mode, touch the Layout column will show the layout listing and select the layout.	
12) Touch and hold the scrolling bar to adjust the speaker volume.	

13) Select **[UPDATE]** to connecting the server for save change setting.	

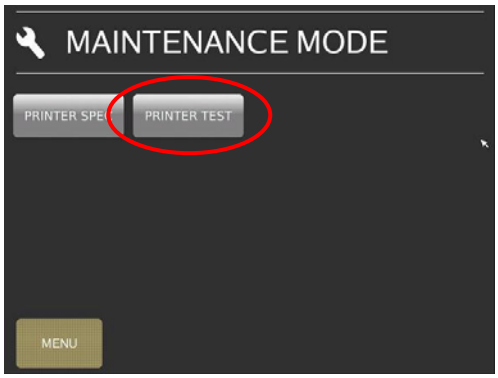
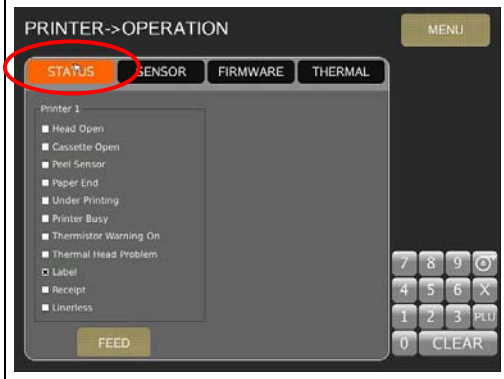
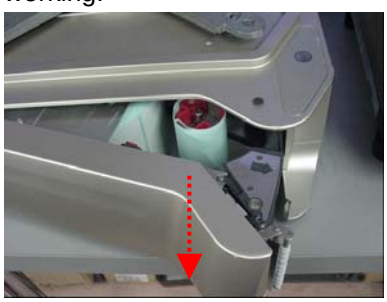
7. HARDWARE TEST AND MAINTENANCE

7.1 Internal Count Mode

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SCALE]** → **[IR COUNT]** to go to Internal Count mode.	
2) Internal Count mode.	 **No Weigh**  **Full Weigh**

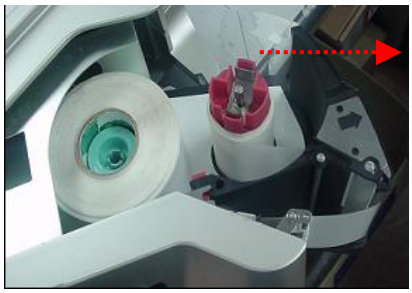
7.2 Printer Test

7.2.1 Sensors Status

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[PRINTER]** → **[PRINTER TEST]** to go to printer test mode.	
2) In Printer Test menu, select **[STATUS]** will show the status of Printer. **SM-5500 Srs** →	
SM-5000BS →	
3) Open the scale front door; the **[Head Open]** check box will appear tick mark that means the Head Open Switch is working.  **SM-5500 Srs** →	

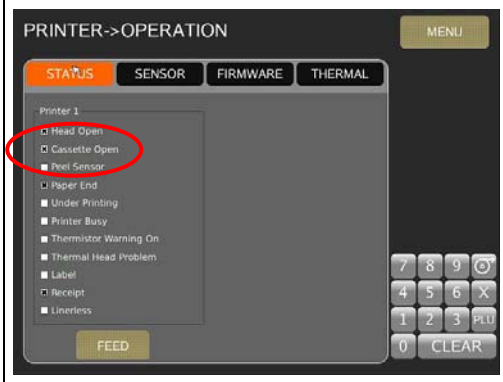
SM-5000BS →

4) Pull out the Cassette a little bit; the **[Cassette Open]** check box will appear tick mark that means the Head Open sensor is working.

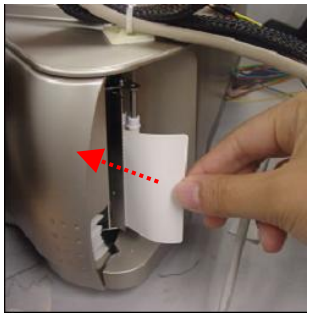


SM-5500 Srs →

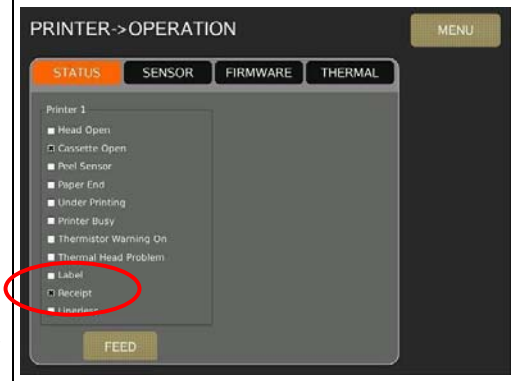
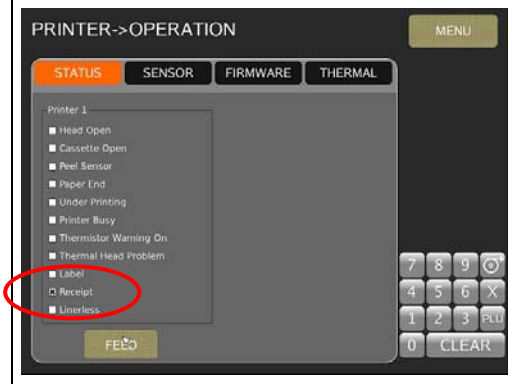
SM-5000BS →



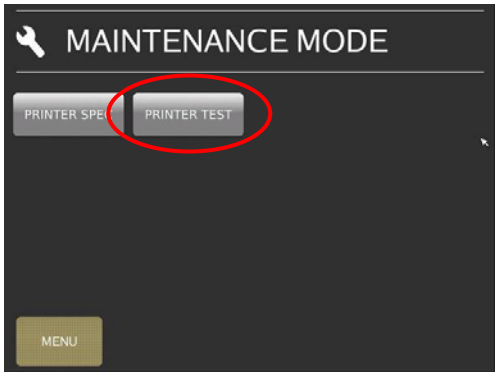
5) Take a label paper and place in front of the peel sensor, then check the **[Peel Sensor]** check box will appear tick mark, that means the peel sensor is working.



SM-5500 Srs →

SM-5000BS →	
6) Remove the cassette and the hole 1 and 3 is covered, then put back the cassette to the scale, and check the **[Receipt]** check box will appear tick mark.  **SM-5500 Srs →**	
SM-5000BS →	

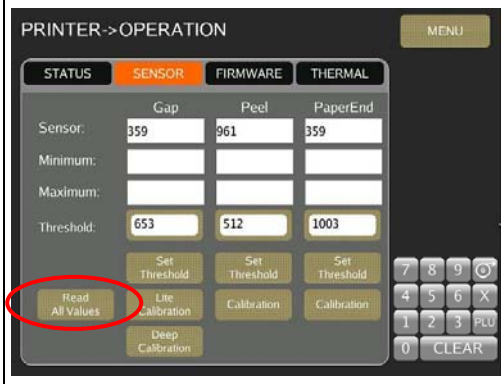
7.2.2 Sensor Calibration

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[PRINTER]** → **[PRINTER TEST]** to go to printer test mode.	

2) In Printer Test menu, select **[SENSOR]** and touch **[Read All Value]** to read the status of Printer.

SM-5500 Srs →

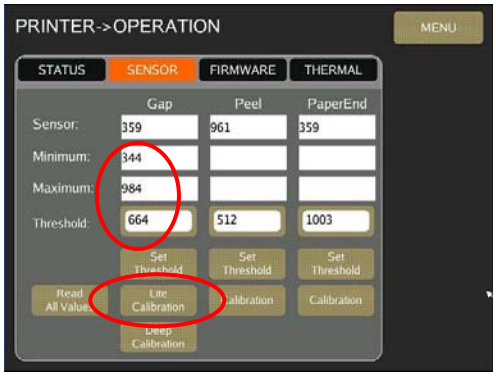
SM-5000BS →



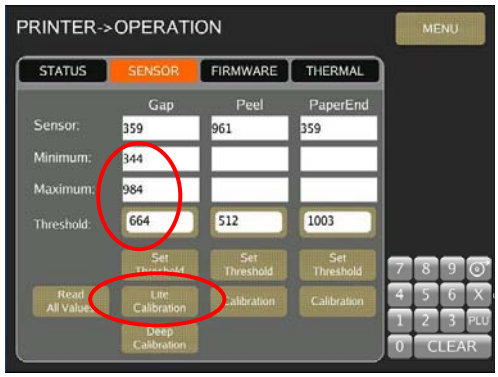
3) Select **[Lite Calibration]** to calibrate the gap sensor. A reading of Minimum, Maximum and Threshold will appear.

Note:
A Threshold value is total of min. + max. divided by 2.

SM-5500 Srs →

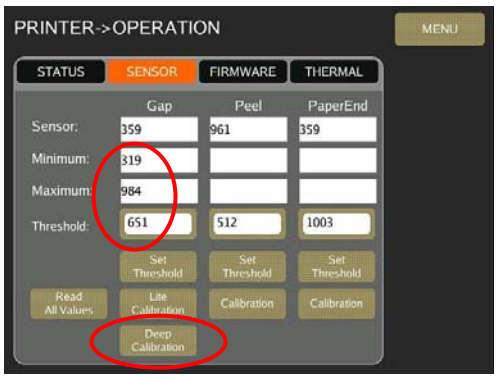


SM-5000BS →

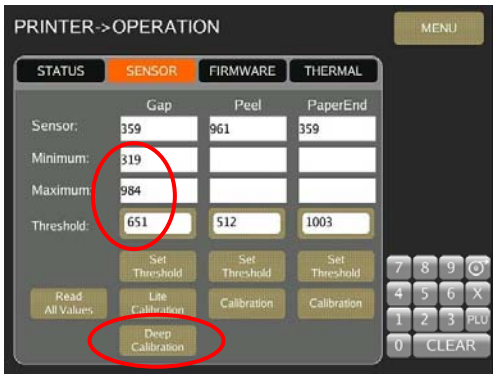


4) Select **[Deep Calibration]** to calibrate the gap sensor light distance. A reading of Minimum, Maximum and Threshold will appear.

SM-5500 Srs →

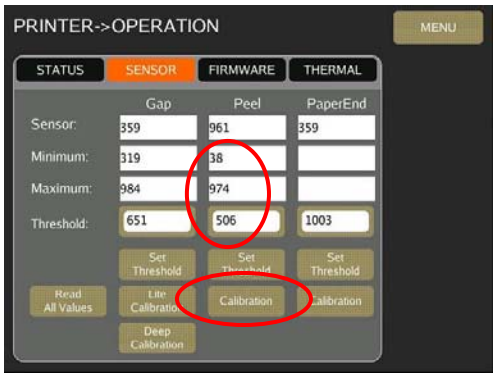


SM-5000BS →

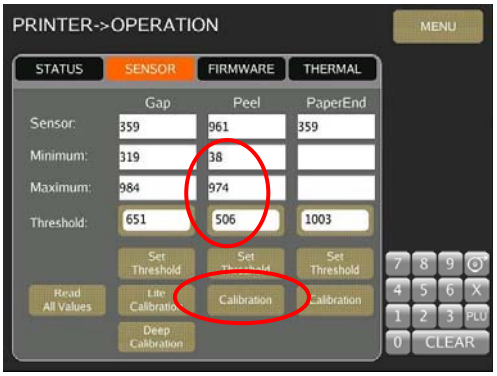


5) Select **[Calibration]** to calibrate the Peel Sensor. A reading of Minimum, Maximum and Threshold will appear.

SM-5500 Srs →

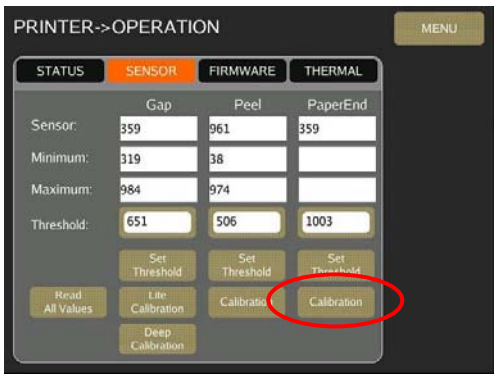


SM-5000BS →

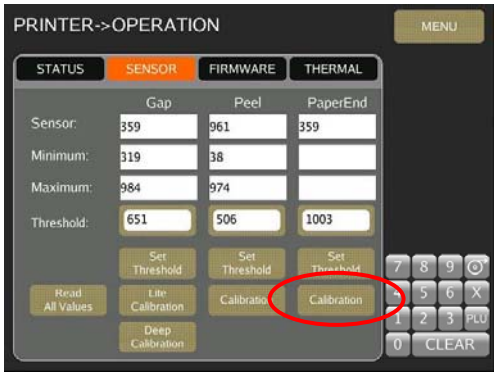


6) Select **[Calibration]** to calibrate the Paper End Sensor.

SM-5500 Srs →

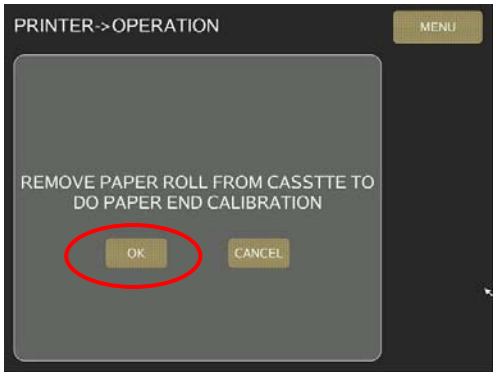


SM-5000BS →

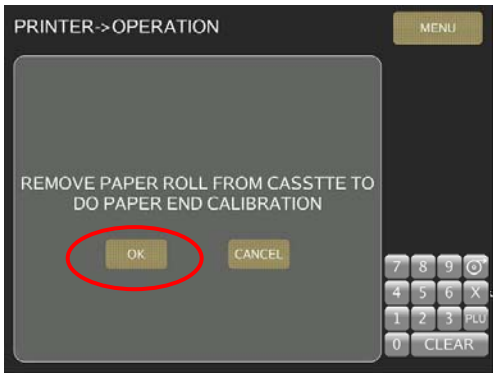


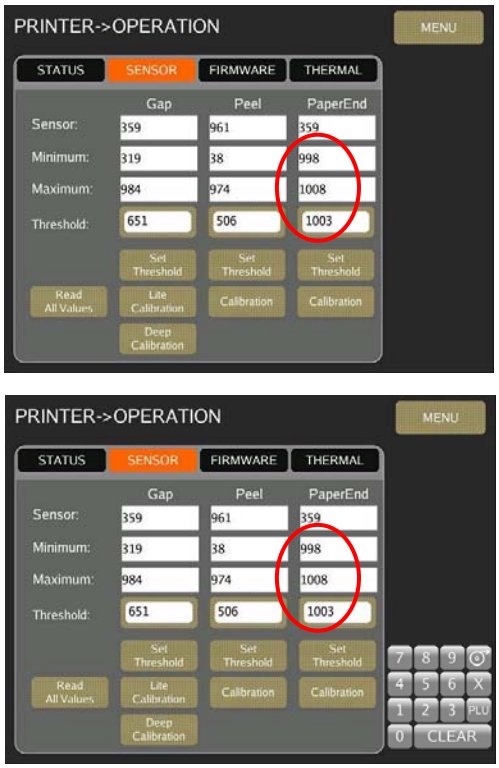
7) Remove the label from cassette (without any label or receipt paper) and put back to scale. Then select **[OK]**.

SM-5500 Srs →

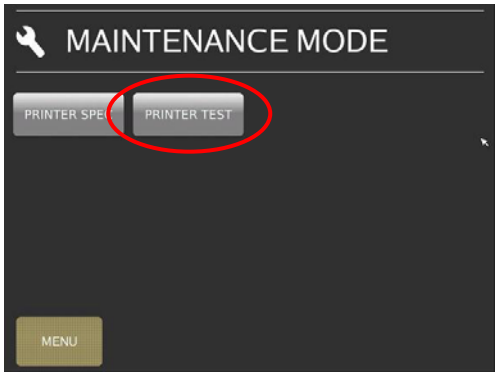
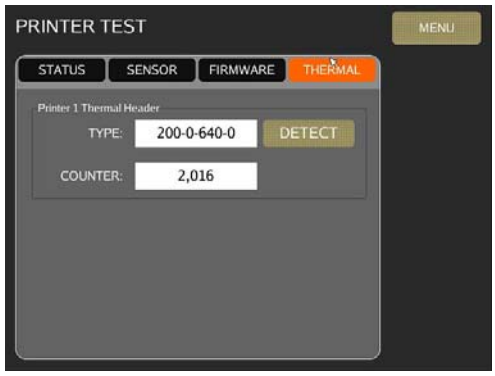


SM-5000BS →



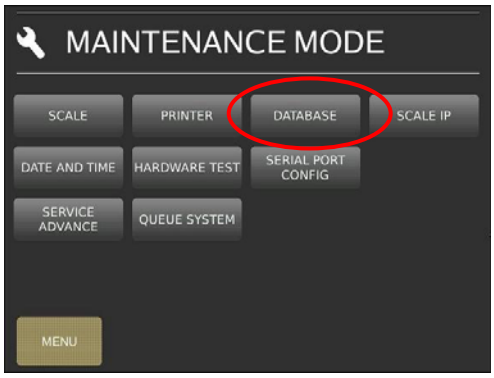
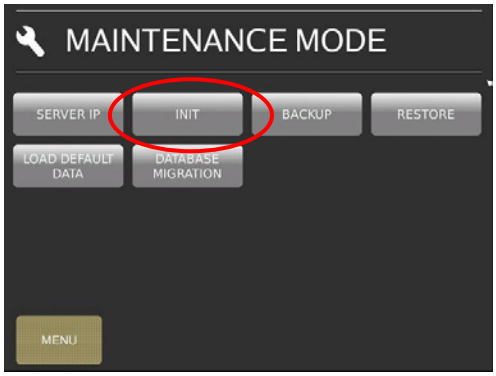
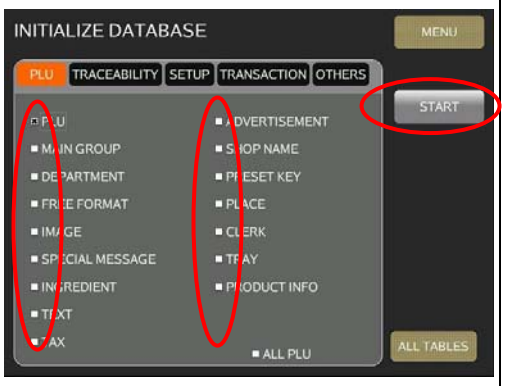
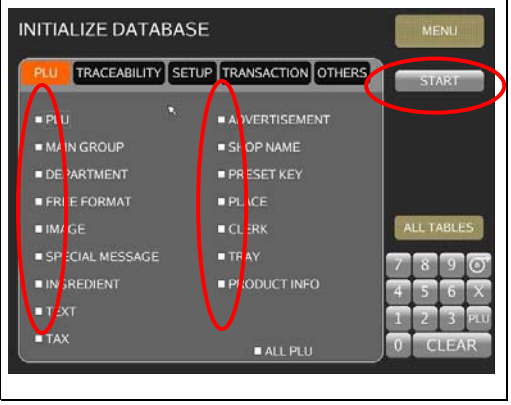
8) A reading of Minimum, Maximum and Threshold will appear. **SM-5500 Srs →** **SM-5000BS →**	

7.2.3 Thermal Head Type Detection

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[PRINTER]** → **[PRINTER TEST]** to go to printer test mode.	
2) In Printer Test menu, select **[THERMAL]** and touch **[DETECT]** to read the Printer Thermal head type.	

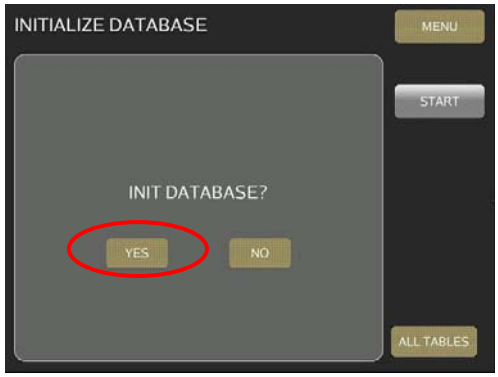
7.3 Database Maintenance

7.3.1 Database Initialization

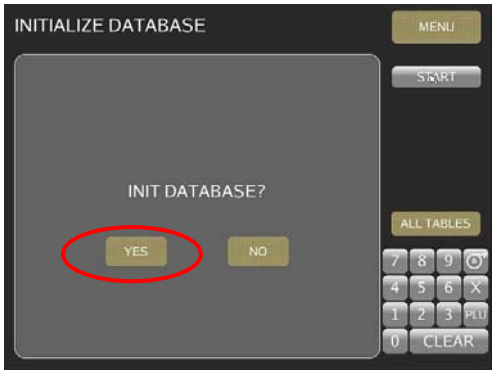
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[DATABASE]** to go to DATABASE mode.	
2) In Database menu, select **[INIT]**.	
3) Select the desired any or all database, then touch **[START]** button to start initialization. **SM-5500 Srs** →	
SM-5000BS →	

4) Select **[YES]** to confirm initialization database.

SM-5500 Srs →

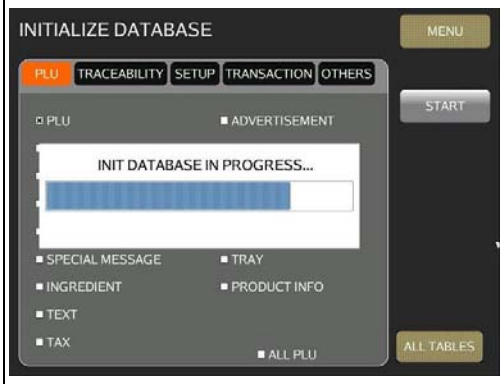


SM-5000BS →

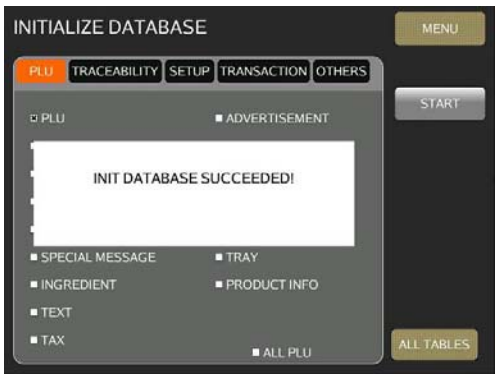


5) Waiting for initialization progress.

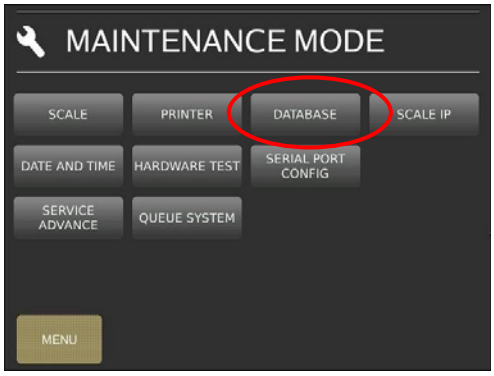
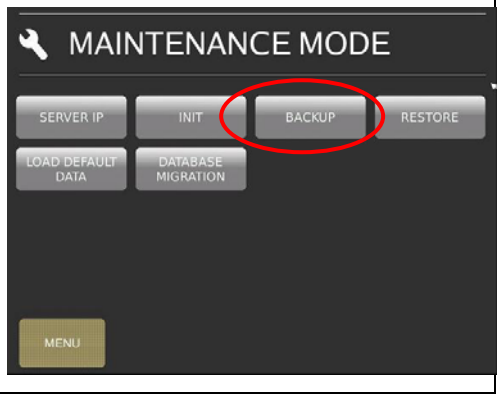
SM-5500 Srs →

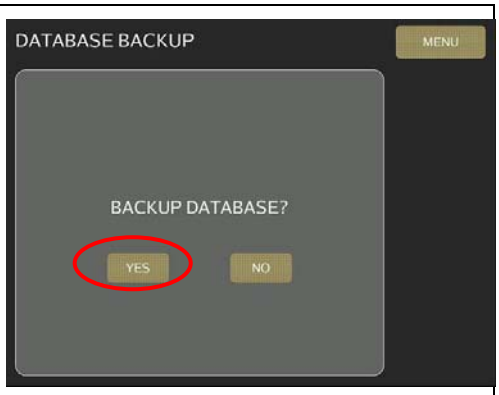
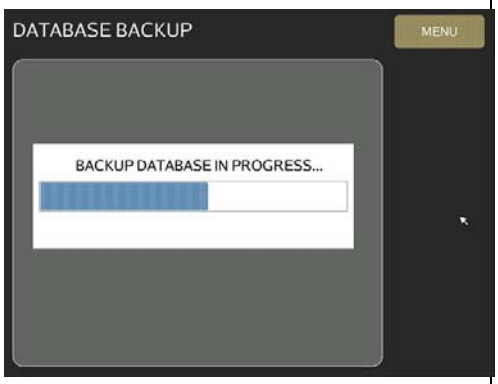


SM-5000BS →

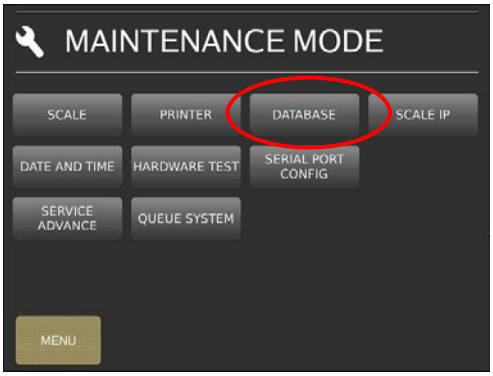
6) Initialization database successfully. **SM-5500 Srs →** **SM-5000BS →**	 

7.3.2 Database Backup

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[DATABASE]** to go to DATABASE mode.	
2) In Database menu, select **[BACKUP]**.	

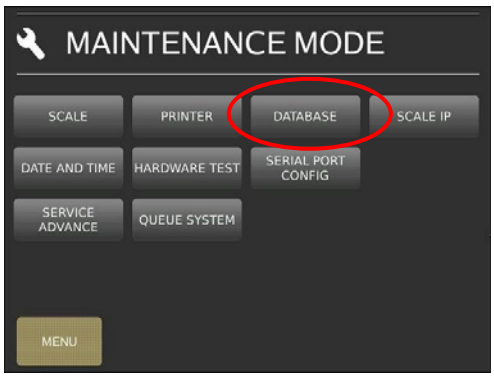
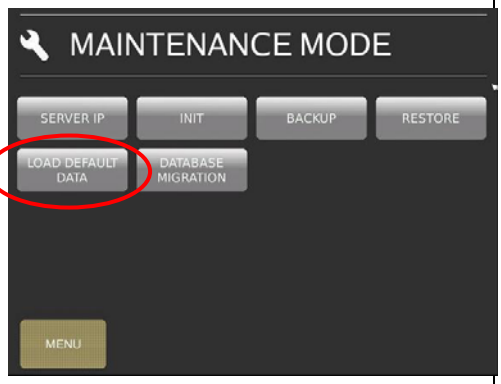
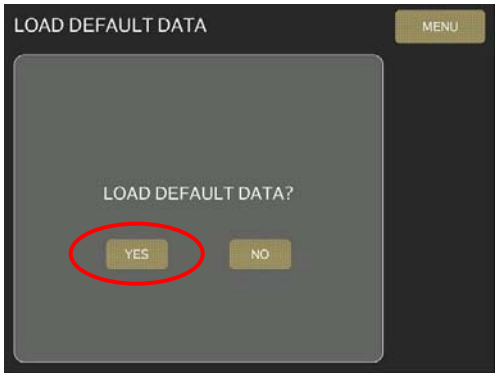
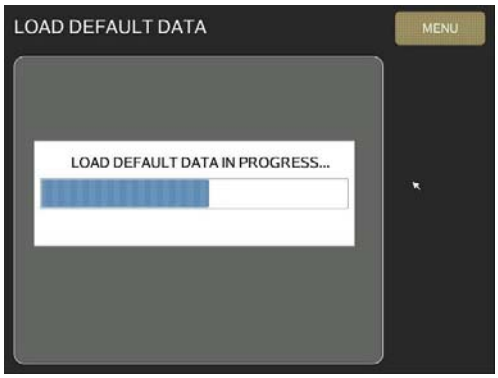
3) Select **[YES]** to confirm backup database.	
4) Waiting for backup database in process.	
5) Backup database successfully.	

7.3.3 Database Restore

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[DATABASE]** to go to DATABASE mode.	

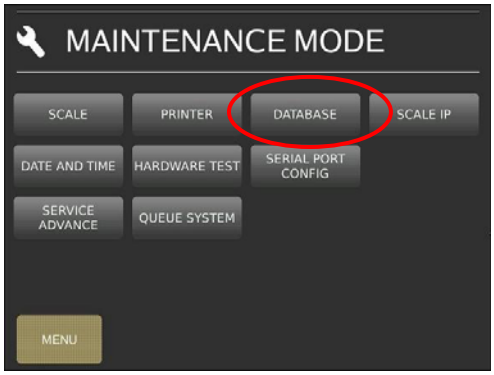
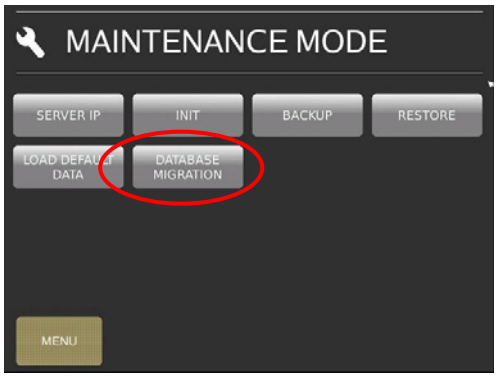
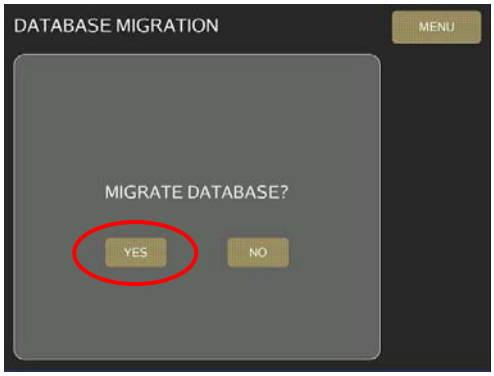
2) In Database menu, select **[RESTORE]**.	
3) Select **[YES]** to confirm restore database.	
4) Waiting for restore database in process.	
5) Restore database successfully.	

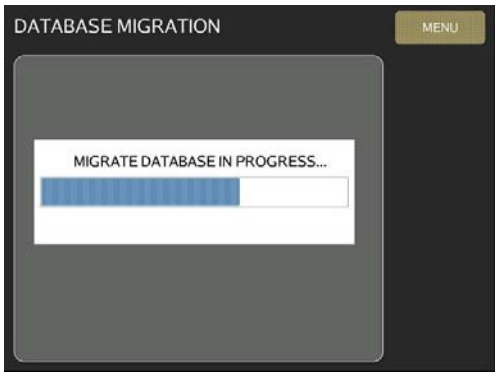
7.3.4 Load Default Data

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[DATABASE]** to go to DATABASE mode.	
2) In Database menu, select **[LOAD DEFAULT DATA]**.	
3) Select **[YES]** to confirm loading the default data.	
4) Waiting for default data loading in machine.	

5) Loading default data successfully.	

7.3.5 Database Migration

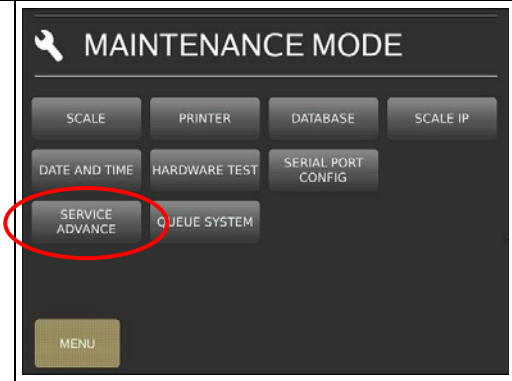
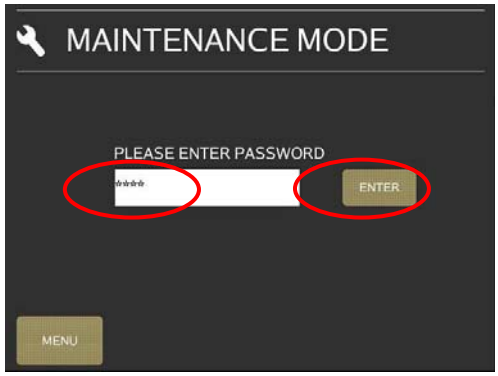
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[DATABASE]** to go to DATABASE mode.	
2) In Database menu, select **[DATABASE MIGRATION]**.	
3) Select **[YES]** button.	

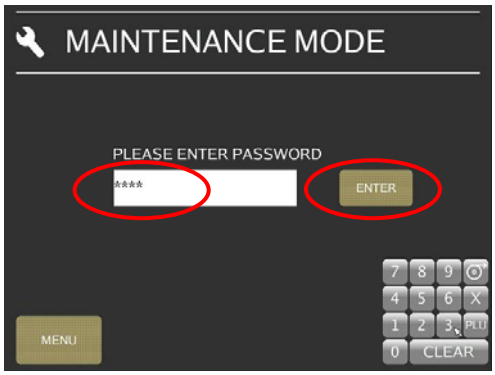
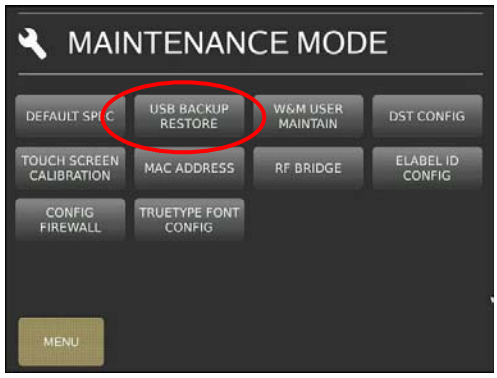
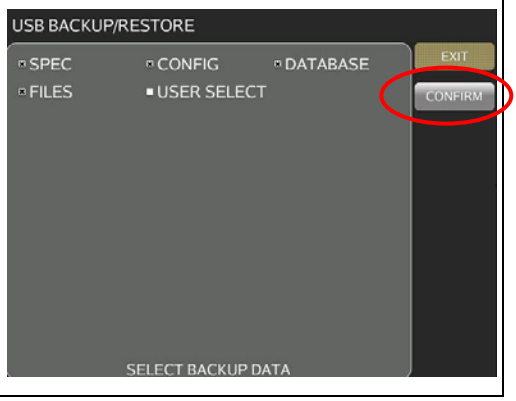
4) Waiting for database migration progress.	
5) Migration Database successfully.	

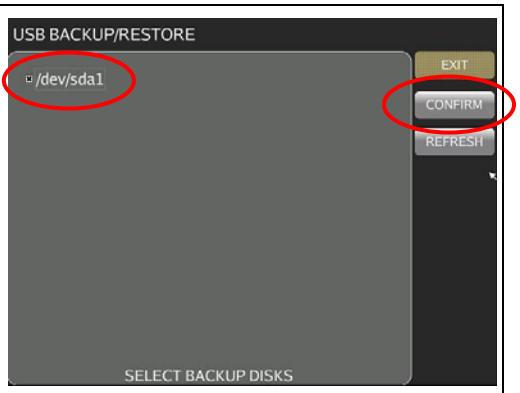
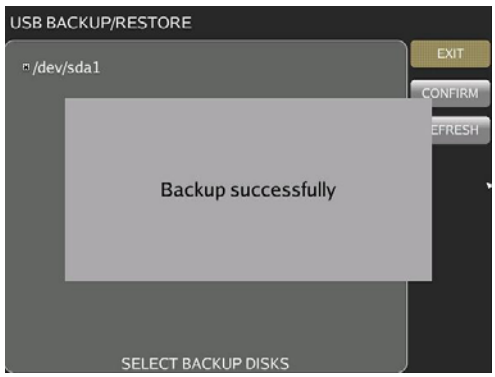
7.3.6 USB Backup / Restore

Ensure the USB storage device is plug-in to scale USB port.

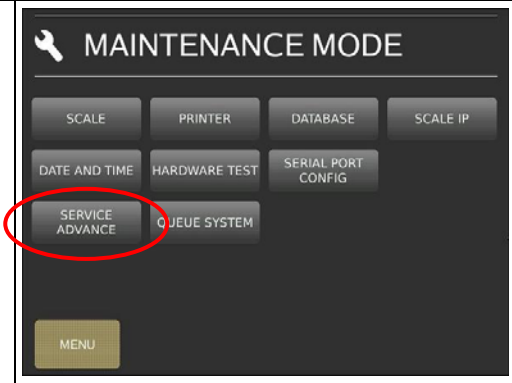
7.3.6.1 USB Backup

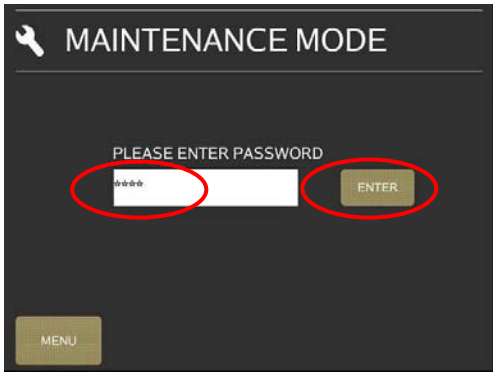
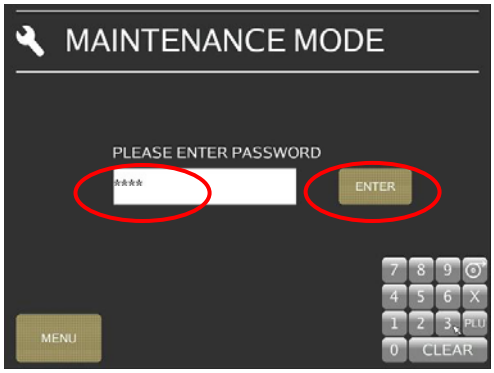
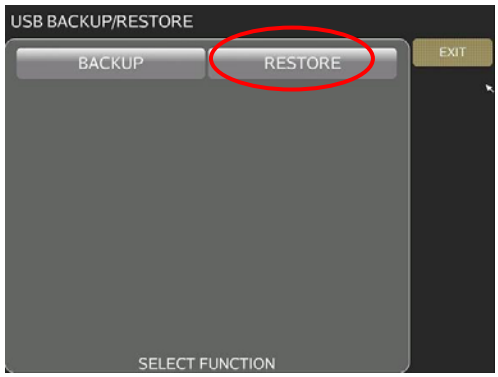
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SERVICE ADVANCE]** to go to Service Advance maintenance mode.	
2) Keying the Password and select **[ENTER]** button. **SM-5500 Srs →**	

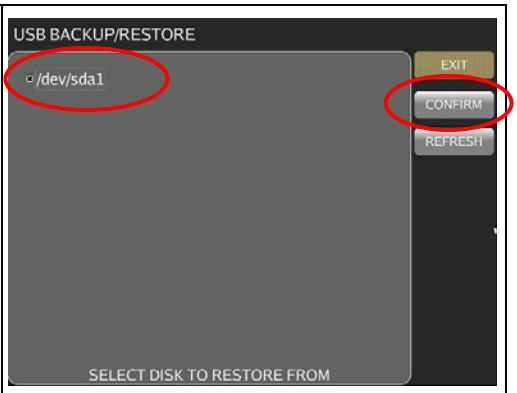
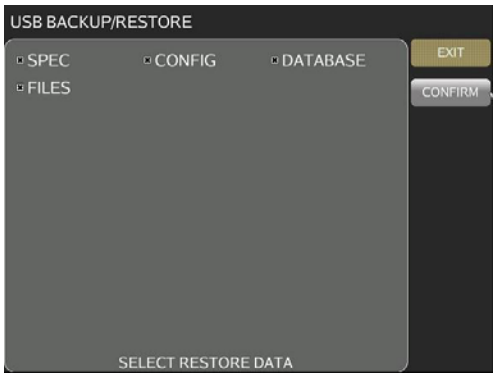
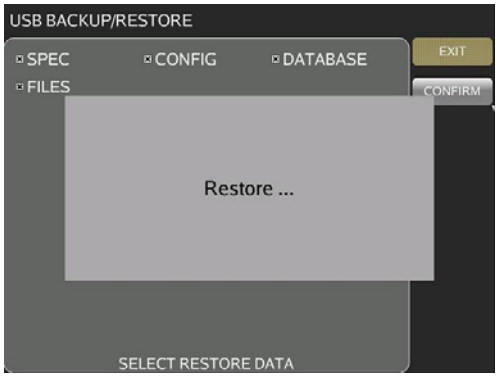
SM-5000BS →	
3) In Service Advance mode, touch **[USB BACKUP/RESTORE]** to go to USB Backup/Restore mode.	
4) Select **[BACKUP]**.	
5) Select the desired data and touch **[CONFIRM]** button.	

6) Select the disk e.g. **[/dev/sda1]** to backup and **[CONFIRM]** button.	
7) Waiting for Backup progress.	
8) Data backup in USB storage device is successfully.	

7.3.6.2 USB Restore

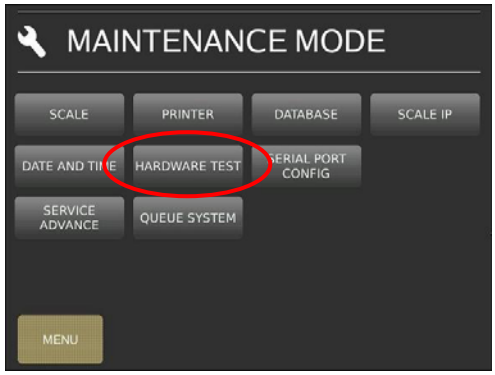
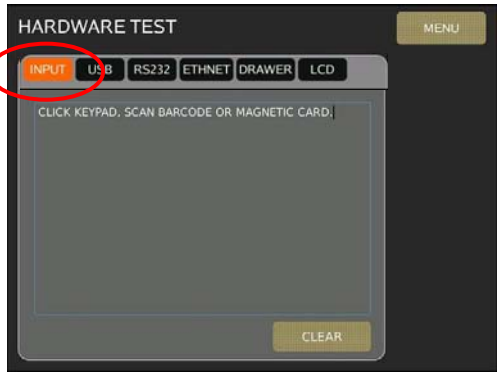
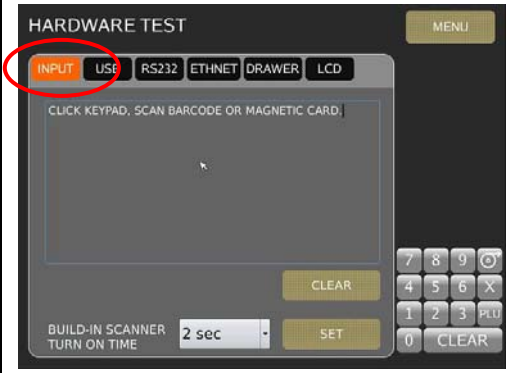
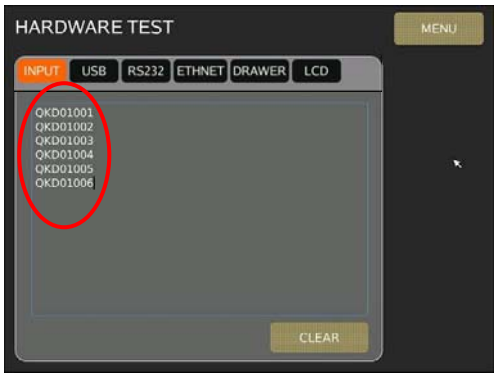
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SERVICE ADVANCE]** to go to Service Advance maintenance mode.	

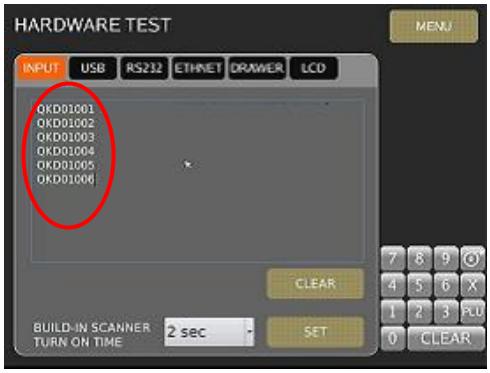
2) Keying the Password and select **[ENTER]** button. **SM-5500 Srs →** **SM-5000BS →**	 
3) In Service Advance mode, touch **[USB BACKUP/RESTORE]** to go to USB Backup/Restore mode.	
4) Select **[RESTORE]**.	

5) Select the disk e.g. **[/dev/sda1]** to restored and **[CONFIRM]** button.	
6) Select the desired data and touch **[CONFIRM]** button.	
7) Waiting for Restore progress.	
8) Data restored from USB storage device is successfully.	

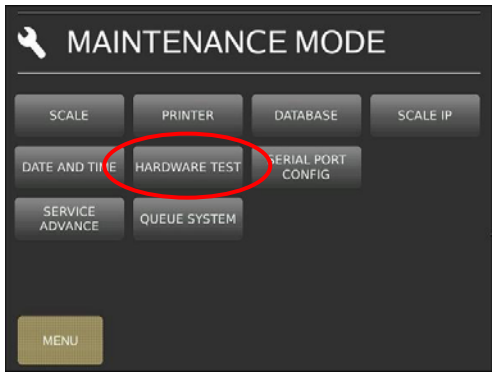
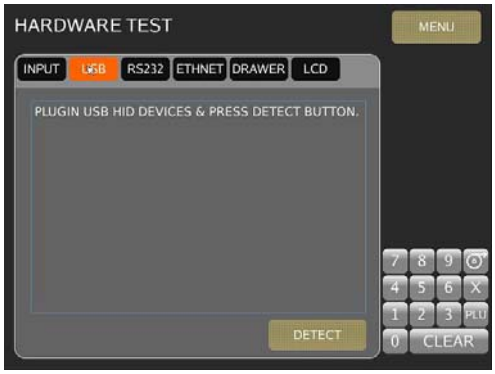
7.4 Hardware Test

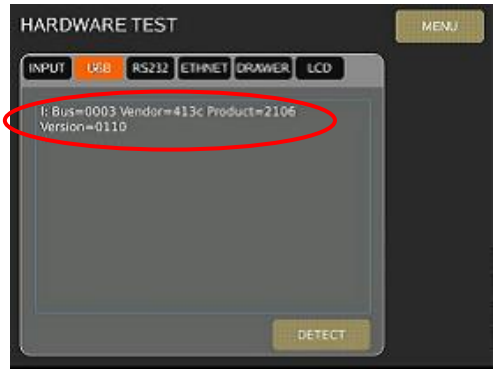
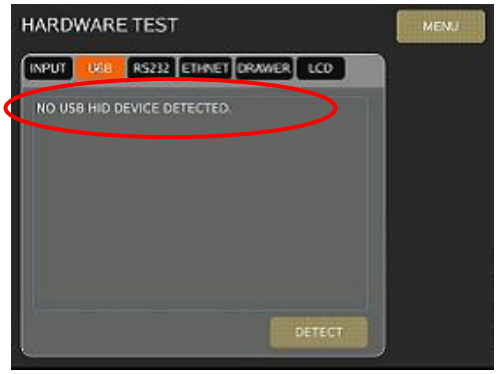
7.4.1 Input

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[HARDWARE TEST]** to go to Hardware Test menu.	
2) At Hardware Test menu, touch **[INPUT]** then press scale key button, scan barcode or slide the magnetic card. **SM-5500 Srs →**	
SM-5000BS →	
3) The screen will show the value (Value may different depend on different data input). If not any response on the screen that mean the input test fail. **SM-5500 Srs →**	

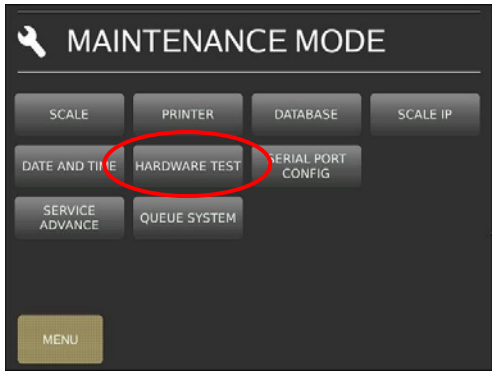
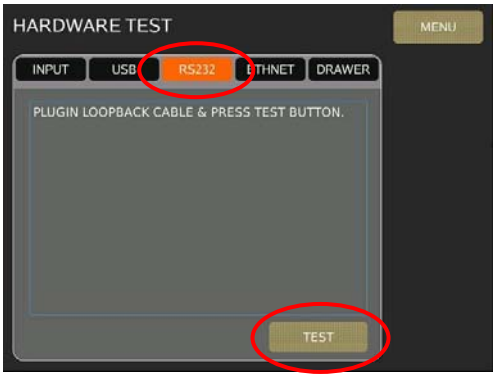
SM-5000BS →	

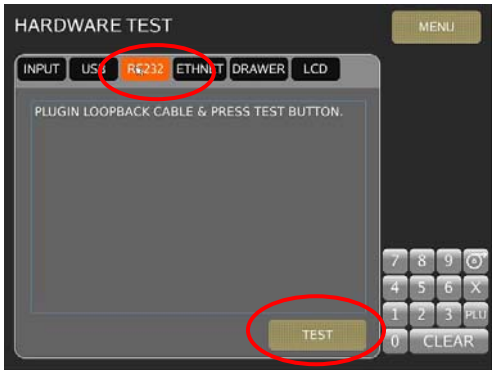
7.4.2 USB

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[HARDWARE TEST]** to go to Hardware Test menu.	
2) At Hardware Test menu, connect USB keyboard/Mouse to scale USB port, then select **[USB]** and touch **[DETECT]** button. **SM-5500 Srs →** **SM-5000BS →**	 

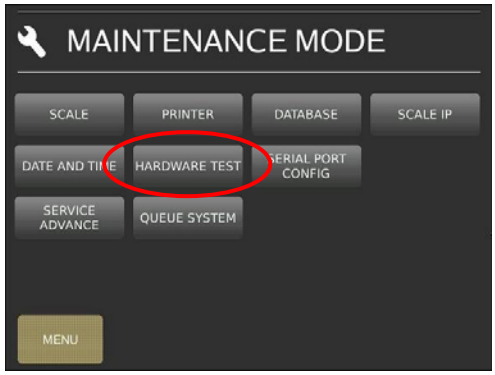
3) If Ok, the screen will display message **[I: Bus=0003 Vendor=413c Product=2106…]**, If fail the message will display **[NO USB HID DEVICE DETECTED]**.	 **Ok**  **Fail**

7.4.3 RS232

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[HARDWARE TEST]** to go to Hardware Test menu.	
2) At Hardware Test menu, connect RS-232 Device/Loop Back Test Jig to scale RS-232 com port 1 & 2, then select **[RS232]** and press **[TEST]** button. **SM-5500 Srs →**	

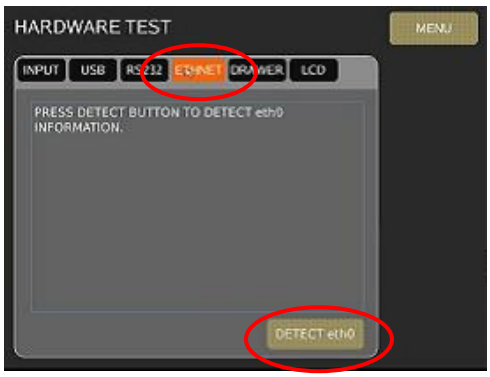
SM-5000BS →	
3) If ok, on the screen will display the message **[RS232-1 OK]** and **[RS232-2 OK]**, if fail the message will show Error.	 **Ok**  **Fail**

7.4.4 Ethernet

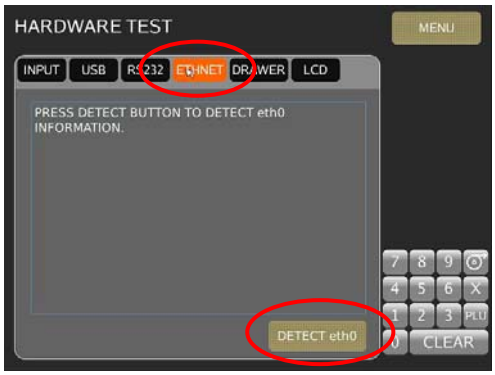
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[HARDWARE TEST]** to go to Hardware Test menu.	

2) At Hardware Test menu, connect Ethernet LAN cable from PC to Scale and select **[ETHENET]**, then touch **[DETECT eth0]** button. *(Ensure the PC & Scale is to set the IP Address already)*

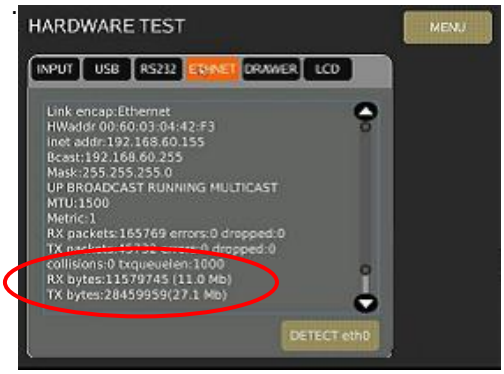
SM-5500 Srs →



SM-5000BS →



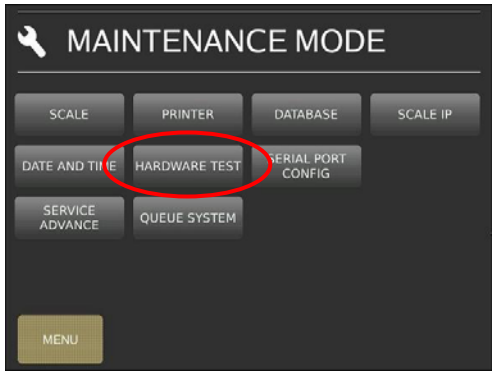
3) The screen will display the Ethernet information, TX and RX data transit rate. Please check the RX & TX data transit rate as below.

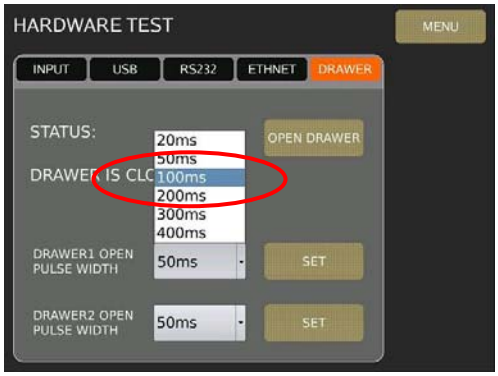
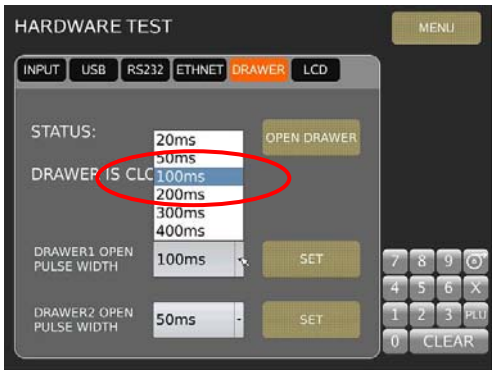


Example for OK:
RX bytes: 11579745 (11.0Mb)
TX bytes: 28459959 (27.1 Mb)

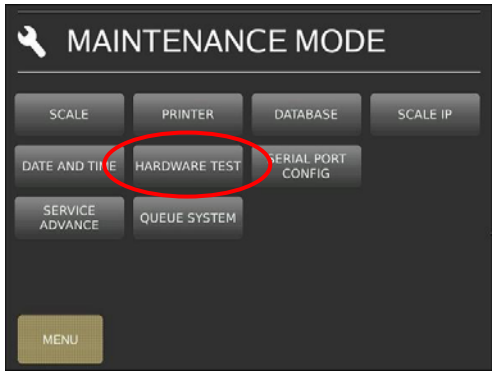
Example for Fail:
RX bytes: 0 (0.0 b)
TX bytes: 0 (0.0 b)

7.4.5 Drawer

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[HARDWARE TEST]** to go to Hardware Test menu.	
2) At Hardware Test menu, select **[DRAWER]** then connect the Cash Drawer cable to the Scale cash drawer port. **SM-5500 Srs** → **SM-5000BS** →	 
3) Touch **[OPEN DRAWER]** the status message will show **[DRAWER IS OPENED]** and the Drawer door should be open. **SM-5500 Srs** →	

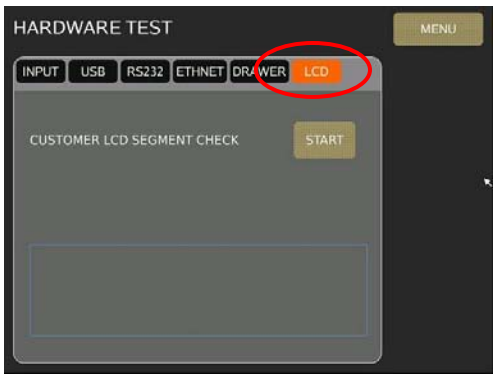
SM-5000BS →	
Note: i. Sometime the cash drawer not opening maybe is the powers energize not enough, when this case happening can try to set the different value e.g. **[100ms]** in Drawer1 Open Pulse Width. ii. This scale are allow to support 2 unit cash drawer at the same time in 1 cash drawer port, but need to using special cable for connecting 2 unit. **SM-5500 Srs →**	
SM-5000BS →	

7.4.6 LCD

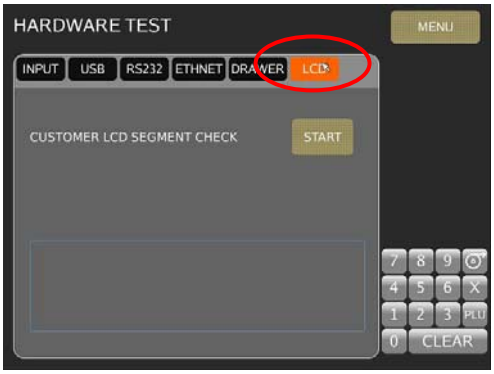
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[HARDWARE TEST]** to go to Hardware Test menu.	

2) At Hardware Test menu, select **[LCD]**.

SM-5500 Srs →

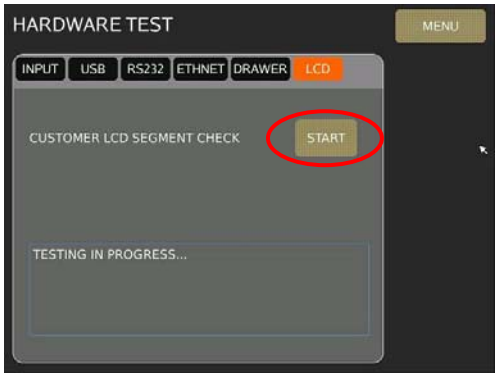


SM-5000BS →

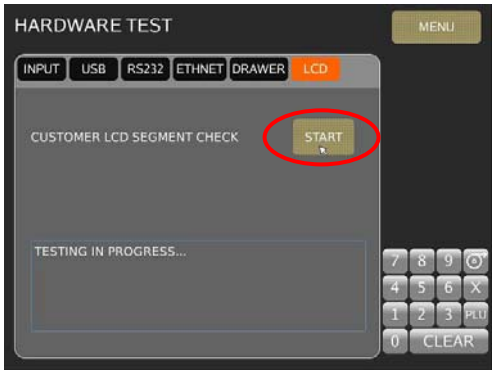


3) Touch **[START]** button to start segment check progress.

SM-5500 Srs →



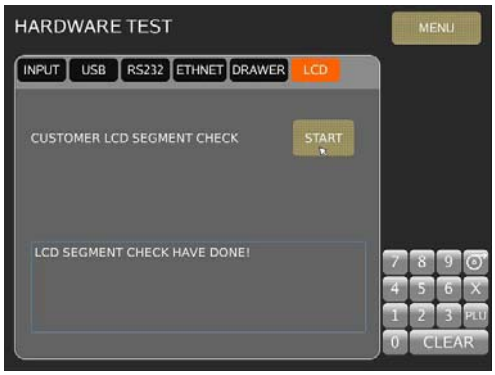
SM-5000BS →



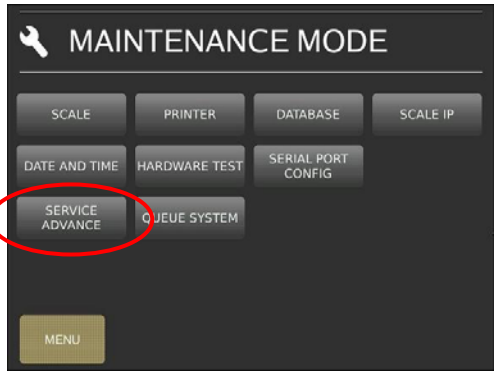
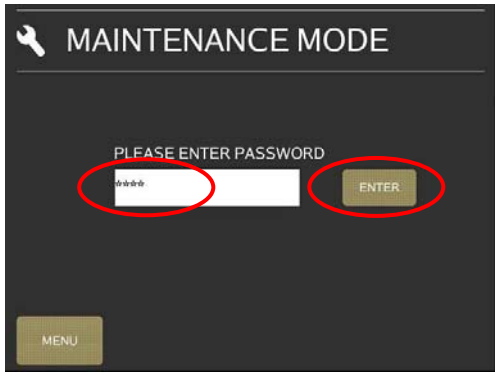
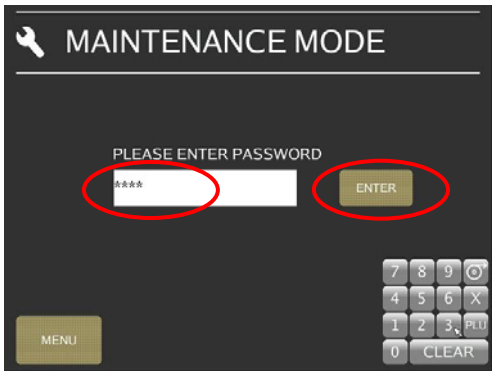
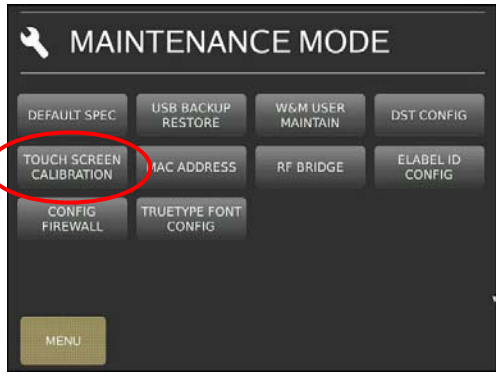
4) LCD Segment Check has been done.

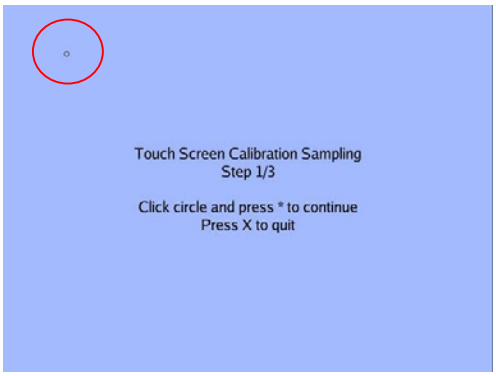
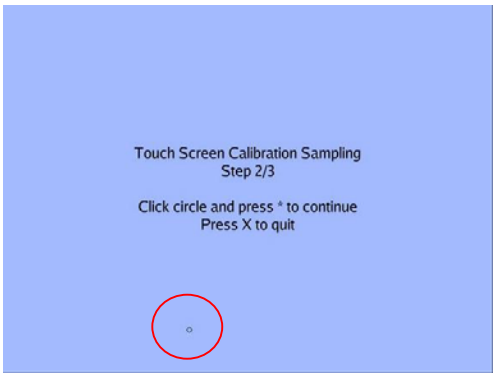
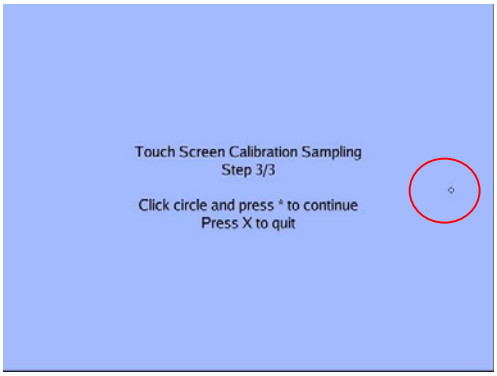
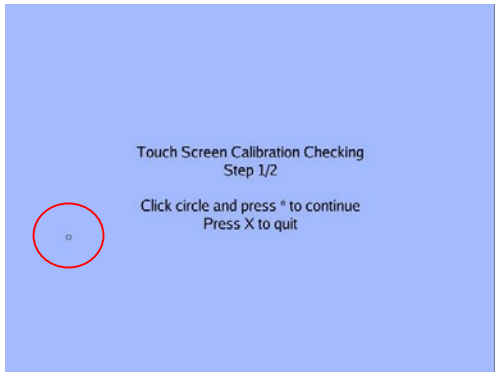
SM-5500 Srs →

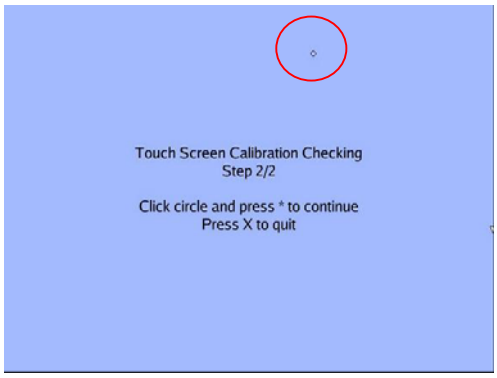
SM-5000BS →



7.5 Touch Screen Calibration

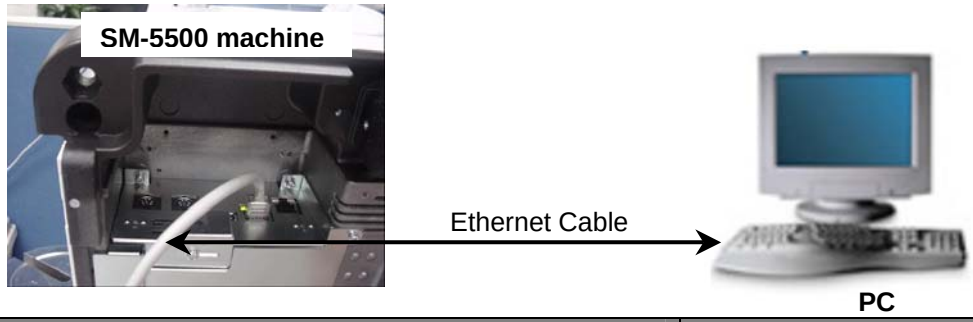
Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[SERVICE ADVANCE]** to go to Service Advance maintenance mode.	
2) Keying the Password and select **[ENTER]** button. **SM-5500 Srs** →	
SM-5000BS →	
3) In Service mode, touch **[TOUCH SCREEN CALIBRATION]**.	

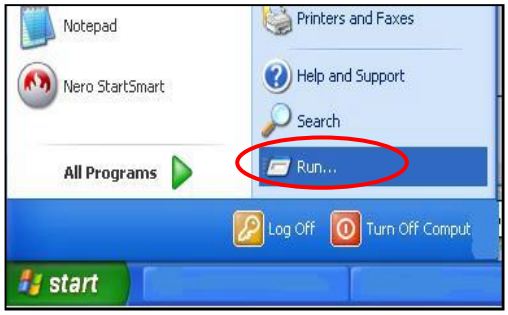
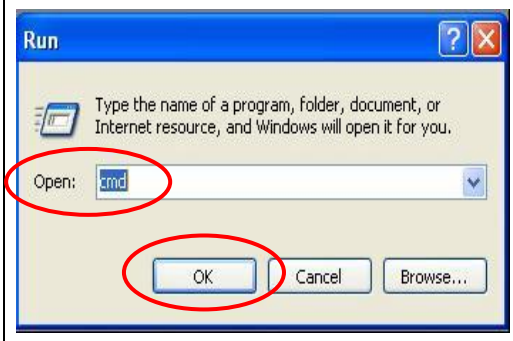
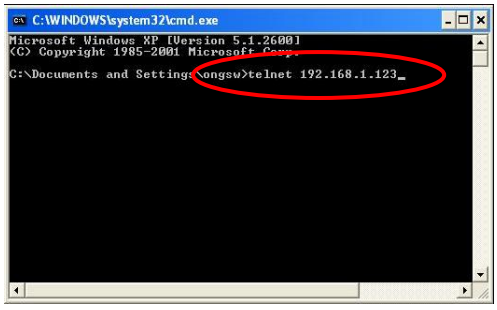
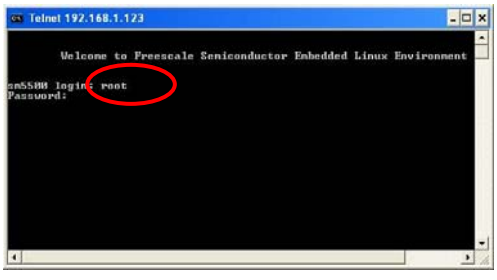
4) Touch the **[Circle point]** at left side top corner and press  key button.	
5) Touch **[Circle point]** at left side bottom corner and touch  key button.	
6) Touch **[Circle point]** at right side center area and touch  key button.	
7) Touch **[Circle point]** at left side center area and touch  key button.	

8) Touch **[Circle point]** at center top area and touch  key button.	
9) If completed, the screen will display message **[Touch Screen Calibration Success]**, press and hold anywhere for 3 second will to exit.	

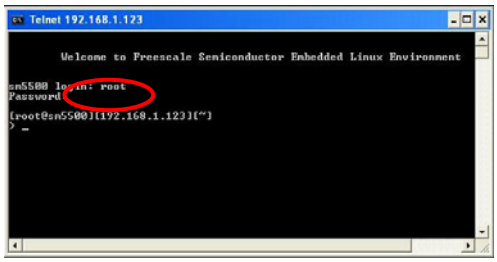
7.6 Write AD Checksum

*Note: Ensure the Span Switch is set to "**Enable**".*

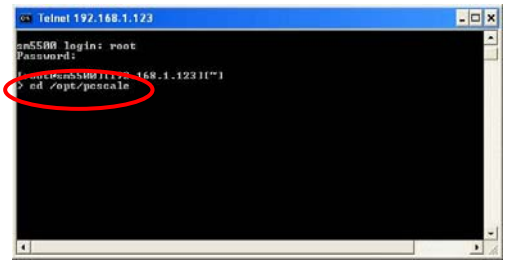


Procedure	Picture
1) From the PC monitor display, select **[START]** → **[All Program]** → **[Run]**.	
2) In Open column, type in the **[cmd]** and then click **[OK]**.	
3) Keying the **[telnet 192.168.1.123]** *(Scale IP Address)* to go to login mode.	
4) Keying the login name **[root]** and press **[Enter]**.	

5) Keying password **[teraoka]** *(invisible)* and press **[Enter]**.



6) Keying command **[cd /opt/pcscale]** and press **[Enter]** button.

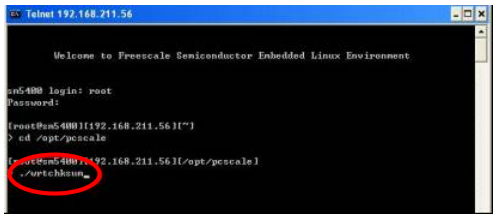


7) Keying the write checksum command and press **[Enter]** button.

Note:

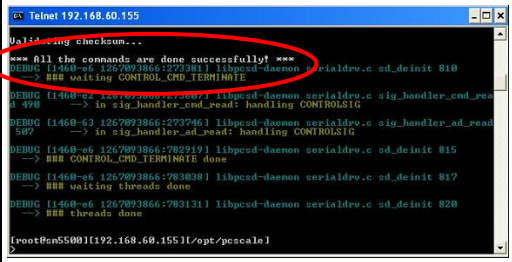
a) From STD structure screen software to New structure screen software conversion. Write Checksum Command is:
./wrtchksum

b) From New structure screen software to STD structure screen software conversion. Write checksum Command is:
./wrtchksum /dev/ad_fifo1

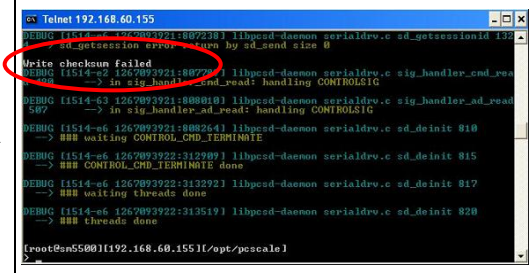


8) If successful, the screen will show message **[All the commands are done successfully]**. If fail will show message **[Write checksum failed]**.

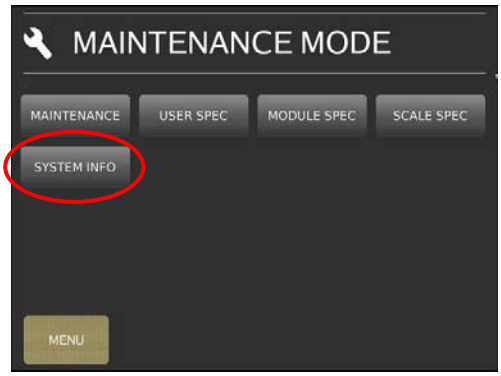
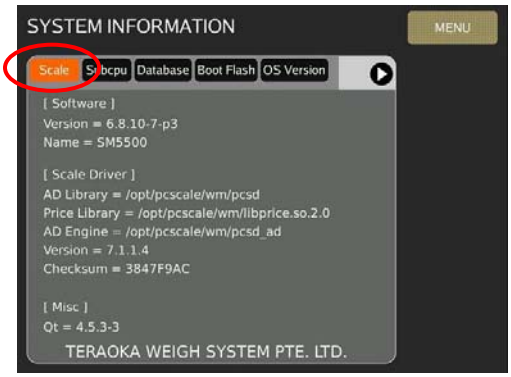
Successful →



Fail →



7.7 System Information

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[SYSTEM INFO]**.	
2) In System Info mode, select **[Scale]** will show the information of "Software Version", "Model Name", "AD Version" and "Checksum".	
3) Select **[Subcpu]** will show the firmware version information of "Printer" and "Keypad/Touchscreen/Card Reader/Barcode Scanner".	
4) Select **[Database]** will show the information of "Table Record Count".	

5) Select **[Boot Flash]** will show the information of “Boot Flash” and “Boot Loader” firmware version.	
6) Select **[OS Version]** will show the information of “Linux Operating System version”.	
7) Touch  arrow button to go to next screen, and select **[Memory]** will show the information of “Total Ram”, “Free Ram”, “Shared Ram”, “Total Swap” and “Free Swap”.	
8) Select **[Disk Space]** will show the information of Disk capacity already used and available.	

7.8 Maintenance

7.8.1 Thermal Head Cleaning

To maintain good quality printouts and long life span for the thermal print head, regular cleaning of the thermal print head is required. Please use the cleaning kit supplied with the product.

Instruction

1. Turn **OFF** Scale by Main Power Switch.

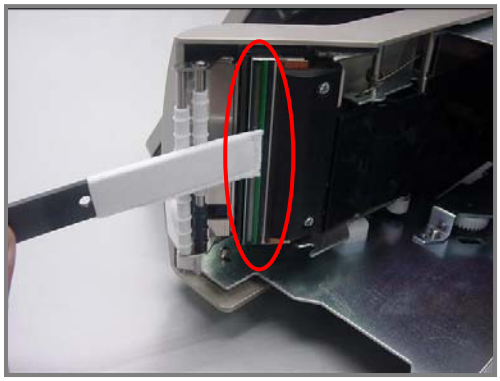
CAUTION
There is a cutter at the printer door near the dispenser. Take care not to touch or cut your fingers against the cutter.

2. Open the printer door by pulling the printer latch outward horizontally.

3. Swing open the printer door in a clockwise direction.

4. Pull out the cassette horizontally.

5. Use the tip of the cleaning tool to clean the thermal head portion (Black part):

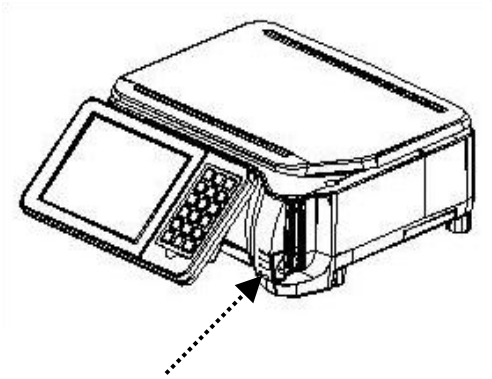


CAUTION
Use only the cleaning pen from the provided cleaning kit Do not clean or try to remove dirt or anything sticking on thermal head with sharp objects – this will DAMAGE the thermal print head.

CAUTION
There is a cutter at the printer door near the dispenser. Take care not to touch or cut your fingers against the cutter.

6. After cleaning, push back the cassette into the main unit until a lock sound is heard.

7. Close the printer door by pushing at the lower area of the printer door until a lock sound is heard. Refer to diagram below:



Push HERE to lock the printer door

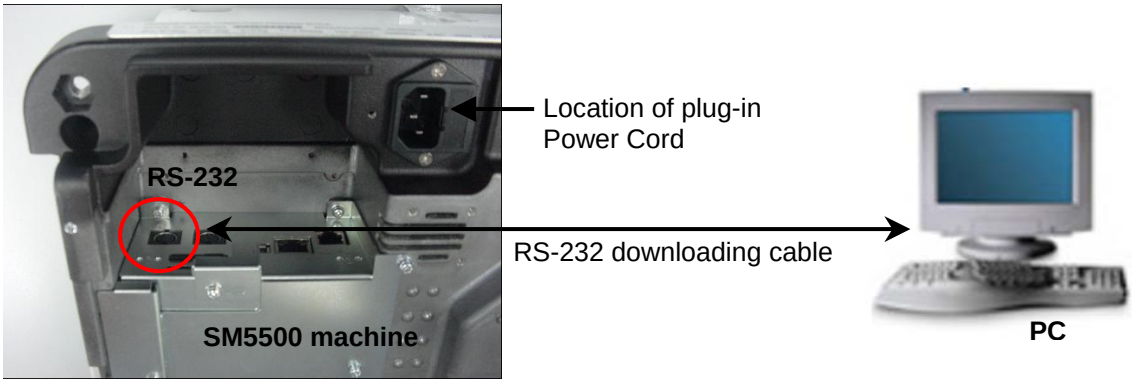
8. Turn ON the scale, and depress **[FEED]** key to feed label/receipt.

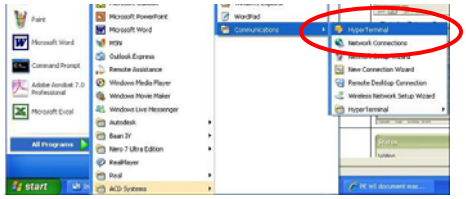
7.8.2 Basic Cleaning

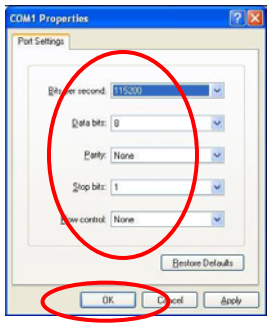
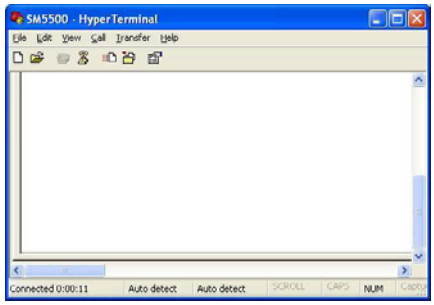
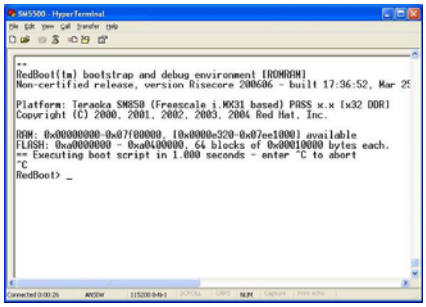
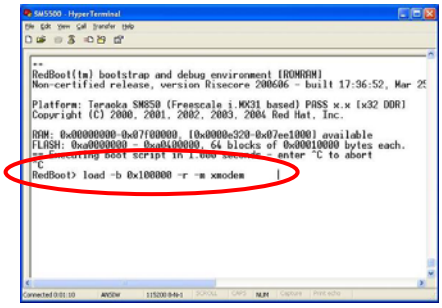
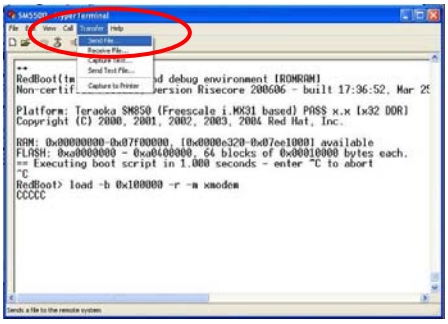
Clean scale surfaces and platter periodically with a soft damp cloth. Do not use alcohol or detergent.

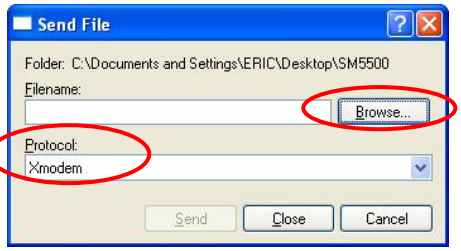
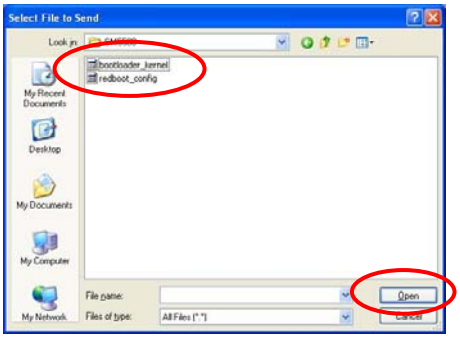
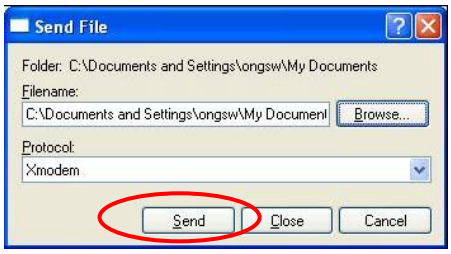
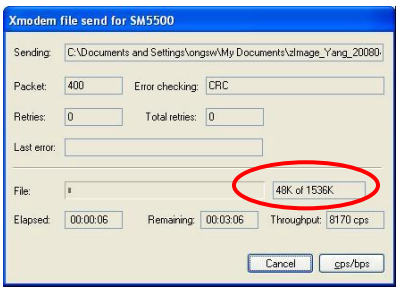
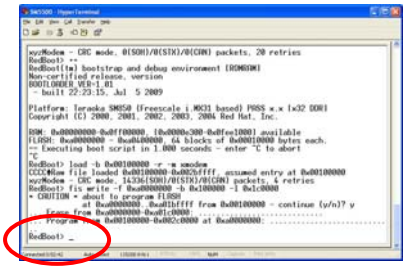
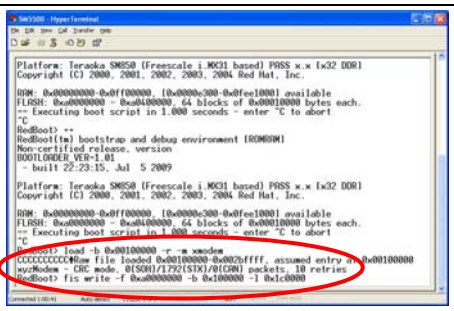
8. FIRMWARE UPGRADING

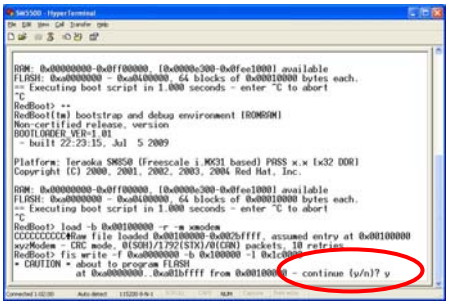
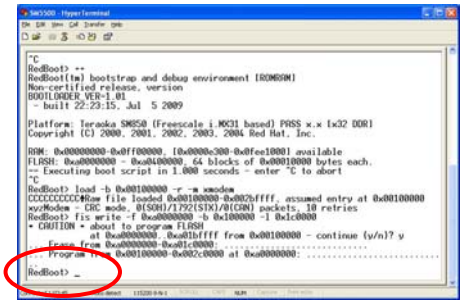
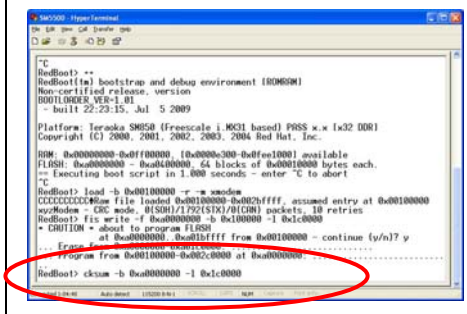
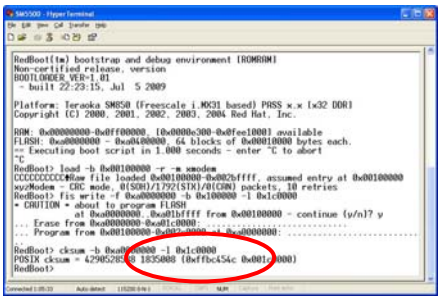
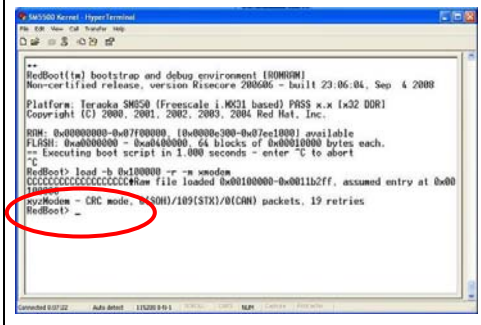
8.1 Kernel

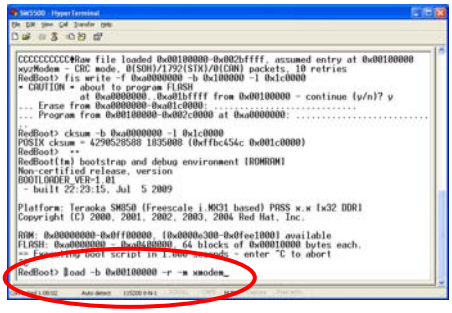
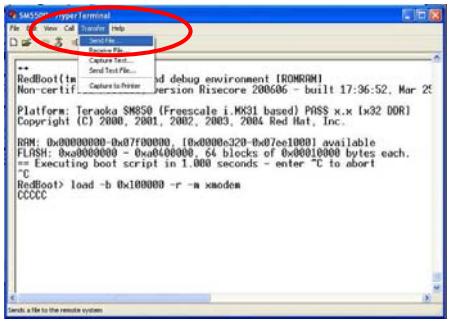
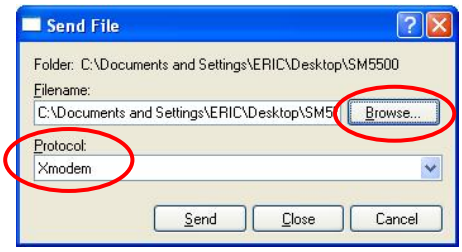
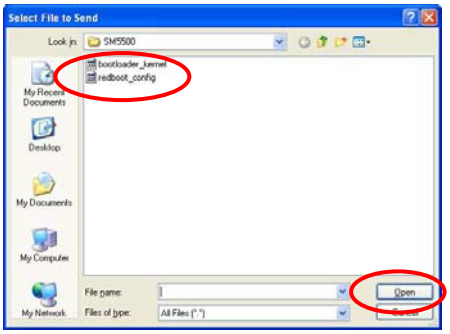
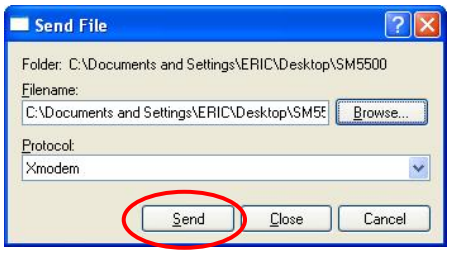


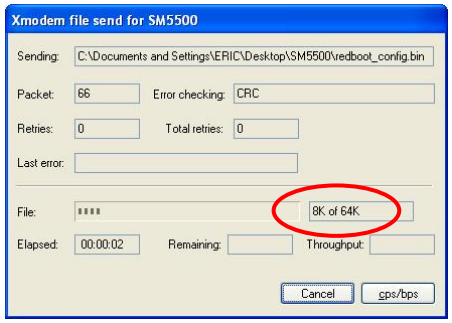
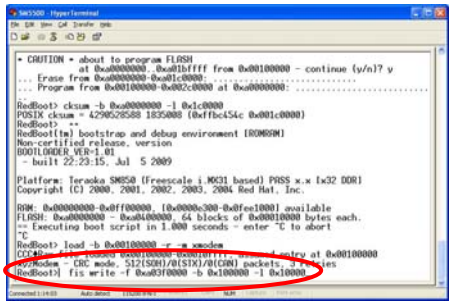
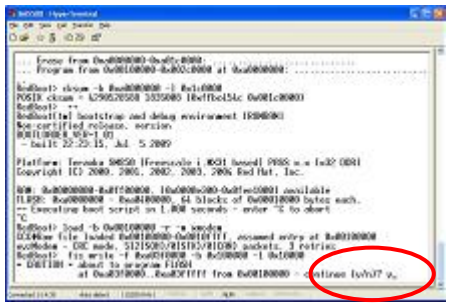
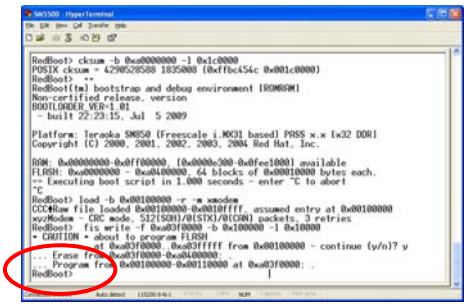
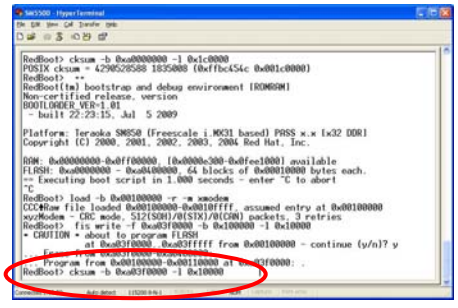
Procedure	Picture
1) At PC, click **[Start]** → **[All Programs]** → **[Accessories]** → **[Communication]** → **[Hyper Terminal]**.	
2) Keying the any Name (e.g. SM5500) and click **[OK]**.	
3) Select the **[COM 1]** and click **[OK]**.	

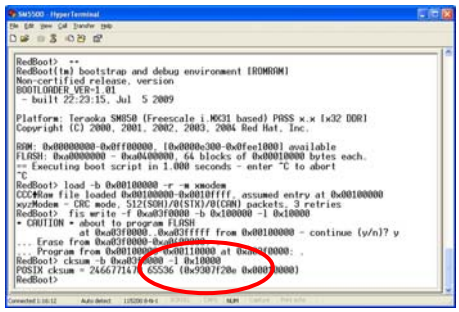
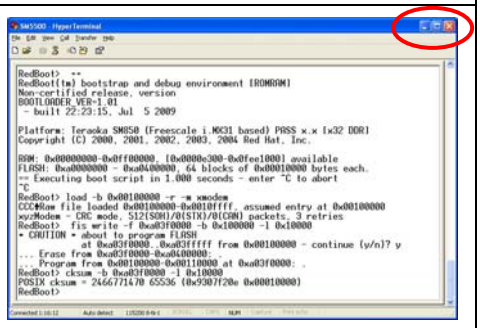
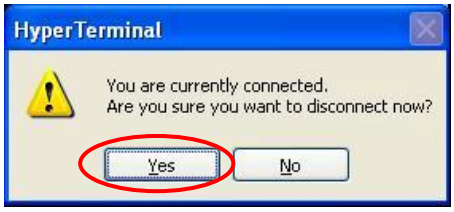
4) Change the Port Settings as below, and then click **[Apply]** follow by **[OK]**. Bits per second: **115200** Data bits: **8** Parity: **None** Stop bits: **1** Flow control: **None**	
5) The Hyper Terminal application is ready.	
6) Turn **"ON"** the machine power then press **[Ctrl] [C]** on the keyboard. (Monitor will show RedBoot>) ***Note: Ctrl C must be press within 1 second. (approx.) after turn "ON" the machine.*** ***Note: From step 6 ~ 18 is procedure to downloading bootloader_kernel.bin***	
7) Keying the command **[load –b 0x100000 –r –m xmodem]** and press keyboard **[Enter]** button.	
8) Select **[Transfer]** → **[Send File…]**.	

9) Change the Protocol to **[Xmodem]** then click **[Browse…]** button.	
10) Search and open the bootloader file. ***Example: bootloader_kernel.bin***	
11) Click **[Send]** button.	
12) Waiting for process sending file until completed.	
13) When completed, monitor will show RedBoot>.	
14) Keying command **[fis write -f 0xa0000000 -b 0x100000 -l 0x1c0000]** and press **[Enter]**.	

15) When confirmation displayed, keying **[y]** and press keyboard **[Enter]**.	
16) Waiting for process, once completed, the monitor will show RedBoot>	
17) Keying command **[cksum -b 0xa0000000 –l 0x1c0000]** and press **[Enter]**.	
18) Checksum should be **[0xffbc454c]**. ***Note: If cannot get the correctly checksum, please redo the procedure again.***	
19) Turn “Off” the SM5500 machine power and turn “On” again, then press **[Ctrl] [C]** on the keyboard. *(Monitor will show RedBoot)* ***Note: Ctrl C must be press within 1 second. (approx.) after turn “ON” the machine.*** ***Note: From step 19 ~ 30 is the procedure to downloading redboot_config.bin***	

20) Keying the command **[load –b 0x00100000 –r –m xmodem]** and press keyboard **[Enter]** button.	
21) Select **[Transfer]** → **[Send File…]**	
22) Ensure Protocol still select **[Xmodem]** again and click **[Browse…]** button.	
23) To search and open the redboot_config.bin file. ***Example: redboot_config.bin***	
24) Click **[Send]** button.	

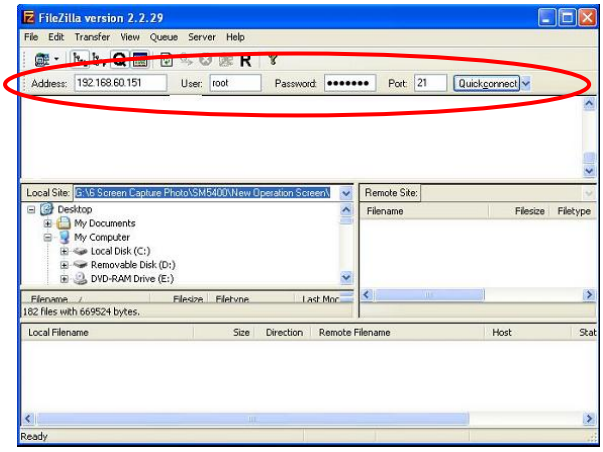
25) Waiting for process sending file until completed.	
26) When completed the monitor will show RedBoot>. Keying command **[fis write –f 0xa03f0000 –b 0x100000 –l 0x10000]** and press keyboard **[Enter]** button.	
27) When confirmation displayed, keying **[y]** and press keyboard **[Enter]** button.	
28) Waiting processing until completed. *(When completed the monitor will show RedBoot>)*	
29) Keying the command **[cksum –b 0xa03f0000 –l 0x10000]** and press keyboard **[Enter]** button.	

30) Checksum should be **[0x9307f20e]**. ***Note: If cannot get the correctly checksum, please redo the procedure again.***	
31) Click **[X]** to close the program.	
32) Click **[Yes]** to confirm closing the program.	

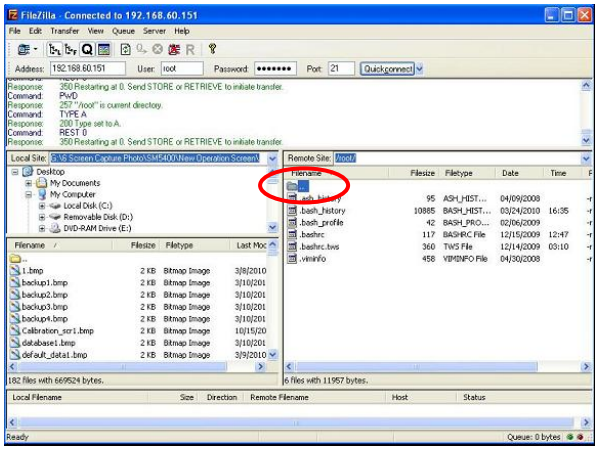
8.2 PC Scale Application

1. Open and run the FTP server program, e.g. **[FileZilla].**

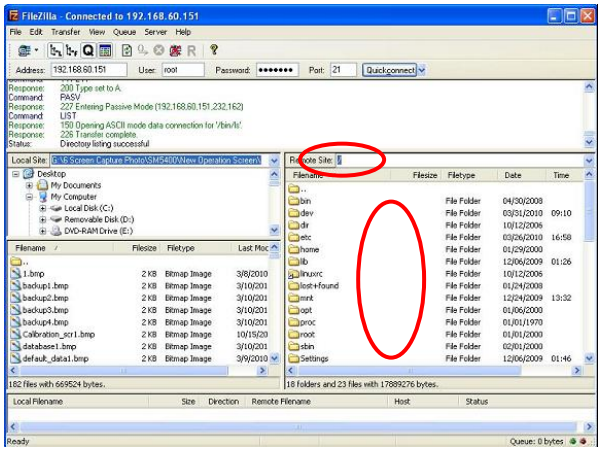
2. Enter the scale IP address, User **[root]** and Password **[teraoka]**, then click the **[Quickconnect]** button.



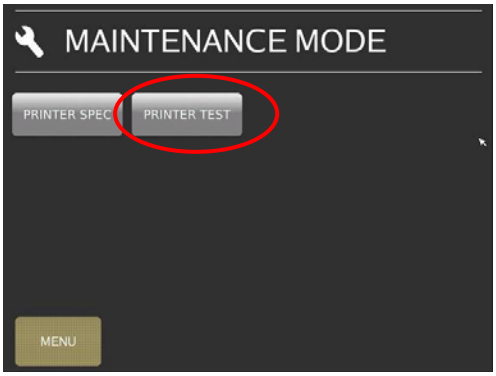
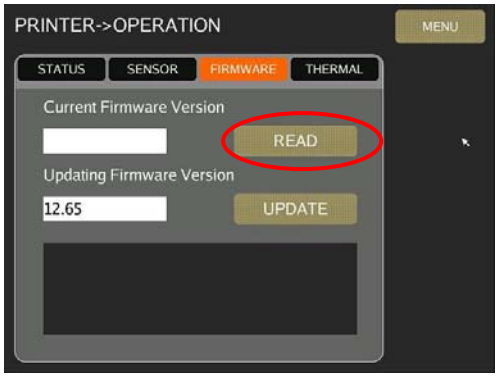
3. Double click the **[..]** symbol to go to upper level.



4. Copy and paste the upgrading firmware under the **[/]** directory. After firmware upgrading completed need to reboot the scale power.



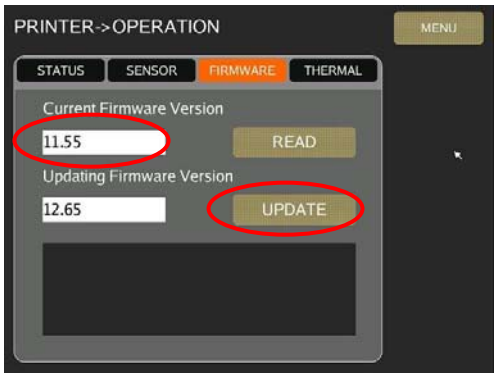
8.3 Printer Firmware

Procedure	Picture
1) In Registration mode, select **[MENU]** → **[MAINTENANCE]** → **[MAINTENANCE]** → **[PRINTER]** → **[PRINTER TEST]** to go to printer test mode.	
2) In Printer Test menu, touch **[FIRMWARE]**. **SM-5500 Srs** →	
SM-5000BS →	
3) Touch **[READ]** to reading the current firmware version. *(The Updating Firmware Version will show the new firmware version).* **SM-5500 Srs** →	

SM-5000BS →

4) The screen will show the current firmware version, then touch **[UPDATE]** button to continue the process.

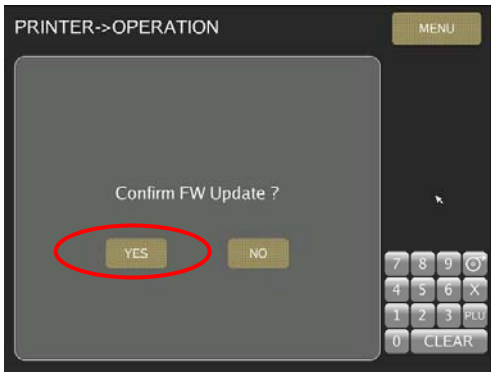
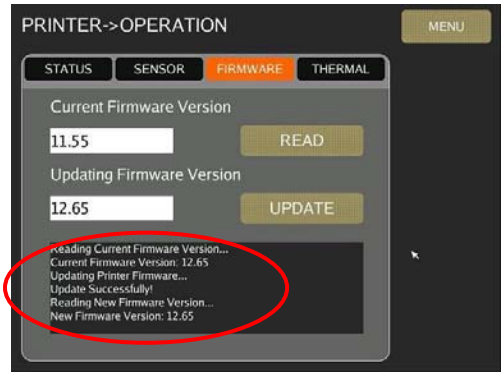
SM-5500 Srs →



SM-5000BS →

5) Touch **[YES]** to confirm start updating the firmware.

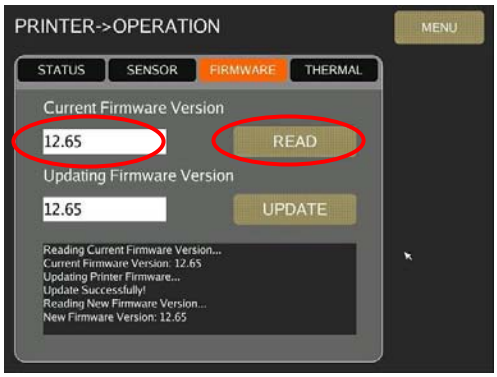
SM-5500 Srs →

SM-5000BS →	
6) Waiting for firmware upgrading process. **SM-5500 Srs →**	
SM-5000BS →	
7) Firmware updated successfully. **SM-5500 Srs →**	

SM-5000BS →

8) Touch **[READ]** again to confirm the new firmware version is updated.

SM-5500 Srs →

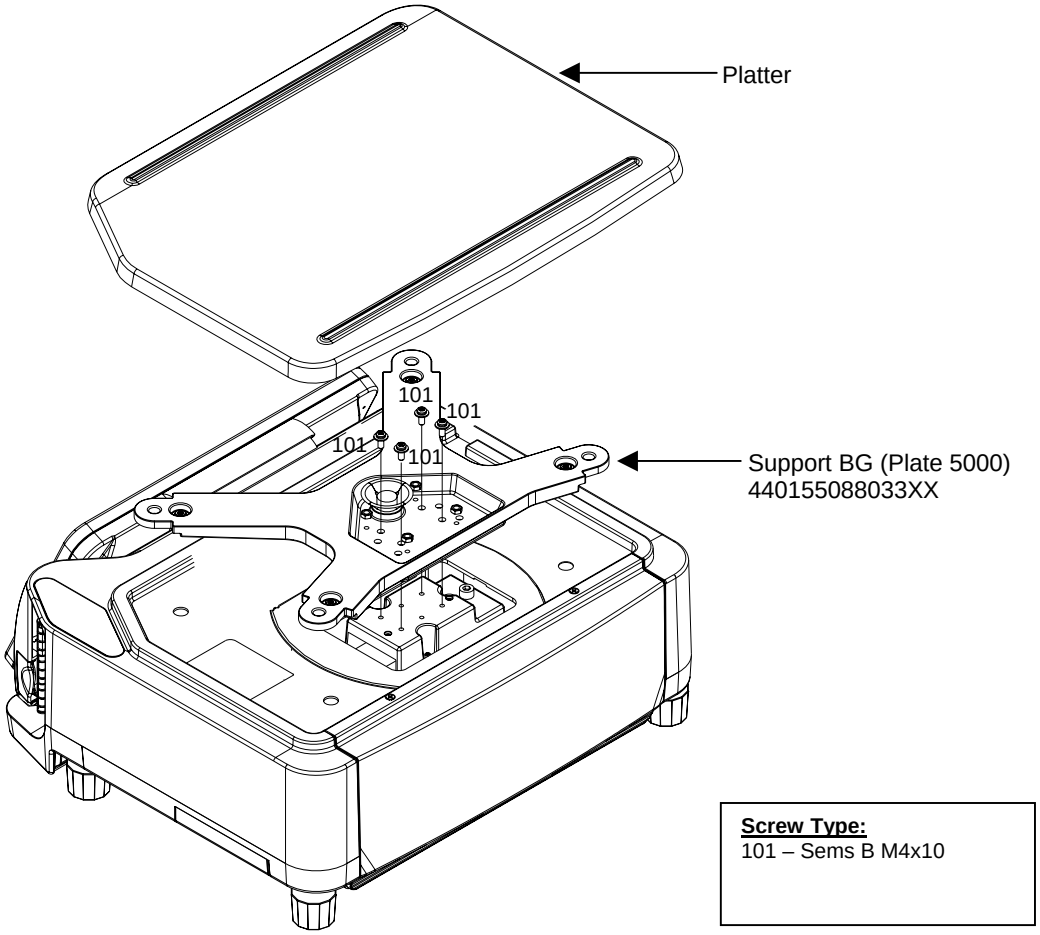


SM-5000BS →

9. MAJOR PARTS DISASSEMBLY

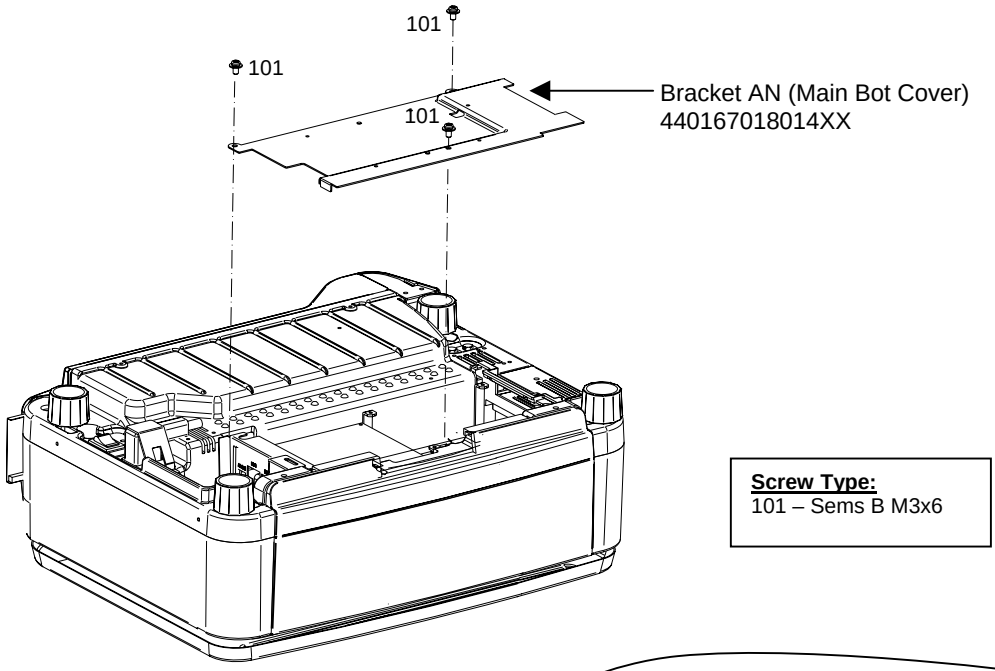
9.1 SM-5500B

9.1.1 Disassembly of Platter Support

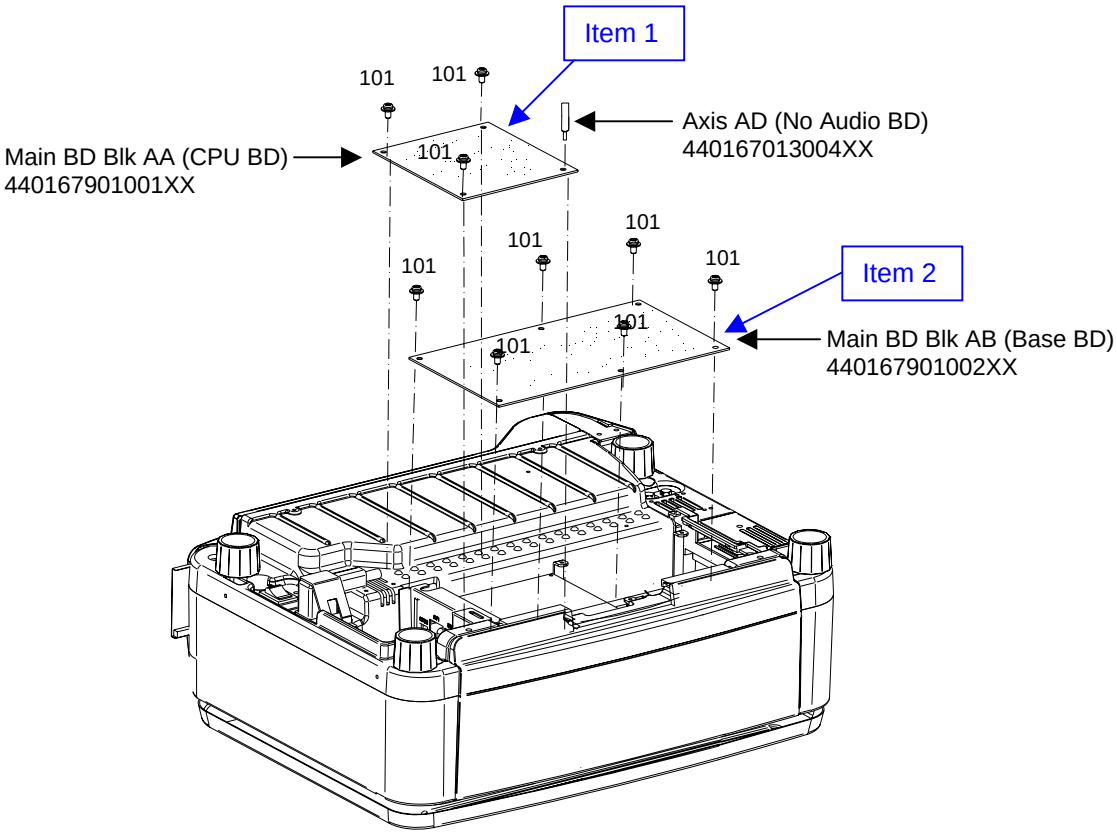


9.1.2 Disassembly of CPU & Base Board

Step 1:

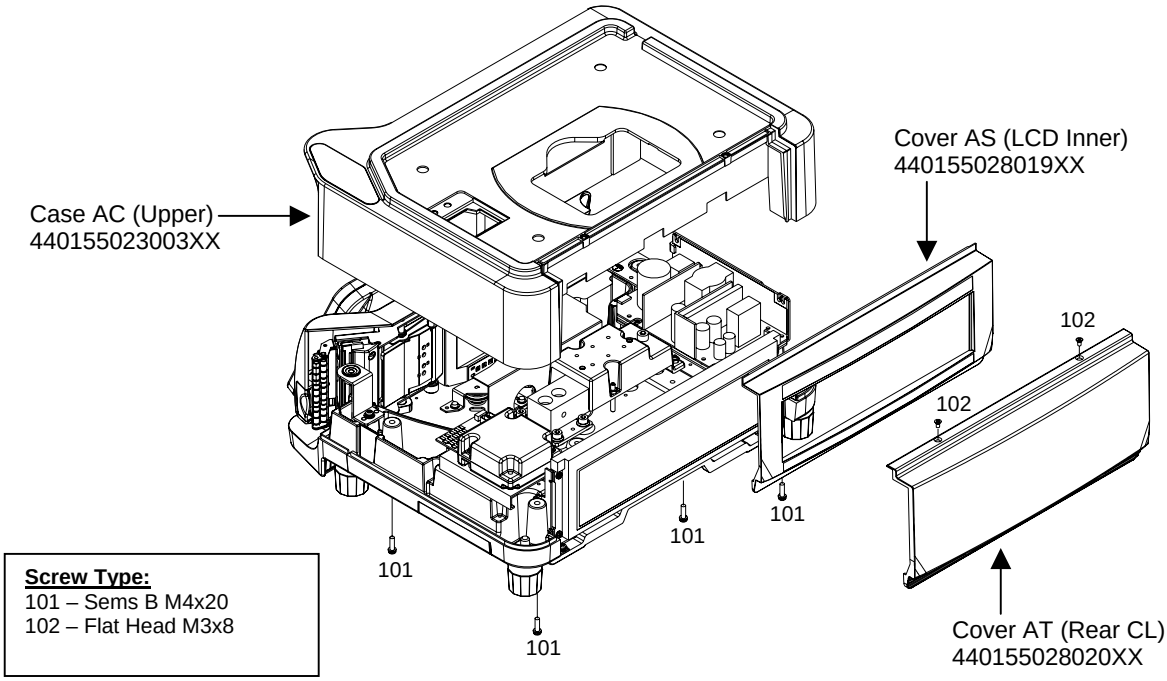


Step 2:

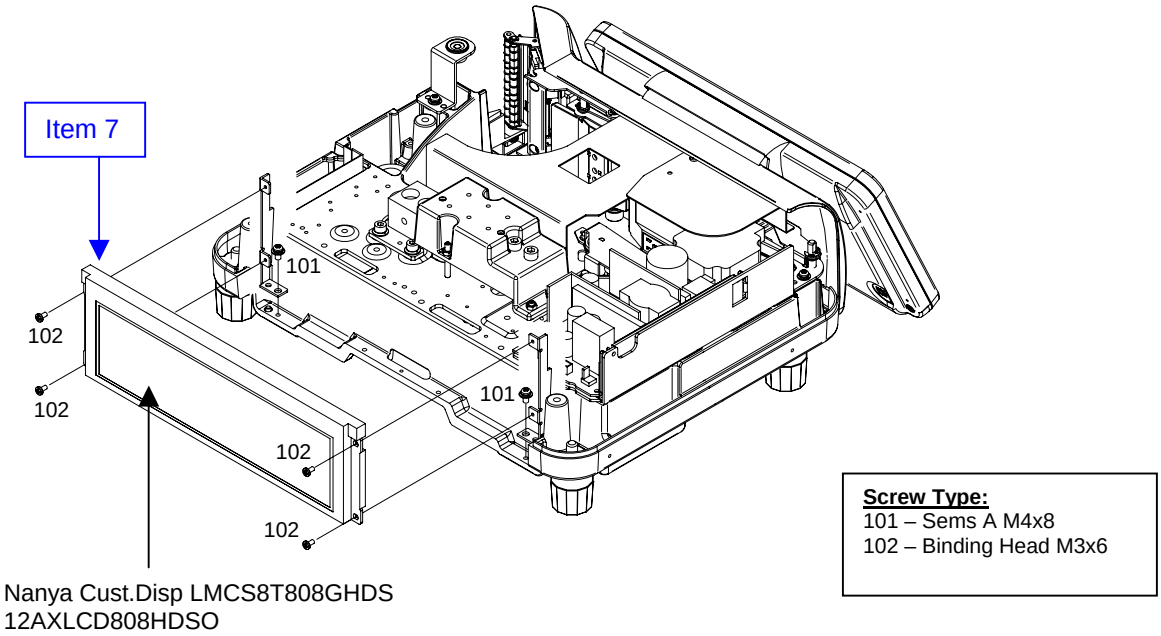


9.1.3 Disassembly of Top Cover and Customer (LCD) Display

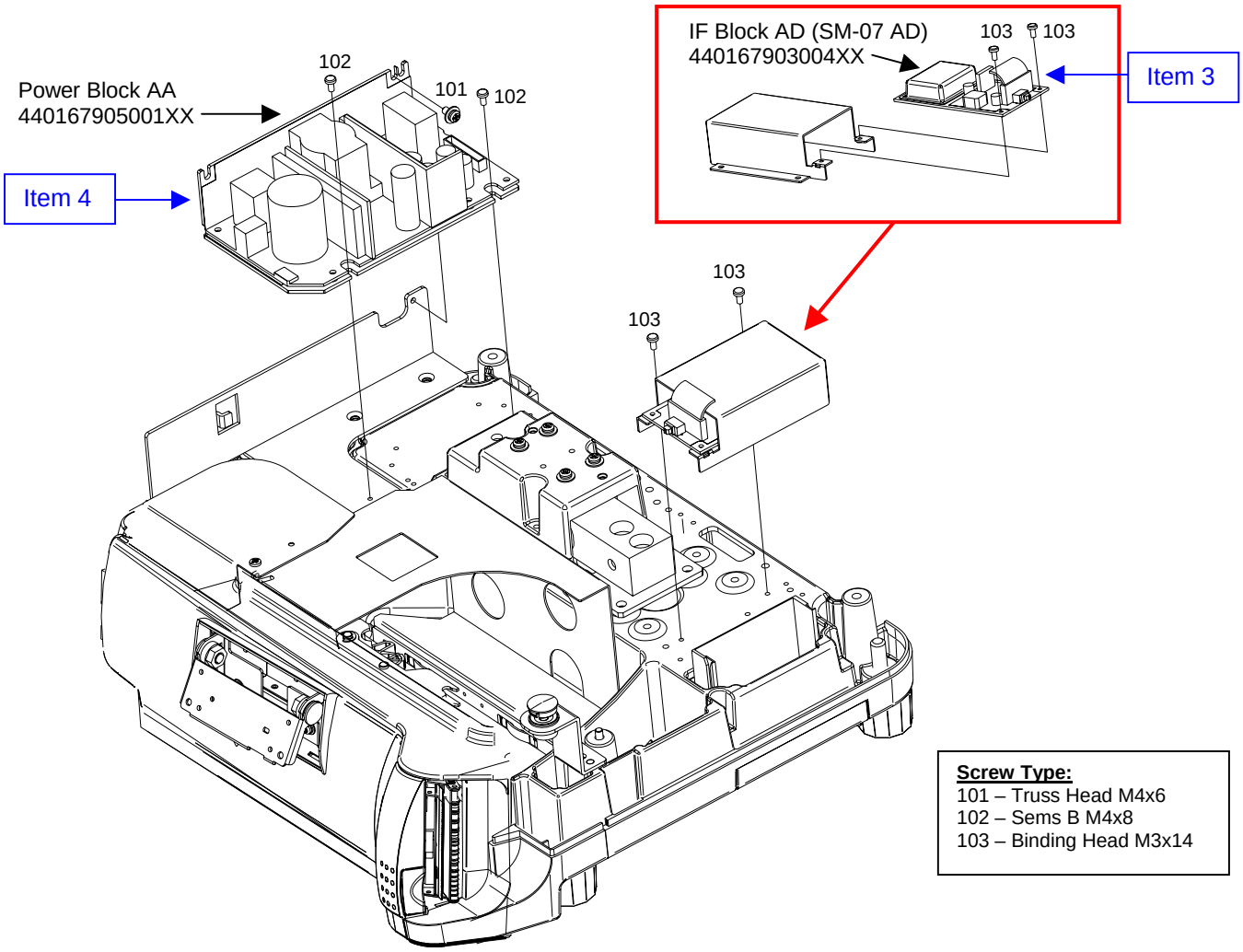
Step 1:



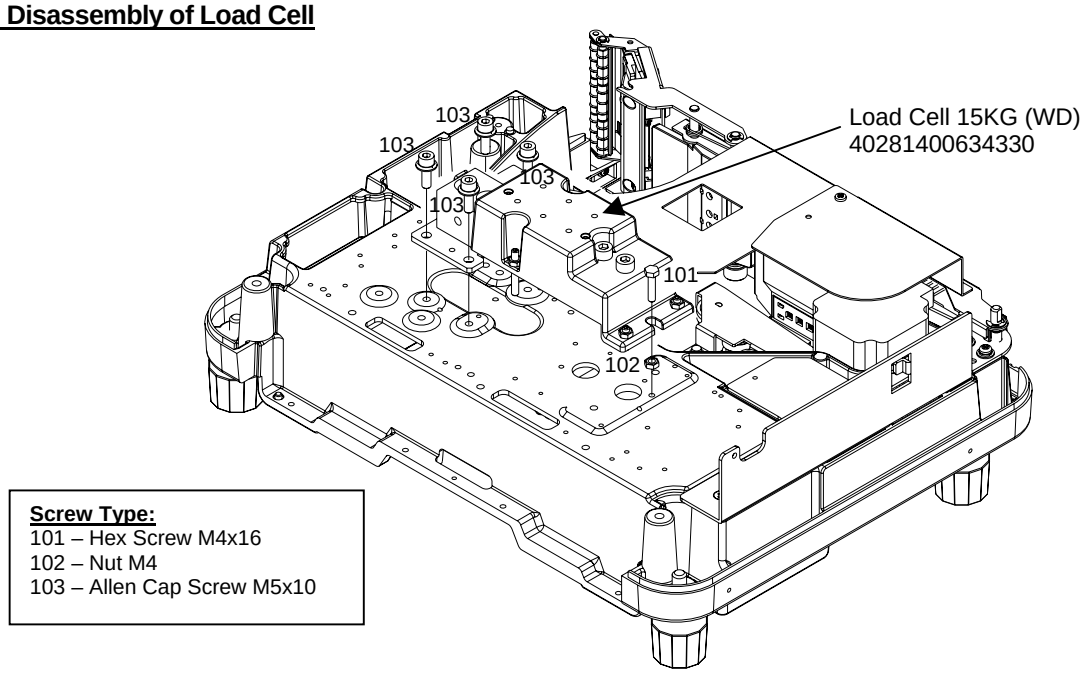
Step 2:



9.1.4 Disassembly of Power Supply Unit and AD Board

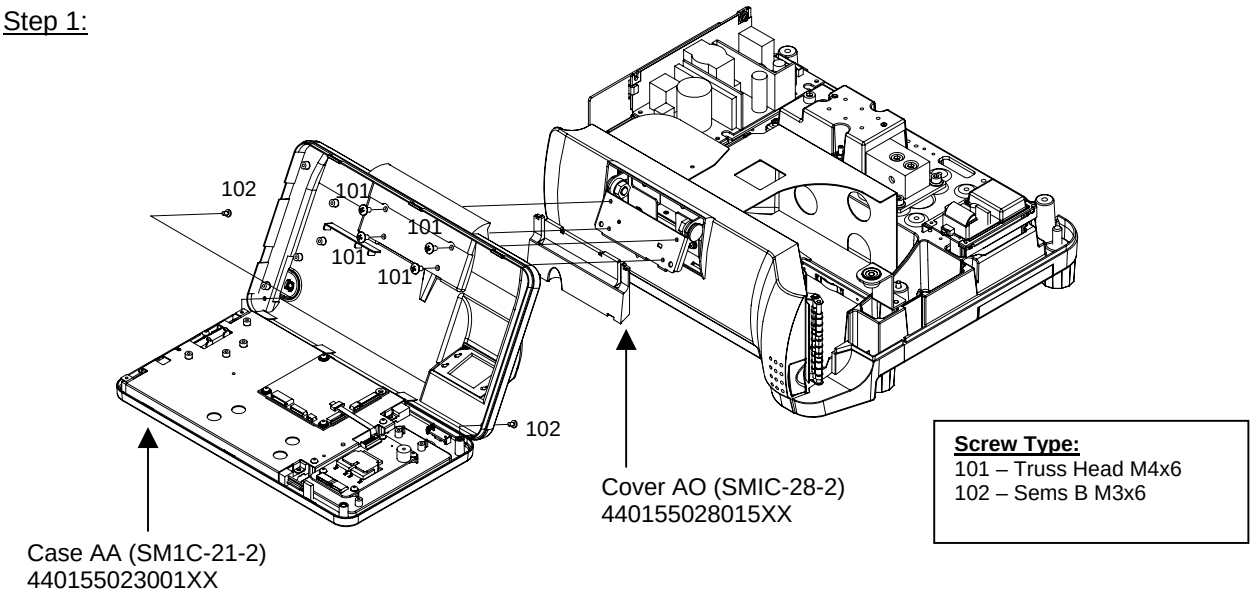


9.1.5 Disassembly of Load Cell

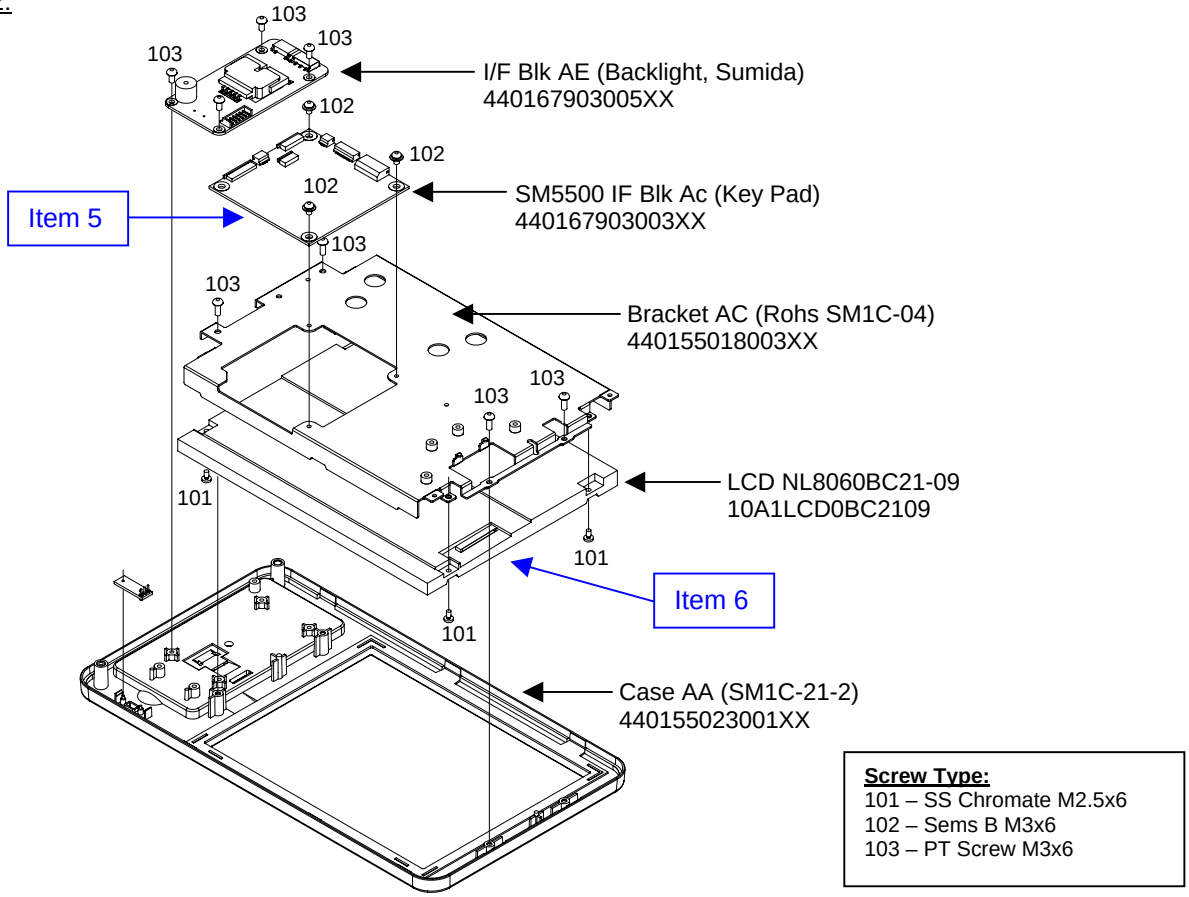


9.1.6 Disassembly of Display Board and Operator (8.4" TFT LCD) Display

Step 1:

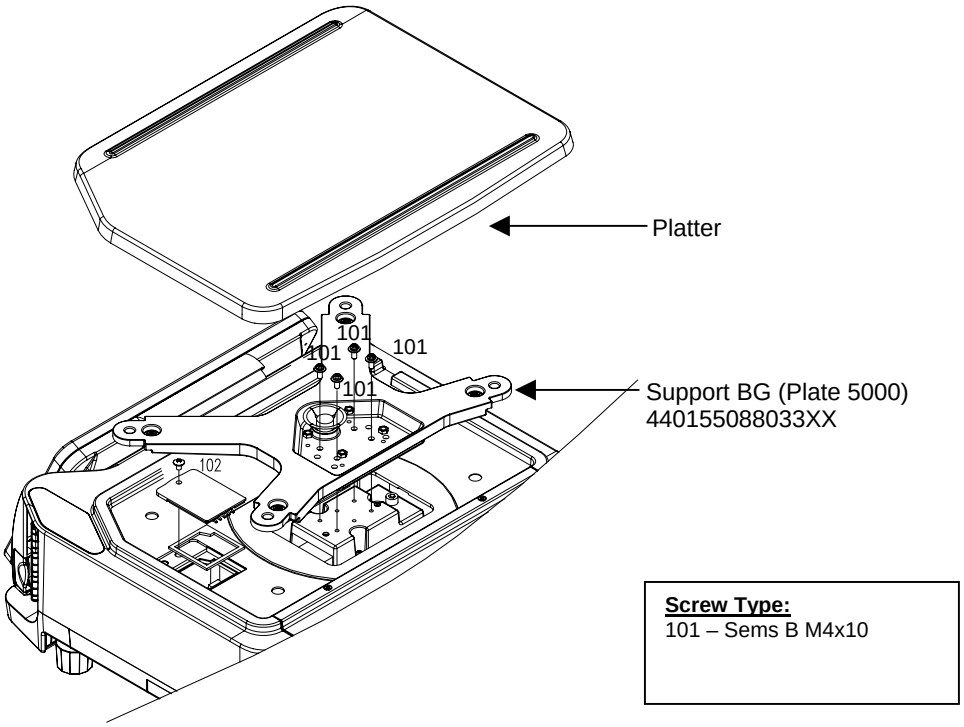


Step 2:



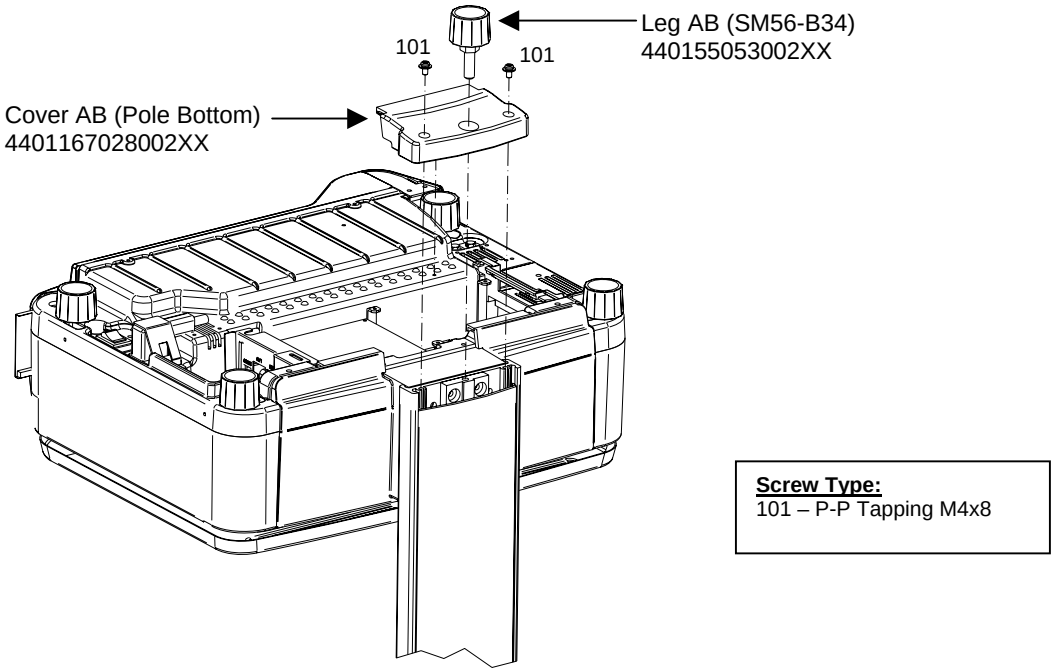
9.2 SM-5500P

9.2.1 Disassembly of Platter Support

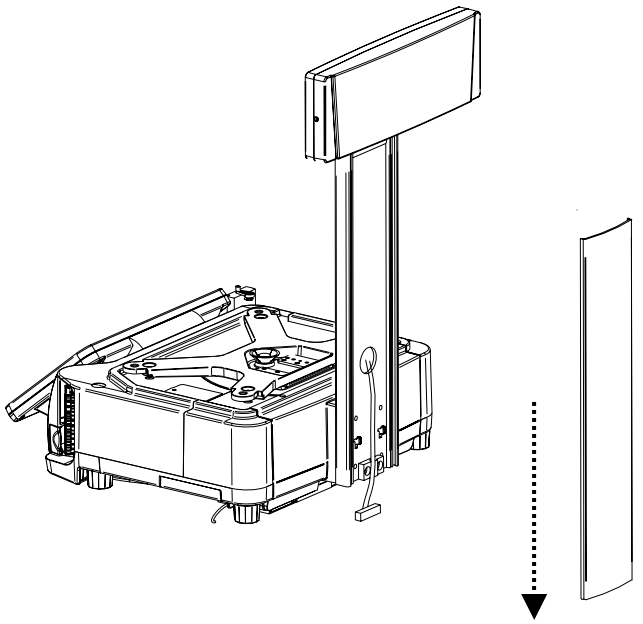


9.2.2 Disassembly of Pole Block

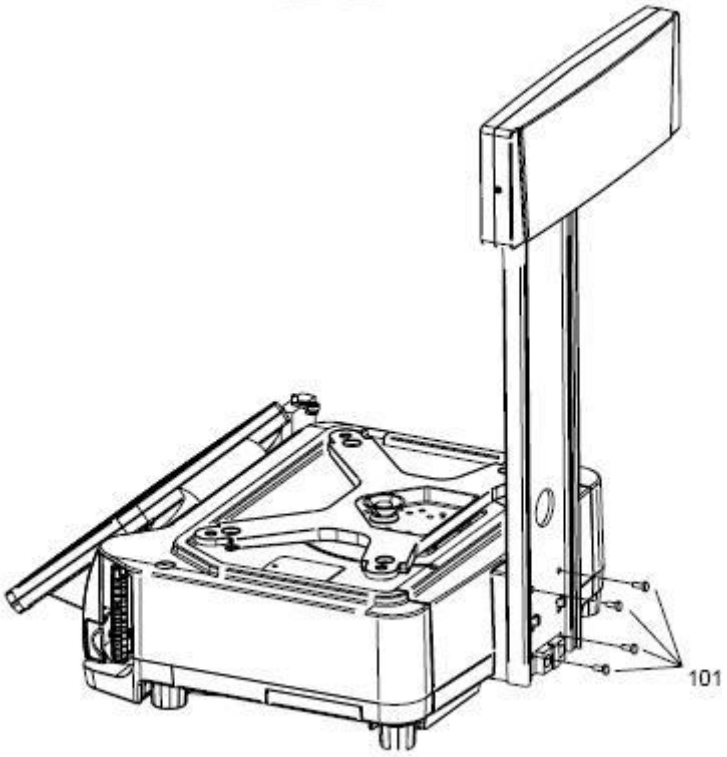
Step 1:



Step 2:

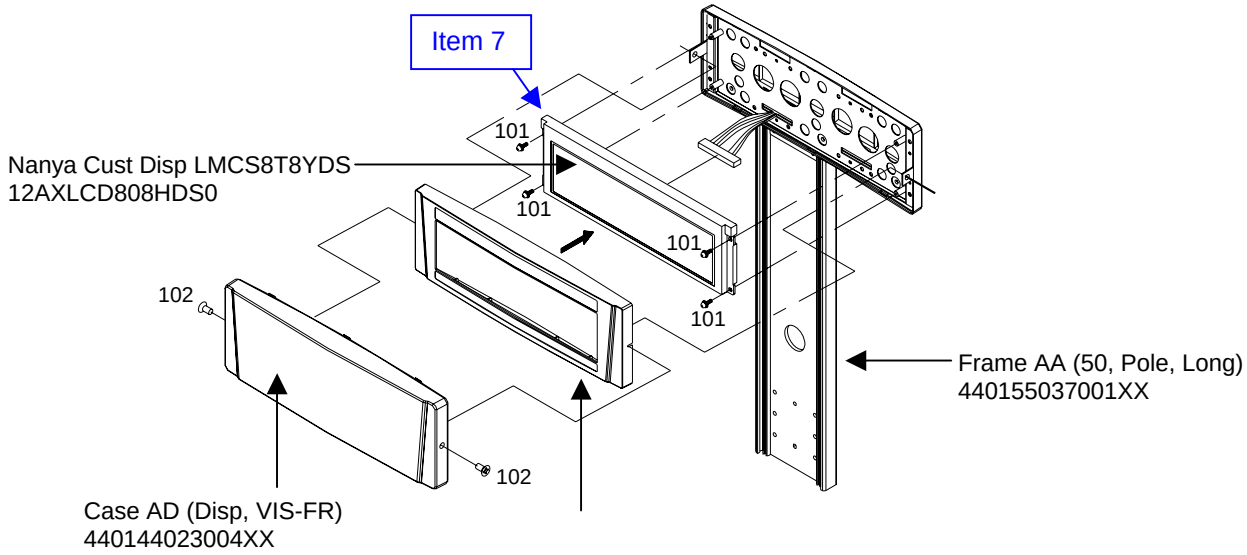


Step 3:



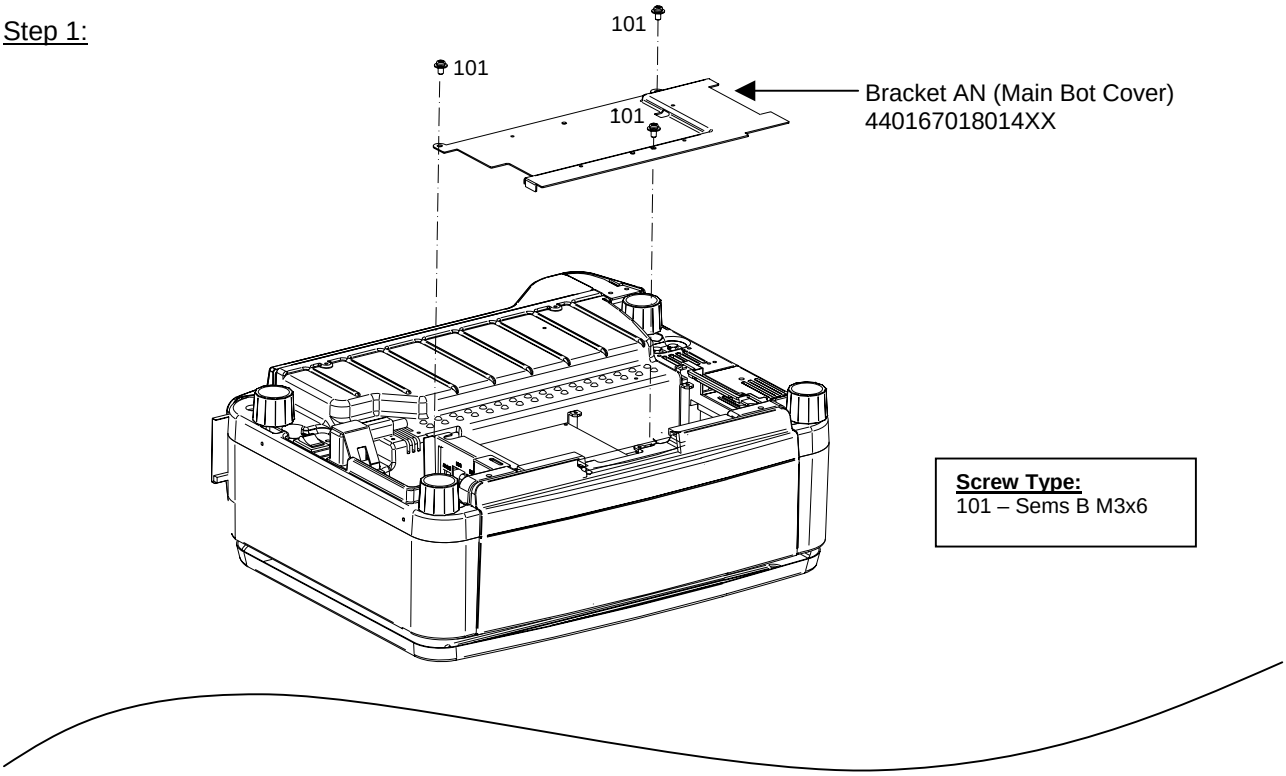
Screw Type:
101 – Hex Cap Screw M5

9.2.3 Disassembly of Customer (LCD) Display

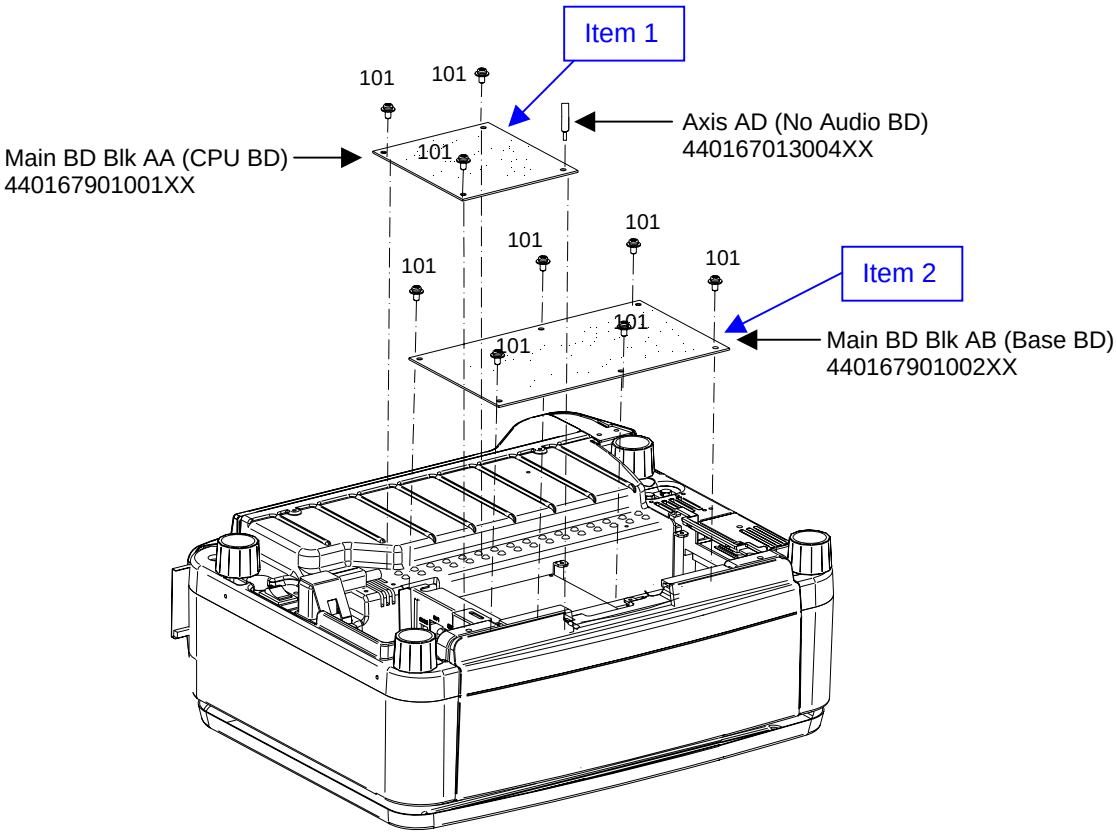


9.2.4 Disassembly of CPU & Base Board

Step 1:

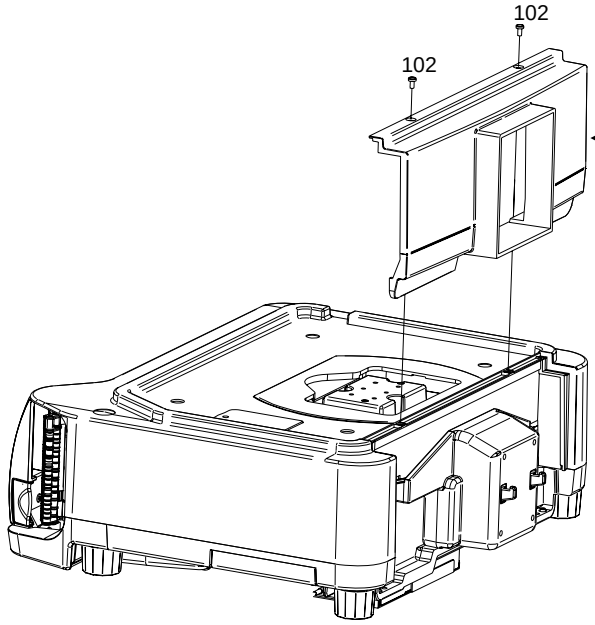


Step 2:



9.2.5 Disassembly of Top Cover

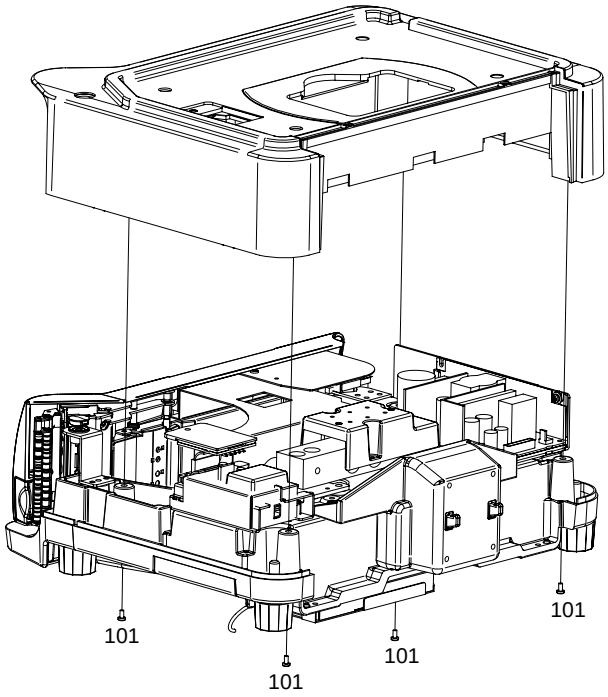
Step 1:



Cover AA (EV Body Rear)
440167028006XX

Screw Type:
101 – Binding Head M3x6
102 – Flat Head M3x6

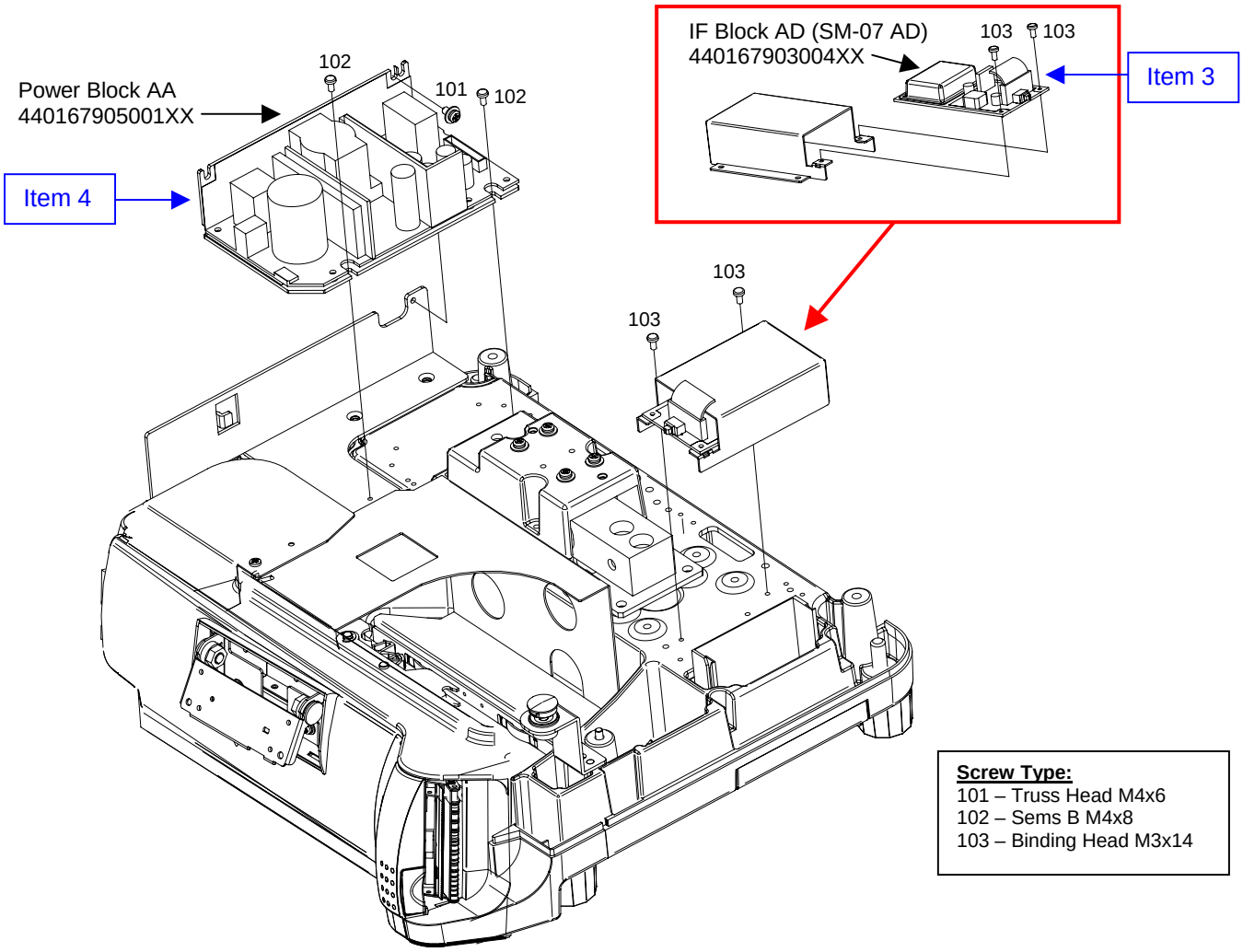
Step 2:



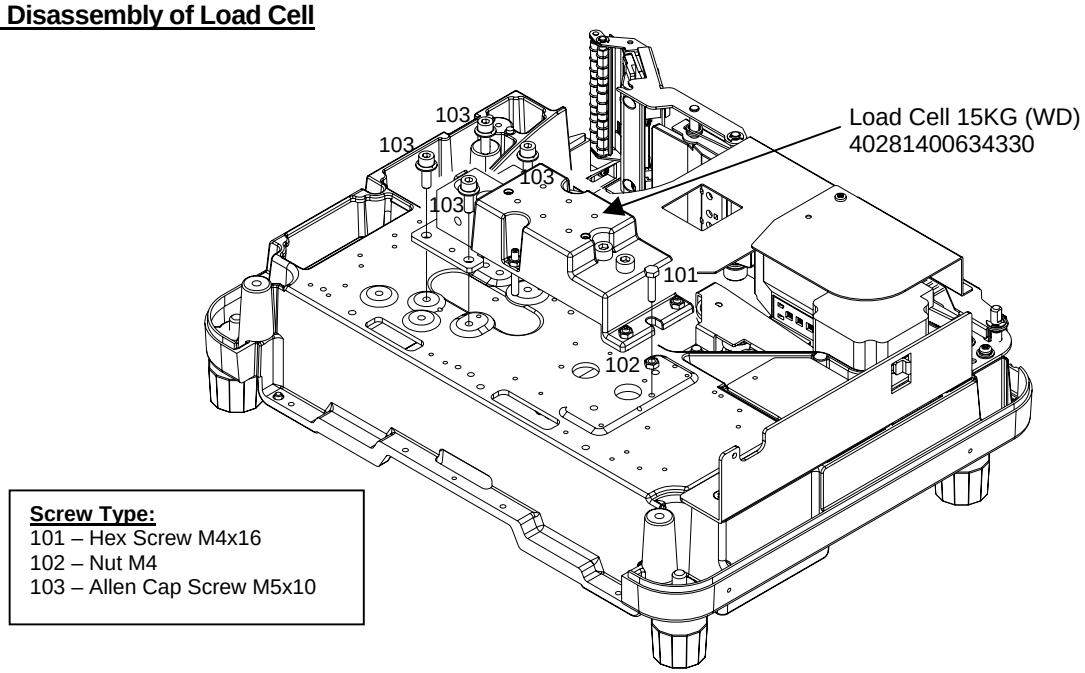
Case AC (Upper)
440155023003XX

Screw Type:
101 – Sems B M4x20

9.2.6 Disassembly of Power Supply Unit and AD Board

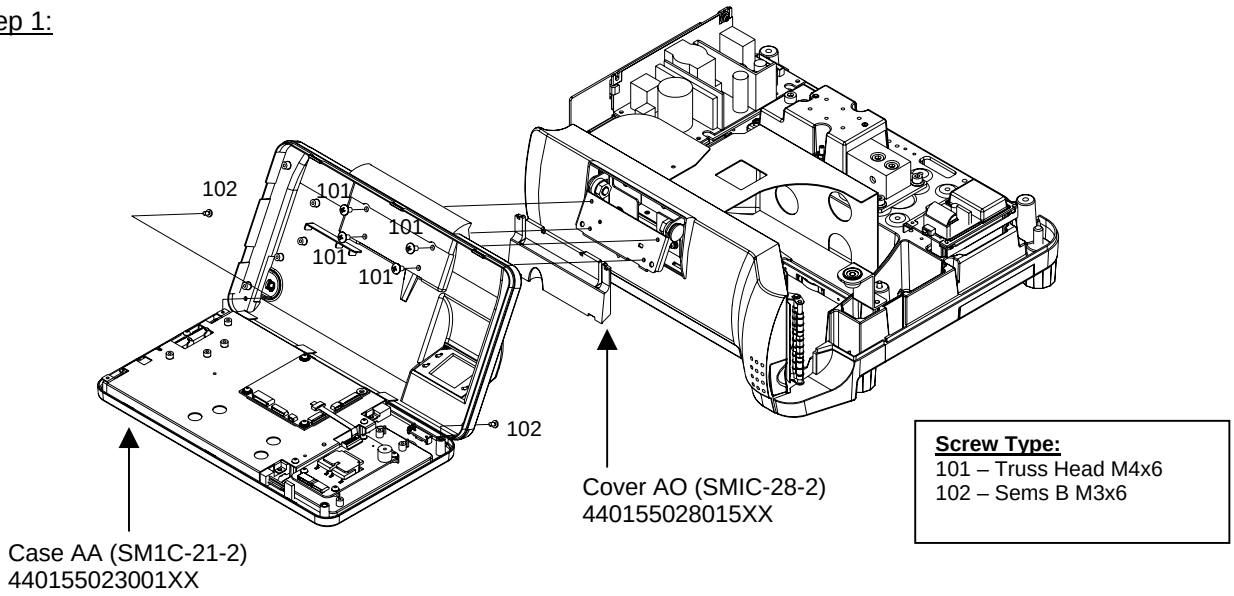


9.2.7 Disassembly of Load Cell

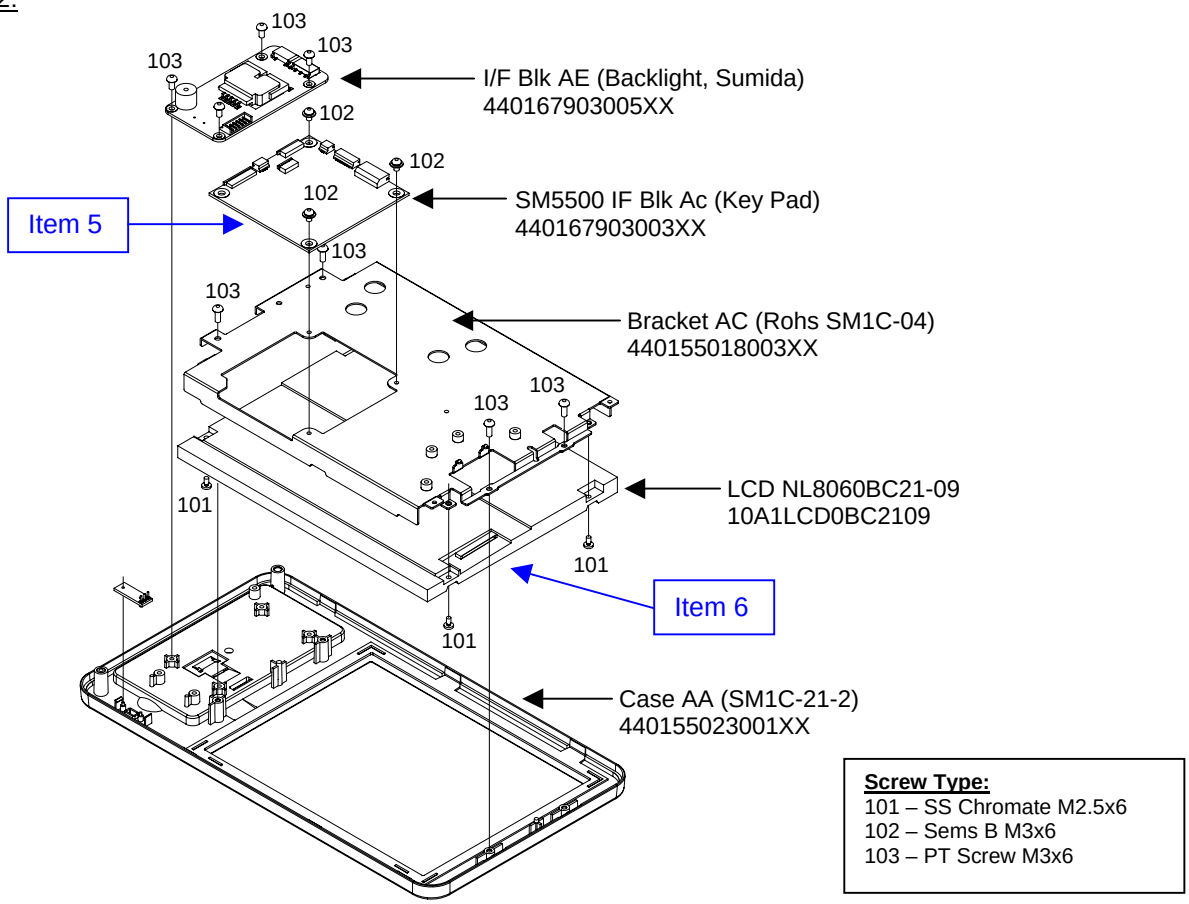


9.2.8 Disassembly of Display Board and Operator (8.4" TFT LCD) Display

Step 1:

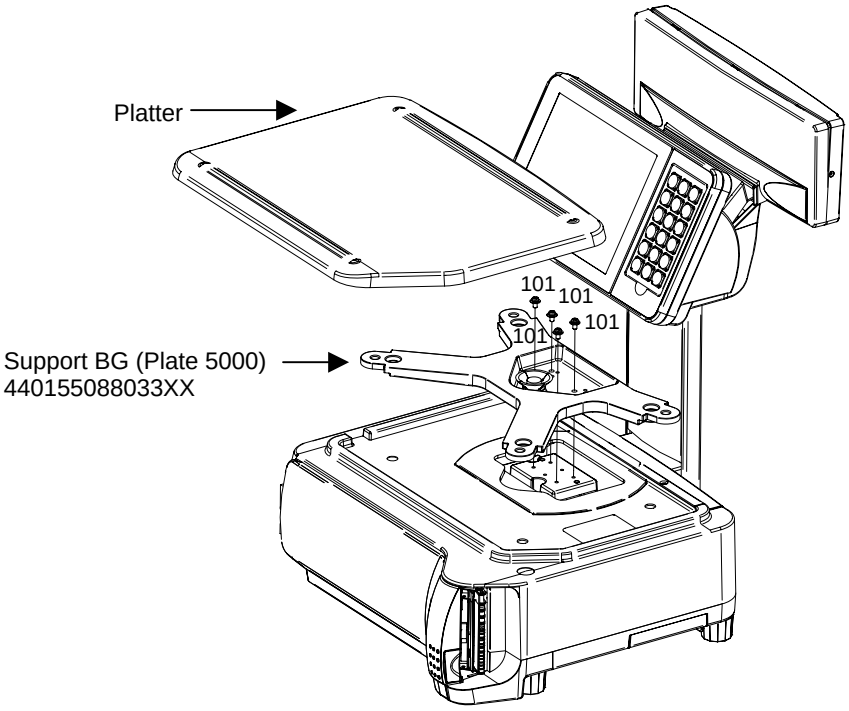


Step 2:



9.3 SM-5500EV

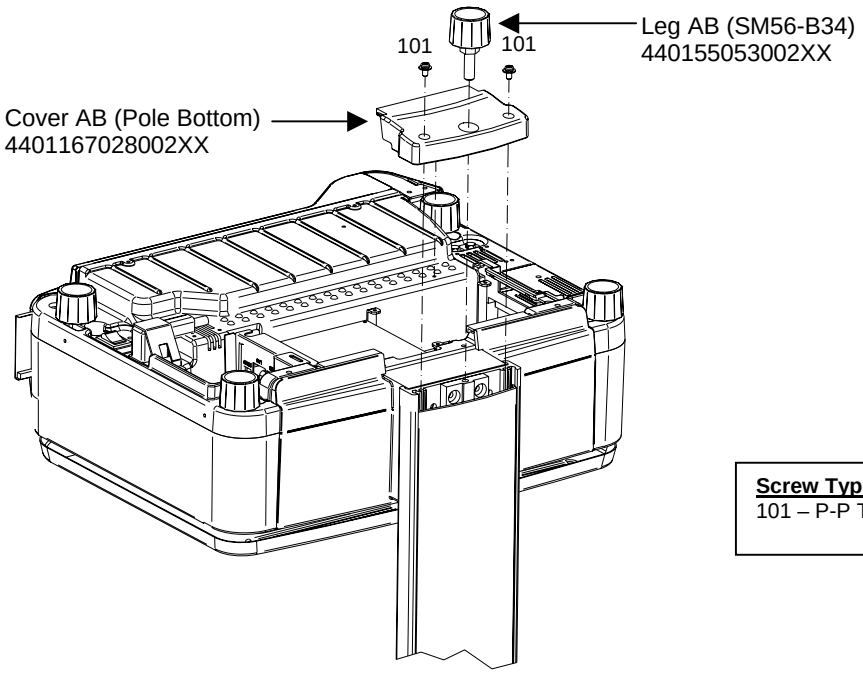
9.3.1 Disassembly of Platter Support



Screw Type:
101 – Sems B M4x10

9.3.2 Disassembly of Pole Block

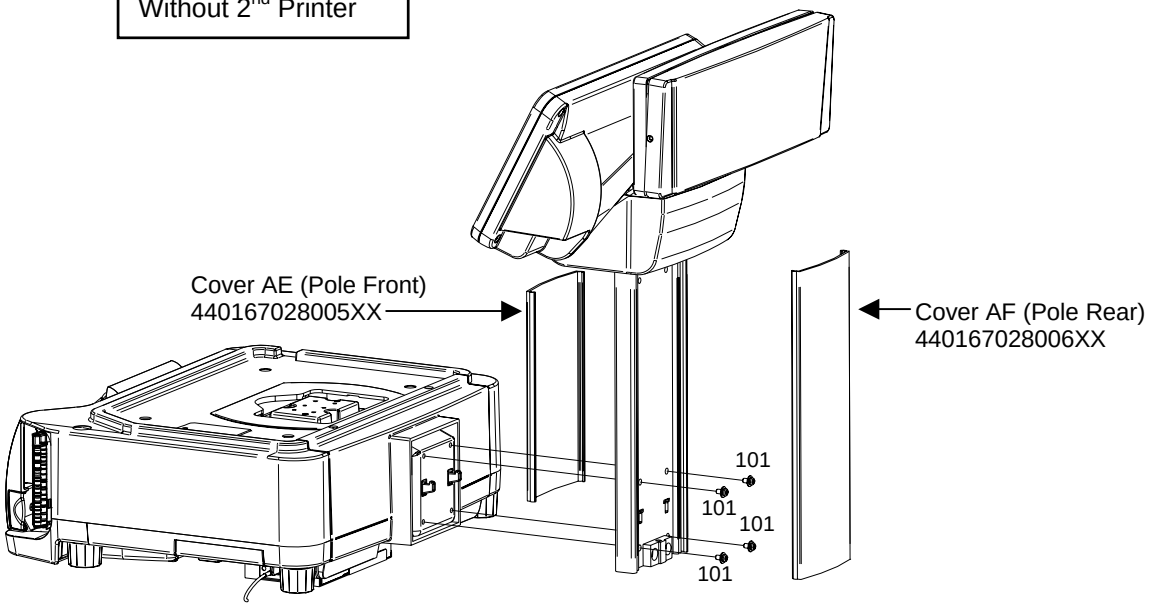
Step 1:



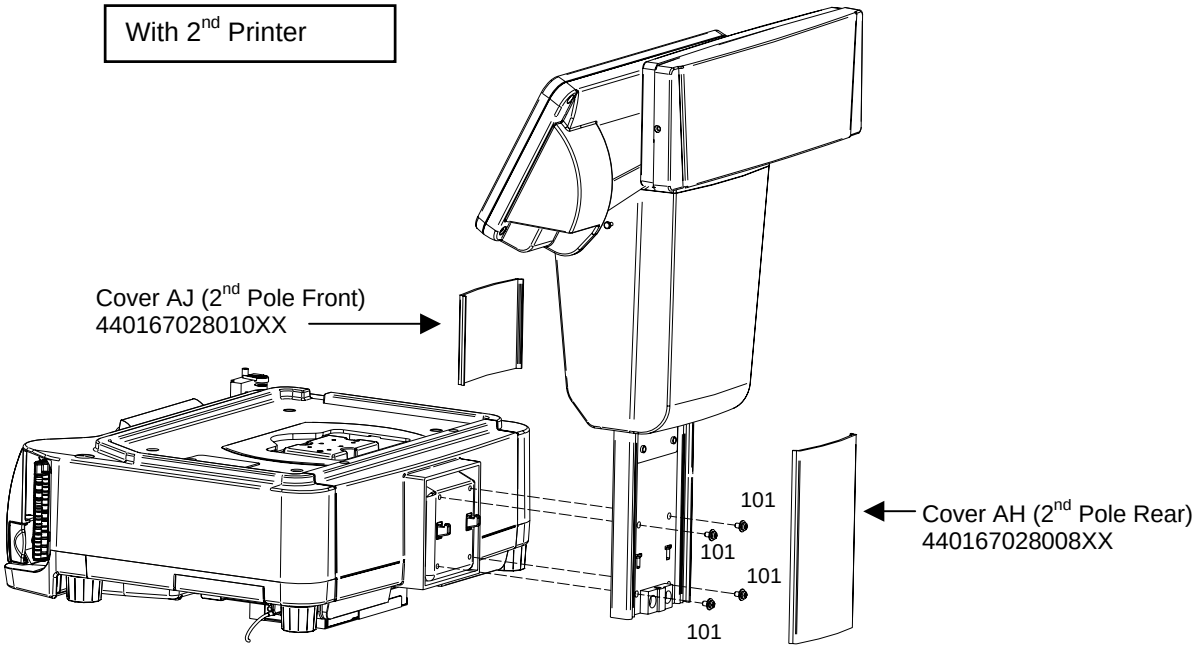
Screw Type:
101 – P-P Tapping M4x8

Step 2:

Without 2nd Printer



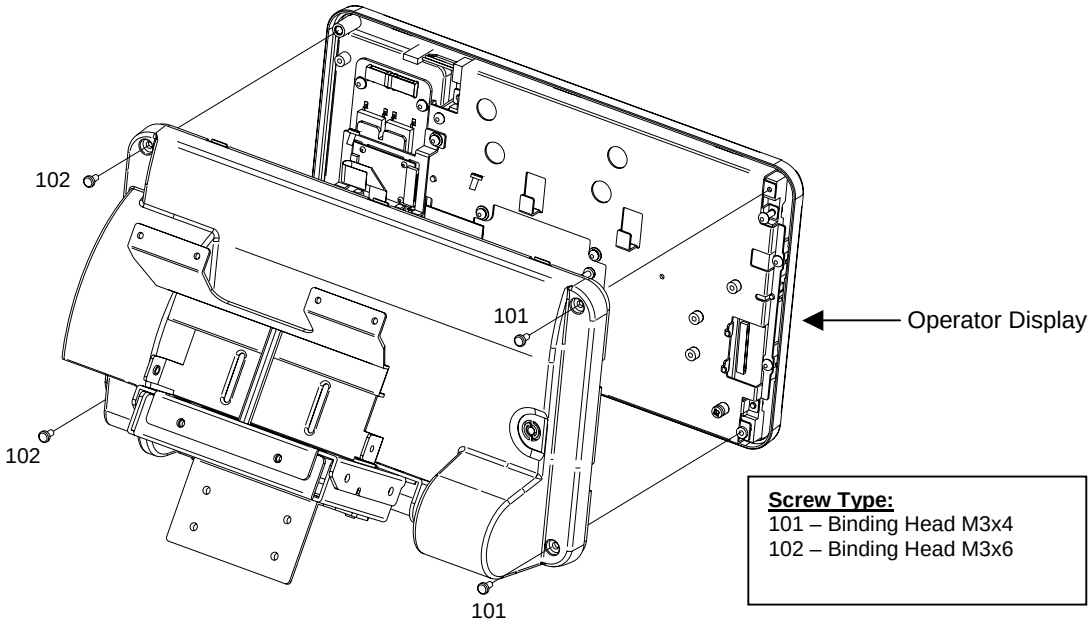
With 2nd Printer



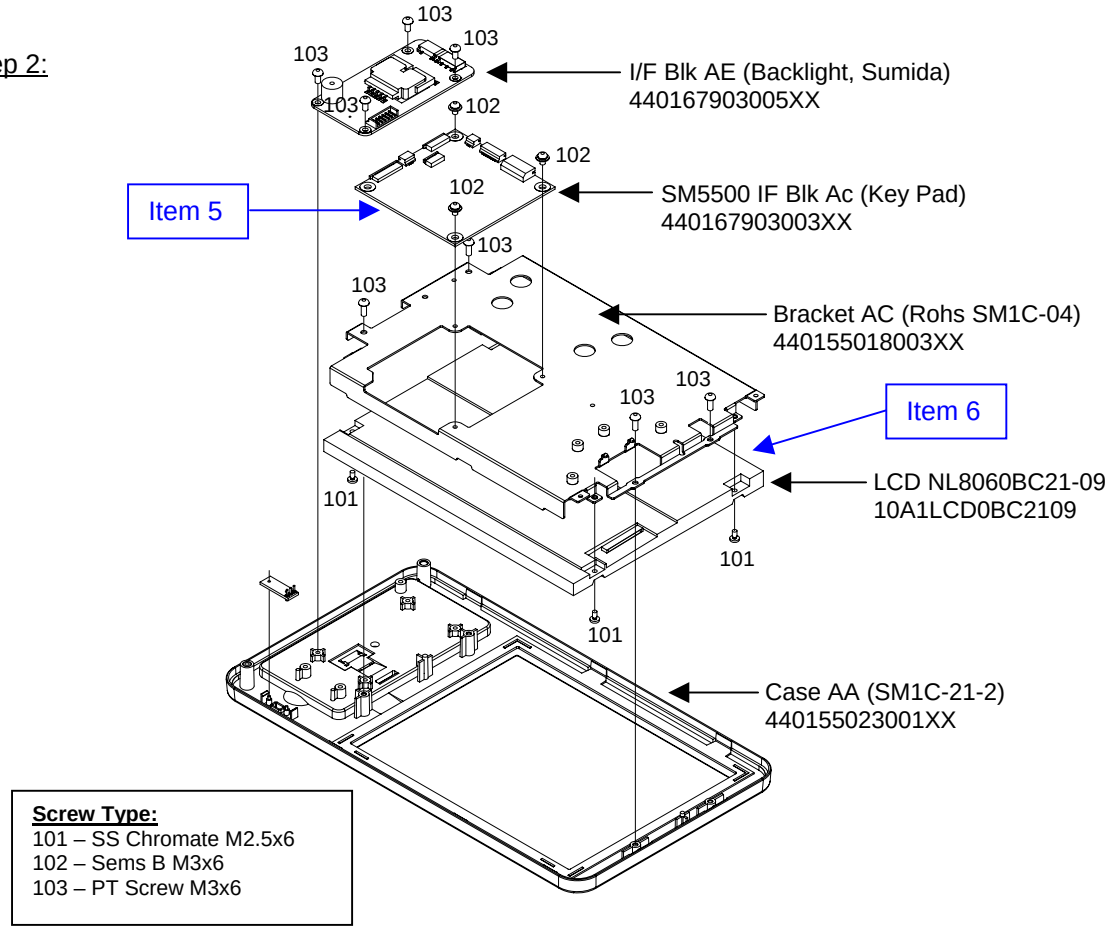
Screw Type:
101 – Hex Cap M5x10

9.3.3 Disassembly of Display Board and Operator (8.4" TFT LCD) Display

Step 1:

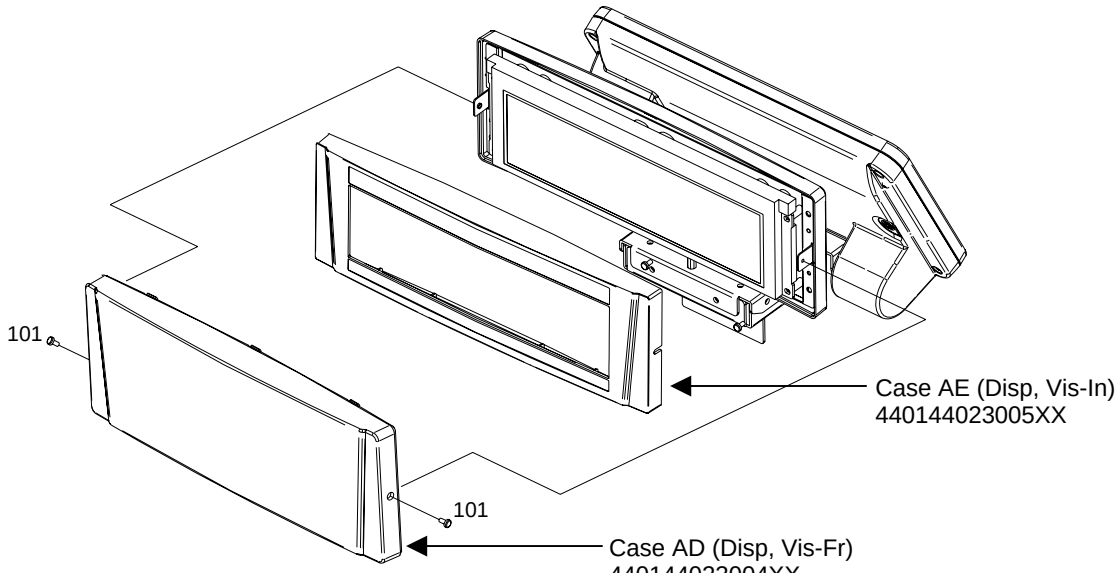


Step 2:



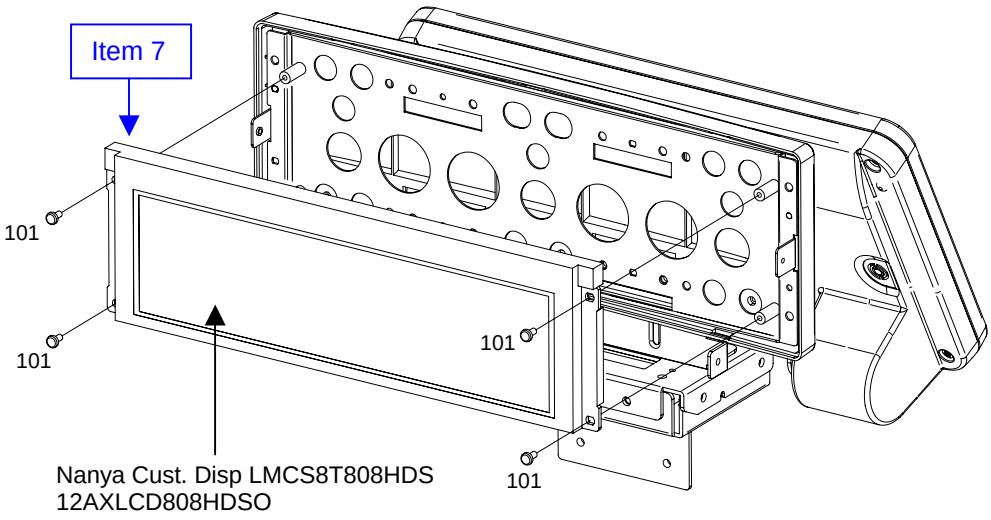
9.3.4 Disassembly of Customer (LCD) Display

Step 1:



Screw Type:
101 – Flat Head M3x6

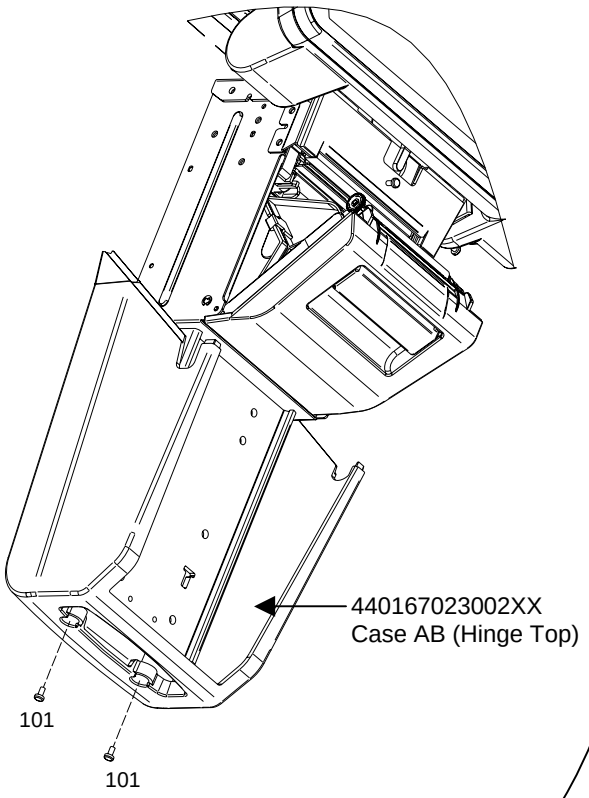
Step 2:



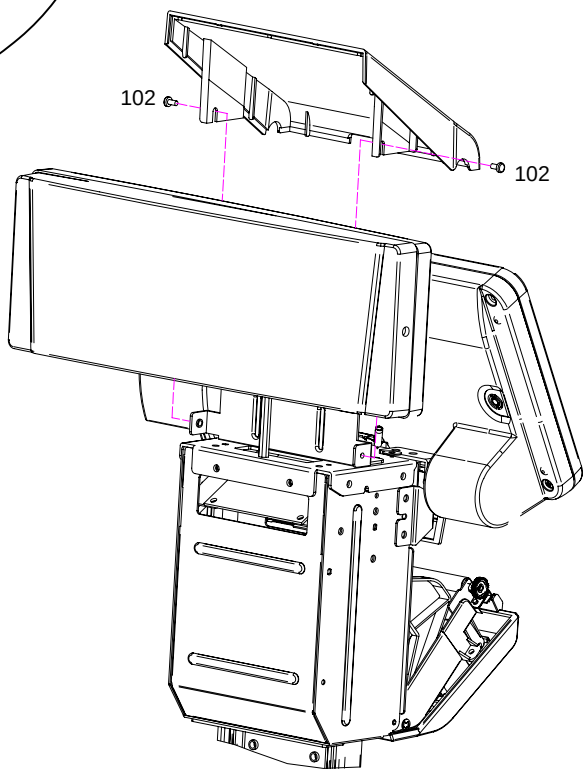
Screw Type:
101 – Binding Head M3x8

9.3.5 Disassembly of Receipt & Cutter Controller Board and 2nd Printer

Step 1:

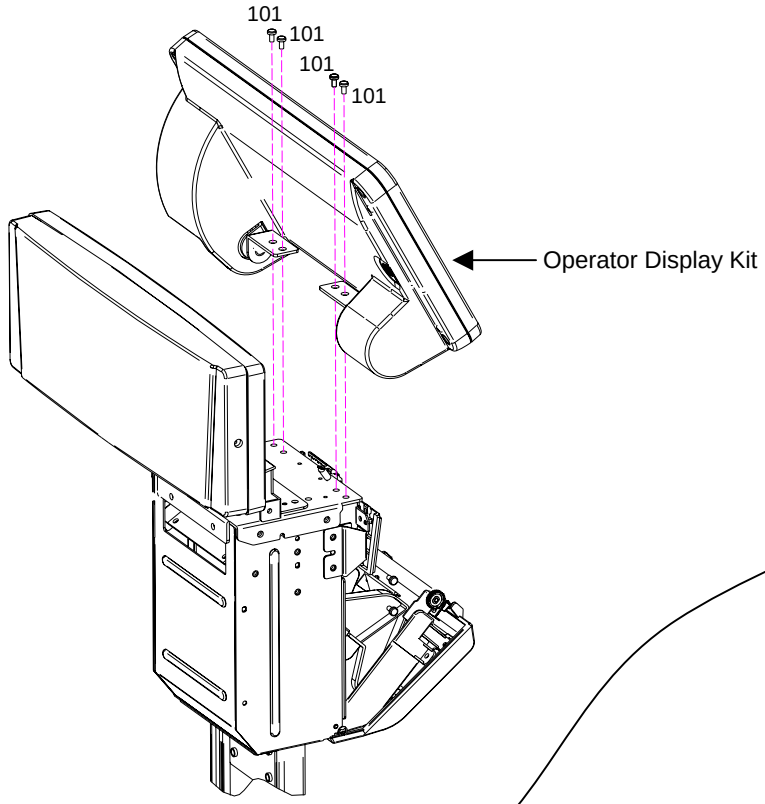


Step 2:

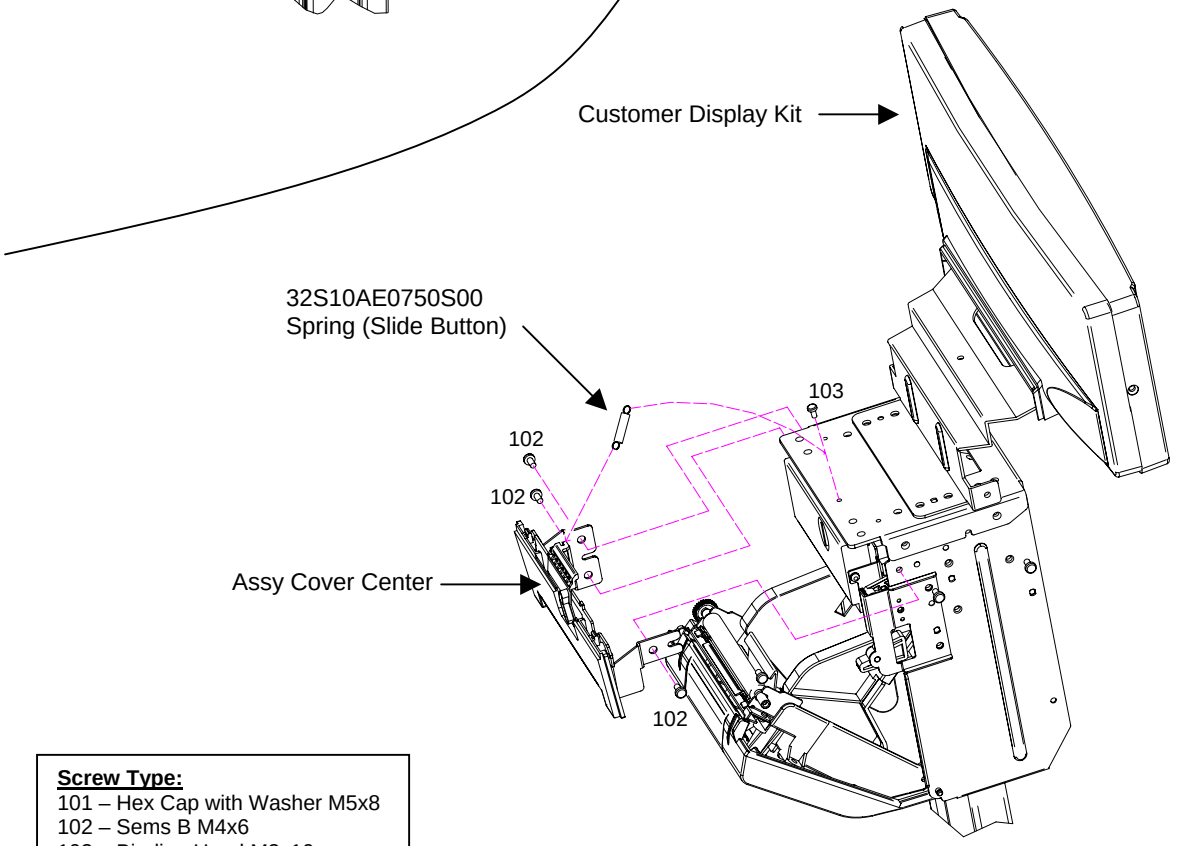


Screw Type:
101 – Sems B M4x10
102 – Sems B M4x8

Step 3:

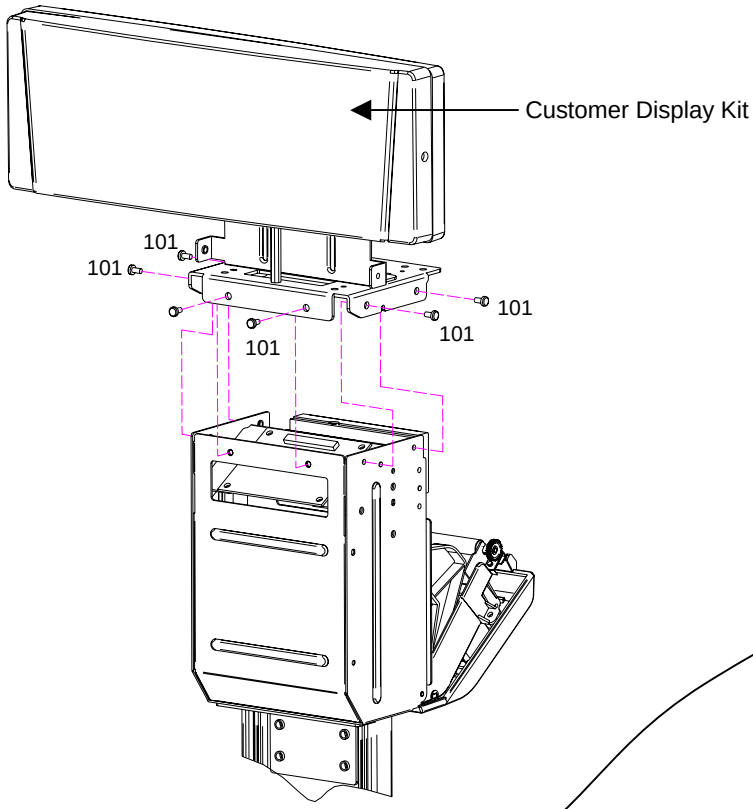


Step 4:

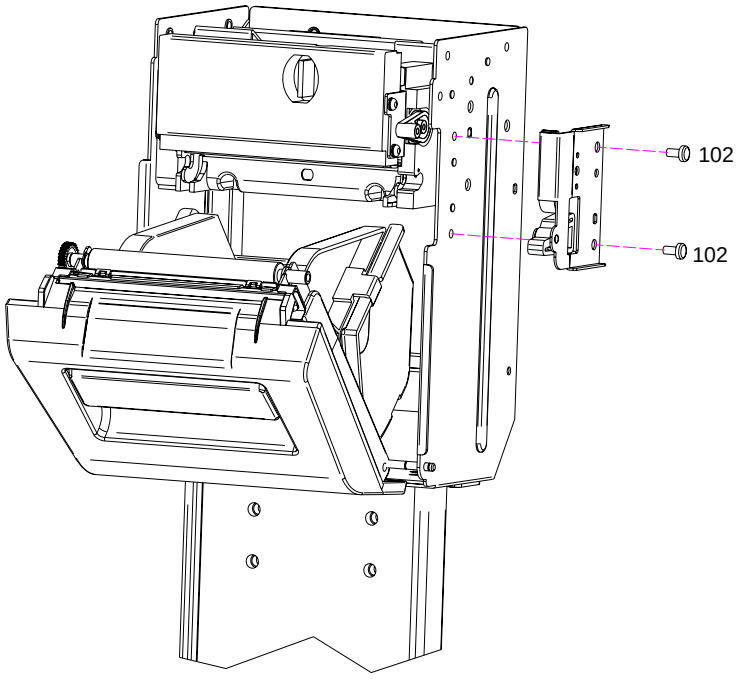


Screw Type:
101 – Hex Cap with Washer M5x8
102 – Sems B M4x6
103 – Binding Head M3x10

Step 5:

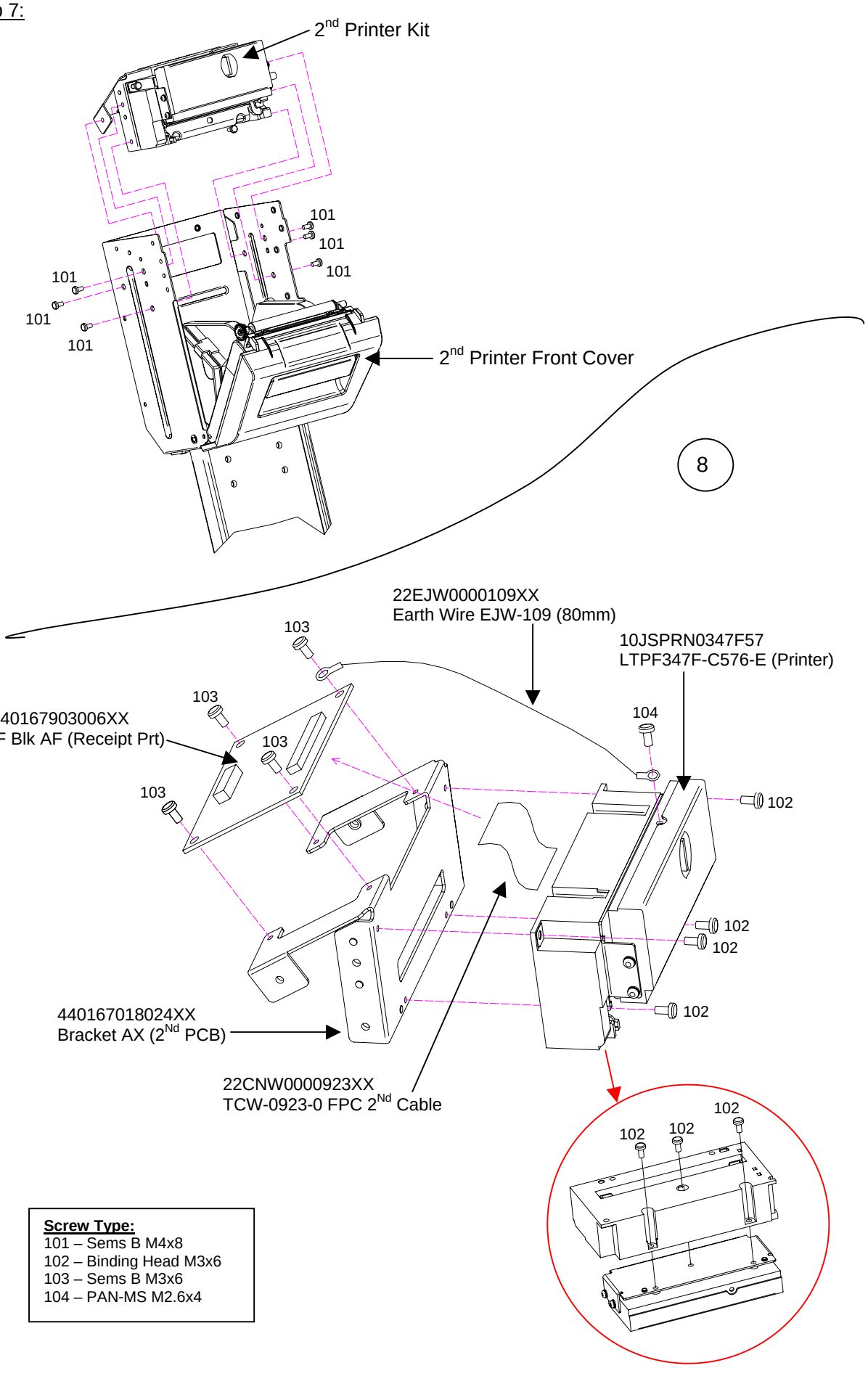


Step 6:



Screw Type:
101 – Sems B M4x8
102 – Sems B M4x6

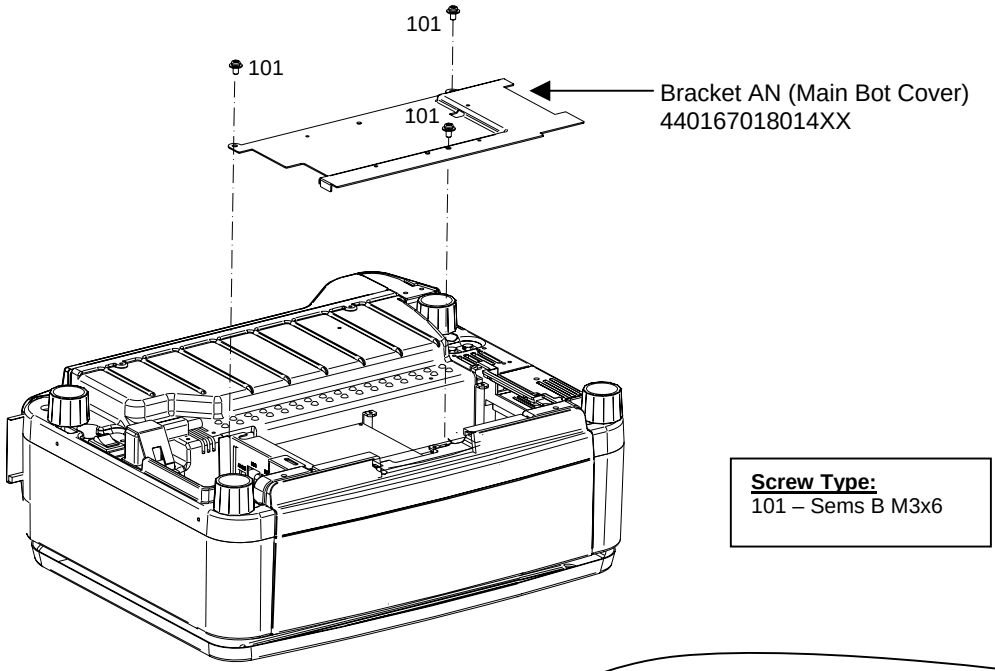
Step 7:



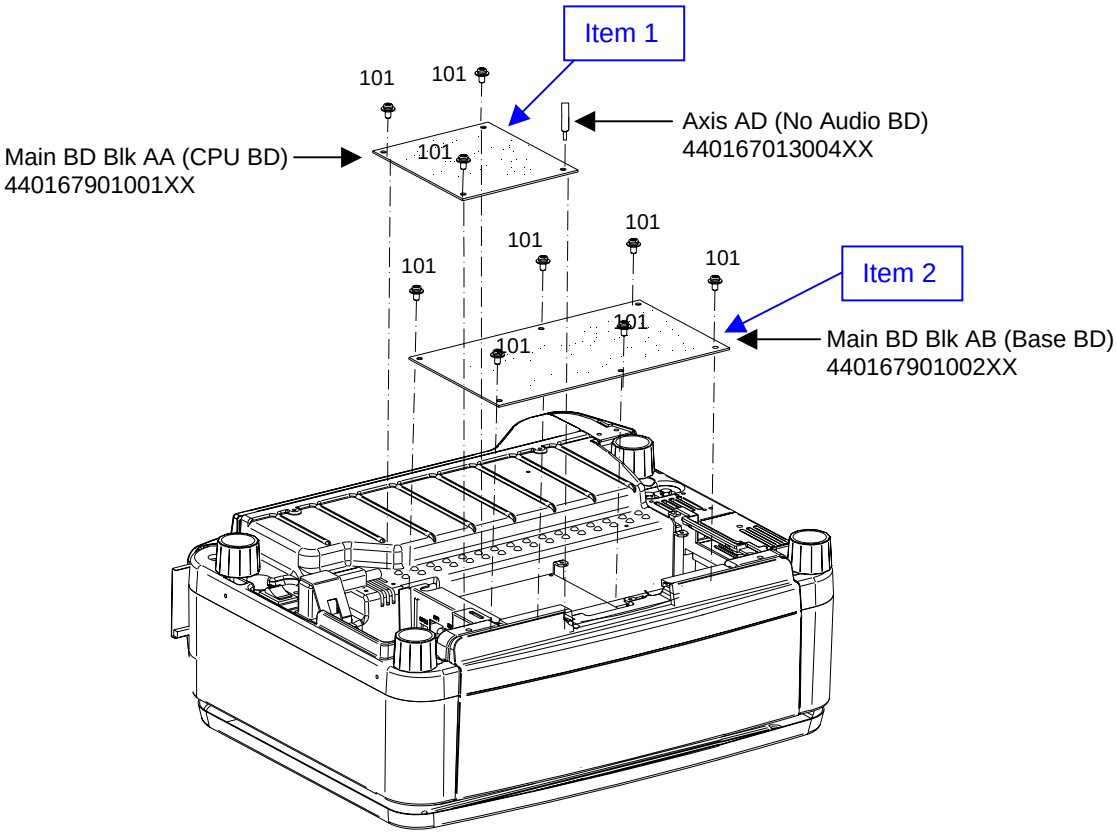
Screw Type:
101 – Sems B M4x8
102 – Binding Head M3x6
103 – Sems B M3x6
104 – PAN-MS M2.6x4

9.3.6 Disassembly of CPU & Base Board

Step 1:

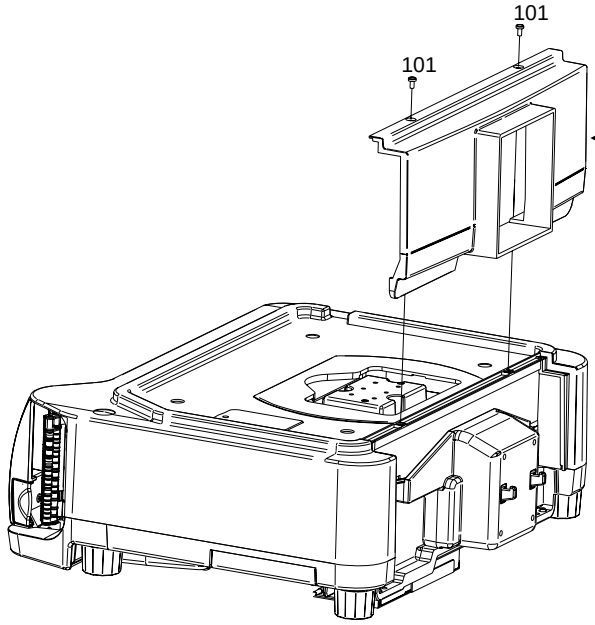


Step 2:



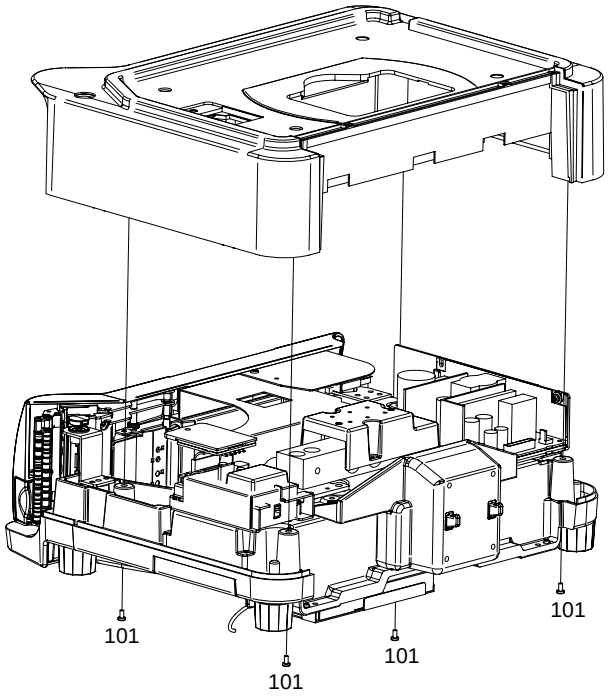
9.3.7 Disassembly of Top Cover

Step 1:



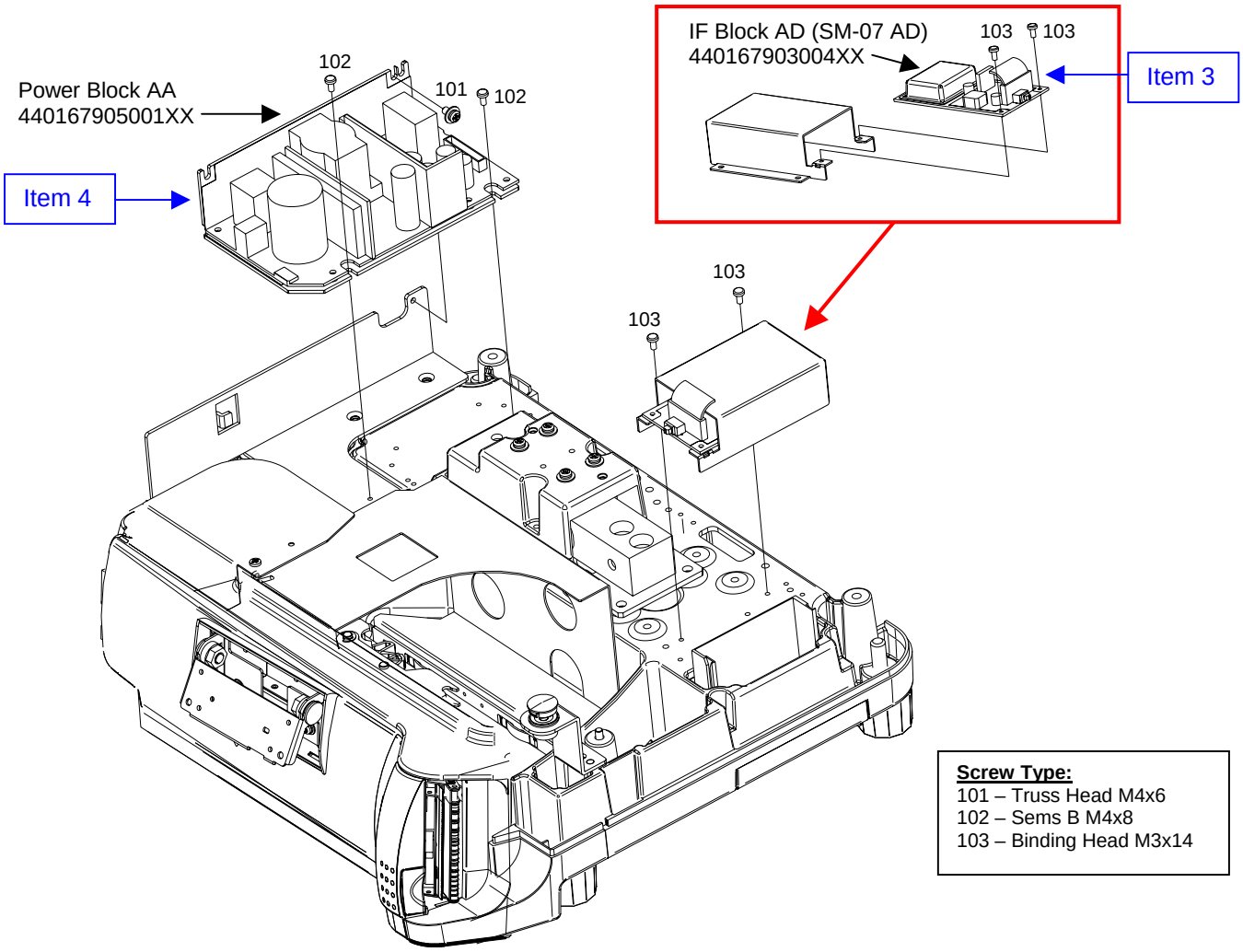
Screw Type:
101 – Flat Head M3x6

Step 2:



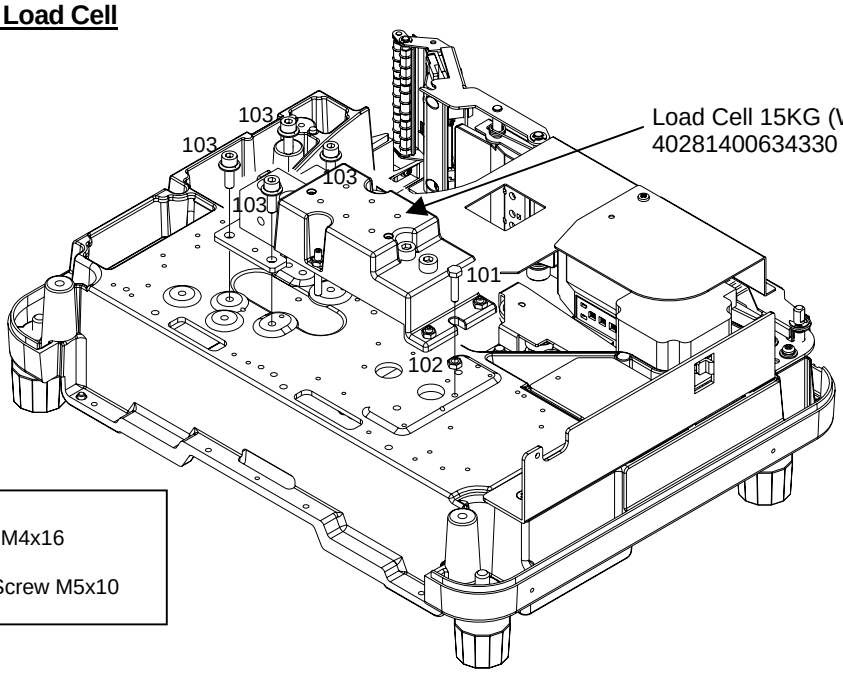
Screw Type:
101 – Sems B M4x20

9.3.8 Disassembly of Power Supply Unit and AD Board



Screw Type:
101 – Truss Head M4x6
102 – Sems B M4x8
103 – Binding Head M3x14

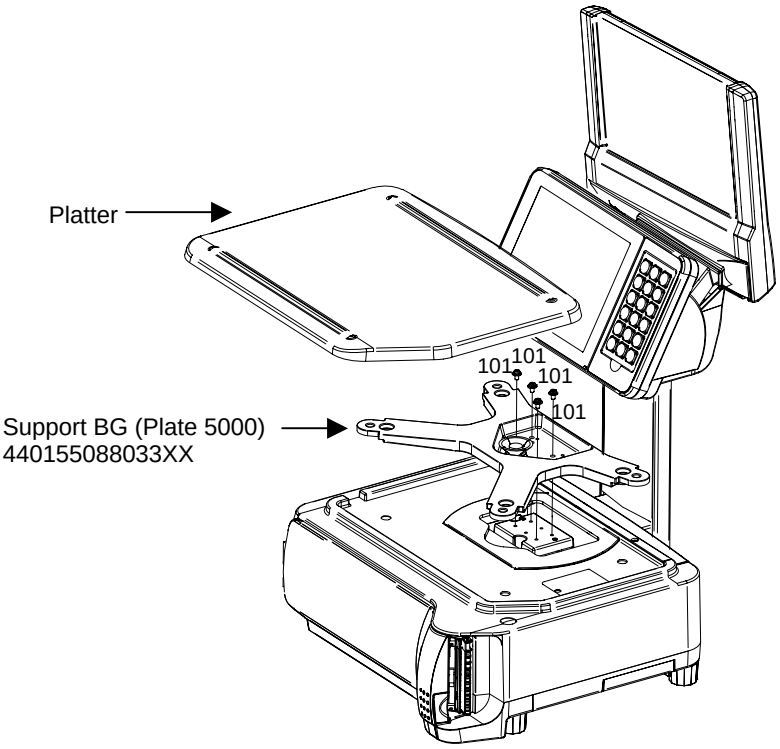
9.3.9 Disassembly of Load Cell



Screw Type:
101 – Hex Screw M4x16
102 – Nut M4
103 – Allen Cap Screw M5x10

9.4 SM-5500EVEL

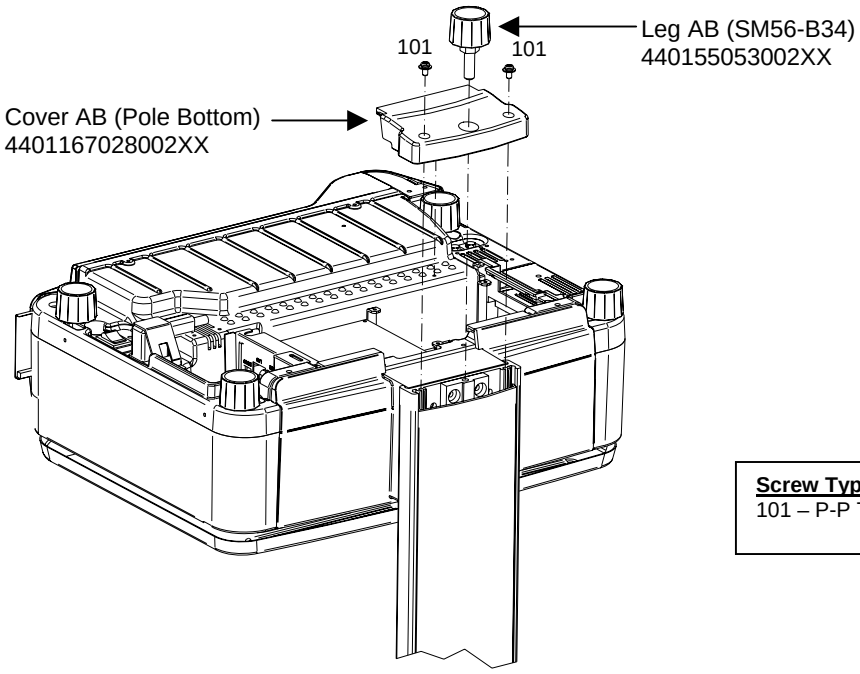
9.4.1 Disassembly of Platter Support



Screw Type:
101 – Sems B M4x10

9.4.2 Disassembly of Pole Block

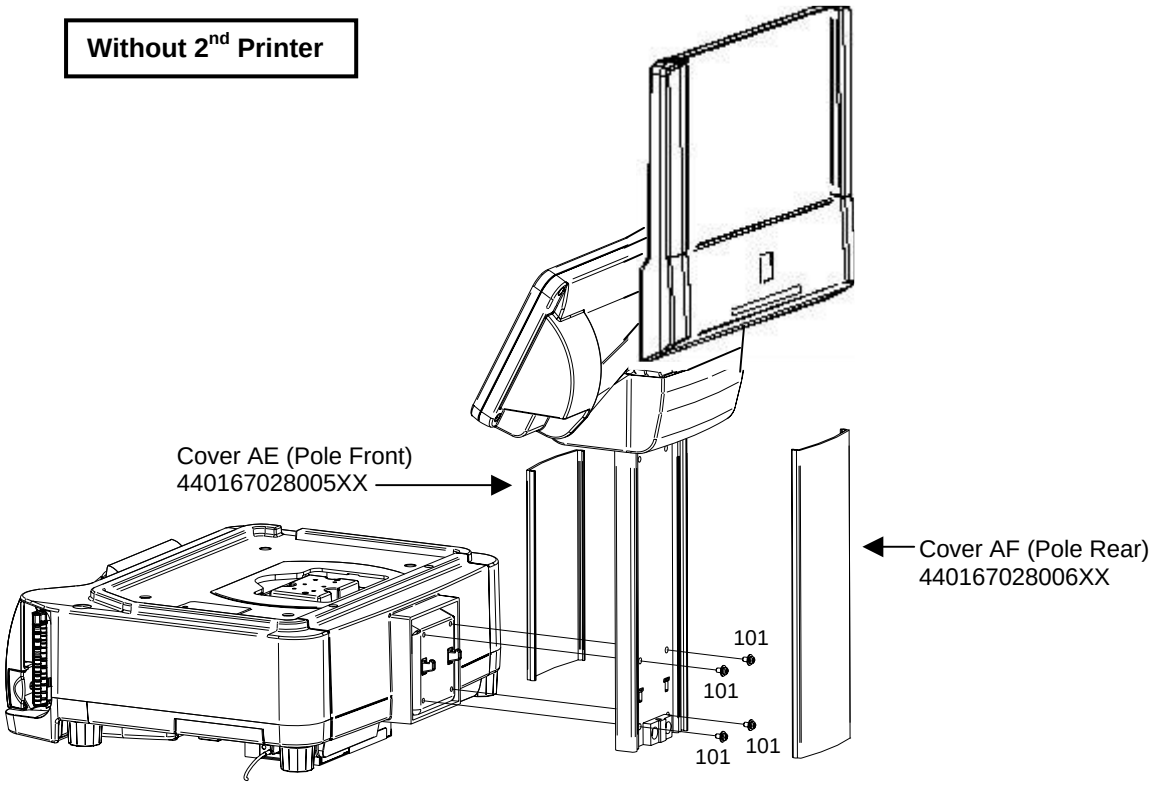
Step 1:



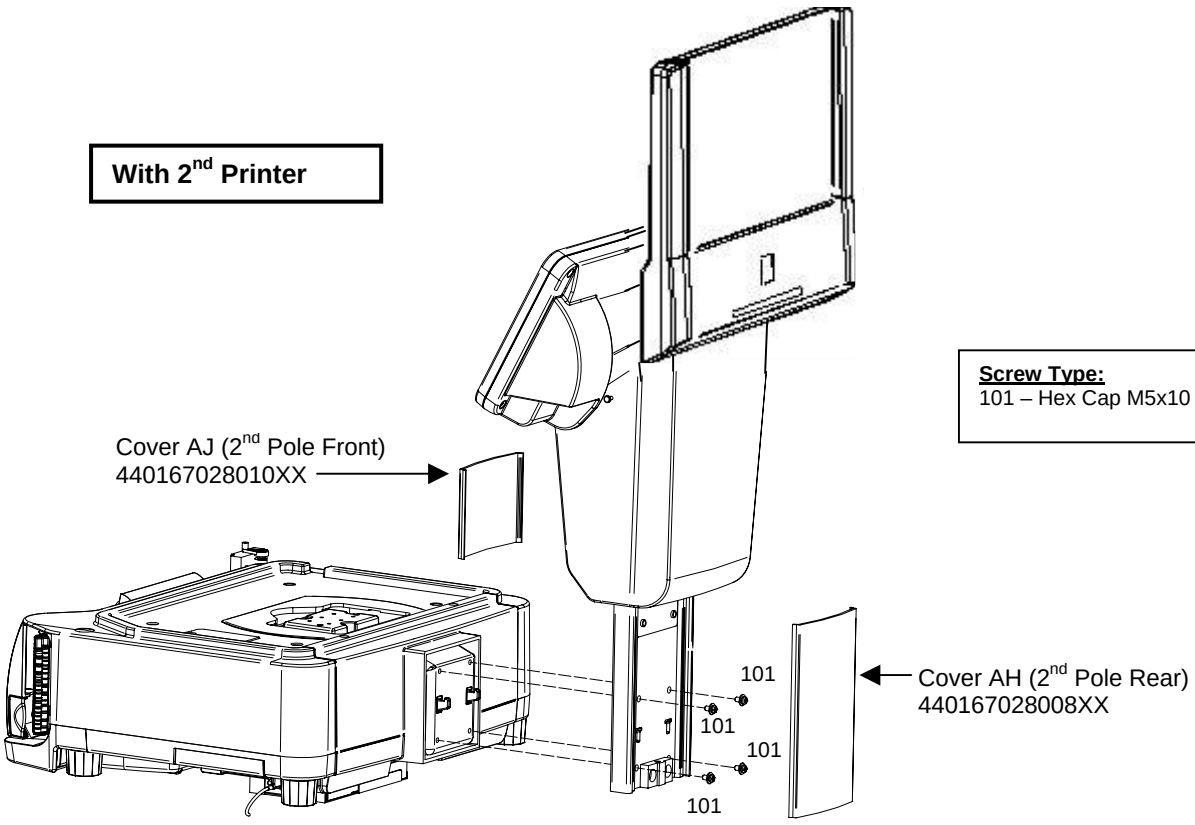
Screw Type:
101 – P-P Tapping M4x8

Step 2:

Without 2nd Printer



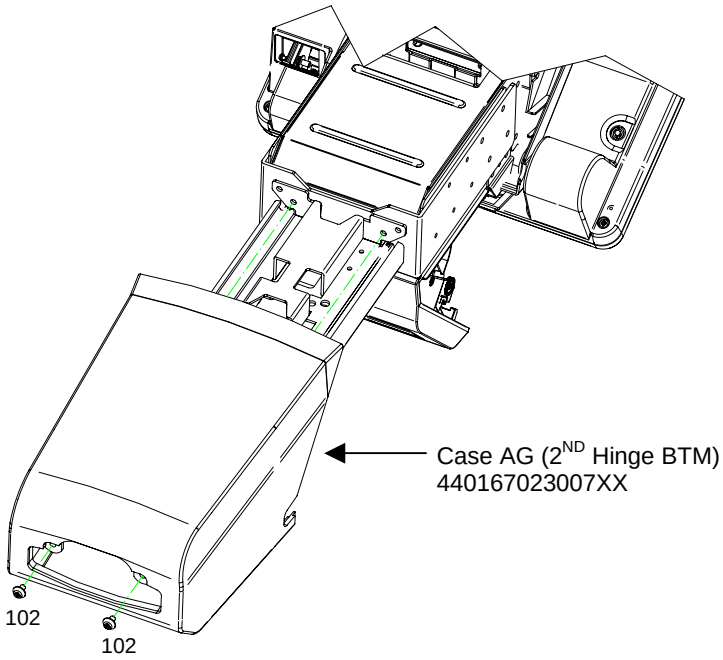
With 2nd Printer



Screw Type:
101 – Hex Cap M5x10

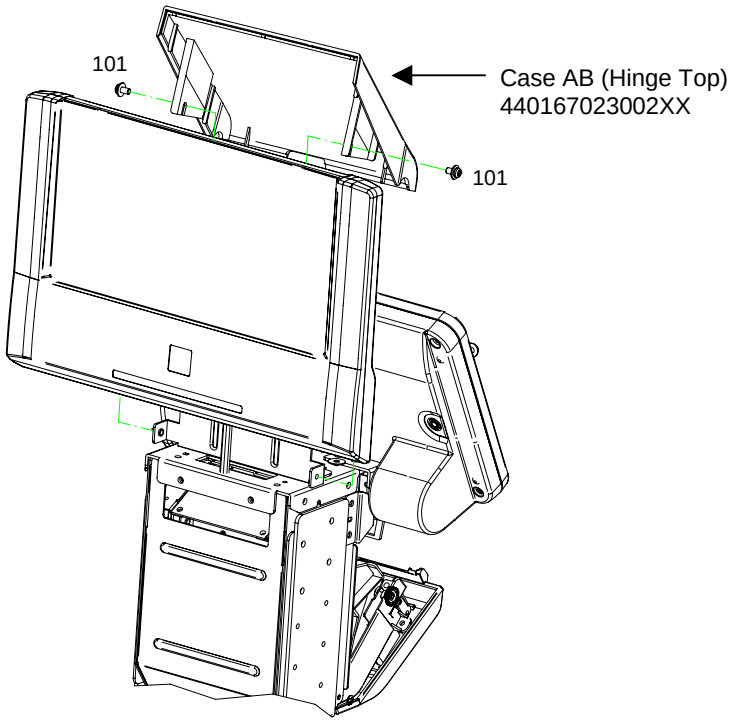
9.4.3 Disassembly of Display Board and Operator (8.4" TFT LCD) Display

Step 1:

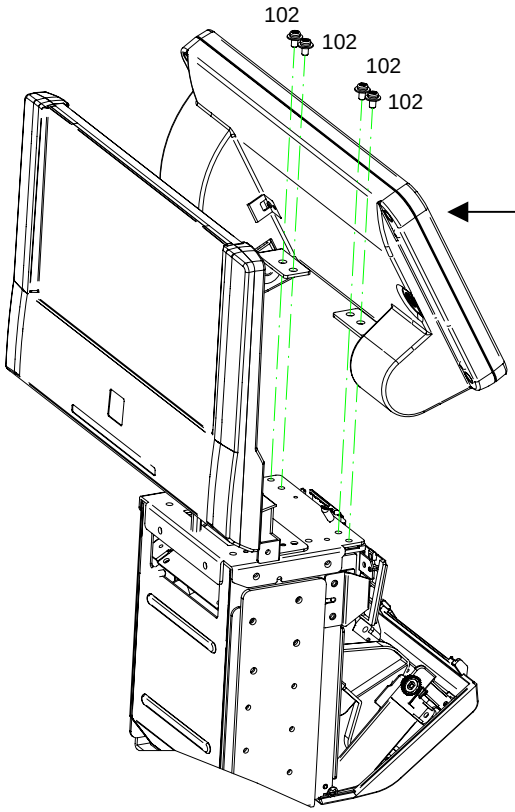


Screw Type:
101 – Sems B M4x20
102 – Hex Cap M4x12

Step 2:



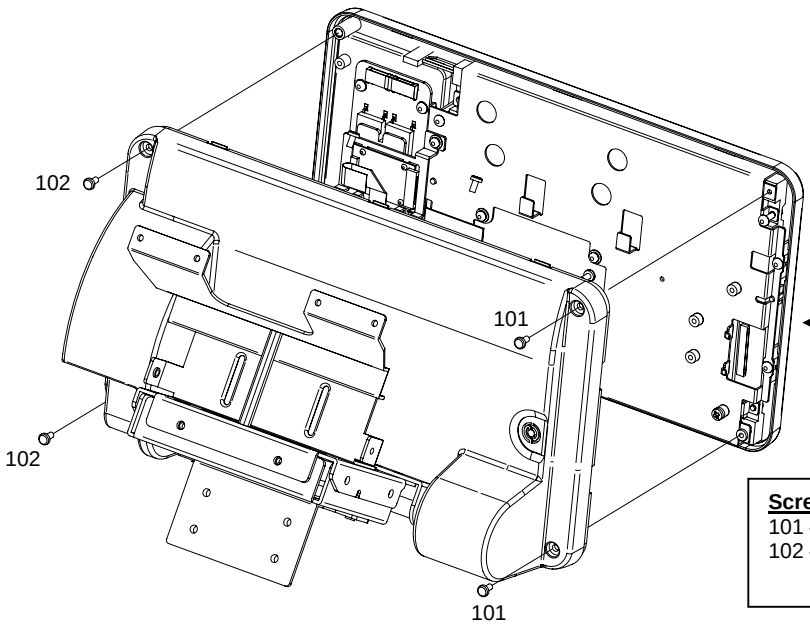
Step 3:



Note:
For Procedure of disassembly operator display, please refer to "3.4.3 Disassembly of Operator Display"

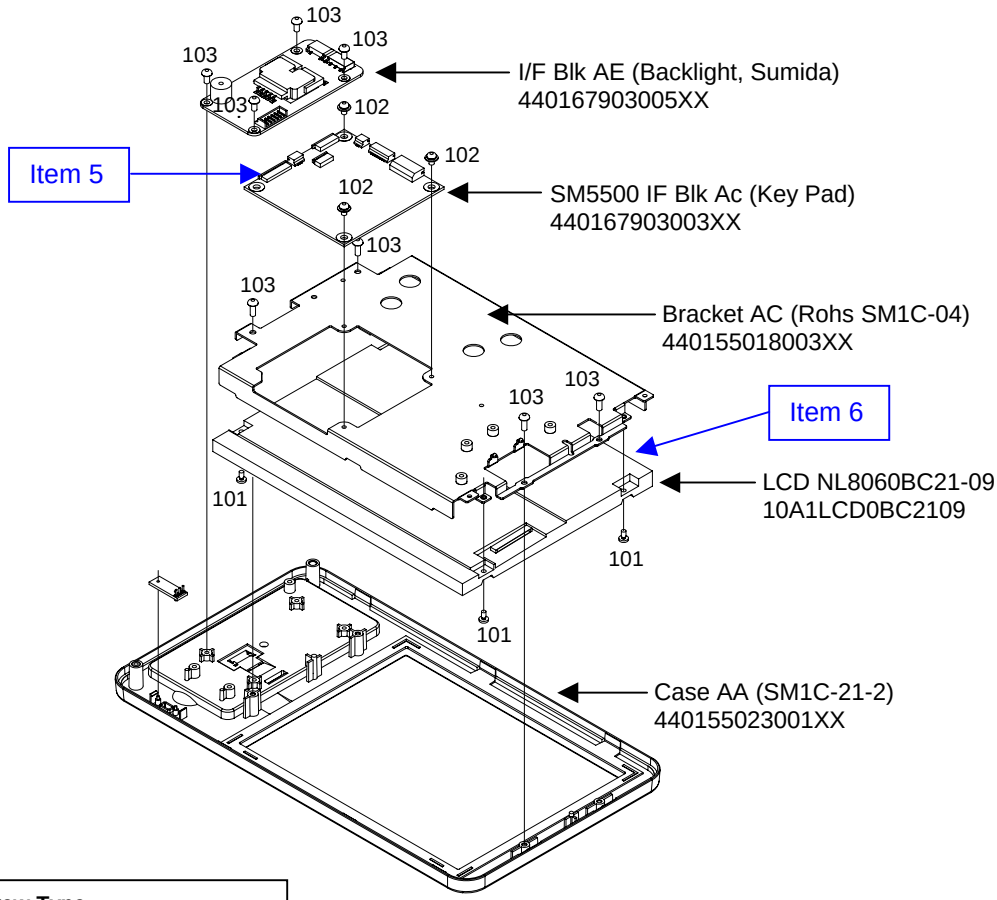
Screw Type:
101 – Sems B M4x8
102 – Hex Cap M5x10

Step 4:



Screw Type:
101 – Binding Head M3x4
102 – Binding Head M3x6

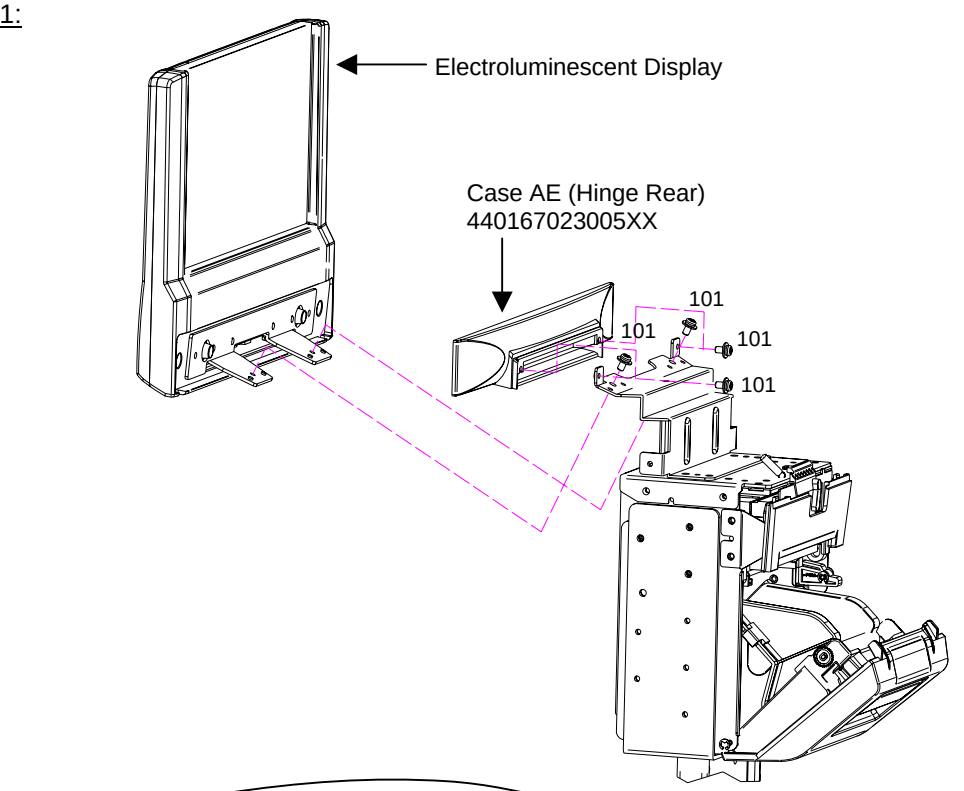
Step 5:



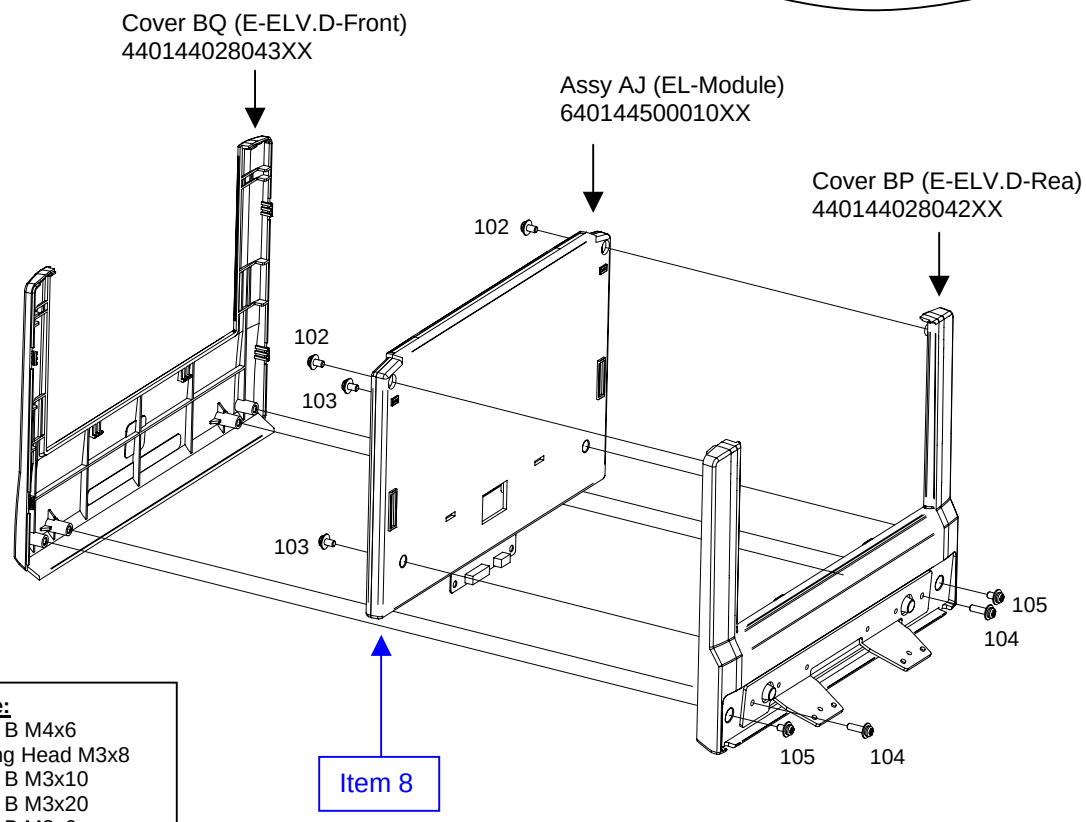
Screw Type:
101 – SS Chromate M2.5x6
102 – Sems B M3x6
103 – PT Screw M3x6

9.4.4 Disassembly of Customer (EL) Display

Step 1:



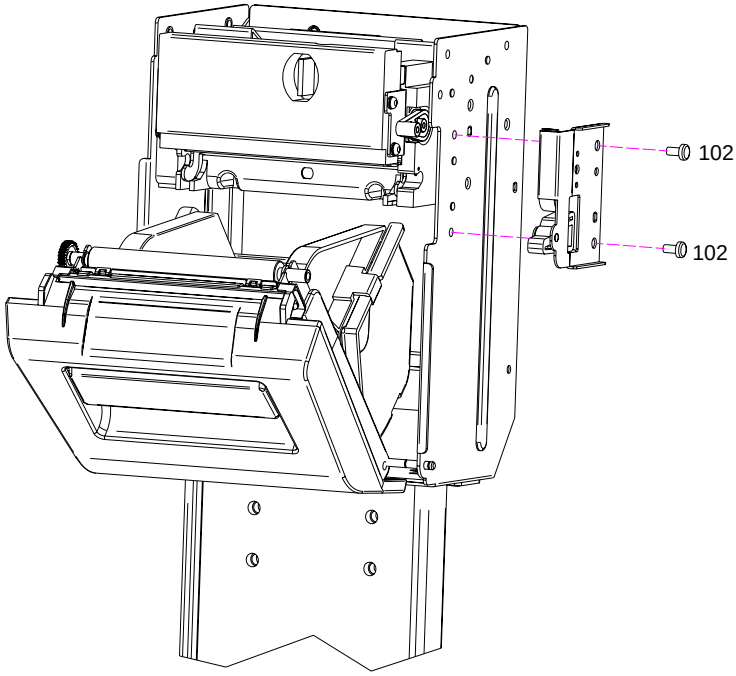
Step 2:



Screw Type:
101 – Sems B M4x6
102 – Binding Head M3x8
103 – Sems B M3x10
104 – Sems B M3x20
105 – Sems B M3x6

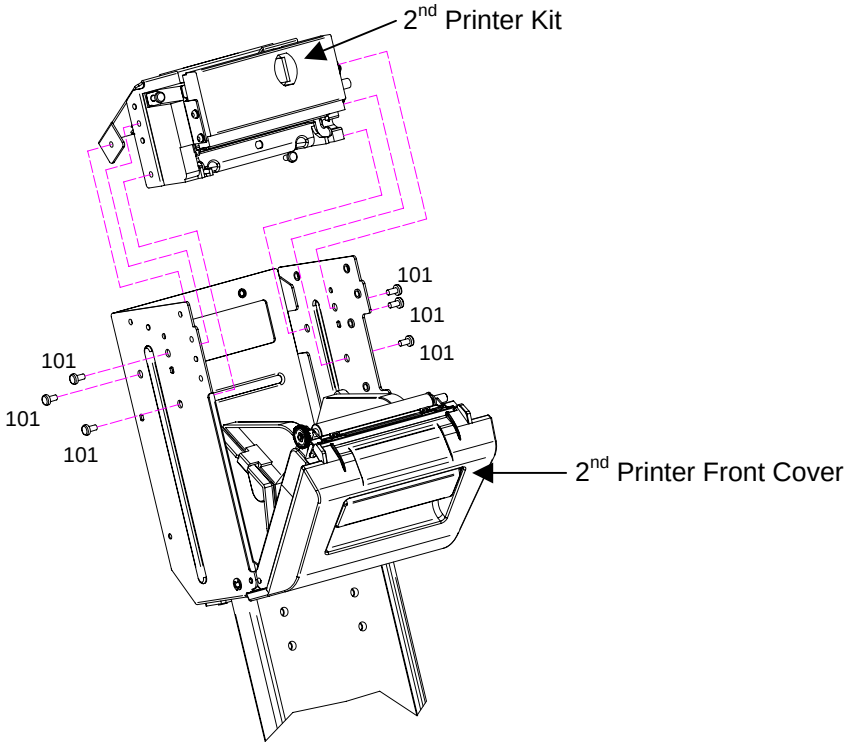
9.4.5 Disassembly of Receipt & Cutter Controller Board and 2nd Printer

Step 1:

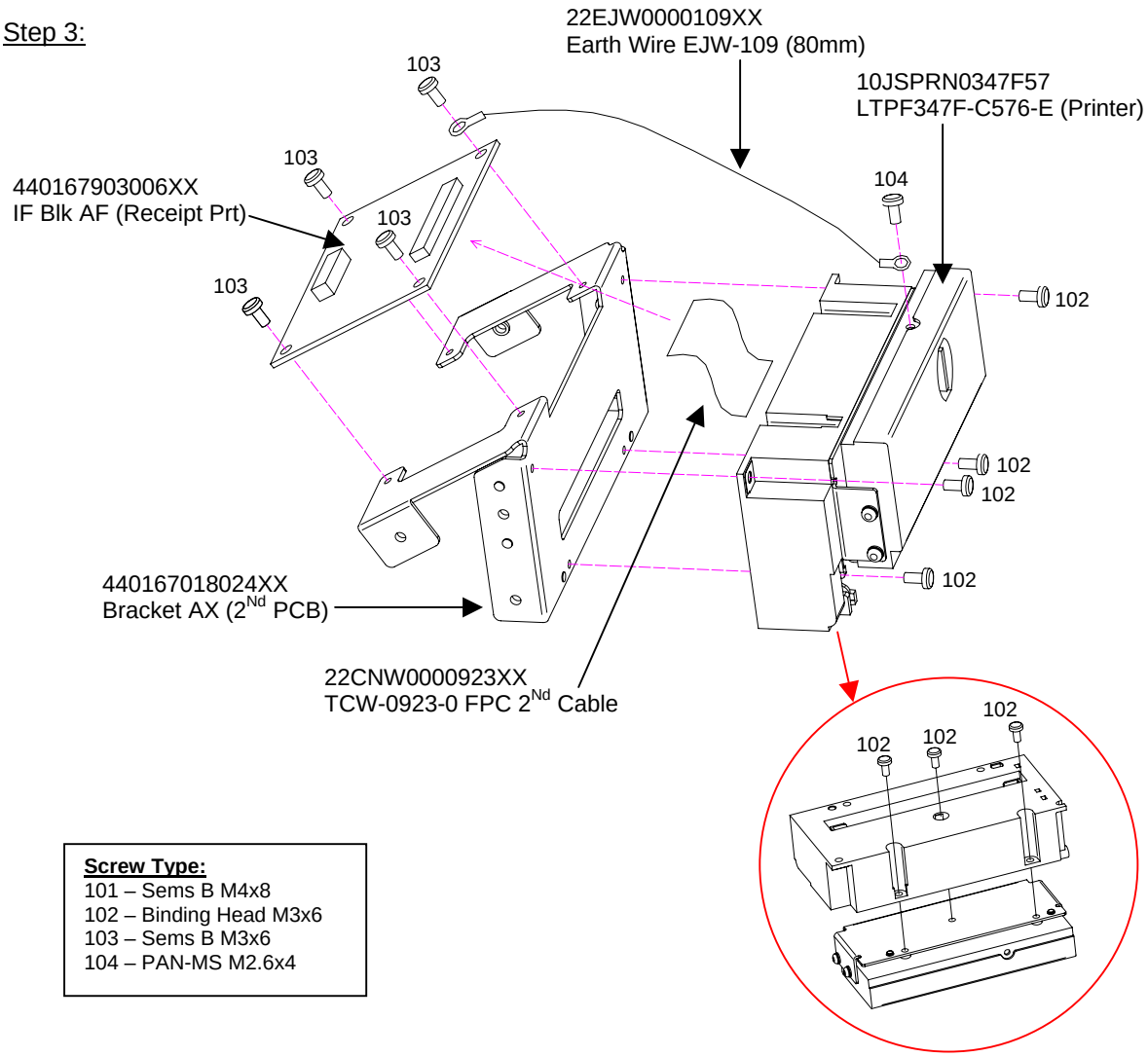


Screw Type:
101 – Sems B M4x8
102 – Sems B M4x6

Step 2:



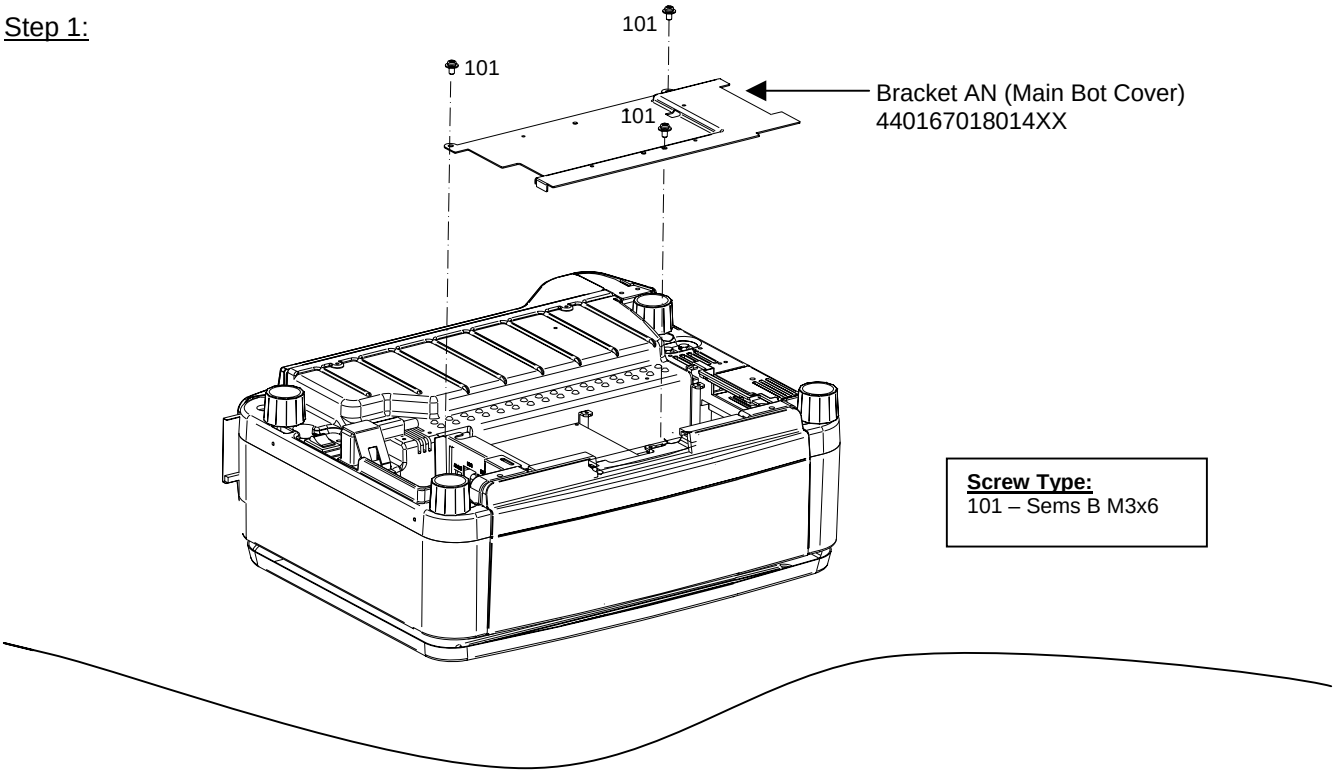
Step 3:



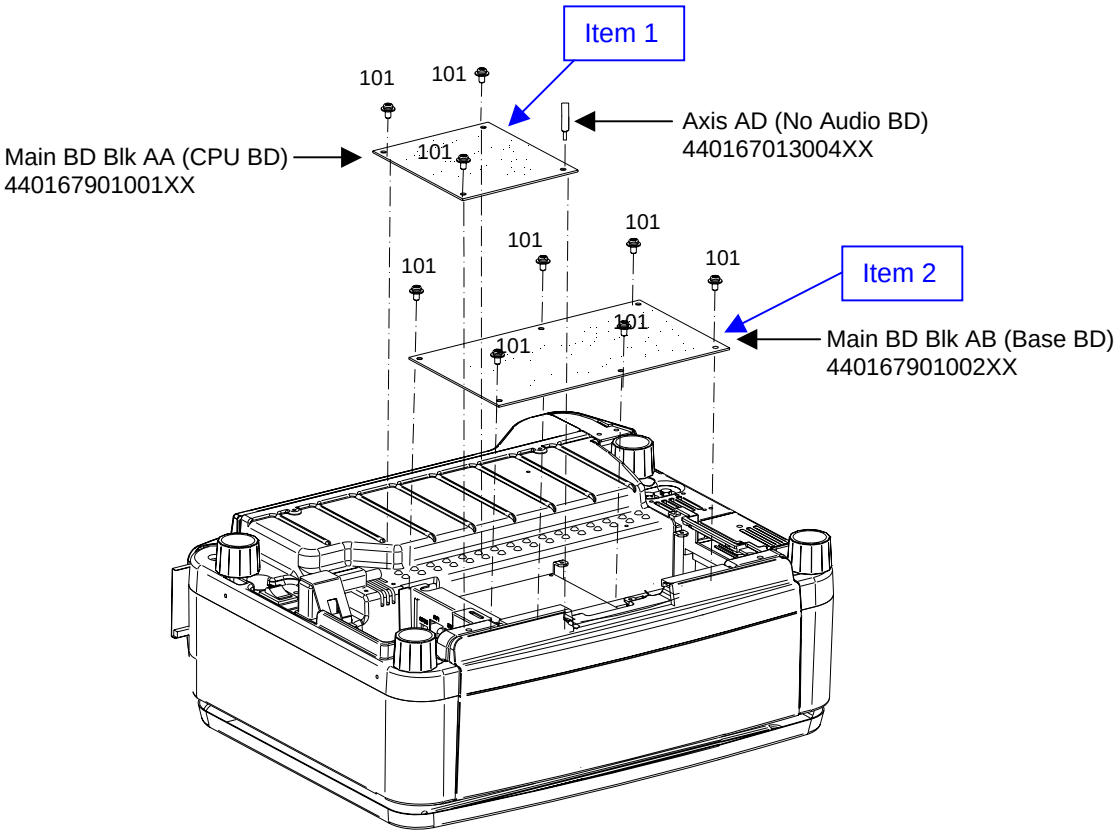
Screw Type:
101 – Sems B M4x8
102 – Binding Head M3x6
103 – Sems B M3x6
104 – PAN-MS M2.6x4

9.4.6 Disassembly of CPU & Base Board

Step 1:

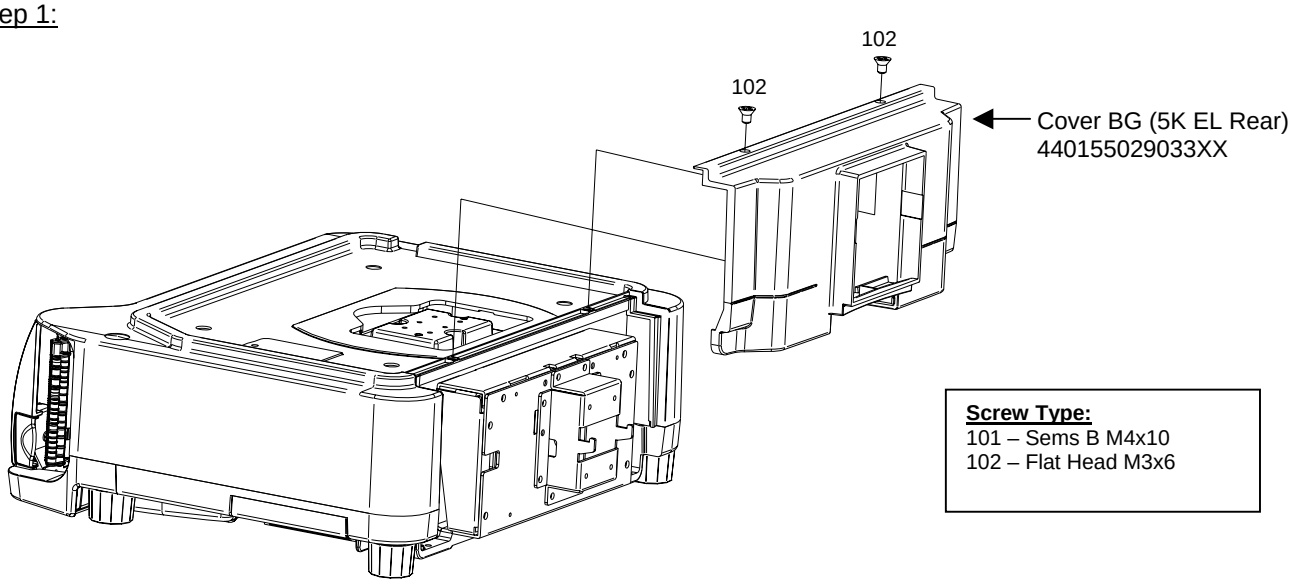


Step 2:

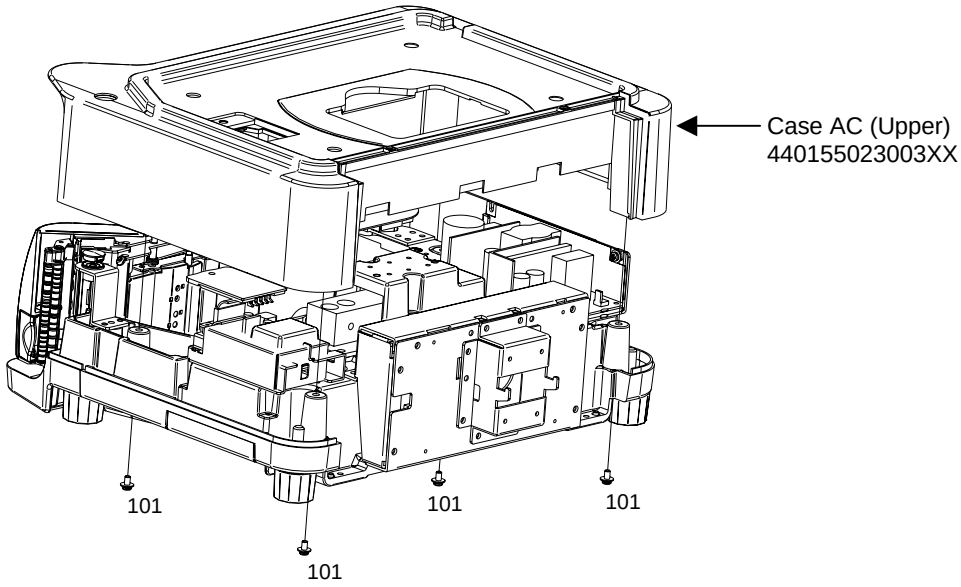


9.4.7 Disassembly of Top Cover

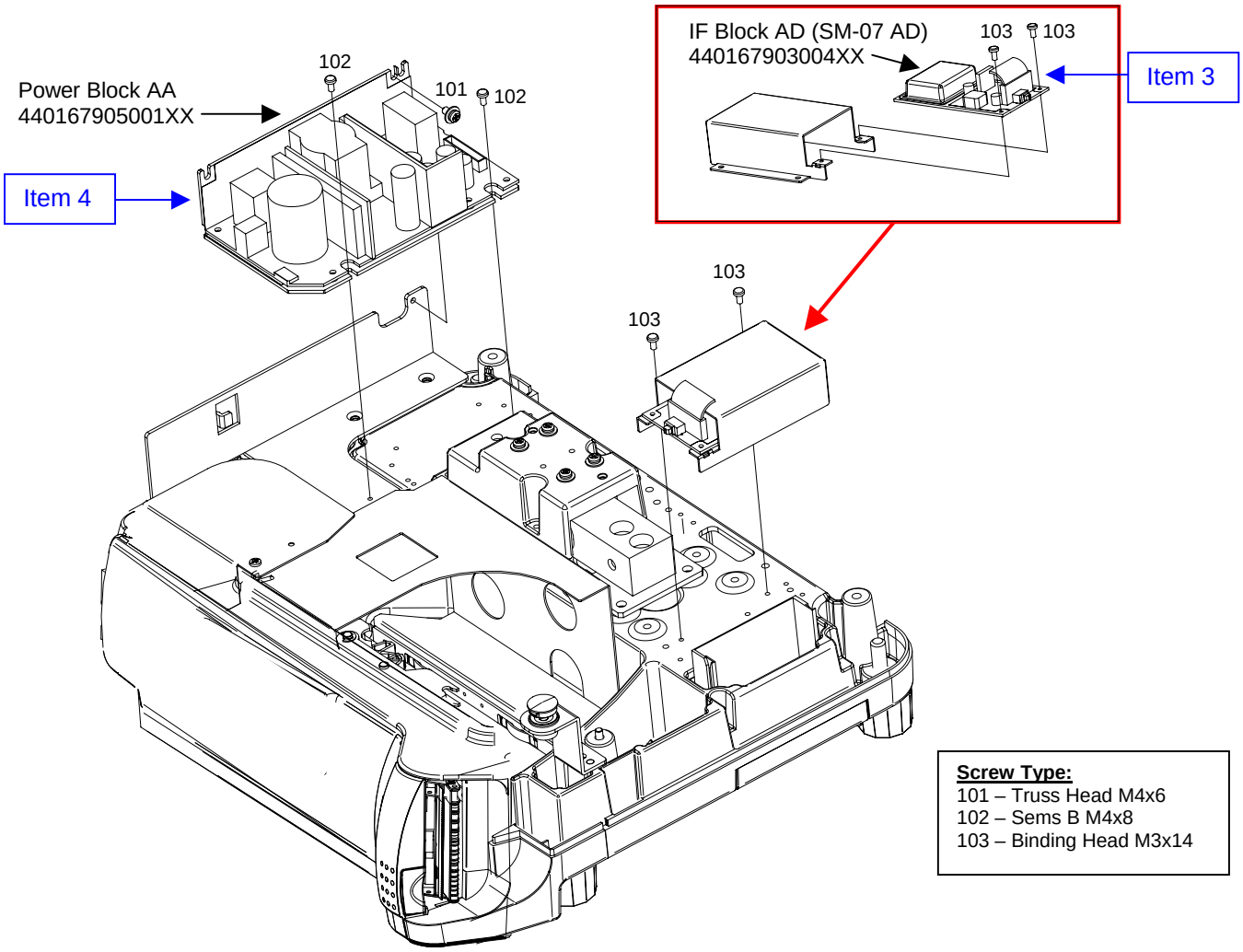
Step 1:



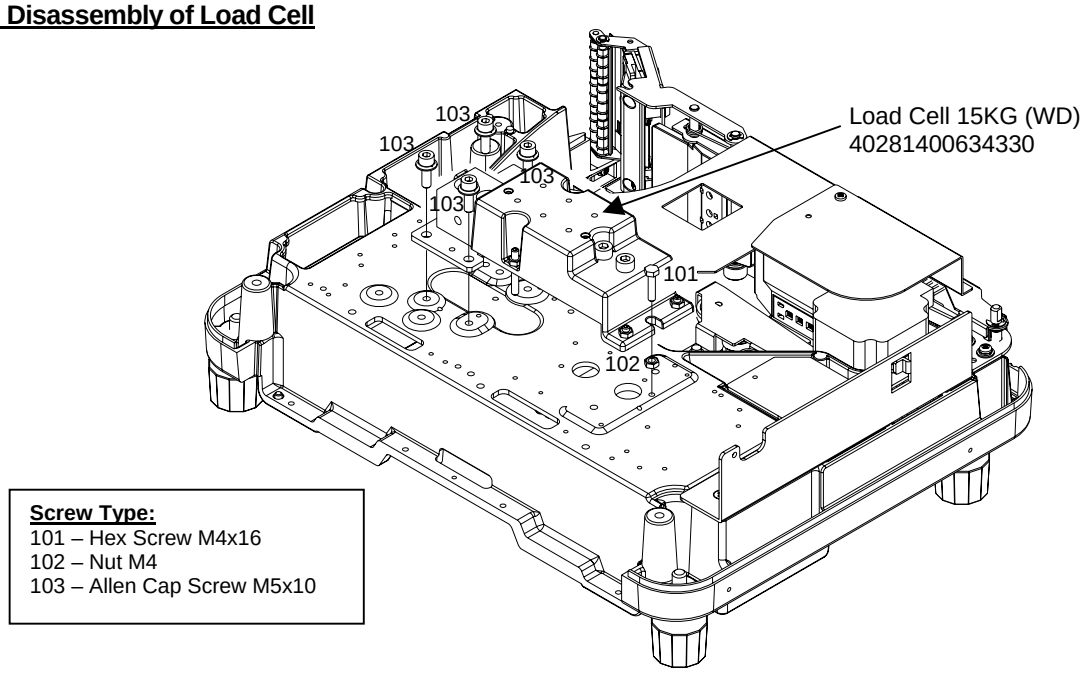
Step 2:



9.4.8 Disassembly of Power Supply Unit and AD Board

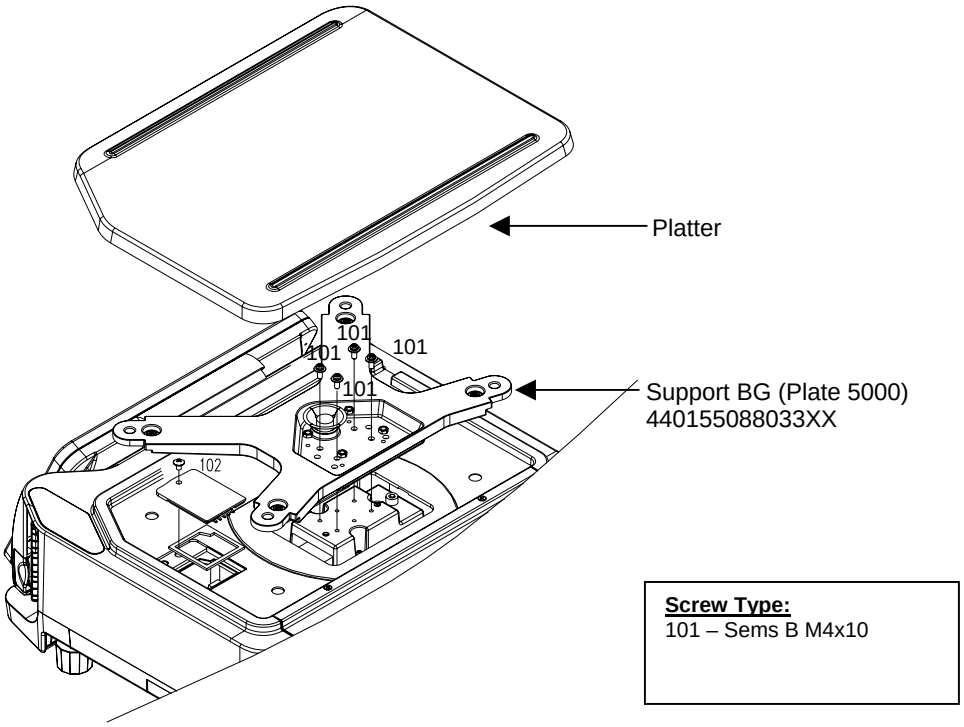


9.4.9 Disassembly of Load Cell



9.5 SM-5000BS

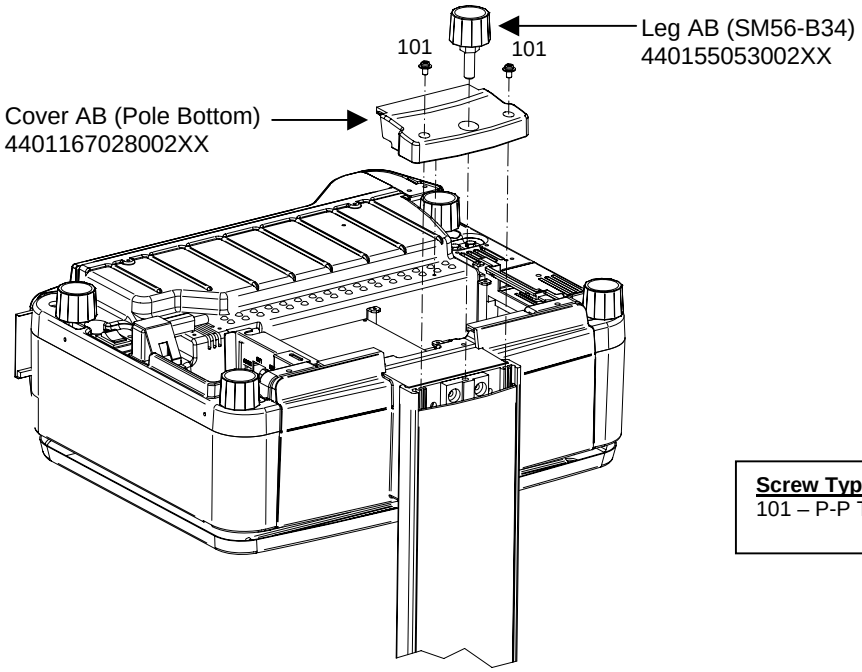
9.5.1 Disassembly of Platter Support



Screw Type:
101 – Sems B M4x10

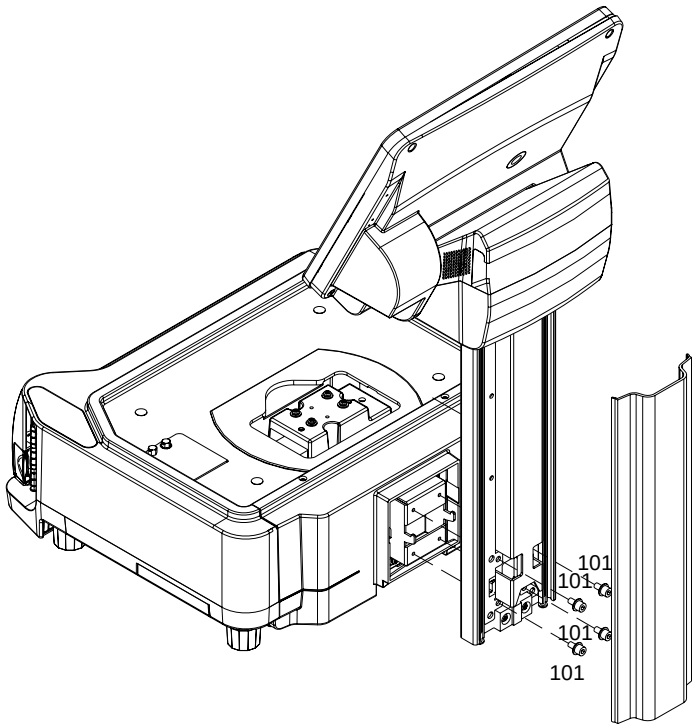
9.5.2 Disassembly of Pole Block

Step 1:



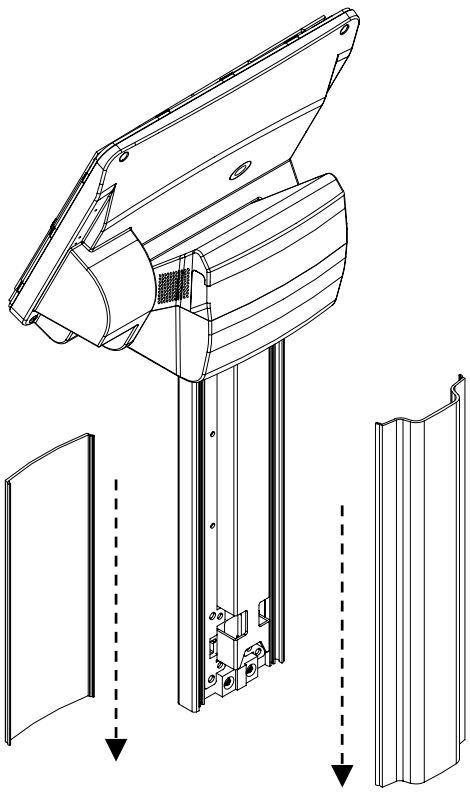
Screw Type:
101 – P-P Tapping M4x8

Step 2:

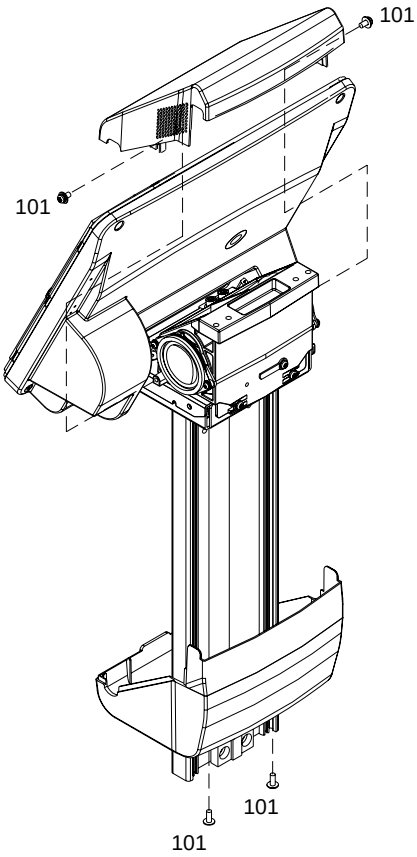


Screw Type:
101 – Sems B M4x20

Step 3:

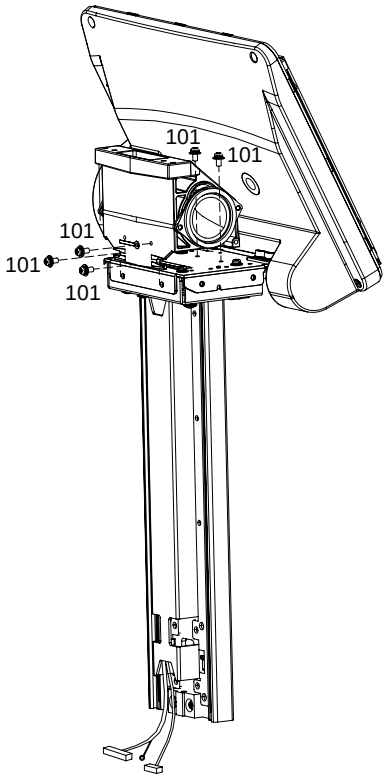


Step 4:



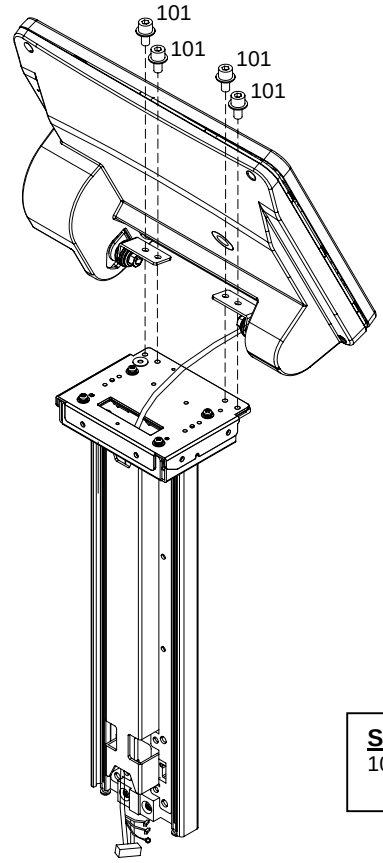
Screw Type:
101 – Truss Head M4x10

Step 5:



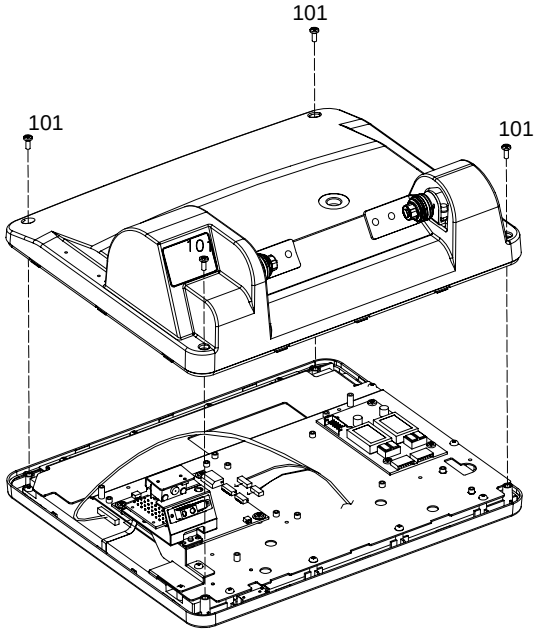
Screw Type:
101 – Sems B M4x8

Step 6:



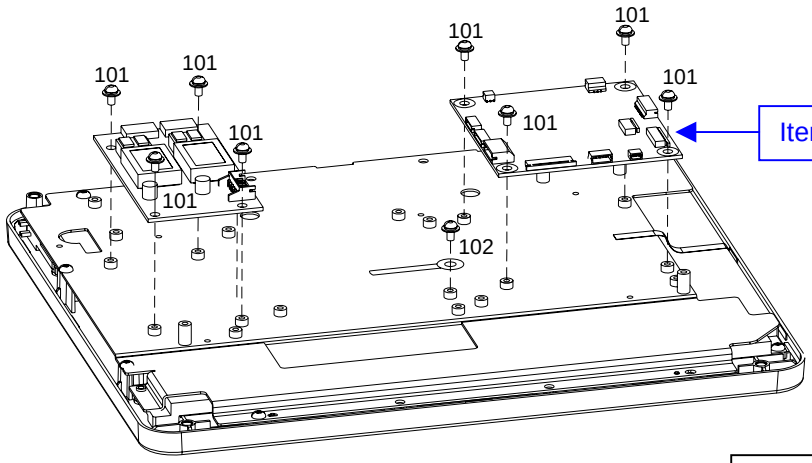
Screw Type:
101 – Hex Cap M5x10

Step 7:



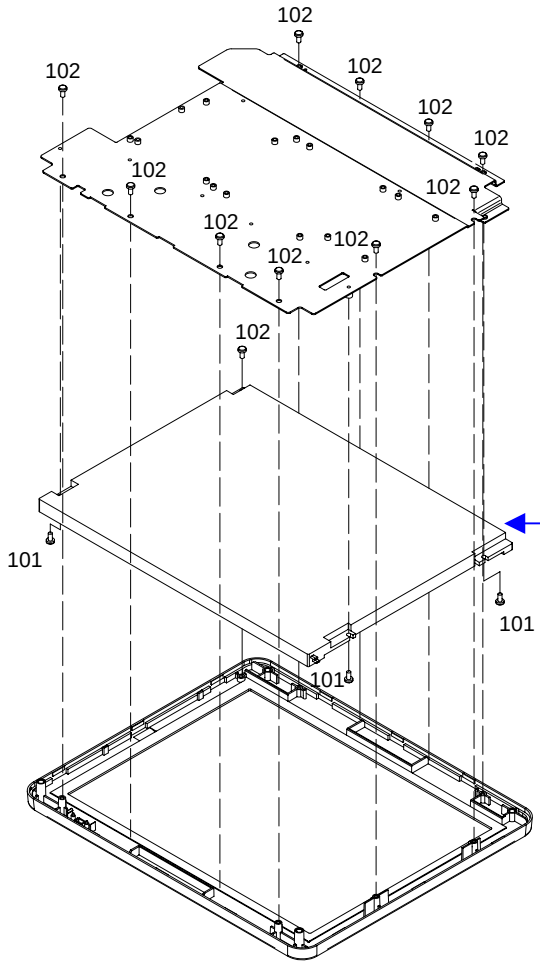
Screw Type:
101 – Hex Cap M5x10

Step 8:



Screw Type:
101 – Binding Head M3x8
102 – Sems B M3x5

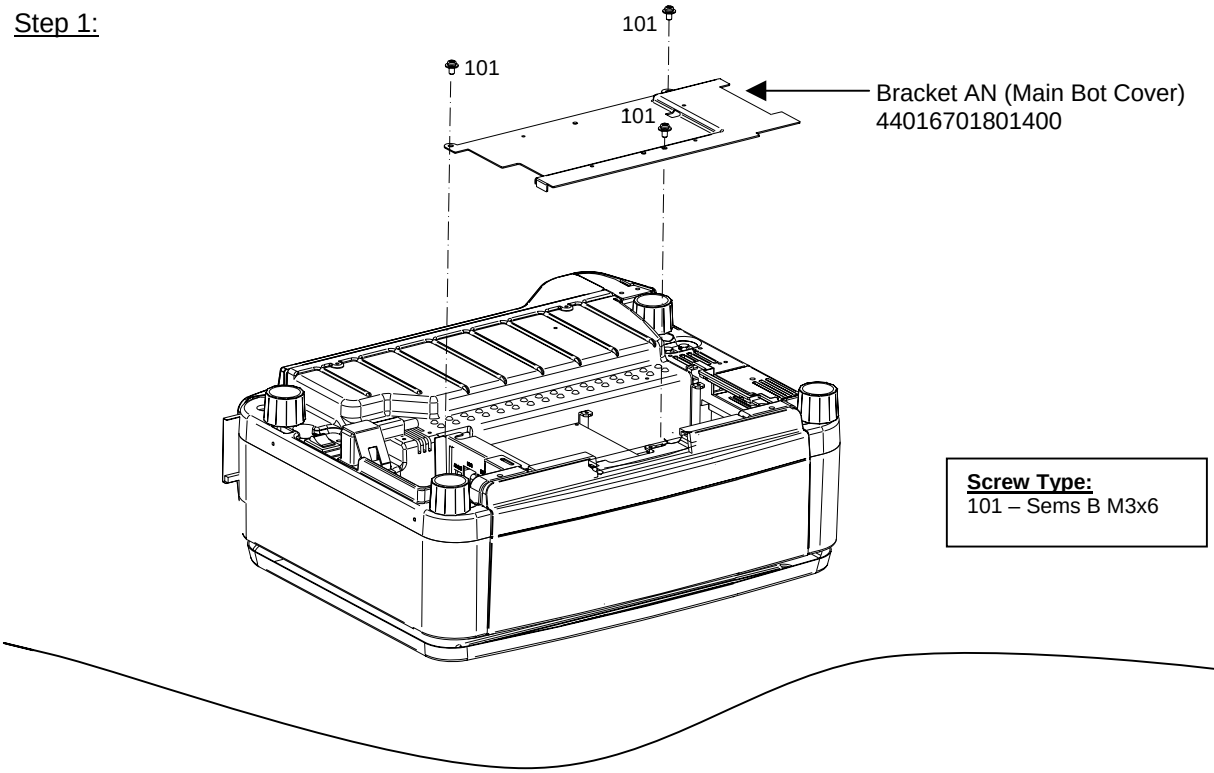
Step 9:



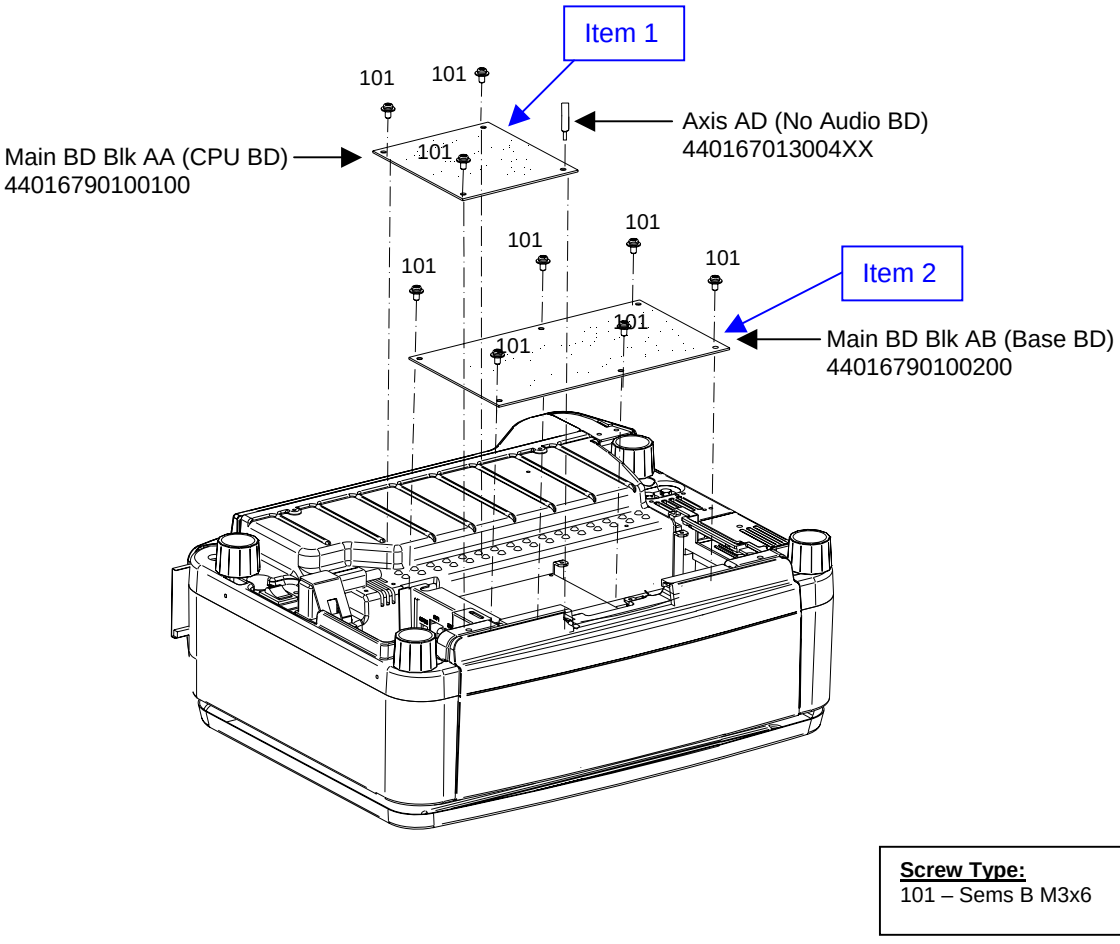
Screw Type:
101 – Binding Head M3x6
102 – PT Screw M3x6

9.5.3 Disassembly of CPU & Base Board

Step 1:

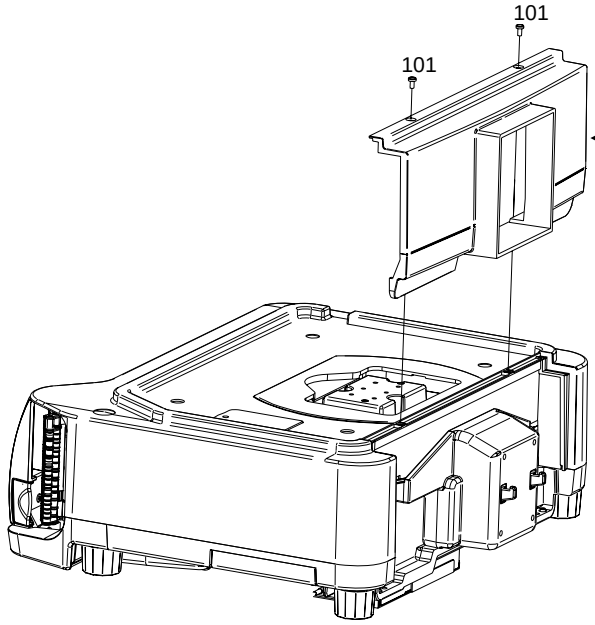


Step 2:



9.5.4 Disassembly of Top Cover

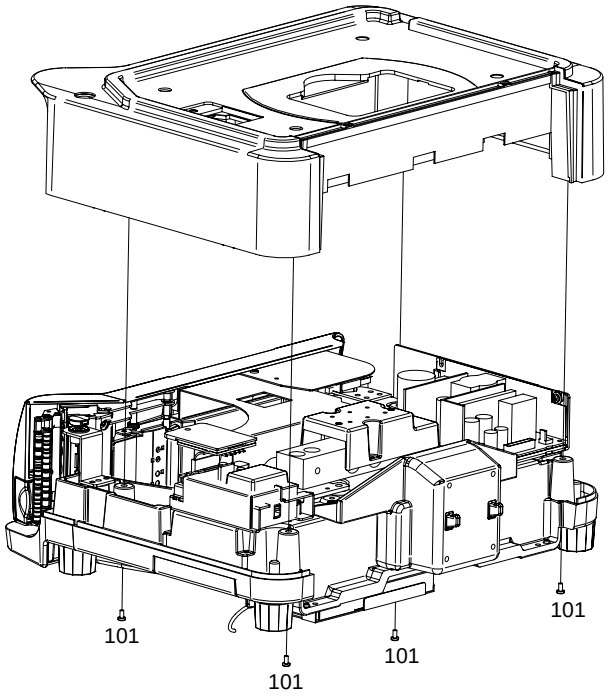
Step 1:



Cover AA (EV Body Rear)
44016702800600

Screw Type:
101 – Flat Head M3x6

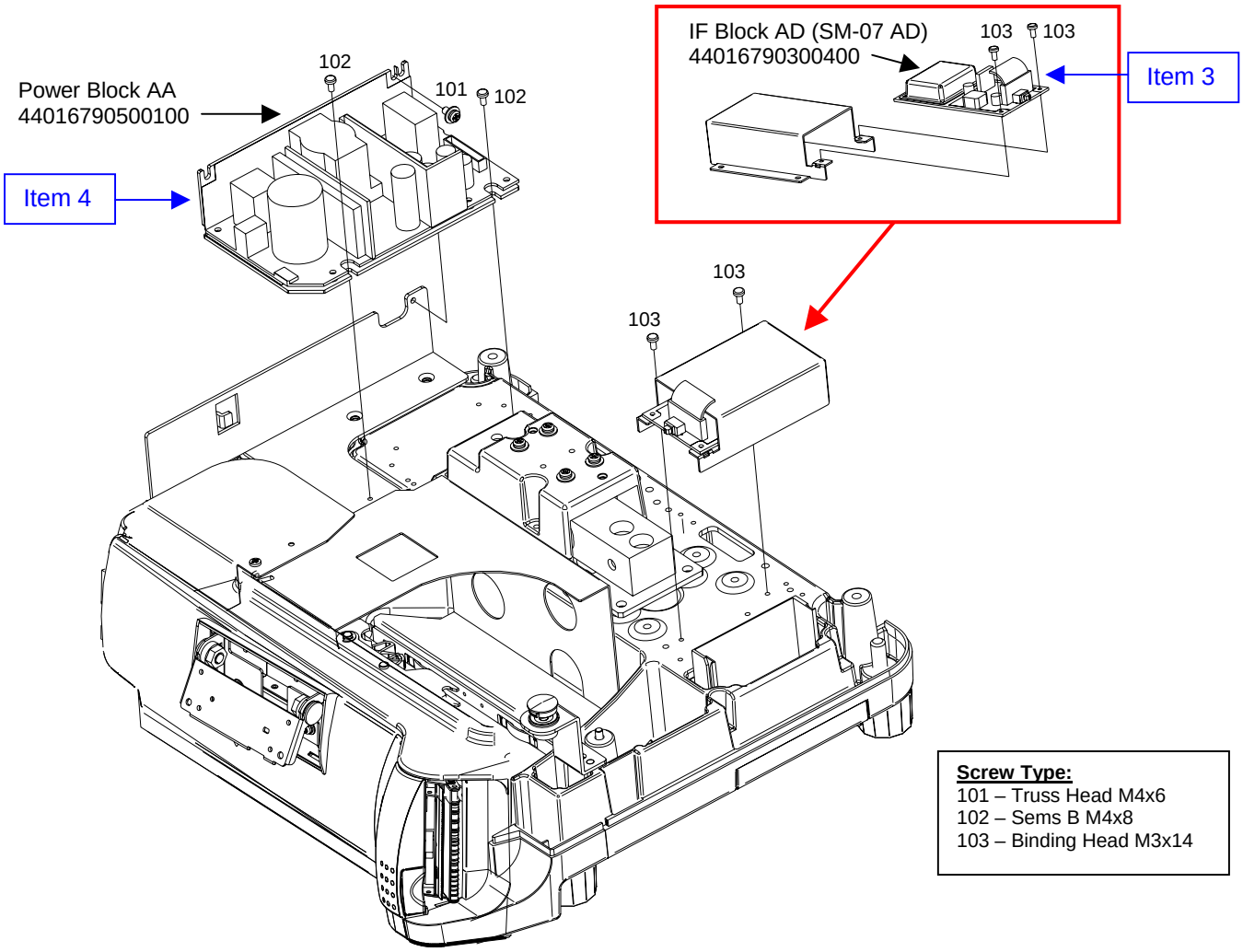
Step 2:



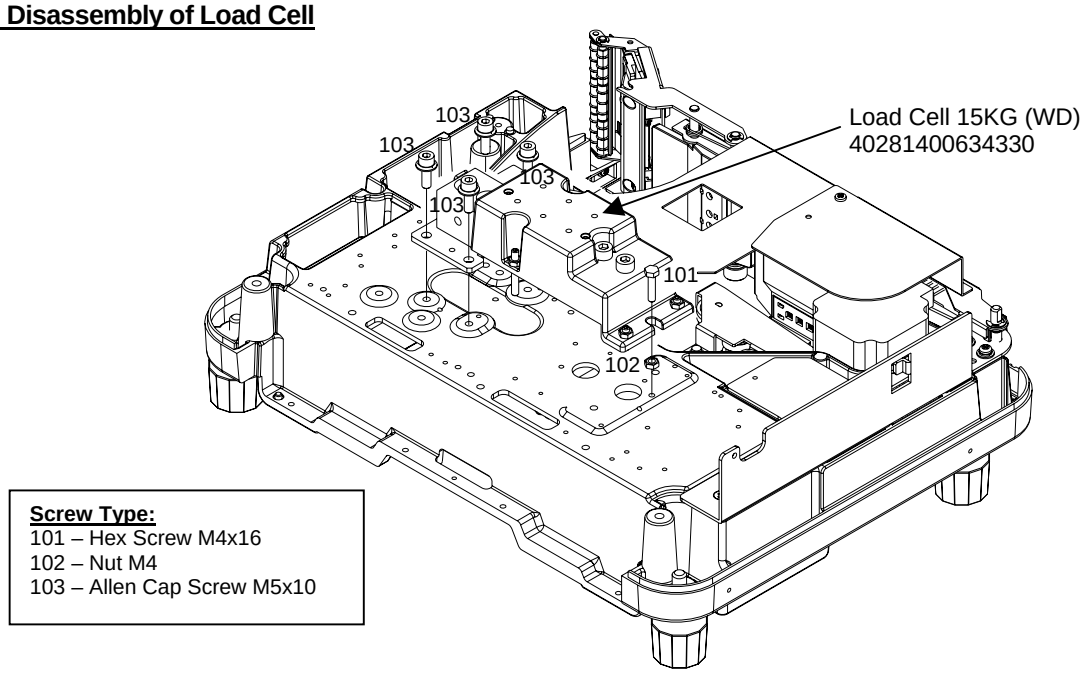
Case AC (Upper)
44015502300300

Screw Type:
101 – Sems B M4x20

9.5.5 Disassembly of Power Supply Unit and AD Board



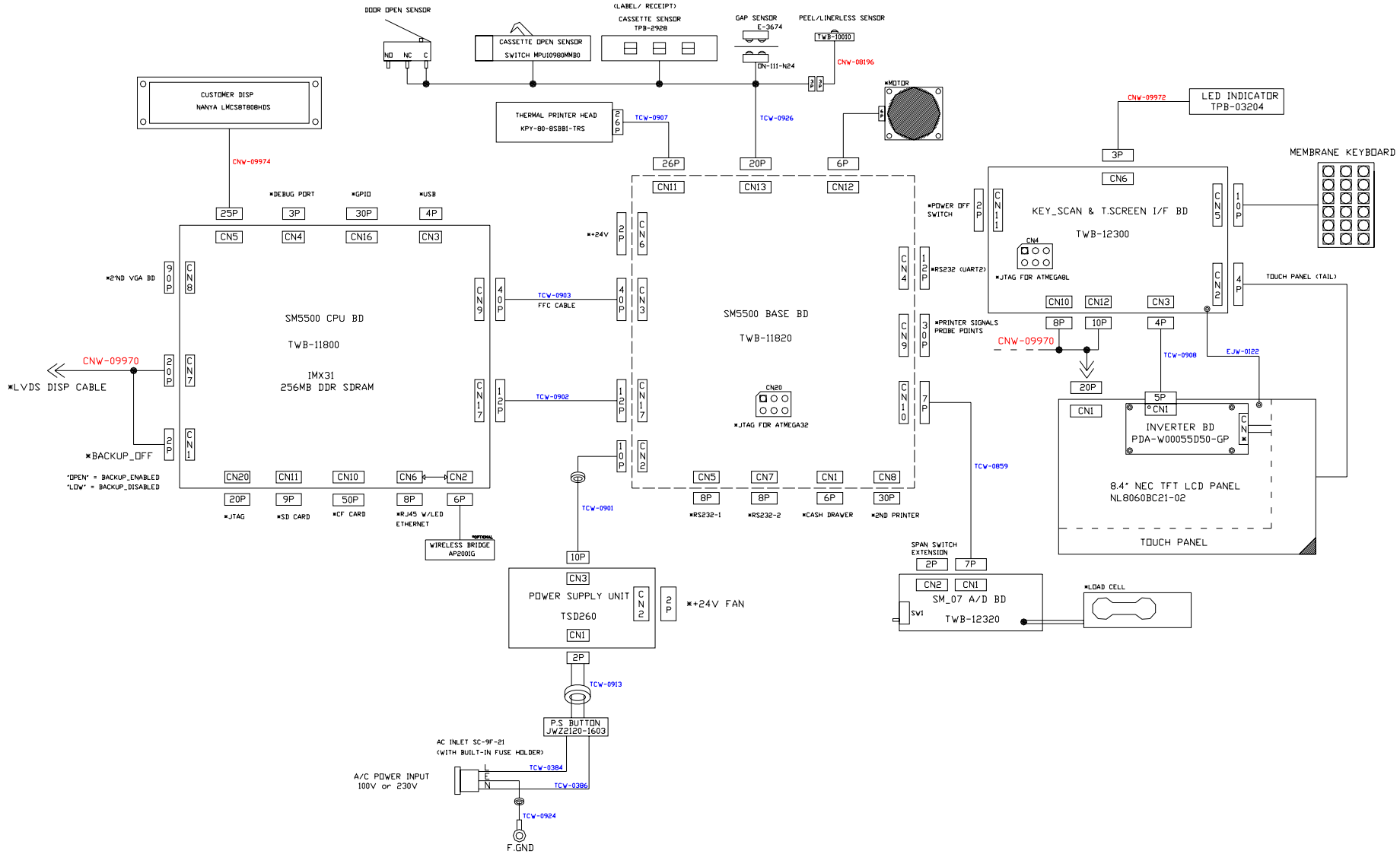
9.5.6 Disassembly of Load Cell



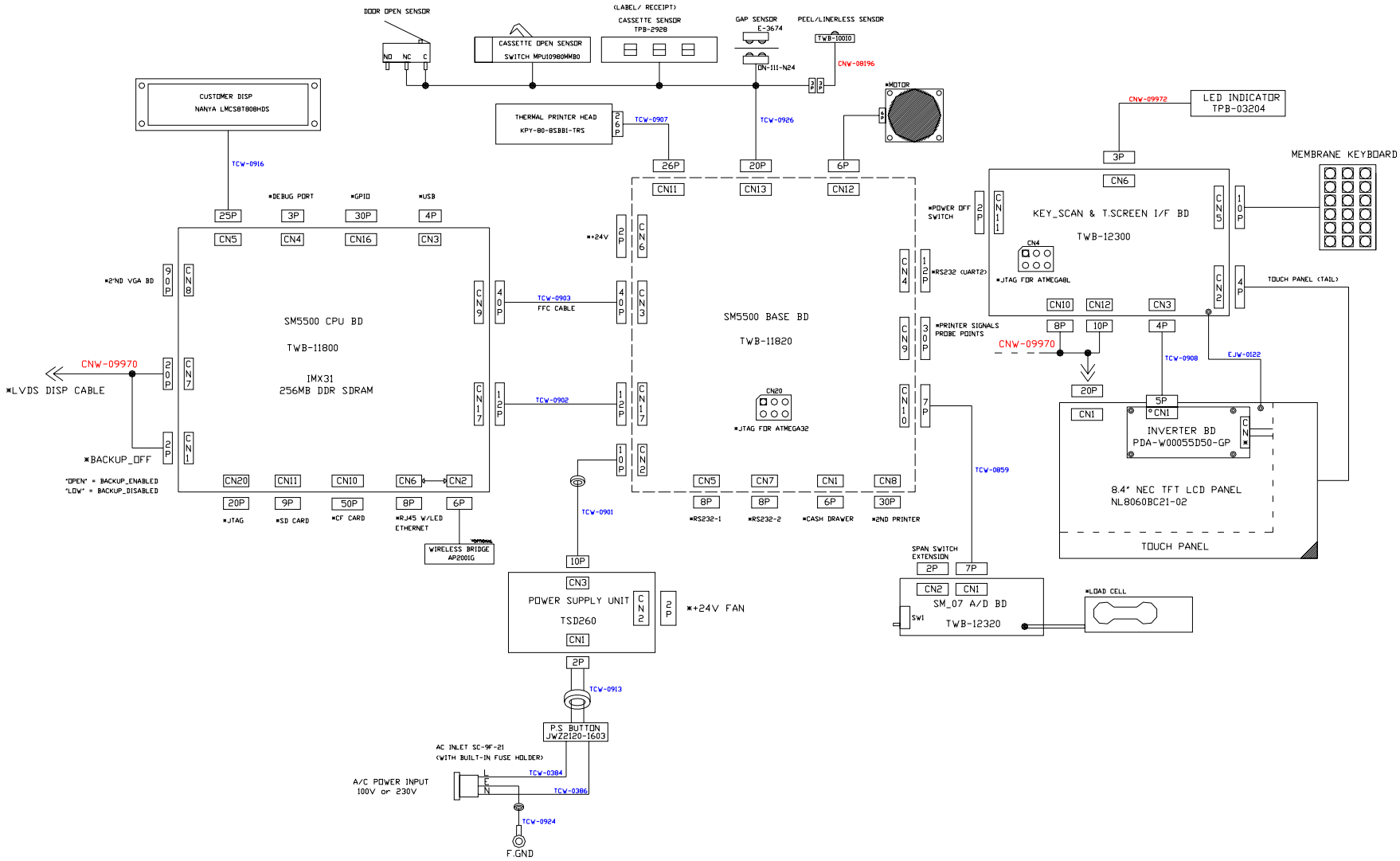
10. HARDWARE DETAILS

10.1 Block Diagram

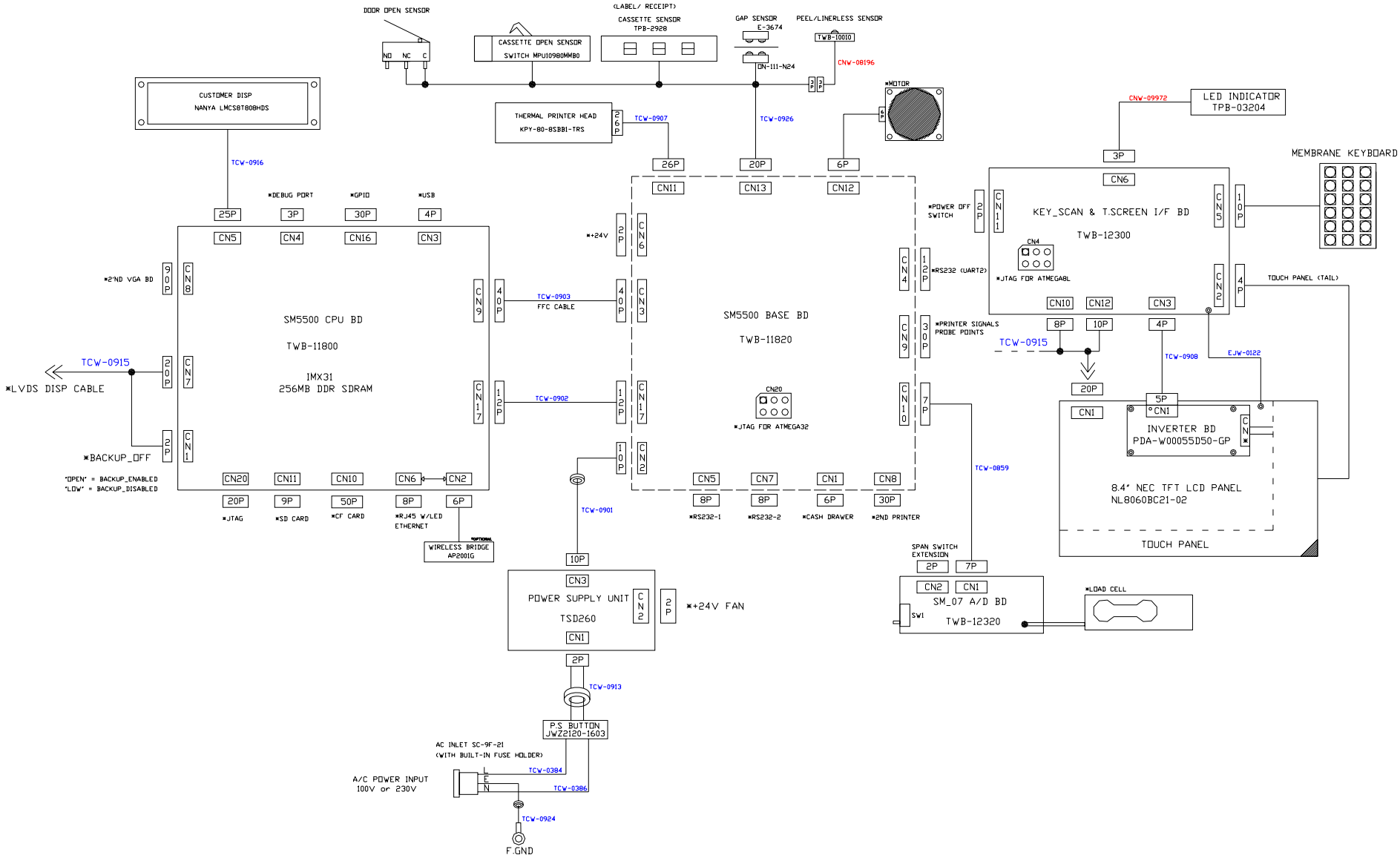
10.1.1 Bench (B)



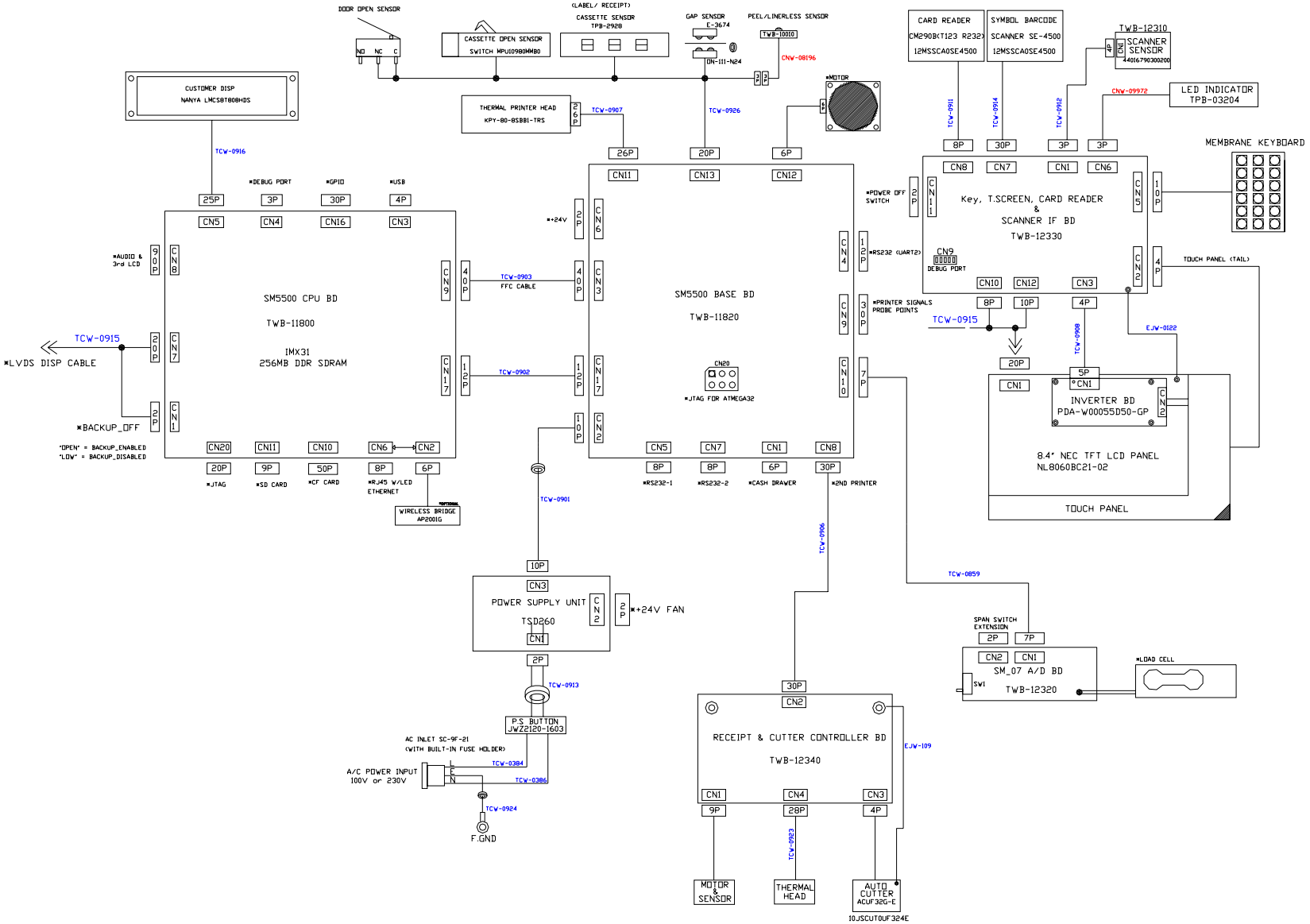
10.1.2 Pole (P)


DOOR OPEN SENSOR
NO NC C
CASSETTE OPEN SENSOR
SWITCH MPU1098MMB0
(LABEL/ RECEIPT)
CASSETTE SENSOR
TPB-2928
GAP SENSOR
E-3674
PEEL/LINERLESS SENSOR
TWB-10010
EN-111-N24
CNW-08196
CUSTOMER DISP
NANYA LMCS8T808HDS
THERMAL PRINTER HEAD
KPY-80-8SBB1-TRS
TCW-0907
TCW-0926
*MOTOR
CNW-09972
LED INDICATOR
TPB-03204
MEMBRANE KEYBOARD
TCW-0916
26P
20P
6P
3P
CN6
CN11
CN13
CN12
KEY_SCAN & T.SCREEN I/F BD
TWB-12300
*POWER OFF SWITCH
CN4
*JTAG FOR ATMEGA8L
*RS232 (UART2)
TOUCH PANEL (TAIL)
CN10
CN12
CN3
8P
10P
4P
CNW-09970
TCW-0908
EJW-0122
20P
5P
CN1
INVERTER BD
PDA-W00055D50-GP
8.4" NEC TFT LCD PANEL
NL8060BC21-02
TOUCH PANEL
*DEBUG PORT
*GPIO
*USB
25P
3P
30P
4P
CN5
CN4
CN16
CN3
SM5500 CPU BD
TWB-11800
IMX31
256MB DDR SDRAM
*2ND VGA BD
CNW-09970
*LVDS DISP CABLE
*BACKUP_OFF
"OPEN" = BACKUP_ENABLED
"LOW" = BACKUP_DISABLED
TCW-0903
FFC CABLE
TCW-0902
*+24V
SM5500 BASE BD
TWB-11820
CN20
*JTAG FOR ATMEGA32
*PRINTER SIGNALS PROBE POINTS
CN20
CN11
CN10
CN6
CN2
20P
9P
50P
8P
6P
*JTAG
*SD CARD
*CF CARD
*RJ45 W/LED ETHERNET
WIRELESS BRIDGE
AP2001G
CN5
CN7
CN1
CN8
8P
8P
6P
30P
*RS232-1
*RS232-2
*CASH DRAWER
*2ND PRINTER
TCW-0901
TCW-0859
SPAN SWITCH EXTENSION
2P
7P
CN2
CN1
SM_07 A/D BD
TWB-12320
SW1
*LOAD CELL
10P
CN3
POWER SUPPLY UNIT
TSD260
CN1
*+24V FAN
2P
TCW-0913
P.S BUTTON
JW22120-1603
AC INLET SC-9F-21
(WITH BUILT-IN FUSE HOLDER)
A/C POWER INPUT
100V or 230V
TCW-0384
TCW-0386
TCW-0924
F.GND

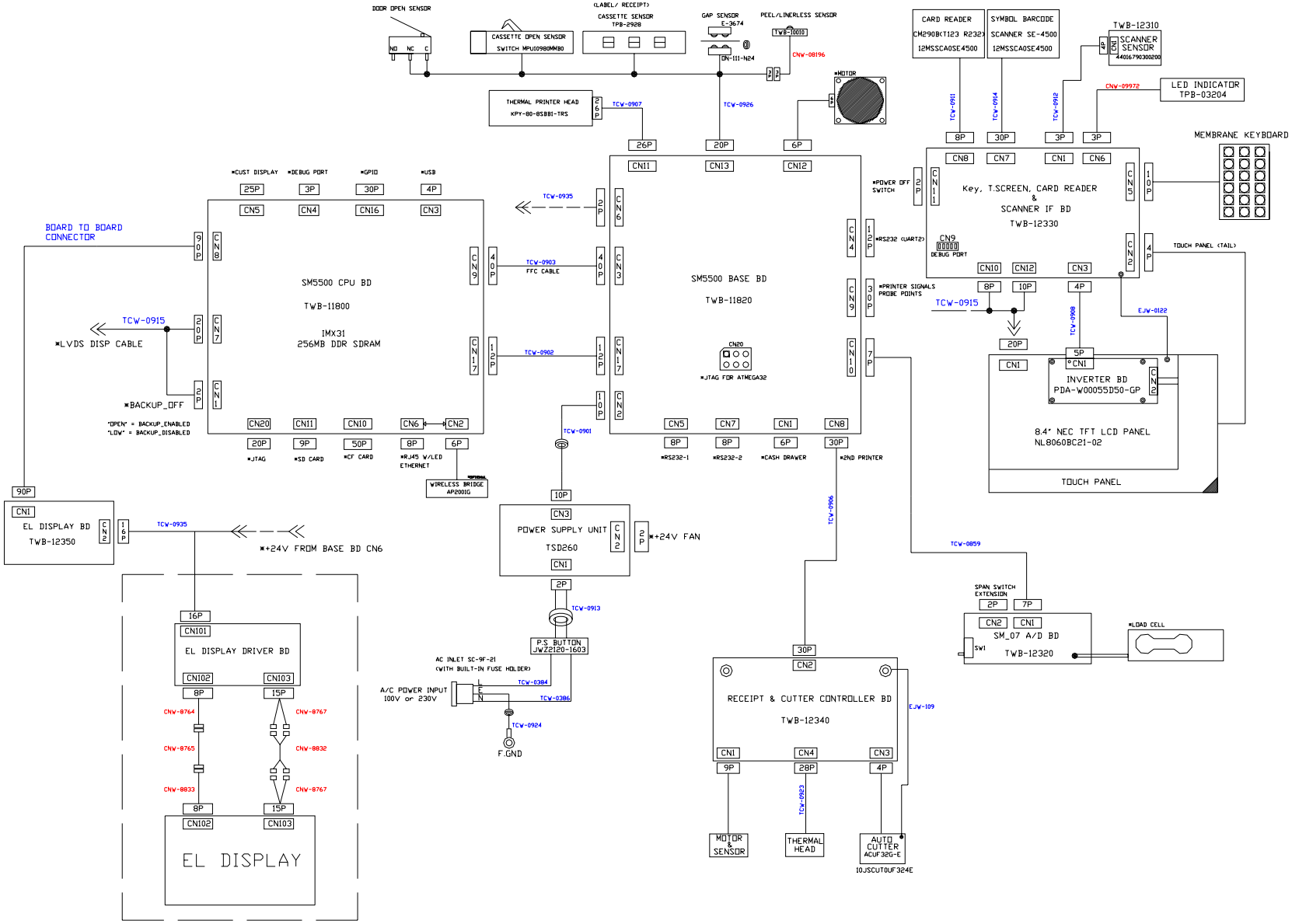
10.1.3 Elevated (EV)



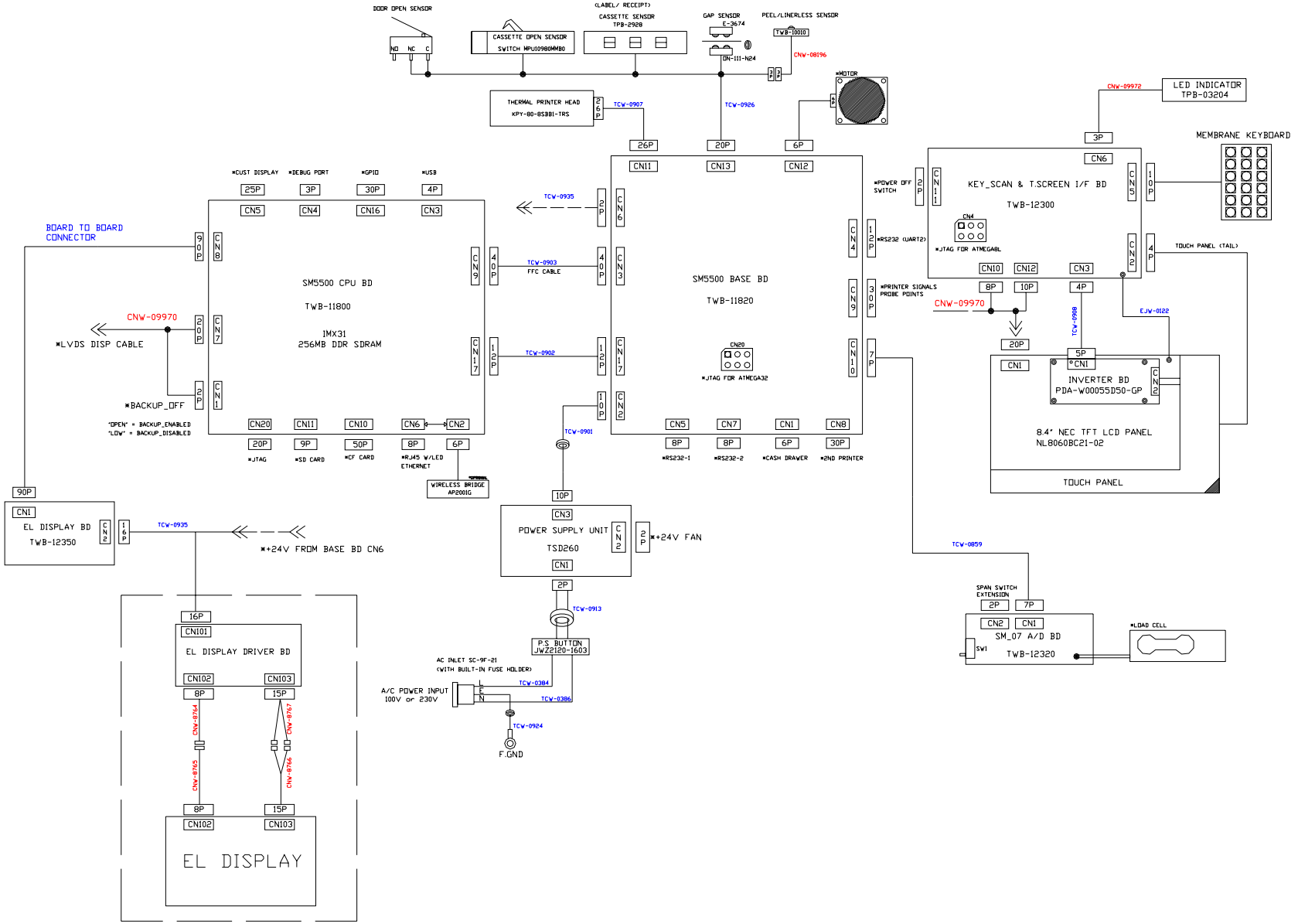
10.1.4 Elevated (EV) (Full Option)



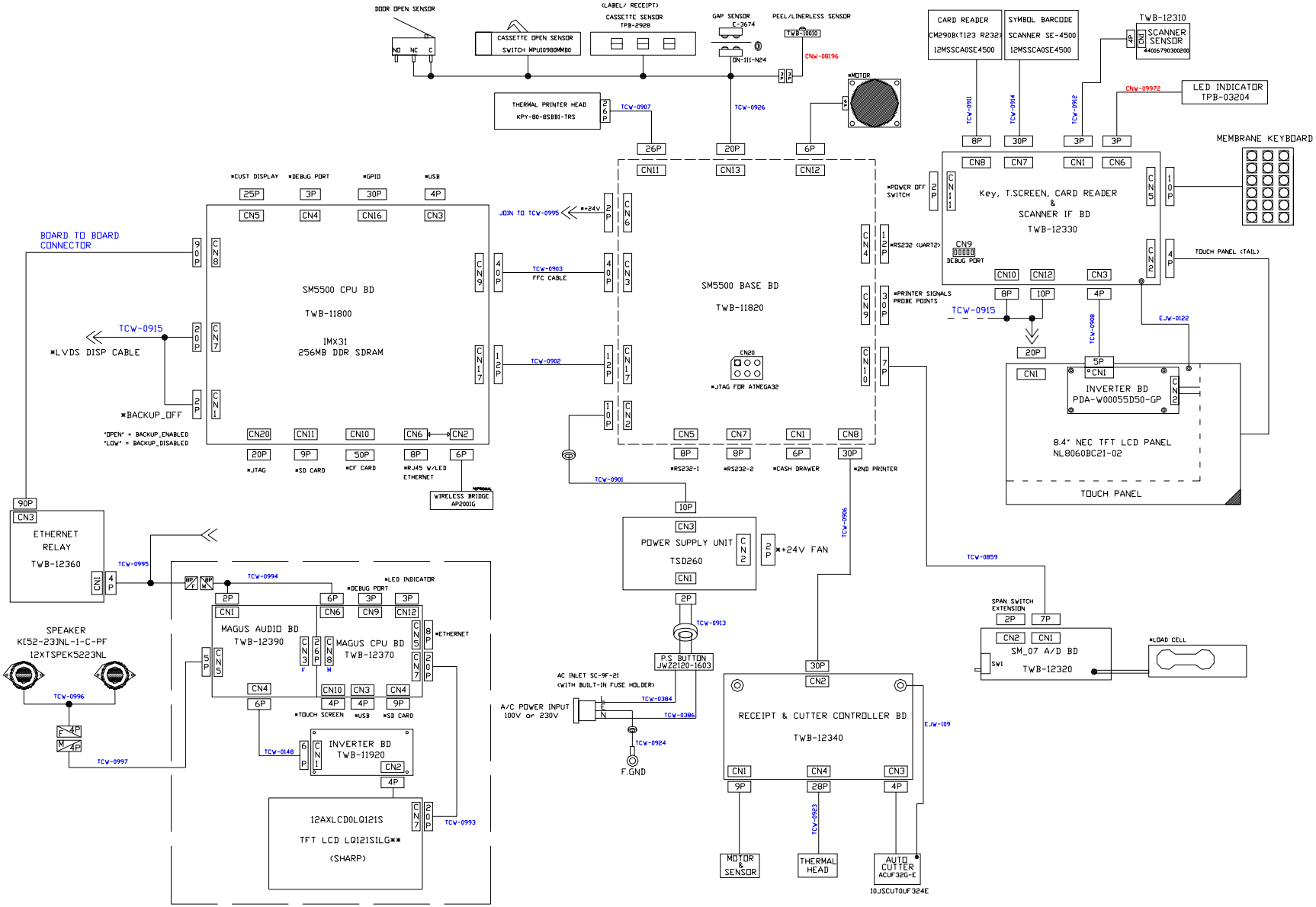
10.1.5 Elevated Electroluminescent Display (EVEL)



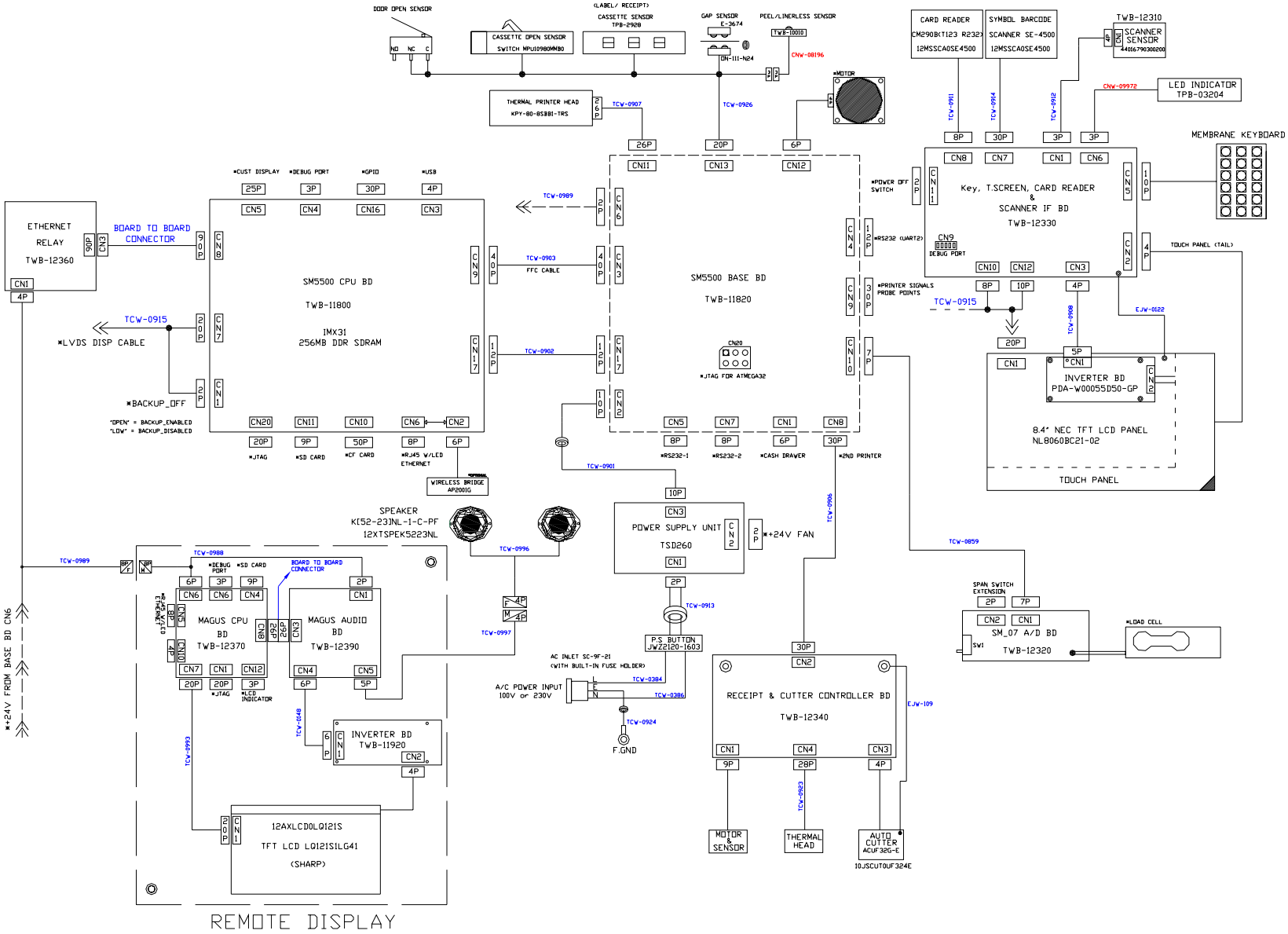
10.1.6 Pole Electroluminescent Display (PEL)



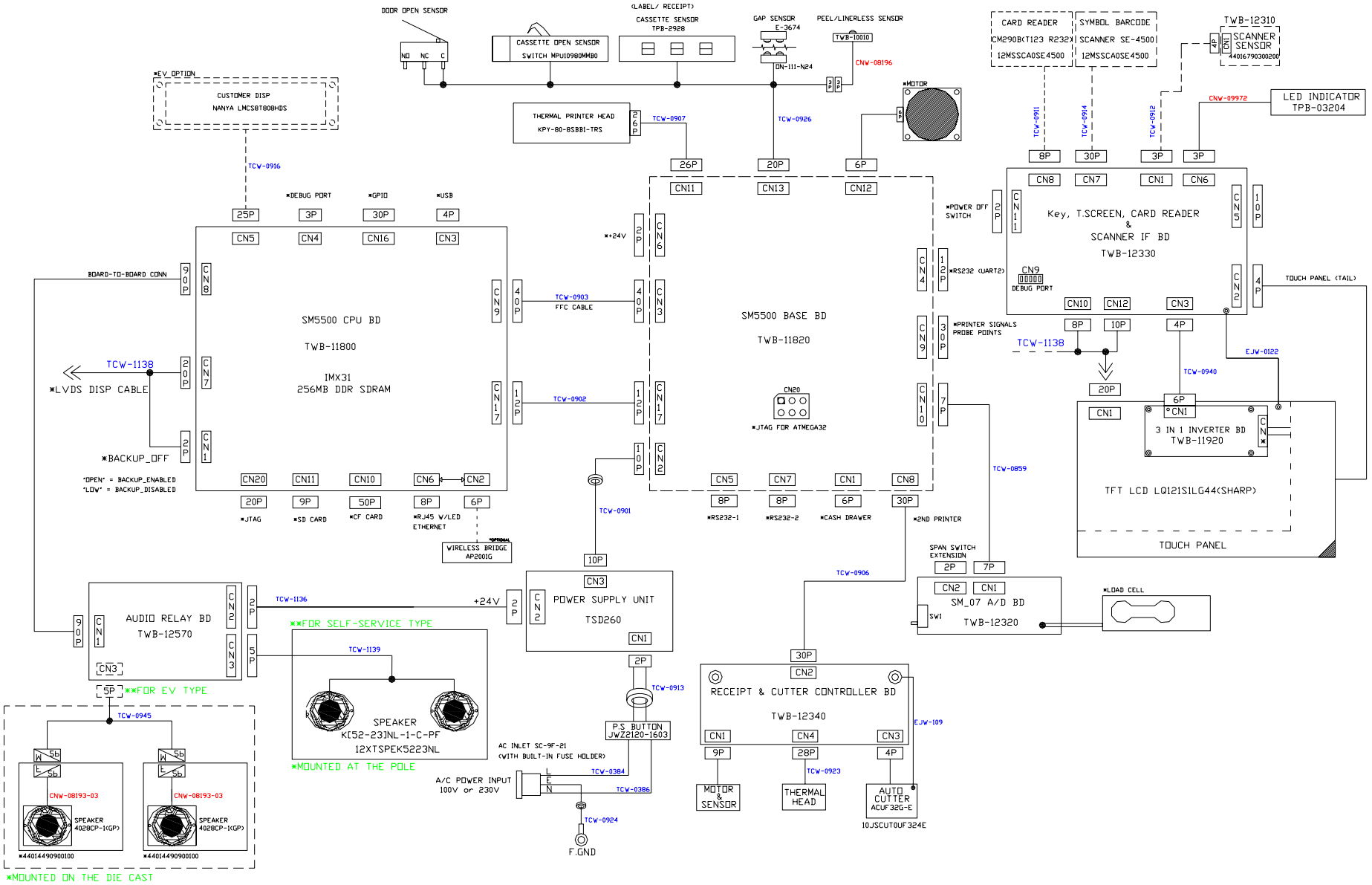
10.1.7 Elevated Plus (EV-PLUS)



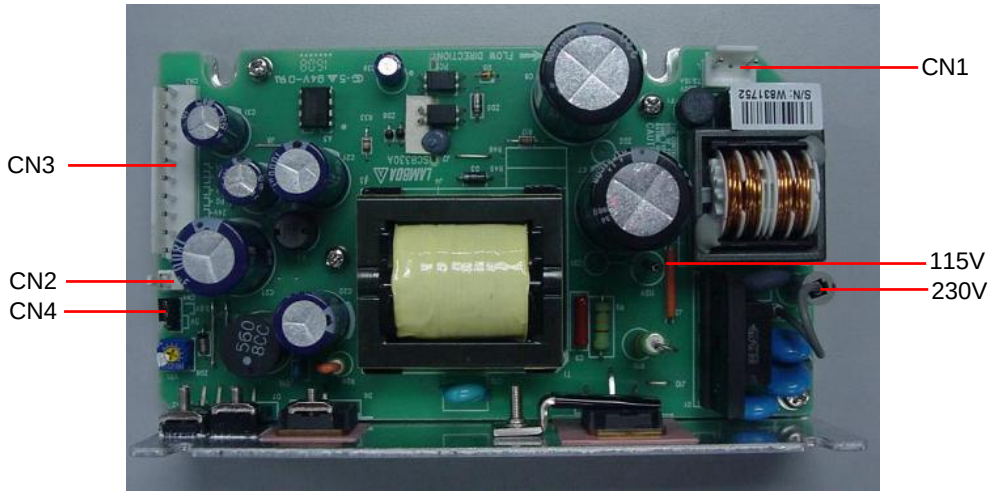
10.1.8 Elevated Remote



10.1.9 Self-Service (BS)

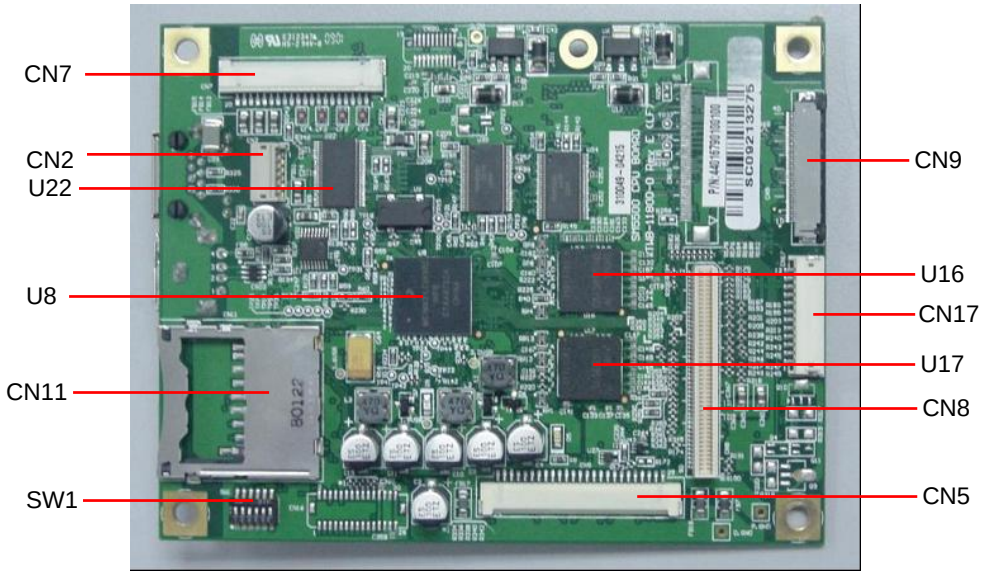


10.2 Power Supply Unit

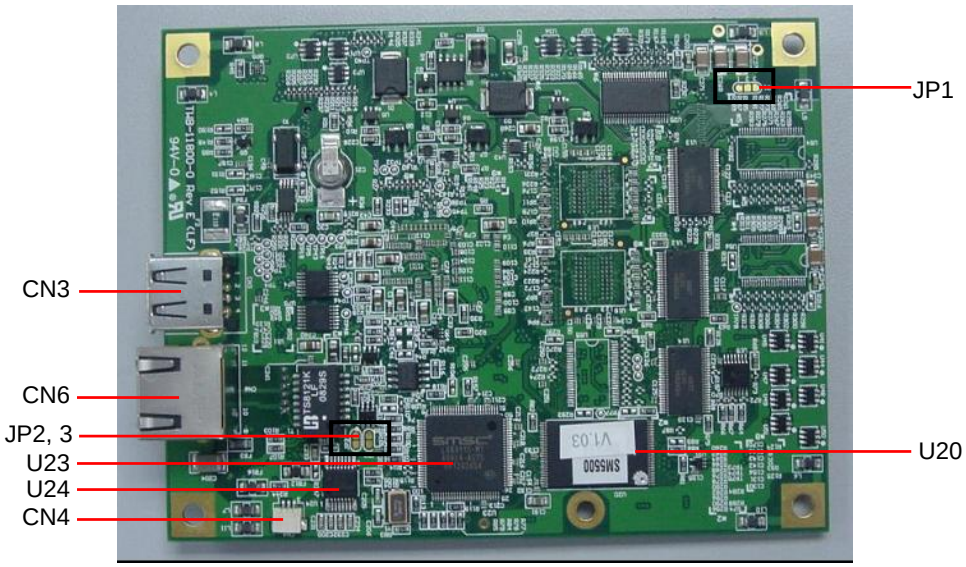


Connector	Function
CN1	AC Input Voltage (110V/230V) Connector
CN2	DC Fan (24V) Connector
CN3	DC Output Voltage (5V/24V) Connector
Jumper	**Setting**
CN4	5V or 5.6V (Default)

10.3 CPU Board



The Component Side

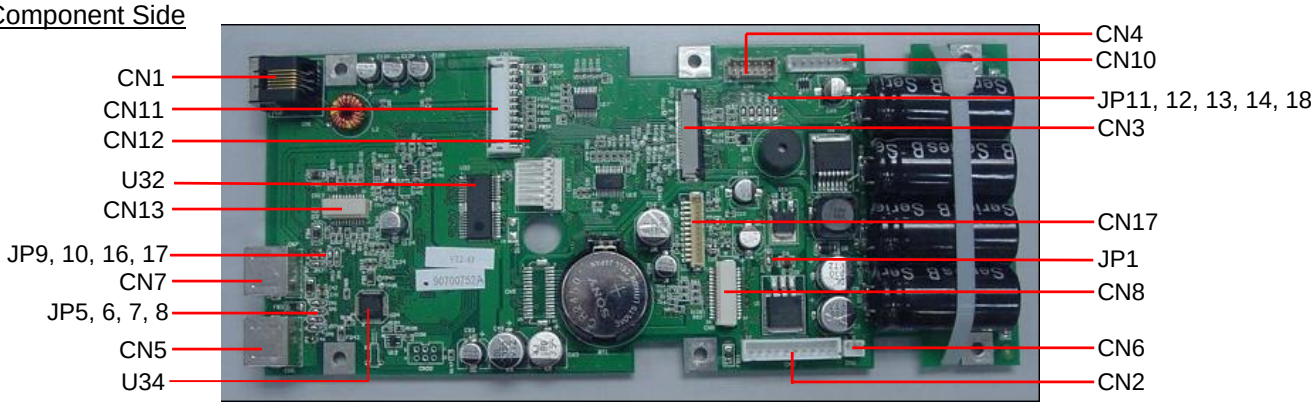


The Solder Side

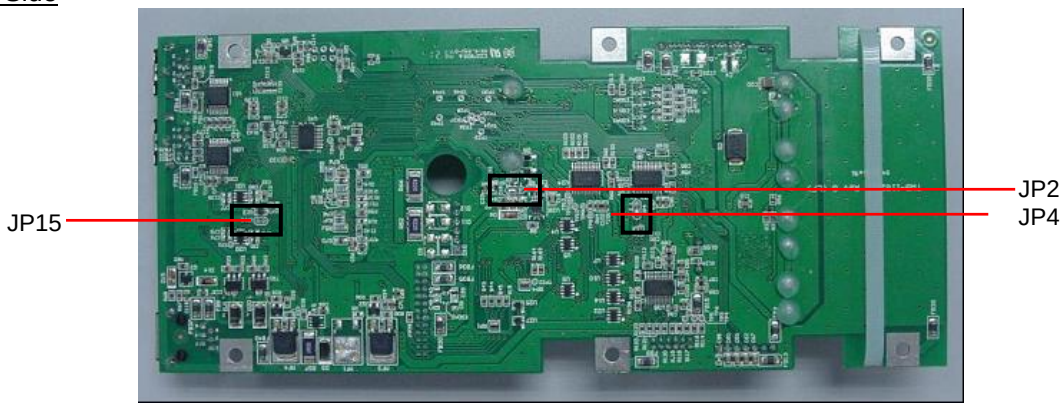
Connector	Function
CN2	For Wireless Bridge (AP2001G)
CN3	USB Keyboard / Mouse
CN4	Debug Port Connector
CN5	Customer Display Connector
CN6	Ethernet Connector (RJ45)
CN7	Operator Display Connector
CN8	2ND VGA Board
CN9	Base Board – CPU Board Interface Connector
CN11	SD Card
CN17	Base Board to CPU Board Power Connector
IC Chip	**Function**
U8	Multimedia Application Processor
U16 and U17	DDR SDRAM
U20	Flash Memory IC
U22	Programmable LVDS Transmitter 18-bit Flat Panel Display
U23	Single-chip 10/100 Ethernet Controller
U24	For RS232 Transceiver
Switch	**Setting (Default)**
SW1	1 - ON 2 - ON 3 - OFF 4 - ON 5 - ON 6 – ON
Jumper	**Setting (Default)**
JP1	All Open
JP2	Open
JP3	Open

10.4 Base Board

The Component Side



The Solder Side

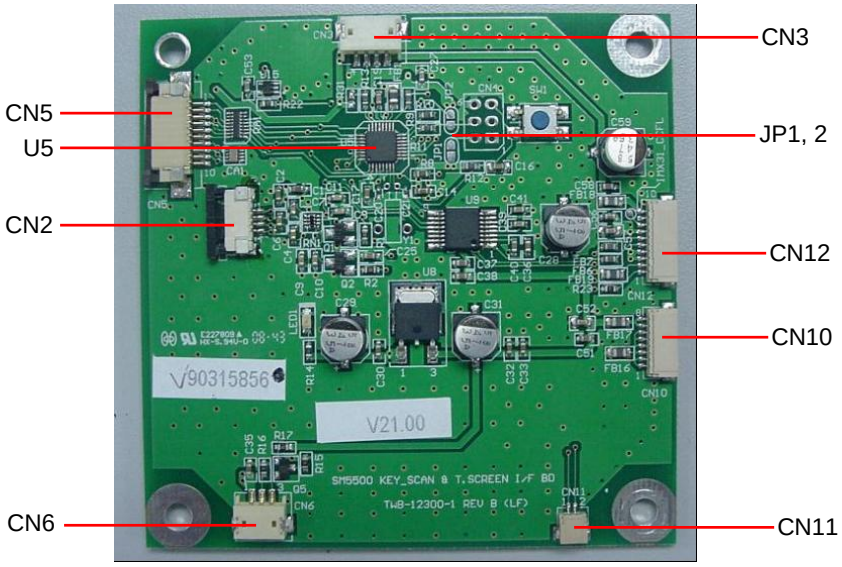


Connector	Function
CN1	Cash Drawer (RJ11)
CN2	Power Connector
CN3	Base Board – CPU Board Interface Connector
CN4	RS232 (UART2)
CN5	RS232-1
CN6	+24V connector
CN7	RS232-2
CN8	2nd Printer
CN10	AD Connector
CN11	Printer Thermal Head
CN12	Printer Motor Connector
CN13	Printer Sensor Connector
CN17	Base Board to CPU Board Power Connector
IC Chip	**Function**
U32	For Stepping Motor Driver
U34	In System Re-programmable Flash Program Memory

Jumper	Setting (Default)
JP1	2 & 3 short
JP2	2 & 3 short
JP4	2 & 3 short
JP5	2 & 3 short
JP6	2 & 3 short
JP7	2 & 3 short
JP8	2 & 3 short
JP9	2 & 3 short
JP10	2 & 3 short
JP11	2 & 3 short
JP12	2 & 3 short
JP13	2 & 3 short
JP14	2 & 3 short
JP15	Open circuit
JP16	2 & 3 short
JP17	2 & 3 short
JP18	2 & 3 short

10.5 Touch Screen Board

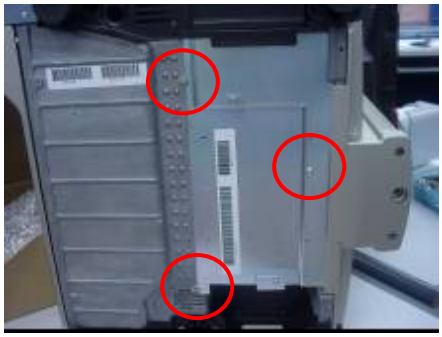
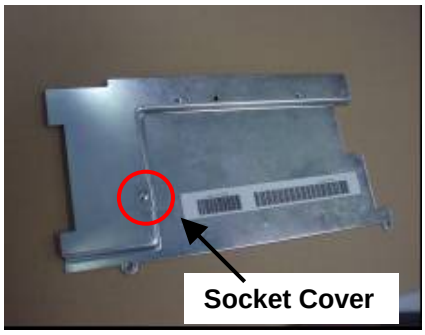
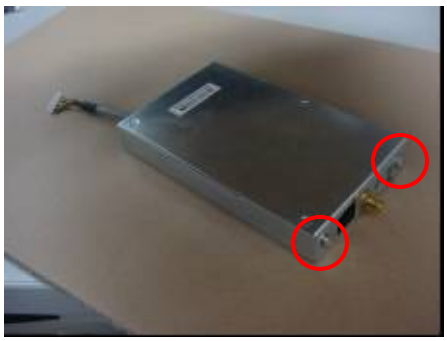
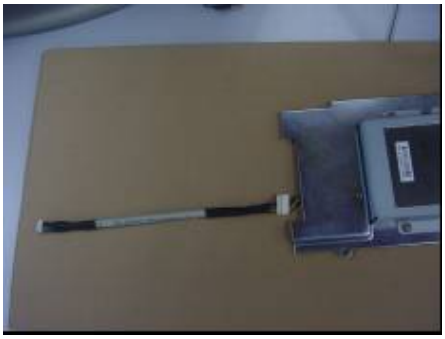
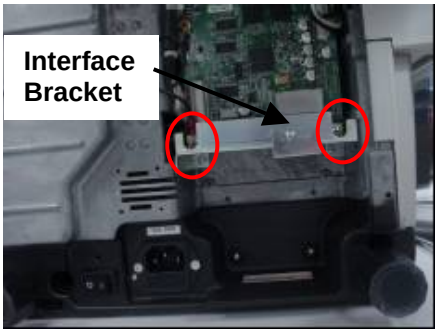
The Component Side

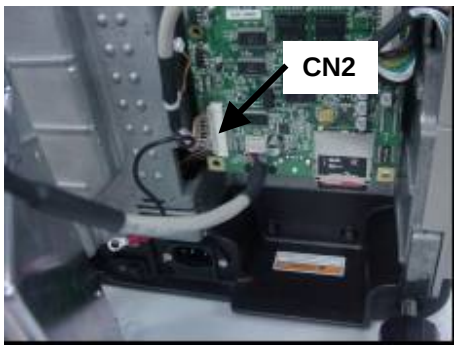
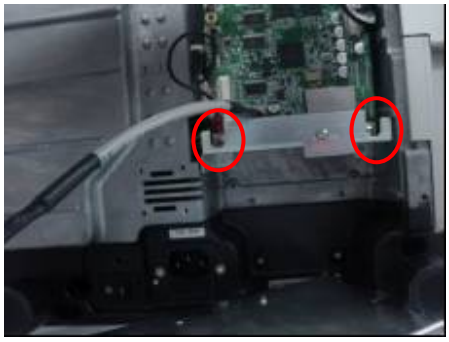


Connector	Function
CN2	Touch Panel
CN3	Brightness Light
CN5	For Membrane Keyboard
CN6	LED indicator
CN10 and CN12	For LVDS Display LCD
CN11	Power Off Switch
IC Chip	**Function**
U5	In-System Programmable Flash Memory
Jumper	**Setting (Default)**
JP1	Open Circuit
JP2	Open Circuit

11. OPTION KITS INSTALLATION

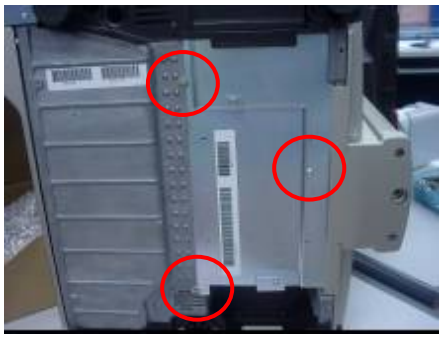
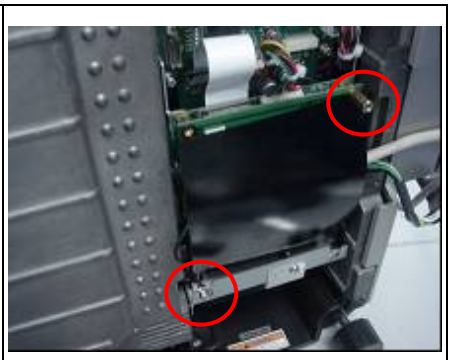
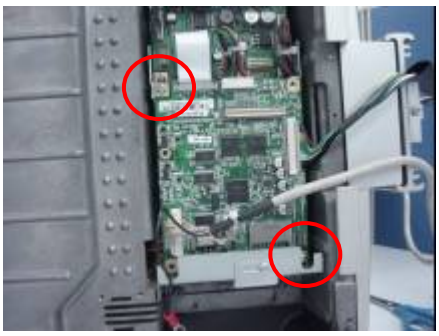
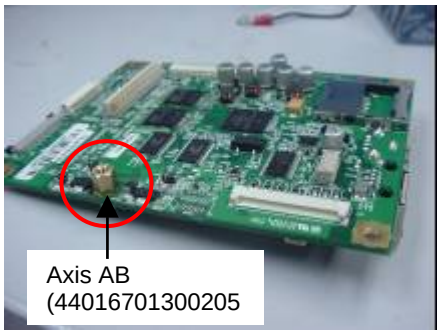
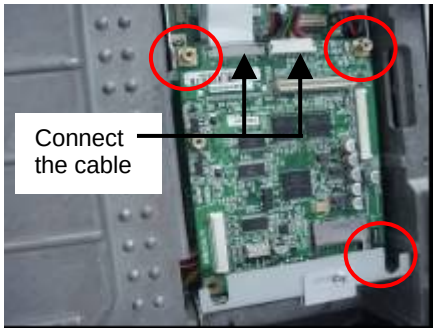
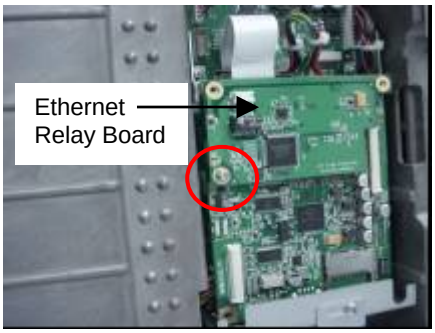
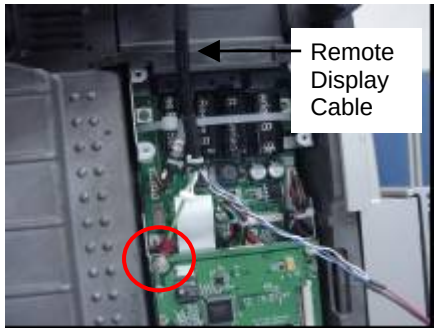
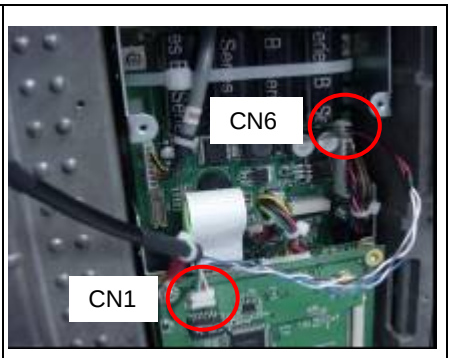
11.1 WLAN Kits Installation

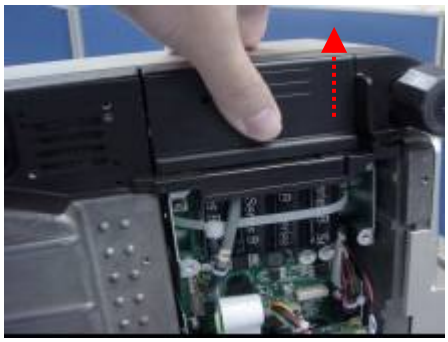
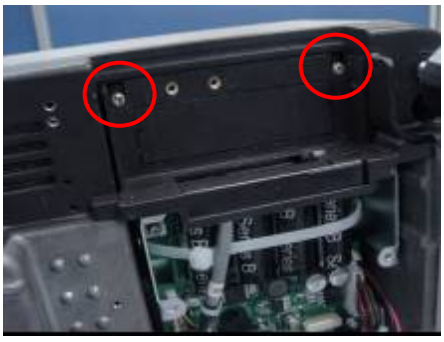
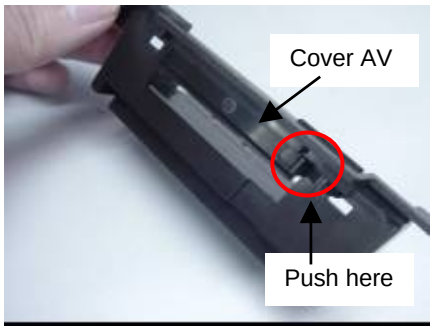
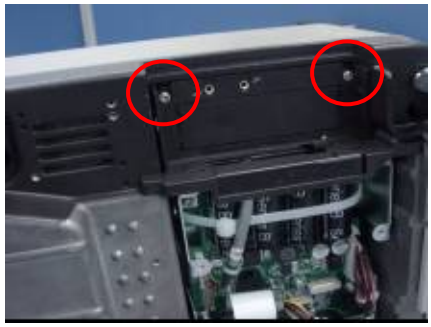
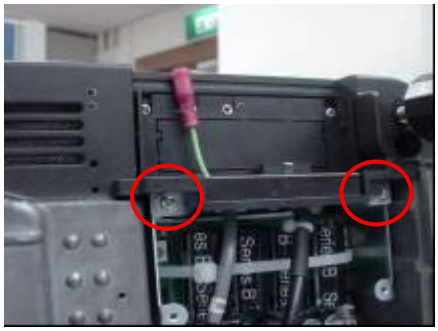
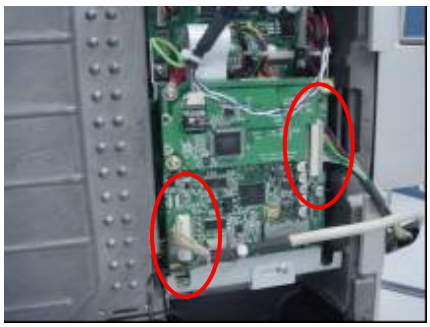
		
1. SM5500 Scale (Shown scale is EV type)	2. Take out bottom cover by unscrewing 3pcs Sems B screw.	3. Unscrew the 1pc M3 Binding Head screw and removing the Socket Cover.
		
4. Unscrew 2pcs M3 Binding Head screw from Wireless LAN Kit.	5. Fix W LAN cover to Wireless LAN Kit by 2pcs Sems B screw.	6. Let the cable go through the hole on bottom cover.
		
7. Fix Wireless LAN Kit to bottom cover by 4pcs Sems B screws, and then connect Antenna to Wireless LAN Kit.	8. Connect extension cable to Wireless LAN Kit.	9. Take out Interface bracket by unscrewing 4pcs M3 Sems B screw.

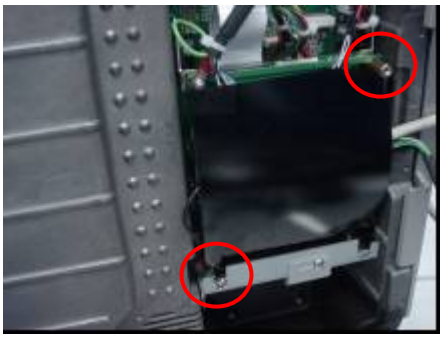
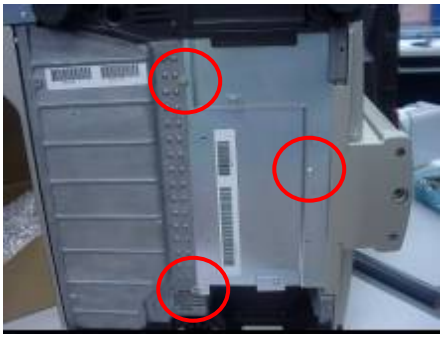
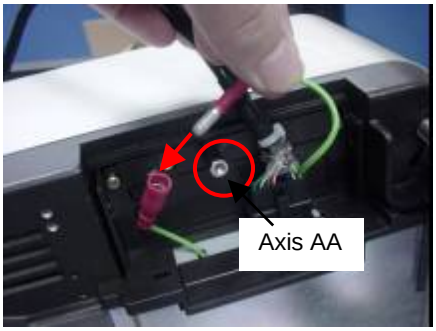
		
10. Connect extension cable to CN2 on CPU board.	11. Fix Interface Bracket back by 4pcs M3 Sems B screw.	12. Assembly the bottom cover back and tighten 3pcs M3 Sems B screw.

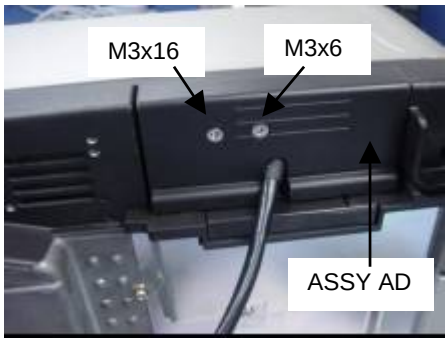
	
13. Paste Double-side tapes onto Antenna.	14. Remove liner and paste Antenna onto the left side of SM5500 scale (shown scale is EV type).

11.2 12.1" Remote Display Installation

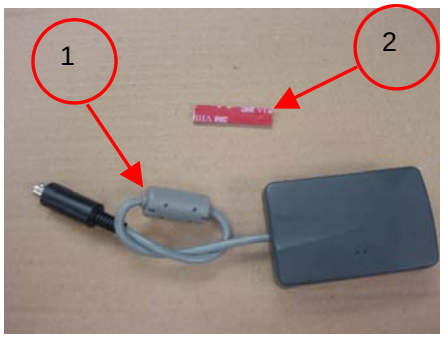
		
1. SM-5500 scale. (Shown model is EV type)	2. Unscrew 3pc M3 SemsB screws to remove the Bottom Cover.	3. Unscrew the Axis *(Do not used back)* and 1pc M3 Sems B screw to remove Insulator.
		
4. Unscrew 2pc M3 Sems B screws and unplug all cable from CPU Board.	5. Take out CPU Board and tighten Axis AB (44016701300205) with 2pc M3 lock nuts.	6. Fix CPU Board back to scale body by 2pc Axis AB and 1pc M3 Sems B screw.
		
7. Fix Ethernet Relay Board (TWB-12360-0) with 1pc M3 Sems B screw.	8. Tighten Remote Display cable (grounding wire) with 1pc M3 Sems B screw.	9. Connect Remote Display cable to Base Board (CN6) and Ethernet Relay Board (CN1).

		
10. Push out to remove the Cover AU. *(Do not used back the cover)*	11. Unscrew the 2pc M3 Sems A screw to take out the Support AW (44015508802303).	12. Pushing to take out the Cover AV (44015502802201) from Support AW. *(Do not used back the Support AW)*
		
13. Cover AV and ASSY AE (44016750000500).	14. Assembly the Cover AV to ASSY AE.	15. Assembly back the ASSY AE with 2pc M3 Sems A screws.
		
16. Insert the Remote Display cable connector into the Bracket BZ (44016701805201). *(Ensure the ground wire is come out)*	17. Fix Bracket BZ to scale with 2pc M3 Sems B screws.	18. Connect all cable back to CPU Board.

		
19. Assembly back the Insulator with tightens 1pc M3 Sems B screw and Axis AC (13.4mm).	20. Assembly backs the Bottom Cover with 3pc M3 Sems B screw.	21. Connect the Display cable to SM5500 scale and assembly the Axis AA (11mm) to Support AW.

	
22. Assembly the ASSY AD and tighten it with 1pc M3x16 & 1pc M3x6 flay head screw.	23. Completed.

11.3 Base Station Installation

		
1. SM5500 scale (shown model is EV type).	2. Item 1: Base Station Kit. Item 2: Tape.	3. Stick the Tape (double side) onto Base Station Kit.

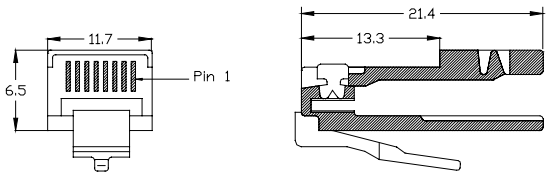
		
4. Plug-in the connector from Base Station Kit into RS232C-2 on SM5500 CPU board.	5. Paste Base Station onto SM5500 cover.	6. **Attention:** Base Station shall be lower than the top surface of the cover. This is avoiding the Base Station touching the Platter Support.


7. SM5500 scale with Base Station Kit (Shown model is EV type).

12. PORT PIN CONFIGURATION AND CABLE

12.1 Ethernet Port

Straight cable is for Client / Server connection. Crossover cable is for Hub-to-Hub connection. (Some models of the Hub do not need crossover cable for Hub-to-Hub connection. Please refer to the Hub operation manual if in doubt)

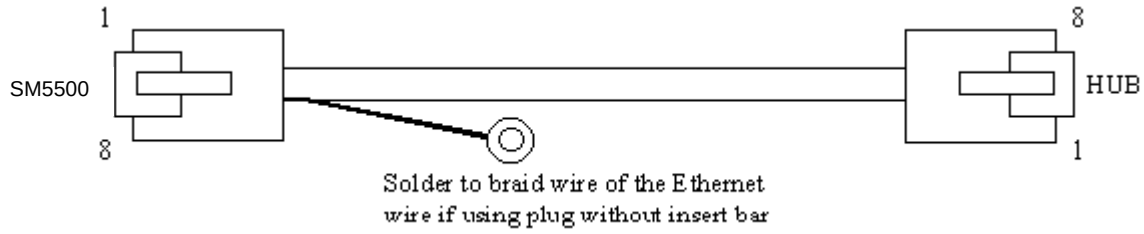


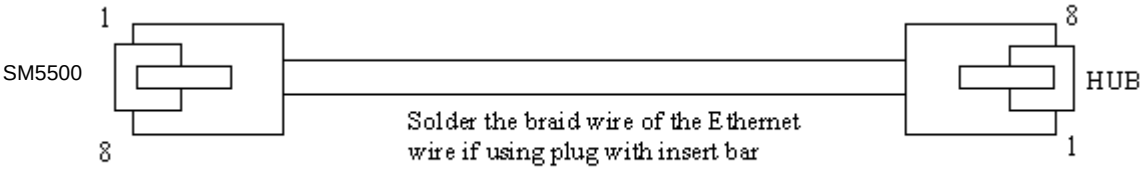
Preferable type: CviLux

Preferable type: CviLux CJP3 / CviLux CJP4 (with insert bar)

CABLE TYPE

Cable type: 4 pair 100MHz Cat.5 AWG 24 or 26 UTP / FTP / STP.
Preferable type: Cat.5 AWG 24 or 26 FTP/ Cat.5 AWG 24 or 26 STP (Recommended for CISPR 22B conformance)





SCALE

PIN	SIGNAL
1	TX+
2	TX-
3	RX+
6	RX-
5,7,8	N.A.

HUB

SIGNAL	PIN
TX+	1
TX-	2
RX+	3
RX-	6
N.A.	5,7,8

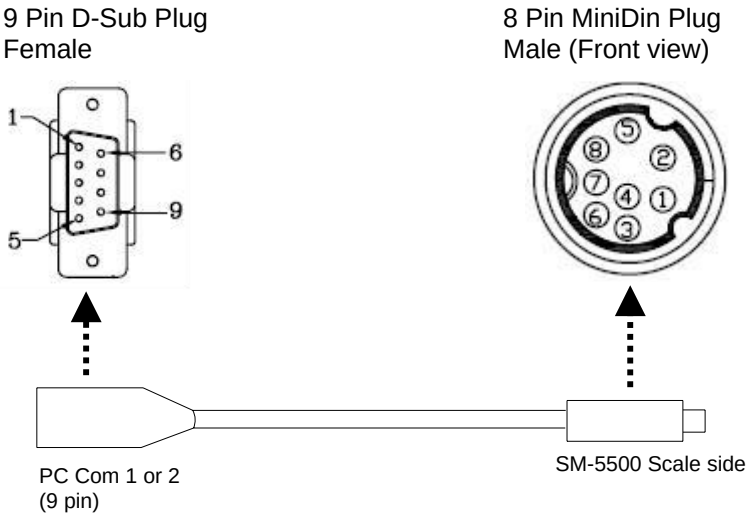
SCALE / HUB

PIN	SIGNAL
1	TX+
2	TX-
3	RX+
6	RX-
5,7,8	N.A.

SCALE / HUB

SIGNAL	PIN
TX+	3
TX-	6
RX+	1
RX-	2
N.A.	5,7,8

12.2 RS232C Port



To PC Side / RS-232 device
9 Pin D-Sub (Female)

To Scale
8 Pin MiniDin plug (Male)

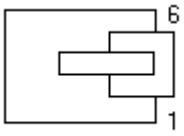
PIN	SIGNAL		SIGNAL	PIN
5	GND		GND	2
3	TXD		RXD	4
2	RXD		TXD	5
7	RTS		CTS	6
8	CTS		RTS	7
1,4,6,9	N.A.		N.A.	1,3,8

12.3 USB Port

Pin	Signal
1	**+5V**
2	**USB D-**
3	**USB D+**
4	**GND**

12.4 Cash Drawer Port

RJ11 Connector



SM-5500 SCLAE SIDE (RJ11)

Pin	Signal
1	NC
2	Drawer Open
3	Drawer Status
4	24V
5	NC
6	GND

13. SPECIFICATION LIST

(Based on PCScale Software Version 5.5.9-3)

13.1 W&M SPEC

13.1.1 W&M Scale

142A001 Decimal maker postion for weight (AD)

0 0 0 0 0
0 0 0 0.0
0 0 0.0 0
0 0.0 0 0

142A002 Form of Decimal maker(AD)

Comma
point

142A003 Internal count protected by Span switch (AD)

Protected
Not Protected

142A008 Negative Weight Mask (AD)

No Mask
Net Weight
Gross Weight

142A010 Single/Dual Range (AD)

Single Range
Dual Range

142A011 Authenication Before Sending Data (DS780 V3.00)

No
Yes

142A012 Actuation Weight for Printing Weight item for Registration Mode(AD)

Over Net 5d & Gross 21 D & Weight Stable
Over Net 1d and weight stable
Over Net 21d and weight stable
Over Net 20d and weight stable

142A014 Actuation Weight for Printing Weight item in Prepack Mode(AD)

Over Net 5d & Gross 21 D & Weight Stable
Over Net 1d and weight stable
Over Net 21d and weight stable
Over Net 20d and weight stable

142A017 Selection of Zero Lamp Lighting Position (SPEC 606) (None AD related)

0: Light On at Gross Zero +/- ¼ Digit
1: Light On at Net Zero +/- ¼ Digit

142A019 Selection of Weight Range of Non-Weigh Items (SP643)

ONLY NET 0d
UNDER NET 0d
ALWAYS

142A020 Selection of Weight Stability Condition

0: Loose
1: Normal
2: Tight
3: Stringent

142A021 Capacity of Load Cells
If SPEC142E031 =00 (1/3000)

0: 6 Kg
1: 15 Kg
2: 30 Kg
3: 15 Kg (1/7500) * -- single range only

If SPEC142E031 =01 (1/6000)

0: 6 Kg -- single range only
1: Not Used
2: 30 Kg -- single range only
3: Not Used

If SPEC142E031 =10 (1/7500)

0: Not Used
1: Not Used
2: Not Used
3: 15 Kg (1/7500) -- single range only

Note:
* Support for old version of software & AD firmware.
For 30 kg/lb 1/3000 resolution, dp=2 & increment =1

142A022 Unit Weight Switching (SM5500 new structure only)

0: Disable
1: Kg <-> Catty
2 : Kg <-> Lb

142A022 Basic Unit (New AD for DI only)

0: Kg
1: Lb

142A033 Capacity Extension (SM5500)

X 1
X 10
X100
Not used

13.1.2 W&M Tare

142B002 Digital Tare(ADe)

No
Yes

142B003 Tare Accumulation (Ad)

No
Yes

142B004 Rezero during Tare(AD)

Inhibit
Allow

142B005 One Touch Tare Subtraction (1/7/08: SM5500)

Inhibit
Allow

142B006 Automatic Tare Clear (AD)

Inhibit
Allow

142B007 Zero Tracking When Tare (AD)

Inhibit
Allow

142B008 Selection of Tare Display for One-Touch-Tare(PC*)

0: INHIBIT
1: ALLOW

142B012 Proportional Tare

0: INHIBIT
1: ALLOW

142B013 Selection of Auto Tare Clear When Rezero

0: INHIBIT
1: ALLOW

142B015 Selection of Manual Clear of PLU Tare (SPEC 622) (1/7/08)

0: INHIBIT
1: ALLOW

142B017 Digital Tare 0 to Clear One Touch Tare and Digital Tare

0: INHIBIT
1: ALLOW

142B020 Digital Tare Subtraction (SM5500)

Inhibit
Allow

13.1.3 W&M Price

142C001 Selection of Price Base For Price Calculation for Weighed Items (PC)(SPEC 600)

0: 100g BASE
1: 1kg BASE

142C002 Selection of Decimal Point Postion for Total Price(PC)(SPEC 609)

0: NONE
1: 0.0
2: 0.00
3: 0.000

142C003 Selection of Decimal Point Position for Unit Price(PC) (SPEC 610)

0: NONE
1: 0.0
2: 0.00
3: 0.000

142C004 Selection Of Price Rounding Methods For The Decimal Digits For Weighed Items(PC)(SPEC 628)

0: ROUNDING
1: TRUNCATING
2: CUT UP

142C005 Selection Of Additional Price Rounding Method For Item(PC)(SPEC 629)

0: NO ADDITIONAL ROUNDING
1: 1 / 4 ROUNDING
2: SPECIAL ROUNDING
3: ROUNDING FOR 1 ST DIGIT
4: CUT OFF
5: CUT UP

142C006 Selection Of Switching Of Price Base (SPEC 612) (Not Enable)

0: DISABLE
1: 100g / 1kg
2: 500g / 1kg

13.1.4 W&M Operation

142E006 Selection of Prepack Mode

0: Inhibit
1: Allow

142E010 Printing Of Item Label After Weight Change (Sp678)

0: ALLOW
1: INHIBIT

142E020 Allow PLU Tare Override One Touch Tare (1/7/08:SM5500)

0: INHIBIT
1: ALLOW

142E021 Allow PLU Tare When There is Weight on Platter

0: INHIBIT
1: ALLOW

142E018 Country Code

STD	0x00	STANDARD
UK	0x01	UK
DEMARK	0x02	DEMARK
EURO	0x03	EURO
JAPAN	0x04	JAPANESE
CHINESE	0x05	CHINESE
SWEDEN	0x06	SD
US-Kg	0x07	US-Kg
US-lb	0x08	US-lb
HK-lb	0x09	HK-lb
HK-catty	0x0a	HK-catty
Netherland	0x0b	Netherland
Latvia	0x0c	Latvia
Lithuania	0x0d	Lithuania
Russia	0x0e	Russia
Turkey	0x0f	TU
Chile	0x10	CL
Germany	0x11	Germany
Singapore	0x12	SI
Malaysia	0x13	MS
Israel	0x14	IR
Croatia	0x15	CO
France	0x16	France
Taiwan	0x17	TW

Saudi Arab	0x18	Saudi Arab
Cran Canaria	0x19	CR
Thailand	0x1a	Thailand
Korea	0x1b	Korea
Bulgaria	0x1c	Bulgaria
Poland	0x1d	Poland
South Africa	0x1e	SF
Austria	0x1f	Austria
Ukraine	0x20	Ukraine
Kuwait	0x21	Kuwait
Belgium	0x22	Belgium
Canada-kg	0x23	CA-KG
Canada-lb	0x24	CA-LB
Canada-Fr-kg	0x25	CA-FR-KG
Canada-Fr-lb	0x26	CA-FR-LB
Czech Republic	0x27	CZ
Belgium – Dutch	0x28	Belgium-Dutch
Greece	0x19	GR
Spain	0x2a	Spain
Switzerland	0x2b	Switzerland
Australia	0x2c	AR
Norway	0x2d	Norway
Portugal	0x2e	Portugal

142E027 Weight Stability Condition

Loose
Normal
Tight
Stringent

142E030 Unit Price Masking for US requirement

0: INHIBIT
1: ALLOW

142E031 Scale Resolution

1/3000
1/6000
1/7500
Not Used

142E036 Audit Trail

0: Enable
1: Disable

13.2 Printer SPEC

13.2.1 Printer 1 SPEC

143A002: PAPER WIDTH (IN DOTS)
(0 – 640 Default 576)

143A003: PAPER LENGTH (IN DOT)
(0 – 2000 Default 737)

143A004: GAP LENGTH (IN DOT)
(0 – 40 Default 30)

143A005: BACK FEED LENGTH FOR LABEL FROM PEEL TO THERMAL (IN DOTS)
(0 – 160 Default 80)

143A006: PRINTING SPEED

0: 100 mm/s
1: 110 mm/s
2: 120 mm/s
3: 130 mm/s
4: 140 mm/s
5: 150 mm/s

143A007: PRINTING ADJUSTMENT

0: Plus
1: Minus

143A008: AMOUNT OF ADJUSTMENT IN DOTS
(0 – 40 Default 00)

143A009: BACK FEED FUNCTION FOR GAP LABEL PRINTING

0: Disable
1: Enable

143A011: PRINTING DENSITY

0: High
1: Medium High
2: Medium
3: Low

143A013: FORWARD FEED LENGTH AFTER PRINTING FOR NO GAP PAPER (IN DOTS)
(0 – 400 Default 200)

143A016: PRINTER 1 LABEL/RECEIPT CONTROL

0: By Sensor
1: By Key

143A017: PRINTER INITIAL STATE (LABEL/RECEIPT) -- BY KEY

0: Receipt
1: Label

143A019: CONTINUOUS LABEL

0: Yes
1: No

143A021: BACK FEED LENGTH FOR NO GAP LABEL (IN DOTS)
(0 – 240 Default 000)

143A022: BACK FEED LENGTH FOR RECEIPT (IN DOTS)
(0 – 240 Default 170)

143A025: FORWARD/BACK FEED DOTS FOR CONTINUOUS PRINTING (PEEL <=> CUT)
(0 – 160 Default 160)

143A026: THERMAL HEAD DIAGNOSIS

0: Disable
1: Feed
2: Feed + Dynamic

13.2.2 Printer 2 SPEC

143A102: PAPER WIDTH (IN DOTS)
(0 – 640 Default 576)

143A106: PRINTING SPEED

0: 100 mm/s
1: 110 mm/s
2: 120 mm/s
3: 130 mm/s
4: 140 mm/s
5: 150 mm/s

143A111: PRINTING DENSITY

0: High
1: Medium High
2: Medium
3: Low

143A113: FORWARD FEED LENGTH AFTER PRINTING FOR NO GAP PAPER
(0 – 400 Default 384)

143A114: PRINTER FUNCTION

0: Receipt
1: No Print

143A126: THERMAL HEAD DIAGNOSIS

0: Disable
1: Feed

13.3 User SPEC

13.3.1 Barcode

13.3.1.1 Item Barcode

141a000: Selection Of Item Barcode Spec 0

0: F1f2 Ccccc Xcd Xxxx (13 Digit Non-Plu)
1: F2 Cccccc Xcd Xxxx (13 Digit Non-Plu)
2: F1f2 Ccccc O Xxxx (13 Digit Non-Plu)
3: F1f2 Cccccc Xxxx Cd (13 Digit Non-Plu)
4: F1f2 Ccccc Xxxxx Cd (13 Digit Non-Plu)
5: F2 Cccccc Xxxxx Cd (13 Digit Non-Plu)
6: F2 Ccccc Xxxxxx Cd (13 Digit Non-Plu)
7: F1f2 Ccccccccccc Cd (13 Digit Plu)
8: F1f2 Cccc Xxxxxx Cd (13 Digit Non-Plu)
9: F1f2 Ccccc Cd (8 Digit Plu
10: F2 Cc Xxxx Cd (8 Digit Non-Plu)
11: Non Barcode (Non Barcode)
12: F1x2 Ccccc Xcd Xxxx (13 Digit Non-Plu)
13: F1x2 Cccccc Xxxx Cd (13 Digit Non-Plu)
14: F1f2 Cccc Xcd Xxxxx (13 Digit Non-Plu)
15: F2 Ccccc Xcd Xxxxx (13 Digit Non-Plu)
16: F1f2 Ccc Xxxxxxx Cd (13 Digit Non-Plu)
17: F1f2 Cc Xxxxxxxx Cd (13 Digit Non-Plu)
18: Ccc Wwww Ppppp Cd (13 Digit Non-Plu)
19: Non Barcode
20: F1f2 Ccccc Pcd Xxxx (13 Digit Non-Plu)
21 : F1F2 RRRRR XXXXX CD 0 (13 Digits Non-Plu) (SF only)
22 : 0F2 CCCCC XXXXXX CD 0 (13 Digits Non-Plu)
23 : F1F2 D NNN PPPPP CD (DEC)
24 : F1F2 DD NNN PPPPP CD (DEC)
25 : F1F2 NNNNN PPPPP CD (DEC)
26 : 00 CCCCC CD8 PPPP CD (M&S)

141a001: Selection Of Right Side Data Of Item Barcode (Spec 1)

0: F1f2 Ccccc Xcd Xxxx (13 Digit Non-Plu)
1: F2 Cccccc Xcd Xxxx (13 Digit Non-Plu)
2: F1f2 Ccccc O Xxxx (13 Digit Non-Plu)
3: F1f2 Cccccc Xxxx Cd (13 Digit Non-Plu)

141a002: Selection Of Right Side Price Data Of Item Barcode (Spec 2)
(If Price Is Selected In Spec. 1 Bit 1 And 2)

0: Price Before Tax
1: Price After Tax

141a012: Selection Of Default Barcode Type

0: Ean Barcode
1: Itf Barcode

141a013: Selection Of Cd Calculation Method In Itf Barcode

0:Reverse Calculation
1:Normal Calculation

141a014: Selection Of Nordiac Barcode

0:No
1:Yes

141a015: User Programmable Right Side Data For Item Barcode

0: With Identification Digit
1: Without Identification Digit

141a017: Price to Print on Barcode

0: Euro
1: Local Currency

141a023: Selection Of Barcode Checking Line

0: Printed
1: No Printed

141a024: Default Item Code Follow PLU Number

0: No
1: Yes

141a026: Selection Of Right Side Barcode Data Right Shifting (move from 142C012)

0: No Right Shifting
1: Right Shift
2: Right Shift Twice

13.3.1.2 Total Item

141a007: Selection Of Total Barcode (Spec07)

0: F1f2 Ccccc Xcd Xxxx (13 Digit Non-Plu)
1: F2 Cccccc Xcd Xxxx (13 Digit Non-Plu)
2: F1f2 Ccccc O Xxxx (13 Digit Non-Plu)
3: F1f2 Cccccc Xxxx Cd (13 Digit Non-Plu)
4: F1f2 Ccccc Xxxxx Cd (13 Digit Non-Plu)
5: F2 Cccccc Xxxxx Cd (13 Digit Non-Plu)
6: F2 Ccccc Xxxxxx Cd (13 Digit Non-Plu)
7: F1f2 Ccccccccccc Cd (13 Digit Plu)
8: F1f2 Cccc Xxxxxx Cd (13 Digit Non-Plu)
9: F1f2 Ccccc Cd (8 Digit Plu)
10: F2 Cc Xxxx Cd (8 Digit Non-Plu)
11: Non Barcode (Non Barcode)
12: F1x2 Ccccc Xcd Xxxx (13 Digit Non-Plu)
13: F1x2 Cccccc Xxxx Cd (13 Digit Non-Plu)
14: F1f2 Cccc Xcd Xxxxx (13 Digit Non-Plu)
15: F2 Ccccc Xcd Xxxxx (13 Digit Non-Plu)
16: F1f2 Ccc Xxxxxxx Cd (13 Digit Non-Plu)
17: F1f2 Cc Xxxxxxxx Cd (13 Digit Non-Plu)
18: Ccc Wwww Ppppp Cd (13 Digit Non-Plu)
19: Non Barcode
20: F1f2 Ccccc Pcd Xxxx (13 Digit Non-Plu)
21 : F1F2 CC NNN XXXXX CD (13 Digit Non-Plu)
22 : F1F2 C NNNN XXXXX CD (13 Digit Non-Plu)
23 : F1F2 D NNN PPPPP CD (DEC)
24 : F1F2 DD NNN PPPPP CD (DEC)
25 : F1F2 NNNNN PPPPP CD (DEC)
26 : 00 CCCCC CD8 PPPP CD (M&S)

141a008: Selection Of Left Side Data Of Total Barcode (Spec8)

0: Scale Number
1: Last Accumulated Item Code
2: Receipt Number
3: Clerk Number
4: Fixed Number

141a009: Fixed Data For Left Side Data Of Total Barcode (For Ccccc Data) (Spec09)
(0 - 9999999999 Default 0000000000)

141a010: Setting Flag Data Of F1 & F2 For Total Barcode (Spec10)
(0 – 99 Default 02)

141a011: Selection Of Right Side Data Of Total Barcode (Spec11)

0: Quantity
1: Price
2: Weight

13.3.1.3 MultiBarcode

141a022: Multi-Barcode Type

0: EAN128
1: RSS

141a025: RSS Human Readable

0: All
1: GTIN Only
2: None

13.3.2 Communication

141c001: Setting Of Scale Numbers (Spec 48)
Byte 100, 101, 102, 103, 104, 105 (1 – 999999)

141c011: Day Of Week in PLU File In TWSWTCP Communication

Always send
Not send

141c012: Ignore Transfat Status Bit In TWSWTCP Communication

No
Yes

141c014: Database Mode

0: Server - Client
1: Stand Alone
2: Floating Server

141c015: Foreign Key Size

0: Default Size
1: 4 Bytes

141c018: External Receipt Printer (PP2000)

0: Disable
1: Com 1
2: Com 2

13.3.3 Label

13.3.3.1 Advertisement

141b068: Print Advertisement On All Label

0: No
1: Yes

141b069: Advertisement Print Position

0: 1st Line
1: Below
2: Above

13.3.3.2 Currency Symbol

141b037: Print Currency Symbol and Weight on Label

0: No
1: Yes

141b038: Currency Symbol Position

0: Before Price
1: After Price

141D083: Lock Scale after CCD Report

0: No
1: Yes

13.3.3.3 Data Fields

141b049: Date Printing

0: Pack Date Depend On Sell By Date and Use By Date Value
1: Print All
2: Print Sell By Date and Use By Date When Value > 0

141b096: Use By Date As Re-Pack Date

0: No
1: Yes

141d008: Source Of Sell By Date (Spec109)

0: Packed Date
1: Current Date

141D159: Use By Date And Sell By Date Limitation

0: No
1: Yes

13.3.3.4 Field Title

141b072: Field Titles

0: Text Title
1: Fixed Title

141b050: Print Sell Date and Pack Date Title

0: No
1: Yes

141b051: Print Use By Date Title

0: No
1: Yes

141b052: Print Storage Temperature Title

0: No
1: Yes

13.3.3.5 Ingredient

141b040: Alignment Of Ingredient

0: Centering
1: Left Alignment
2: Right Alignment
3: Base on Data Status

141b070: Vertical Alignment Of Ingredient Data

0: Top
1: Center
2: Auto Fit

141b084: Ingredient Print When Out Of Print Area

0: Print Maximum Number Of Lines on 1st Label
1: No Print
2: Print Maximum Number Of Lines on 1st Label, the rest on 2nd Label
3: Print Maximum Number Of Lines on 1st Label, all on 2nd Label

13.3.3.6 Label Format

141b002: Selection Of Default Label Format For Item Printing (Spec24)

Standard	**U1, CA**
0: T1	A
1: T2	B
2: T3	C
3: T4	U2
4: T5	U3
5: T6	U4
6: T7	U5
7: T8	U6
8: T9	U7
9: T10	U8
10: T11	T5
11: T12	T6
12: S	T7
13: A	T8
14: B	T9
15: C	T10
16: F1	F1
17: F2	F2
18: F3	F3
19: F4	F4
20: F5	F5
21: F6	F6
22: F7	F7
23: F8	F8

141b058: C Type Field On Print Format

0: C1 – C4
1: C5

#141b003: Selection Of Default Label Format For Total Printing(Spec 25)

Standard	**U1, CA**
0: T1	A
1: T2	B
2: T3	C
3: T4	U2
4: T5	U3
5: T6	U4
6: T7	U5
7: T8	U6
8: T9	U7
9: T10	U8
10: T11	T5
11: T12	T6
12: S	T7
13: A	T8
14: B	T9
15: C	T10
16: F1	F1
17: F2	F2
18: F3	F3
19: F4	F4
20: F5	F5

21: F6	F6
22: F7	F7
23: F8	F8

141b111: Alternate Label Format When THD Diagnostic Failed (*SM5500)

0: Not Use
1: F1
2 : F2
3: F3
4: F4
5: F5
6: F6
7: F7
8: F8
Current Format + Offset 30

141b115: Auto Print Status In Label Format By Function Key.

0: Disable
1: Enable

13.3.3.7 Nutrition

141b081: Print Position For Serving Size And Serving Container

0: Serving Size Top & Serving Container Bottom
1: Serving Container Top & Serving Size Bottom

141b082: Printing Of Serving Size And Serving Container On Label

0: Print Both
1: Print Serving Size
2: Print Serving Container

141b0106: Nutrition Printing On Second Label

0: 0 Degree
1: 180 Degree

141c013: Number Of Digits For % Field in Nutrition Fact

0 : 2
1 : 3

141D125: Use Extended Fields For Serving Size & Serving Per Container

0: No
1: Yes

13.3.3.8 Other

141a020: Sub Total & Grand Total Barcode

0: Based On Item Barcode
1: Based On Total Barcode

141b065: Item Label Printing

1: Inhibit
2: Always

141d020: Printing For Non-Weigh Item

0: Yes
1: No

141b080: Printing Weight Data

0: kg only
1: kg / g

141b085: Weight Print For Non Weighed Item

0: No
1: Yes

141b097: Re-Pack Indicator

0: Number
1: Asterisk (*)

141b0103: Average Weight And Average Price Printing For Weighed Item

0: No
1: Yes

141b008: Total Label Printing (Spec20)

0: No Print
1: Print

13.3.3.9 Quantity And Symbol

141b053: Use Quantity & Symbol from PLU

0: No
1: Yes

13.3.3.10 Shop Name

141b010: Default Data Of Printing Shop Name Number For Label Printing (Spec46)
0 – 32, Default 0

13.3.4 Receipt

13.3.4.1 General

141b005: Selection Of Total Barcode Print On Receipt (Spec12)

0: No
1: Yes

141b001: Selection Of Receipt Paper Width (Spec22)

0: 60 mm
1: 40 mm
2: 50 mm
3: 72 mm / 80mm

141b014: Plu Number Print On Receipt

0: No Print
1: Print

141b024: Price to Print on Receipt

0: Euro
1: Local Currency

141b030: Unit Print On Receipt (Spec306)

0: Pcs
1: Items

141b032: Default Data Of Printing Special Message Number For Receipt (Sp112)
Byte 85,862 Bytes (0 -- 16)

141b033: Selection Of Printing Thank You Message On Receipt (Sp123)

0: Enable
1: Disable

141b034: Position Of Special Message On Receipt And Order Receipt (Sp125)

0: Bottom Of Receipt
1: Top Of Receipt

141b041: Print Number of Line of Plu Commodity Name on Receipt

0: No Print
1: Single Line
2: 2 Lines
3: 3 Lines

141b055: Total Price For Receipt Printng

0: All
1: Total Price >= 0
2: Total Price >0
3: Total Price not equal 0

141b067: Print Second Receipt When Correction

0: No
1: Yes

141b075: Top Margin For Receipt Printing (mm)
Numeric 0 - 99

141b076: Bottom Margin For Receipt Printing (mm)
Numeric 0 –99

141b078: Print Sub-Total Without Discount

0: No
1: Yes

141b095: Unit Price Print On Receipt

0: Without Price Base
1: With Price Base

141D153: Reset Receipt Number Daily

0: No
1: Yes

141b039: Discount Presentation in Receipt

0: 1st Line = New Unit Price and 2nd Line = Discount Calculation
1: 1st Line = Original Price and 2nd Line = Subtraction of Discount
2: Discount Unit Price (With Profit Printed)
3: Original Unit Price (With Profit Printed)
4: Discount Unit Price (No Profit & No Discount Text Printed)

141b056: Print Tare On Receipt

0: No
1: Yes

141b011: Default Data Of Printing Shop Name Number For Receipt Printing (Spec47)
0 – 32, Default 0

141b017: Shop name On Receipt (Spec251)

0: Top
1: Bottom

141b100: Start Line Of Commodity Name Printing On Receipt

0: 1st Line
1: 2nd Line
2: 3rd Line
3: 4th Line

13.3.4.2 Talon

141b059: Print Talon Barcode on Receipt

0: No
1: Yes

141b060: Second Receipt Printing (Talon)

0: No Print
1: Continuous Print
2. 1 Second Print
3. 3 Seconds Print
4. User Select

141b062: Print Image On Talon

0: No
1: Yes

141b063: Print Shop Name On Talon

0: No
1: Yes

13.3.4.3 Void Receipt

141D088: Confirmation For Void Receipt Function

0: Yes
1: No

141b064: Print Void Receipt

0: No
1: Yes

13.3.5 Settings

13.3.5.1 Accumulation & Change Mode

141D096: Exit Change Mode After Printing Receipt Timeout (Seconds)
1 - 9

141D097: Auto Exit From Accumulation/Change Mode Timeout (Seconds)
0 – 9 (0: No timeout)

141d018: Auto Accumulation (Similar To Sp269, But Have Only Option No/Yes)

0: No
1: Yes

141D114: Start Up With Department listing

0: Based On Preset Group
1: Base On Department
2: PLUs From Department
3: All PLUs
4: Hot Items

141D115: Clear PLU Upon Refresh on MANUAL mode

0: No
1: Yes

141d057: Re-group PLUs

0: Disable
1: Enable

141D116: Lock Clerk Buffer on Printer Error

0: No
1: Yes

13.3.5.2 Auto Entry & Reentry

141d025: Re-entry Mode from Menu

0: Previous Mode
1: Manual Mode
2: Prepack Mode

13.3.5.3 Auto PLU Call

141d041: Auto PLU Call

Disable
By Number of Digits
By Timeout

141d042: Auto PLU Call (By Digits / By Timeout)
0 – 99 (Enter by Tenkey)

141D163: Disable Auto PLU Call By Preset Key

0: No
1: Yes

13.3.5.4 Auto Printing

141D147: Auto Printing In Registration Mode

0: No
1: Yes

141D148: Auto Printing In Self Service Mode

0: No
1: Yes

141D152: Auto Printing In Prepack Mode

0: Yes
1: No

141D158: Disable Auto Print For Non Weigh Item

0: Yes
1: No

141B061: Label Format Printing

0: Print Format 1 and Format 2
1: Print Format 1 and Auto Print Format 2 in manual mode
2: Print Format 1 in Manual Mode and Format 2 in Prepack Mode
3: Print Format 1 in Prepack Mode and Format 2 in Manual Mode

13.3.5.5 Barcode Scanner

141c004: External Barcode Scanner

0: Disable
1: Com1
2: Com2

13.3.5.6 Cash Drawer

141d054: Ask For Operator Number When Opening Cash Drawer

0: No
1: Yes

13.3.5.7 CCD

141D024: Auto printing of batch report after CCD report

0. No
1. batch report1
2. batch report2

13.3.5.8 Commodity Name Shown

141D095: Show PLU Number In Front Of Commodity Name

0: No
1: Operator Display
2: Customer Display
3: Operator & Customer Display

141D106: Number Of Line Of Commodity On Operator Display

0: 1 Line
1: 2 Lines No Concatenated
2: 2 Lines Concatenated

141D165: Auto Resize Commodity Name on Operator Display

0: No
1: Yes

141D181: Number Of Line Of Commodity On Customer Display

0: 1 Line
1: 2 Lines Concatenated
2: All Lines Concatenated

13.3.5.9 Continues Printing

141D149: Continuous Printing In Prepack Mode

0: No
1: Yes

13.3.5.10 Cool

141b074: Concatenation Of Cool Test Print

0: Concatenate
1: No Concatenate

13.3.5.11 Customer

141D164: Allow New Customer Numbers

0: Yes
1: No

13.3.5.12 Date Time Format

141b004: Selection Of Year Format (Printing On Label & Receipt) (Spec 141)

0: Yy
1: Yyyy

141b013: Time Format (Spec233)

0: 24 Hour
1: 12 Hour (Am/Pm)

141b066: Printed Month Format

0: Integer
1: 2 Characters
2: 3 Characters

141b086: Separator For Date Format

0: None
1: Space
2: Dot
3: Hyphen
4: Slash

141d022: Selection of Date Format

0: MM/DD/YYYY
1: DD/MM/YYYY
2: YYYY/MM/DD

13.3.5.13 Discount

141d019: Discount Price Rounding Method

0: Rounding
1: Cut Down
2: Cut Up

141d031: Discount Value

Discount Value Subtracted From Unit Price
New Unit Price

13.3.5.14 EL Display

141d065: Time To Activate EL Screen Saver

0: 0000 hour
1: 0100 hour
2: 0200 hour
3: 0300 hour
4: 0400 hour
5: 0500 hour
6: 0600 hour
7: 0700hour
8: 0800 hour
9: 0900 hour
10: 1000 hour
11: 1100 hour
12: 1200 hour
13: 1300 hour
14:1400 hour
15: 1500 hour
16: 1600 hour
17: 1700hour
18: 1800 hour
19: 1900 hour
20: 2000 hour
21: 2100 hour
22: 2200 hour
23: 2300 hour

141d066:EL Display Facing

0: CUSTOMER
1: OPERATOR

141d061: Turn Off EL Display After (Minutes)
0 – 99 (Enter by Tenkey)
0 → Always On

13.3.5.15 Email

141c010: Delete Read Email After Number Of Day
Numeric 1 ~ 9999

13.3.5.16 Force Quantity

141D109: Force Enter Quantity For Non Weighed Item

0: No
1: Yes

13.3.5.17 Force Shelf Life

141b071: Force Shelf Life

0: Disable
1: Enable

13.3.5.18 Function Key Related

141e026: Family Inventory Function Key

0: Disable
1: Enable

13.3.5.19 Hi-Touch

141d044: Reset Hi-Touch After (Second)
Numeric 1 ~ 9999

13.3.5.20 Image & Text

141d038: Text Programming In PLU

Not Allow
Allow

141d015: Image Copy From Free Format (Sp156)

0: Disable
1: Enable

141d070: Text Field For PLU

0: Normal Field (1 – 5)
1: Extended Field (1 - 16)

13.3.5.21 LCD Display

141d033: LCD Back Light Color Control

Purple
Red
Blue
Off

13.3.5.22 Log

141D099: Log Price And Tare Change

0: Disable
1: Lower Price Or Higher Tare Changes
2. Price Or Tare Changes (*SM5500 only)

13.3.5.23 Manual Price Entry

141d002: Manual Price Entry (Spec23)

0: Inhibit
1: Allow

13.3.5.24 Manual Weigh Entry

141D123: Manual Weight Entry (SM880)

0: Disable
1: Normal Mode
2: Normal & Prepack Mode

13.3.5.25 Operator

141d017: Operator Logging Function (Sp311)

0: Disable
1: Enable

141d062: Scale Group For Operator Keys
0 – 99 (Enter by Tenkey)
0 → Use Scale File

141d076: Force Operator Log Out After Inactivity for (Seconds)
0-9999 (Enter By Tenkey)
0- Disable

141D157: Clerk Image Display

0: Follow Clerk Name
1: Follow Clerk Code

13.3.5.26 Order & Basket

141D118: Prefix For The Order Number

0: None
1: Day Of Month

141b107: Special Message Number For Order Receipt
Numeric 0 -9999

141b057: Print Total Price On Order

0: No
1: Yes

141b077: Selection Of Label Format For Order Label
Numeric 0 -99

141D077: Order Number

0: Auto Generate
1: By Operator

141b0101: Order And Basket Items Print Format

0: Itemized
1: Summarized

141D150: Clear Basket After Number Of Day From Register Date
Numeric 0 -999

141D151: Clear Order After Number Of Day From Delivery Date
Numeric 0 -999

141D110: Maximum Number Of Days For Delivery Date Adjustment.
Numeric entry 0 → 9

13.3.5.27 Other

141e006: Packed Date Function Key

0: Inhibit
1: Prepack & Manual
2: Prepack Only
3: Manual Only

141e008: Sell By Date Function Key

0: Inhibit
1: Prepack & Manual
2: Prepack Only
3: Manual Only

141D130: Ingredient Selection For PLU

0: All
1: Group

141d051: Special Message / Ingredient Field to Use

0: 1 Byte
1: 2 Bytes
2: 4 Bytes

141b031: Selection Of Printing Operator Name On Receipt And Label (Sp21)

0: Code Only
1: Name

141D113: REWE Feature

0: Disable
1: Enable

141D122: Force Entering Item Code

0: No
1: Yes

141D124: Decimal Point For kg / l

0: No
1: Yes

141D173: Selection Of Auto Clear Of Unit Price

0: Inhibit
1: Allow

141D176: Default Setting For Weight Check Function (SM5000 series new structure)

0: Disable
1: Enable

13.3.5.28 Password

141d014: Password Protection

0: No
1: Yes

13.3.5.29 PLU Grouping

141c007: Scale Department
Numeric 1 ~ 9999

141c009: Default Prefix Value
Numeric 1 ~ 99

141D156: Department Code In PLU Code : Usage Of Code “D”

0: Department
1: Prefix

13.3.5.30 Reset

141d060: Department Code in PLU Code

0: PPPPPP
1: DPPPPP
2: DDPPPP
3: DDDPPP

141D090: Refresh Primary Preset Key Back to Main Page After Accumulation/Printing

0: Yes
1: No

141D131: Save Last Selected Department Number

0: No
1: Yes

141D139: Focus Group

0: Disable
1: Enable

141D180: Key Press Timer To Exit Registration Mode (Seconds)
Numeric 0-9
0 – Disable

13.3.5.31 Report

141d027: Clear Transactions Older Than (0 – 15 Days)
0 – 15 days (Enter By Tenkey) *0→ Not Clear.

141D128: Print Profit In Report

0: Yes
1: No

141D134: Update Label to Report

0: Normal & Prepack Mode
1: Normal Mode Only
2: No Update

141d035: Number of Days in a Transaction Period
Used in sm90 emulator for generation of STORE TOTAL FILE. (Enter By Tenkey)

141D105: Include Cleared Transaction in Periodic Report

0: No
1: Yes

13.3.5.32 Self Service

141d072: Tenkey For Self Service Mode

0: Mechanical Keypad
1: Software Tenkey

141D143: Self Service Preset Group
Numeric 0 –10

13.3.5.33 Tare

141D141: Force Tray Input

0: No
1: Yes

141D138: C + Tare Key To Clear Tare

0: No
1: Yes

141D133: Tare On Operator

0: Inhibit
1: Allow

141d056: Tare From Tray File

0: No
1: Yes

141D182: Tray Selection

0: All
1: Group

13.3.5.34 Traceability

141b044: Traceability Max Weight

0: Disable
1: Enable

141b045: Traceability Eat By Date

0: Disable
1: Enable

141b046: Default Label Format For Traceability Print

Standard
0: F1
1: F2
2: F3
3: F4
4: F5
5: F6
6: F7
7: F8

141b048: Flag Data For EAN13 Traceability Barcode
99 (Enter by tenkey)

141d053: Cool feature

0: Disable
1: Enable

141d055: Use Ingredient From Traceability

0: No
1: Yes

141b036: Print Plu Traceability In Receipt (Sp315)

0: Yes
1: No

141b0105: Print Position For Traceability Data

0: Right Align
1: Left Align

13.3.5.35 Unit Price Override

141d001: Unit Price Override (User Can Key In Unit Price In Registration Mode After Plu Call) (Spec 42)

0: Inhibit
1: Allow
2: Prepack Mode Only

141D129: Zero Unit Price In Prepack Mode

0: No
1: Yes

13.3.5.36 Unit Price Recalculation

141D126: Threshold For Price Base Switching In Unit Price Re-Calculation (g)
0 -- 9999

141D127: Price Base To Use For Unit Symbol kg For Non Weighed Item

0: /kg
1: /100
2: Price Base Switching Base On Threshold

13.4 Module SPEC

13.4.1 Password

146A004: Password

No
Yes

141d028: Password Protection

0. No
1: Yes

141D137: By Pass Password Entry Phase If Clerk Doesn't Has A Password

0: No
1: Yes

141D177: Clerk Login Authentication Via Scanner / Card Reader (SM5000 series new structure)

0: Yes
1: No

13.4.2 E-label & Hi-Touch

146A014: E-Label & Hi Touch

No
Yes

141c002: Fis3d Operation

0: No Fis3d
1: Com1
2: Com2

141b110: Default E-Label Format
Numeric 0, 1001 ~ 1099.
0 = Default (1100 for E-Label, 1101 for E-label Jr)

141d044: Reset Hi-Touch After (Second(s))
0 – 9999 (Enter by Tenkey)

13.4.3 Queue System & Turn Chime

146A016: Queuing & Turn Chime Module

No
Queue System
Turn Chime Queue System
Turn Chime Ordering System

141c002: Fis3d Operation

0: No Fis3d
1: Com1
2: Com2

141c005: Turn Chime Counter Number
Keypad entry 1 - 9

141b007: Label Printing By Clerk Key (Spec19)

0: No Print
1: Print With Accumulation
2: Print Without Accumulation
3: Not Used

141d064: Queuing System Calling Number Timeout (second)
0 - 30 (enter by tenkey)
0 → Default (20)

13.4.4 Other

146A008: Traceability

No
Yes

146A010: Auto Registration

No
Yes

146A011: Inventory/Gabage/Ordering/Reception

No
Yes

146A012: Email

No
Yes

146A015: Customer Display

LCD
EL
VGA + LCD
VGA

146A017: Self Service Module

No
Yes

146A025: Plug & Weight Module

No
Yes

146A026: Happy Hour Discount

No
Yes

146A030: External Printer

No
DP710NP
TVP-1500

146A034: Multimedia Content Management (Infomat System)

Remove After Updated To Server
Keep A Copy After Updated To Server

146A035: Price Change Batch

Disable
Enable

146A036: Kiosk Ordering System

Disable
Enable

146A037: Advance Discount / Publicity

Disable
Enable

13.5 Scale SPEC

13.5.1 Scale Price

140A004 Additional Total Price Rounding Method

0: NO ADDITIONAL ROUNDING
1: 1 / 4 ROUNDING
2: SPECIAL ROUNDING
3: ROUNDING FOR 1 ST DIGIT
4: CUT OFF
5: CUT UP
6: Y5 CUT OFF & Y10 CUT OFF
7: DENMARK ROUNDING

140A005 Selection Of Unit Price Recalculation

0: NO UNIT RECALCULATION
1: UNIT RECALCULATION

140A006 Recalculated Unit Price Rounding Method

0: Rounding
1: Truncate
2: Cut Up

140A007 Additional Recalculated Unit Price Rounding Method

0: NO ADDITIONAL ROUNDING
1: 1 / 4 ROUNDING
2: SPECIAL ROUNDING
3: ROUNDING FOR 1 ST DIGIT
4: CUT OFF
5: CUT UP
6: Y5 CUT OFF & Y10 CUT OFF
7: DENMARK ROUNDING

140A009 Catty (Kati) And Tael

0: Disable
0: Enable

13.5.2 Scale Tare

140B001 Forced Tare Function

0: DISABLE
1: ENABLE

140B004 One Touch Tare Operation

0: ALLOW
1: INHIBIT

13.5.3 Scale Tax

140C001 Selection Of Tax

0: NO TAX
1: TAX

140C002 Selection Of Tax Rounding Method

0: ROUNDING
1: TRUNCATE

13.5.3 Scale Operation

140D001 Multiplication Operation in Prepack Mode

0: INHIBIT
1: ALLOW

140D002 Rezero When Entering Registration Mode

0: INHIBIT
1: ALLOW

140D003 All Non Weighed Items in Manual Mode (SM5500 new structure)

0: Yes
1: Non Unit Price Re-calculated Item Only

140D004 Unit Weight Display And Printing

0: Kg
1: Gram

14. REVISION RECORDS

REVISION RECORDS

Serial no.	Date	Rev. Status	Description of Changes	Software Version	Remarks
001	Nov 2008	00	First Release	V2.5.0	Tentative Edition
002	July 2009	01	*1) Adding the Disassembly drawing of EV Type Second Printer Kit.* *2) Adding the EVEL (With & Without 2nd Printer) dimension in specification.* *3) Editing the Economic Bench & EV block diagram.* *4) Adding the Economic Pole block diagram.* *5) Editing the Economic Pole, EV (with & without 2nd printer) type dimension drawing.* *6) Editing the specification of dimension of Economic Pole, EV (with & without 2nd printer) type.* *7) Adding the Disassembly drawing of Pole Kit for Economic Pole type.* *8) Adding the position of Sealing screw/sticker for all models with external loadcell (Platform).*	V2.5.0	Edition 1
003	May 2010	02	*1) Adding the new specification of 2nd printer.* *2) Editing the dimension spec of Pole type in specification.* *3) Editing the dimension drawing of Pole type.* *4) Editing the EVEL type Block Diagram.* *5) Adding the EV Plus, EV (full option) and Pole EL type Block Diagram.* *6) Adding the EVEL (without 2nd printer) type dimension drawing.* *7) Adding the Base Station Installation.* *8) Adding the Pole type Pole Kit Installation.* *9) Adding the Elevated type Pole Kit Installation.* *10) Adding the Wireless LAN Kit Installation.* *11) Editing the specification of system memory.* *12) Editing the Operational Functional Tree diagram.* *13) Restructure the Disassembly drawing of Bench, Pole & EV.* *14) Editing the picture and procedure of Kernel Firmware Upgrading.* *15) Adding the Disassembly drawing of EVEL type.* *16) Adding and updating the procedure of Component listing of Hazardous Material.* *17) Adding the EV-Plus (With & Without 2nd Printer) and Pole EL type dimension drawing.* *18) Editing the model specification for EV-Plus (With & Without 2nd Printer) and adding for PEL type.* *19) Editing the AD Board write checksum procedure.* *20) Adding the 12.1" Remote Display Installation to SM-5500 scale.* *22) Editing the Sealing Position for Sealing Screw, Sealing Sticker and Sealing Cover.* *23) AC Power Cord Bracket Installation.*	V6.7.10-4	Edition 2

			24) Adding the Base Board Firmware Upgrading for Printer. *33) Adding the country spec setting procedure.* *34) Adding the Weigh Calibration procedure.* *35) Adding the User Spec and W&M spec procedure.* *36) Adding the Scale IP Address setting procedure.* *37) Adding the Internal Count mode.* *38) Adding the RS232, Input, USB, Drawer & Ethernet hardware testing.* *39) Adding the Touch Screen calibration procedure.* *41) Editing the Specification Bytes Allocation Table.* *42) Restructure the all layout of manual.*		
004	10 Feb 2011	03	*1) Adding the SM-5000BS information in model specification.* *2) Adding the SM-5000BS block diagram.* *3) Adding the SM-5000BS Pole type Without 2nd Printer dimension drawing.* *4) Adding the 30lb multi interval range in model specification.* *5) Adding the EVEL Type Pole Kit Installation.* *6) Adding the SM-5000BS Pole Kit Installation.* *7) Adding the SM-5000BS Bench type dimension drawing.* *8) Adding the SM-5000BS information for Treatment And Recovery of WEEE.* *9) Editing the printer media max roll diameter size from 130mm to 125mm.* *10) Adding the SM-5000BS picture for all procedure and setting.*	6.13.16-1-p5	Edition 3