

SERVICE MANUAL

DIGITAL COMPUTING PRINTING SCALE

SM-720

Edition 5

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DIGI®

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

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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 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 INSTALLÉ 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.

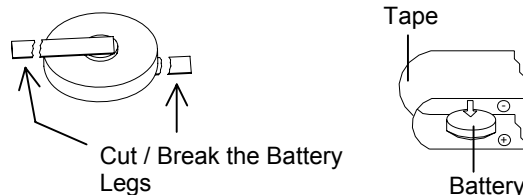
DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS

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.





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.

1. GENERAL

1.1 Model Specification

Model	:	SM-720		
		<u>Description:</u>	<u>Type:</u>	<u>Dimension:</u>
Variation	:	Dual Pole	- SM-720 DP	497(L) x 404(W) x 589(H)
		Economic Bench	- SM-720 EB	430(L) x 404(W) x 177(H)
		Elevated	- SM-720 EV	404(L) x 397(W) x 658(H)
		Touch Elevated	- SM-720 TEV	404(L) x 397(W) x 658(H)
		Touch Screen Bench	- SM-720 TEB	430(L) x 404(W) x 177(H)
		Touch Screen Pole	- SM-720 TDP	497(L) x 404(W) x 589(H)
		Hanging Scale	- SM-720 H	460(L) x 230(W) x 855(H)
		Self Service	- SM-720 BS	497(L) x 482(W) x 779(H)
Display	:	3 Color LCD with Backlight	-	64 x 264 dots (DP, EV, H & BS Type)
			-	24 x 264 dots (B Type)
Display Angle	:	50 and 80 degree		
Key	:	Mechanical Switch		
Color	:	Blue / Grey / Metallic Silver		
Number Of Preset Key	:	SM-720EB	-	32
		SM-720DP	-	56 / 100
		SM-720EV	-	56 / 100
		SM-720H	-	56
		SM-720BS	-	48 / 60 / 96 / 120
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)		
		30 Lb		
Printer Type	:	Cassette Type		
		A) Paper	:	Label & Receipt
		B) Paper Width	:	For Label - 40mm to 80mm
			:	For Label - 40mm to 80mm
			:	For Receipt - 72mm/80mm
		C) Resolution	:	8 dots / mm

	D) Speed	: For Label - Up to 150 mm / sec
		: For Receipt - Up to 150 mm / sec
		Note: For Best Speed and Printing Resolution, use Ricoh paper, 150LAB
Memory Capacity	:	2MB (Standard), 10MB (Max.)
Memory Extension Board	:	8MB (Optional)

1.2 Operating Specification

Power Source	:	AC Supply 100V / 110V (Manual Set by Jumper Setting)
		AC Supply 220V / 230V (Manual Set by Jumper Setting)
Frequency	:	50 - 60 Hz
Operating Temperature	:	-10 °C to 40 °C
Humidity	:	15 % to 85 % RH
Waterproof	:	N.A. (Please do not splash water on top or around the scale. Clean scale only with a damp cloth)

1.3 Type of Interface

Standard	:	RS 232C (FL-1, PC connection)
	:	PS2 Keyboard
	:	Cash drawer (3 Pin Din for TWB-01750)
	:	Cash drawer (RJ11 type connector for TWB-01750-1 onwards)
Optional	:	RS 485 (PC connection)
		Ethernet (Client / Server, TCP / IP protocol)
	:	Character Generator

* Interface with PC can either use RS 232C, RS 485 or Ethernet.

1.4 Main Components

1	XYLINX-XC95144XL-10TQG144C. (M/B-U1)	It's a 3.3V CPLD targeted for high-performance, low-voltage application in leading-edge communications and computing system.
2	Motor Driver L6258EX. (M/B-U5)	It's a dual full bridge for motor control application realized in BCD technology, with the capability of driver both winding of a bipolar stepper motor or bi-directional

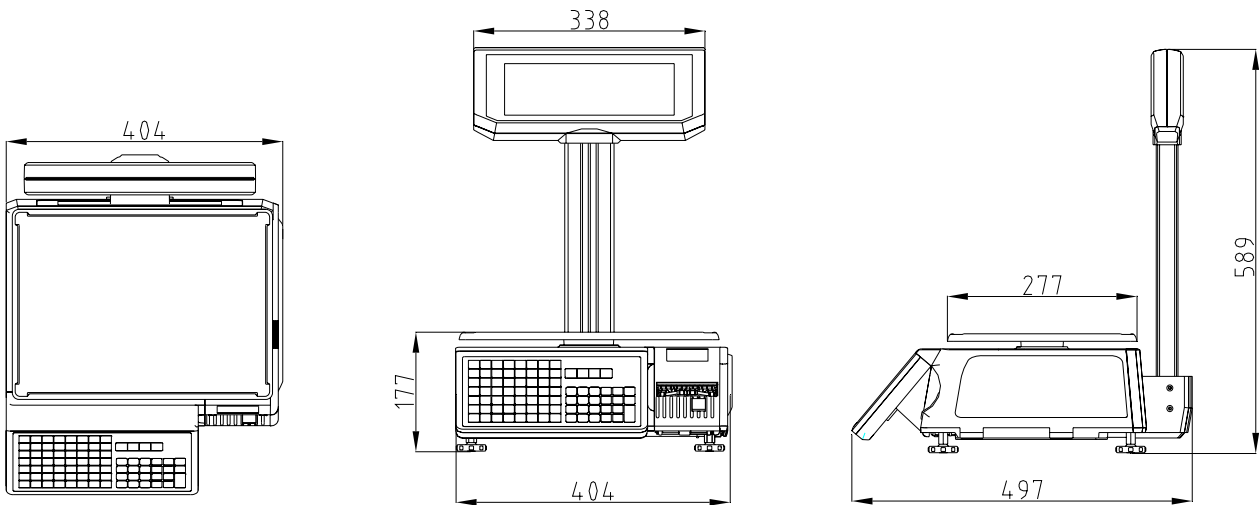
		control two DC motor.
3	RS232 Drv AX3232. (M/B-U18)	It's a device consists of two line driver, two receiver, and a dual change-pump circuit with +-15kv ESD protection pin to pin.
4	Controller H8/3024F. (CPU BD-U1)	It's a high-performance single-chip microcomputer that integrates peripheral functions necessary y for system configuration with an H8/300H CPU feature a 32-bits internal architecture as its core.
5	SRAM IS62WV51216BLL. (CPU BD-U7 & U8)	It's a high-performance, very low power CMOS static Random Access Memory organized as 524,288 words by 16 bits and operates from a wide range of 2.4V to 5.5V supply voltage.
6	AM29LV320DB90EI. (CPU BD-U9)	It's a 32 megabit, 3.0 volt-only flash memory device, and is designed to be programmed in-system with the standard 3.0 volt Vcc supply, and can also be programmed in standard EPROM programmers.
7	LAN9115-MT. (CPU BD-U10)	Is a full-featured, single chip 10/100 Ethernet controller designed for Embedded applications where performance, flexibility, ease of integration and system cost control are required

*Components are subject to change without notice.

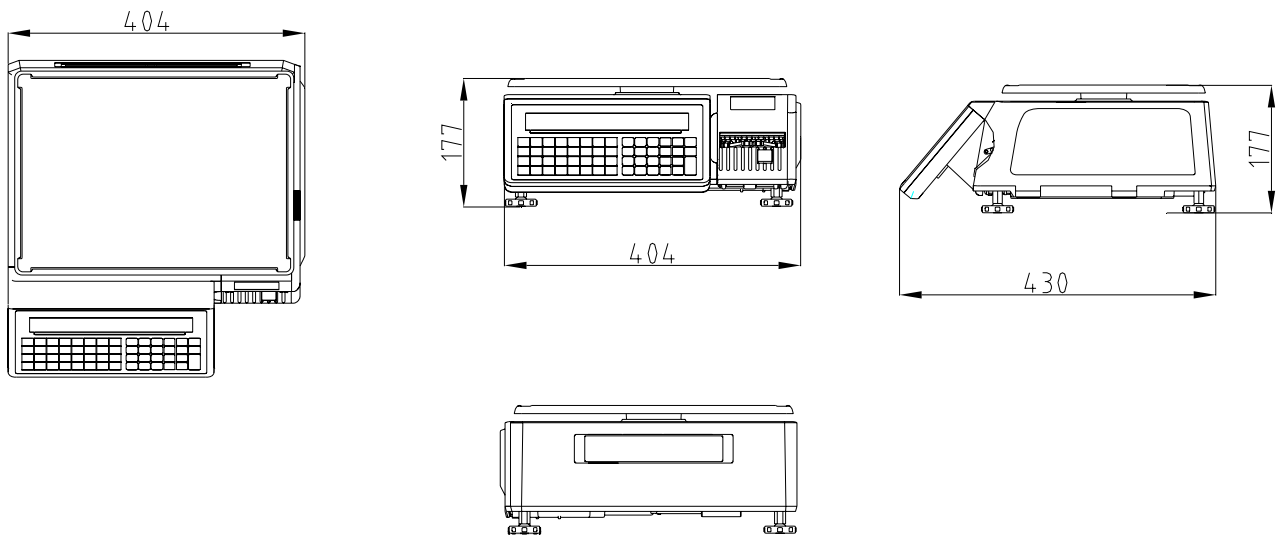
2. OVERVIEW

2.1 Dimension (in mm)

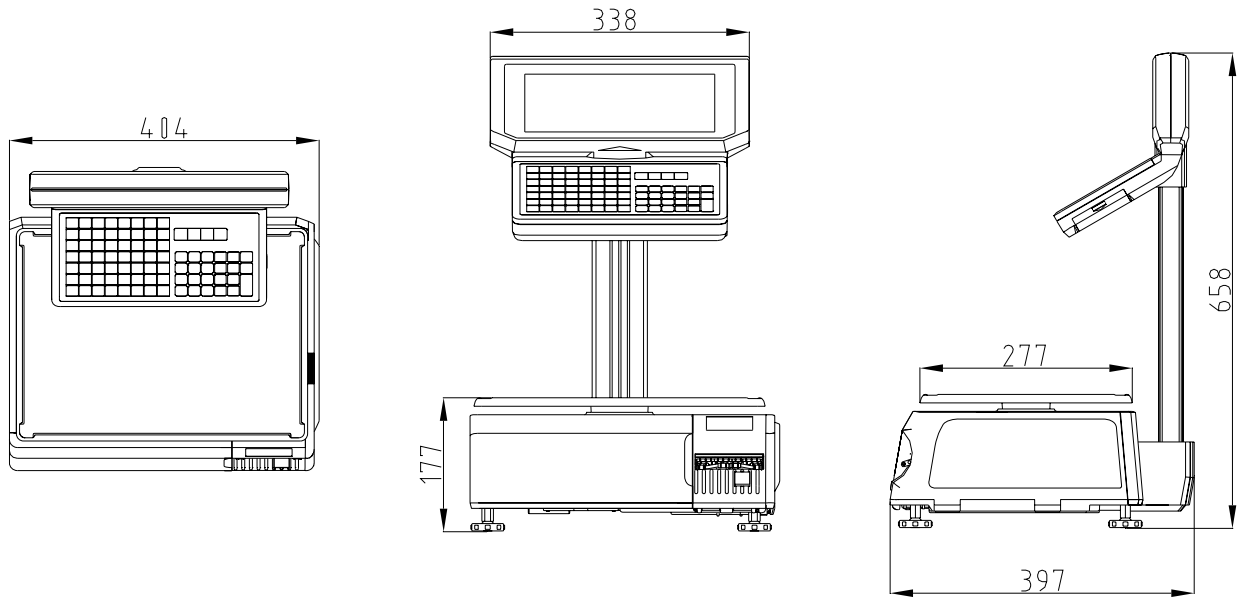
2.1.1 SM-720 DP



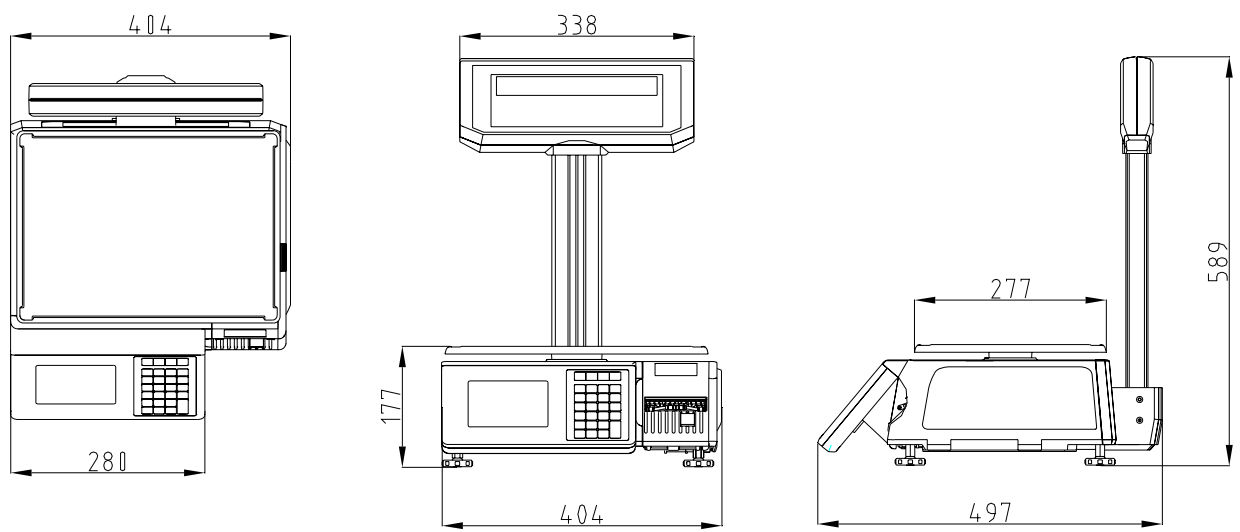
2.1.2 SM-720 EB



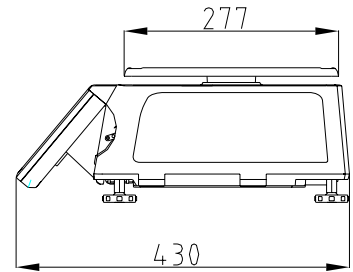
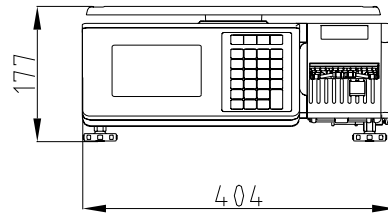
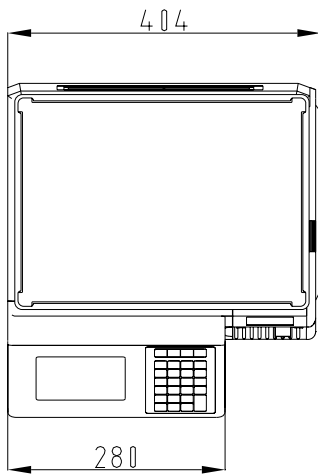
2.1.3 SM-720 EV



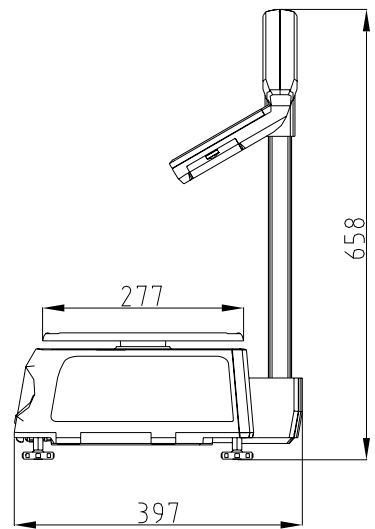
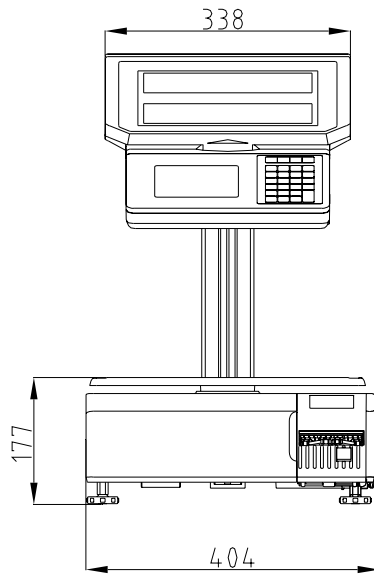
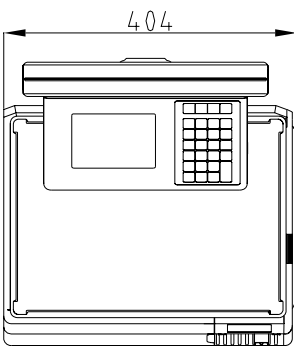
2.1.4 SM-720 TDP



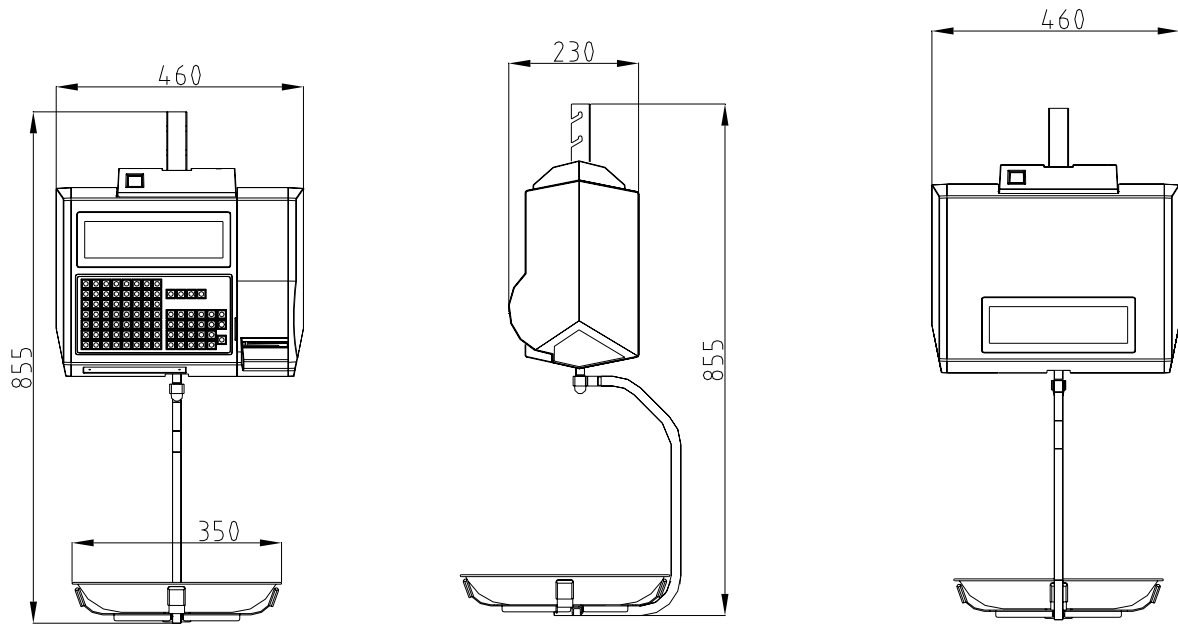
2.1.5 SM-720 TEB



2.1.6 SM-720 TEV

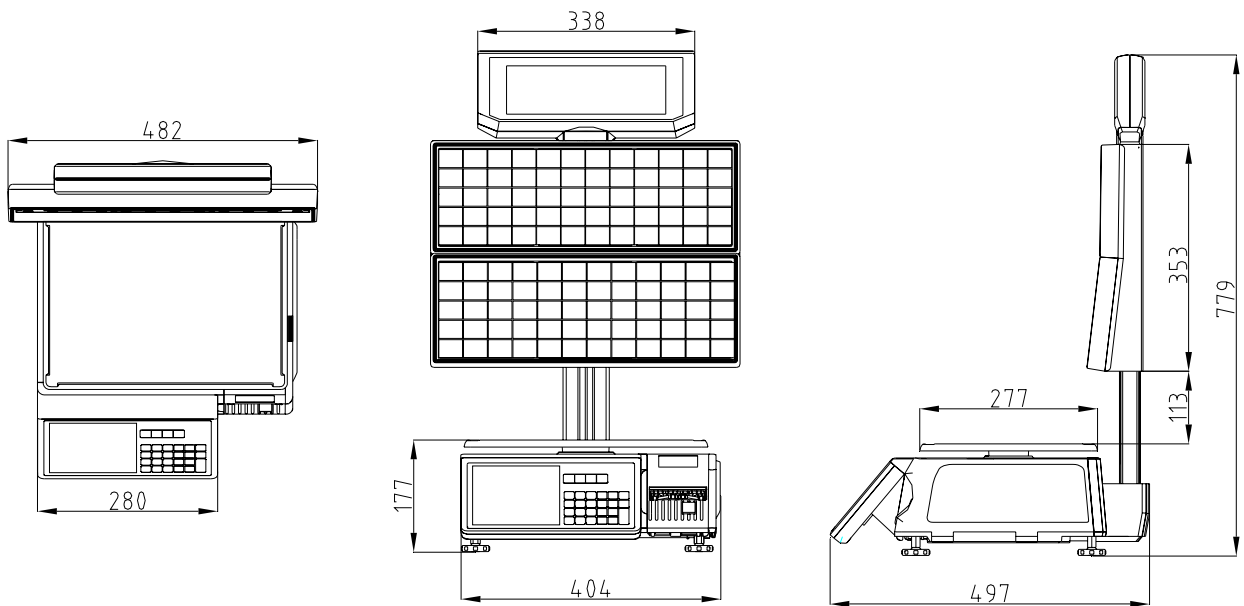


2.1.7 SM-720 H

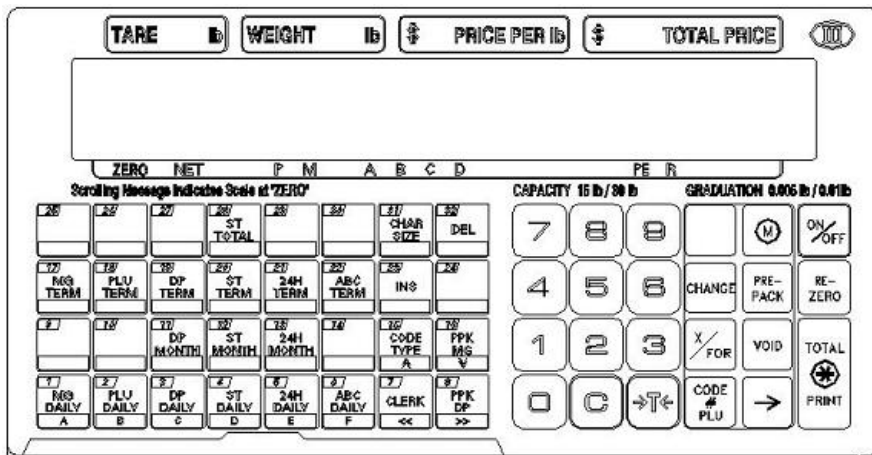


Note: This dimension is using 72mm Printer.

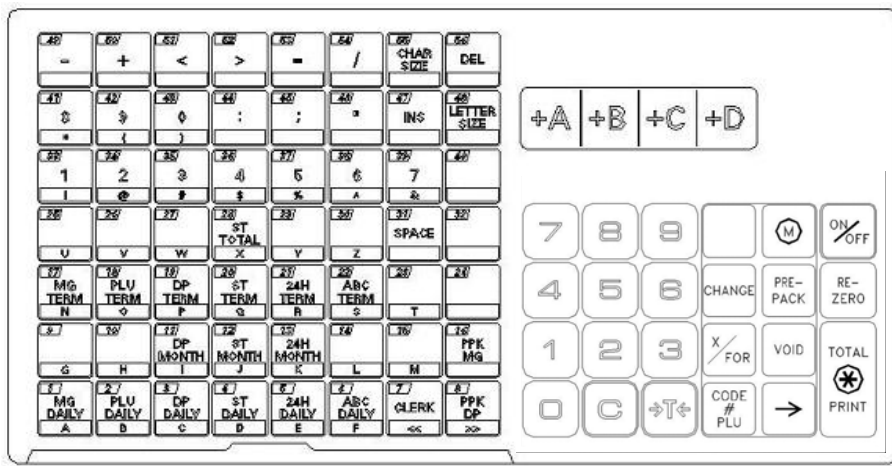
2.1.7 SM-720 BS



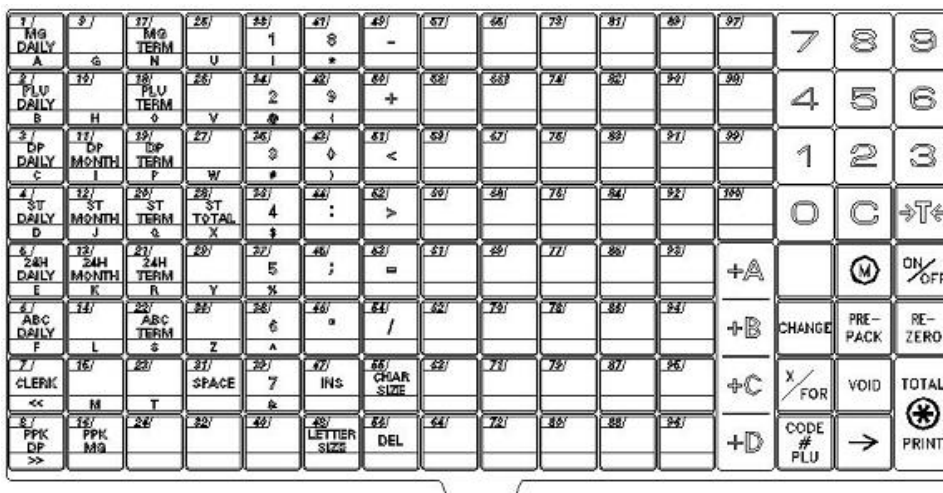
2.2 Key sheet Layout



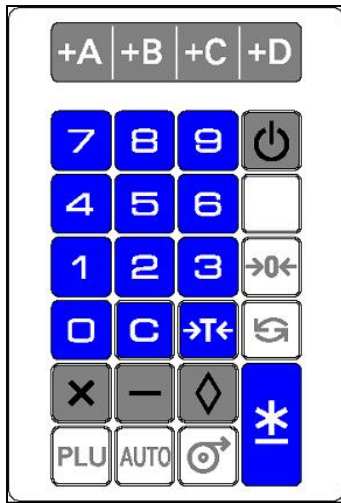
32 Preset Keys



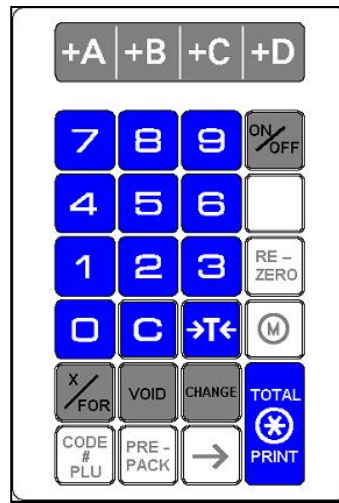
56 Preset Keys



100 Preset Keys

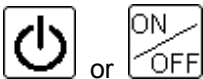


Symbol Key Panel



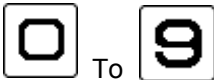
Standard Key Panel

ON / OFF KEY



* Turn display ON or OFF.

NUMERIC KEYS



* Enter numeric data.

TARE KEY



* Set or Clear Tare Value.
* Select " NO " in S and Z Mode.
* Item Test print in S Mode.

CLEAR KEY



* Clear numeric values.
* Select " YES " in S and Z Mode.

RE-ZERO KEY



* Reset weight to zero.

PRE-PACK KEY



* Switch Manual mode and Pre-pack mode alternatively.
(The mode status will be indicated in the P and M indicator.)
▪ P - PRE-PACK MODE ▪ M - MANUAL MODE

CHANGE KEY



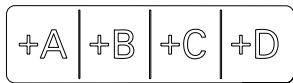
- * Calculate the Changed Amount.
- * Escape the Programming screen without saving data in S mode.

MULTIPLE KEY



- * Register the number of Non-Weight products.
- * Select programming item such as PLU data, Shop Name in S mode.
- * Select Report Type in X mode.
- * Select Data Transaction Type in Z mode.

CLERK KEYS



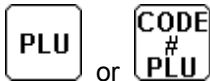
- * Accumulate the Total Price.

VOID KEY



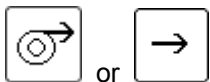
- * Correct the Sales Data

PLU KEY



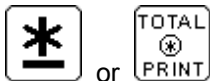
- * Call up PLU data.
- * Store the programmed data in S mode.

FEED KEY



- * Feed Label or Receipt

PRINT KEY



- * Print out Label or Receipt

MODE SELECT KEY



- * Five Modes can be selected using this key.
- Indicator R - REGISTRATION MODE (All the sales transactions are performed.)
- Indicator X - CHECK MODE (Printing out and sales report.)
- Indicator S - PROGRAM MODE (Programming preset data, such as products, data, shop name, etc.)
- Indicator Z - TOTAL MODE (Clear sales data stored.)
- Indicator X (Blink) - PASSWORD SETTING MODE (Setting ENTRY PASSWORD for S, X and Z modes.)

PRESET KEYS



to



* Call up Preset data such as PLU Data or Function Data in Reg. Mode.
 * Enter Alphabetic data in Program Mode.

Note: The following Preset Keys are used in entering Alphabetic (Pole Type).



Move the cursor. Change the entry to Right.

Move the cursor. Change the entry to Left.

Code type entered.

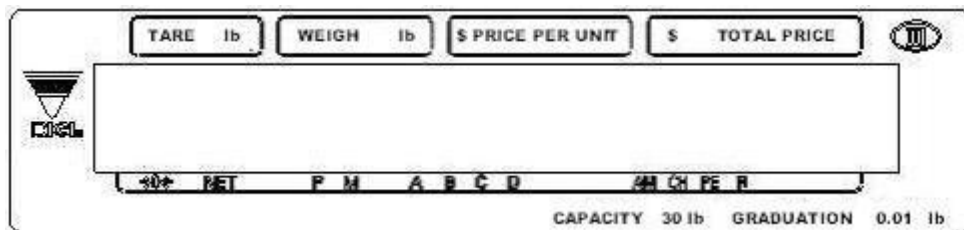
Insert Data.

Switch Cap / Lower case.

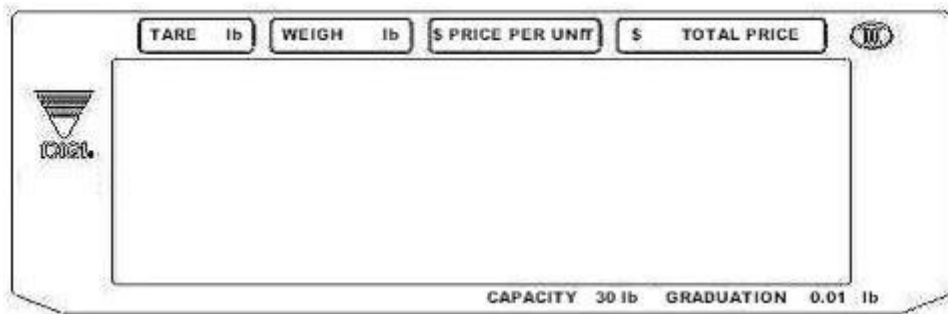
Change Font size.

Delete the Data.

2.3 Panel Layout



Economic Bench and Pole Type (For Small LCD)



Dual Pole Type (For Large LCD)

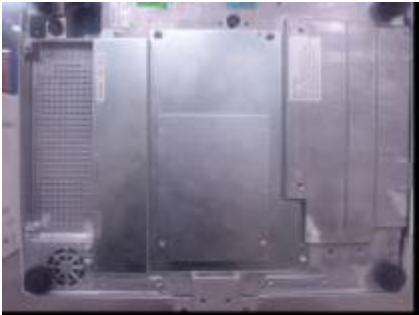
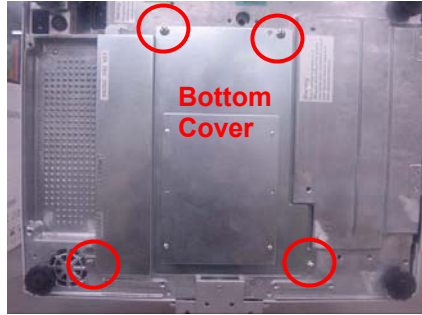
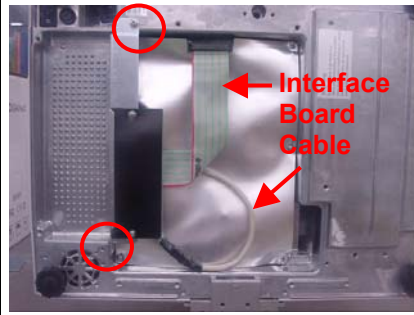
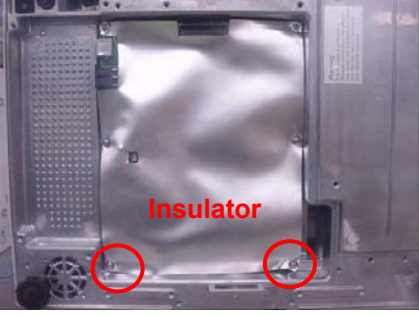
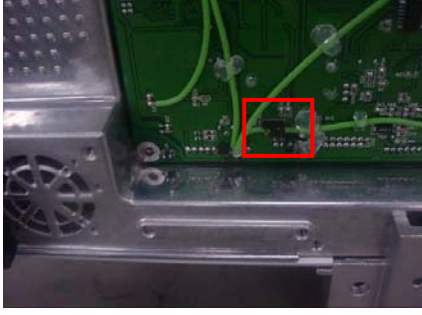
There are fifteen different indicators on Display Panel as shown below.

1. **→0←** : Lights when scale is stable at the zero point
2. **NET** : Lights when tare subtraction is performed.
3. **P** : Lights when PRE-PACK Mode is selected.
4. **MAN** : Lights when MANUAL Mode is selected.
5. **AM** : Lights when the amount is displayed.

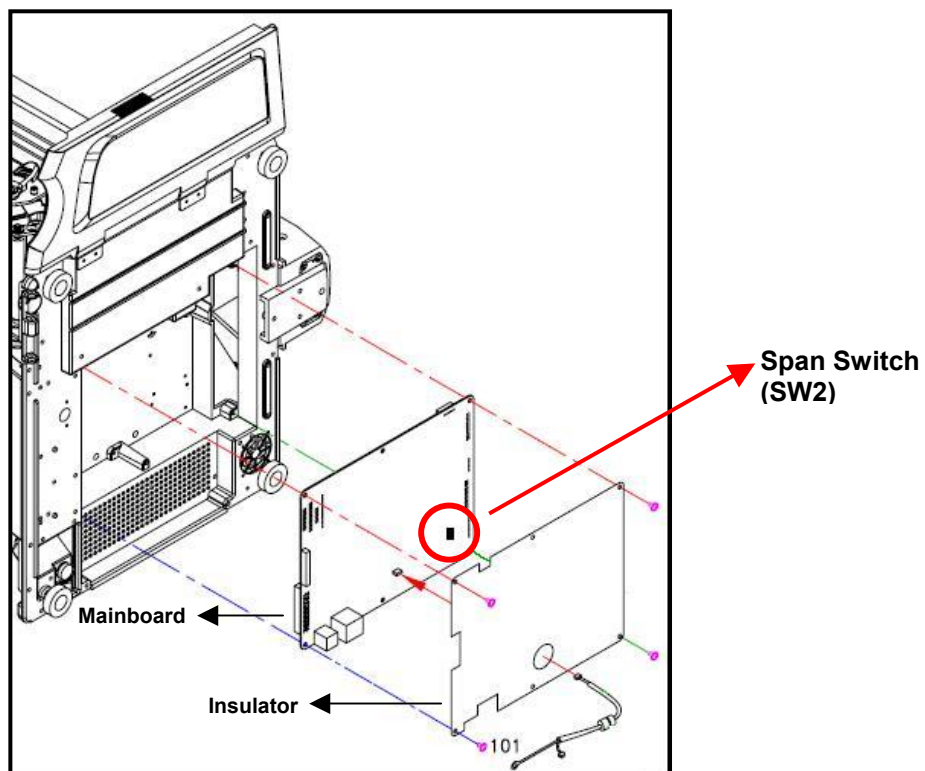
- 6. **CH** : Lights when the amount of change is being displayed.
- 7. **PE** : Lights when label or receipt paper ends.
- 8. **R** : Lights when REGISTRATION Mode is selected.
- 9. **X** : Lights when CHECK Mode is selected.
- 10. **S** : Light when PROGRAM Mode is selected.
- 11. **Z** : Lights when TOTAL Mode is selected.
- 12. **A** : Lights when Sales Data is in Memory for CLERK 9995.
- 13. **B** : Lights when Sales Data is in Memory for CLERK 9996.
- 14. **C** : Lights when Sales Data is in Memory for CLERK 9997.
- 15. **D** : Lights when Sales Data is in Memory for CLERK 9998.

3. SPANSWITCH

3.1 Span Switch Jumper Setting Changing Procedure

	 <p style="text-align: center;">Bottom Cover</p>	 <p style="text-align: right;">Interface Board Cable</p>
<p>1. Bottom View of Machine.</p>	<p>2. Loosen the 4pcs SEMS B screw M4X6, then open the Bottom Cover.</p>	<p>3. Loosen the 2pcs Truss Head screw M4X6, and disconnect the Interface Board cable.</p>
 <p style="text-align: center;">Insulator</p>		
<p>4. Loosen the 2pcs SEMS B screw M3X6, then open the Insulator.</p>	<p>5. Change [SW2] jumper to Enable/Disable Span Switch.</p>	

3.2 Span Switch located in Main Board



4. INITIAL SETUP

4.1 Pole, Bench and Elevated Type

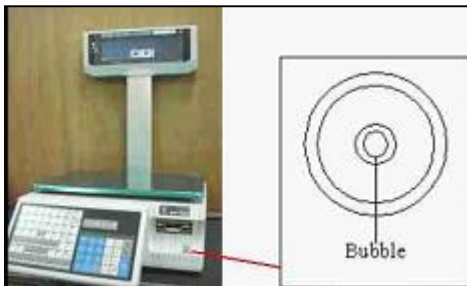
4.1.1 Scale Assembly

4.1.1.1 Display Pole Kit Mounting



1. Place the display Pole inside the pole bottom (base AB)
2. Align the four holes of the display pole and tighten screw Flat Head M4x16 (4pcs).

4.1.1.2 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 above.




4.1.2 Default Country Spec Setting

There are two methods for default country spec setting.

Default Country Specification Method 1:




Default Customer Specification and Weight & Measure Specification setting of individual country.
(Please turn on the span switch before proceed this process.)

Key to press	Operation
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">RE-ZERO</div> <div style="margin: 0 10px;">+</div> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">PRE-PACK</div> <div>Switch On the Power.</div> </div>	-- Show current country SPEC then default Customer Specification setting. -- Follow the instruction: a) Press the [Clear] then b) Press the [Print] process to next step
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid white; padding: 5px;">CURRENT COUNTRY SPECIFICATION</div> <div style="border: 1px solid white; padding: 5px;">54-WG</div> </div> <p style="margin-top: 10px;">PRESS 'CLEAR' KEY, THEN PRESS 'PRINT' KEY</p>	

KEY TO PRESS	OPERATION
[0] To [8]	-- Select scale type. Scale Type: 0: Pole 6 Kg 1: Pole 15 Kg 2: Pole 30 Kg 3: Pole 30 Lb 4: Bench 6 Kg 5: Bench 15 Kg 6: Bench 30 Kg 7: Bench 30 Lb 8: Printer (BP 80/90)
OR	
 & 	
Then	
	-- To set the scale type.

SELECT SCALE TYPE **0 POLE 6 Kg**

ENTER SCALE TYPE NUMBER AND PRESS PRINT KEY


KEY TO PRESS	OPERATION
[0] To [1]	-- Select label length. Label Length: 0: Short →Label length up to maximum 120mm. 1: Long →Label length up to maximum 240mm
OR	
 & 	
Then	
	-- To set the label length.


SELECT LABEL LENGTH **0 SHORT**

ENTER LABEL LENGTH NUMBER & PRESS PRINT KEY

Key to press	Operation
	-- Reading Country Specification.
READING COUNTRY SPEC.	




Key to press	Operation
	-- After Reading Country Spec, the display will prompt MEMORY CLEAR message.
MEMORY CLEAR?	
YES: CLEAR KEY	/ NO: TARE KEY




Key to press	Operation
If Yes, 	-- Process of initialize. -- Then go to segment check.
PLEASE WAIT	

Key to press	Operation
If No, 	-- Go to segment check.
SM720 VER 29.XXX	

Default Country Specification Method 2:

Key to press	Operation
[9] + [3] Switch On the Power.	-- Show current country SPEC then default Customer Specification setting. -- Follow the instruction: a) Press the [Clear] then b) Press the [Print] process to next step
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">CURRENT COUNTRY SPECIFICATION</div> <div style="border: 1px solid black; padding: 2px;">54-WG</div> </div> <p>PRESS 'CLEAR' KEY, THEN PRESS 'PRINT' KEY</p>	

KEY TO PRESS	OPERATION
[0] To [8]	-- Select scale type.
OR	
 & 	-- Select scale type.
Then	
	-- To set the scale type.
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">SELECT SCALE TYPE</div> <div style="border: 1px solid black; padding: 2px;">0 POLE 6 Kg</div> </div> <p>ENTER SCALE TYPE NUMBER AND PRESS PRINT KEY</p>	

KEY TO PRESS	OPERATION
[0] To [1]	-- Select label length.
OR	
 & 	-- Select label length.
Then	
	-- To set the label length.

Label Length:
 0: Short
 →Label length up to maximum 120mm.

 1: Long
 →Label length up to maximum 240mm

SELECT LABEL LENGTH
0 SHORT

ENTER LABEL LENGTH NUMBER & PRESS PRINT KEY


Key to press	Operation
	-- Reading Country Specification.

READING COUNTRY SPEC.


Key to press	Operation
	-- After Reading Country Spec, the display will prompt MEMORY CLEAR message.

MEMORY CLEAR?

YES: CLEAR KEY / NO: TARE KEY





Key to press	Operation
If Yes, 	-- Process of initialize. -- Then go to segment check.


PLEASE WAIT


Key to press	Operation
If No, 	-- Go to segment check.

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
4.1.3 Calibration

Key to press	Operation
In the Weighing Mode, press     then turn On the Span Switch.	-- Go to Z mode
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Z MODE</div> <div style="text-align: center;">TO CLEAR DAILY TRANSACTION PRESS <div style="border: 1px solid black; padding: 2px 10px;">PRINT KEY</div></div> </div>	

KEY TO PRESS	OPERATION
 + [8] [7] [1] [5]	-- Access code to calibration mode.
REMOVE ALL WT. & PRT	





KEY TO PRESS	OPERATION
	-- To calibrate zero point. -- Ensure no weight in platter -- Wait until the ' SET WEIGHT & PRT ' shows
REMOVE ALL WT. & PRT	


KEY TO PRESS	OPERATION
Place the capacity weight on the scale after the following screen appears.	-- Place the capacity weight according to the scale on the platter. E.g. for a 6 Kg scale, put a 6 Kg capacity weight on the platter.
SET WEIGHT & PRT	




KEY TO PRESS	OPERATION
Press  key exit	-- Calibration finish
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Z MODE</div> <div style="text-align: center;">TO CLEAR DAILY TRANSACTION PRESS <div style="border: 1px solid black; padding: 2px 10px;">PRINT KEY</div></div> </div>	

4.1.4 User Spec Setup Procedure

To Change the setting of the User SPEC, if there is some SPEC need to alter.

KEY TO PRESS	OPERATION
In the Weighing Mode, press     then turn On the Span Switch.	-- Go to Z mode.
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px;">Z MODE</div> <div style="border: 1px solid black; padding: 5px;">TO CLEAR DAILY TRANSACTION PRESS</div> <div style="border: 1px solid black; padding: 5px;">PRINT KEY</div> </div>	

KEY TO PRESS	OPERATION
 + [1][4][1]	-- Go to User Specification Mode -- To change the selection for the Spec, press the Number of the selection -- Press the key to Save go to next Spec -- Press '-' key to go back to previous Spec -- Press 'PLU' to save and exit -- Press 'Tare' to exit without saving
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">SP0 : SELECTION OF ITEM BAR CODE</div> 4: F1F2CCCCXXXXCD 5: F2CCCCCCXXXXCD	

KEY TO PRESS	OPERATION
[0] To [2][0]	-- Select data. (Refers to Customer Spec setting)
OR	
 & 	
Then	-- To set. (Save data and increase SPEC No)
	
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">SP1 : RIGHT SIDE DATA OF ITEM BARCODE</div> 1: PRICE 2: WEIGHT 3: USER PROGRAMMABLE	

KEY TO PRESS	OPERATION
+A	-- Increase the SPEC number without saving data of the previous SPEC number.


SP2 : RIGHT SIDE PRICE DATA OF ITEM BARCODE

0: BEFORE TAX 1: AFTER TAX

KEY TO PRESS	OPERATION
VOID	-- Decrease the SPEC number without saving data of the previous SPEC number.


SP2 : RIGHT SIDE PRICE DATA OF ITEM BARCODE

1: PRICE 2: WEIGHT 3: USER PROGRAMMABLE

KEY TO PRESS	OPERATION
[1][0] 	-- To jump to desire SPEC number.

SP10 : FLAG DATA F0,F1,F2 FOR TOTAL BARCODE





RANGE (0-999) 020


KEY TO PRESS	OPERATION
CODE # PLU	Save SPEC setting and Exit to R mode.
OR	
	Do not save SPEC setting and Exit to R mode.




0.000 0.000 0.00 0.00

4.1.5 Weigh & Measurement Spec Setup Procedure

To Change the setting of the Weight & Measurement SPEC, if there is some SPEC need to alter.

KEY TO PRESS	OPERATION
In the Weighing Mode, press     then turn On the Span Switch.	-- Go to Z mode
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">Z MODE</div> <div style="text-align: center;">TO CLEAR DAILY TRANSACTION PRESS</div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">PRINT KEY</div> </div>	

KEY TO PRESS	OPERATION
 + [1] [4] [2]	-- Go to Weight and Measure Specification Mode -- To change the selection for the Spec, press the Number of the selection. -- Press ' PRINT ' key to Save go to next Spec -- Press '-' key to go back to previous Spec -- Press ' PLU ' to save and exit -- Press ' Tare ' to exit without saving
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> SP600: PRICE BASE FOR WEIGHED ITEMS </div>	
0: 100g BASE 1: 1kg BASE	

KEY TO PRESS	OPERATION
[0] To [1]	-- Select data. (Refer to Weight & Measurement Spec setting)
OR	
 & 	-- To choose scale type
Then	-- To set. (Save data and increase SPEC No)
	
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> SP601: AUTO-ZERO FUNCTION </div>	
0: NO AUTO-ZERO 1: AUTO-ZERO	

KEY TO PRESS	OPERATION
+A	-- Increase the SPEC number without saving data of the previous SPEC number.


SP602: DISPLAY TYPE

0: SINGLE DISPLAY ROW 1: THREE DISPLAY

KEY TO PRESS	OPERATION
VOID	-- Decrease the SPEC number without saving data of the previous SPEC number.


SP601 : AUTO-ZERO FUNCTION

0: NO AUTO-ZERO 1: AUTO-ZERO

KEY TO PRESS	OPERATION
[6][1][0] 	-- To jump to desire SPEC number.

SP610 : UNIT PRICE DECIMAL POINT RIGHT SHIFT

0: NO RIGHT 1: RIGHT SHIFT



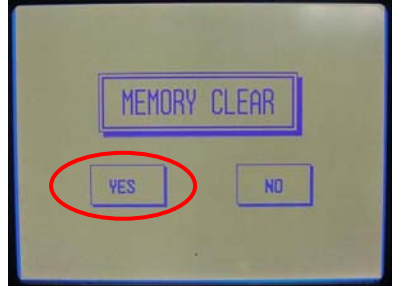
KEY TO PRESS	OPERATION
CODE # PLU	Save SPEC setting and Exit to R mode.
OR	
	Do not save SPEC setting and Exit to R mode.

0.000 0.000 0.00 0.00

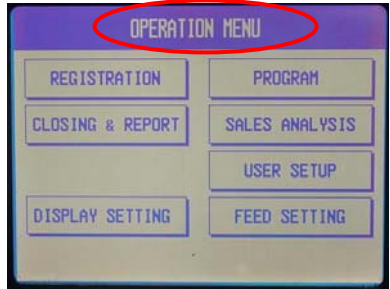

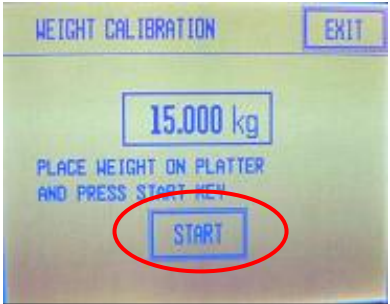
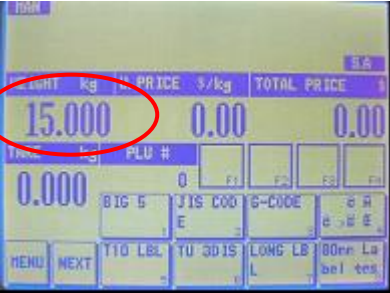
Remarks: Please restart the scale every time after changing the SPEC.

4.2 Touch Pole, Touch Bench and Touch Elevated Type

4.2.1 Default Country Spec Setting

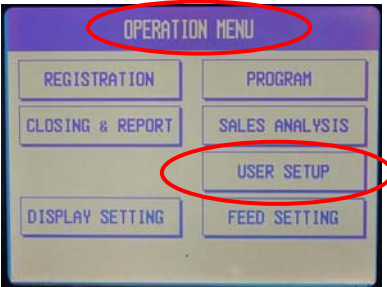
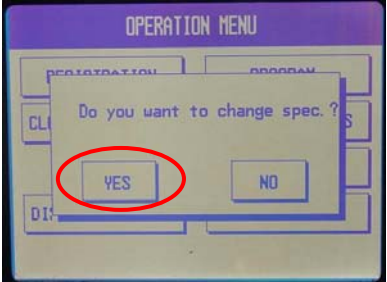
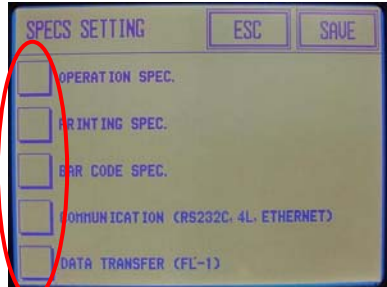
Procedure	Picture
<p>1) Touch and hold the “Corner Side” of touch screen panel, then switch power “ON” the scale.</p> <p><i>Note: Ensure Span Switch is set in “On” position</i></p>	
<p>2) Select Countries of scale and touch [Save].</p>	
<p>3) Waiting until display shown [Memory Clear] and then touch [Yes] to clear memory.</p> <p><i>Note: If press [No] is not clear the memory.</i></p>	

4.2.2 Calibration

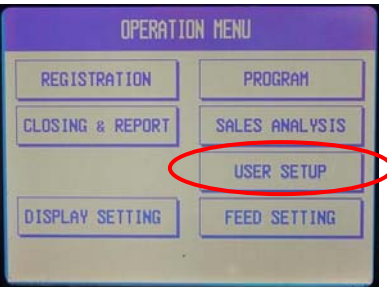
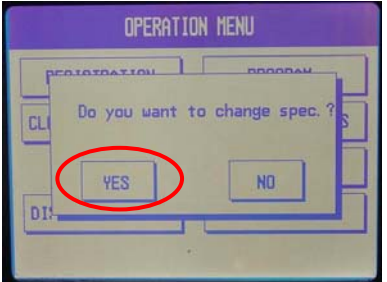
Procedure	Picture
<p>1) In Operation Mode, touch [8] [7] [1] [5] key button and go to [Weight Calibration] screen.</p> <p><i>Note: Ensure Span Switch is set to [Enable].</i></p>	
<p>2) In [Weight Calibration] mode, remove all weight from platter and then touch [Start].</p>	
<p>3) Waiting until the display as show and then put Weight full capacity (ex.15kg) to scale and touch [Start].</p>	
<p>4) In Operation mode, touch [Registration] to ensure the calibration had success/completed.</p> <p><i>Note: Ensure Set Span Switch is [Disable].</i></p>	

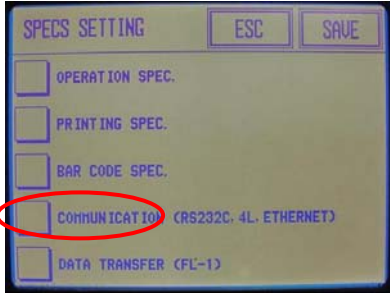
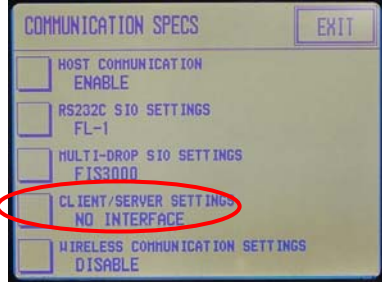
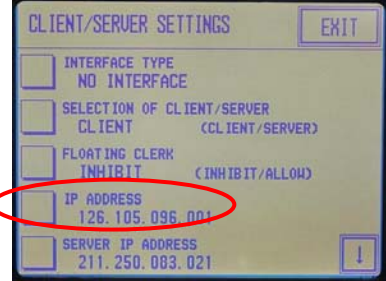
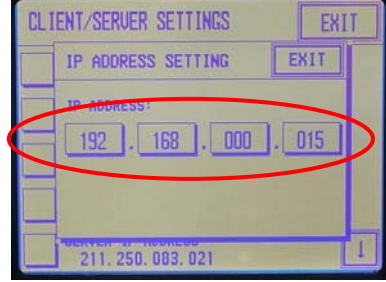
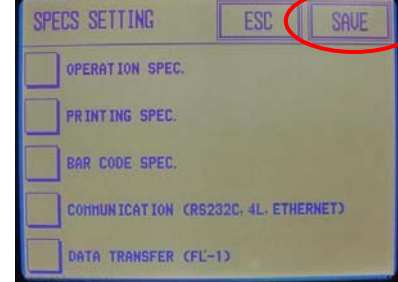
4.2.3 User Spec Setup Procedure

To Change the setting of the User SPEC, if there is some SPEC need to alter.

Procedure	Picture
<p>1) In [Operation Menu] mode, touch [User Setup] icon.</p>	
<p>2) Touch [Yes].</p>	
<p>3) The Spec Setup screen will display and touch the "Square" icon to go to spec setting.</p>	

4.2.4 IP Address Setting





Procedure	Picture
<p>1) In [Operation Menu] mode, touch [User Setup].</p>	
<p>2) Touch [Yes].</p>	

<p>3) Touch [Communication].</p>	
<p>4) In "Communication Specs" mode, touch [Client/Server Setting].</p>	
<p>5) In "Client/Server Setting" mode, touch the [IP Address].</p>	
<p>6) Set the [IP Address] and then touch [Exit] to go to "Spec Setting Menu".</p> <p><i>Example: 192.168.0.15</i></p>	
<p>7) In Spec Setting menu, touch [SAVE] to save change setting.</p>	


5. HARDWARE TESTING & MAINTENANCE

5.1 For Pole, Bench and Elevated Type

5.1.1 Hardware Testing

KEY TO PRESS	OPERATION
In the Weighing Mode, press    	-- Go to Z mode
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Z MODE</div> <div style="text-align: center;">TO CLEAR DAILY TRANSACTION PRESS</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">PRINT KEY MODE</div> </div>	

5.1.1.1 RAM Read and Write Test


KEY TO PRESS	OPERATION
 + [0] [0] [1]	-- Go to Hardware Testing Mode and first it will show the RAM TEST Result
<div style="display: flex; justify-content: space-between;"> <div style="text-align: left;"> <p>HARDWARE TESTING</p> <p>Testing In Progress...</p> </div> <div style="text-align: right;"> <p>RAM READ / WRITE</p> </div> </div>	

KEY TO PRESS	OPERATION
	-- If the RAM is Ok , It will show the message below.
<div style="display: flex; justify-content: space-between;"> <div style="text-align: left;"> <p>HARDWARE TESTING</p> <p>1 MB RAM OKAY</p> </div> <div style="text-align: right;"> <p>RAM READ /WRITE</p> </div> </div>	

OR

KEY TO PRESS	OPERATION
	-- If the RAM is Fail , It will show the message below.
<div style="display: flex; justify-content: space-between;"> <div style="text-align: left;"> <p>HARDWARE TESTING</p> <p>TEST FAIL! PLEASE CHECK YOUR HARDWARE</p> </div> <div style="text-align: right;"> <p>RAM READ /WRITE</p> </div> </div>	

5.1.1.2 SIO Loop Back Test


KEY TO PRESS	OPERATION
	-- Testing the RS232 port. -- Please plug in the connector on the RS232C port before proceed. (The test result is show at below).

HARDWARE TESTING SIO LOOP BACK TEST
CONGRATULATION! THE TEST IS SUCCESSFUL

OR

HARDWARE TESTING SIO LOOP BACK TEST
TEST FAIL! PLEASE CHECK YOUR HARDWARE

5.1.1.3 ROM Checksum Test


KEY TO PRESS	OPERATION
	-- Testing the ROM Checksum. -- Press the [PRINT] Key to start the testing.

HARDWARE TESTING
TESTING IN PROGRESS...

After that

HARDWARE TESTING **30B181**
TESTING IN PROGRESS...

5.1.1.4 PLU Generator Test

KEY TO PRESS	OPERATION
	-- Testing the PLU Generator. -- Press the [PRINT] key to start PLU Generator.

HARDWARE TESTING PLU GENERATED
OVERWRITE EXITING DATA? YES:

Then it will display how many PLU generated at the right top corner.

HARDWARE TESTING PLU GENERATED **001678**
TESTING IN PROGRESS...

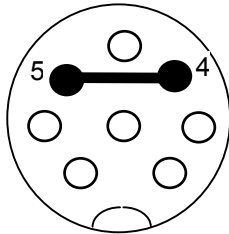
Then

KEY TO PRESS	OPERATION
X FOR	-- Go to Hardware Testing Mode again
HARDWARE TESTING RAM READ / WRITE Testing In Progress...	

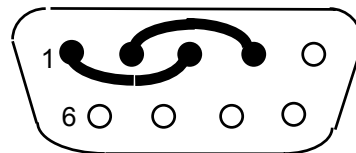
After that

KEY TO PRESS	OPERATION
→T←	-- Exit to Z mode.
Z MODE	TO CLEAR DAILY TRANSACTION PRESS PRINT KEY

Remarks:



TEST JIG CONNECTOR for SIO Port
Connect pin 4 and pin 5







TEST JIG CONNECTOR for 4 LINE RS485 Port
Connect pin 1 and pin 3
Connect pin 2 and pin 4


5.1.1.5 Internal Count

KEY TO PRESS	OPERATION
In the Weighing Mode, press M RE-ZERO M M	-- Go to Z mode. -- Then turn on the Span Switch.
Z MODE	TO CLEAR DAILY TRANSACTION PRESS PRINT KEY

KEY TO PRESS	OPERATION
RE-ZERO + [0][0][9]	-- Internal Count Mode -- Press 'Tare' key to exit
IR	X XXXXX

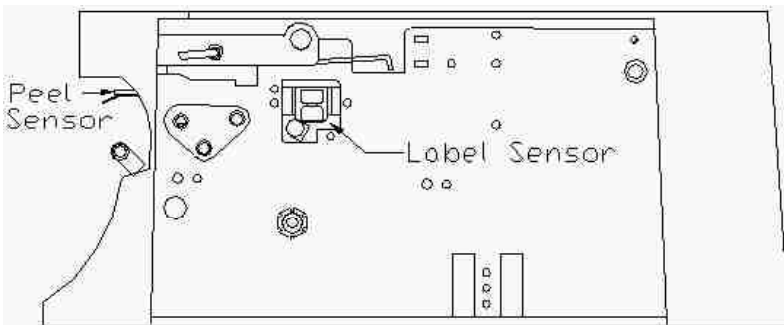
5.1.1.6 Span Switch Status

KEY TO PRESS	OPERATION
In the Weighing Mode, press    	-- Go to Z mode. -- Then turn on the Span Switch.
Z MODE TO CLEAR DAILY TRANSACTION PRESS PRINT KEY	

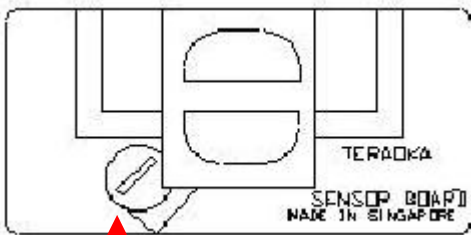
KEY TO PRESS	OPERATION
 + [2][8][4]	-- Indicates SPAN Switch status. -- Back to Z mode, after 1 second.
SPAN SWITCH OFF	

5.1.2 Adjustment

5.1.2.1 Location of Gap Sensor And Peel Sensor.



5.1.2.2 Label Gap Sensor



Adjust this variable resistor for sensor level sensitivity.


The label sensor is to detect the gap between the labels so as to identify the starting position of the label. If the gap is not detected properly, the scale will issue two or more labels. Also different material of label and back paper will have different sensitivity level; the variable resistor beside the label sensor is to adjust the sensitivity to suitable level.




5.1.2.3 Peel Sensor

To set the peel sensor voltage if the peel sensor is not working normally in some situations like temperature and humidity changed.

The peel sensor voltage can be set automatically by press the # key.

KEY TO PRESS	OPERATION
	-- At R mode.
0.000 0.000 0.00 0.00	

KEY TO PRESS	OPERATION
 + [5][1][5]	-- Go to the Peel sensor adjustment.
SET PEEL SENSOR VOLTAGE:	OLD VOLTAGE: 4.5V
* KEY FOR AUTO VOLTAGE:	NEW VOLTAGE: 2.5V

KEY TO PRESS	OPERATION
	-- Once the key is press, it will auto set the voltage value and Exit to R mode.
OR	-- You can enter the value of the peel sensor voltage then press the PLU key to save and Exit to R mode.
Enter a value for sensor voltage then press 	-- Exit to R mode without doing anything.
OR	
	
0.000 0.000 0.00 0.00	

5.1.2.4 Printing Position

To adjust the printing position when printing is out of alignment. The process only allows adjusting vertical position only.

KEY TO PRESS	OPERATION
	-- At R mode.
0.000	0.000
0.00	0.00


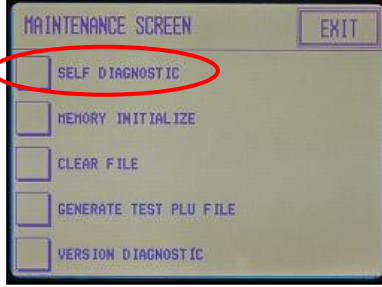
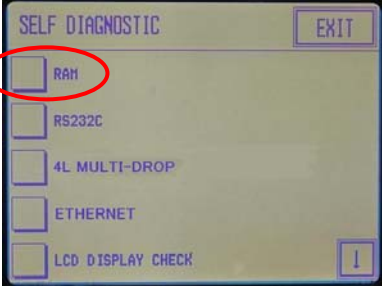


KEY TO PRESS	OPERATION
RE-ZERO + [5][1][4]	-- Go to Thermal Head calibration.
THERMAL HEAD CALIBRATION	
	OLD SETTING: 0
	NEW SETTING: 0

KEY TO PRESS	OPERATION
[2][0]	-- Adjust upward.
OR	
[2][0] VOID	-- Adjust downward.
OR	
CODE # PLU	-- Store new value and Exit to R mode.
0.000	0.000
0.00	0.00

5.2 For Touch Pole, Touch Bench and Touch Elevated Type

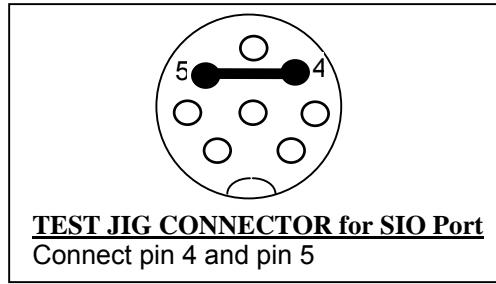
5.2.1 Hardware Testing

5.2.1.1 Memory (RAM) Test

Procedure	Picture
1) In [Operation Menu] mode, press and hold [Re-zero] and press [0][8][9][3] to go to [Maintenance Screen] .	
2) Touch [Self Diagnostic] to go to self diagnostic mode.	
3) Touch [RAM] .	
4) Waiting until the "Testing in Progress".	
5) Tested OK message will show.	

5.2.1.2 SIO Loop Back Test

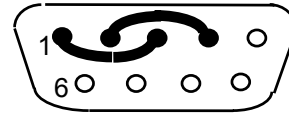
Connect RS232 Loop Back jig to scale.



Procedure	Picture
<p>1) In [Operation Menu] mode, press and hold [Rezero] and press [0] [8] [9] [3] to go to [Maintenance Screen].</p>	
<p>2) Touch [Self Diagnostic] to go to self diagnostic mode.</p>	
<p>3) Touch [RS232].</p>	
<p>4) Ensure the testing result is successful.</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="margin-right: 10px;">Test Ok</div> <div style="color: red; font-size: 24px;">←</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Test Fail</div> <div style="color: red; font-size: 24px;">←</div> </div> </div>

5.2.1.3 RS485 Loop Back Test

Connect RS-485 Loop Back jig to scale.




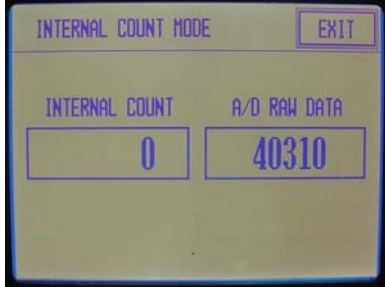
TEST JIG CONNECTOR for 4 LINE RS485 Port

Connect pin 1 and pin 3

Connect pin 2 and pin 4

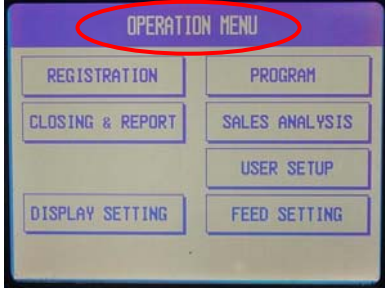
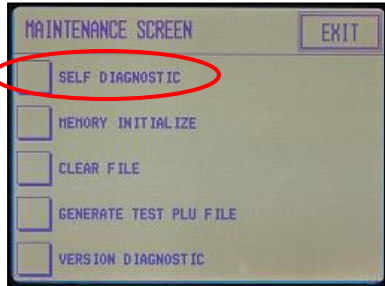

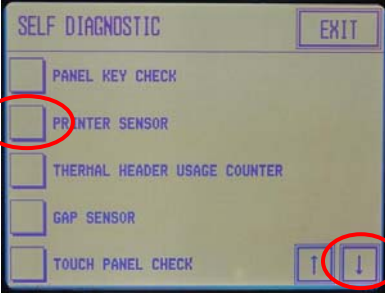


Procedure	Picture
<p>1) In [Operation Menu] mode, press and hold [Re-zero] and press [0] [8] [9] [3] to go to [Maintenance Screen].</p>	
<p>2) Touch [Self Diagnostic] to go to self diagnostic mode.</p>	
<p>3) Touch [4L MULTI-DROP].</p>	
<p>4) Ensure the testing result is successful.</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="margin-right: 10px;">Test Ok</div> <div style="color: red; font-size: 24px;">←</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Test Fail</div> <div style="color: red; font-size: 24px;">←</div> </div> </div>

5.2.1.4 Internal Count

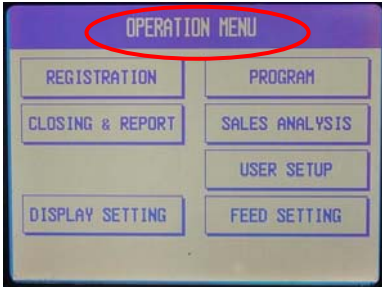
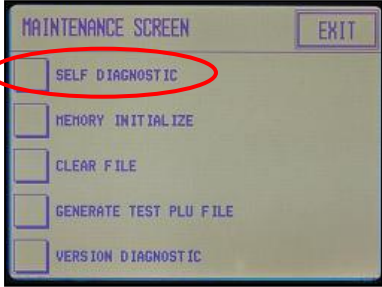

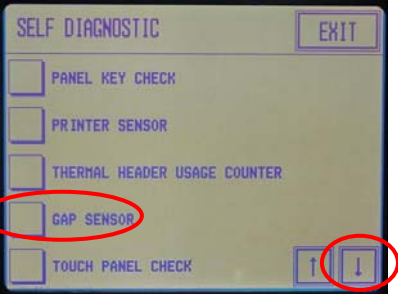
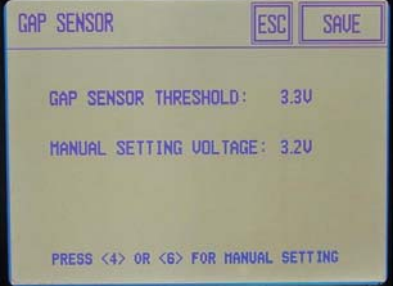
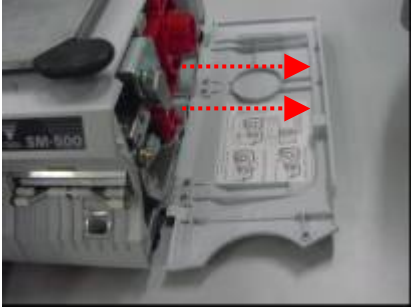
Procedure	Picture
<p>1) In [Operation Menu] mode, press and hold [Re-zero] and press [0][0][9] to go to Internal Count Mode.</p> <p><i>Note: Ensure Span Switch is [Enable].</i></p>	
<p>2) Internal Count mode.</p>	

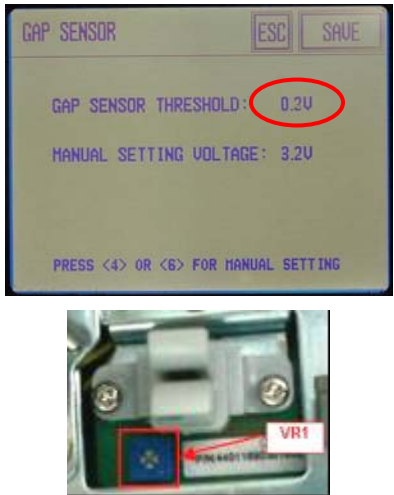

5.2.2 Adjustment

5.2.2.1 Peel Sensor setting

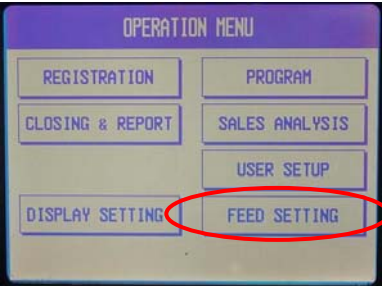

Procedure	Picture
<p>1) In [Operation Menu] mode, press and hold [Re-zero] and press [0][8][9][3] to go to [Maintenance Screen].</p>	
<p>2) Touch [Self Diagnostic] to go to self diagnostic mode.</p>	
<p>3) In Self Diagnostic mode, press arrow key  to scroll down menu, then press [Printer Sensor].</p>	
<p>4) Press  (Print) key to Auto Detect peel sensor setting and touch panel will go back to Self Diagnostic menu. After finish, test label printing and ensure the sensor will be detect properly for label.</p>	

5.2.2.2 Gap Sensor setting

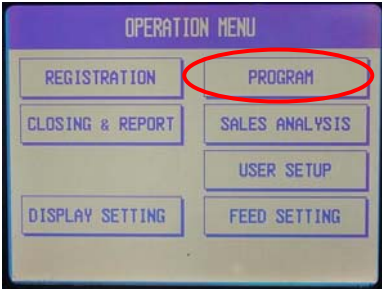
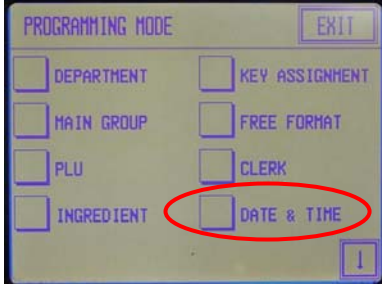
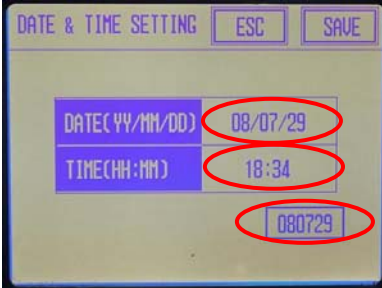
Procedure	Picture
<p>1) In [Operation Menu] mode, press and hold [Re-zero] and press [0] [8] [9] [3] to go to [Maintenance Screen].</p>	
<p>2) Touch [Self Diagnostic] to go to self diagnostic mode.</p>	
<p>3) In Self-Diagnostic mode, press arrow key  to scroll down menu, and then press [Gap Sensor].</p>	
<p>4) The screen will show the value of gap sensor.</p>	
<p>5) Take out the Cassette from printer.</p>	

<p>6) Press and hold [Re-zero] and press [5][1][6] to adjust “Gap Sensor Voltage”</p> <p><i>Note: Ensure the “Gap Sensor Voltage” without Cassette & Label is [0.2 Volt] by adjusting VR1 at gap sensor board in Printer Kit.</i></p>	
<p>7) Re-insert Cassette to printer and then press [Feed] key to Auto Detect Setting and press [PLU] key. After finish testing the label printing.</p>	

5.2.2.3 Label Printing Layout Setting

Procedure	Picture
<p>1) In [Operation Menu] mode, touch [Feed Setting].</p>	
<p>2) Touch [Feed Setting] and set/adjust new value of Feed Setting.</p> <p>Note: -- [Reduction Value] (From OLD VALUE) will make the printing on the label will go to [Bottom side]. -- [Additional Value] (From OLD VALUE) will make the printing on the label will go to [Upper side].</p>	

5.2.2.4 Date And Time Setting

Procedure	Picture
<p>1) In [Operation Menu] mode, touch [Program] to go to Programming Mode.</p>	
<p>2) In [Programming Mode], touch [Date & Time].</p>	
<p>3) Press "Number" key button and then touch the inside box line of Date/Time to insert number. After completed touch [Save] button to save change.</p>	

6. MAINTENANCE

6.1 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

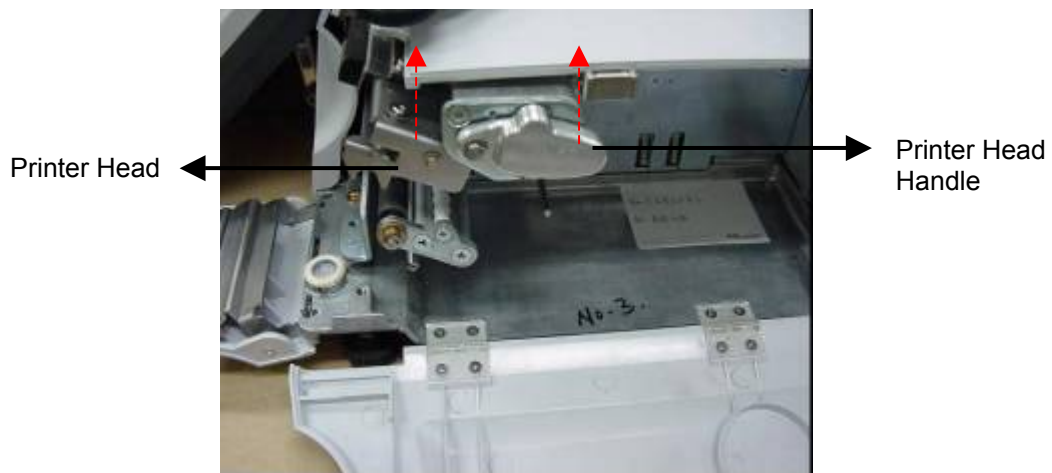
1. Turn **OFF** Scale by Main Power Switch.
2. Open the **Printer Side Door** first, after that press on the top of **Printer Front Door** and pull out the cover toward in front.



Printer Side Door

Printer Front Door

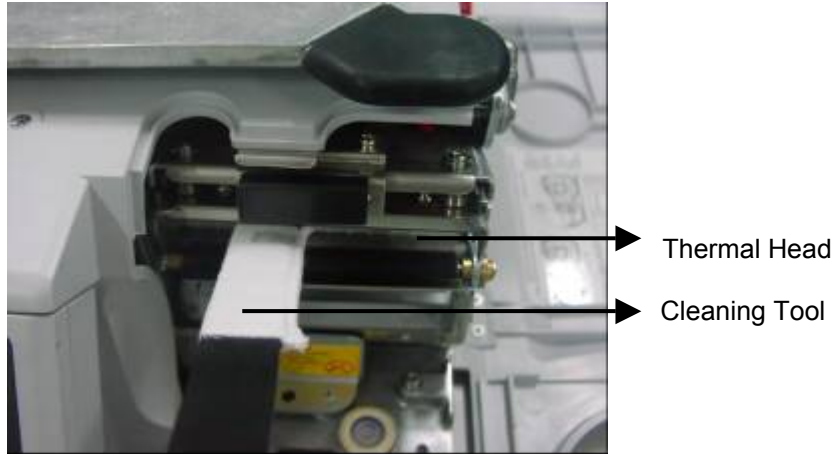
3. Push the Printer Head Handle to up for Printer Head in upper position.



Printer Head

Printer Head Handle

- Use the tip of the **Cleaning Tool** to clean the **Thermal Head** portion as shown:

**CAUTION**

Use only the cleaning pen from the provided cleaning kit

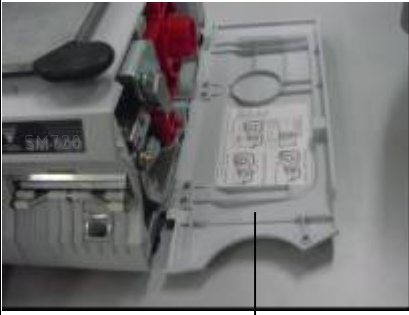
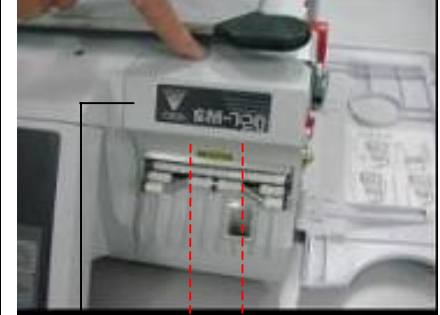
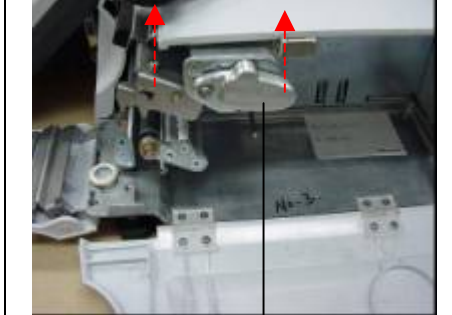
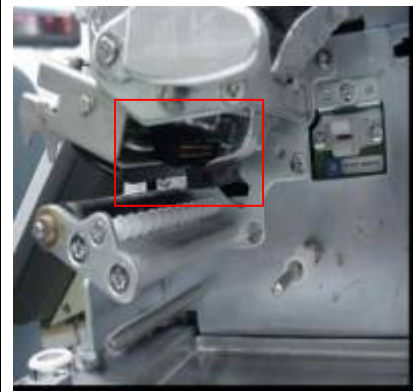
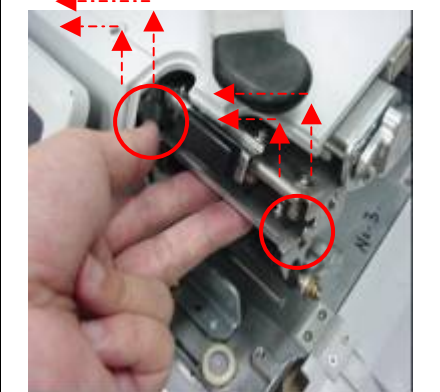
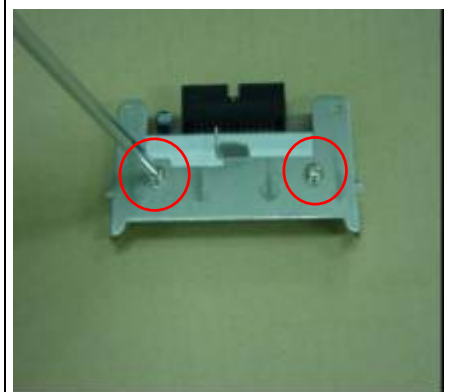
Do not clean or try to remove dirt or anything sticking on thermal head with sharp objects – this will **DAMAGE** the thermal print head.

- After Finish cleaning press down the Printer Head Handle first, then close the Printer Front Door and Printer Side Door.
- Turn ON the scale, and depress **[FEED]** key to feed the label.

6.2 Basic Maintenance

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

6.3 Thermal Head cleaning and replacement

 <p>Printer Side Door</p>	 <p>Printer Front Door</p>	 <p>Printer Head Handle</p>
<p>1. Open the Printer Side Door.</p>	<p>2. Press on the top of Printer Front Door and pull out the cover toward in front.</p>	<p>3. Push the Printer Head Handle to up for Printer Head in upper position.</p>
		
<p>4. Need wire to take out the Thermal Head wire.</p>	<p>5. Use the Hand push the Thermal Head to up first then pull out the thermal head. (Because the thermal head bracket catch by printer head bracket).</p>	<p>6. Unscrew the 2pcs Sems B M3X6 screw to take out Thermal Head or adjustment the alignments.</p>

6.4 Mainboard Jumper Setting for Different Display Type

There are 4 types of LCD using in SM-720 scale, below are the jumper setting for 4 different type of LCD using in the scale. If the jumper setting wrongly set, the displays will not function or not working properly.

TYPE 1

Both LCD (Operator and Customer) are using LARGE 500LCD, then follow the below table

Type of LCD	JP4	JP5
500LCD Large	Short 1 & 2	Short 2 & 3

Note: This setting is Default Setting for SM-720 Main Board.

TYPE 2

Both LCD (Operator and Customer) are using SMALL 500LCD, then follow the below table

Type of LCD	JP4	JP5
500LCD Small	Short 2 & 3	Short 2 & 3

TYPE 3

Both LCD (Operator and Customer) are using 800LCD, then follow the below table

Type of LCD	JP4	JP5
800LCD	Short 1 & 2	Short 1 & 2

TYPE 4

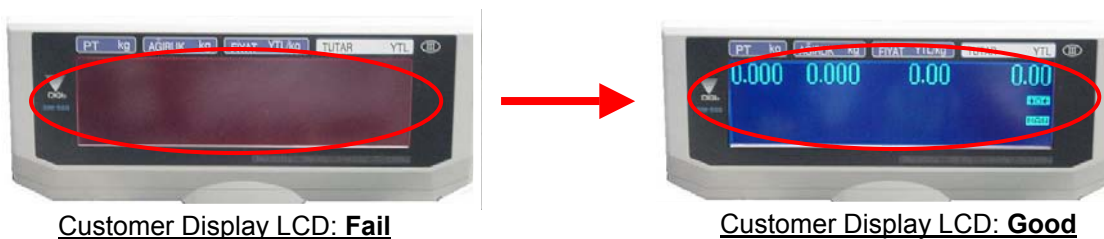
Both LCD (Operator and Customer) are using 300LCD, then follow the below table

Type of LCD	JP4	JP5
300LCD	Short 2 & 3	Short 1 & 2

6.5 Shift between New and Old Type Customer Display LCD to Activated

SM-720 have to provide New and Old type hardware of Display LCD, the below method is for scale/machine to activated and shift between of the two type Display LCD.

(Note: If change the Customer Display LCD without activated will cause the Display LCD become blank)



Function	Procedure
1. If shift Display LCD from Old type to New type.	Press and hold [2] & [8] key button and then switch "ON" the scale power.
2. If shift Display LCD from New type to Old type.	Press and hold [1] & [7] key button and then switch "ON" the scale power.

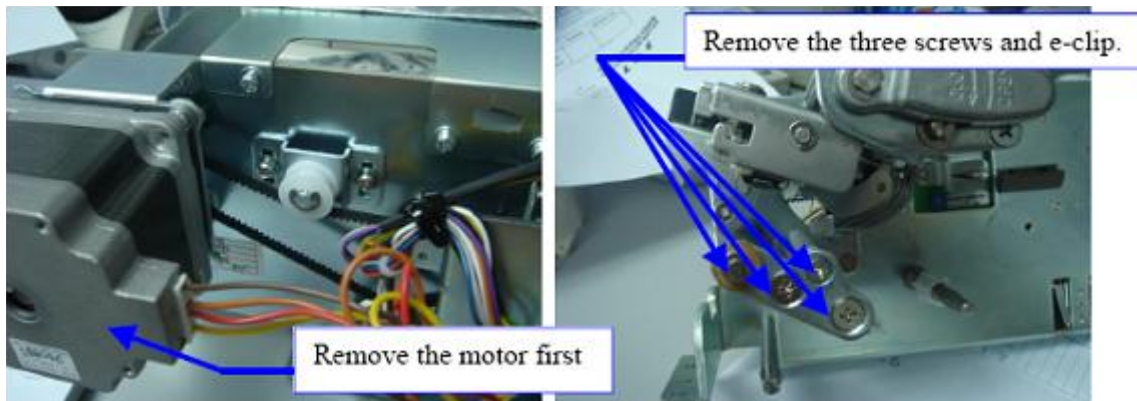
Remarks:

Old Type LCD: **VER V0053990 (DW)** – see from Display LCD component side.

New Type LCD: **VER M808AP1S (NAN YA)** – see from Display LCD component side.

6.6 Procedure of Linerless Machine Conversion

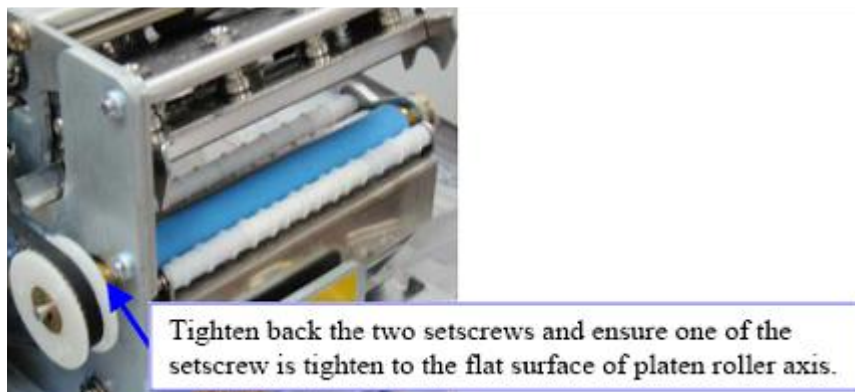
1.



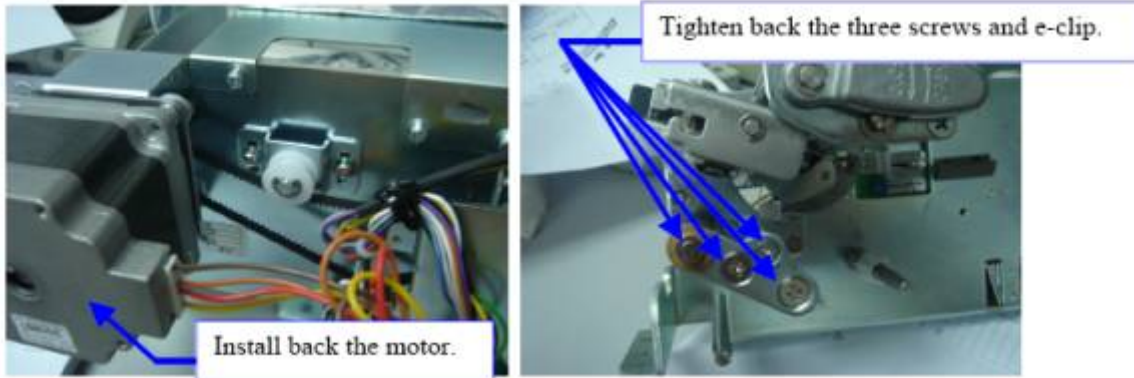
2.



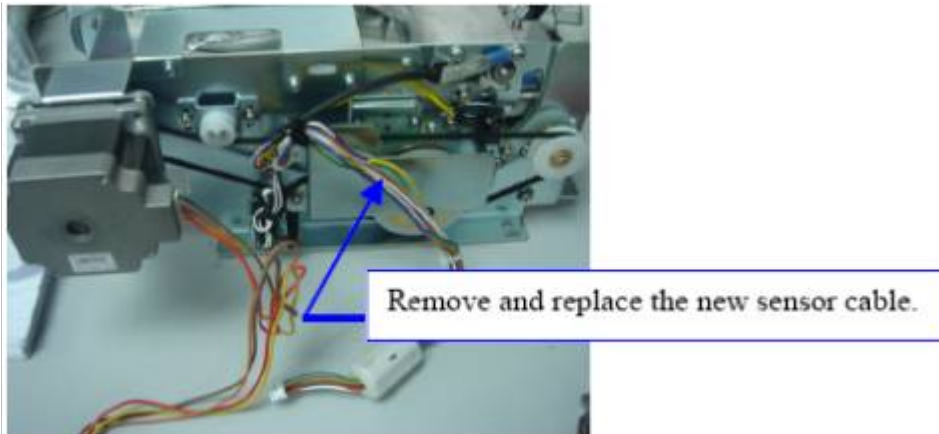
3.



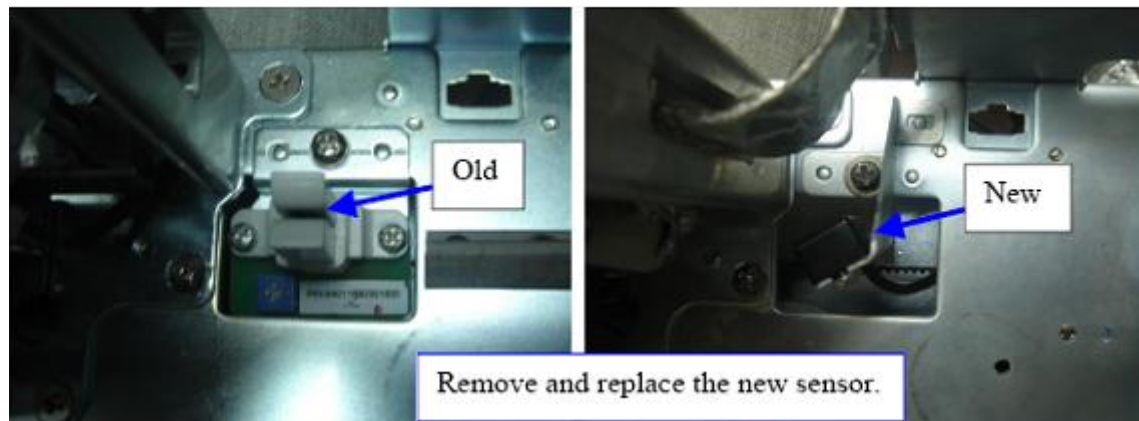
4.



5.

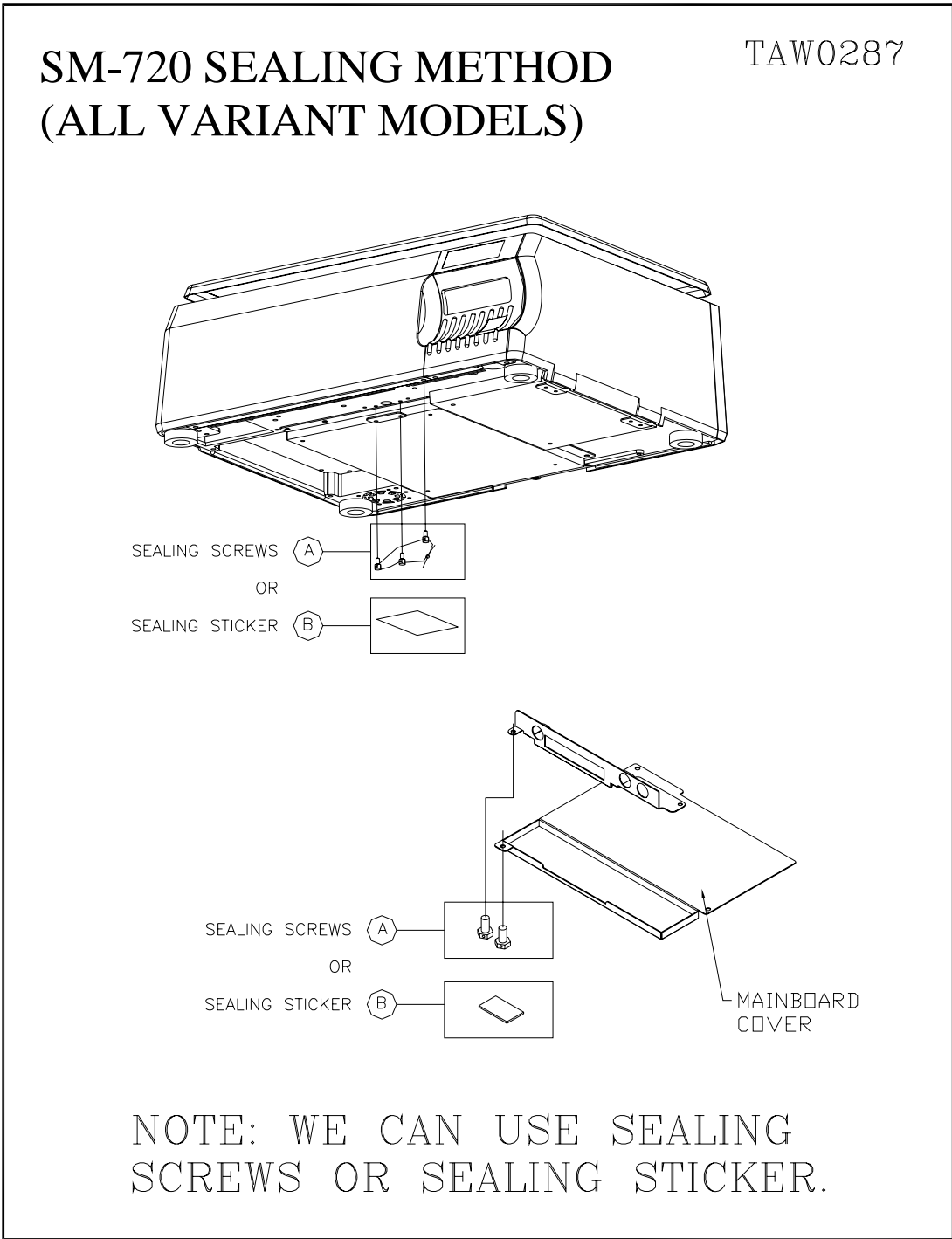


6.



6.7 Method of Assembly Sealing Screw & Sticker

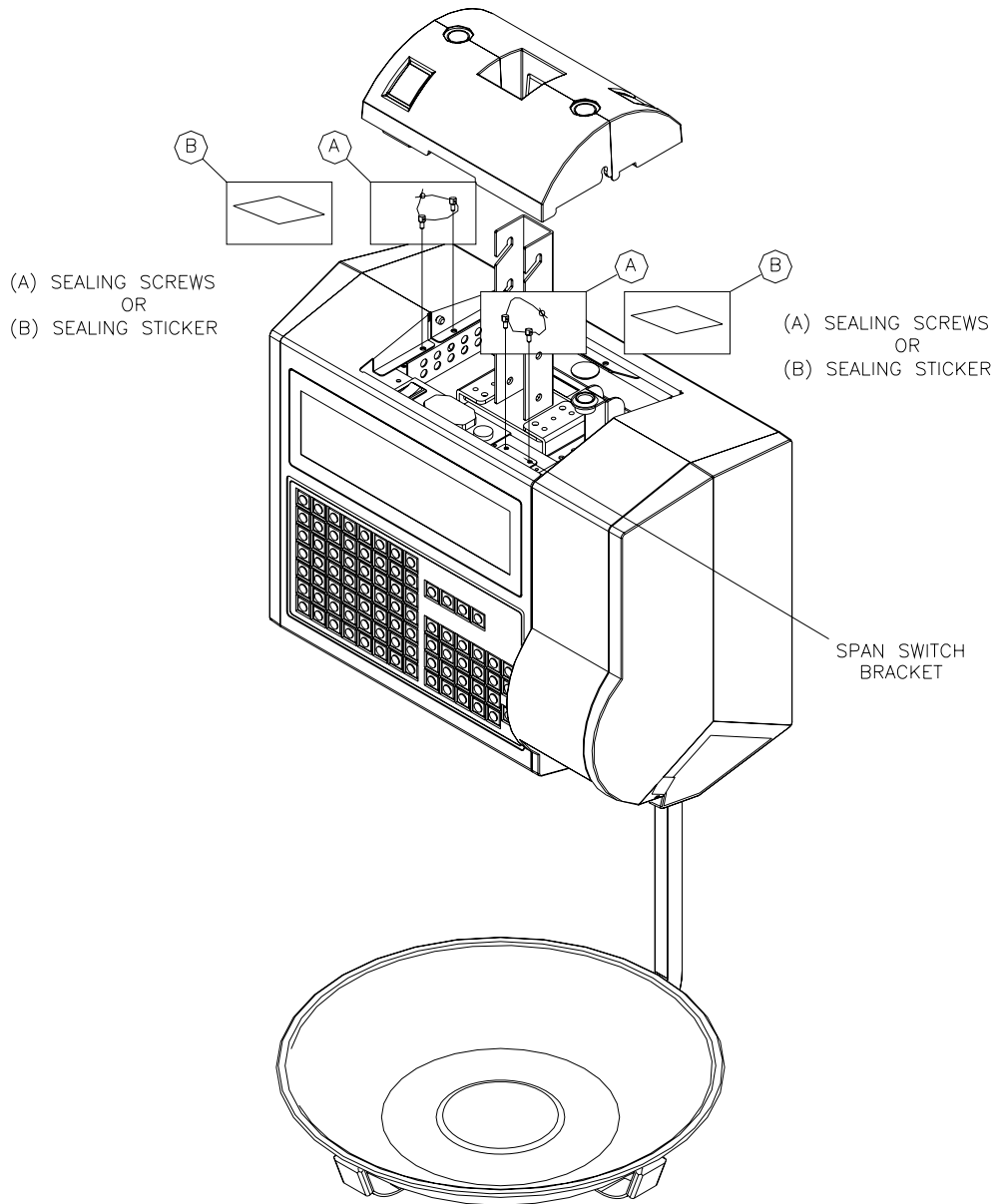
6.7.1 For All Machine except Console Type



6.7.2 For Hanging Type

TAW0289

SM-720 HANGING SEALING METHOD

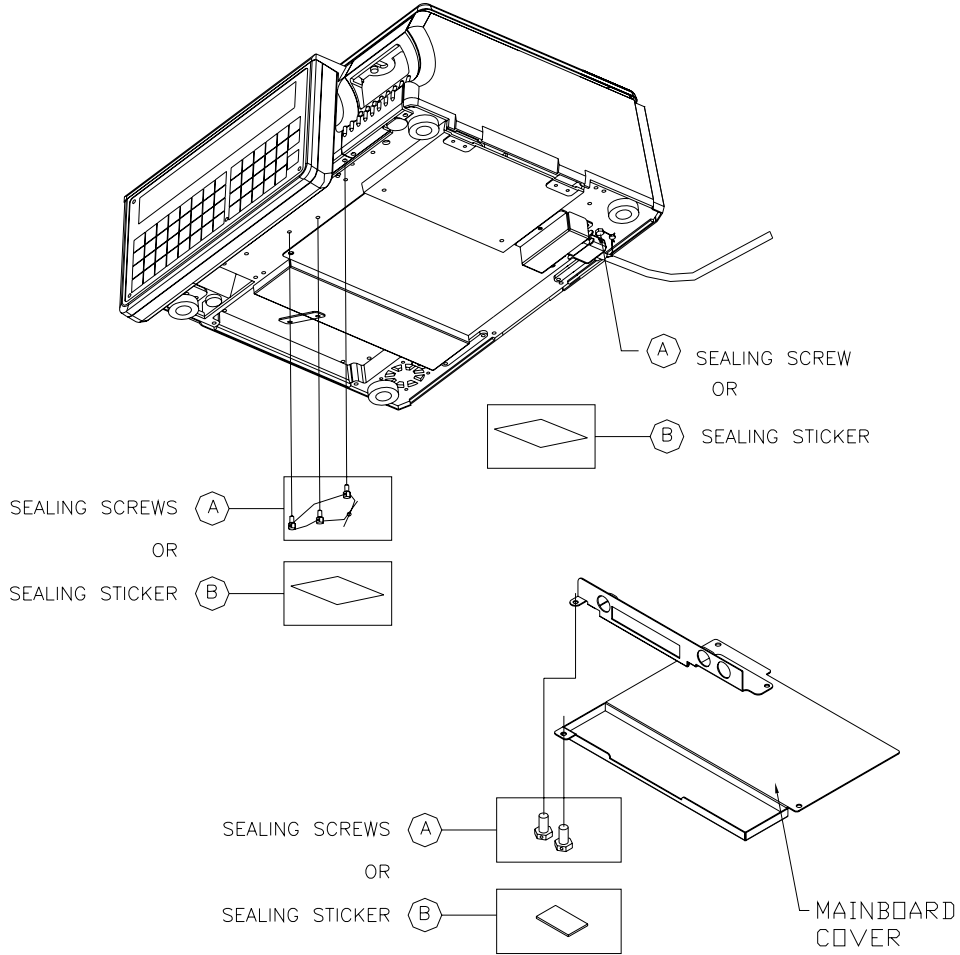


NOTE : WE CAN USE SEALING SCREWS OR SEALING STICKER.

6.7.3 For Console Type

SM-720 WITH EXTERNAL LOADCELL SEALING METHOD (ALL VARIANT MODELS)

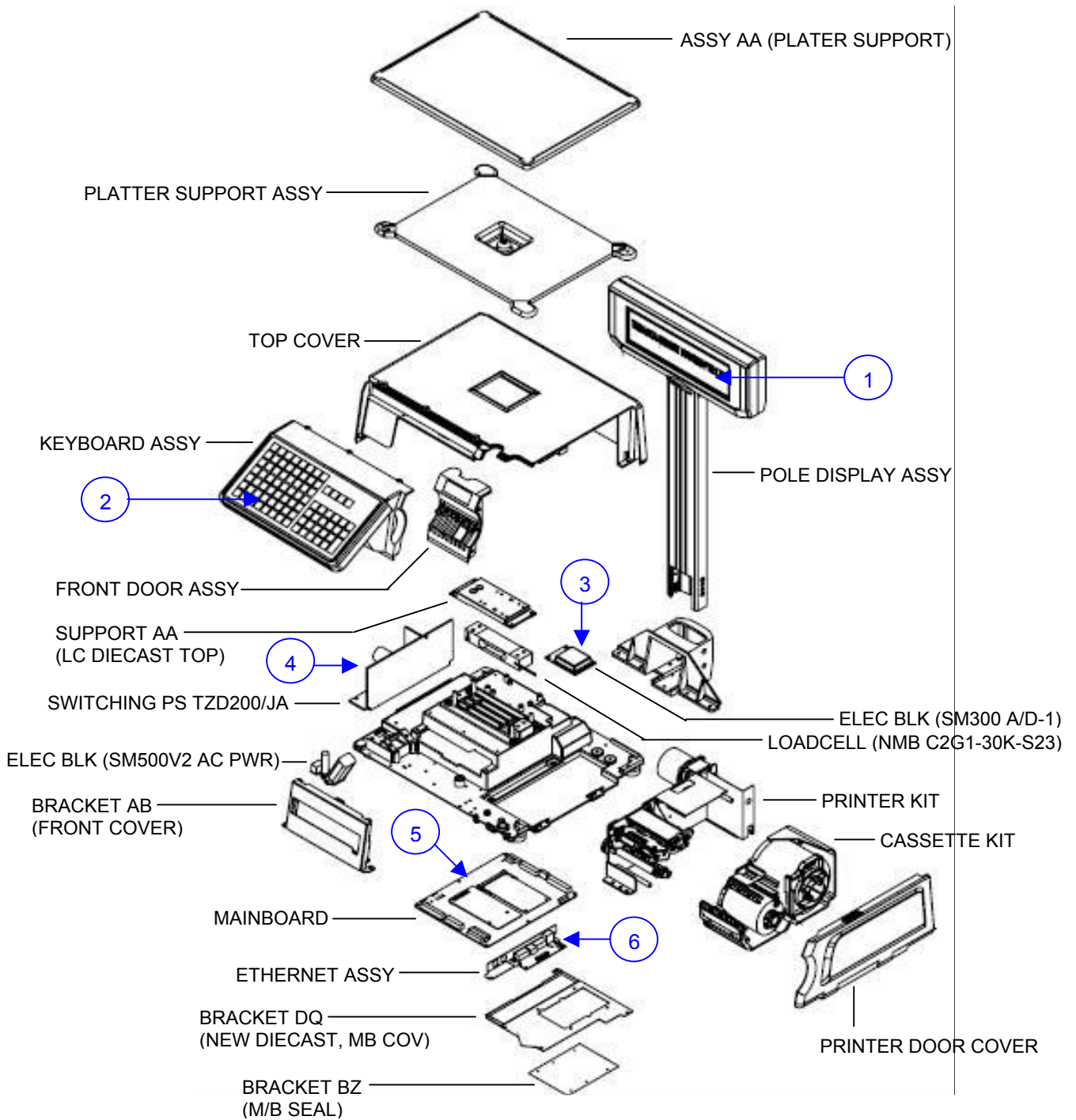
TAW0291



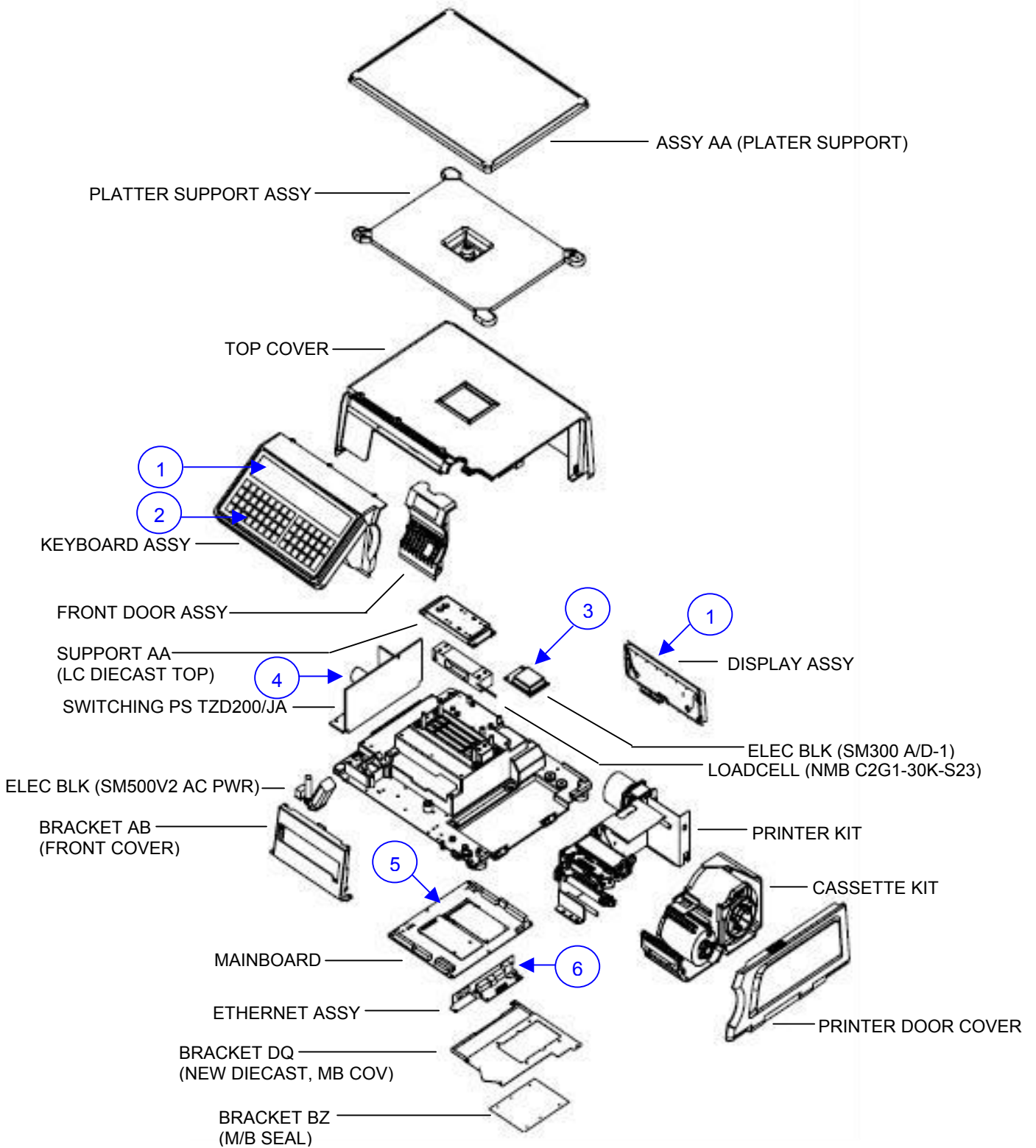
NOTE: WE CAN USE SEALING SCREWS OR SEALING STICKER.

7. EXPLODED VIEW

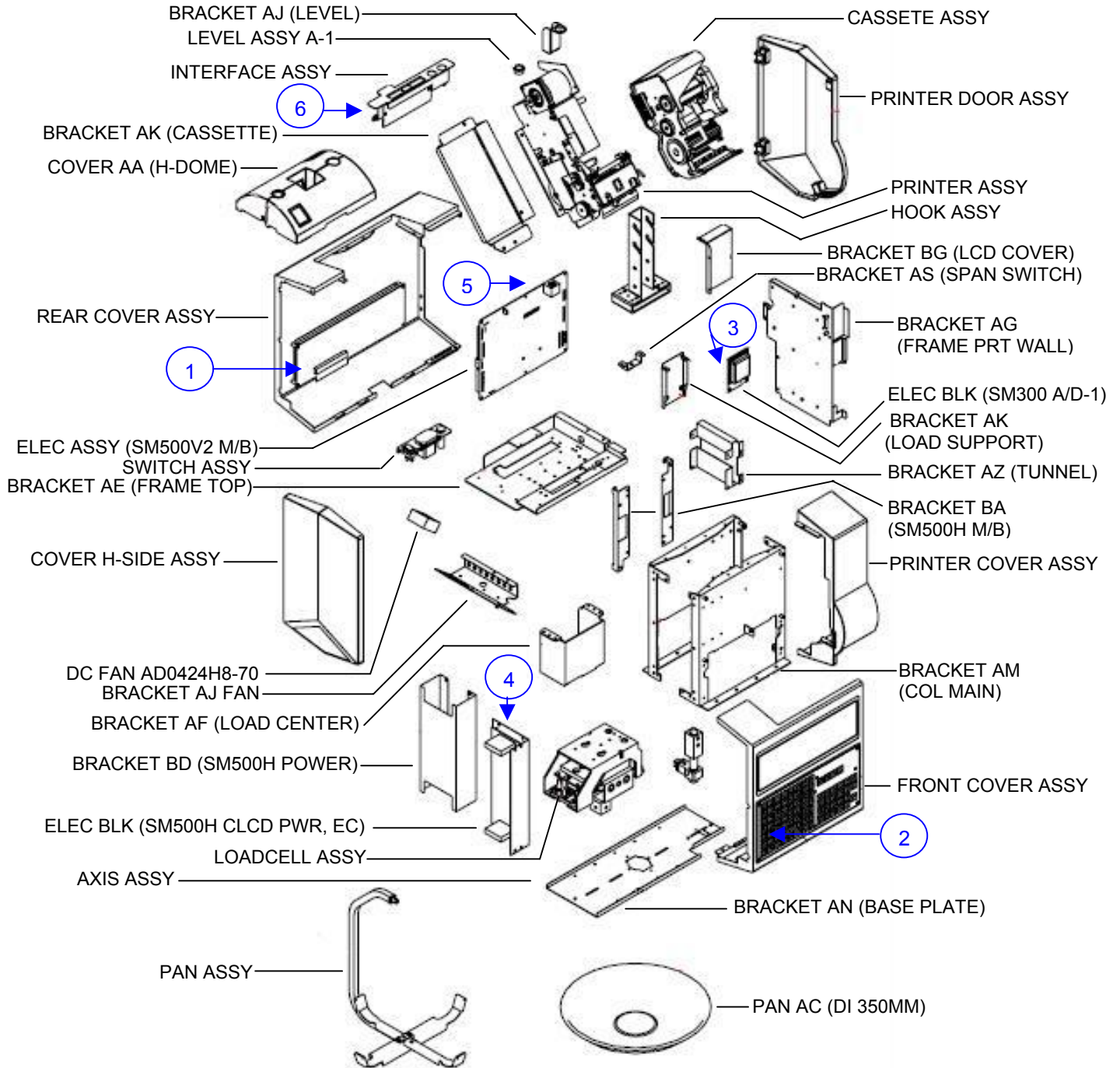
7.1 Pole Type



7.2 Bench Type

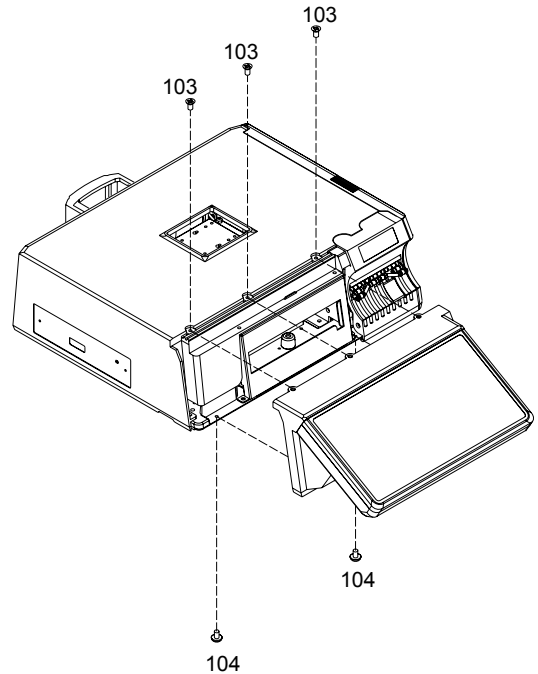
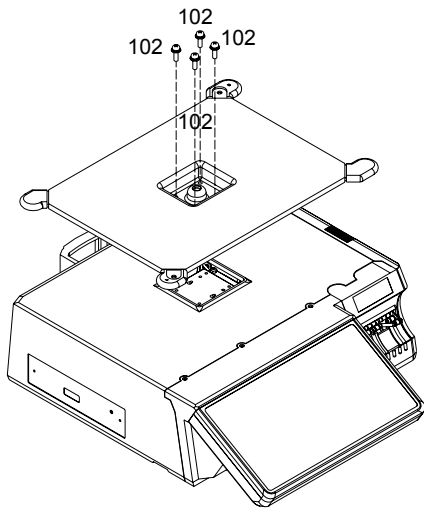
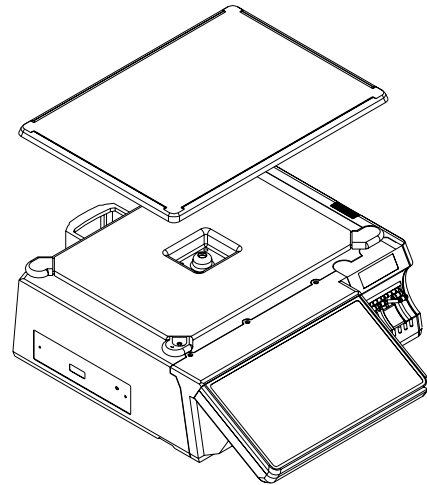
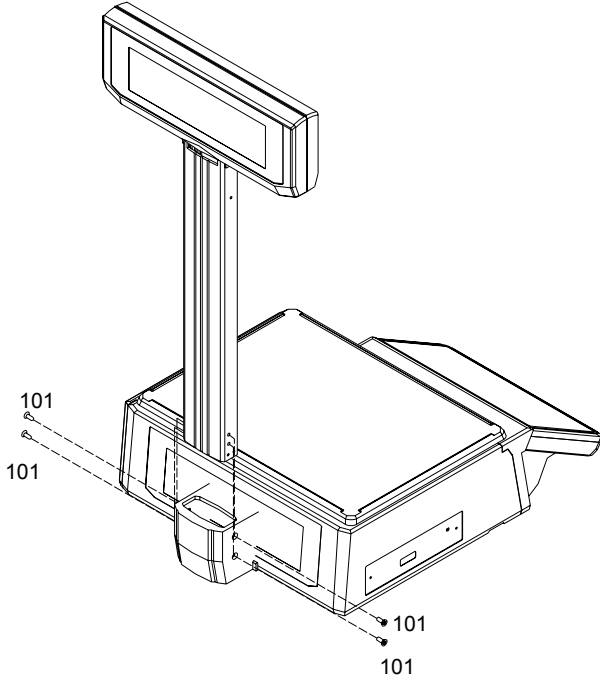


7.3 Hanging Type



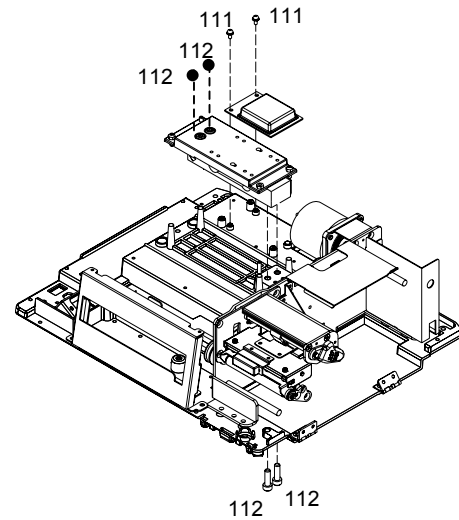
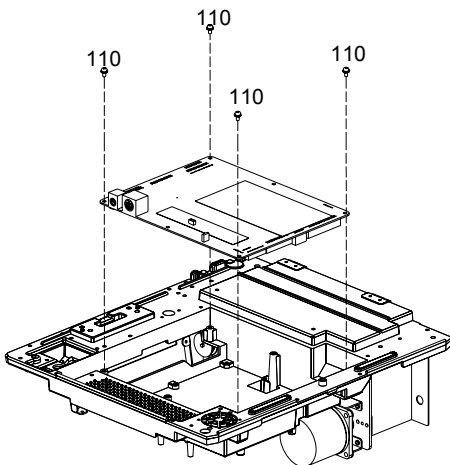
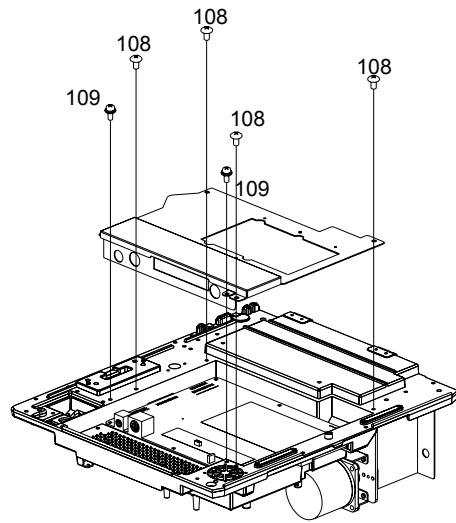
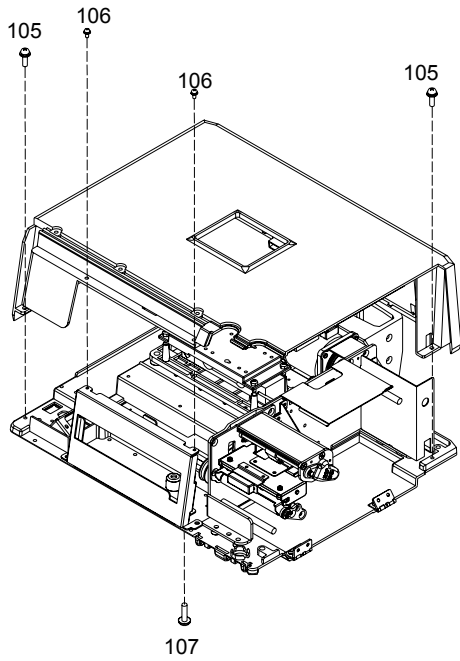
8. DISASSEMBLY

8.1 Pole Type Disassembly



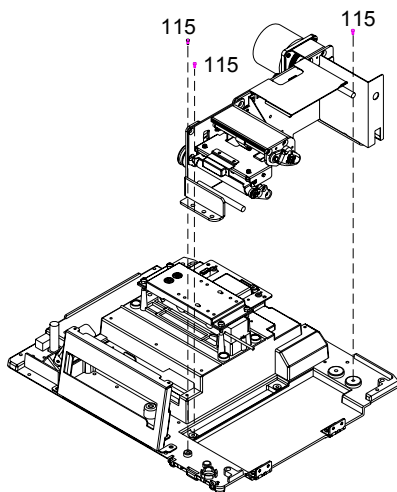
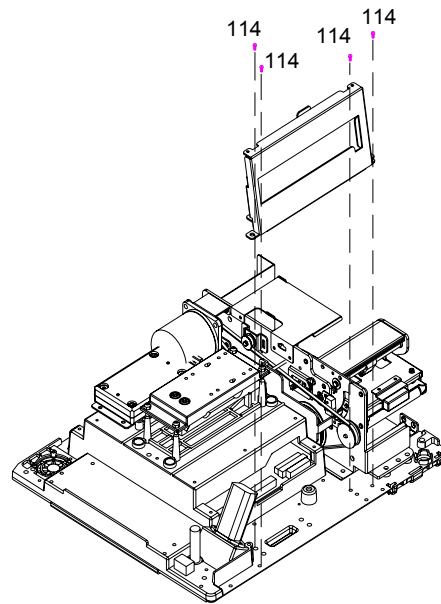
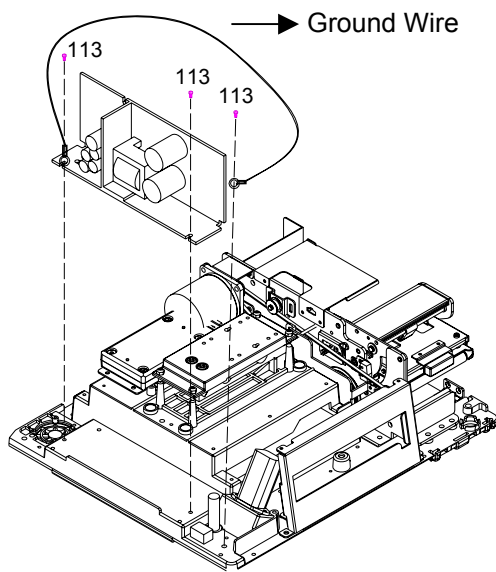
Screw Type:

- 101- Flat Head M4X16 (4pcs)
- 102- Sems B M4X10 (4pcs)
- 103- Flat Head M3X5 (3pcs)
- 104- Truss Head M4X6 (2pcs)



Screw Type:

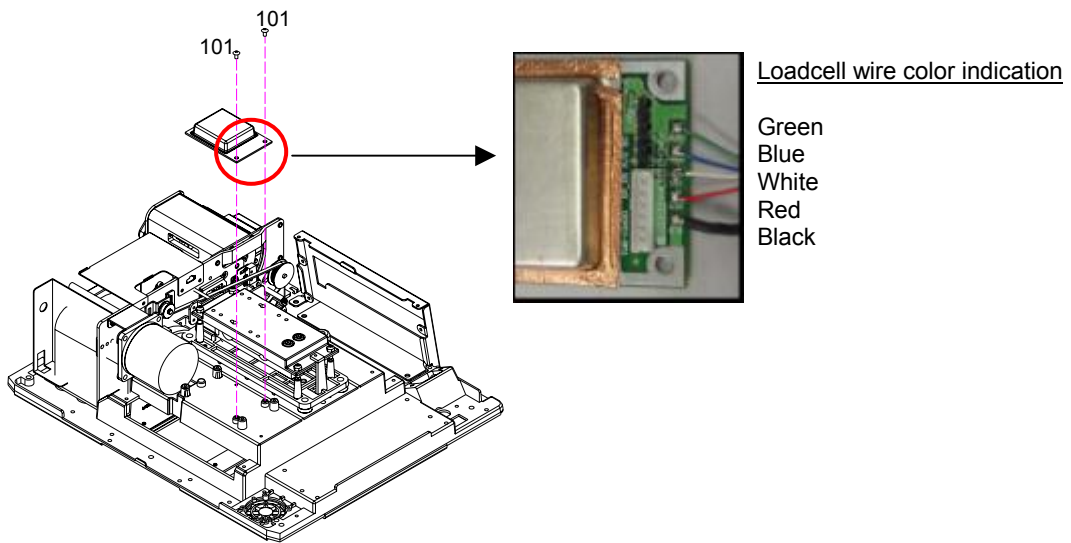
- 105- Sems B M4X8 (2pcs)
- 106- Sems B M3X8 (2pcs)
- 107- Flat Head M4X16 (1pcs)
- 108- Truss Head M4X16 (4pcs)
- 109- Sems B M4X6 (2pcs)
- 110- Sems B M3X6 (4pcs)
- 111- Binding Head M3X8 (2pcs)
- 112- Allen Cap M6X20 (4pcs)



Screw Type:

- 113- Sems B M4X8 (2pcs)
- 114- Sems B M4X6 (4pcs)
- 115- Sems B M4X12 (3pcs)

8.2 Pole and Bench AD Board Disassembly

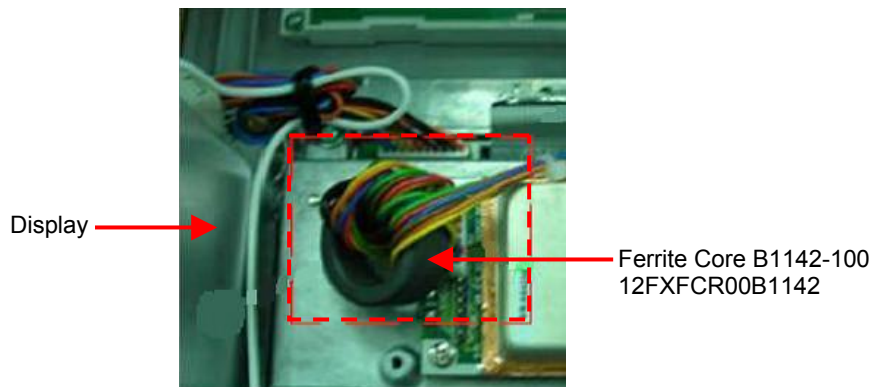


Screw Type:
101- Sems B M3X6 (2pcs)

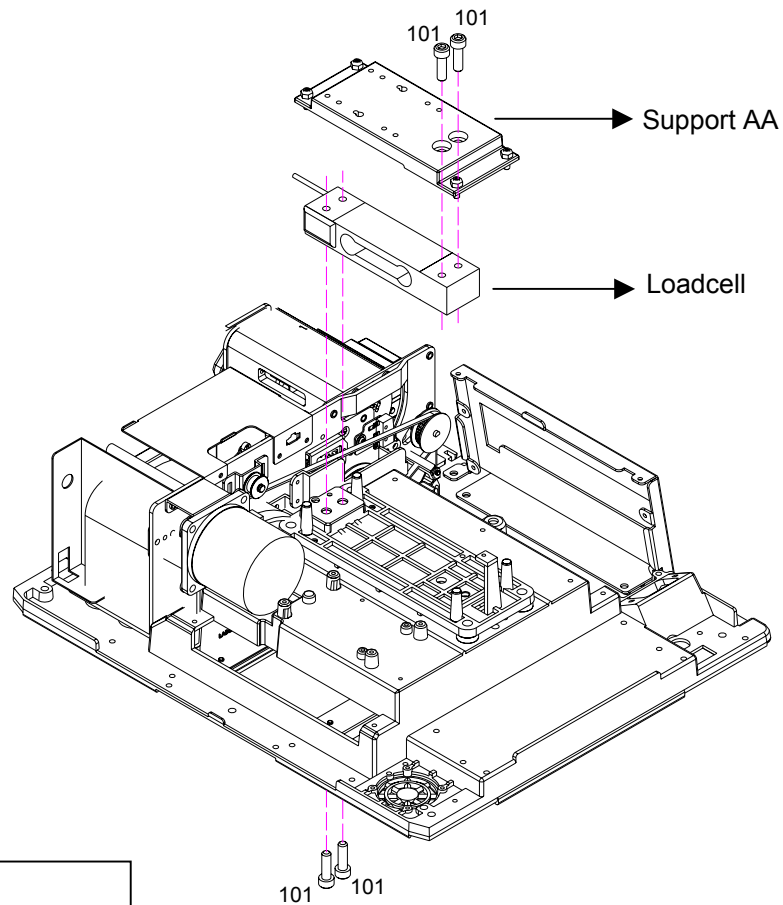
1. To remove the AD Board, solder out the Loadcell wire and then unscrew the 2pcs **Sems B M3X6** screw.

Note:

To avoid the Ferrite Core affect the Display function, ensure the Ferrite Core is assembly away from Display as shown. (Locate at near the AD Board)



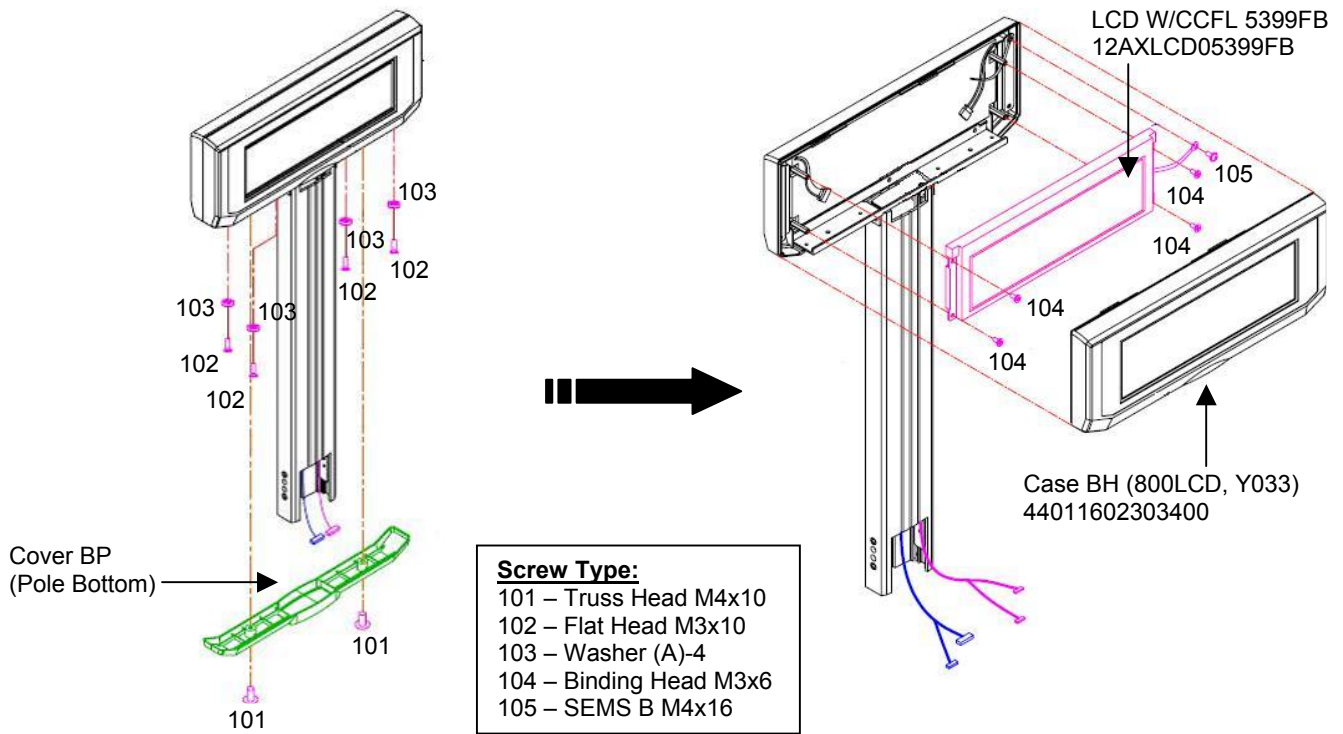
8.3 Pole and Bench Load-cell Disassembly

**Screw Type:**

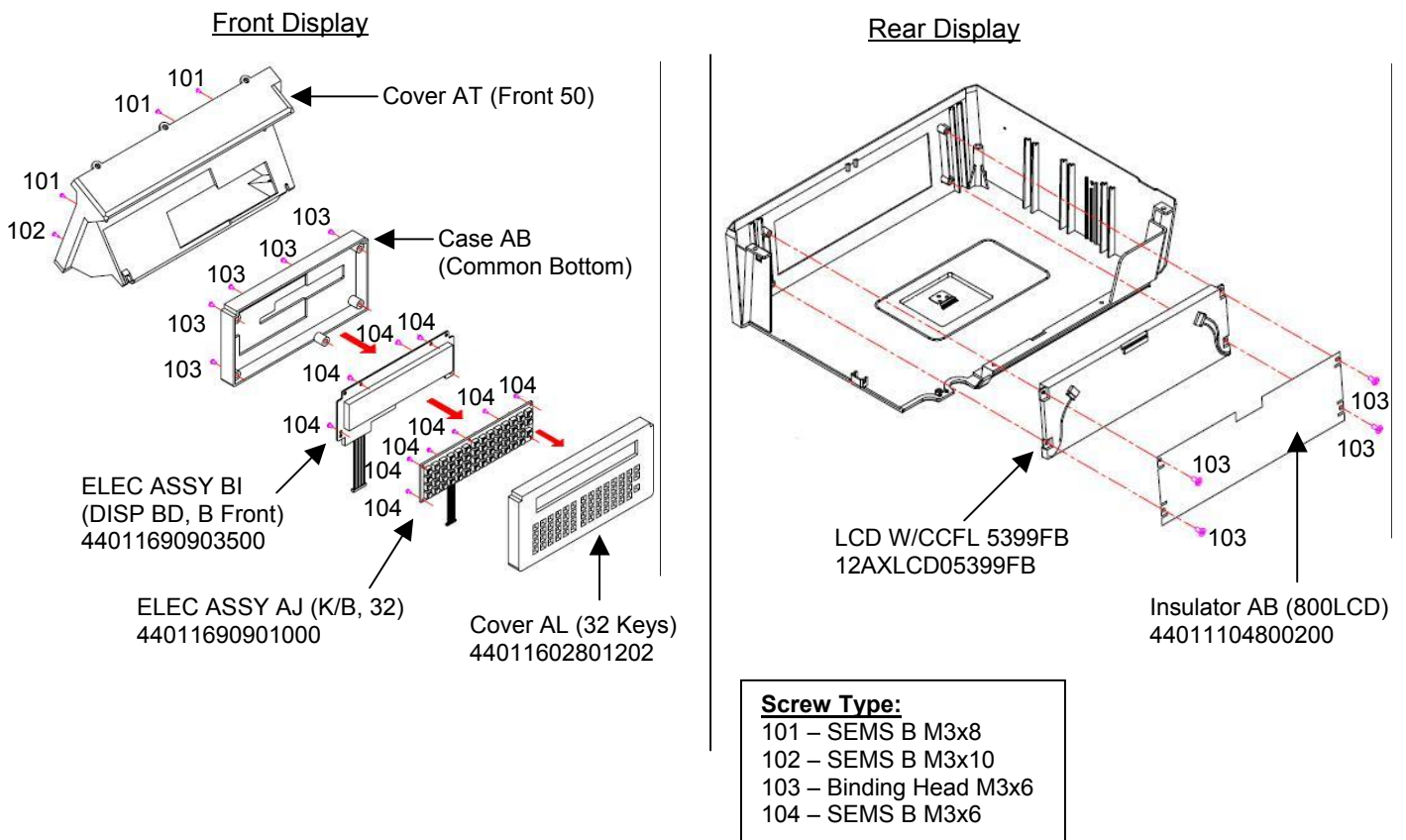
101- Allen Cap M4X20 (4pcs)

1. To remove the Support AA from Loadcell, unscrew the 2pcs **Allen Cap screw M4X20** from Top.
2. To remove the Loadcell from Base Diecast, unscrew the 2pcs **Allen Cap screw M4X20** from Bottom.

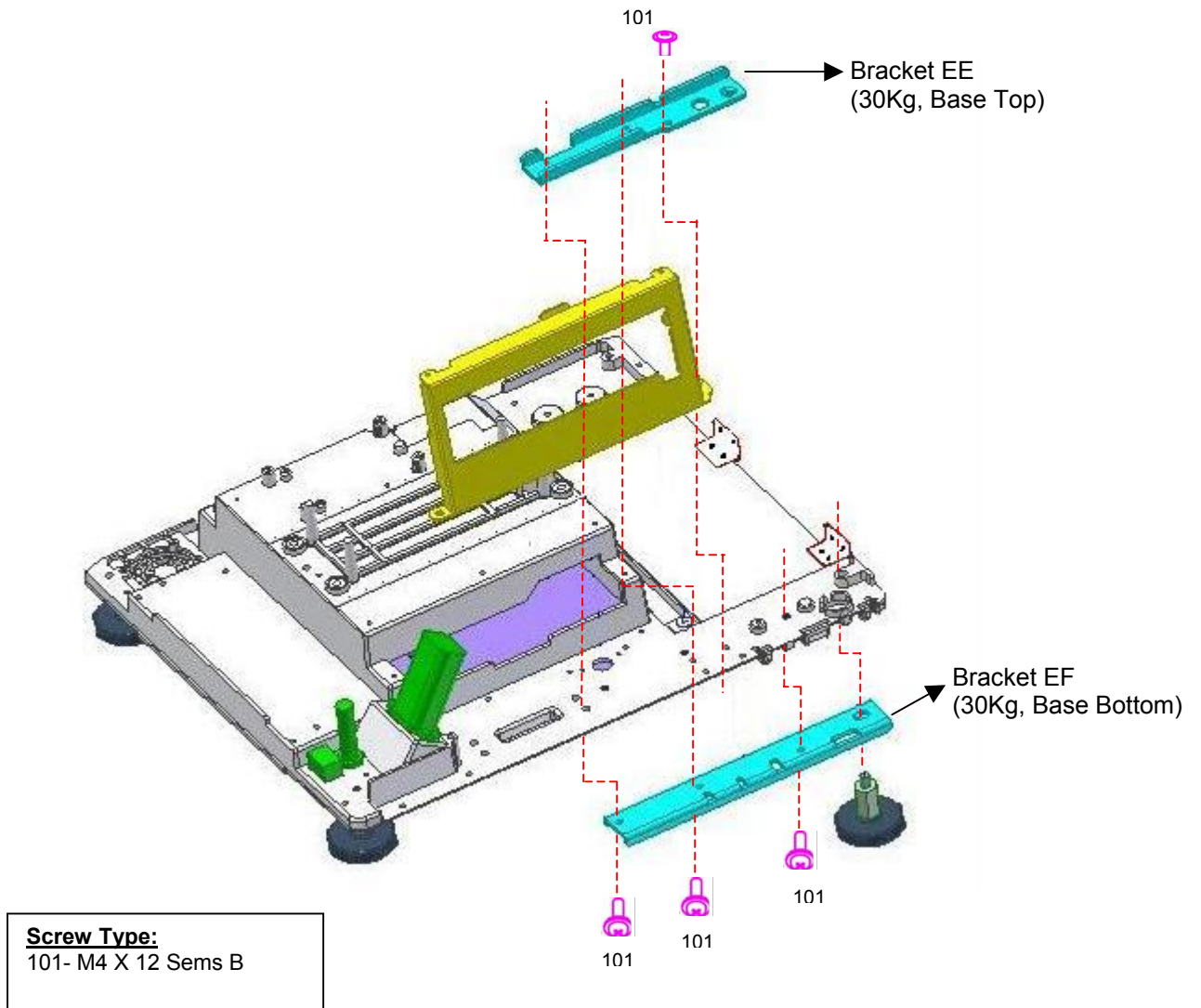
8.4 Pole Display Disassembly



8.5 Bench Display Disassembly

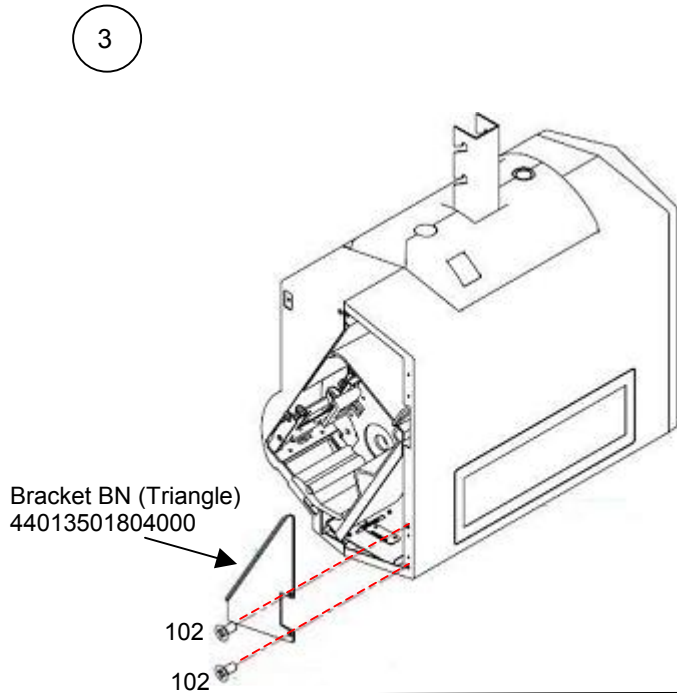
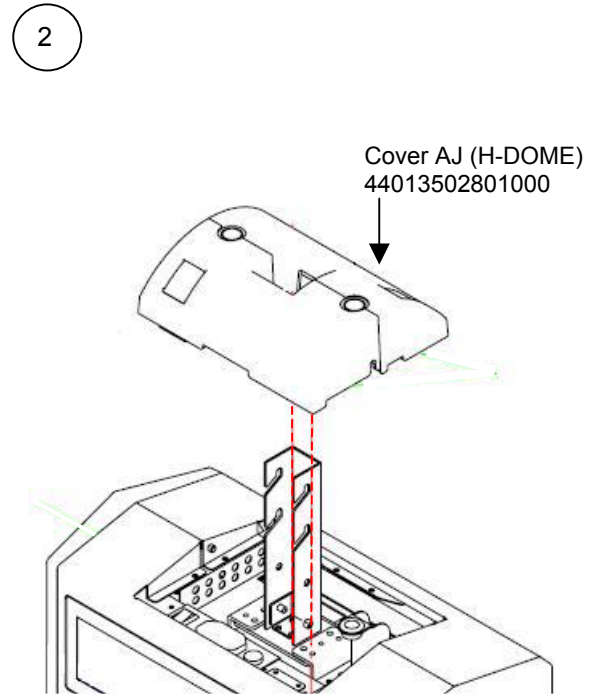
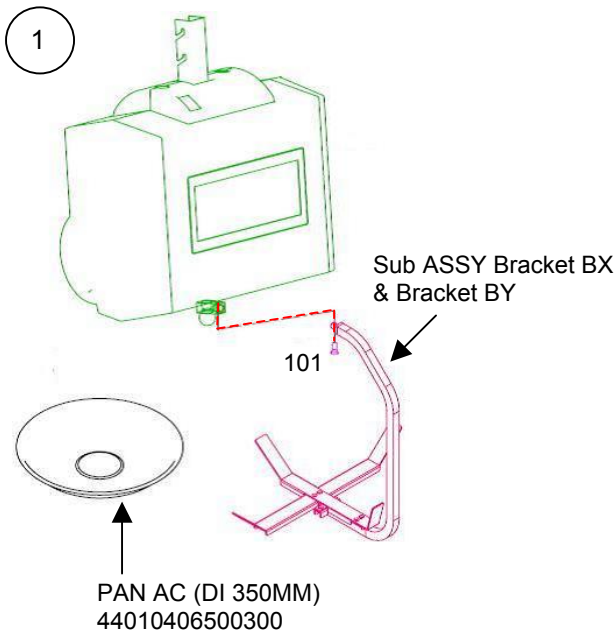


8.6 Extra Bracket Disassembly for 30Kg



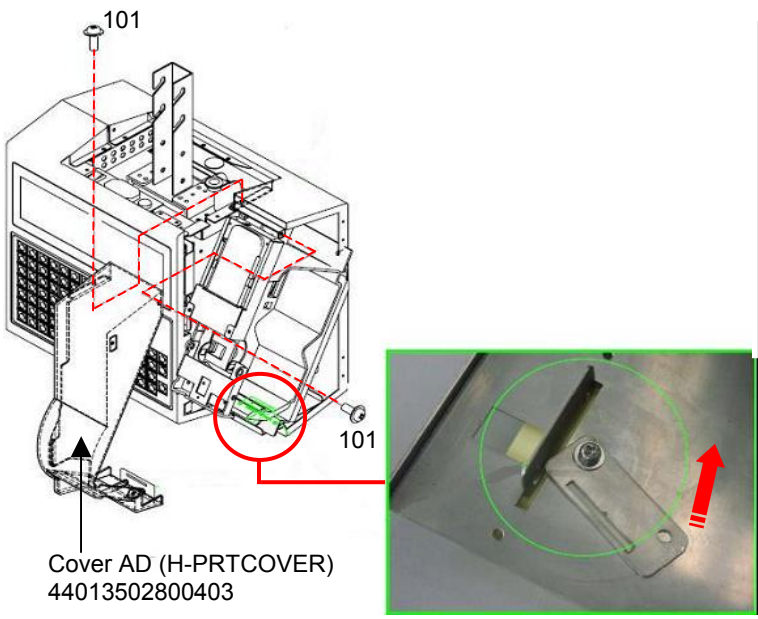
1. To assembly the Bracket EE (30KG, Base Top) tighten 1pcs Sems B screw M4x12 from Top.
2. To assembly the Bracket EF (30KG, Base Bottom) tighten 3pcs Sems B screw M4x12 from Bottom.

8.7 Hanging Type Disassembly

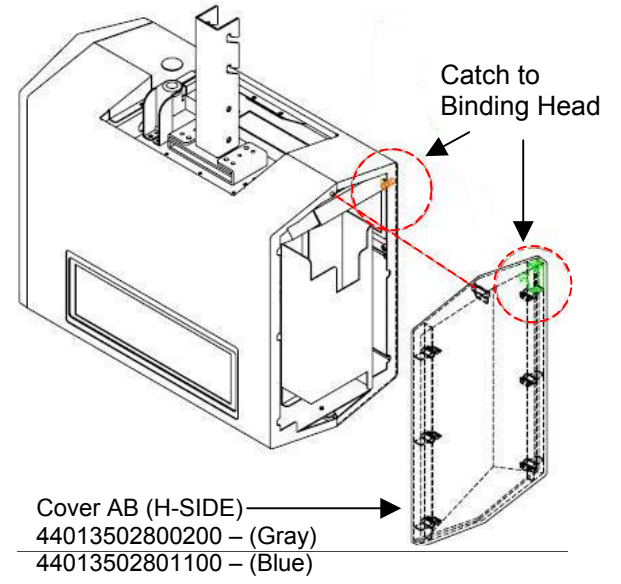


Screw Type:
 101 – Axis AE
 102 – Flat Head M3x8

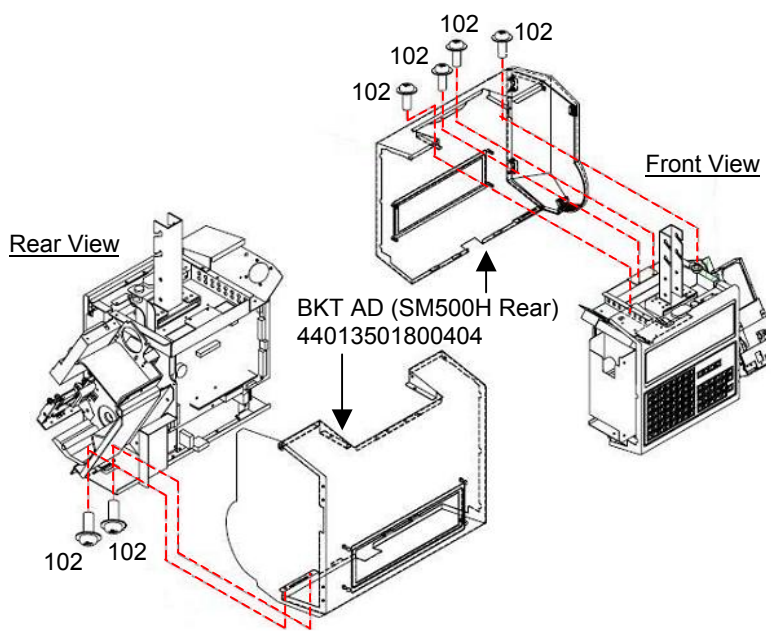
4



5

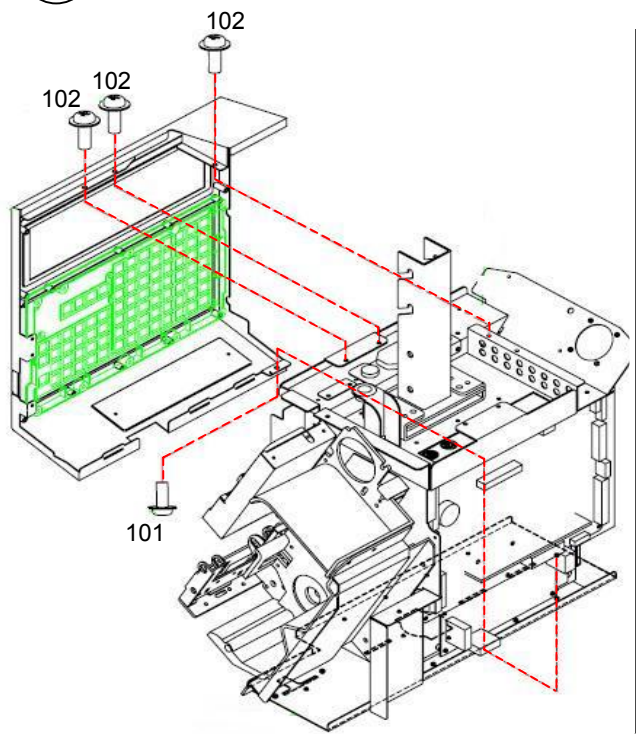


6



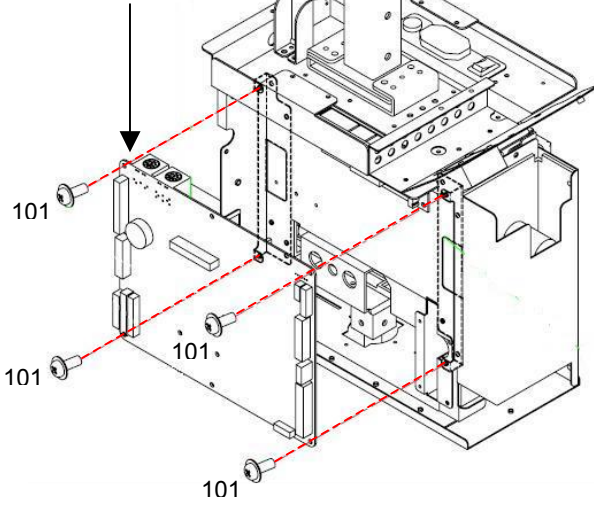
Screw Type:
101 – SEMS B M3x6
102 – SEMS B M4x6

7

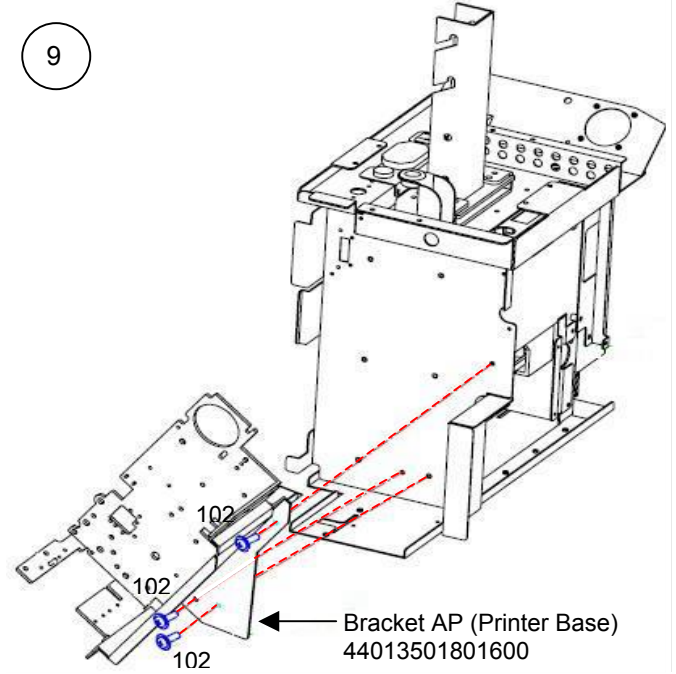


8

SM500 1MB ETHT M/B KIT
0EX00401160002



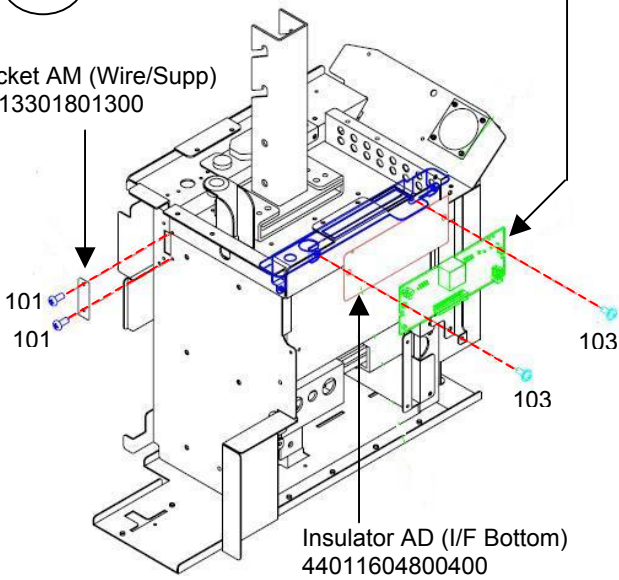
9



10

TWB-01750-0 (SM500V2 ETH/RS485)
22TWB100017500

Bracket AM (Wire/Supp)
44013301801300

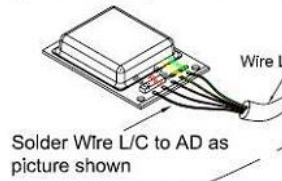


Screw Type:
101 – SEMS B M3x6
102 – SEMS B M4x8
103 – SEMS B M3x8

11

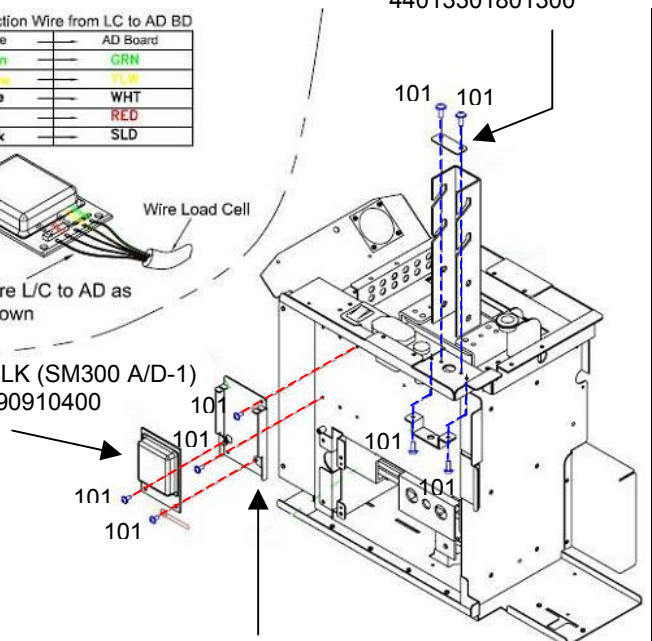
Bracket AM (Wire/Supp)
44013301801300

Connection Wire from LC to AD BD	
L/C wire	AD Board
Green	GRN
Yellow	YEL
White	WHT
Red	RED
Black	SLD



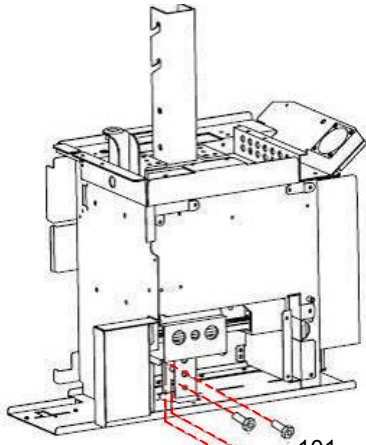
Solder Wire L/C to AD as picture shown

ELEC BLK (SM300 A/D-1)
44012490910400



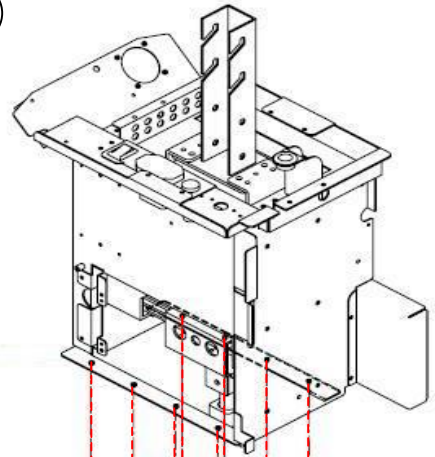
Bracket AK (Load Support)
44013501801101

12



- Joint AA (671)
44013004900101
- Spring AA
44010408300100
- Joint AA
41012404900103
- Axis AA (DS671H)
41012401300103

13

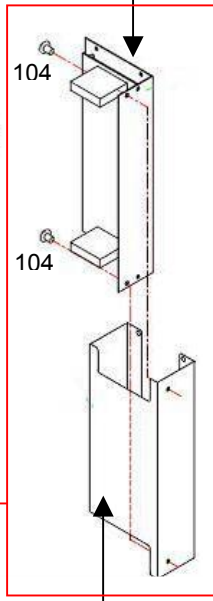
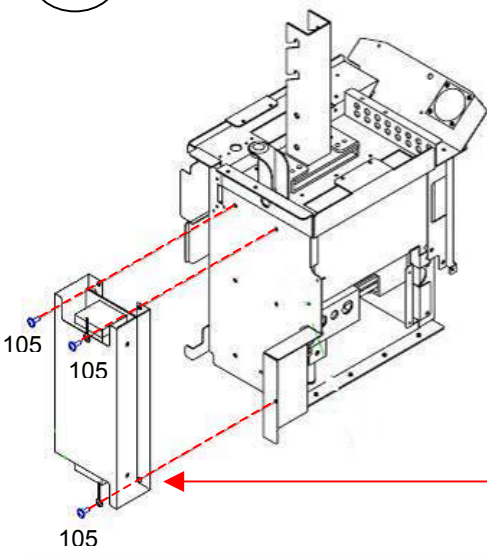


Bracket AN (Base plate)
440135018014XX

- 104
- 104
- 104
- 104
- 104
- 104
- 104
- 104

14

ELEC BLK (SM500H CLCD PWR, EC)
44011690904900



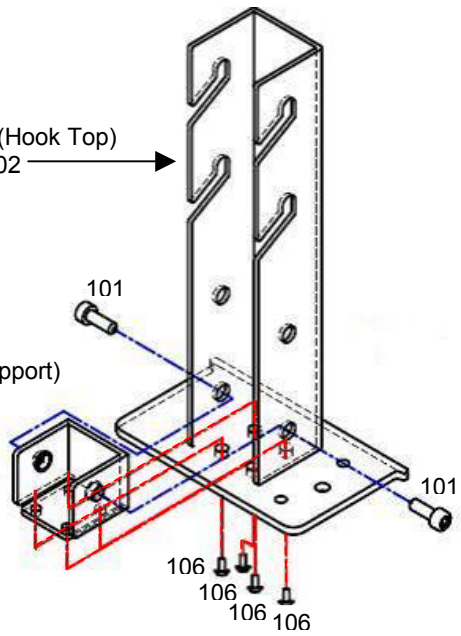
BKT BD (SM500H Power)
44013501803000

- Screw Type:
- 101 – Allen Cap M6x12
 - 102 – Hex Nut T3M6
 - 103 – Plain Washer M10
 - 104 – SEMS B M3x8
 - 105 – SEMS B M4x8
 - 106 – SEMS B M4x6

15

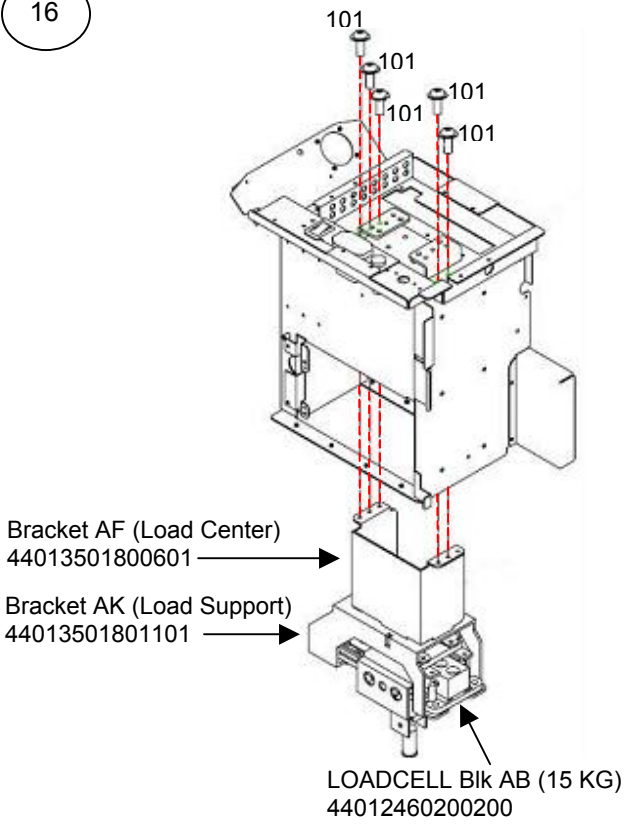
WELASSY AA (Hook Top)
44013050200102

Bracket BP (Hook Support)
44013501804200

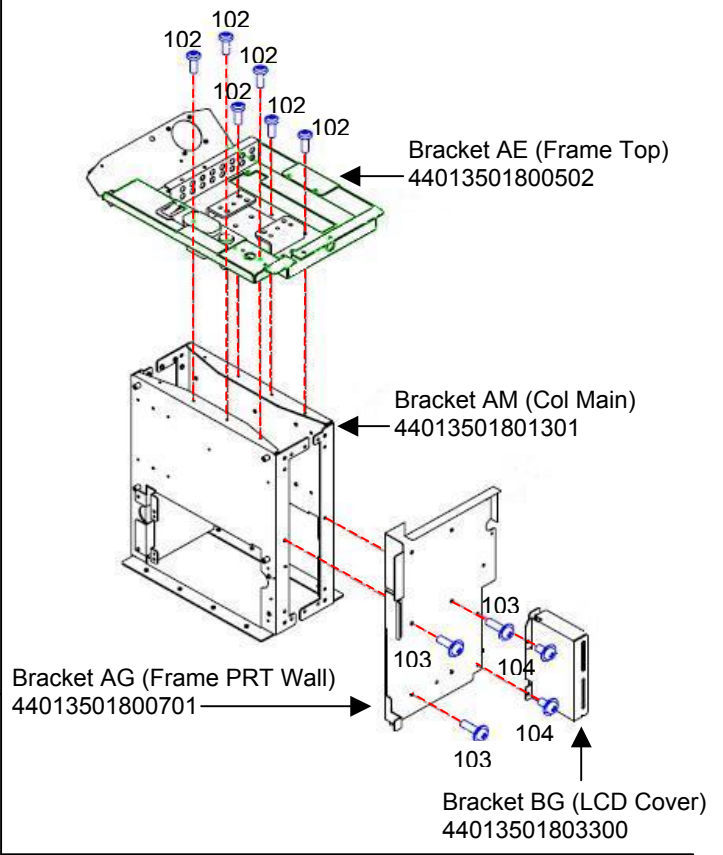


- 101
- 106
- 106
- 106
- 106

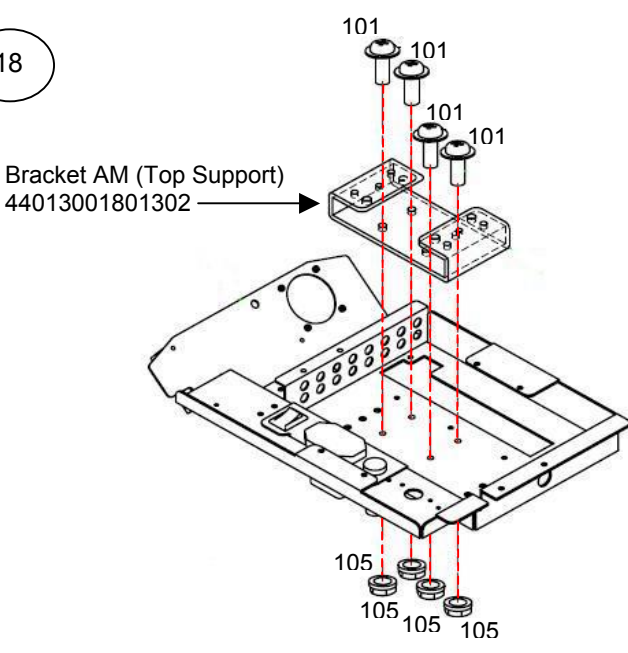
16



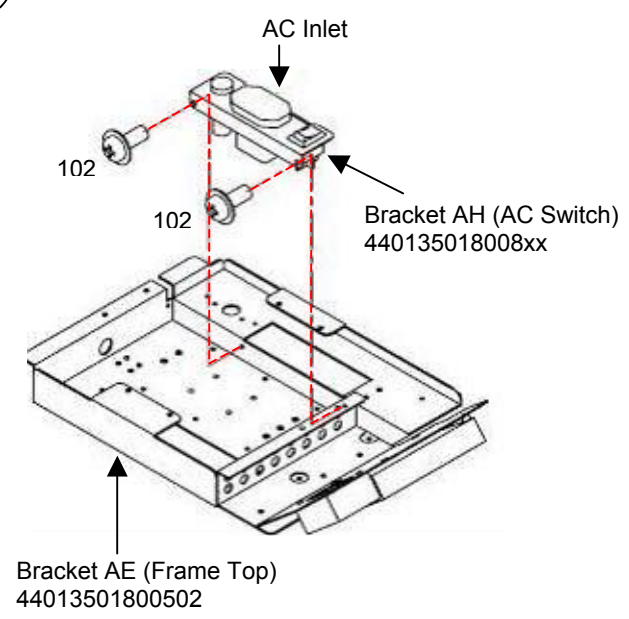
17



18

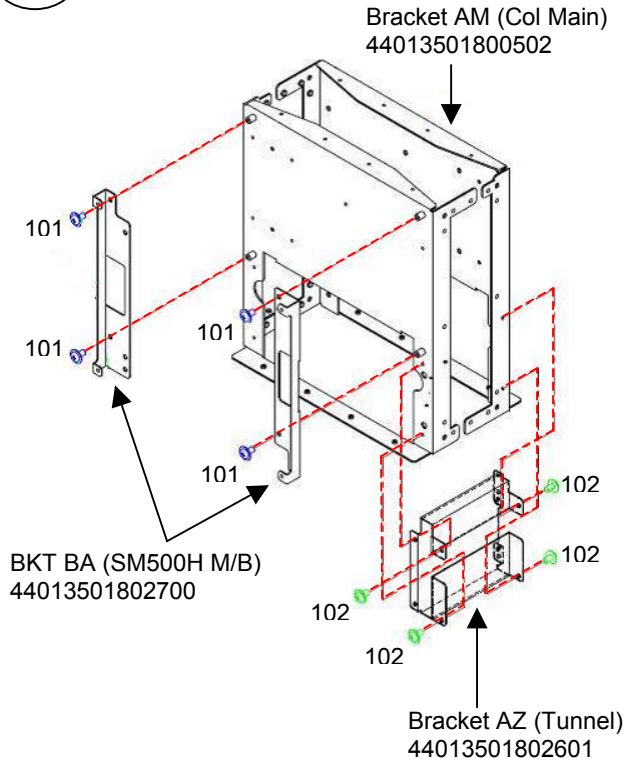


19

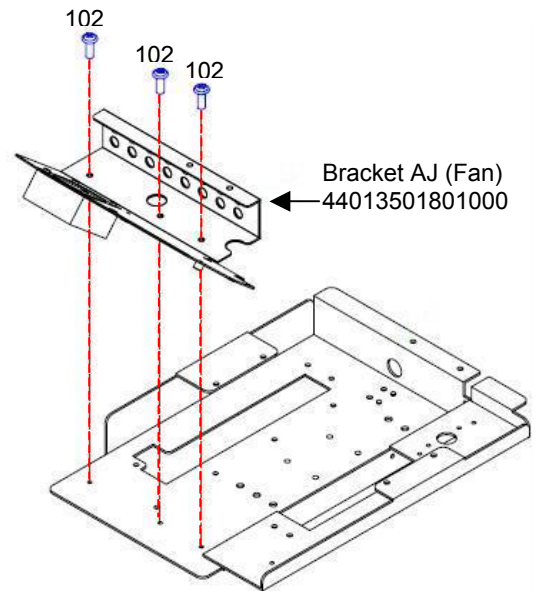


- Screw Type:**
- 101 – SEMS B M4x10
 - 102 – SEMS B M3x6
 - 103 – SEMS B M4x8
 - 104 – SEMS B M3x8
 - 105 – FLANGE NUT M4

20

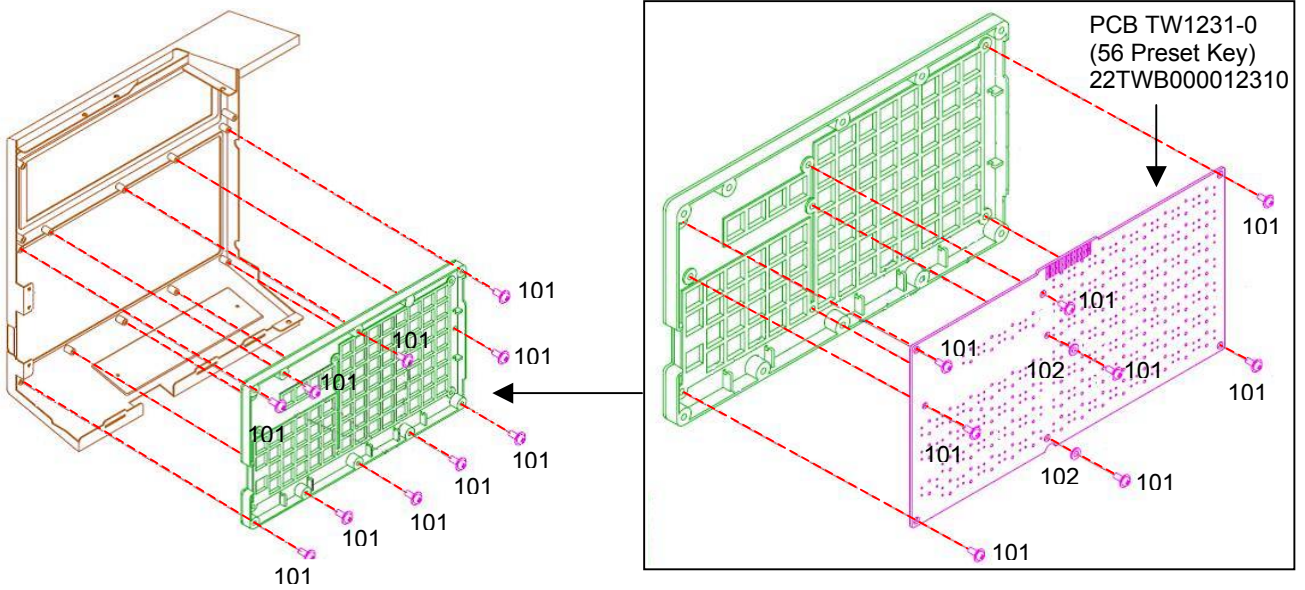


21



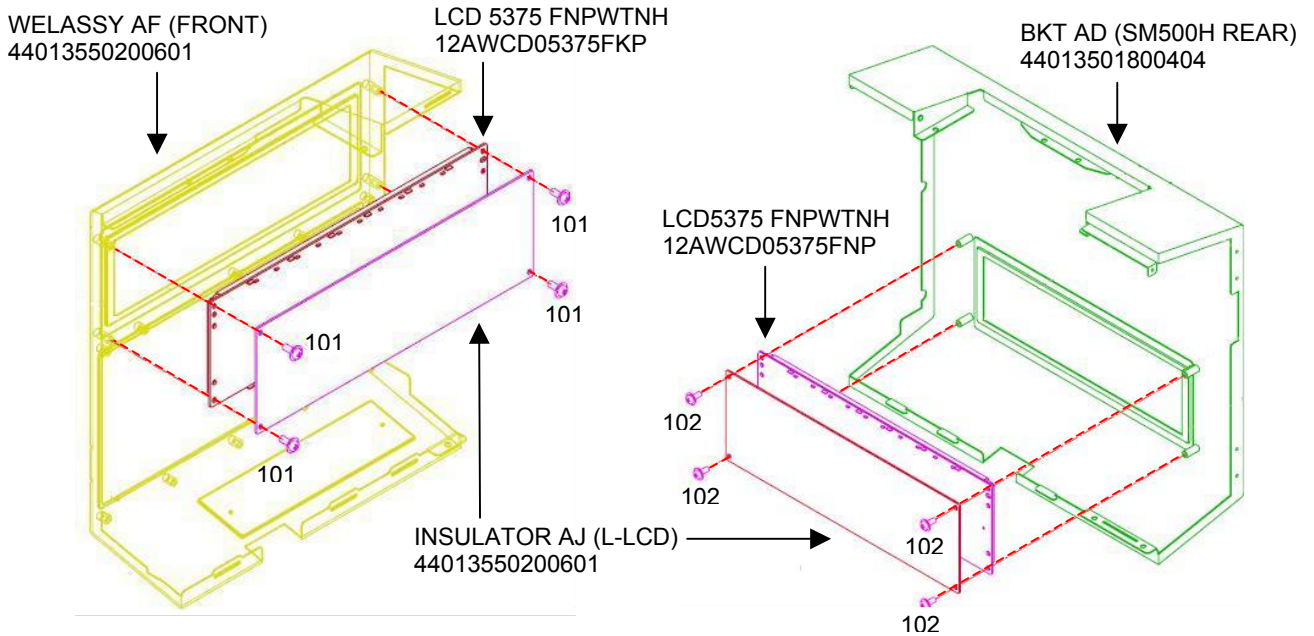
Screw Type:
101 – SEMS B M3x8
102 – SEMS B M3x6

8.8 Hanging Type Keyboard Disassembly



Screw Type:
 101 – SEMS B M3x6
 102 – PAKKIN (A)-1

8.9 Hanging Type Front & Rear Display Disassembly



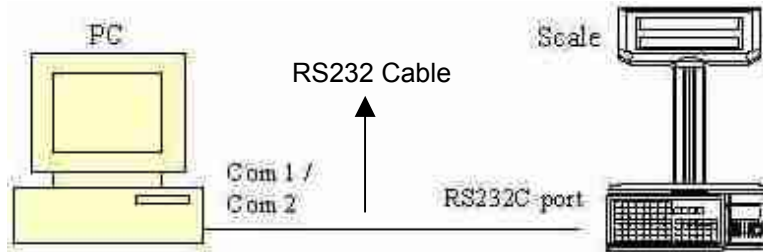
Screw Type:
 101 – SEMS B M3x6
 102 – SEMS B M3X8

9. FIRMWARE UPGRADE


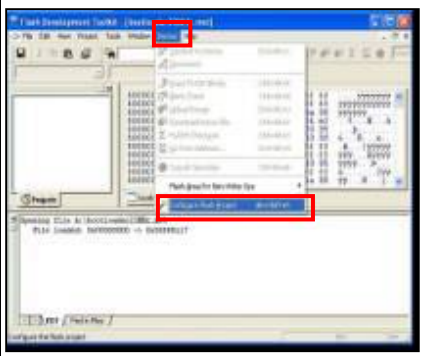






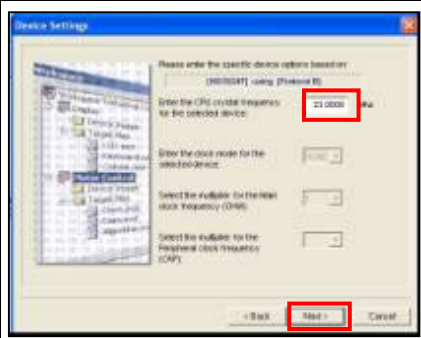
9.1 Bootloader Downloading

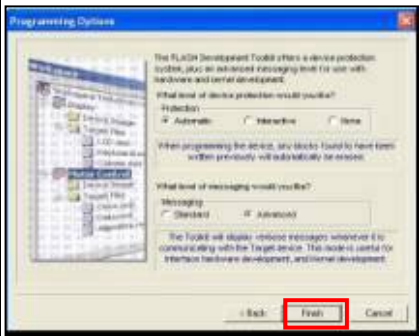
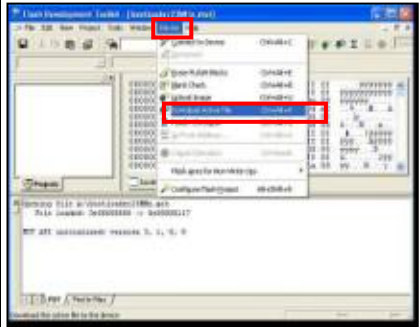
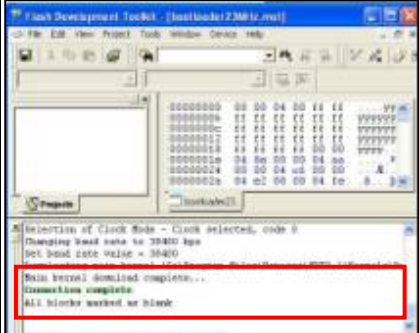
The software use for Boot loader downloading to scale is **Flash Development Toolkit 3.1**.

1. PC to scale via RS232C interface.



Procedure	Picture
1) Double click open the [Flash Development Toolkit 3.1] software.	<p>A screenshot of a Windows Professional desktop. The desktop background is blue with the Windows logo and 'Microsoft Windows Professional' text at the bottom. In the center, there are several icons. One icon, labeled 'Flash Development Toolkit 3.1', is highlighted with a red rectangular box.</p>
2) When Option icon appears, click the [Cancel] .	<p>A screenshot of a dialog box titled 'Flash Development Toolkit'. The dialog box has a title bar with 'Flash Development Toolkit' and standard window controls. It contains several options with checkboxes. The 'Cancel' button is highlighted with a red rectangular box.</p>
3) From the Option Menu, select the [File → Open An S-Record...] .	<p>A screenshot of the 'Flash Development Toolkit' application window. The 'File' menu is open, showing several options. The option 'Open An S-Record...' is highlighted with a red rectangular box.</p>

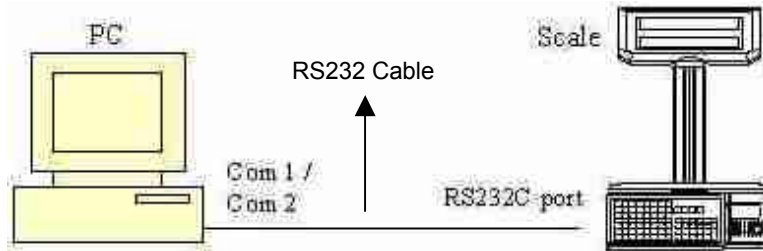
<p>4) Click the [bootloader23MH.mot] file from the location where you put and then click the [Open].</p>	
<p>5) From the Option Menu select the [Device] → [Configure Flash Project].</p>	
<p>6) Click the  to select the device [H8/3024F].</p>	
<p>7) Click the  to select the port [COM1], then click the .</p>	
<p>8) In the CPU crystal frequency for selected device, change the default number 25 to [23], then click the  x2 time.</p> <p>Note: Enter the number 23, it will automatically change to number 23.0000</p>	


<p>9) Click the Finish.</p>	
<p>10) From the Option Menu select [Device] → [Download Active File].</p>	
<p>11) After boot loader downloading finish, on the screen will shown [Main kernel download complete... Connection Complete].</p> <p><i>Note: Ensure that after downloading completed, must change back the Mainboard [SW 1] jumper setting.</i></p>	

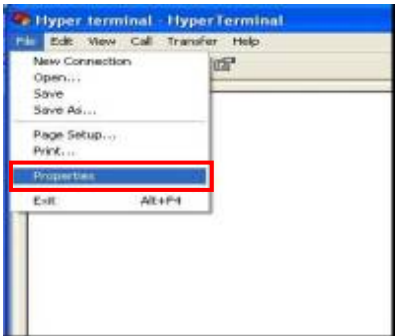



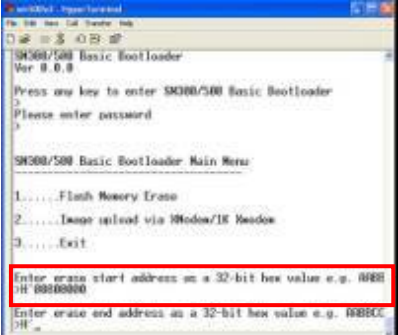
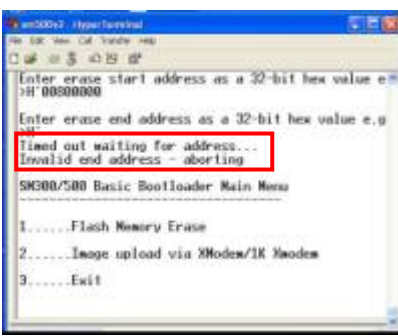
9.2 Firmware Downloading

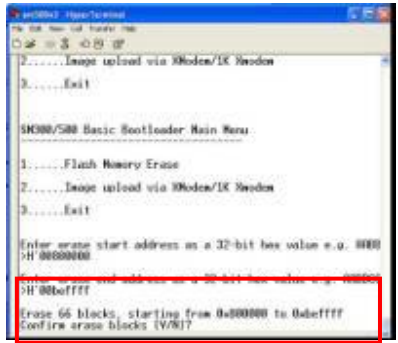
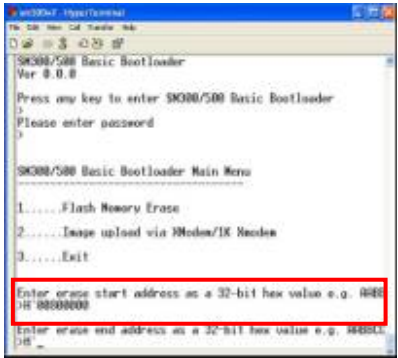
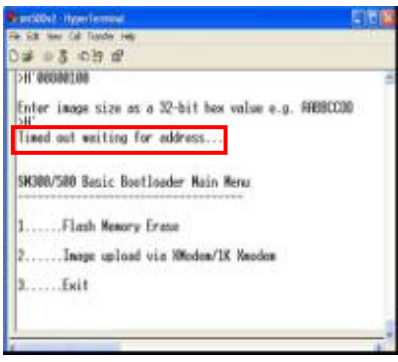
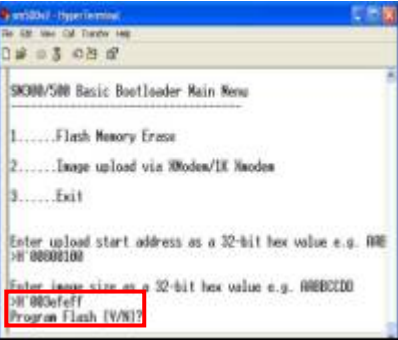
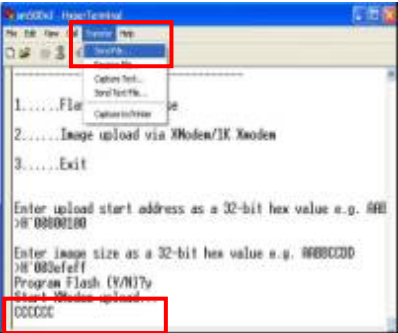
The software use for firmware downloading to scale is **Hyper Terminal**.



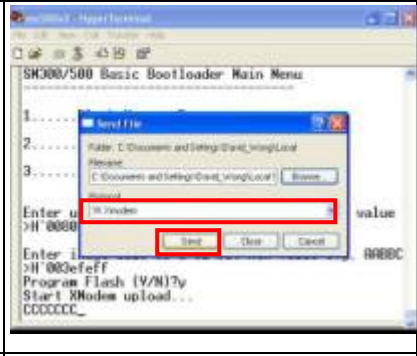
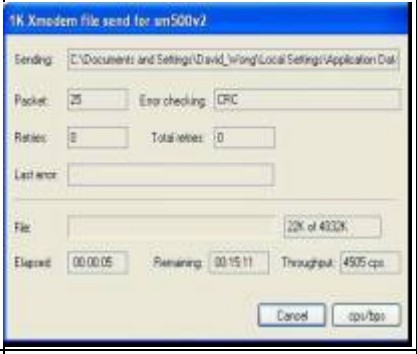
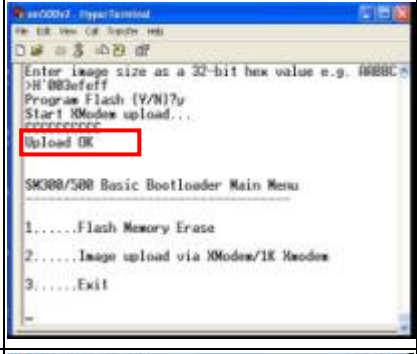

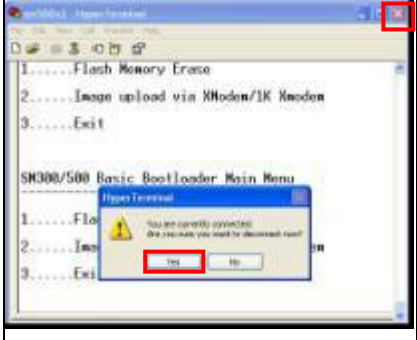
1. PC to scale via RS232C interface.
2. Plug in the Power Cord connect to Scale. (*Don't on the power first*)



Procedure	Picture
<p>1) From the Windows XP software, select Start → All Programs → Accessories → Communications → Hyper Terminal.</p>	<p>A screenshot of the Windows XP Start menu. The 'All Programs' menu item is highlighted with a red box. The path Start -> All Programs -> Accessories -> Communications -> HyperTerminal is indicated by the procedure text.</p>
<p>2) Once screen appear Connection Description setting. Enter any name (Example: Hyper Terminal) in the blank box, and then click the [OK] button to next step Port setting.</p>	<p>A screenshot of the 'Connection Description' dialog box. The 'Name' field contains 'Hyper terminal' and is highlighted with a red box. The 'OK' button is also highlighted with a red box.</p>
<p>3) In the Com 1 Port Settings. Use the  button to change the setting follows by below highlight as shown.</p> <p>Bits per second: 57600 Data bits: 8 Parity: None Stop bits: 1 Flow control: None</p> <p>After that click "Apply" and "OK" button to completed Com Port setting.</p>	<p>A screenshot of the 'COM1 Properties' dialog box, specifically the 'Port Settings' tab. The following settings are highlighted with red boxes: Bits per second (57600), Data bits (8), Parity (None), Stop bits (1), Flow control (None), and the OK, Cancel, and Apply buttons.</p>

<p>4) In the Hyper Terminal software to select [File] → [Properties] to open the properties setting.</p>	
<p>5) Go to Settings Option use the  button to change the setting follow by below highlight as shown.</p> <p>Emulator: ANSIW Telnet terminal ID: VT100</p> <p>Click the [OK] button to exit and go to downloading page.</p>	
<p>6) Switch on the scale power, the screen will shown [Press any key to enter SM300/500 Basic Boot-loader], then press the keyboard [Enter] key button 2 times.</p>	
<p>7)</p> <ol style="list-style-type: none"> On the SM300/500 Basic Boot-loader Main Menu will show “Enter erase start address as a 32-bit hex value e.g. AABBCB”. Type in the number [100800000]. <p>Note: When type in the first number [1], it will automatically convert to [H’] symbol.</p>	
<p>Remarks:</p> <ol style="list-style-type: none"> After next step on the screen shown “Enter erase end address as a 32-bit hex value e.g. AABBCB”. Around 3 seconds lead time to continue, if not it will shown the “Timed out waiting for address...” “Invalid end address – aborting”. You can type in the number [100800000] again and to continue. 	





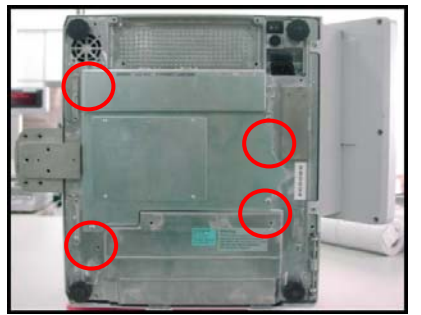
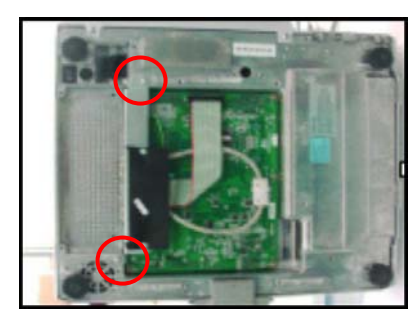
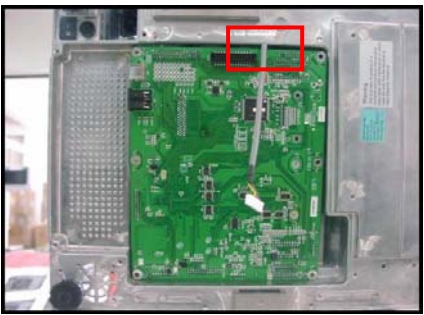
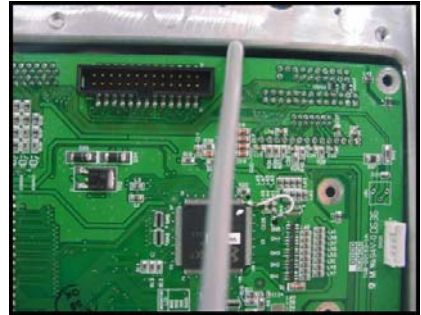

<p>8)</p> <ol style="list-style-type: none"> After next step on the screen shown “Enter erase end address as a 32-bit hex value e.g. AABBCB”. Type in number & character [00beffff], it will shown the information of Confirm erase block (Y/N). Press the [Y] keyboard button, it will automatically to start erase the blocks data. Need to take time waiting around 5 minutes for process. 	
<p>9)</p> <ol style="list-style-type: none"> After Blocks data erase, the screen will go back to SM300/500 Basic Bootloader Main Menu. For the “Enter upload start address as.....” Type in the number [200800000]. <p>Note: When type in the first number [2], it will automatically convert to [H’] symbol.</p>	
<p>Remarks:</p> <ol style="list-style-type: none"> After next step on the screen shown “Enter erase end address as a 32-bit hex value e.g. AABBCB”. Around 3 seconds lead time to continue, if not it will display the “Timed out waiting for address...” You can type in the number [200800000] from last step 9) c) again and then to continue. 	
<p>10)</p> <ol style="list-style-type: none"> When the screen shown “Enter image size as a 32-bits.....” Type in the number & character [003efeff]. The screen will show [Program Flash (Y/N)]? Press the [Y] keyboard button. 	
<p>11)</p> <ol style="list-style-type: none"> When the screen show “Start XModem Upload...” and “CCC....”. From the Option Menu, select [Transfer] → [Send File...] 	


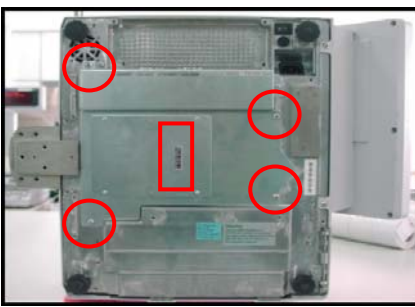
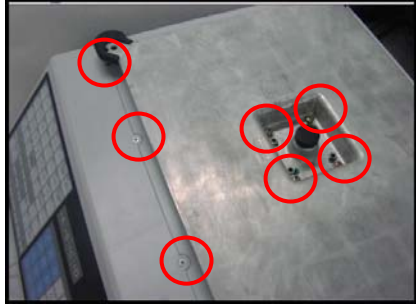



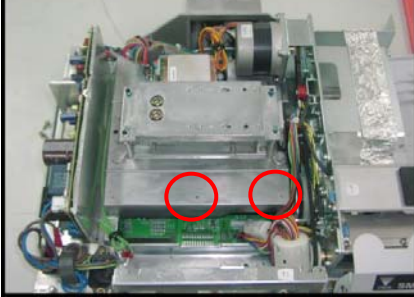
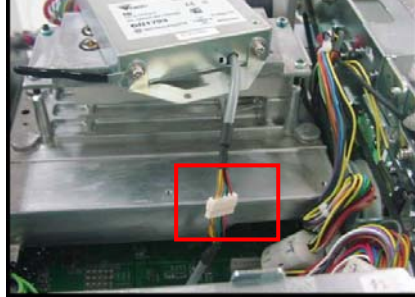
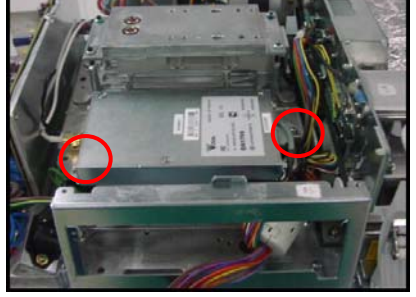
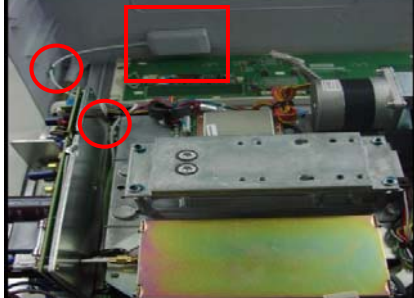


<p>12) Select the Software/File where the software/file allocate, and then click the [Open] button.</p>	
<p>13) When the screen appear Send File page, click the [Send] button.</p> <p>Note: Ensure the [Protocol] option, using  to select [1K Xmodem]</p>	
<p>14) The downloading and upgrade the software needs to take time waiting around 15 minutes for process.</p>	
<p>15) When the screen shown [Upload Ok] and automatically goes back to Main Menu, that meaning the downloading/upgrade the software is completed.</p>	
<p>16) Click the  button the screen will show the information of disconnected. And then click the [Yes] button to close the Hyper Terminal program.</p>	

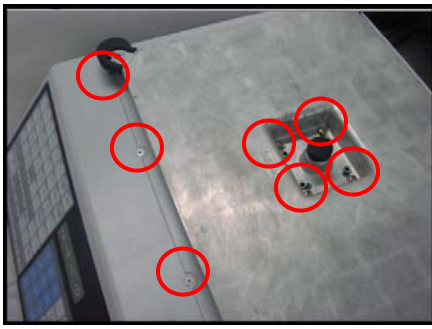
10. WIRELESS LAN KIT INSTALLATION AND WLAN CONFIGURATION

10.1 SM-720 Standard Machine

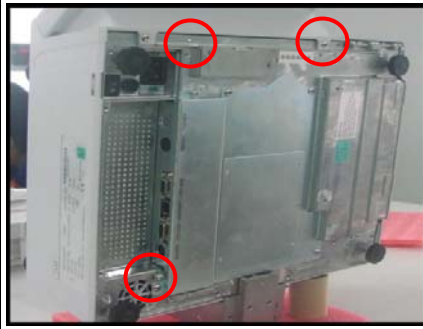
10.1.1 Internal Wireless Kit Installation

		
<p>1. SM-720 scale</p>	<p>2. Wireless LAN Kit.</p>	<p>3. Screw M3x6</p>
		
<p>4. Hi Sticker</p>	<p>5. Place the SM-720 scale upside down and loosen 4 screw for remove the bottom cover</p>	<p>6. Disconnect the cable, loosen 2 screws for remove the I/F Board and remove all the screw that tighten main board.</p>
		
<p>7. Take Up Main Board, and insert the wire TCW-0602 (Please refer to the zoom pictures for detail).</p>	<p>8. Please Insert The Wire as shown. (ZOOM IN)</p>	<p>9. Put Main Board back and retighten the screw</p>

		
<p>10. Connect the wire and retighten the I/F Board</p>	<p>11. Fix and Retighten the bottom cover bracket using screw, then paste MC ID sticker.</p>	<p>12. Loosen all the screw inside red circle and take the platter support</p>
		
<p>13. Loosen all the screw inside red circle and take up the keyboard.</p>	<p>14. Loosen all the screw inside red circle.</p>	<p>15. Open the front printer door and loosen this screw inside red circle & take up the top cover.</p>
		
<p>16. Remove the coating clips (CS-5)</p>	<p>17. Connect WLAN Kit wire with TCW 0602- as shown.</p>	<p>18. Put the WLAN kit and tighten together with coating clips (CS-5) Using screw M3x6 as shown.</p>
		
<p>19. Clamp antenna wire with coating clips & HI-Sticker than paste the antenna as pictures as shown.</p>	<p>20. Retighten the all screw (inside red circle)</p>	<p>21. Retighten the screw (inside red circle)</p>



22. Retighten the all screw (inside red circle).

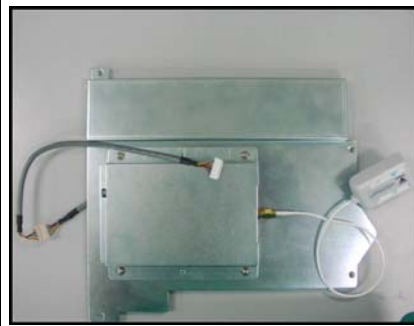


23. Retighten the all screw (inside red circle).

10.1.2 External Wireless Kit Installation



1. SM-720 scale



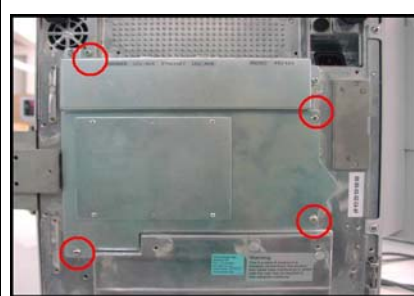
2. Wireless LAN Kit.



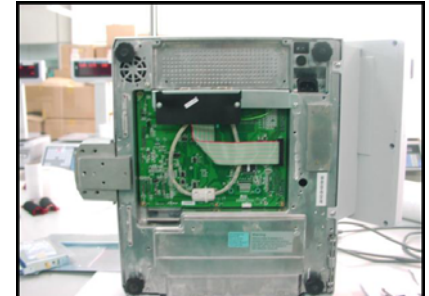
3. Screw M4x6



4. Hi Sticker



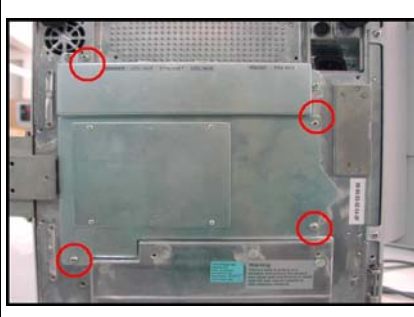
5. Loosen all the screw inside red circle and take up main board cover.



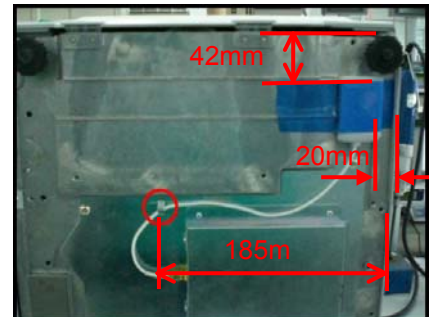
6. Screw M4x6



7. Connect WLAN kit wire to I/F BD of CN7. (Ensure must be connect properly)



8. Fix the WLAN kit to body and retighten all the screw.



9. Fix Antenna to WLAN kit & Clamp the wire with Hi-Sticker and paste antenna on the base use blue tape as shown complete assembly.

10.1.3 WLAN Bridge Configuration Setup

Spec Setting

Set Scale Spec by press key while pressing **1 4 1** key in **Z Mode** or **R Mode**.

1. Press **4 9 X** key, press key to select ETHERNET-TWISTED for Spec 49 and press ***** key.
2. Press **1** key to select SERVER / WORKSTATION for Spec 50 and then press ***** key.
3. Press **1 3 5 X** key, press **2 1** key for the PORT NUMBER and press ***** key.
4. Press **3 1 7 X** key and then set Spec 317: WIRELESS COMMUNICATION to 1: YES by press **1 ***.
5. Press **PLU** key to save.

Set Scale IP Address

6. Set Scale IP Address by press **0 4 1 6** key while pressing **→0←** key in Z Mode. Set the Address to 192.168.000.21. (Note: 021 are depending on Spec 135 setting.)
7. Press **PLU** key to save.
8. Switch OFF scale by main power. And then switch ON the scale while pressing **→0←** **↻** key to memory clear.

Wireless Programming

9. Press **↻ →0← ↻** key to enter Programming Mode (**S Mode**), press **4 4 X *** key to enter ESSID programming mode. Enter **ESSID (Ex. ptegroup)** by Preset Key entry or IBM Keyboard.
10. Press **PLU** and **C** key to send the configuration to RF Card. After successfully, turn OFF scale by main power again.
(Note: Error message "ETHERNET COMM.ERROR" will be shown if the sending is unsuccessful).

Wireless Communication Testing

Then loading the RF Card to scale and switch ON the scale.

11. Set PC to MS DOS Prompt and then ping the scale IP address one by one (Ex.ping 192.168.0.21)

Test PASS as Picture 1 and FAIL as Picture 2

Picture 1

```

Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1999.
C:\WINDOWS>ping 192.168.0.21

Pinging 192.168.0.21 with 32 bytes of data:

Reply from 192.168.0.21: bytes=32 time=37ms TTL=64
Reply from 192.168.0.21: bytes=32 time=9ms TTL=64
Reply from 192.168.0.21: bytes=32 time=5ms TTL=64
Reply from 192.168.0.21: bytes=32 time=16ms TTL=64

Ping statistics for 192.168.0.21:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 37ms, Average = 16ms

C:\WINDOWS>_

```

Picture 2

```

Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1999.
C:\WINDOWS>ping 192.168.0.21

Pinging 192.168.0.21 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.21:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms



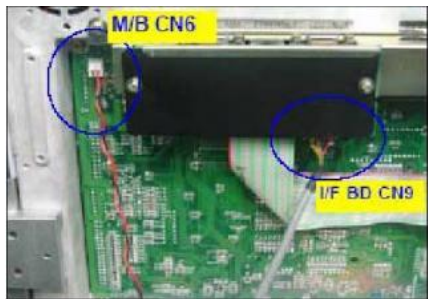
C:\WINDOWS>_

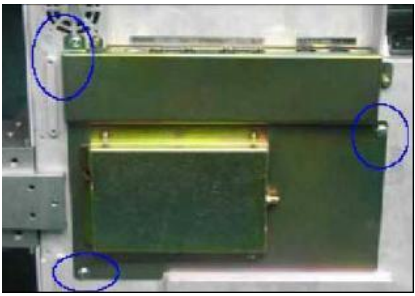


```

10.2 SM-720 Touch Screen Machine

10.2.1 Wireless LAN Kit Installation



		
<p>1. SM-720 scale.</p>	<p>2. Wireless WLAN kit.</p>	<p>3. Clamp A</p>

		
<p>4. Hi Sticker</p>	<p>5. Remove screw in circle then remove Bottom Cover Bracket.</p>	<p>6. Then connect the wire from WLAN kit.</p>

		
<p>7. Then assemble WLAN kit together with Bottom Cover Bracket.</p>	<p>8. Connect Antenna wire to WLAN kit. Then tidy up wire using screw M4x6 and Clamp A then tie wire with Hi Sticker.</p>	<p>9. And then paste Antenna on the Body of machine as shown to complete assembly.</p>

10.2.2 RF Bridge Configuration Setup

Set all scale to Server.

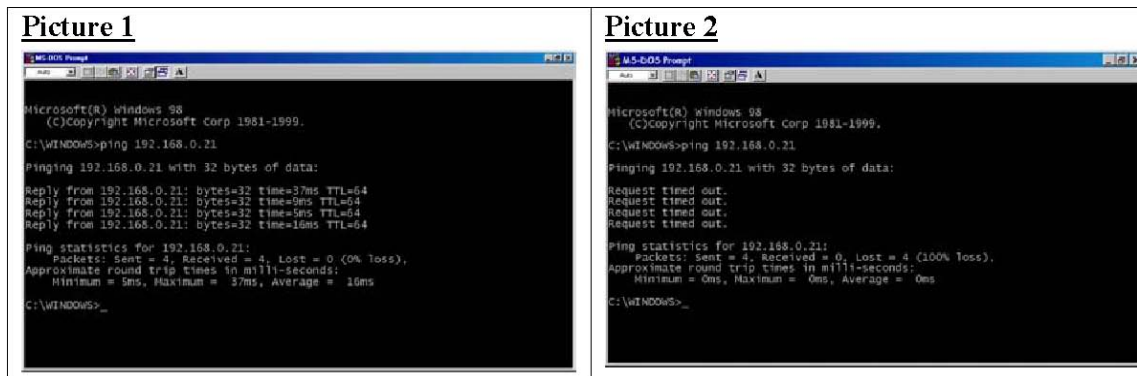
1. In Registration Mode, touch **[MENU]** key or press   to enter OPERATION MENU Mode.
2. Touch **[USER SETUP] [YES]** and then touch **[COMMUNICATION (RS232, 4L,ETHERNET)]**.
3. Touch **[CLIENT/SERVER SETTING]** box to enter CLIENT/SERVER SETTING mode.
4. Touch **[INTERFACE TYPE]** box and then touch **[ETHERNET-TWISTED]** box.
5. Touch **[SELECTION OF CLIENT/SERVER]** box to set scale to Server.
6. Touch **[IP ADDRESS]** box, set the IP Address to 192.168.000.021 by using TEN Keys and then touch **[EXIT]** key.
7. Touch **[EXIT]** key to exit from CLIENT/SERVER SETTING.
8. Touch **[WIRELESS COMMUNICATION SETTING]** box
9. Touch **[WIRELESS COMM.]** box to set Enable.
10. Touch **[ESSID]** box, enter ESSID name as "pttegroup" by using the character keys.
11. Touch **[EXIT]** key to exit from ESSID setting.

12. Touch [EXIT] [EXIT] [SAVE] to save and return to "OPERATION MENU" mode.
13. Touch [YES] to send the configuration to RF Card.
14. After successful, turn OFF scale by main power again. (Note: If unsuccessful, Error message "ETHERNET COMM ERROR" will appear).

Wireless Communication Testing

1. Load in the RF Card to scale and turn ON the scale.
2. Set PC to MS DOS Prompt and then ping the scale IP address (Ex. Ping 192.168.0.21)




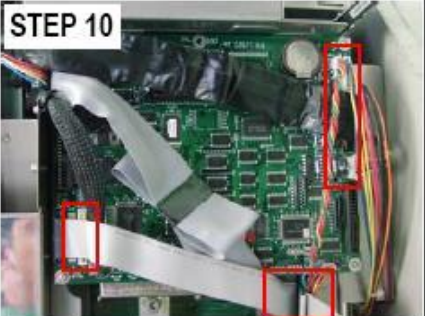
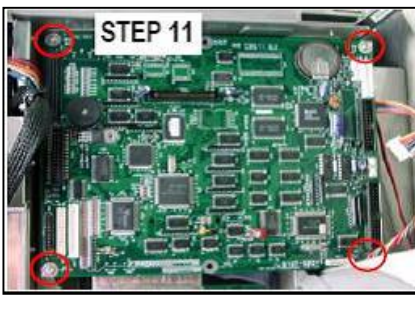
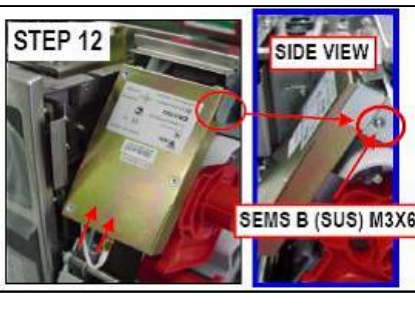

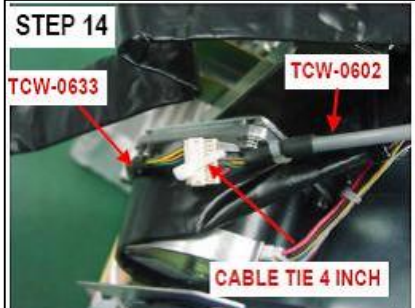
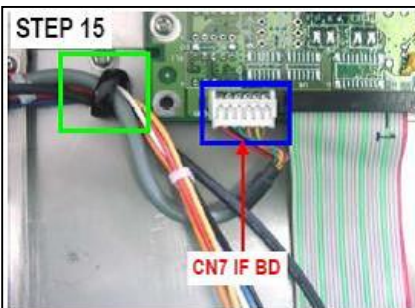
Test PASS as Picture 1 and FAIL as Picture 2



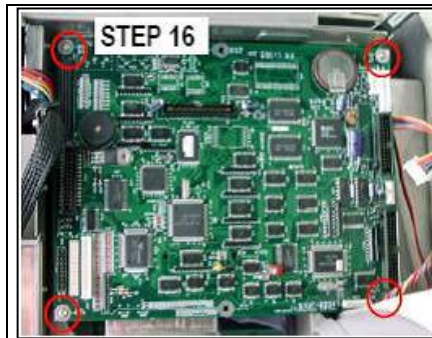
10.3 SM-720 Hanging Scale

10.3.1 SM-720 Hanging WLAN Installation Sheet

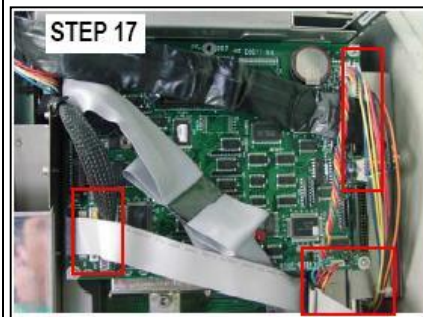
<p>STEP 1</p>	<p>STEP 2</p>	<p>STEP 3</p> <p>ENLARGEMENT</p> <p>(90 DEG)</p>
<p>1. Pull out the Cover Dome.</p>	<p>2. Remove Bracket BN (Triangle) by loosen screw (Red Circle).</p>	<p>3. Rotate Counter clock wise locking bracket 90 degree as shown.</p>
<p>STEP 4</p> <p>ENLARGEMENT</p>	<p>STEP 5</p>	<p>STEP 6</p> <p>ENLARGEMENT</p> <p>PIN LOCK</p>
<p>4. Loosen the screw (Red Circle) as shown.</p>	<p>5. Take off the printer cover.</p>	<p>6. Pull the pin lock then pushes side cover to front as shown.</p>

		
<p>7. Loosen the screw (Red Circle) as shown.</p>	<p>8. Take off front cover from main assy.</p>	<p>9. Remove display connector (Red Circle).</p>
		
<p>10. Remove all wire from MainBoard.</p>	<p>11. Remove M/B from main assy by loosen the screw.</p>	<p>12. Assemble WLAN Kit with direction from bottom then tighten by Sems B (SUS) M3x6.</p>
		
<p>13. Route and clamp the wire then paste the antenna in front of</p>	<p>14. The TCW-0633 and TCW-0602 with cable tie 4 inch.</p>	<p>15. Connect and clamp TCW-0602 to CN7 on I/F BD as shown.</p>

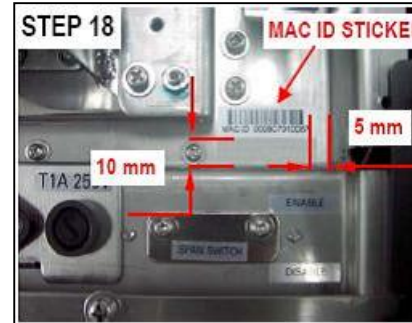
WLAN.



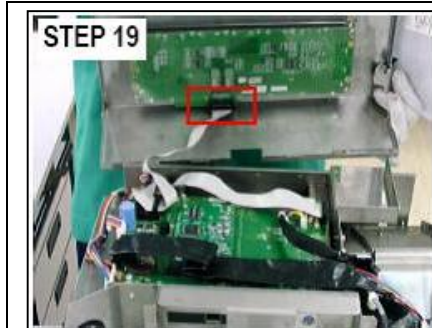
16. Re-fix the Mainboard by tightens the screws (Red Circle).



17. Connect all wire to the Mainboard.



18. Paste MAC ID Sticker with dimension as shown.



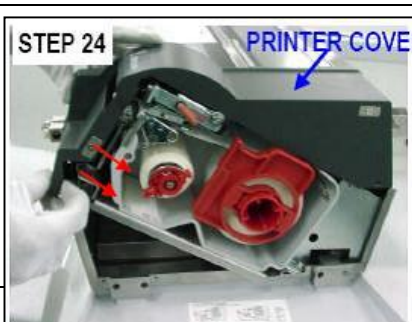
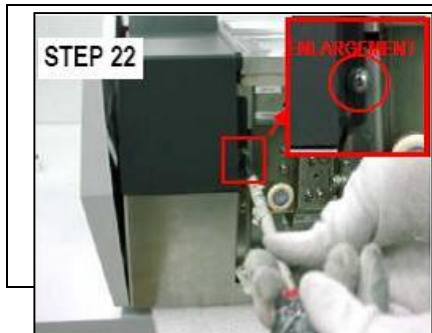
19. Connect display wire to the display board.






20. Re-fix front cover to the main assy.



21. Tighten the screw (Red Circle) as shown.



22. Tighten the screw.	23. Pull out the pin lock then assy side cover from front direction.	24. Assemble printer cover.

<p>STEP 25</p> 	<p>STEP 26</p> 	<p>STEP 27</p> 
25. Rotate clock-wise locking bracket 90 degrees as shown.	26. Assy bracket BN (triangle) by tightens screw.	27. Assemble back dome cover.

10.3.2 Hanging Scale WLAN Bridge Configuration

Please refer to [10.1.3 WLAN Bridge Configuration Setup](#).

11. MISCELLANEOUS

11.1 Error Messages

Error No.	Error Message	Causes
0	PRINTER CASSETTE OPEN	Cassette not inserts properly. Re-insert cassette again.
1	PAPER END	Label sensor sense no label. No more labels. Replace label roll.
2	PLEASE PRESS FEED KEY	Label miss feed, press FEED key to align label.

3	PLEASE PEEL LABEL	Peel sensor activated, remove label away from sensor.
4	CHANGE LABEL SWITCH	Remove cassette and set cassette switch to Label.
5	CHANGE RECEIPT SWITCH	Remove cassette and set cassette switch to Receipt.
6	NON PRINT	No manual printing.
7	UNIT PRICE OVERFLOW	Please check unit price
8	TOTAL PRICE OVERFLOW	Accumulated total price is overflow, check unit price.
9	NON LABEL	No free format is programs. Set a free format or use standard format.
10	INSUFFICIENT SPACE	Not enough printing place.
11	NON ADVERTISEMENT	No such advertisement data or number exists.
12	READ FILE	Read file errors. Memory problem. Please clear the memory.
13	NON SHOP NAME	No such shop name data or number exists.
14	PRINTER HEAD NO CLOSE	Thermal head no closed. Please close thermal head.
15	WRITE FILE	Write file errors. Memory problem. Please clear the memory
16	NO MEMORY	Not enough memory. Expand memory or delete unnecessary data.
17	FILE DELETE ERROR	Delete file errors. Memory problem.
18	PLEASE REMOVE WEIGHT	Fixed price item, please remove weigh.
19	PLU NOT EXIST	No such PLU data or number exists.
20	TOTAL PRICE = 0	No total price for item. Unit price or weight is 0.
21	WEIGH ITEM	Multiplication key cannot use for weigh PLU.
22	CANNOT USE IN PRE-PACK	Accumulation is not allowed in Pre-pack mode.
23	PRESET KEY NOT SET	Preset key does not have any preset function or PLU.
24	WEIGHT OVERFLOW	Weight over maximum capacity when print.
25	NEGATIVE TOTAL PRICE	After discount, total price is negative. Check discount setting.
26	TOTAL PRICE OVERFLOW	Total price over the limit to display or print.
27	ILLEGAL OPERATION	Operation procedure is incorrectly, please check procedure.
28	QUANTITY = 0	Cannot print when quantity is 0. Please enter a quantity value.
29	PLEASE SET TARE VALUE	When force tare is enabling, a tare weight must be entered.
30	KEY INVALID	Key pressed had no function or invalid in certain function.
31	NUMBER INVALID	Only input number or number input is not in the function.
32	EXCEED MAX LIMIT	Max. Number of characters reach.
33	SIZE INVALID	No such character size exists. Check the downloaded files.
34	MAIN GROUP NOT EXIST	No such Main Group data or number exists.
35	PLU INVALID	No such PLU data when copy PLU.
36	DEPARTMENT NOT EXIST	No such Department data or number exists.
37	TAX FILE NOT EXIST	No such Tax data or number exists.
38	CLERK NOT EXIST	No such Clerk data or number exists.
39	PLEASE PRESS PLU KEY	Press PLU (#) key. To save data in some procedure.
40	DATE INVALID	Date is not in standard format. Please enter correct date format.
41	TIME INVALID	Time is not in standard format. Please enter correct time format.
42	FUNCTION NOT EXIST	No such function exists. Check SPEC.
43	KEY NOT ASSIGN	Preset key data to be deleted do not exist.
44	KEY ALREADY ASSIGNED	Preset key already been assigned with function or PLU.
45	LOGO NOT EXIST	No such logo data or number exists.

46	LABEL INVALID	No such label data.
47	PLU NOT AVAILABLE	No such PLU data when scanner is use to scan PLU no.
48	DATA INVALID	U1 only. Quantity setting incorrect when using FOR.
49	QUANTITY OVERFLOW	Quantity data over the limit.
50	NO LINK	No acknowledge from FL-1 when sending or receiving data.
51	SYSTEM ERROR	Error when files sending to and receiving from FL-1
52	VERIFY ERROR	Error when verifying files with FL-1.
53	TIME ERROR	Date and time invalid when printing. Reset date and time.
54	BELOW MIN WEIGHT	Weight is below min weight set when printing.
55	REC CHOSEN USED IN MG	The record to be deleted is used by main group.
56	REC CHOSEN USED IN PLU	The record to be deleted is used by PLU data.
57	ACC PRICE OVERFLOW	Accumulated price over the limit.
58	ACC QUANTITY OVERFLOW	Accumulated quantity over the limit.
59	PLEASE SET LABEL QTY	Set print label quantity when the function is use.
60	NOT PREPACK MODE	Some functions only valid in Pre-pack mode.
61	GRAND TOTAL OVERFLOW	Grand total price over the limit.
62	ORG PRICE OVERFLOW	Original price over the limit when discount is use.
63	INGREDIENT NOT EXIST	No such ingredient data or number exists.
64	SPECIAL MSG NOT EXIST	No such special message data or number exists.
65	TEXT NOT EXIST	No such text data or number exists.
66	CLERK ASSIGN	Clerk already assigned. Please choose another clerk.
67	NO PRINT AREA	No print area on label for some function like text, ingredient etc.
68	USER INGRE NOT EXIST	No such user ingredient data or number exists.
69	INSUFF ADVERT SPACE	No enough print area to print advertisement.
70	DISCOUNT PRICE INVALID	Target price not reach for Fixed Price discount.
71	PRINT INHIBITED	Cannot print weigh item at Pre-pack mode.
72	ORG UPRICE OVERFLOW	Original unit price over the limit when discount in use.
73	PLACE NOT EXIST	No place of production data or number exists.
74	SELF SERVICE MODE	Can only use for Self-service function only.
75	OFF LINE	Client cannot connect with Server.
76	TIME OUT	Time out error.
77	PLACE INSUFF SPACE	Data of place of location print area not enough.
78	NO ITEM CODE	Using of function key-Item code
79	IMAGE NOT EXIST	No such image data or number exists.
80	EXCESS DATA	No such data to be correct when correction of data.
81	WEIGHT TOO LIGHT	Weigh check function.
82	WEIGHT TOO HEAVY	Weigh check function.
83	CLEAR ACCUMULATION	Clerk accumulation not close when clearing transaction in floating clerk.
84	POINT AND SHOP	Can only use Point And Shop procedure only.
85	SCROLL MSG NOT EXIST	No such scroll message data or number exists.
86	SCROLL SEQ NOT EXIST	No such scroll sequence data or number exists.
87	SCROLL SEQUENCE IN USE	Scroll sequence already been use. Choose another sequence.
88	REC CHOSEN USE IN SCSQ	The scroll message data is in used in the scroll sequence.

89	CLERK FILE FULL	Maximum number of clerk use.
90	CLERK IN USE	Calling the same clerk at the same time when in floating clerk.
91	ETHERNET COM. ERROR	Server down. Check wire and sever scale.

11.2 Corresponding Key Of PS2 Keyboard

The PS2 keyboard can directly connect to the SM-720 in the PS2 keyboard port at the bottom of the scale. It can only function when in the S mode (Programming mode). And the PS2 keyboard wire connector must using PS2 connector.

PS2 KEYBOARD	SM-720 KEYBOARD
F1	PRESET KEY 55 (Char size)
F2	TARE (T)
F3	CODE PLU (#)
F4	CHANGE
F6	X

F7	MODE (M)
ENTER	TOTAL PRINT (To save and advance)
BACKSPACE	CLEAR (C)
←	PRESET KEY 7 (<<)
→	PRESET KEY 8 (>>)
↑	—
↓	TOTAL PRINT (Advance)
DEL	PRESET KEY 56 (Del)
INS	PRESET KEY 47 (Ins)
CAPS LOCK	PRESET KEY 48 (Letter size)

11.3 ASCII Characters

The table shown below is the common use of characters of ASCII code in HEX value. Please enter the hex value when entering commodity name, advertisement, shop name, clerk name, special name, ingredient, and text etc. when using the SM-720 BENCH TYPE.

A	B	C	D	E	F	G	H	I	J	K	L	M
41	42	43	44	45	46	47	48	49	4A	4B	4C	4D
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
4E	4F	50	51	52	53	54	55	56	57	58	59	5A
a	b	c	d	e	f	g	h	i	j	k	l	m
61	62	63	64	65	66	67	68	69	6A	6B	6C	6D
n	o	p	q	r	s	t	u	v	w	x	y	z
6E	6F	70	71	72	73	74	75	76	77	78	79	7A
0	1	2	3	4	5	6	7	8	9	:	;	<
30	31	32	33	34	35	36	37	38	39	3A	3B	3C
Space	!	"	#	\$	%	&	'	()	*	+	,
20	21	22	23	24	25	26	27	28	29	2A	2B	2C
-	.	/	=	>	?	@	■					
2D	2E	2F	3D	3E	3F	40	5E					
.	±	≥	≤									
E9	F1	F2	F3									

REMARKS: The small letter only can print at label but cannot print at receipt.

11.4 TERAOKA Code

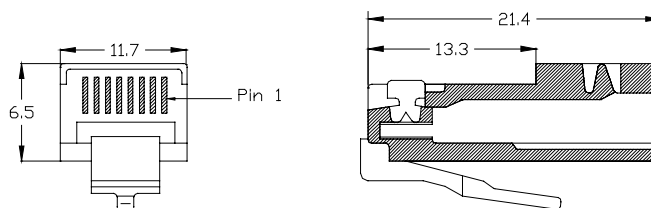
The table shown below is the common use of characters of TERAOKA code in numerical value. Please enter the numerical value when entering commodity name, advertisement, shop name, clerk name, special message, ingredient, text etc. when using the SM-720 **BENCH TYPE**.

Space	A	B	C	D	E	F	G	H	I
00	01	02	03	04	05	06	07	08	09
J	K	L	M	N	O	P	Q	R	S
10	11	12	13	14	15	16	17	18	19
T	U	V	W	X	Y	Z	,	.	-
20	21	22	23	24	25	26	27	28	29
0	1	2	3	4	5	6	7	8	9
30	31	32	33	34	35	36	37	38	39
@	!	"	#	\$	%	&	/	()
40	41	42	43	44	45	46	47	48	49
,									
50									

11.5 Wire And Connector

11.5.1 Straight & Crossover Ethernet Cable

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)



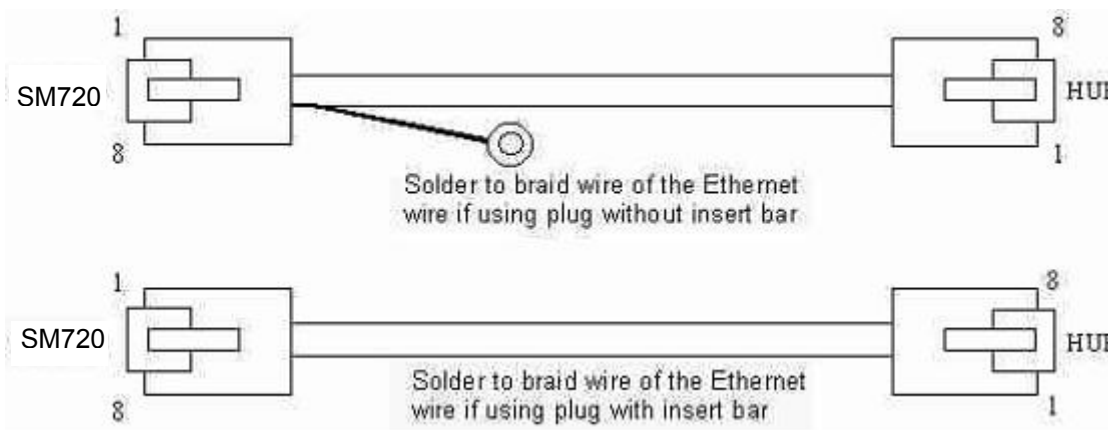
Preferable type: CviLux

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.

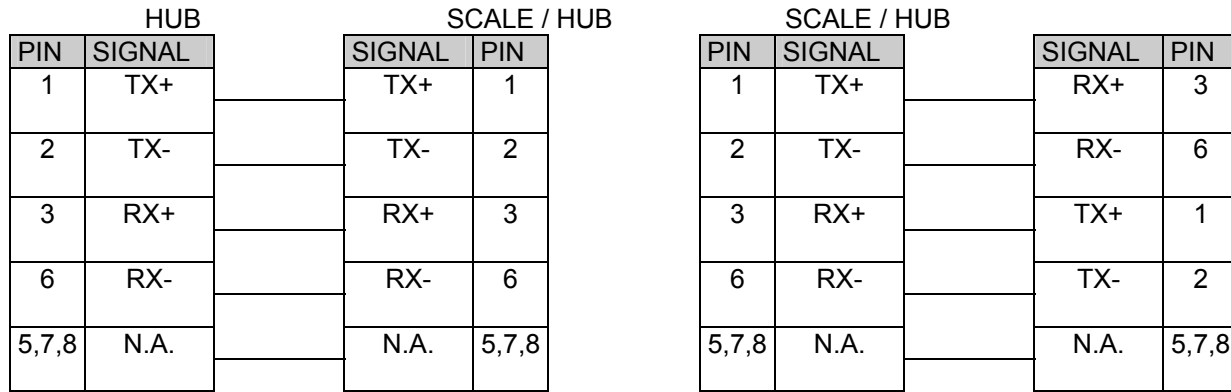
Preferable type: Cat.5 AWG 24 or 26 FTP/ Cat.5 AWG 24 or 26 STP (Recommended for CISPR 22B conformance)



Straight Cable Connection

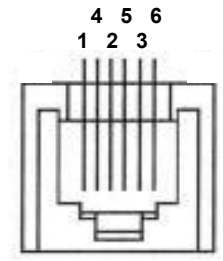
Cross Cable Connection

SCALE



11.5.2 Cash Drawer Option (RJ11)

SM-720 SCLAE SIDE (Interface Board)

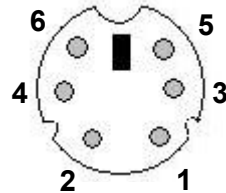


Note:
This connector is used for Interface Board TWB-01750-1.

Pin	Signal	Function
1	FG	Frame Ground
2	DRAWER 1	Drawer 1 drive signal
3	DRSW	Drawer Switch Input
4	VDR	Drawer Drive Power Supply
5	DRAWER 2	Drawer 2 Drive Signal
6	GND	Common Ground On Circuit

11.5.3 PS2 Keyboard Option

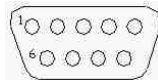
PS2 Keyboard Connector (Main Board Side)



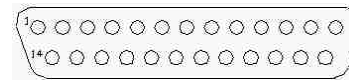
Pin	Signal
1	DATA
2	NC
3	GND
4	VCC
5	CLK
6	NC

11.5.4 RS232C and Multi-Drop (4 Line, RS485) Wire

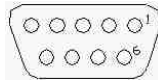
Connector Type



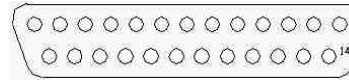
9 Pin D-Sub Connector
Female (Back View)



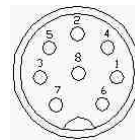
25 Pin D-Sub Connector
Female (Back View)



9 Pin D-Sub Connector
Male (Back View)

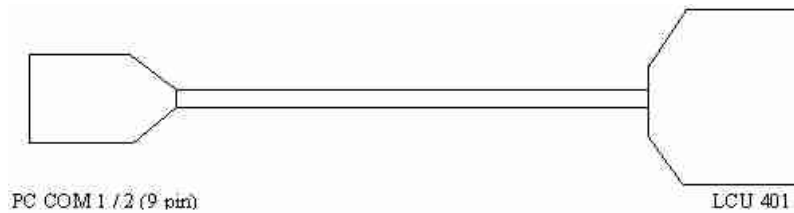


25 Pin D-Sub Connector
Male (Back View)



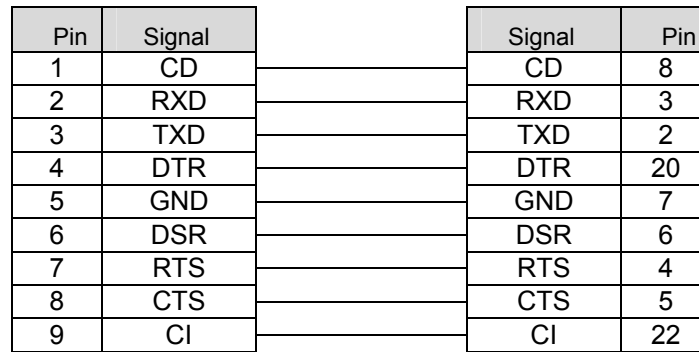
8 Pin DIN Plug
Male (Front View)

PC (9 PIN) TO LCU 401
(FOR PC to LCU 401 communication)



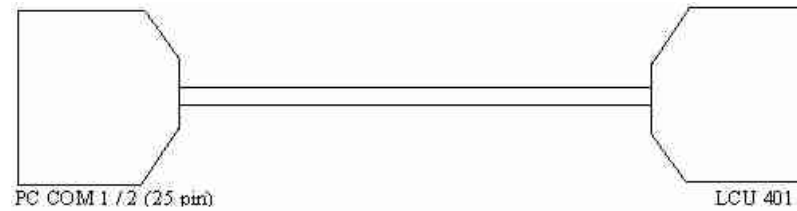
9 Pin D-Sub (Female)

25 Pin D-Sub (Male)



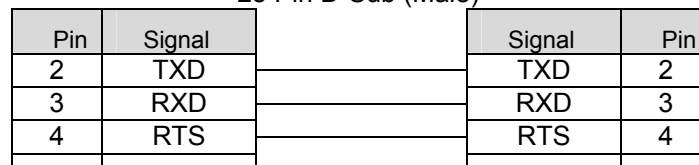
PC (25 PIN) TO LCU 401

(For PC to LCU 401 communication)



25 Pin D-Sub (Female)

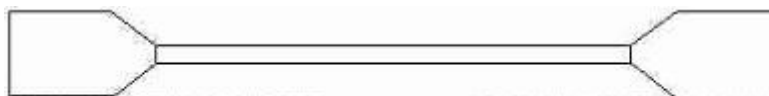
25 Pin D-Sub (Male)



5	CTS		CTS	5
6	D S R		D S R	6
7	GND		GND	7
8	CD		CD	8
20	DTR		DTR	20
22	CI		CI	22

SCALE TO SCALE

(For LCU 401 to scale and scale-to-scale communication)



SM300 / SM80SX / SM90 / SM500 / SM500V2 / SM720

SM300 / SM80SX / SM90 / SM500 / SM500V2 / SM720

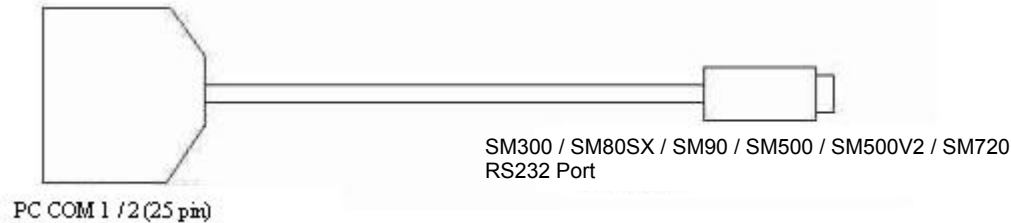
9 Pin D-Sub (Male)

9 Pin D-Sub (Male)

Pin	Signal		Signal	Pin
1	IN		IN	1
2	IN		IN	2
3	OUT		OUT	3
4	OUT		OUT	4
5 to 8	N.C.		N.C.	5 to 8

REMARKS: Please solder the FG (Film Ground) of the cable to the metal casing of the connector for more isolation to noise.

PC (25 PIN) TO SCALE RS232C PORT
 (For PC and PC FL-1 communication)



25 Pin D-Sub (Female)

8 Pin DIN plug (Male)

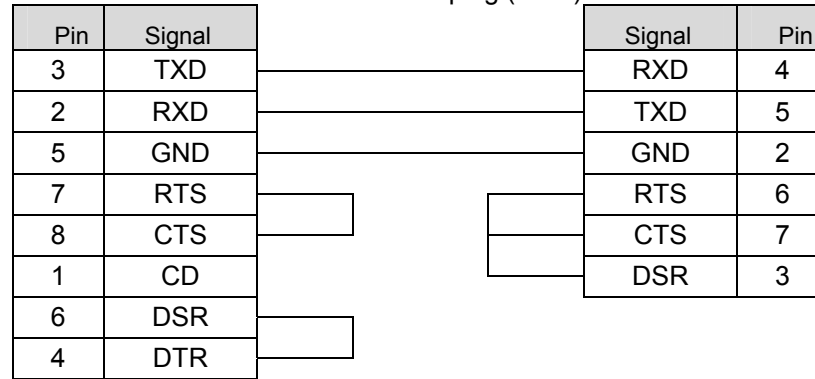
Pin	Signal	Signal	Pin
2	TXD	RXD	4
3	RXD	TXD	5
7	GND	GND	2
4	RTS	RTS	6
5	CTS	CTS	7
8	CD	DSR	3
6	DSR		
20	DTR		

PC (9 PIN) TO SCALE RS232C PORT
 (For PC and PC FL-1 communication)



9 Pin D-Sub (Female)

8 Pin DIN plug (Male)



12. TREATMENT AND RECOVERY OF WEEE

12.1 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
○ Fluids		●			

Items	Y	N	Identification	Removal procedure	Comments
<ul style="list-style-type: none"> ○ Polychlorinated biphenyls (PCB) containing capacitors. ○ Mercury containing components, such as switches or backlighting lamps. ○ Printed circuit boards of mobile phones. ○ Toner cartridges, liquid and pasty, as well as color toner. ○ Plastic containing brominated flame-retardants. ○ Asbestos waste. ○ Cathode ray tubes. ○ Chlorofluorocarbons (CFC), hydro chlorofluorocarbons (HCFC) orhydrofluorocarbons (HFC), hydrocarbons (HC). ○ Gas discharge lamps. ○ Components containing refractory ceramic fibred as described in Commission Directive 97/69/EC of 5 December 1997. 		●			
<ul style="list-style-type: none"> ○ Components containing radioactive substances. 		●			
<ul style="list-style-type: none"> ○ External electric cables. 	●		AC Power Cord.		
<ul style="list-style-type: none"> ○ Batteries. <p>1. Lithium Battery (Coin Cell).</p>	●		- 7. Exploded View → Item 5.	Cut leg and dissolder.	Refer to Safety Information →

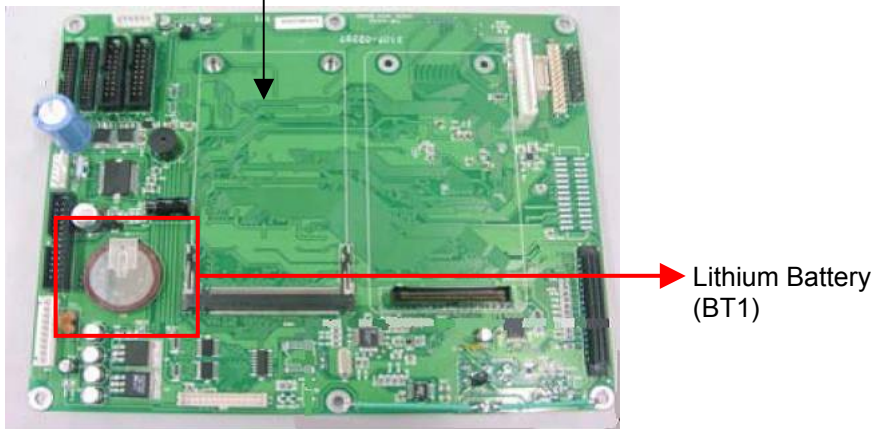
Items	Y	N	Identification	Removal procedure	Comments
			<p>- 12.2 Location of Battery in Main board.</p>		<p>Information → Warning Disposal</p>
<p>○ Other printed circuit boards greater than 10 square centimeters.</p> <p>1) Mainboard</p> <p>2) Interface Board</p> <p>3) Keyboard</p> <p>4) Power Unit</p>	●		<p>- 7. Exploded View → Item 5.</p> <p>- 7. Exploded View → Item 6.</p> <p>- 7. Exploded View → Item 2.</p> <p>- 7. Exploded View → Item 4.</p>	<p>For Pole & Bench: - 8. Pole Disassembly (Step 2 to 7)</p> <p>For Hanging: - 8.7 Hanging Type Disassembly (Step 1 to 8)</p> <p>For Pole & Bench: - 8. Pole Disassembly (Step 2 to 6)</p> <p>For Hanging: - 8.7 Hanging Type Disassembly (Step 1 to 8 and 10)</p> <p>For Pole & Bench: - 8. Pole Disassembly (Step 2 to 4)</p> <p>For Hanging: - 8.7 Hanging Type Disassembly (Step 1 to 7) - 8.8 Hanging Keyboard Disassembly</p> <p>For Pole & Bench: - 8. Pole Disassembly (Step 2 to 9)</p>	

Items	Y	N	Identification	Removal procedure	Comments
5) AD Board			- 7. Exploded View → Item 3.	For Hanging: - 8.7 Hanging Type Disassembly (Step 1 to 7 and 14) For Pole & Bench: - 8. Pole Disassembly (Step 2 to 8) For Hanging: - 8.7 Hanging Type Disassembly (Step 1 to 11)	
○ Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 cm ² and all those back-lighted with gas discharge lamps. 1) LCD ○	●		- 7. Exploded View → Item 1.	For Pole: - 8.1 Pole Type Disassembly (Step 2 to 4) - 8.4 Pole Display Disassembly For Bench: - 8.1 Pole Type Disassembly (Step 2 to 5) - 8.5 Bench Display Disassembly For Hanging: - 8.7 Hanging Type Disassembly (Step 1 to 7) - 8.9 Hanging Front &	

Items	Y	N	Identification	Removal procedure	Comments
				Rear Display Assembly	
o					

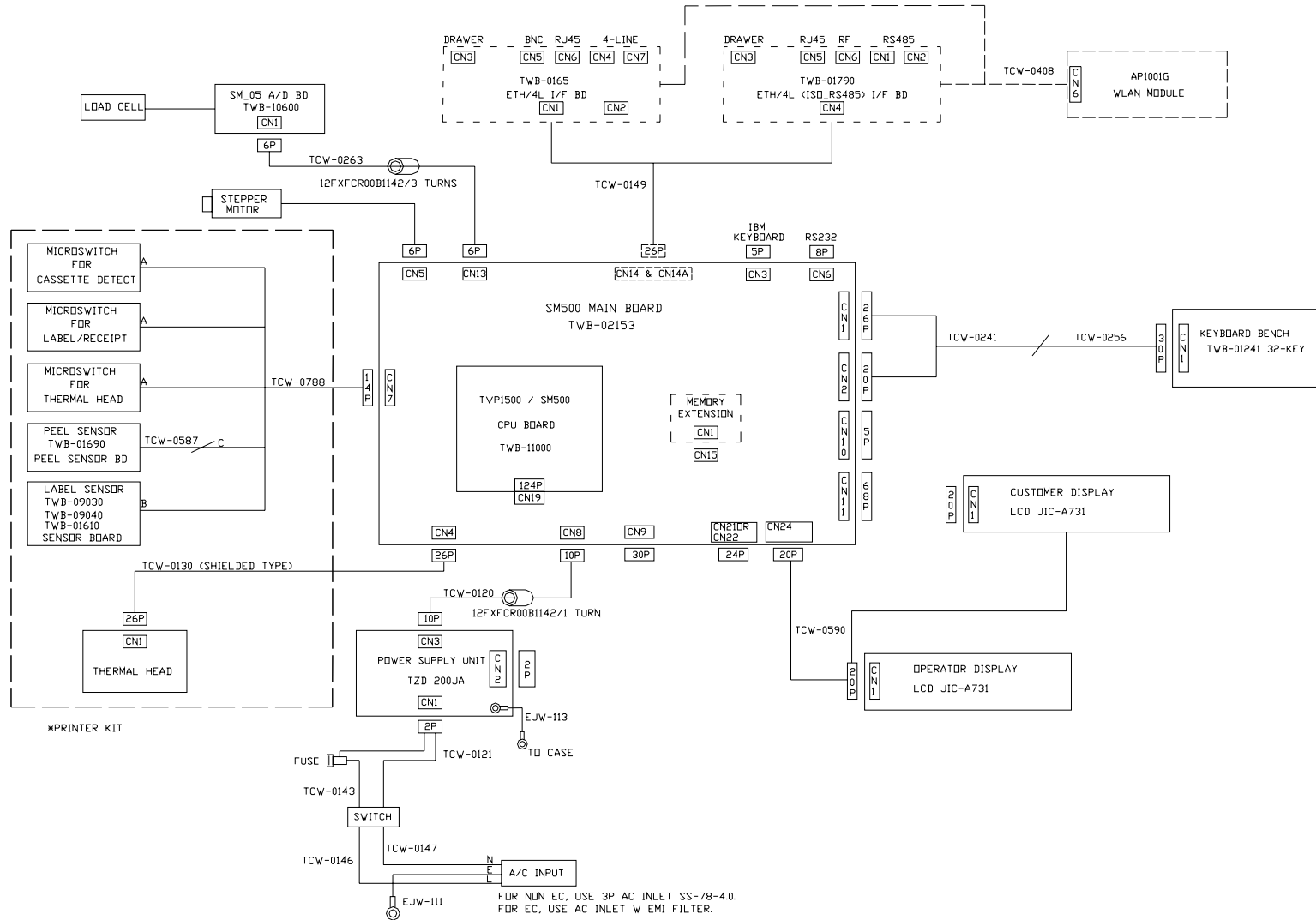
12.2 Location of Battery in Main-board

MAIN BD BLK AG (SM-720)
44011690100700

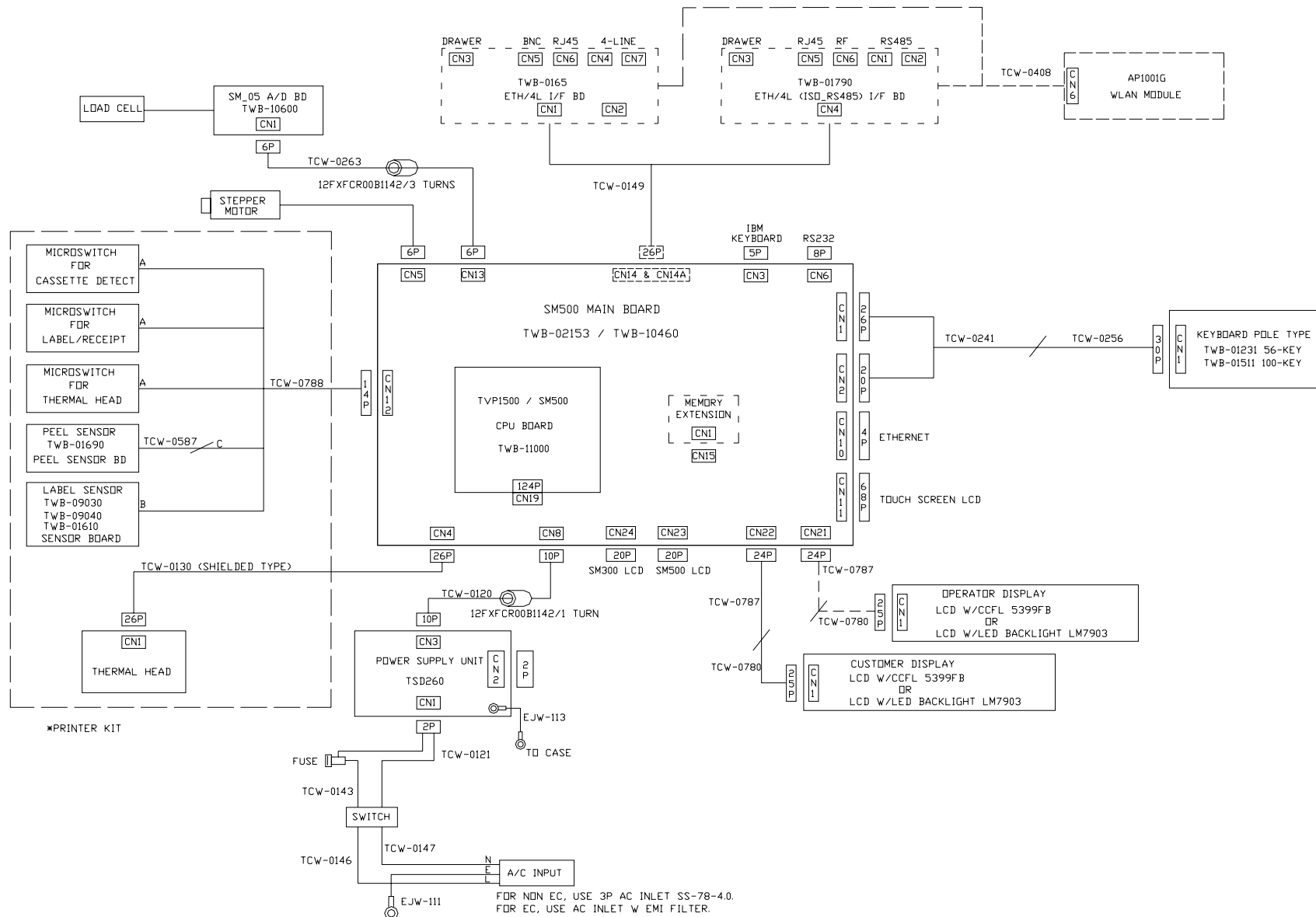


13. BLOCK DIAGRAM

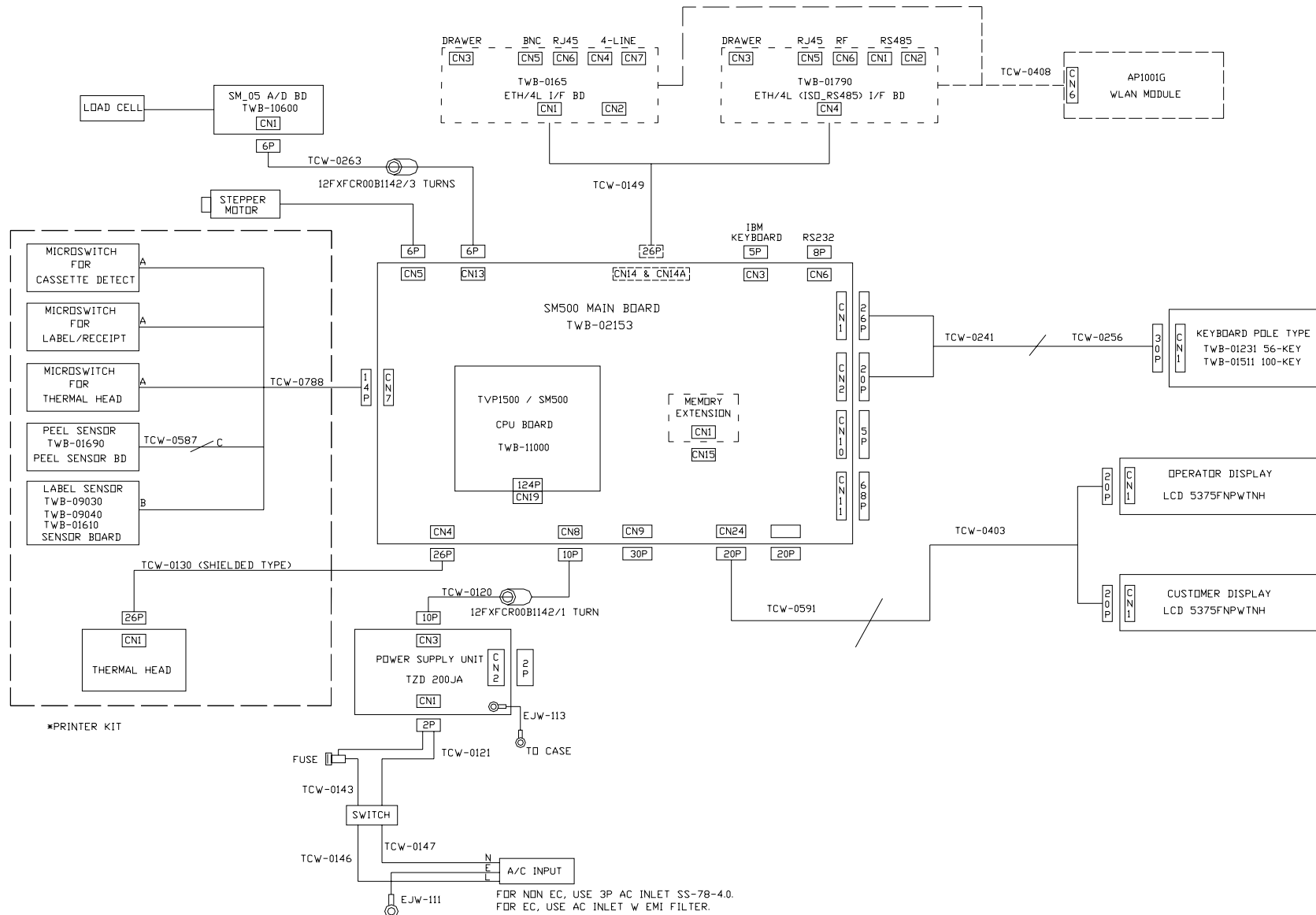
13.1 SM-720EB (SM500 LCD Option)



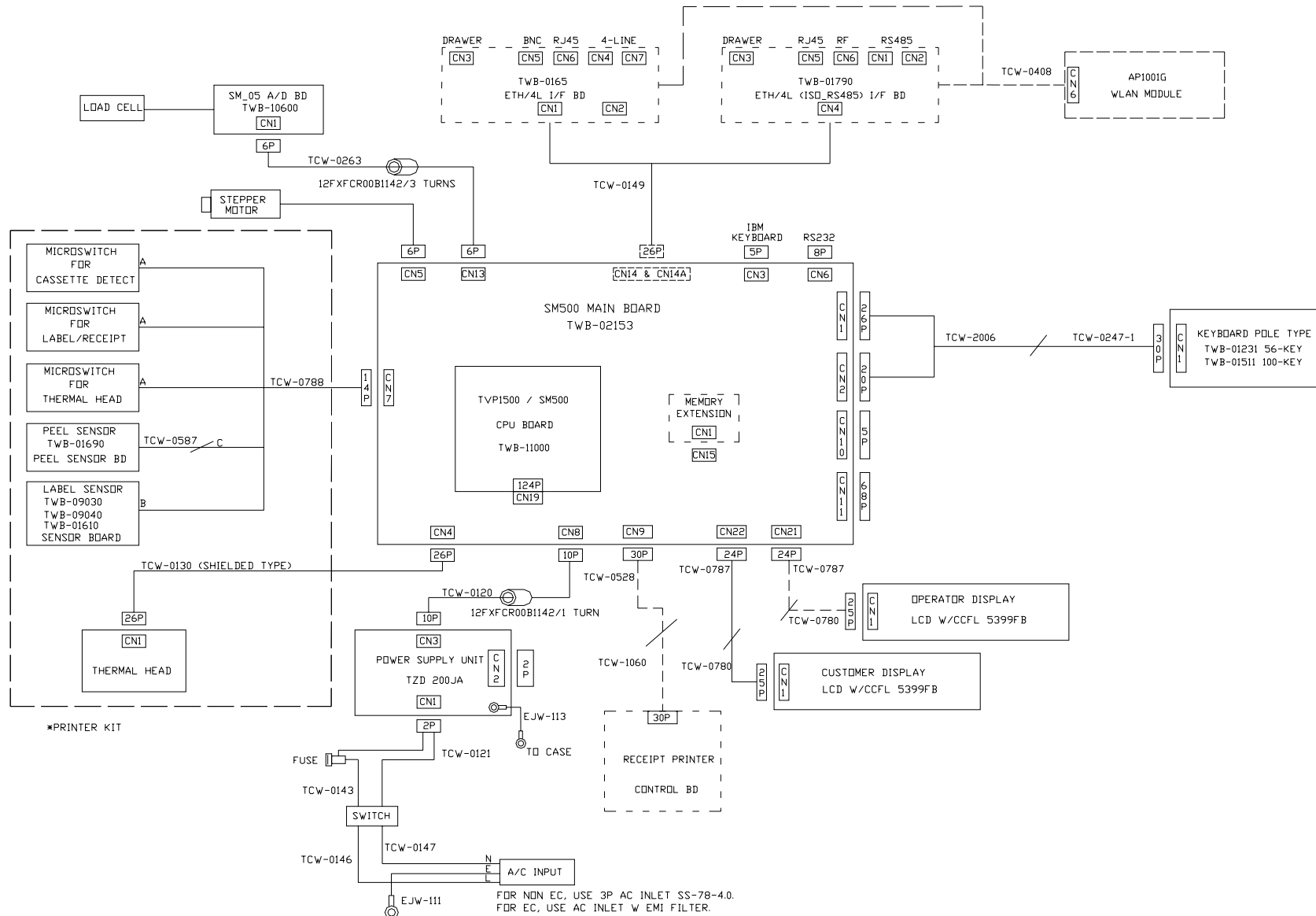
13.2 SM-720DP (SM800 LCD Option)



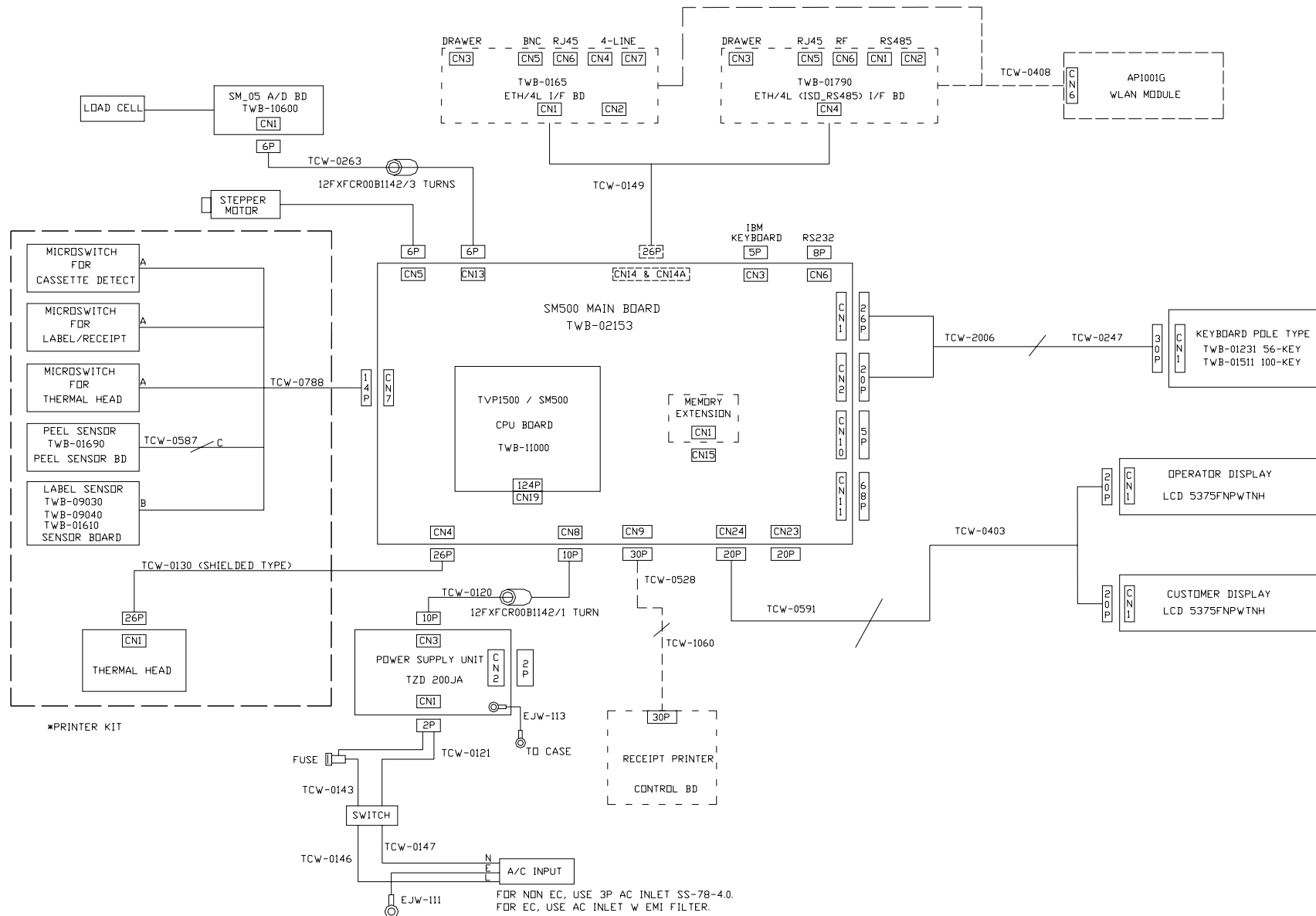
13.3 SM-720DP (SM500 LCD Option)



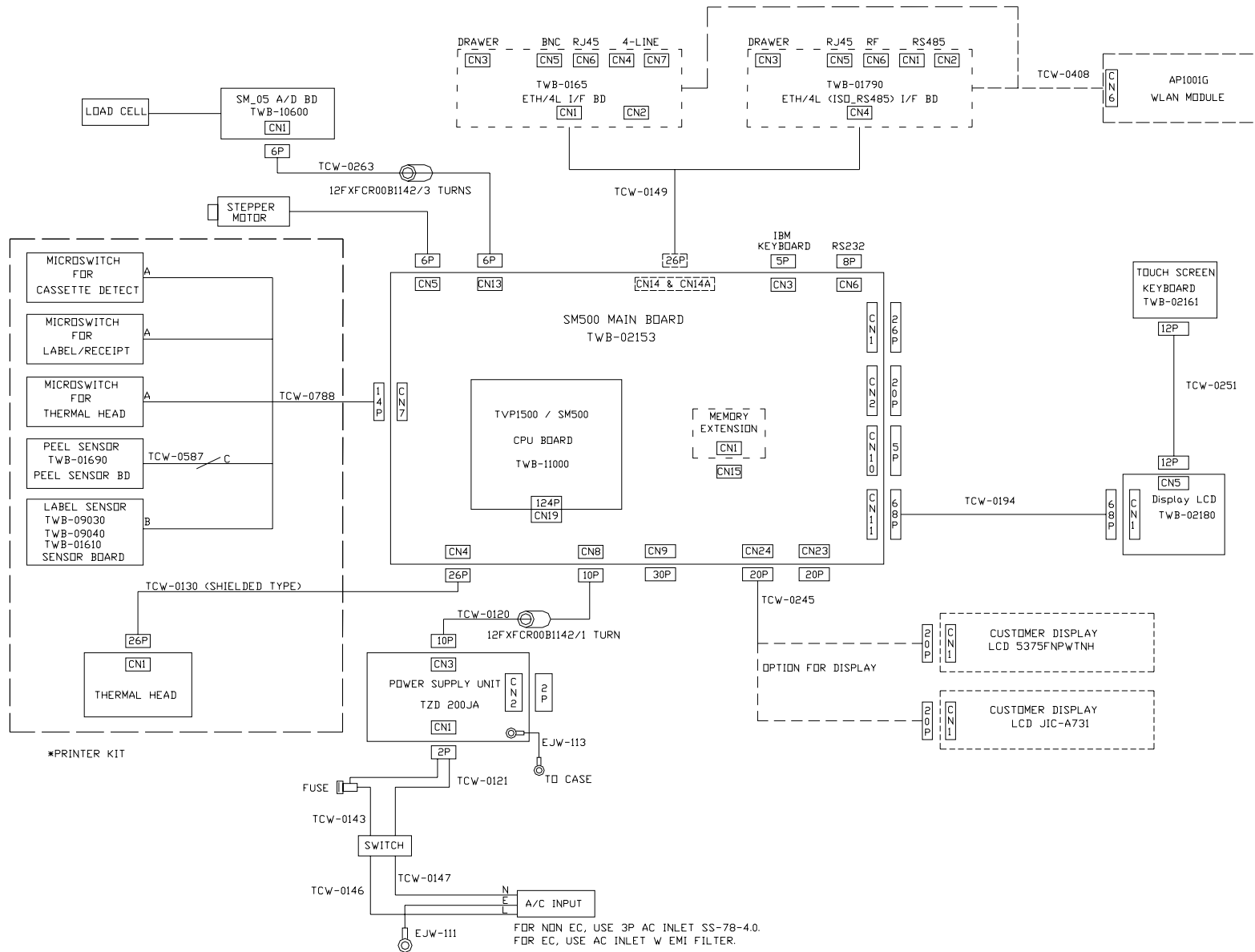
13.4 SM-720EV (SM800 LCD Option)



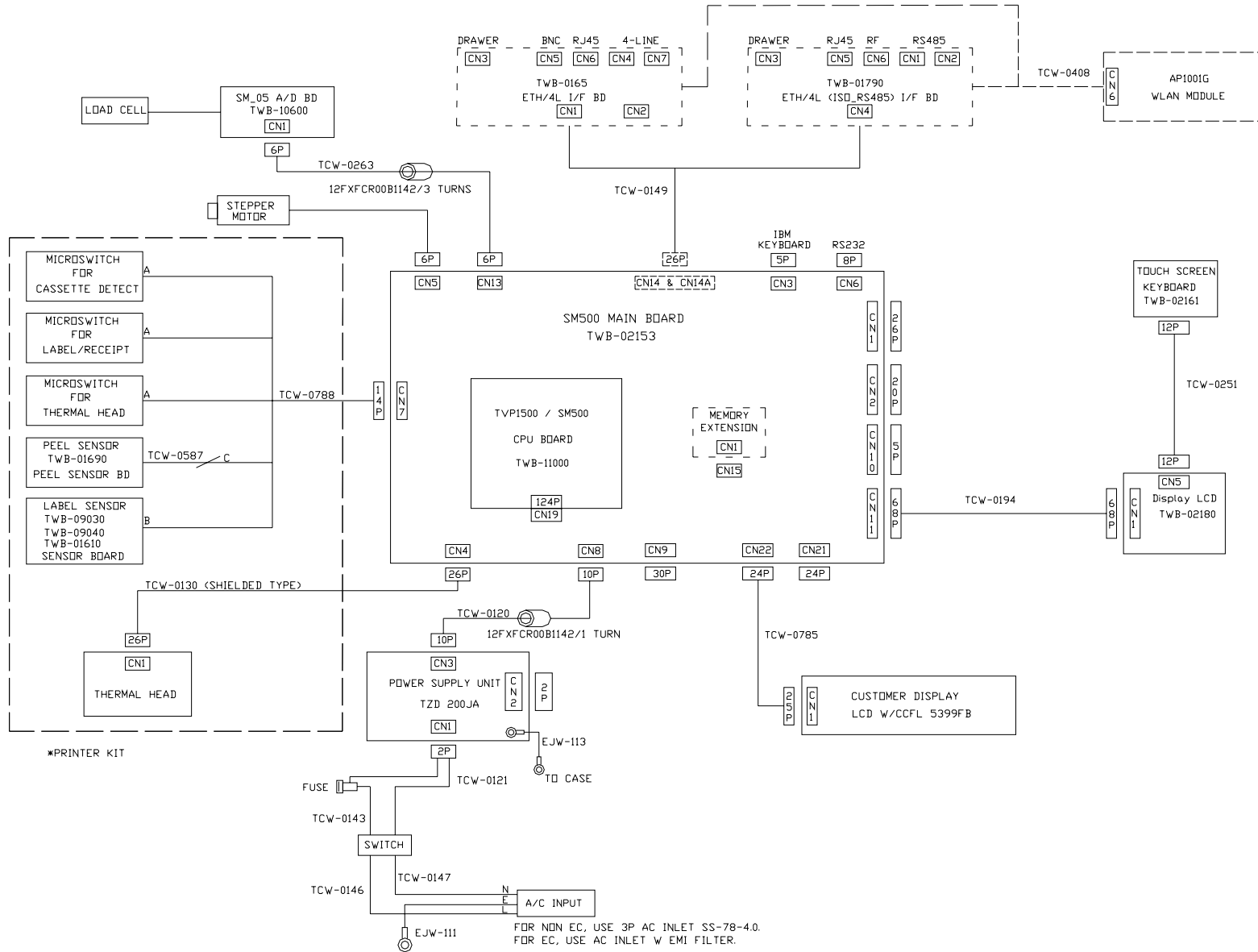
13.5 SM-720EV (SM500 LCD Option)



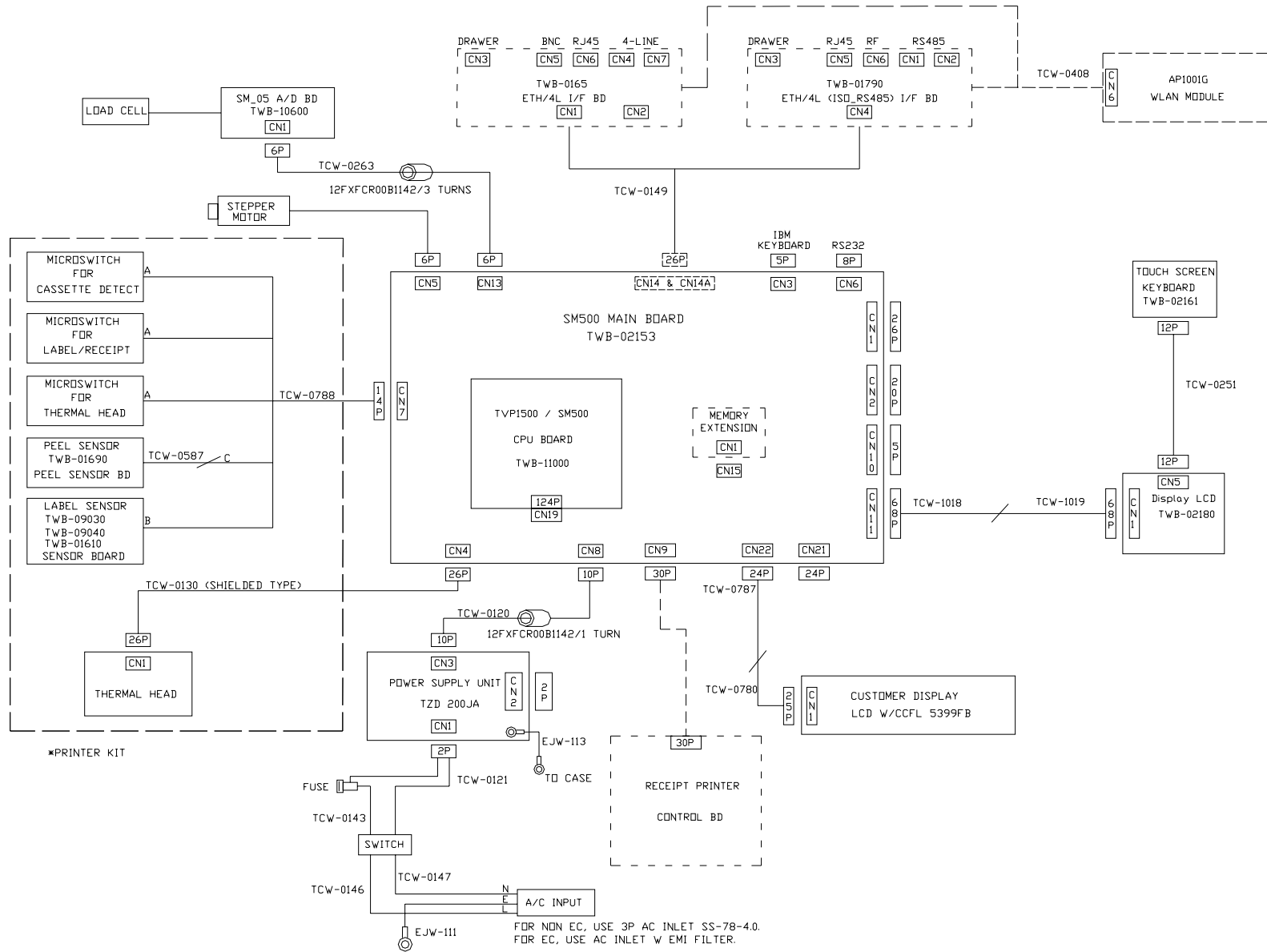
13.6 SM-720TEB (SM500 LCD Option)



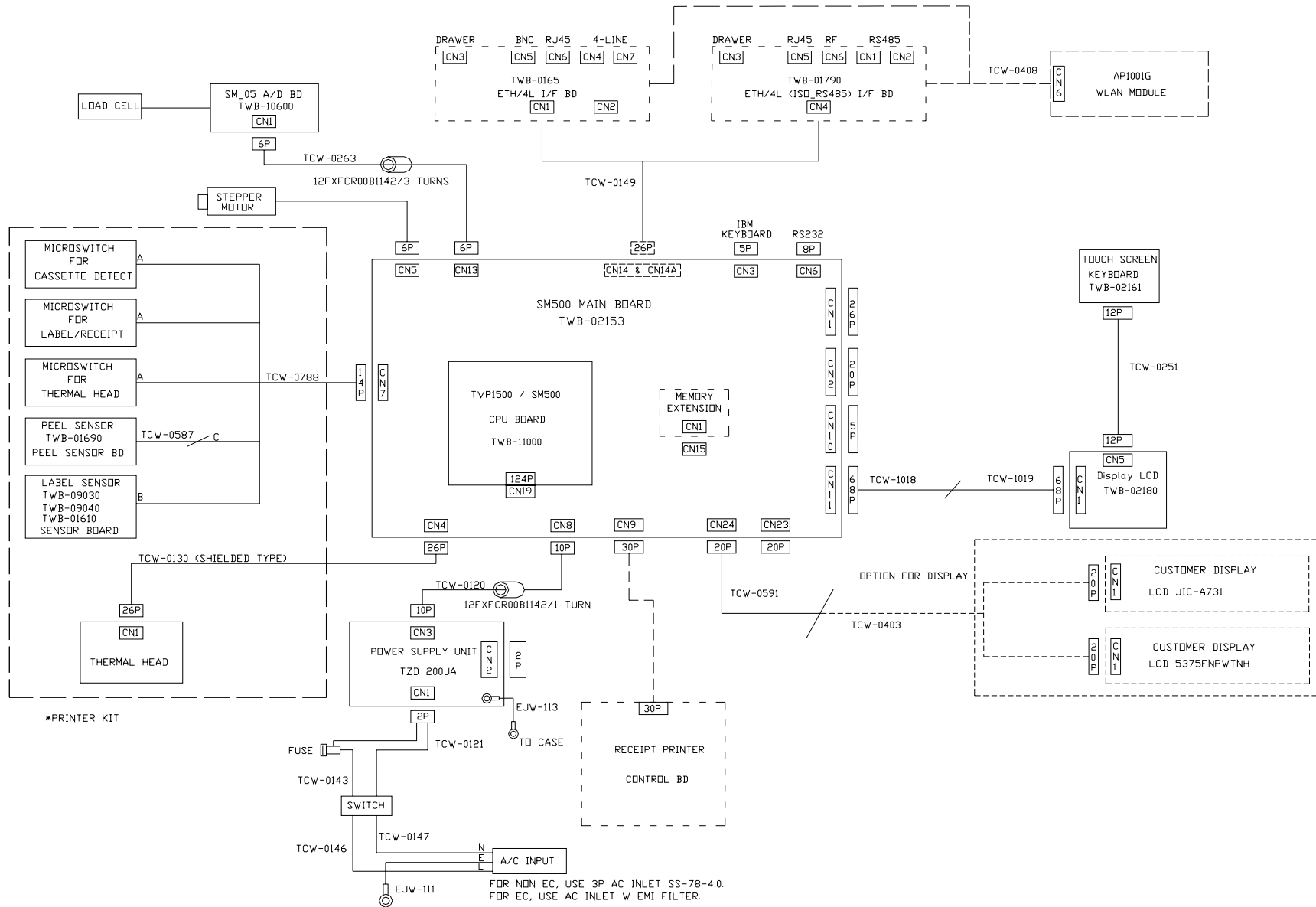
13.7 SM-720TEB (SM800 LCD Option)



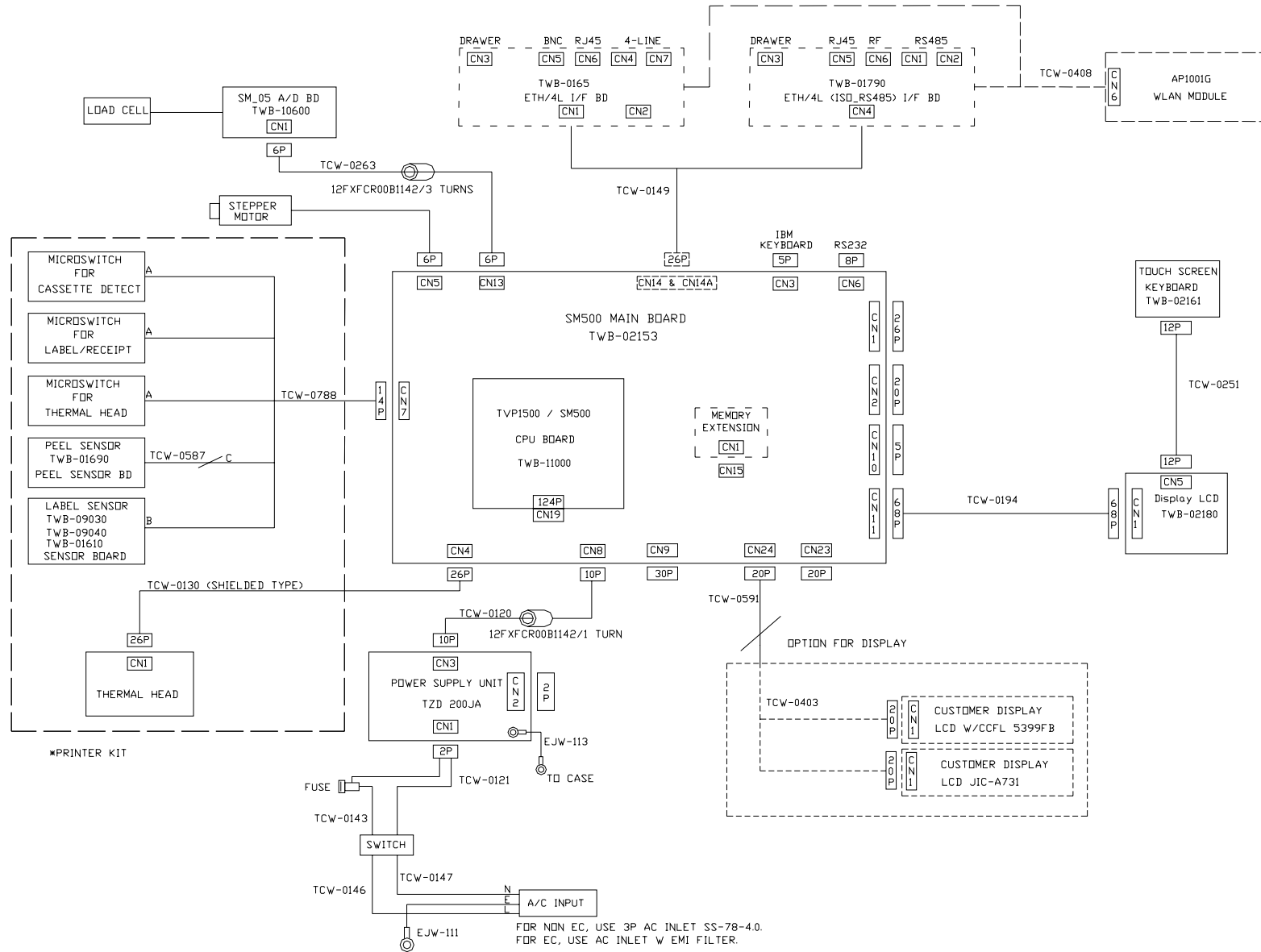
13.8 SM-720TEV (SM800 LCD Option)



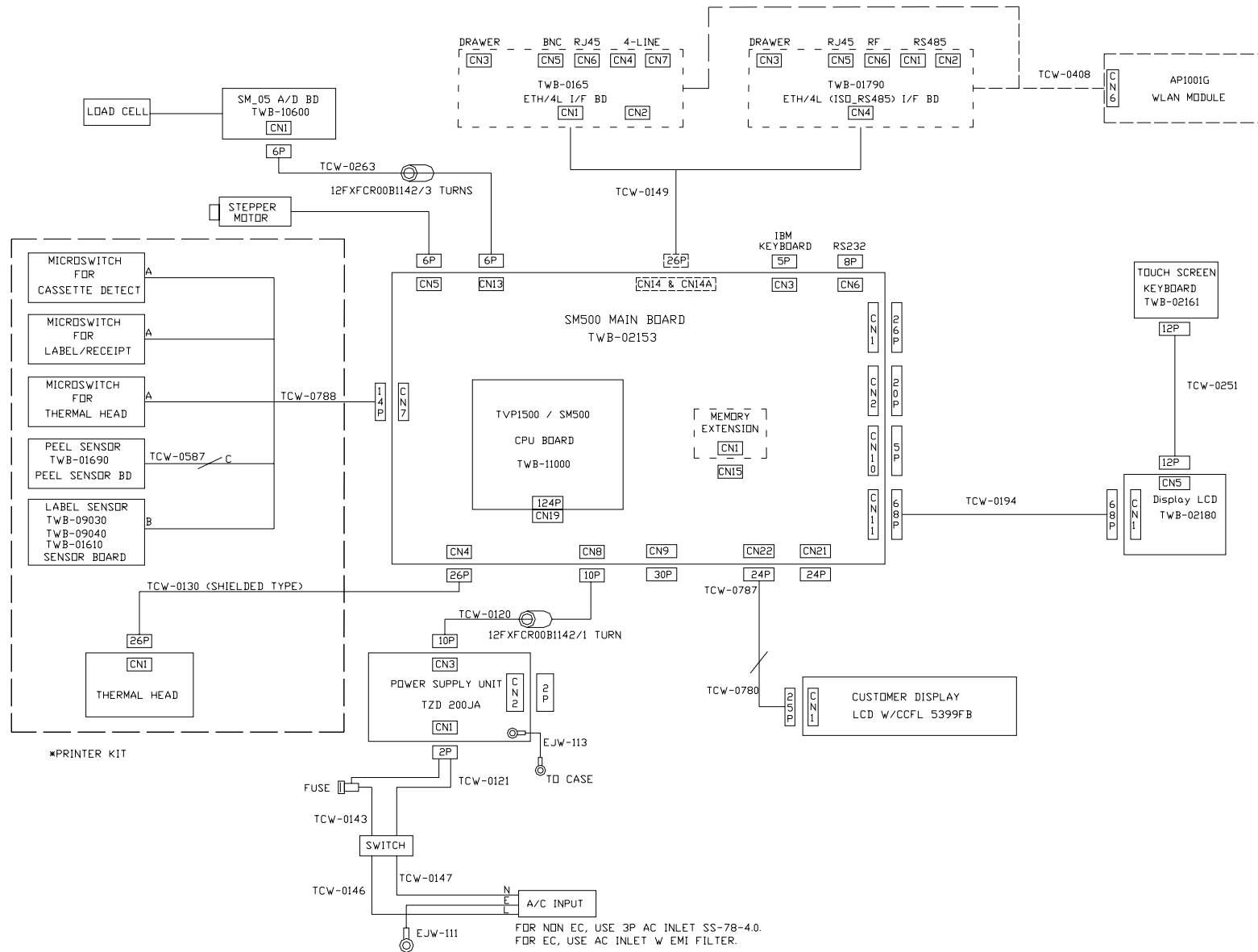
13.9 SM-720TEV (SM500 LCD Option)



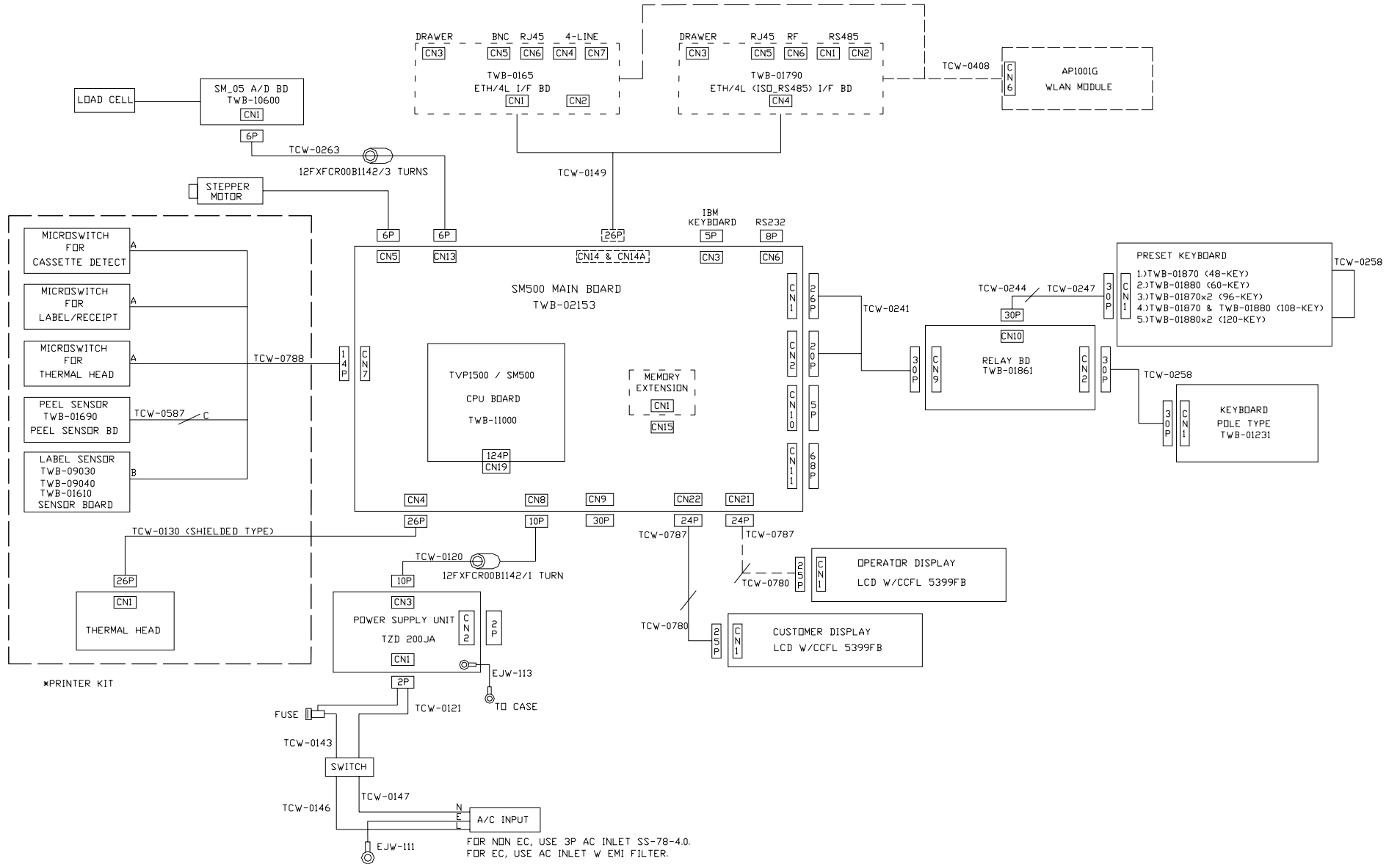
13.10 SM-720TP (SM500 LCD Option)



13.11 SM-720TP (SM800 LCD Option)



13.12 SM-720BS (SM800 LCD Option)



14. SPECIFICATION LIST

14.1 User Specification [REZERO] + [1][4][1]

SPEC 0: SELECTION OF ITEM BARCODE

0: F1F2 CCCCC XCD XXXX (13 DIGIT NON-PLU)
1: F2 CCCCC XCD XXXX (13 DIGIT NON-PLU)
2: F1F2 CCCCC O XXXX (13 DIGIT NON-PLU)
3: F1F2 CCCCC XXXX CD (13 DIGIT NON-PLU)
4: F1F2 CCCCC XXXXX CD (13 DIGIT NON-PLU)
5: F2 CCCCC XXXXX CD (13 DIGIT NON-PLU)
6: F2 CCCCC XXXXXX CD (13 DIGIT NON-PLU)
7: F1F2 CCCCCCCCC 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 CCCCC 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 XXXXXXXX CD (13 DIGIT NON-PLU)
17: F1F2 CC XXXXXXXX CD (13 DIGIT NON-PLU)
18: CCC WWW P PPP CD (13 DIGIT NON-PLU)
19: CCCCCC XXXXXXXX CD (Non Barcode)
20: F1F2 CCCCC PCD XXXX CD (13 DIGIT NON-PLU)
21: F1F2 RRRRR XXXXX CD (13 DIGIT NON-PLU)
22: F2 CCCCCXXXXXX CD (13 DIGIT NON-PLU)
23: FFF CCCC PPPPP CD (13 DIGIT NON-PLU)
24: FF CCCCC WWWWW CD (13 DIGIT NON-PLU) (ver.14.61)
25: F CCCCC WWWWW0 CD (13 DIGIT NON-PLU) (ver.14.66)
26: F1F2 CCCCC WWWWW CD (13 DIGIT NON-PLU)
27: CCCCCC XXXXXXX WWWWWW CD (Non Barcode)
28: F1F2 CCC XXXXXXX CD (13 DIGIT NON-PLU)
29: F2 CCCCCC WWW CD (13 DIGIT NON-PLU)
30: F1F2 CC NNN CD (13 DIGIT NON-PLU)
31: F1F2 C NNNN CD (13 DIGIT NON-PLU)

SPEC 1: SELECTION OF RIGHT SIDE DATA OF ITEM BARCODE

0: QUANTITY
1: PRICE
2: WEIGHT
3: USER PROGRAMMABLE
4: ORIGINAL PRICE
5: WEIGHT/QUANTITY
6: UNIT PRICE
7: UNIT PR. AFT DISC (effective 30/09/02)

SPEC 2: SELECTION OF RIGHT SIDE PRICE DATA OF ITEM BARCODE

0: PRICE BEFORE TAX
1: PRICE AFTER TAX

SPEC 3: SETTING FLAG DATA OF F1 & F2 (13 DIGIT NON - PLU BARCODE)
(0 - 99)

SPEC 4: SETTING FLAG DATA OF F1 & F2 (13 DIGIT PLU BARCODE)
(0 - 99)

SPEC 5: SETTING FLAG DATA OF F2 (8 DIGIT NON - PLU BARCODE)
(0 - 9)

SPEC 6: SETTING FLAG DATA OF F1 & F2 (8 DIGIT PLU BARCODE)
(0 - 99)

SPEC 7: SELECTION OF TOTAL BARCODE

0: F1F2 CCCCC XCD XXXX (13 DIGIT NON-PLU)
1: F2 CCCCC XCD XXXX (13 DIGIT NON-PLU)
2: F1F2 CCCCC O XXXX (13 DIGIT NON-PLU)
3: F1F2 CCCCC XXXX CD (13 DIGIT NON-PLU)
4: F1F2 CCCCC XXXXX CD (13 DIGIT NON-PLU)
5: F2 CCCCC XXXXX CD (13 DIGIT NON-PLU)
6: F2 CCCCC XXXXXX CD (13 DIGIT NON-PLU)
7: F1F2 CCCCCCCCC 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 CCCCC 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 WWWWW PPPPP CD (13 DIGIT NON-PLU)
19: NON BARCODE
20: F1F2 CCCCC PCD XXXX (13 DIGIT NON-PLU)
21: F1F2RRRRRXXXXXCD
22: F2CCCCCXXXXXXCD
23: FFFCCCCPPPPCD
24: FF CCCCC WWWWW CD (13 DIGIT NON-PLU) (ver.14.61)
25: F CCCCC WWWWW0 CD (13 DIGIT NON-PLU) (ver.14.66)
26: F1F2 CCCCC WWWWW CD (13 DIGIT NON-PLU)
27: CCCCCC XXXXXXX WWWWW CD (Non Barcode)
28: F1F2 CCC XXXXXXX CD (13 DIGIT NON-PLU)
29: F2 CCCCCC WWWWW CD (13 DIGIT NON-PLU)
30: F1F2 CC NNN CD (13 DIGIT NON-PLU)
31: F1F2 C NNNN CD (13 DIGIT NON-PLU)

SPEC 8: SELECTION OF LEFT SIDE DATA OF TOTAL BARCODE

0: SCALE NUMBER
1: LAST ACCUMULATED ITEM CODE
2: RECEIPT NUMBER
3: CLERK NUMBER
4: FIXED NUMBER

SPEC 9: FIXED DATA FOR LEFT SIDE DATA OF TOTAL BARCODE
(0 - 999999999)

SPEC 11: SELECTION OF RIGHT SIDE DATA OF TOTAL BARCODE

0: QUANTITY
1: PRICE
2: WEIGHT

SPEC 12: SELECTION OF TOTAL BARCODE PRINT ON RECEIPT

0: NO
1: YES

SPEC 13: SELECTION FOR PRINTING READABLE CHARACTERS OF F1 FOR ITEM AND TOTAL BARCODE

0: NO PRINT
1: PRINT

SPEC 14: SELECTION OF PRINTING POSITION FOR ADV MESSAGE

0: FIRST LINE
1: BELOW
2: ABOVE
3: NOT USED

SPEC 15: SELECTION OF TURN OVER PRINTING FOR ADV MESSAGE

0: NO
1: YES

SPEC 16: EXIT FROM 'CHANGE' MODE WITHIN SPECIFIED INTERVAL

0: NO
1: 3 SECOND
2: 6 SECOND
3: 10 SECOND
4: 15 SECOND

SPEC 17: SELECTION OF ORDERING MONTH, DATE AND YEAR FOR PRINT

0: M/D/Y
1: D/M/Y
2: Y/M/D
3: NOT USED

SPEC 18: SELECTION OF 1/2 LINE (S) COMMODITY NAME ON RECEIPT

0: 2 LINES
1: 1 LINES

SPEC 19: LABEL PRINTING BY CLERK KEY

0: NO PRINT
1: PRINT WITH ACCUMULATION
2: PRINT WITHOUT ACCUMULATION

SPEC 20: SELECTION OF TOTAL LABEL PRINTING

0: NO PRINT
1: PRINT

SPEC 21: SELECTION OF PRINTING OPERATOR NAME ON RECEIPT AND LABEL

0: CODE ONLY
1: NAME

SPEC 22: SELECTION OF RECEIPT PAPER WIDTH

0: 60 mm
1: 40 mm
2: 50 mm

SPEC 23: MANUAL PRICE ENTRY FOR PRINTING OR ACCUMULATION

0: ALLOW
1: INHIBIT

SPEC 24: SELECTION OF DEFAULT LABEL FORMAT FOR ITEM PRINTING

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

SPEC 25: SELECTION OF DEFAULT LABEL FORMAT FOR TOTAL PRINTING

STANDARD	U1,CA	STANDARD	U1,CA
0: T1	A	12: S	T7
1: T2	B	13: A	T8

2: T3	C	14: B	T9
3: T4	U2	15: C	T10
4: T5	U3	16: F1	F1
5: T6	U4	17: F2	F2
6: T7	U5	18: F3	F3
7: T8	U6	19: F4	F4
8: T9	U7	20: F5	F5
9: T10	U8	21: F6	F6
10: T11	T5	22: F7	F7
11: T12	T6	23: F8	F8

SPEC 26: SELECTION OF SHOP NAME PRINTING ON LABEL

0: NO PRINT
1: PRINT

SPEC 27: FORCED TARE FUNCTION

0: DISABLE
1: ENABLE

SPEC 28: SELECTION OF PEEL SENSOR FUNCTION IN PREPACK MODE

0: DISABLE
1: ENABLE

SPEC 29: SELECTION OF CONTINUOUS PRINT FOR LABEL IN PREPACK

0: INHIBIT
1: ALLOW

SPEC 30: SELECTION OF CDV

0: INHIBIT
1: ALLOW

SPEC 31: SELECTION OF CDV TYPE

0: CDV
1: TEAR-OFF

SPEC 32: SELECTION OF CDV MODULUS

0: MODULUS 10
1: MODULUS 11

SPEC 33: THE SPOT CORRECTION

0: ALLOW
1: INHIBIT

SPEC 34: SELECTION OF SEARCH CORRECTION

0: ALLOW
1: INHIBIT

SPEC 35: SELECTION OF MOVE BACK CORRECTION

0: ALLOW
1: INHIBIT

SPEC 36: SELECTION OF PAST SALES DATA CORRECTION

0: ALLOW
1: INHIBIT

SPEC 37: SELECTION OF LABEL PRINT DENSITY

0: LOW
1: MID
2: H. MID
3: HIGH

SPEC 38: SELECTION OF RECEIPT PRINT DENSITY

0: LOW
1: MID
2: H. MID

3: HIGH

SPEC 39: SELECTION OF PLU CALLING

0: MANUAL
1: AUTO
2: TIME-OUT

SPEC 40: SELECTION OF PLU DIGITS FOR AUTO PLU TIME OUT CALLING

0: 3 DIGITS/0.5 SEC
1: 4 DIGITS/1.0 SEC
2: 5 DIGITS/1.5 SEC
3: 6 DIGITS/2.0 SEC

SPEC 41: U. PRICE OF WEIGH-PLU CAN USE FOR PRICE OF NON-WEIGH PLU AND VICE VERSA

0: ALLOW
1: INHIBIT

SPEC 42: UNIT PRICE OVERRIDE

0: ALLOW
1: INHIBIT

SPEC 43: MAIN USAGE FOR COMMODITY NAME, SHOP NAME AND SPECIAL MESSAGE (LABEL / RECEIPT)

0: RECEIPT
1: LABEL

SPEC 44: TARE OVERRIDE

0: ALLOW
1: INHIBIT

SPEC 45: ITEM PRINTING

0: ALLOW
1: INHIBIT

SPEC 46: DEFAULT DATA OF PRINTING SHOP NAME NUMBER FOR LABEL
(0 - 32)

SPEC 47: DEFAULT DATA OF PRINTING SHOP NAME NUMBER FOR RECEIPT
(0 - 32)

SPEC 48: SETTING OF SCALE NUMBERS
(1 – 999999)

SPEC 49: SELECTION OF CLIENT/SERVER INTERFACE

0: NO INTERFACE
1: ETHERNET - COAXIAL CABLE
2: ETHERNET - TWISTED CABLE
3: NOT USED
4: 4 LINES, RS485

SPEC 50: SELECTION OF SERVER / CLIENT

0: CLIENT
1: SERVER / WORKSTATION
2: BACK-UP SERVER

SPEC 51: SELECTION OF BAUD RATES (SIO)

0: 1200
1: 2400
2: 4800
3: 9600
4: 19200
5: 38400

SPEC 52: SELECTION OF DATA LENGTH (SIO)

0: 7 BIT
1: 8 BIT

SPEC 53: SELECTION OF PARITY (SIO)

0: NONE
1: ODD
2: EVEN

SPEC 54: SELECTION OF STOP BIT (SIO)

0: 1 BIT
1: 2 BIT

SPEC 55: SELECTION OF BAUD RATES FOR MULTI-DROP SIO

0: 1200
1: 2400
2: 4800
3: 9600
4: 19200
5: 38400

SPEC 56: SELECTION OF DATA LENGTH FOR MULTI-DROP SIO

0: 7 BIT
1: 8 BIT

SPEC 57: SELECTION OF PARITY FOR MULTI-DROP SIO

0: NONE
1: ODD
2: EVEN

SPEC 58: SELECTION OF STOP BIT FOR MULTI-DROP SIO

0: 1 BIT
1: 2 BIT

SPEC 59: MULTI-DROP SIO SELECT JOB

0: NO OPERATION
1: FIS3000
2: PICK 'N' PAY (SF)

SPEC 60: SIO SELECT JOB

0: NO OPERATION
1: FIS3000
2: FL-1
3: POINT AND SHOP
4: RS232 BARCODE SCANNING
5: VIDEO CTRL (SM300 ONLY) / RESERVED(SM500/90 ONLY)
6: PICK 'N' PAY (SF)

SPEC 61: *FLOATING CLERK SELECTION

0: INHIBIT
1: ALLOW

SPEC 62: RECEIPT FREE FORMAT (NOT FOR AA)

0: DISABLE
1: ENABLE

SPEC 63: SM90 AND DI-10 RS-232 COMMUNICATION

0: NO
1: YES

SPEC 64: ENABLE PASSWORD MODE

0: ALLOW
1: INHIBIT

1: ALLOW MULTI PASSWORD

SPEC 65: REPORT PRINTING IN DAILY AND TERM TRANSACTION CLEAR

0: INHIBIT
1: ALLOW

SPEC 66: PACK QUANTITY FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 67: ADVERTISEMENT FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 68: FIXED TOTAL PRICE DISCOUNT FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 69: TOTAL PRICE PERCENTAGE DISCOUNT FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 70: FIXED UNIT PRICE FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 71: FIXED UNIT PRICE PERCENTAGE FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 72: PACK DATE FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 73: -PACK DATE FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 74: SELL - BY - DATE FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 75: UNIT SYMBOL FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 76: QUANTITY SET FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 77: PRICE CHANGE FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 78: REFUND ITEM FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 79: SHOP NAME FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 80: LOGO FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 81: PRINT SELECT FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 82: PRINT OF PLACE OF PRODUCTION ON LABEL

0: INHIBIT
1: ALLOW

SPEC 83: SELECTION OF MARKDOWN

0: NO MARKDOWN
1: UNIT PRICE MARKDOWN
2: TOTAL PRICE MARKDOWN
3: UNIT AND TOTAL PRICE MARKDOWN

SPEC 84: SUB-TOTAL FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 85: GRAND-TOTAL FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 86: SELECTION OF LABEL SENSOR GAP VALUE
(0 – FF)

SPEC 87: SELECTION OF LABEL TYPE

0: GAP
1: NO GAP

SPEC 88: SELECTION OF SELL BY DATE TITLE PRINTOUT (FOR AA ONLY)

0: INHIBIT
1: ALLOW

SPEC 89: SELECTION OF ASCII CODE ENTRY IN S MODE (FOR AA ONLY)

0: INHIBIT
1: ALLOW

SPEC 90: SELECTION OF SUB-TOTAL MARKDOWN

0: NO MARKDOWN
1: MARKDOWN

SPEC 91: SELECTION OF PRINTER SPEED FOR RECEIPT

0: SLOW
1: NORMAL
2: HIGH

SPEC 92: SELECTION OF PRINTER SPEED FOR LABEL

0: SLOW
1: NORMAL
2: HIGH

SPEC 93: SECOND RECEIPT PRINT

0: NO PRINT
1: CONTINUOUS PRINT
2: 1 SECOND
3: 3 SECONDS
4: USER SELECT

SPEC 94: POSITION OF CURRENCY SYMBOL

0: BEFORE PRICE
1: AFTER PRICE

SPEC 95: SELECTION OF RECEIPT PRINTING WITH DUAL COPY

0: INHIBIT
1: ALLOW

SPEC 96: SELECTION OF ADVERTISEMENT MESSAGE ON ALL LABEL

0: INHIBIT
1: ALLOW

SPEC 97: SELECTION OF MANUAL PRINT IN PREPACK MODE FOR WEIGH ITEM

0: INHIBIT
1: ALLOW

SPEC 98: SELECTION OF QUANTITY AND UNIT PRINTOUT FOR NON WEIGH ITEM IN MANUAL MODE

0: ALLOW
1: INHIBIT

SPEC 99: SELECTION OF UNIT PRINTOUT FOR NON WEIGH ITEM IN MANUAL MODE

0: INHIBIT
1: ALLOW

SPEC 100: SELECTION OF DISCOUNT IN PLU PROGRAMMING

0: ALLOW
1: INHIBIT

SPEC 101: SELECTION OF ZERO SUPPRESS FOR DATE AND TIME

0: NO ZERO SUPPRESS
1: ZERO SUPPRESS

SPEC 102: SELECTION OF DISCOUNT PRESENTATION IN RECEIPT

0: DISCOUNTED UNIT PRICE AND ORIGINAL PRICE
1: ORIGINAL UNIT PRICE AND PRICE
2: DISCOUNT UNIT PRICE (NO PROFIT)
3: ORIGINAL UNIT PRICE (NO PROFIT)
4: DISC UNIT PRICE (NO PROFIT&NO DISC TEXT)

SPEC 103: SELECTION OF UNIT PRICE ASSIGNMENT FUNCTION KEY FOR PLU

0: ENABLE
1: DISABLE

SPEC 104: SELECTION OF DISCOUNT PRICE ROUNDING METHOD

0: ROUNDING
1: CUT DOWN
2: CUT UP

SPEC 105: SELECTION OF FIXED TOTAL PRICE MARKDOWN FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 106: SELECTION OF TOTAL PRICE PERCENTAGE MARKDOWN FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 107: SELECTION OF FIXED UNIT PRICE MARKDOWN FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 108: SELECTION OF FIXED UNIT PRICE PERCENTAGE MARKDOWN FUNCTION KEY ENABLE

0: ALLOW
1: INHIBIT

SPEC 109: SELECTION OF SOURCES OF SELL - BY - DATE

0: REAL TIME CLOCK
1: PACKED DATE

SPEC 110: SELECTION OF YEAR TYPE (FOR AA AND TAIWAN)

0: STANDARD
1: JAPANESE / TAIWAN

SPEC 111: SELECTION OF PRICE SYMBOL ON RECEIPT (FOR AA ONLY)

0: NO PRINT
1: KANJI YEN
2: YEN

SPEC 112: DEFAULT DATA OF PRINTING SPECIAL MESSAGE NUMBER FOR RECEIPT (0 - 16)**SPEC 113: SELECTION OF LABEL LOGO PRINTING STATUS**

0: NO PRINT
1: LOGO 1
2: LOGO 2
3: LOGO 3
4: LOGO 4

SPEC 114: SELECTION OF RECEIPT LOGO PRINTING STATUS

0: NO PRINT
1: LOGO 1
2: LOGO 2
3: LOGO 1 & LOGO 2
4: LOGO 3
5: LOGO 4
6: LOGO 1, 2, 3 & 4

SPEC 115: SELECTION OF TYPE OF ENTRY FOR USED-BY-DATE AND SELL-BY-DATE

0: BY DAY
1: BY HOUR

SPEC 116: SELECTION OF BARCODE PRINTING IN FIRST LABEL FOR DUAL LABEL PRINTOUT (FOR NICHII ONLY)

0: PRINT
1: NO PRINT

SPEC 117: SELECTION OF ZERO MINUTES PRINTING (FOR NICHII ONLY)

0: NO PRINT
1: PRINT

SPEC 118: SELECTION OF BOTH PRICE BEFORE AND AFTER DISCOUNT (FOR NICHII ONLY)

0: PRICE BEFORE AND AFTER DISCOUNT
1: PRICE BEFORE DISCOUNT ONLY

SPEC 119: SELECTION OF UNIT SYMBOL PRINTOUT IN RECEIPT (FOR AA)

0: DEPEND ON PLU PROGRAMMING
1: JAPANESE PCS
2: NO PRINT

SPEC 120: SELECTION OF PLU NUMBER PRINT

0: NO ZERO SUPPRESS
1: ZERO SUPPRESS

SPEC 121: SELECTION OF THICK JAPANESE CHARACTER PRINTOUT

0: THICK CHARACTER
1: THIN CHARACTER

SPEC 122: SELECTION OF PREPACK MODE AFTER POWER ON

0: MANUAL MODE
1: PREPACK MODE

SPEC 123: SELECTION OF PRINTING THANK YOU MESSAGE ON RECEIPT

0: ENABLE

1: DISABLE

SPEC 124: SELECTION OF PLU UNIT PRICE AFTER DISCOUNT

0: UNIT PRICE AFTER DISCOUNT
1: UNIT PRICE DISCOUNT AMOUNT

SPEC 125: POSITION OF SPECIAL MESSAGE ON RECEIPT

0: BOTTOM OF RECEIPT
1: TOP OF RECEIPT

SPEC 126: SELECTION OF FUNCTION KEYS PROTECTION FOR DENMARK SELF-SERVICE

0: NO PROTECTION
1: PROTECTION
2: PARTIAL PROTECTION

SPEC 127: SELECTION OF PRINTING OF CHECKSUM FOR ITEM BARCODE

0: DISABLE
1: ENABLE

SPEC 128: SETTING OF HOST NUMBERS

(1 – 9999)

SPEC 129: TYPE OF HOST TO BE COMMUNICATED

0: STANDALONE
1: TMR ECR
2: POS ECR

SPEC 130: SELECTION OF PRINT ITEM ON PREPACK TOTAL LABEL

0: BASED ON STATUS ON ITEM LABEL
1: BASED ON STATUS ON MANUAL TOTAL LABEL

SPEC 131: PRINT PLU SETTING QUANTITY IN MANUAL MODE

0: NO
1: YES

SPEC 132: RECEIPT TOTAL REPORT (DM)

0: NO
1: YES

SPEC 133: CHANGE ALL PLU DEFAULT FORMAT WHEN DEFAULT SPEC CHANGE

0: YES
1: NO

SPEC 134: HOST COMMUNICATION

0: NO OPERATION
1: ENABLE

SPEC 135: PORT NUMBER

(1 - 255)

SPEC 136: SELECTION OF ONE TOUCH SELF SERVICE OPERATION

0: ONE TOUCH
1: TWO TOUCH

SPEC 137: SELECTION OF CENTERING OF INGREDIENT DATA

0: CENTERING
1: NO CENTERING

SPEC 138: PERMANENT PRICE OR DISCOUNT PRICE CHANGE VIA FUNCTION KEY

0: NO UPDATE TO PLU
1: UPDATE TO PLU

SPEC 139: SELECTION OF NUMBER OF DIGITS FOR TERAOKA CODE

0: 2 DIGITS
1: 3 DIGITS

SPEC 140: AA MESSAGE SIZE

0: 24 × 24
1: 16 × 16

SPEC 141: SELECTION OF YEAR FORMAT

0: YY
1: YYYY

SPEC 142: SELECTION OF DAY DISPLAY FOR SELL-BY-DATE

0: DISABLE
1: ENABLE

SPEC 143: PEEL SENSOR TRIGGER VOLTAGE

0: HIGH
1: LOW

SPEC 144: DISPLAY PREPACK QUANTITY BALANCE

0: ENABLE
1: DISABLE

SPEC 145: PRINT SELECT FUNCTION ACROSS THE BOARD

0: DISABLE
1: ENABLE

SPEC 146: SELECTION OF LABEL FORMAT 1, 2 FUNCTION KEY ENABLE (AR)

0: DISABLE
1: ENABLE

SPEC 147: SELECTION OF PREPACK NON ADD FUNCTION KEY ENABLE (NOT FOR AA)

0: DISABLE
1: ENABLE

SPEC 148: FIS3000 CODE

0: SM80 FIS3D
1: SM25 FIS3D

SPEC 149: SELECTION OF MAIN GROUP FUNCTION KEY ENABLE (NOT FOR AA)

0: DISABLE
1: ENABLE

SPEC 150: PRESET KEY ASSIGNMENT FOR CLIENT

0: LOCAL ASSIGN
1: CENTRAL ASSIGN

SPEC 151: CHANGE SELL BY DATE AND USED BY DATE WHEN PACK DATED IS CHANGED

0: NO
1: YES

SPEC 152: SELECTION OF SELL-BY-DATE OR SELL-BY-TIME FOR INDIVIDUAL PLU

0: DISABLE
1: ENABLE

SPEC 153: USER PROGRAMMABLE RIGHT SIDE DATA FOR ITEM BARCODE

0: WITH IDENTIFICATION DIGIT
1: WITHOUT IDENTIFICATION DIGIT

SPEC 154: SELECT KEY SHEET LETTER SIZE (FL)

0: SMALL LETTER
1: CAPITAL LETTER

SPEC 155: SELECT TEST PRINT ON RECEIPT (SD)

0: NO PRINT

1: PRINT

SPEC 156: IMAGE COPY FROM FREE FORMAT

0: DISABLE

1: ENABLE

SPEC 157: TRAINING MODE

0: DISABLE

1: ENABLE

SPEC 158: FSD PRICE AND IMAGES

0: DISABLE

1: ENABLE

SPEC 159: 1/2 AND 1/4 KEY ENABLE

0: DISABLE

1: ENABLE

SPEC 160: TWISTED PAIR CABLE FOR ETHERNET

0: SHIELDED

1: UNSHIELDED

SPEC 161: DISCOUNT LABEL FORMAT (SWEDEN)

0: ENABLE

1: DISABLE

SPEC 162: SELECTION OF ITEM CODE FUNCTION KEY ENABLE

0: ENABLE

1: DISABLE

SPEC 163: SELECTION OF TRANSACTION DATA STORE IN CLIENT MEMORY

0: DISABLE

1: ENABLE

SPEC 164: MAXIMUM LABEL LENGTH

0: 120 MM

1: 240 MM

SPEC 165: UPDATE REPORT

0: YES

1: NO

SPEC 166: AVERAGE PRICE AND WEIGHT LABEL FUNCTION

0: DISABLE

1: ENABLE

SPEC 167: LABEL DATE TITLE PRINT (NOT FOR AA)

0: NO PRINT

1: PRINT

SPEC 168: GB-CODE

0: GB-CODE

1: SHIFT GB-CODE

SPEC 169: PRINT PLU SETTING UNIT IN MANUAL MODE

0: NO

1: YES

SPEC 170: USER SPECIFICATION (REZERO+141) ACCESSIBLE FROM Z MODE ONLY

0: NO

1: YES

SPEC 171: EURO MODE

0: NO EURO
1: EURO

SPEC 172: DUAL DECLARATIONS

0: NO
1: YES

SPEC 173: MASK 7 SEGMENT DISPLAY IN X, S, Z MODE

0: NO
1: YES

SPEC 174: FIXED CLERK ASSIGN TO PRESET KEYS 8/ 16/ 24/ 32 (BENCH TYPE ONLY)

0: CLERK KEYS
1: FUNCTION KEYS

SPEC 175: 30LB → 15KG CONVERSION (UK)

0: DISABLE
1: ENABLE

SPEC 176: DISCOUNT TIME ON DAILY BASIS

0: NO
1: YES

SPEC 177: WEIGHT CHECK FUNCTION

0: NO
1: YES

SPEC 178: UNIT PRICE OVERRIDE PER PLU

0: NO
1: YES

SPEC 179: BLACK BAR SENSING LABEL

0: NORMAL
1: BLACK BAR SENSING

SPEC 180: SCROLL MESSAGE GROUP

0: DISABLE
1: ENABLE

SPEC 181: CONTINUOUS LABEL

0: DISABLE
1: ENABLE

SPEC 182: CHARACTER SIZE FOR BARCODE DATA

0: LARGE
1: SMALL

SPEC 183: PLU CLEAR AFTER 3 MINUTES TIME OUT

0: NO
1: YES

SPEC 184: DUPLICATE UNIT / TOTAL PRICE ON LABEL

0: NO PRINT
1: PRINT

SPEC 185: WEIGH ↔ NON WEIGH FUNCTION KEY ENABLE

0: DISABLE
1: ENABLE

SPEC 186: PRINT \$ AND WEIGHT UNIT ON LABEL

0: NO
1: YES

SPEC 187: CLEAR TOTAL DATA BY SERVER

0: BOTH SERVER AND CLIENT

1: SERVER

SPEC 188: SELECTION OF TARE DECIMAL POINT LEFT SHIFT FOR SM25 FIS3D

0: NO
1: YES

SPEC 189: PLU AUTO DELETE

0: NO DELETE
1: 15 DAYS
2: 30 DAYS
3: 90 DAYS

SPEC 190: SWAP WEIGHT AND UNIT PRICE ON RECEIPT

0: NO
1: YES

SPEC 191: DEFAULT ITEM CODE EQUALS TO PLU NUMBER

0: NO
1: YES

SPEC 192: NUTRITION TEMPLATE

0: STANDARD
1: SIMPLIFIED
2: SIMPLIFIED CONDENSED
3: STANDARD CONDENSED
4: TABULATED
5: TABULATED EXTRA CONDENSED

SPEC 193: NUTRITION ADJUSTMENT FEED

(0 – 255)

SPEC 194: SERVER IP ADDRESS

(1 – 254)

SPEC 195: WEIGHT PRINT FOR NON WEIGH ITEM

0: NO
1: YES

SPEC 196: SCALE FILE

0: DISABLE
1: ENABLE

SPEC 197: PRINTING FORMAT OF MONTH

0: NUMBER
1: 2 ALPHABETIC
2: 3 ALPHABETIC

SPEC 198: FSD SAVING CALCULATION

0: NET VALUE
1: CENT OFF

SPEC 199: FIS3000 TIME OUT

0: 2 SECONDS
1: 8 SECONDS
2: 32 SECONDS

SPEC 200: PLU CALL UP RANGE

0: DISABLE
1: ENABLE

SPEC 201: SELL BY DATE FOR MANUAL MODE

0: PROGRAMMED SELL BY DATE
1: ZERO SELL BY DATE

SPEC 202: PRINTING OF ITEM LABEL WHEN BARCODE DATA OVERFLOW

0: PRINT
1: NO PRINT

SPEC 203: PRESET KEYS PAGES

0: 1 PAGE
1: 3 PAGES BY TOGGLE KEY
2: 3 PAGES BY SHIFT KEY

SPEC 204: REFERENCE PLU FUNCTION KEY ENABLE

0: DISABLE
1: ENABLE

SPEC 205: PRINT FUNCTION KEY ENABLE

0: DISABLE
1: ENABLE

SPEC 206: PRINT BARCODE WHEN RIGHT SIDE WEIGHT DATA OVERFLOW

0: NO PRINT
1: PRINT BARCODE DIGITS

SPEC 207: SELECTION OF WEIGHT DECIMAL POINT POSITION FOR BARCODE AND LABEL PRINTING

0: SAME AS SPEC 607
1: 0.000

SPEC 208: TIME OUT FOR NETWORK

0: X 1 OF ORIGINAL TIMING
1: X 2
2: X 4
3: X 10

SPEC 209: FSD CALCULATION

0: UNIT PRICE DISCOUNT
1: PRICE % OFF

SPEC 210: PLU REPEAT FUNCTION KEY ENABLE

0: DISABLE
1: ENABLE

SPEC 211: PICK 'N' PAY PROTOCOL (SOUTH AFRICA)

0: OLD
1: NEW

SPEC 212: DEPARTMENT NUMBER FOR PICK 'N' PAY (SOUTH AFRICA)
(1 - 99)

SPEC 213: FLAG CODE FUNCTION KEY ENABLE

0: DISABLE
1: ENABLE

SPEC 214: DHCP

0: DISABLE
1: ENABLE

SPEC 215: SELECTION OF CENTERING OF SPECIAL MESSAGE

0: CENTERING
1: NO CENTERING

SPEC 216: JIS-CODE TABLE

0: NEW JIS-CODE
1: OLD JIS-CODE

SPEC 217: SELECTION OF DEFAULT LABEL FORMAT 2 FOR ITEM PRINTING

0: NOT USED
0: F1

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

SPEC 218: ZERO UNIT PRICE FOR UNIT PRICE CHANGE FUNCTION KEY

0: DISABLE
1: ENABLE

SPEC 219: NUMERIC KEY ENTRY RESET (AA)

0: 3 SECONDS
1: 5 SECONDS
2: DISABLE

SPEC 220: ITEM BARCODE RIGHT SIDE DATA DEPENDENT ON UNIT

0: DISABLE
1: ENABLE

SPEC 221: RECEIPT WITH TAX INFORMATION FUNCTION KEY ENABLE

0: DISABLE
1: ENABLE

SPEC 222: OPEN CASH DRAWER WITHOUT SALES FUNCTION KEY ENABLE

0: DISABLE
1: ENABLE

SPEC 223: NEGATE UNIT PRICE FUNCTION

0: DISABLE
1: ENABLE

SPEC 224: FIS3000 CABLE

0: 4 WIRE
1: 2 WIRE

SPEC 225: PREPACK GRAND TOTAL FOR INDIVIDUAL PLU

0: YES
1: NO

SPEC 226: REVERSE CALCULATION OF ITF CHECK DIGIT

0: NO
1: YES

SPEC 227: UNIT PRICE OVERRIDE PASSWORD FUNCTION

0: DISABLE
1: ENABLE

SPEC 228: INDIVIDUAL PLU TOTAL TRANSACTION

0: NO
1: YES

SPEC 229: PRESET KEY GROUP

0: DISABLE
1: ENABLE

SPEC 230: AUTO PRINT AFTER PLU CALL

0: NO
1: YES

SPEC 231: ZERO UNIT PRICE FOR PLU & UNIT PRICE OVERRIDE

0: INHIBIT
1: ALLOW

SPEC 232: FEED FOR CONTINUOUS LABEL

0: NO
1: YES

SPEC 233: TIME FORMAT

0: 24 HOUR
1: 12 HOUR (AM / PM)

SPEC 234: SUB-TOTAL AND GRAND TOTAL BARCODE

0: BASED ON ITEM BARCODE
1: BASED ON TOTAL BARCODE

SPEC 235: MASK BARCODE LAST HUMAN READABLE CHECK DIGIT

0: NO
1: YES

SPEC 236: CHARACTER GENERATOR FOR KOREA

0: OLD
1: NEW

SPEC 237: HALF KEY FUNCTION

0: INHIBIT
1: ALLOW

SPEC 238: FIS3000 FREE FORMAT UNIT

0: MM
1: DOTS
2: SM-25 DOTS

SPEC 239: CHEQUE & CREDIT PAYMENT FUNCTION KEY

0: DISABLE
1: ENABLE

SPEC 240: VOUCHER PAYMENT FUNCTION KEY

0: DISABLE
1: ENABLE

SPEC 241: PLU CODE FOR IR POS & TMR

0: 6 DIGITS
1: 7 DIGITS

SPEC 242: DISCOUNT WITHOUT LIMIT FUNCTION KEY

0: DISABLE
1: ENABLE

SPEC 243: CONCATENATE COMMODITY NAME DISPLAY

0: NO
1: YES

SPEC 244: ENABLE PLU PRICE CHANGE FLAG

0: NO
1: YES

SPEC 245: PRINT SELL BY DATE OR USED BY DATE WHEN DATE = PACKED DATE

0: YES
1: NO

SPEC 246: PRINT 1ST AND CHECK DIGITS OUTSIDE BARCODE

0: NO
1: YES

SPEC 247: PRINT PACKED DATE

0: MANUAL AND PREPACK MODE

1: MANUAL MODE
2: PREPACK MODE
3: NO PRINT

SPEC 248: PRINT SELL BY DATE

0: MANUAL AND PREPACK MODE
1: MANUAL MODE
2: PREPACK MODE
3: NO PRINT

SPEC 249: PRINT USED BY DATE

0: MANUAL AND PREPACK MODE
1: MANUAL MODE
2: PREPACK MODE
3: NO PRINT

SPEC 250: CENTERING SHOP NAME ON LABEL

0: NO CENTERING
1: CENTERING

SPEC 251: SHOP NAME ON RECEIPT

0: TOP
1: BOTTOM

SPEC 252: AUTO RECONNECT WHEN SERVER DOWN

0: NO AUTO RECONNECT
1: RECONNECT EVERY 2 MIN
2: RECONNECT EVERY 3 MIN
3: RECONNECT EVERY 15 SECONDS

SPEC 253: CLIENT AUTO PLU UPDATE

0: UPDATE /DELETE EXISTING PLUs
1: UPDATE /DELETE ALL SERVER PLUs
2: UPDATE EXISTING PLUs (NO DELETE)
3: UPDATE ALL SERVER PLUs (NO DELETE)
4: DISABLE

SPEC 254: AUTO UPDATE OF CLIENT OFF-LINE REPORT

0: DISABLE
1: ENABLE

SPEC 255: ETHERNET COMMUNICATION RETRY

0: 2 TIMES
1: 5 TIMES

SPEC 256: DISPLAY PRICE WITH TAX AFTER CLERK KEY PRESS (AA)

0: YES
1: NO

SPEC 257: CHANGE PLACE NAME TO PLU VIA FUNCTION KEY (AA)

0: NO
1: YES

SPEC 258: BEEF LABELLING

0: NO
1: YES

SPEC 259: AUTO PRINT SUB TOTAL LABEL IN PREPACK

0: NO
1: YES

SPEC 260: BEEF LABELLING: COUNTRY

0: CODE
1: NAME
2: CODE (CONCATENATE)

3: NAME (CONCATENATE)

SPEC 261: RESERVED

0: DISABLE
1: ENABLE

SPEC 262: CASH DRAWER DETECTION (IRELAND _ SM 500)

0: NO
1: YES

SPEC 263: FSD NET VALUE MINIMUM

0: OFF
1: ON

SPEC 264: PRINT INGREDIENT DATA ON THE NEXT LABEL

0: DISABLE
1: ENABLE

SPEC 265: CLIENT USING LOCAL FREE FORMAT LABEL

0: NO
1: YES

SPEC 266 : FSD WEIGHT

0: BACK COMPUTED (SINGLE RANGE)
1: BACK COMPUTED (DUAL RANGE)
2: EXACT WEIGHT

SPEC 267: CPDL LANGUAGE SELECTION

0: 1 ST LANGUAGE
1: 2 ND LANGUAGE

SPEC 268: DISPLAY SPECIAL SCALE MSG FOR DISCOUNTED ITEM (SM90)

0: NO
1: YES

SPEC 269: AUTO CLERK ACCUMULATION

0: NO
1: 9995 (A KEY)
2: 9996 (B KEY)
3: 9997 (C KEY)
4: 9998 (D KEY)

SPEC 270 : INDIVIDUAL REPORT PRINT AND CLEAR IN Z MODE

0: DISABLE
1: MANUAL CLEAR
3: AUTO CLEAR

SPEC 271: STORE TOTAL REPORT CLEAR (WHEN SPEC270 ENABLE)

0: CLEAR STORE TOTAL REPORT ONLY
1: CLEAR ALL REPORT

SPEC 272: BEEF REFERENCE NO

0: CODE
1: DATE

SPEC 273: ITEM CODE : PLU NUMBER

0: YES
1: NO

SPEC 274: BENCH KEY PAD (SM300 ONLY)

0: NEW
1: OLD

SPEC 275: TAIWAN RECEIPT PRINTER

0: DISABLE
1: ENABLE

SPEC 276: FLOATING SERVER

0: DISABLE
1: ENABLE

SPEC 277: REAL TIME BUFFER

0: NO REAL TIME BUFFER
1: 2 DAYS BUFFER
2: 3 DAYS BUFFER
3: 4 DAYS BUFFER
4: 5 DAYS BUFFER
5: 6 DAYS BUFFER
6: 7 DAYS BUFFER
UNLIMITED BUFFER

SPEC 278 : TRACEABILITY REPORT

0: DISABLE
4: BY REFERENCE NUMBER
5: BY PLU NUMBER
6: BY DATE & REF NUMBER
7: BY DATE & PLU NUMBER

SPEC 279: U1 SELF SERVICE

0: DISABLE
1: ENABLE

SPEC 280: REAL TIME CUSTOMER NUMBER

0: NO
1: YES

SPEC 281: REAL TIME BUFFER RECEIPT

0: DETAIL
1: TOTAL ONLY

SPEC 282 : BARCODE FUNCTION

0: WITHOUT<CR>
1: WITH <CR>

SPEC 283: NOT USED

0:
1:

SPEC 284: OPEN CASH DRAWER ON CREDIT PAYMENT

0: ALLOW
1: INHIBIT

SPEC 285: AUSTRALIA ECR FUNCTION

0: NO
1: YES

SPEC 286: ENFORCE AMOUNT TENDERED

0: NO
1: YES

SPEC 287: ENFORCE CHANGE KEY

0: NO
1: YES

SPEC 288: PLANNED PRICE PRINTED IN REPORT

0: ENABLE
1: DISABLE

SPEC 289: REPEAT PLU CALL

0: NO
1: YES

SPEC 290: PAYMENT KEY (EURO COUNTRIES ONLY)

0: DISABLE
1: ENABLE

SPEC 291: GAP VALUE IN FEED OPERATION

0: READJUST
1: NO CHANGE

SPEC 292: SM200 POWER SAVE

0: BACK LIGHT OFF
1: POWER OFF

SPEC 293: SM200 POWER SAVE TIMEOUT

0: 3 MINUTES
1: 5 MINUTES
2: 10 MINUTES
3: 2 MINUTES

SPEC 294: SM200 BATTERY OPTION

0: YES
1: NO

SPEC 295: SM300 SCROLLING MSG UPDATE RATE

0: 6 LINE
1: 12 LINES

SPEC 296: INGREDIENT FILE-SIZE EXPANSION

0: MAX 99 REC
1: MAX 255 REC

SPEC 297: PRINT PLU INGREDIENT IN RCT

0: NO
1: YES

SPEC 298: TRACEABILITY UPDATE FUNCTION

0: NO
1: YES

SPEC 299: KEYBOARD SELECTION

0: NORMAL KEYBOARD
1: 100 PRESET KEYS KEYBOARD
2: 80 PRESET KEYS KEYBOARD

SPEC 300: SM500 SELF-SERVICE

0: NO
1: YES

SPEC 301: PRINT RECIEPT AFTER ACCUMULATION

0: YES
1: NO

SPEC 302 : FIXED PORT NUMBER FOR ETHERNET

(1 - 255)

SPEC 303: DHCP IP ADDRESS LEASE TIME

0: DISABLE
1: ENABLE

SPEC 305: CHAR SPREADING SPEED UP(S3, S4, M3 & M4) (FOR U1 ONLY)

0: DISABLE
1: ENABLE

SPEC 306: UNIT PRINT ON RECEIPT

0: PCS
1: ITEMS

SPEC 307: CODE PAGE (IR ONLY)

0: DOS
1: ANSI

SPEC 308: SM500 2ND RECEIPT PRINTER

0: DISABLE
1: ENABLE

SPEC 309: PRAXIS FUNCTION (IKB ONLY)

0: DISABLE
1: ENABLE

SPEC 310: RSS14 BARCODE (AI 01 ONLY)

0: DISABLE
1: ENABLE

SPEC 311: OPERATOR LOGGING FUNCTION

0: DISABLE
1: ENABLE

SPEC 312: CLERK ID/ PASSWORD (KE ONLY) / CHANGED PASSWORD (STANDARD)

0: DISABLE
1: ENABLE

SPEC 313: UPDATE LOG FILE

0: CA+NO UPDATE FILE
1: CA+UPDATE FILE
2: KE+UPDATE FILE
3: KE+NO UPDATE FILE

SPEC 314: TRAINING MODE

0: DISABLE
1: ENABLE
2: ENABLE (CLERK REPORT)

SPEC 315: PRINT PLU TRACEABILITY IN RCT

0: YES
1: NO

SPEC 316: INCLUDE PPK TTL IN MANUAL TTL RPT

0: NO
1: YES

SPEC 317: WIRELESS COMMUNICATION

0: NO
1: YES

SPEC 318: WIRELESS FTP PORT NO.

(1 - 9999)

SPEC 319: DELETE TRACEABILITY REOCD

0: YES
1: NO

SPEC 320: PLU LINK TO TEXT FIELD

0: DISABLE
1: ENABLE

SPEC 321: JULIAN DATE FOR PACKED & SELL DATE

0: NO
1: YES

SPEC 322: PRICE PRINTING SIZE (LARGE FONT) (VER 14.63 ONWARDS)

0: NO
1: YES

SPEC 323: AUTO PLU BROADCASTING (VER 14.85 ONWARDS)

0: DISABLE
1: ENABLE

SPEC 324: DECIMAL POINT FOR UNIT PRICE AND TOTAL PRICE FIELDS

0: DISABLE
1: ENABLE

SPEC 325: PEEL SENSOR VALUE

0: READJUST
1: NO CHANGE

SPEC 326: ON/OFF KEY

0: DISABLE
1: ENABLE

SPEC 327: SM300 PRINT CONTROL

0: DISABLE
1: ENABLE

SPEC 328: TU 9 DIG TOTAL PRICE

0: DISABLE
1: ENABLE

SPEC 329: PLU TARE CALL UP

0: ALLOW
1: INHIBIT

SPEC 330: INDIVIDUAL SCALE STORE TOTAL REPORT

0: NO
1: YES

SPEC 331: DEFAULT ITF FOR BARCODE

0: DISABLE
1: ENABLE

SPEC 332: ITEM TEXT(5-16) PRINT ON TOTAL LABEL

0: DISABLE
1: ENABLE

SPEC 333 : IMAGE AT TOP RECEIPT

(0 - 99)

SPEC 334 : IMAGE AT BOTTOM RECEIPT

(0 - 99)

SPEC 335: TRACEABILITY EAT BY DATE

0: DISABLE
1: ENABLE

SPEC 336: TRACEABILITY MAX WEIGHT

0: DISABLE
1: ENABLE

SPEC 336: TRACEABILITY NO ASSIGNMENT PER PLU

0: NO
1: YES

SPEC 337: TRACEABILITY DEFAULT LABEL FORMAT

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

SPEC 337: TRACEABILITY NO AUTO UPDATE

0: NO
1: YES

SPEC 338: TRACEABILITY BARCODE

0: EAN13
1: EAN128

SPEC 339: TRACEABILITY NO C/D CHECK

0: NO
1: YES

SPEC 340: ENFORCE SCAN

0: NO
1: YES

SPEC 341: TVP2000

0: NOT SEND T10
1: SEND T10 LABEL FORMAT

SPEC 342: LCD 1 LINE SCROLL

0: DISABLE
1: ENABLE

SPEC 343: CLEAR KEY IN PREPACK

0: ENABLE
1: DISABLE

SPEC 344: PRINT PACK DATE

0: YES
1: NO

SPEC 345: UPDATE SPEC FOR SERVER/CLIENT SYSTEM

0: ENABLE
1: DISABLE

SPEC 346: UPDATE LABEL TURN-OVER IN RT BUFFER

0: NO
1: ONLY IN REGISTRATION MODE
2: ONLY IN PRE-PACK MODE
3: REGISTRATION & PRE-PACK MODE

SPEC 347: INTERNET BROADCAST

0: NO
1: YES

SPEC 348: TAIWAN POP LABEL

0: DISABLE
1: ENABLE

SPEC 349: DIRECT ACCESS TO CLERK MODE

0: DISABLE

1: ENABLE

SPEC 350: ADDITIONAL ROUNDING IN RECEIPT

0: PRINT

1: NO PRINT

SPEC 351: GRATUITOUS ARP

0: DISABLE

1: ENABLE

SPEC 352: MAGALI TRACEABILITY

0: DISABLE

1: ENABLE

SPEC 353: UP & WT CHECK BEFORE LBL PRT

0: DISABLE

1: ENABLE

SPEC 354: ROMANIAN CURRENCY (RM ONLY)

0: NO

1: YES

SPEC 355: CALL PLU FROM PC

0: DISABLE

1: ENABLE

SPEC 356: EXPAND RECORD # FOR IMAGE

0: DISABLE

1: ENABLE

SPEC 357: MULTI BARCODE FOR ITEM & TOTAL LBL

0: DISABLE

1: ENABLE

SPEC 358: AUTO PRINT PER PLU

0: NO

1: YES

SPEC 359: TOTAL PRICE BASED ON BARCODE (SF)

0: NO

1: YES

SPEC 360: GENERIC BARCODE

0: NO

1: YES

SPEC 361: TEXT COPY FROM FREE FORMAT

0: DISABLE

1: ENABLE

SPEC 362: PRICE CALCULATION BASED ON GROSS WT

0: DISABLE

1: ENABLE

SPEC 363: BARCODE READABLE CHARACTER

0: PRINT

1: NO PRINT

14.2 Weigh & Measure Specification [REZERO] + [1][4][2]

SPEC 600: SELECTION OF PRICE BASE FOR PRICE CALCULATION FOR WEIGHED ITEMS

0: 100g BASE

1: 1kg BASE

SPEC 601: SELECTION OF AUTO - ZERO FUNCTION

- | |
|-------------------|
| 0: NO AUTO - ZERO |
| 1: AUTO - ZERO |

SPEC 602: SELECTION OF DISPLAY TYPE

- | |
|-----------------------|
| 0: SINGLE DISPLAY ROW |
| 1: THREE DISPLAY |

SPEC 603: SELECTION OF TAX

- | |
|-----------|
| 0: NO TAX |
| 1: TAX |

SPEC 604: SELECTION OF MINUS WEIGHT MASKING

- | |
|----------------------------|
| 0: " - " SIGN WEIGHT |
| 1: MINUS GROSS WEIGHT MASK |
| 2: MINUS NET WEIGHT MASK |
| 3: NOT USED |

SPEC 605: SELECTION OF MANUAL SCALE START

- | |
|-----------------|
| 0: AUTO START |
| 1: MANUAL START |

SPEC 606: SELECTION OF ZERO LAMP LIGHTING POSITION

- | |
|---|
| 0: LIGHT ON AT GROSS ZERO $\pm 1/4$ DIGIT |
| 1: LIGHT ON AT NET ZERO $\pm 1/4$ DIGIT |

SPEC 607: SELECTION OF DECIMAL POINT POSITION FOR WEIGHT

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

SPEC 608: SELECTION OF ZERO POINT SETTING RANGES WHEN A/C DISPLAY SWITCH ON

- | |
|---|
| 0: $\pm 10\%$ OF CAPACITY (CALIBRATED ZERO POINT ± 6000 IR) |
| 1: $\pm 5\%$ OF CAPACITY (CALIBRATED ZERO POINT ± 3000 IR) |
| 2: $\pm 2\%$ OF CAPACITY (CALIBRATED ZERO POINT ± 1200 IR) |
| 3: $\pm 0.6\%$ OF CAPACITY (CALIBRATED ZERO POINT ± 360 IR) |

SPEC 609: SELECTION OF DECIMAL POINT POSITION FOR UNIT PRICE & TOTAL PRICE

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

SPEC 610: SELECTION OF UNIT PRICE DECIMAL POINT RIGHT SHIFT

- | |
|-------------------|
| 0: NO RIGHT SHIFT |
| 1: RIGHT SHIFT |

SPEC 611: SELECTION OF UNIT PRICE DECIMAL POINT LEFT SHIFT

- | |
|------------------|
| 0: NO LEFT SHIFT |
| 1: LEFT SHIFT |

SPEC 612: SELECTION OF SWITCHING OF PRICE BASE

- | |
|----------------|
| 0: INHIBIT |
| 1: 100g / 1 KG |
| 2: 500g / 1 KG |

SPEC 613: SELECTION OF EXIT FROM ACCUMULATION MODE AFTER TIME OUT

- | |
|------------|
| 0: INHIBIT |
| 1: 15 SECS |
| 2: 5 SECS |

3: 10 SECS

SPEC 614: SELECTION OF ZERO SETTING RANGES WHEN WEIGHT RESET SWITCH IS ON OR ZERO TRACKING

0: ±10% OF CAPACITY (POWER ON START POINT ± 6000IR)
1: ±5% OF CAPACITY (POWER ON START POINT ± 3000IR)
2: ±2% OF CAPACITY (POWER ON START POINT ± 1200IR)
3: ±0.6% OF CAPACITY (POWER ON START POINT ± 360IR)

SPEC 615: SELECTION OF CAPACITY

0: 3Kg
1: 6Kg
2: 15Kg
3: 30Kg
4: 30LB

SPEC 616: SELECTION OF WEIGHT DUAL / SINGLE RANGE

0: SINGLE
1: DUAL
2: 1 / 7500 OR 1 / 6000

SPEC 617: NEW AD

0: NO
1: YES

SPEC 618: SELECTION OF NET / GROSS DUAL RANGE

0: GROSS DUAL RANGE METHOD
1: NET DUAL RANGE METHOD

SPEC 619: SELECTION OF PLU WEIGHT ITEM COMMODITY NAME DISPLAY (BENCH TYPE)

0: FULL DISPLAY
1: HALF DISPLAY
2: NO DISPLAY

SPEC 620: SELECTION OF TARE ACCUMULATION

0: ALLOW
1: INHIBIT

SPEC 621: SELECTION OF TARE SUBTRACTION

0: ALLOW
1: INHIBIT

SPEC 622: SELECTION OF MANUAL CLEAR OF TARE

0: ALLOW
1: INHIBIT

SPEC 623: SELECTION OF WEIGHT RESET OPERATION DURING TARE

0: ALLOW
1: INHIBIT

SPEC 624: ZERO TRACKING DURING TARE

0: ALLOW
1: INHIBIT

SPEC 625: SELECTION OF ACCUMULATION WHEN TARE

0: ALLOW
1: INHIBIT

SPEC 626: SELECTION OF DIGITAL TARE

0: ALLOW
1: INHIBIT

SPEC 627: SELECTION OF DECIMAL POINT FIGURE

0: PERIOD

1: COMMA

SPEC 628: SELECTION OF PRICE ROUNDING METHODS FOR THE DECIMAL DIGITS FOR WEIGHED ITEMS

0: ROUNDING
 1: TRUNCATING
 2: CUT UP

SPEC 629: SELECTION OF ADDITIONAL PRICE ROUNDING METHOD FOR ITEM

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

SPEC 630: SELECTION OF AUTO CLEAR OF UNIT PRICE

0: INHIBIT
 1: ALLOW

SPEC 631: SELECTION OF MAXIMUM CAPACITY

0: CAPACITY + 1 D
 1: CAPACITY + 9 D

SPEC 632: SELECTION OF TARE VALUE EXCHANGE

0: ALLOW
 1: INHIBIT

SPEC 633: SELECTION OF AUTO CLEAR OF TARE

0: INHIBIT
 1: ALLOW

SPEC 634: SELECTION OF AUTO TARE CLEAR WHEN REZERO

0: INHIBIT
 1: ALLOW

SPEC 635: SELECTION OF TRIGGER POINT OF TARE / UNIT PRICE AUTO CLEAR

0: OVER NET 5d & OVER GROSS 21d & WEIGHT STABILITY
 1: > = NET 1d AND WEIGHT STABILITY
 2: > = NET 1d AND PRICE > 0 AND WEIGHT STABILITY

SPEC 636: SELECTION OF AUTOMATIC ZERO RESET

0: INHIBIT
 1: ALLOW

SPEC 637: SELECTION OF NEGATIVE WEIGHT TARE CLEAR

0: ALLOW
 1: INHIBIT

SPEC 638: SELECTION OF TARE RANGE

0: LESS THAN 50 % OF CAPACITY
 1: LESS THAN 5 % OF CAPACITY
 3: MAX 200G
 2: NOT USED

SPEC 639: SELECTION OF EXIT FROM ACCUMULATION MODE WHEN WEIGHT CHANGE

0: INHIBIT
 1: ALLOW

SPEC 640: SELECTION OF PRICE ACCUMULATION WITH WEIGHT CHANGE > ± 10d

0: INHIBIT
 1: ALLOW

SPEC 641: ACCUMULATION AVAILABLE ONLY AFTER SCALE SHOWS WEIGHT = '0'

0: INHIBIT

1: ALLOW

SPEC 642: SELECTION OF TARE DISPLAY FOR ONE-TOUCH-TARE

0: ALLOW
1: INHIBIT

SPEC 643: SELECTION OF WEIGHT RANGE OF NON - WEIGH ITEMS

0: ONLY NET 0d
1: UNDER NET 0d
2: UNDER NET 4d
3: GROSS < 1d
4: ALWAYS

SPEC 644: SELECTION OF WEIGHT STABILITY CONDITION

0: LOOSE
1: NORMAL
2: TIGHT
3: STRINGENT

SPEC 645: SELECTION OF WEIGHT RANGE FOR REGISTRATION MODE PRINTING

0: OVER NET 5d & OVER GROSS 21d & WEIGHT STABILITY
1: OVER NET 1d AND WEIGHT STABILITY
2: OVER NET 19d AND WEIGHT STABILITY
3: OVER NET 20d AND WEIGHT STABILITY

SPEC 646: SELECTION OF WEIGHT RANGE FOR PREPACK

0: OVER NET 5d & OVER GROSS 21d & WEIGHT STABILITY
1: OVER NET 1d AND WEIGHT STABILITY
2: OVER NET 19d AND WEIGHT STABILITY
3: OVER NET 20d AND WEIGHT STABILITY

SPEC 647: SELECTION OF PLU TARE

0: ALLOW
1: INHIBIT

SPEC 648: SELECTION OF ITEM PRINT WHEN TARE

0: ALLOW
1: INHIBIT

SPEC 649: SELECTION OF TAX ROUNDING METHOD

0: ROUNDING
1: TRUNCATION

SPEC 650: SELECTION OF CHECKING SPAN SWITCH FOR INTERNAL COUNT

0: NO CHECK
1: CHECK

SPEC 651: SELECTION OF CERTAIN FUNCTION KEY ORDER

0: FUNCTION KEY PRECEDE NUMERIC KEY
1: NUMERIC KEY PRECEDE FUNCTION KEY

SPEC 652: SELECTION OF ANGLE ROTATION FOR CERTAIN ITEMS PRINTING

0: ANTI-CLOCKWISE
1: CLOCKWISE

SPEC 653: SELECTION OF TOTAL DISCOUNT

0: ALLOW
1: INHIBIT

SPEC 654: SELECTION OF PACKED DATE FUNCTIONS IN MANUAL MODE

0: INHIBIT
1: ALLOW

SPEC 655: SELECTION OF PREPACK MODE

0: ALLOW
1: INHIBIT

SPEC 656: SELECTION OF SCALE TYPE

0: POLE TYPE
1: BENCH TYPE

SPEC 657: MAINTENANCE MODE

0: ENABLE
1: DISABLE

SPEC 658: SELECTION OF EXTRA LABEL FOR PREPACK PRINTING

0: INHIBIT
1: ALLOW

SPEC 659: SELECTION OF ITEM PRICE PRINTING

0: ITEM PRICE BEFORE TAX
1: ITEM PRICE AFTER TAX

SPEC 660: SELECTION OF BARCODE CHECKING LINE

0: PRINTED
1: NOT PRINTED

SPEC 661: SELECTION OF ADDITIONAL PRICE ROUNDING METHOD FOR TOTAL

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 AND Y10 CUT OFF
7: DENMARK ROUNDING

SPEC 662: SELECTION OF UNIT PRICE RE-CALCULATION

0: NO UNIT RE-CALCULATION
1: UNIT RE-CALCULATION

SPEC 663: SELECTION OF NORDIC COUNTRY

0: INHIBIT
1: ALLOW

SPEC 664: SELECTION OF DENMARK SELF SERVICE TYPE

0: INHIBIT
1: ALLOW

SPEC 665: SWAP OF UNIT PRICE AND PRICE DISPLAY IN REGISTRATION MODE

0: NO SWAP
1: SWAP

SPEC 666: MULTIPLICATION OPERATION IN PREPACK MODE

0: INHIBIT
1: ALLOW

SPEC 667: SM-90 DOT MATRIX DISPLAY SCANNING RATE

0: NORMAL
1: SLOW
2: HIGH SPEED
3: VERY HIGH SPEED

SPEC 668: DISPLAY INTERVAL

0: FAST/DISABLE
1: NORMAL

SPEC 668: 16x16 COM NAME

0: 1.0 SEC DISPLAY
1: 1.5 SEC DISPLAY
2: 2.0 SEC DISPLAY
3: 0.5 SEC DISPLAY

SPEC 669: MASK WEIGHT DISPLAY

0: NO
1: YES

SPEC 670: SCROLL MESSAGE DISPLAY

0: FULL LENGTH
1: HALF LENGTH

SPEC 671: DISPLAY CPU SELECTION

0: DISPLAY CPU BELOW VER 0.16
1: DISPLAY CPU VER 0.16 AND ABOVE

SPEC 672: KEYBOARD SELECTION

0: NORMAL KEYBOARD
1: 100 PRESET KEYS KEYBOARD
2: 80 PRESET KEYS KEYBOARD

SPEC 673: HANGING SCALE

0: NO
1: YES

SPEC 674: SELECTION OF MASKING LAST DIGIT OVER 15LB

0: NO
1: YES

SPEC 675: AUTO ZERO ADJUSTMENT RANGE

0: $\pm 5d$
1: 2% OF CAPACITY

SPEC 676: SELECTION OF RIGHT SIDE BARCODE DATA RIGHT SHIFT FOR ITEM AND TOTAL BARCODE

0: NO RIGHT SHIFT
1: RIGHT SHIFT
2: RIGHT SHIFT TWICE
3: LEFT SHIFT TWICE
4: LEFT SHIFT 3 TIMES
5: LEFT SHIFT

SPEC 677: MANUAL WEIGHT FUNCTION KEY

0: DISABLE
1: ENABLE

SPEC 678: PRINTING OF ITEM LABEL AFTER WEIGHT CHANGE

0: INHIBIT
1: ALLOW

SPEC 679: CATTY AND TAEI (TAIWAN)

0: DISABLE
1: ENABLE

SPEC 680: TARE CLEAR WHEN EXIT FROM Z, PASSWORD MODE AND CHANGING OF SPECIFICATIONS (REZERO+141 & REZERO+142)

0: NO
1: YES

SPEC 681: EURO SECOND PRICE ROUNDING METHOD

0: ROUNDING
1: TRUNCATING
2: CUT UP

SPEC 682: ADDITIONAL EURO SECOND 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 AND Y10 CUT OFF

SPEC 683: FOREIGN CHARACTER FOR STANDARD COUNTRIES

0: NO
1: GB CODE

SPEC 684: CALIBRATION AT 1/5 OF THE CAPACITY

0: DISABLE
1: ENABLE

SPEC 685: AUTO SELECTION BETWEEN TWO LABEL FORMATS

0: INHIBIT
1: ALLOW

SPEC 686: ROUNDING FOR WEIGHT

0: NO
1: YES

SPEC 687: PROPORTIONAL TARE

0: NO
1: YES

SPEC 688: SM500 SELF-SERVICE

0: NO
1: YES

SPEC 689: CONSECUTIVE COMMODITY NAME DISPLAY INTERVAL

0: 1 SEC
1: 2 SEC
2: 4 SEC
3: 6 SEC

SPEC 690: TEST PROGRAM

0: DISABLE
1: ENABLE

SPEC 691: ONE TOUCH TARE

0: ENABLE
1: DISABLE

SPEC 692: SCROLLING MSG (SM300 ONLY)

0: NO
1: YES

SPEC 693: FLEXI SELF SERVICE KEY GROUPING

0: NO
1: YES

SPEC 694: WEIGHT HOLD FUNCTION (SM300)

0: DISABLE
1: ENABLE

SPEC 695: CLERK PASSWORD SETTING (CA ONLY)

0: DISABLE
1: ENABLE

SPEC 696: QUANTITY SYMBOL RECALCULATION

0: NO
1: YES

SPEC 697: RESERVE

0: NO
1: YES

SPEC 698: DEC PLU TARE

0: NO
1: YES

14.3 Weigh & Measure Specification [REZERO]+[1][4][1] (For SM90TS, SM500TS & SM-720TS)**SPEC 195: NUMBER OF CHARACTER PAGES**

0: 3 PAGES
1: 4 PAGES
2: 5 PAGES
3: 6 PAGES

SPEC 258: SLT PRESET NAME PROGRAMMING

0: PLU PROGRAMMING
1: KEY ASSIGNMENT

SPEC 264: DIRECT ACCESS TO CLERK ADD MODE

0: NO
1: YES

SPEC 265: SELECT NO OF FUNCTION KEY PAGES

0: 3 PAGES
1: 4 PAGES
2: 5 PAGES
3: 6 PAGES

SPEC 269: FUNCTION KEY NAME SETTING

0: ALLOW
1: INHIBIT

15. REVISION RECORDS

REVISION RECORDS					
Serial No	Date	Rev. Status	Description of Changes	Software Version	Remarks
001	Mar '06	00			Tentative Edition
002	July '06	01	1) Add Firmware Upgrade, Maintenance, Hardware Setting, Miscellaneous, Block Diagram, and Specifications and add 30Kg disassembly.	V29.246	Edition 1
003	Apr '07	02	1) Edit Safety Information and adding Safety Regulations message. 2) Edit the Printing Speed spec. 3) Change the Cash Drawer Mini Dim connector to RJ11 connector. 4) Change the IBM Keyboard connector to PS2 Keyboard connector. 5) Adding the TDP, TEB, TEV and Hanging type dimension drawing. 6) Adding the Exploded View of Pole, Bench and Hanging type. 7) Adding the Hanging Type Disassembly. 8) Adding the Treatment of hazardous material. 9) Wireless LAN Kit Installation and WLAN Configuration.	V29.246	Edition 2
004	Jun '07	03	1) Adding the Hanging scale LAN Kit installation and WLAN Configuration. 2) Change the DP, EB, EV, TDP, TEB, TEV and Hanging type dimension. 3) Adding the BS (Self Service type) scale dimension.	V29.246	Edition 3
005	Aug '08	04	1) Adding France Language in Safety Information. 2) Add Information of Default Country Spec Setting, Calibration, User Setup Setting and IP Address Setting for Touch Pole, Touch Bench and Touch Elevated Type. 3) Add Information of Hardware Setting and Adjustment for Touch Pole, Touch Bench and Touch Elevated Type.	V29.246	Edition 4
006	Aug '09	05	1) Adding the Shift between New and Old Type Customer Display LCD to Activated. 2) Remove the 108 key from specification. 3) Change the Cash Drawer Pin 3 & Pin 5 to Not Connection. 4) Removing RS485 and Ethernet Test from Diagnostic test function. 5) Remove the 4MB memory extension board change to 8MB memory extension board in specification. 6) Remove the 72mm Printer option from specification. 7) Adding the BS type Block diagram. 8) Change the Power AC supply auto switching to manual set by jumper setting.	V29.431	Edition 5

