



# Service Manual

SM-5300X/SM-5300X LL

PC SCALE PRINTER  
Tentative Edition

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# Notice

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

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DIGI SINGAPORE PTE. LTD.,  
4 Leng Kee Road,  
#06-01 SiS Building,  
Singapore 159088.

# Safety Information

The operator of the equipment shall comply with the safety and warning indications and procedures outlined in this document. DIGI SINGAPORE 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 DIGI SINGAPORE PTE. LTD. has indicated that its hardware and software used in the product may require additional updates in the future as our product is continually under development. The need for such updates most likely applies to the Printer software.



## CAUTIONS:

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

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

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

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

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

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

# Safety Information



## 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.



## AVERTISSEMENT ÉLIMINATION:

LA BATTERIE PEUT ÊTRE RÉGLEMENTÉE PAR UNE RÉGLEMENTATION NATIONALE OU LOCALE. S'IL VOUS PLAÎT SUIVEZ LES INSTRUCTIONS DE RÈGLEMENT ADÉQUAT. CAPACITÉ ÉLECTRIQUE EST LAISSÉE DANS UNE PILE AU REBUT ET QUAND ON CONTACT **AVEC D'AUTRES MÉTAUX**, CELA POURRAIT CONDUIRE À LA DISTORSION, FUITE, UNE SURCHAUFFE OU UNE EXPLOSION, ALORS ASSUREZ-VOUS QUE COUPER/CASSER LE JAMBES BATTERIE ET LE COUVERCLE LE SIGNE (+) ET LE (-) DES BORNES AVEC DU RUBAN DE FRICTION OU CERTAINS AUTRE ISOLANT AVANT LEUR ÉLIMINATION.

WARNING DISPOSAL:	AVERTISSEMENT ÉLIMINATION:
 Cut / Break the Battery Legs	 Tape Battery Bande Batterie

Please keep hand clear while Thermal Head in hot temperature



CAUTION USER OF EXTREME TEMPERATURE

ATTENTION UTILISATEUR D'UNE TEMPERATURE EXTREME

# Cutter Safety Information

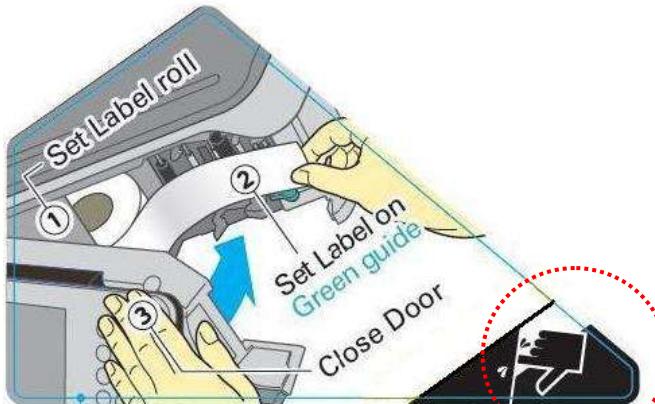
## WARNING:

Auto cutter, keep hand clear during operation.

THIS EQUIPMENT IS NOT SUITABLE FOR USE IN LOCATIONS WHERE CHILDREN ARE LIKELY TO BE PRESENT

CET APPAREIL NE PEUT PAS ÊTRE UTILISÉ DANS DES LIEUX OÙ LES ENFANTS SONT PROBABLES À PRÉSENTER

Please careful the hand when close the printer door.

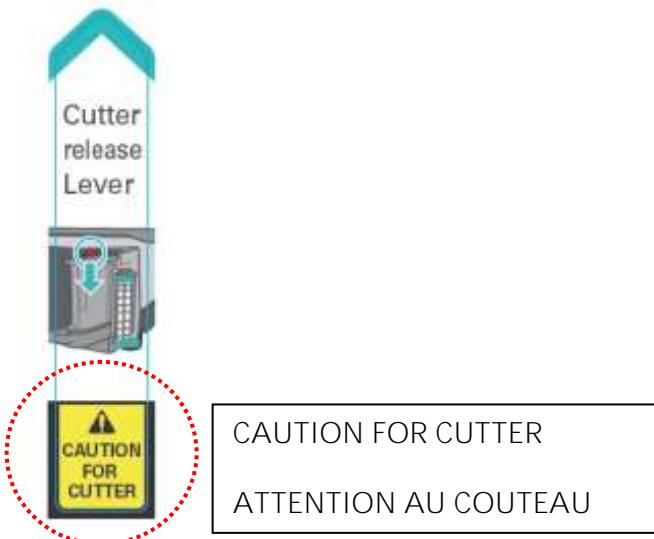


CAUTION FOR PINCHING HAND

ATTENTION RISQUE DE PINCEMENT

*Note: This label only applies to machine come with Auto Cutter.*

Please careful the hand when press the cutter release lever.



*Note: This label only applies to machine come with Auto Cutter.*

# Cutter Safety Information

Please keep hands clear while operating.

ISO Symbol	Caution in 2 languages
 BLADE HAZARD LAME TRANCHANTE	

# Safety Regulation



## 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 a portable uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements:

- 1) Please do not attach any decorative components with metal parts to this equipment.
- 2) The antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

#### FCC Radiation Exposure Statement: (Canada)

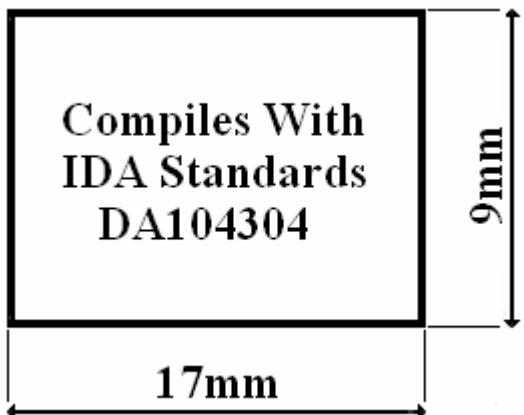
This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To comply with FCC RF exposure compliance requirements:

- 1) The antenna used for this transmitter must be installed and operated with minimum 20cm between the antenna and users.
- 2) The antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

# Safety Regulation

IDA Compliance Statement: (Singapore)

This equipment registered to comply with IDA (Info-Communications Development Authority of Singapore) Standard under Dealer's Class License.



IDA Label

# Treatment and Recovery of WEEE

Component listing of Hazardous Material

To all user of DIGI product in the European Union

Thank you for using DIGI product.

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

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



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

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

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

Items	Y	N	Identification	Removal procedure	Comments
<ul style="list-style-type: none"><li>○ Fluids</li><li>○ Polychlorinated biphenyls (PCB) containing capacitors.</li><li>○ Mercury containing components, such as switches or backlighting lamps.</li><li>○ Printed circuit boards of mobile phones.</li><li>○ Toner cartridges, liquid and pasty, as well as color toner.</li></ul>		● ● ● ● ●			

# Treatment and Recovery of WEEE

Items	Y	N	Identification	Removal procedure	Comments
<ul style="list-style-type: none"> <li>○ Plastic containing brominated flame-retardants.</li> <li>○ Asbestos waste.</li> <li>○ Cathode ray tubes.</li> <li>○ Chlorofluorocarbons (CFC), hydro chlorofluorocarbons (HCFC) orhydrofluorocarbons (HFC), hydrocarbons (HC).</li> <li>○ Gas discharge lamps.</li> <li>○ Components containing refractory ceramic fibred as described in Commission Directive 97/69/EC of 5 December 1997.</li> <li>○</li> <li>○ Components containing radioactive substances.</li> <li>○</li> <li>○ External electric cables.</li> <li>○</li> </ul>					
<ul style="list-style-type: none"> <li>○ Batteries.</li> <li>1. Lithium Battery.</li> </ul>			AC Power Cord.		<p>Refer to  <u>Safety</u>  <u>Information</u>  → <u>Warning</u>  <u>Disposal</u></p>

# Treatment and Recovery of WEEE

Items	Y	N	Identification	Removal procedure	Comments
o Other printed circuit boards greater than 10 square centimeters.	●				
o Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 cm <sup>2</sup> and all those back-lighted with gas discharge lamps.	●				

# Product Information

## 1.1 Model Specification

Variation	: <u>Description:</u>	<u>Model:</u>	<u>Dimension (W x H x D in mm):</u>
	Bench [10.1" & 7.0"]	- SM-5300B X	- 360 x 143 x 472
	Bench Linerless [10.1" & 7.0"]	- SM-5300B X LL	- 360 x 143 x 472
	Pole [10.1" & 7.0"]	- SM-5300P X	- 360 x 542 x 500
	Pole Linerless [10.1" & 7.0"]	- SM-5300P X LL	- 360 x 542 x 500
	Elevated [10.1" & 10.1"]	- SM-5300EV X	- 360 x 574 x 510
	Elevated Linerless [10.1" & 10.1"]	- SM-5300EV X LL	- 360 x 574 x 471
	Self-Service Pole [12.1"]	- SM-5300SSP X	- 360 x 637 x 481
	Self-Service Pole Linerless [12.1"]	- SM-5300SSP X LL	- 360 x 637 x 442
	Self-Service Pole [19"]	- SM-5300SSP X	- 442 x 761 x 480
	Self-Service Pole Linerless [19"]	- SM-5300SSP X LL	- 442 x 761 x 442
	Hanging Scale [10.1" and 10.1"]	- SM-5300H X	- 400 x 814 x 329
	Hanging Scale Linerless [10.1" and 10.1"]	- SM-5300H X LL	- 400x 814 x 329
CPU	: Arm Cortex® A9™ 1.0GHz		
Storage	: 8GB SDHC Card		
System Memory	: On-board 1GB SDRAM 800MHz		
Operating System	: Linux		
Database	: Postgres		
Loadcell	: NMB type ( <i>For all countries except USA &amp; Canada</i> )		

# Product Information

## 1.1 Model Specification

Capacity	:	6kg (3kg and less, e = 1g / more than 3kg, e = 2g) 15kg (6kg and less, e= 2g / more than 6kg, e = 5g) 30kg (15kg and less, e = 5g / more than 15kg, e = 10g) 30lb (15lb and less, e = 0.005lb / more than 30lb, e = 0.01lb)
Display Resolution	:	1/3000, 1/6000 or 1/7500 (Single-interval)
Operator Display	:	10.1" TFT WSVGA (1024x600) LCD with LED Backlight, Touch Panel 12.1" TFT SVGA LCD (800x600) with LED Backlight, Touch Panel 19" TFT SXGA LCD with (1280x1024) with LED Backlight, Touch Panel
Customer Display	:	7" TFT WVGA (800x400) LCD with LED Backlight 10.1" TFT WSVGA (1024x600) with LED Backlight
Weight	:	Bench - 10.7Kg (approx.) Pole - 11.7Kg (approx.) Elevated - 13.2Kg (approx.) Self-Service Pole 12.1" - 13.3Kg (approx.) Self Service 19" Pole - 17.0Kg (approx.) Hanging - 14.0Kg (approx.)
Printing	:	<u>SM-5300X Printer (Liner)</u> Print Media - Label / Receipt Paper Paper Width - 62mm (max.) Print Width - 61mm (max.) Print Length - 350mm (max.) Print Speed - 150mm/s* *Subject to the sensitivity of print media Max Roll Diameter - Ø105mm Print Resolution - 300dpi
		<u>SM-5300X LL Printer (Linerless with Auto Cutter)</u> Print Media - Linerless Label/Receipt Paper Paper Width - 62mm (max.) Print Width - 61mm (max.) Print Length - 350mm (max.) Print Speed - 150mm/s* *Subject to the sensitivity of print media Max Roll Diameter - Ø95mm Print Resolution - 300dpi

# Product Information

## 1.1 Model Specification

I/O Interface	: 1 x Ethernet 10/100 Base T 4 x USB (2.0) ports 1 x SD socket 1 x RJ11 Cash Drawer
Optional Interface	: USB WLAN AP-3001G (IEEE 802.11a/b/g/n) USB WLAN AP-3002AN (IEEE 802.11a/b/g/n/ac) NF-02 BS-04

*Note: Specifications are subject to change without notice*

# Product Information

## 1.2 Operating Specification

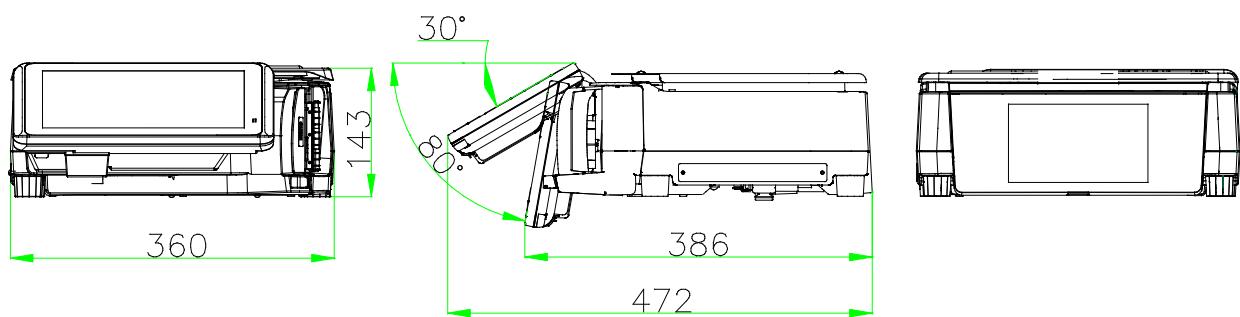
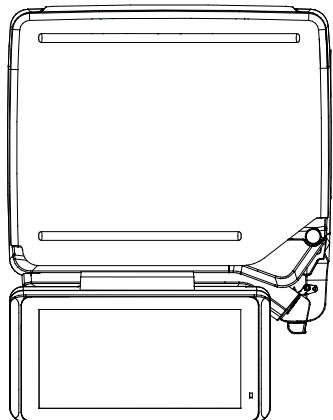
Power Source	:	AC Supply 100 ~ 240V (Auto-switching)
Power Consumption	:	<u>AC 100 ~ 120V</u> Bench/Pole/Elevated - [10.1" Operator and 7" / 10.1" Customer Display] 1.0A max. (0.43A nominal) 56W max. (24W nominal)
		Self-Service Pole (12.1) - [12.1" Operator Display only] 1.1A max. (0.33A nominal) 56W max. (17W nominal)
		Self-Service Pole (19) - [19" Operator Display only] 1.2A max. (0.53A nominal) 64W max. (28W nominal)
		<u>AC 220 ~ 240V</u> Bench/Pole/Elevated - [10.1" Operator and 7" / 10.1" Customer Display] 0.50A max. (0.24A nominal) 56W max. (24W nominal)
		Self-Service Pole (12.1) - [12.1" Operator Display only] 0.53A max. (0.20A nominal) 56W max. (17W nominal)
		Self-Service Pole (19) - [19" Operator Display only] 0.6A max. (0.28A nominal) 64W max. (28W nominal)
Frequency	:	50/60Hz
Operating Temperature	:	-10 °C to +40 °C
Operating Humidity	:	15% to 85%RH

\*Specifications are subject to change without notice

# Product Information

## 1.3 Overall Dimension

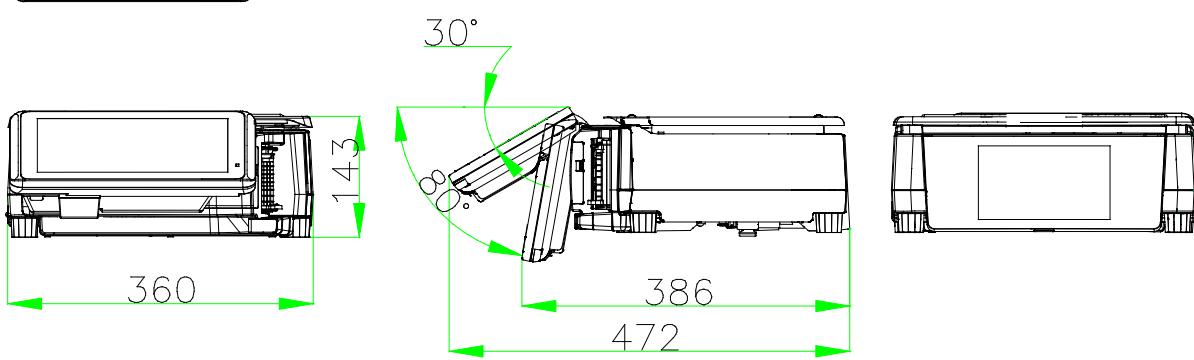
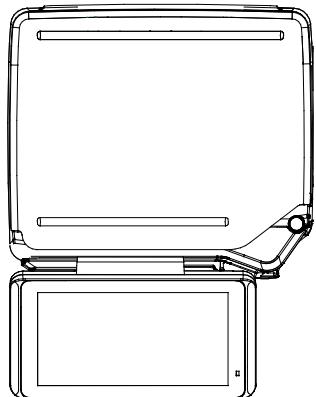
### 1.3.1 Bench (B) (10.1" and 7.0")



# Product Information

## 1.3 Overall Dimension

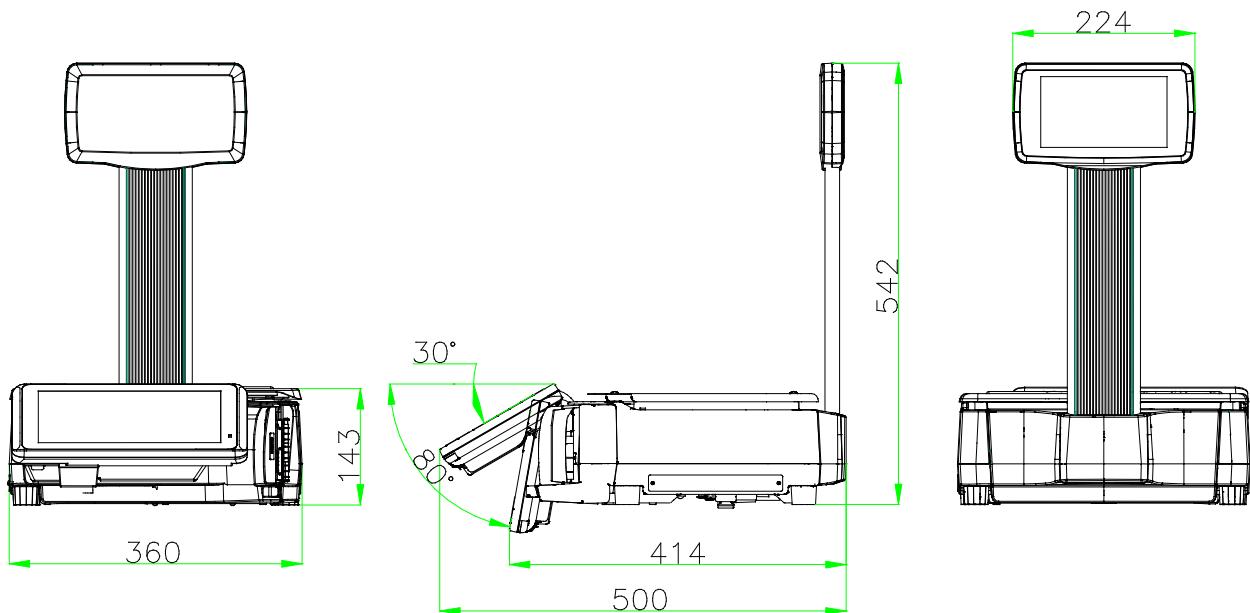
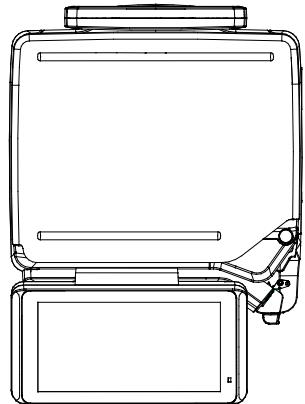
1.3.2 Bench (B) LL (10.1" and 7.0")



# Product Information

## 1.3 Overall Dimension

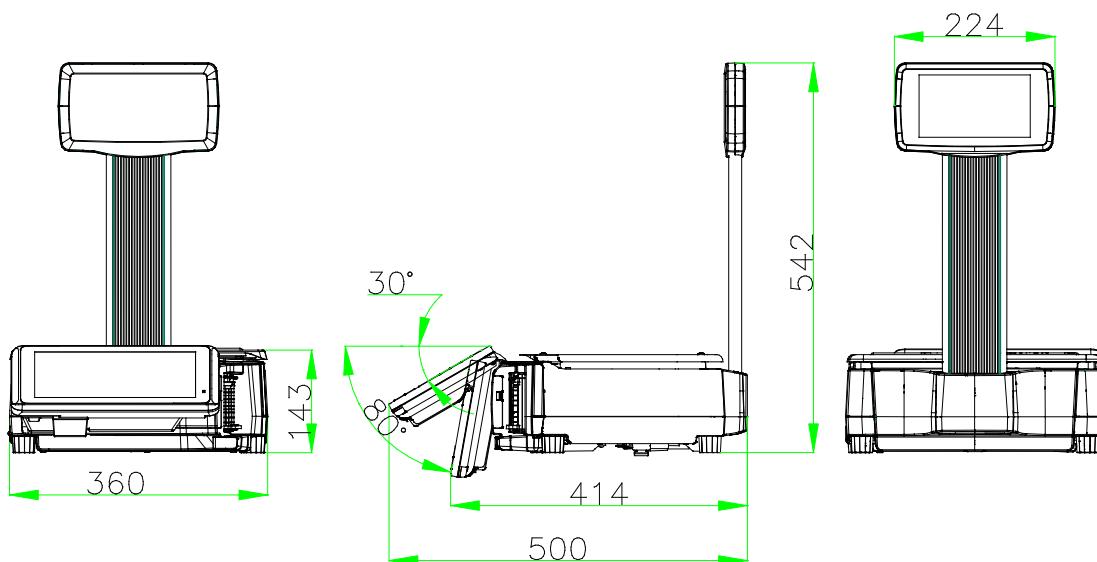
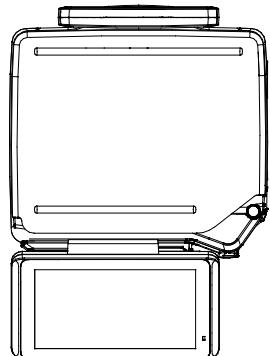
### 1.3.3 Pole (P) (10.1" and 7.0")



# Product Information

## 1.3 Overall Dimension

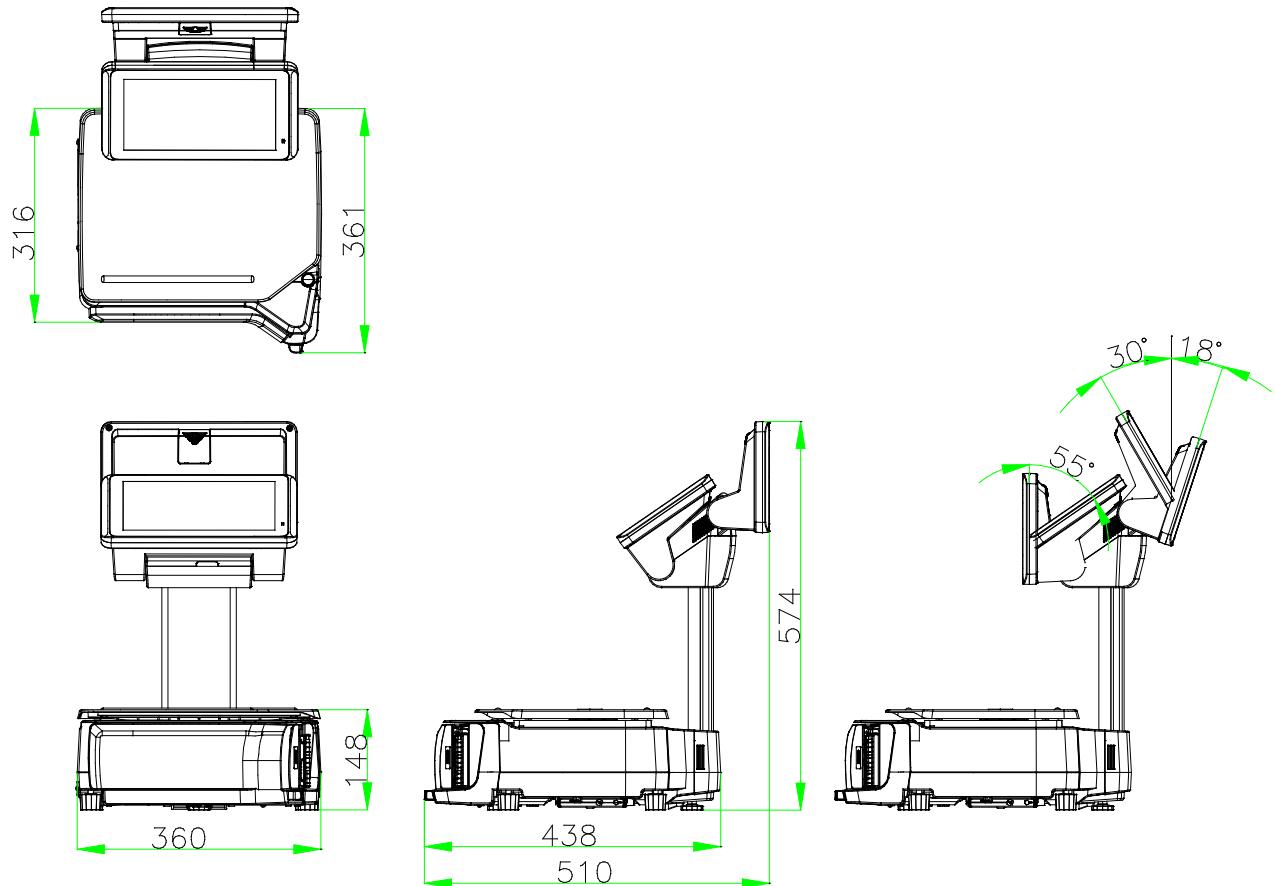
1.3.4 Pole (P) LL (10.1" and 7.0")



# Product Information

## 1.3 Overall Dimension

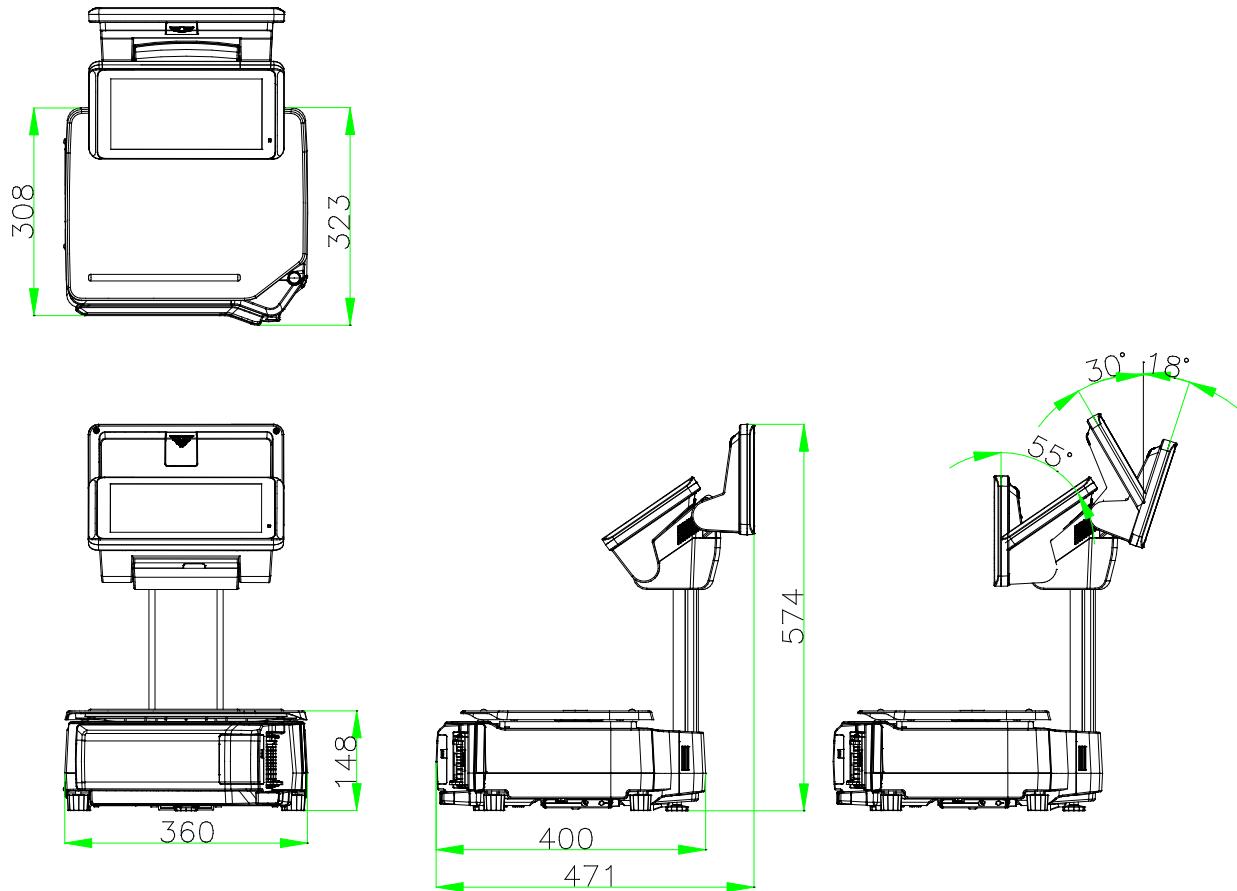
1.3.5 Elevated (EV) (10.1" and 10.1")



# Product Information

## 1.3 Overall Dimension

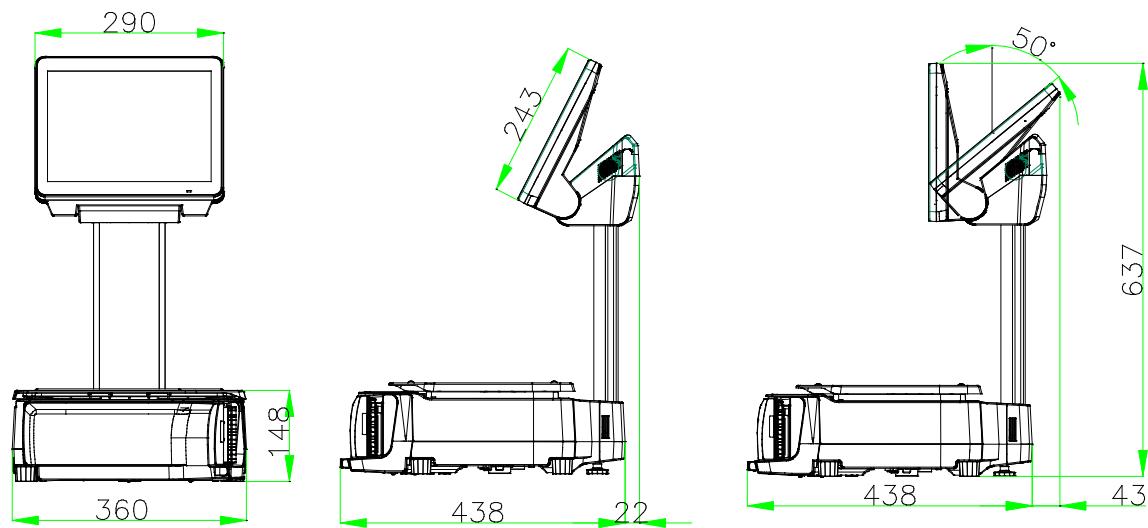
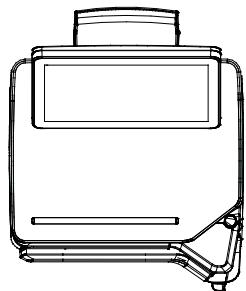
1.3.6 Elevated (EV) LL (10.1" and 10.1")



# Product Information

## 1.3 Overall Dimension

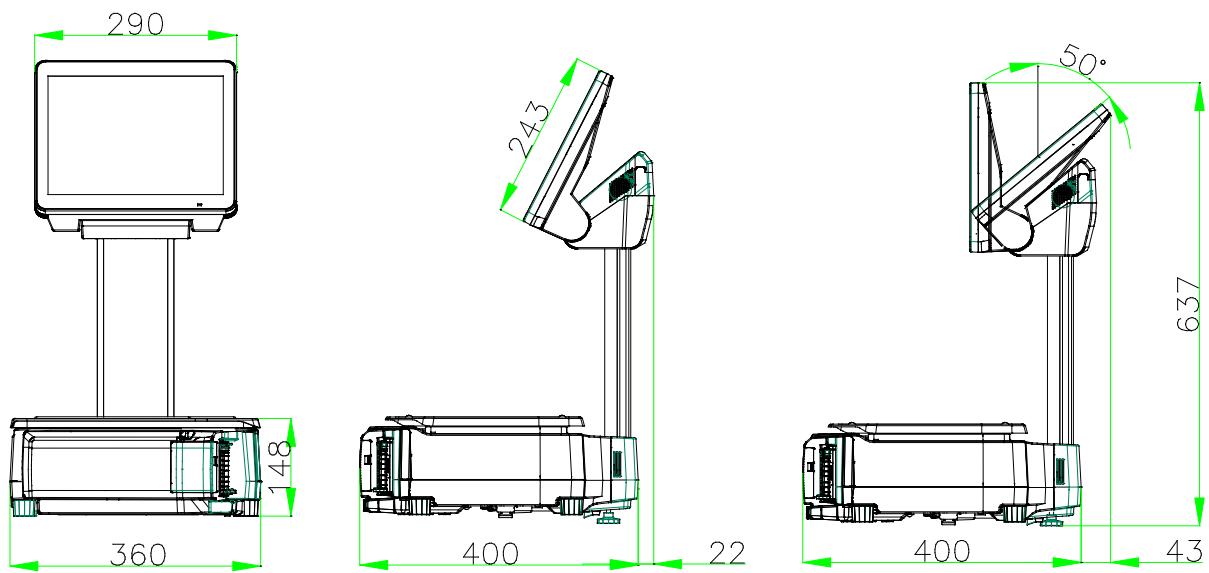
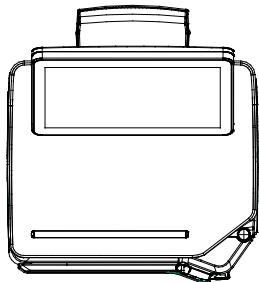
### 1.3.7 Self-Service Pole (SSP) (12.1")



# Product Information

## 1.3 Overall Dimension

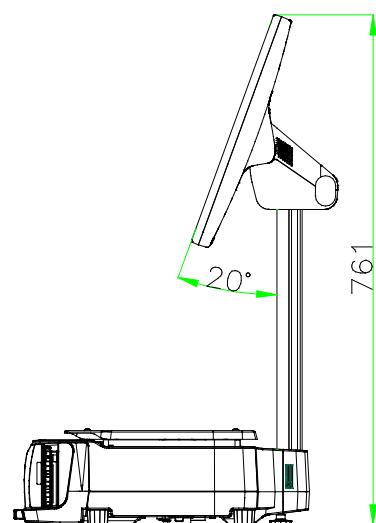
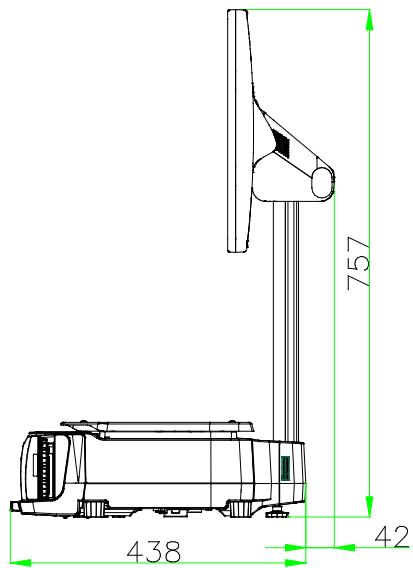
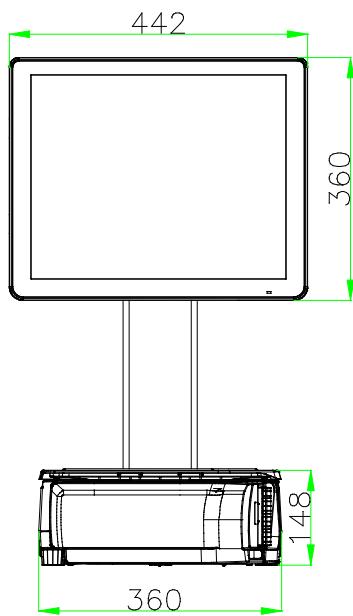
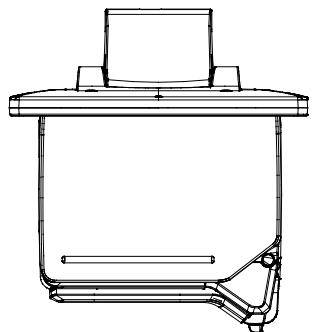
### 1.3.8 Self-Service Pole (SSP) LL (12.1")



# Product Information

## 1.3 Overall Dimension

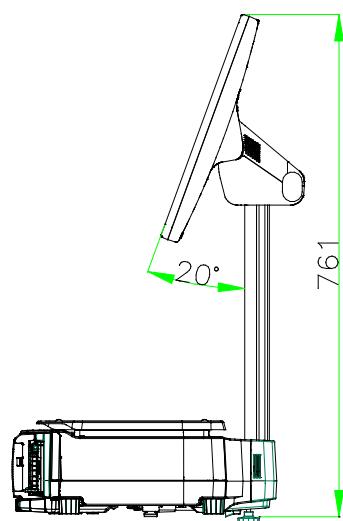
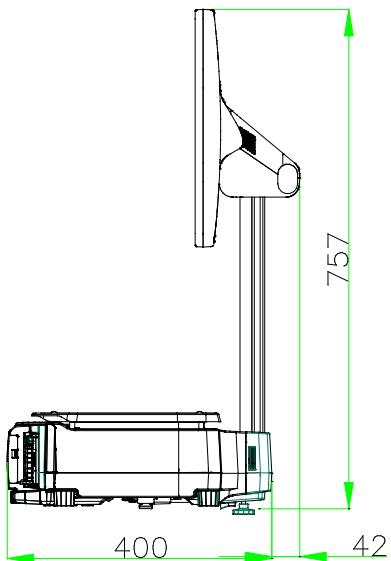
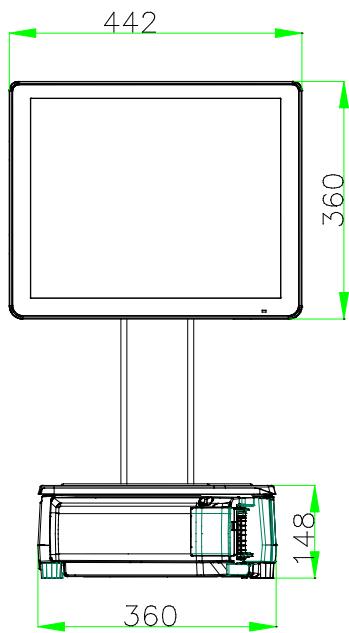
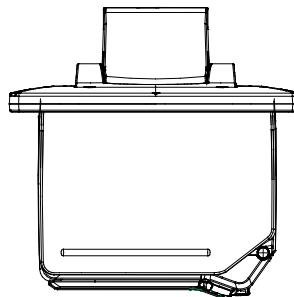
### 1.3.9 Self-Service Pole (SSP) (19")



# Product Information

## 1.3 Overall Dimension

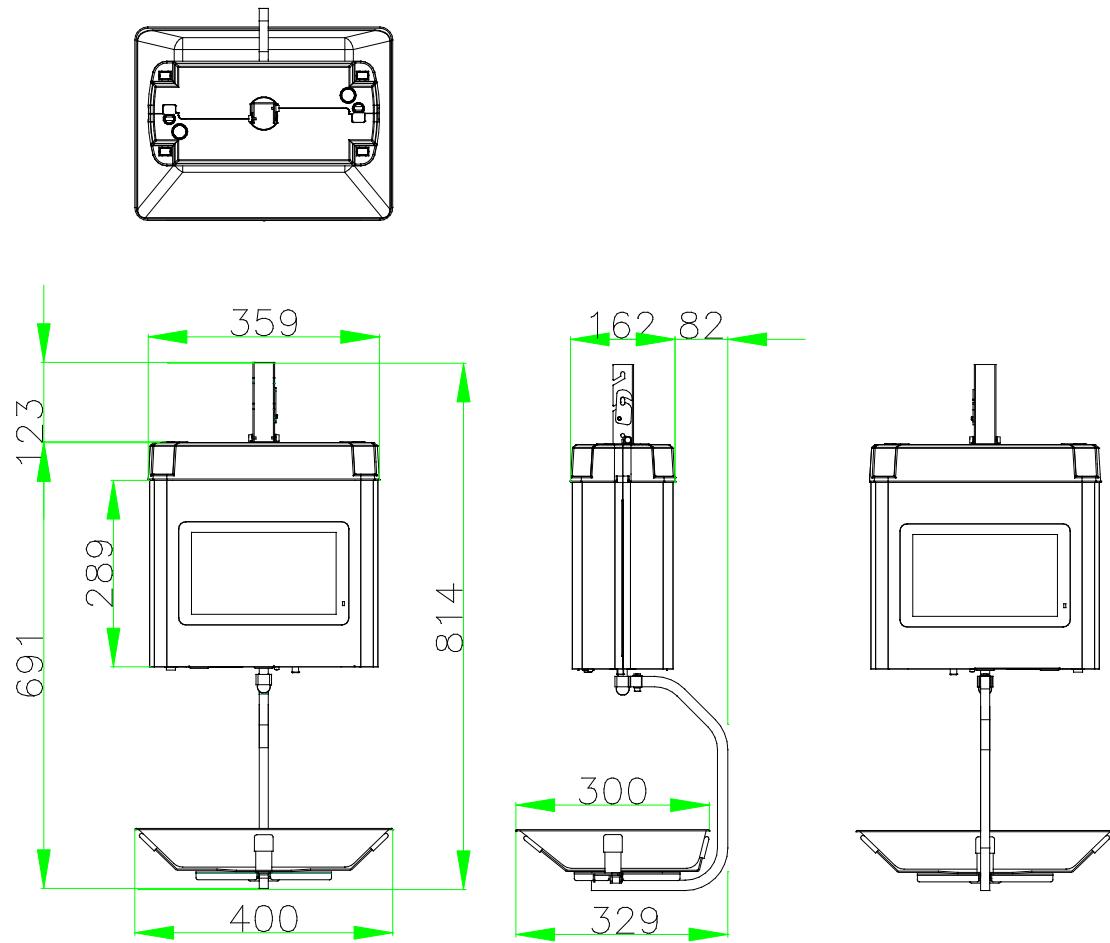
1.3.10 Self-Service Pole (SSP) LL (19")



# Product Information

## 1.3 Overall Dimension

1.3.11 Hanging (H) and Hanging (H) LL (10.1" and 10.1")

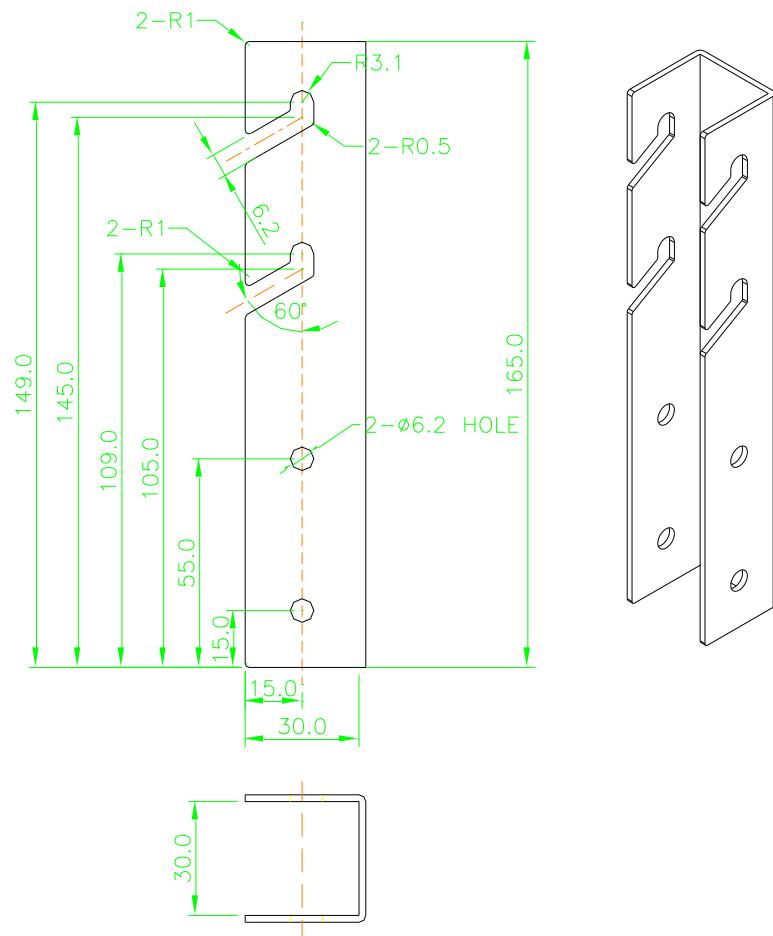


# Product Information

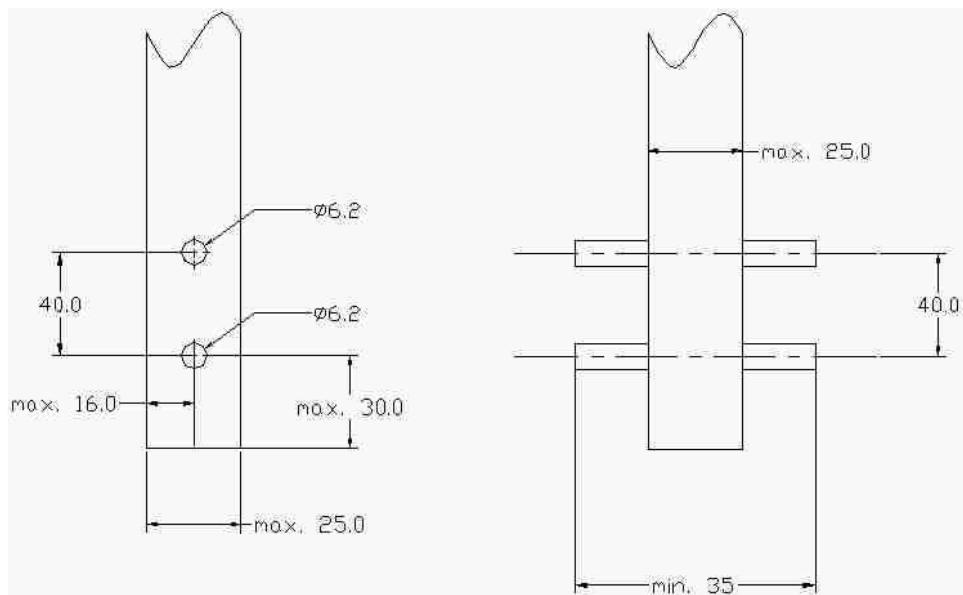
## 1.3 Overall Dimension

### 1.3.11.1 Hanging Scale Hook

#### Hook AA



#### Hook Holder (Suggested Design and Dimension)



# Product Information

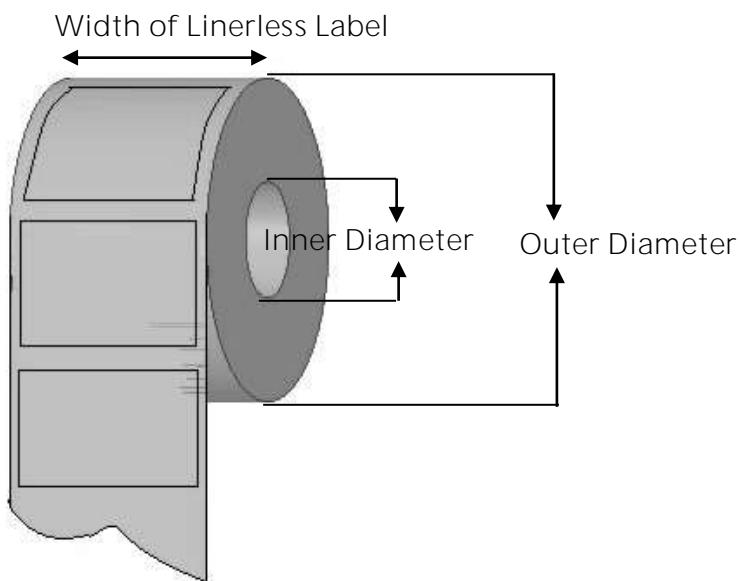
## 1.1 Model Specification

### 1.4.1 Label and Receipt Paper

Outer diameter of rolls :  $\phi 125\text{mm}$  (max.)

Inner diameter of rolls :  $\phi 40\text{mm}$

Width of Label/Receipt Paper : 62mm (max.)



<u>LABEL TYPE</u>	<u>LABEL SIZE</u>	<u>PCS/ROLL</u>
T1	60 x 28	1400
T2	60 x 31	1300
T3	60 x 34	1200
T4/T10	60 x 40	1000
T5/T11	60 x 43	960
T6	60 x 46	900
T7/T12	60 x 49	840
T8	60 x 55	750
T9	60 x 37	1100
S	40 x 28	1400
A / B	40 x 46	900
C	40 x 62	670
F1 – F99 (Free format)	60 (max) x 350 (max)	-

### REMARKS:

i) LABEL SIZE is in Width X Length and in millimeter unit.

ii) F1 to F99 is self-design free format label. Please note the minimum and maximum size.

# Product Information

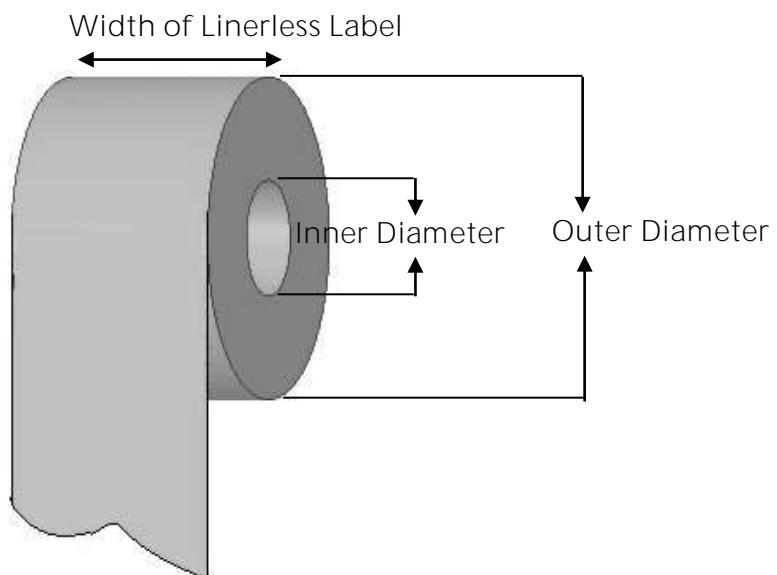
## 1.1 Model Specification

### 1.4.2 Linerless Label

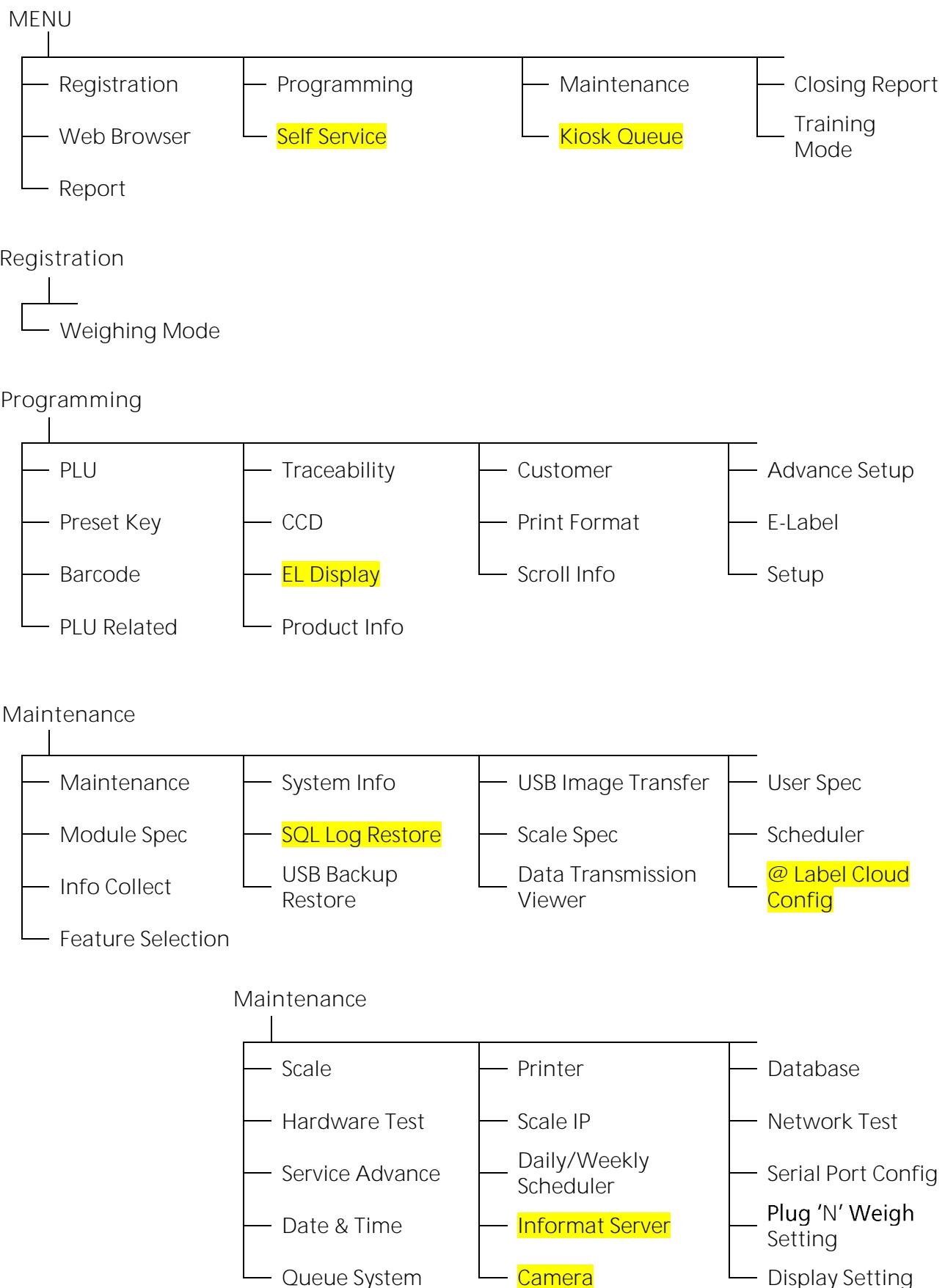
Outer diameter of rolls : 95mm (max.)

Inner diameter of rolls : 40mm

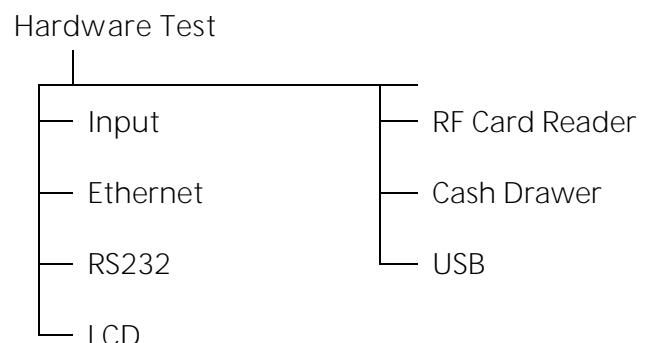
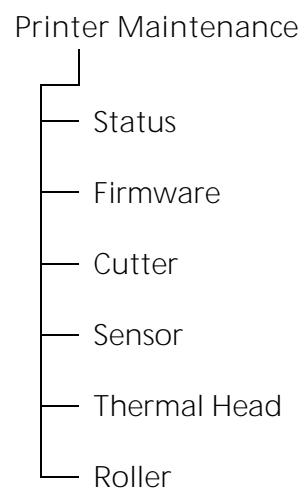
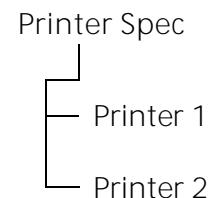
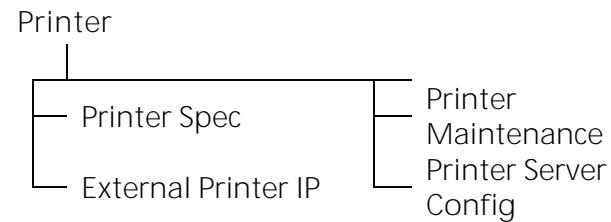
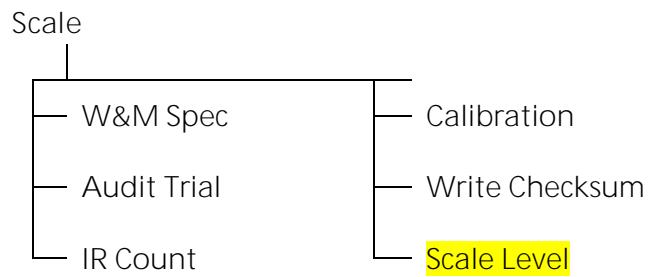
Width of Linerless Label : 62mm (max.)



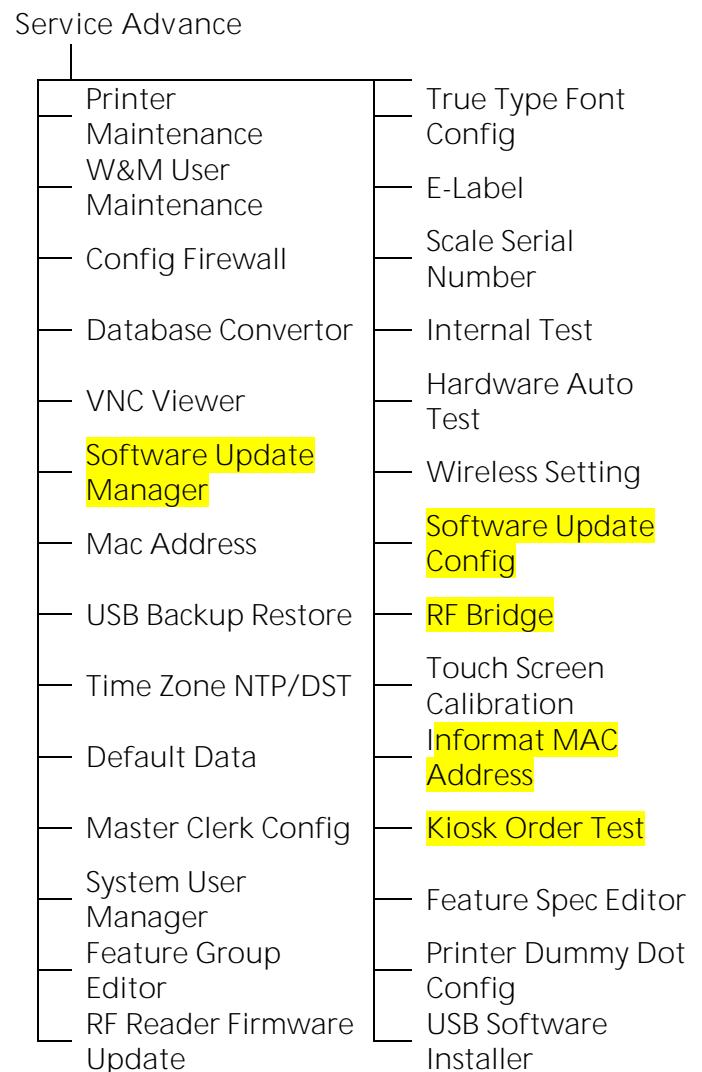
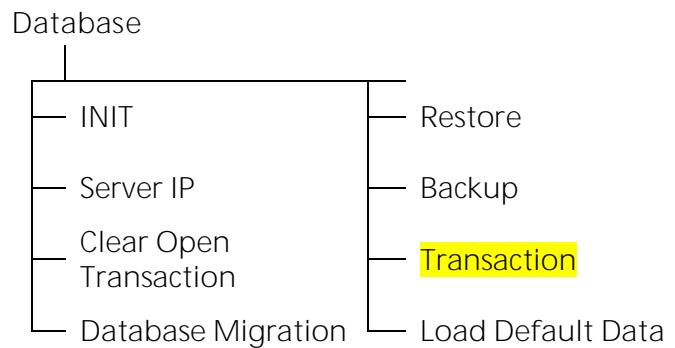
# Software Functional Structure



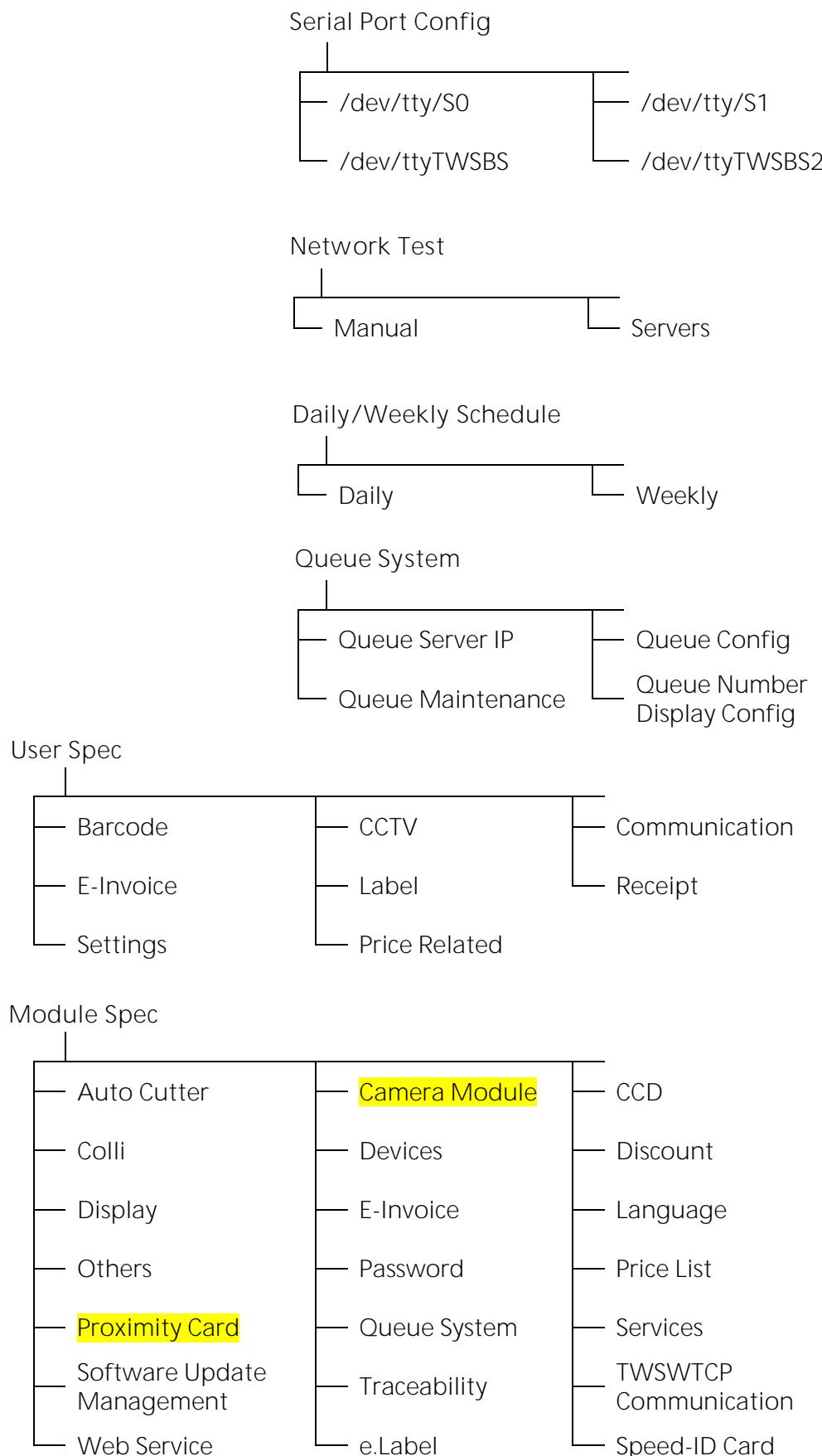
# Software Functional Structure



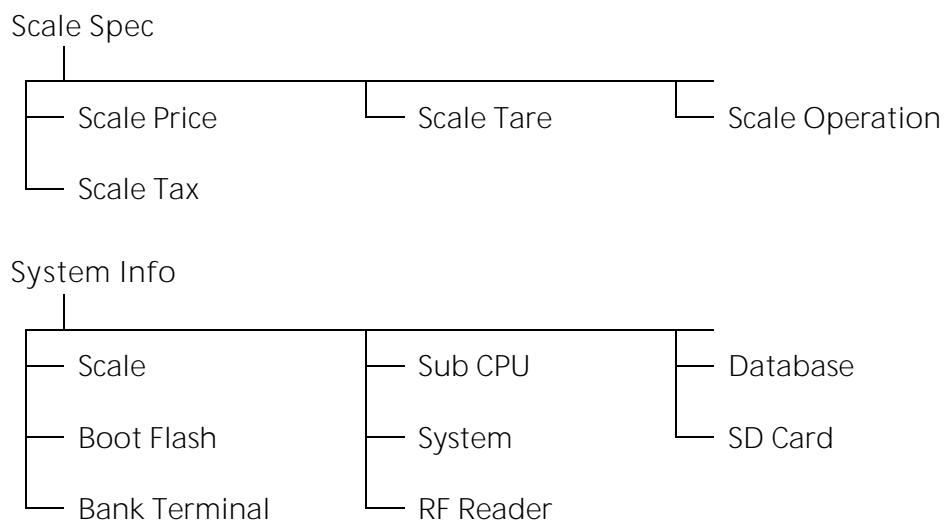
# Software Functional Structure



# Software Functional Structure



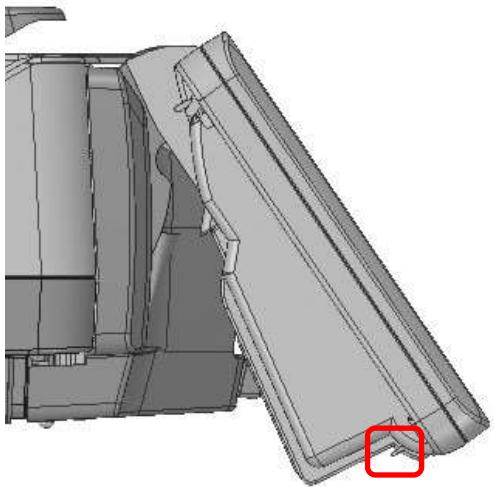
# Software Functional Structure



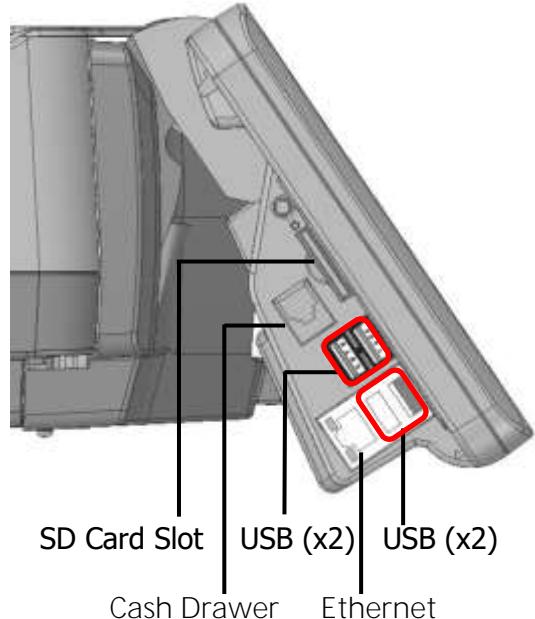
# I/O Port, Span Switch and W&M Sealing

## 3.1 I/O Port

### 3.1.1 Bench/Pole



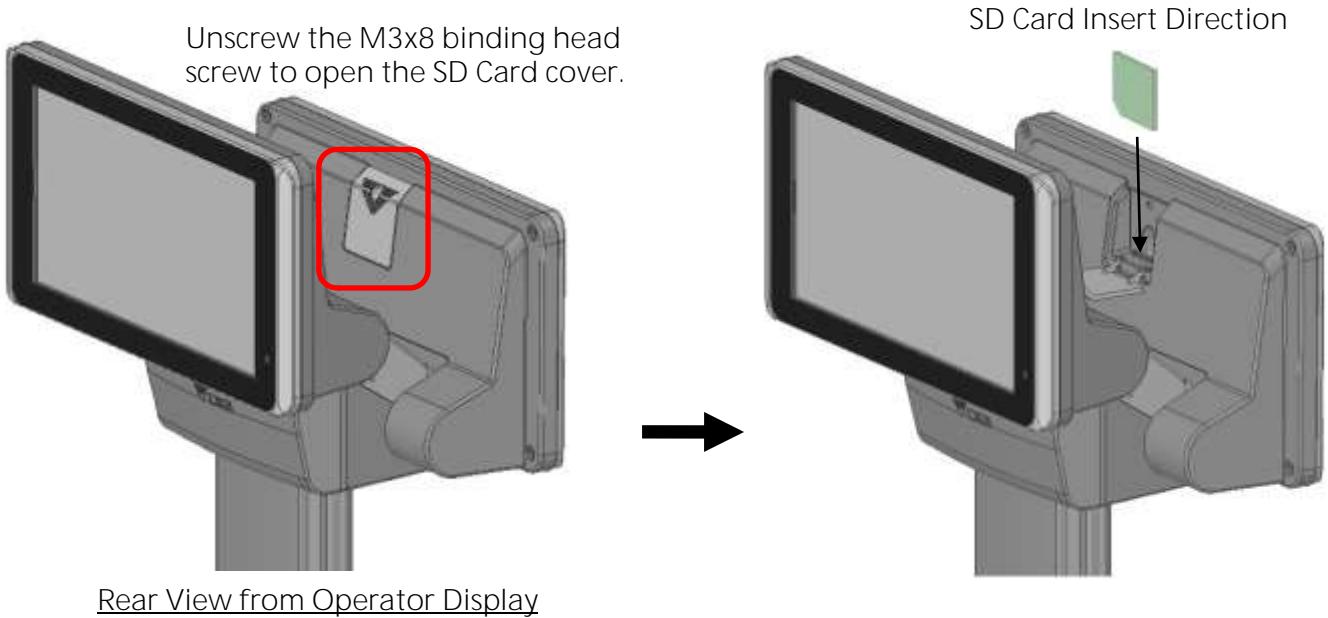
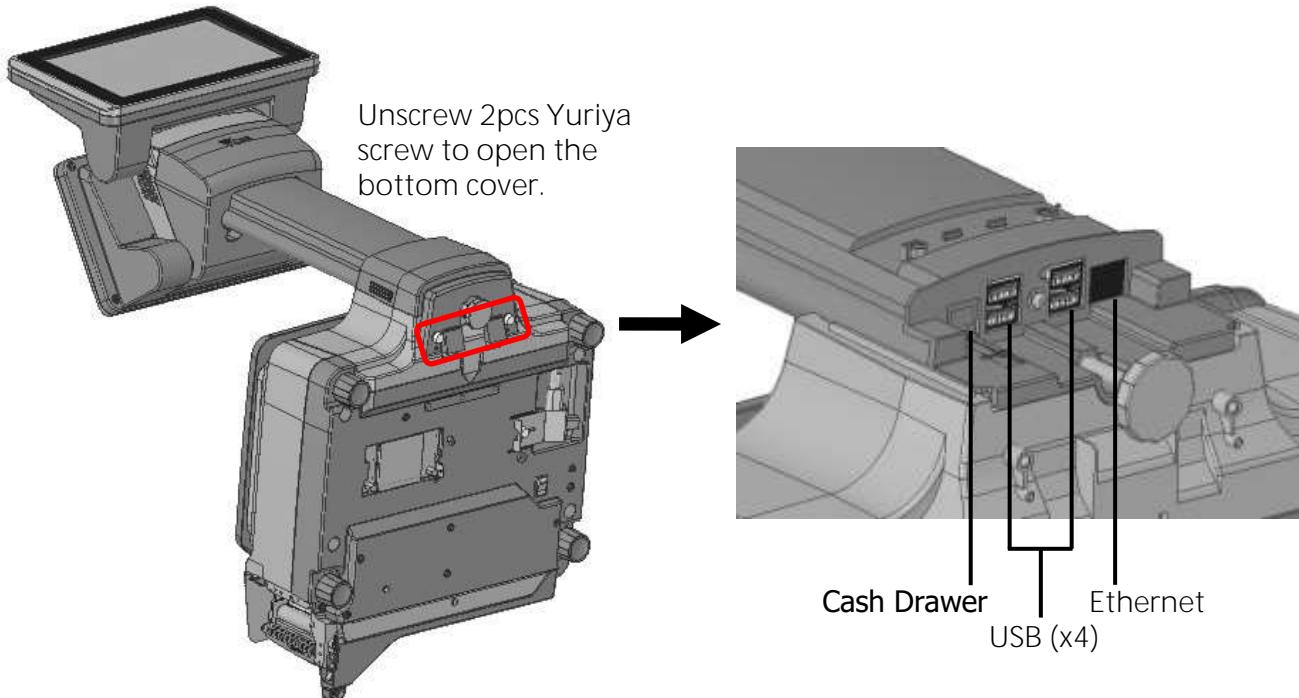
Press the latch to open the I/O Port cover.



# I/O Port, Span Switch and W&M Sealing

## 3.1 I/O Port

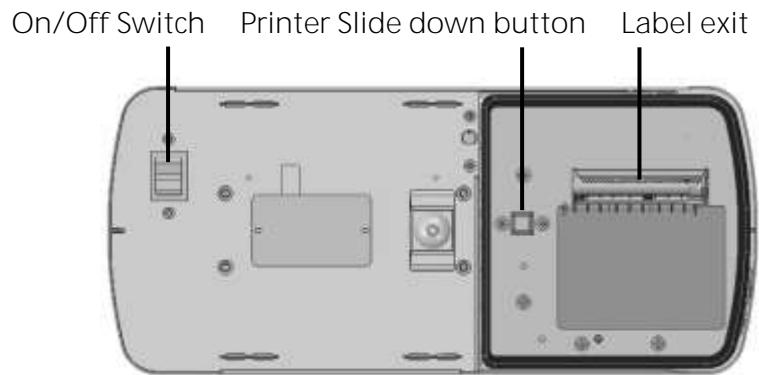
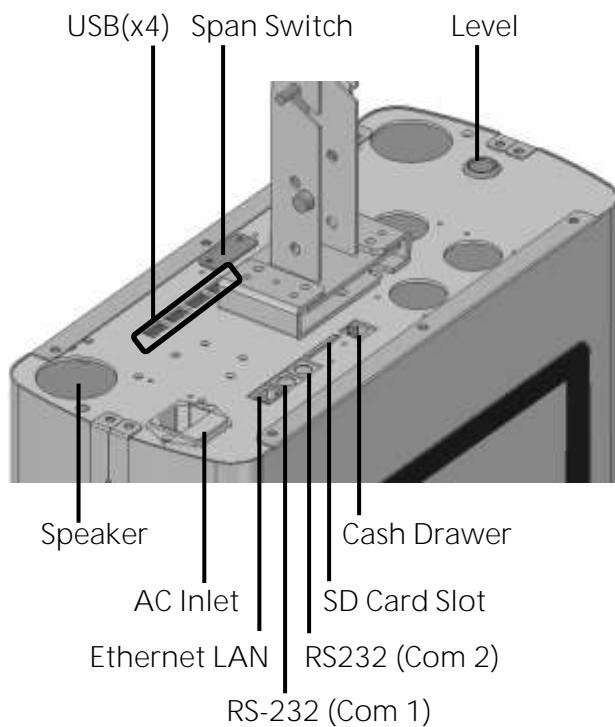
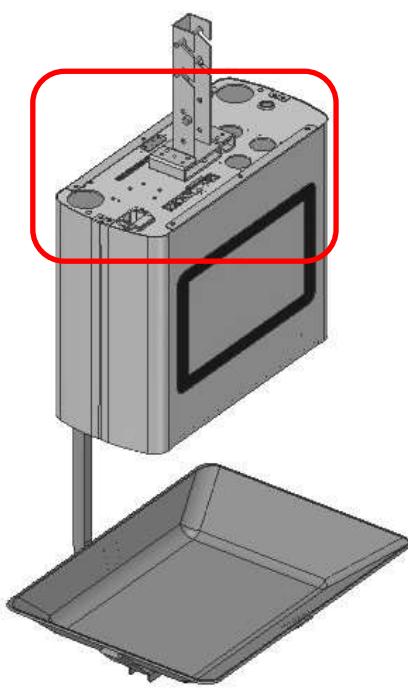
### 3.1.2 Elevated/Self-Service



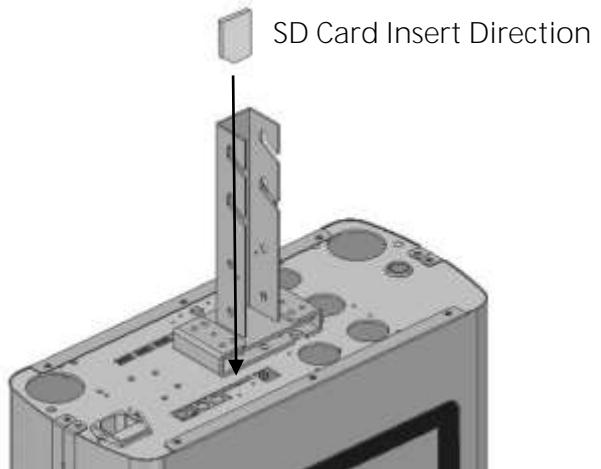
# I/O Port, Span Switch and W&M Sealing

## 3.1 I/O Port

### 3.1.3 Hanging Scale



Bottom View

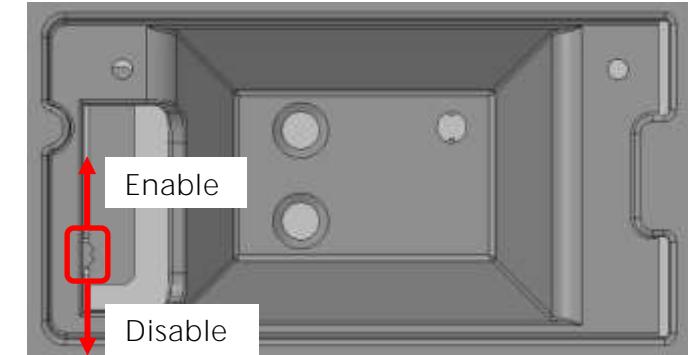
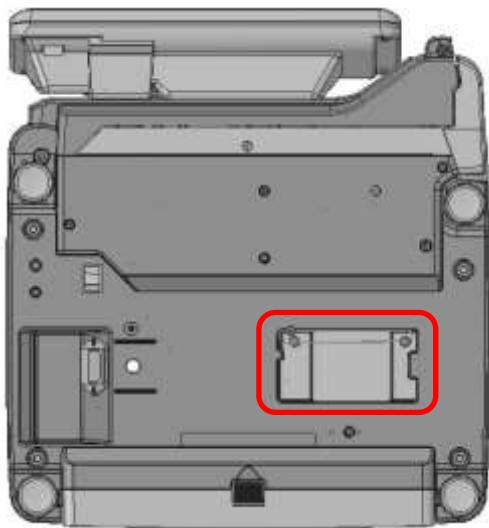


# I/O Port, Span Switch and W&M Sealing

## 3.2 Span Switch

### 3.2.1 Bench/Pole/Elevated/Self-service Pole

Bottom View

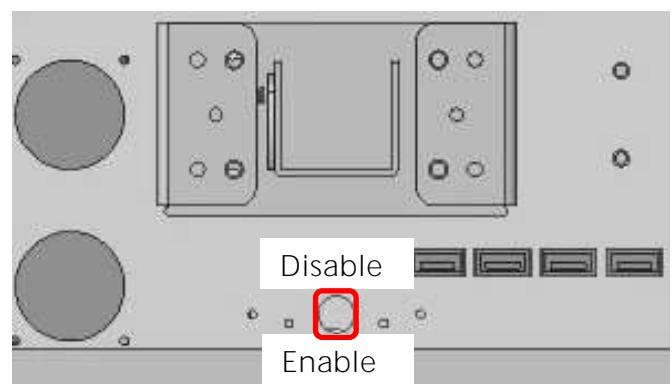
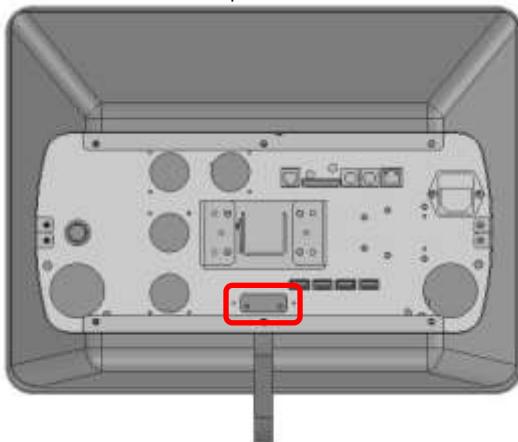


Push button to Enable/Disable the Span Switch

Unscrew 2pcs sealing screw/sticker  
and remove the Span Switch cover

### 3.2.2 Hanging Scale

Top View



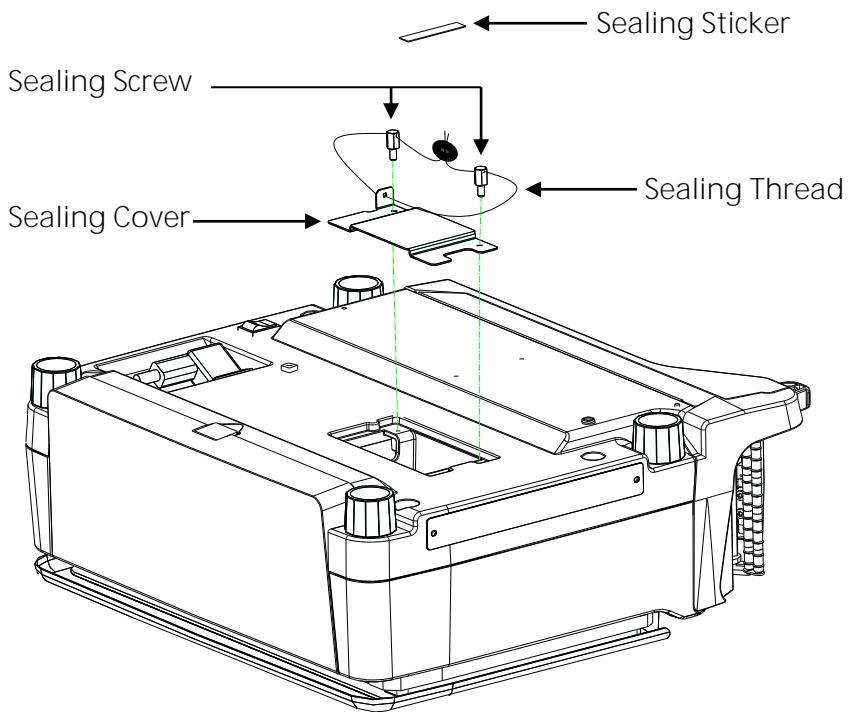
Push the switch to Enable/Disable the Span Switch

Unscrew 2pcs sealing screw/sticker  
and remove the Span Switch cover

# I/O Port, Span Switch and W&M Sealing

## 3.2 Weigh and Measure Sealing

SM-5300X All Variant (except Hanging Scale) Sealing Position

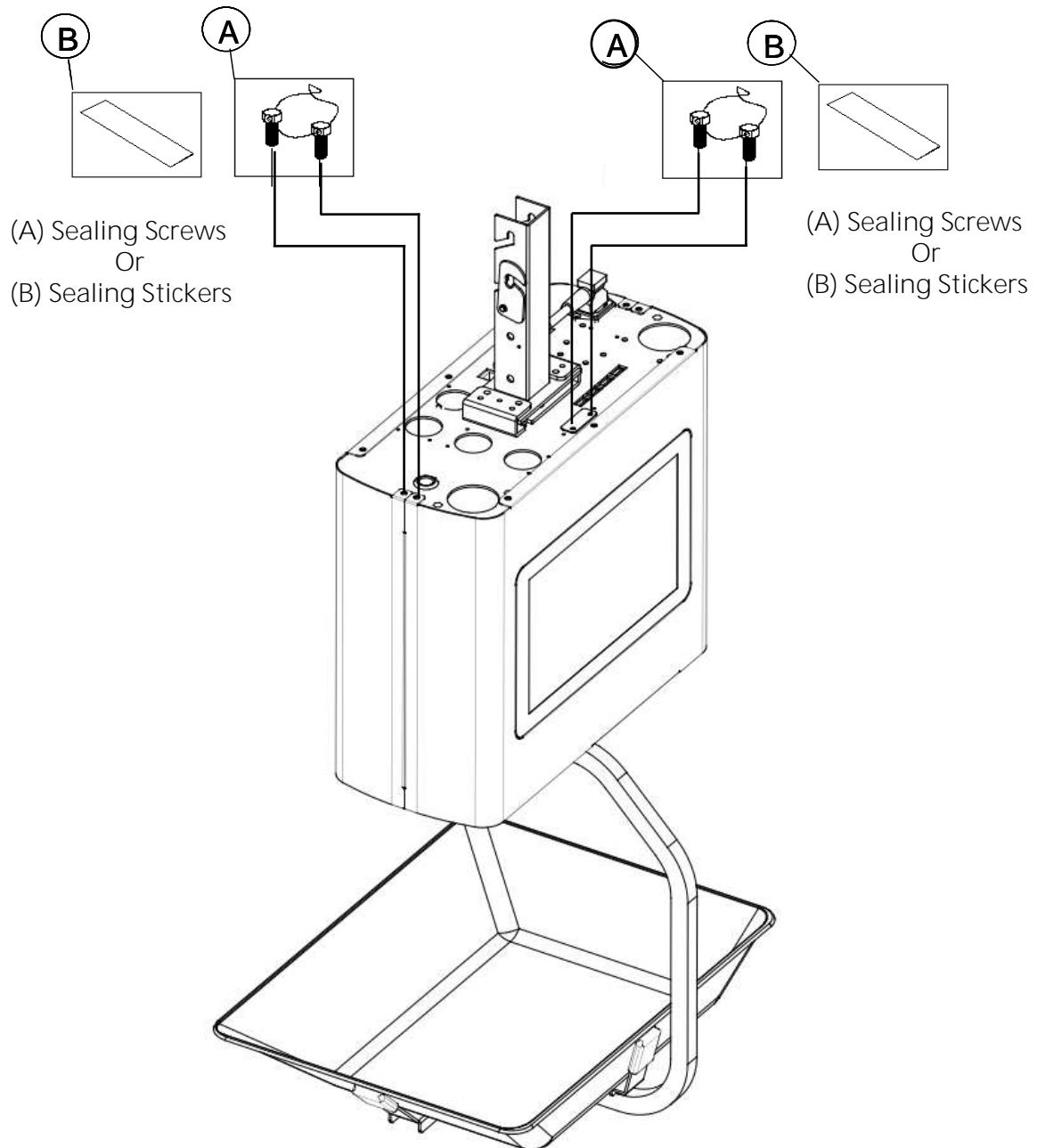


Note: We can use Sealing Screw & Thread or Sticker on the Sealing cover.

# I/O Port, Span Switch and W&M Sealing

## 3.2 Weigh and Measure Sealing

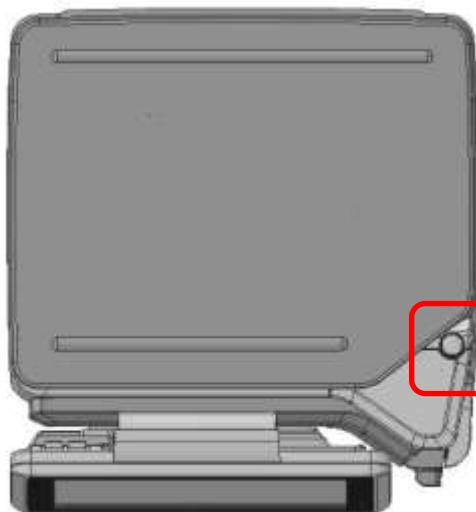
### SM-5300X Hanging Scale Sealing Position



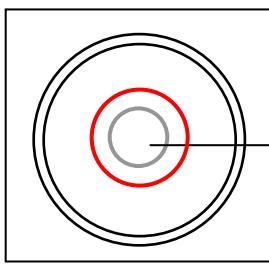
Note: We can use Sealing Screw & Thread or Sticker on the Sealing cover.

# Initial Setup

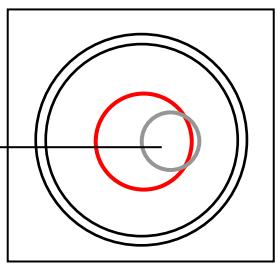
## 4.1 Level Adjustment



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

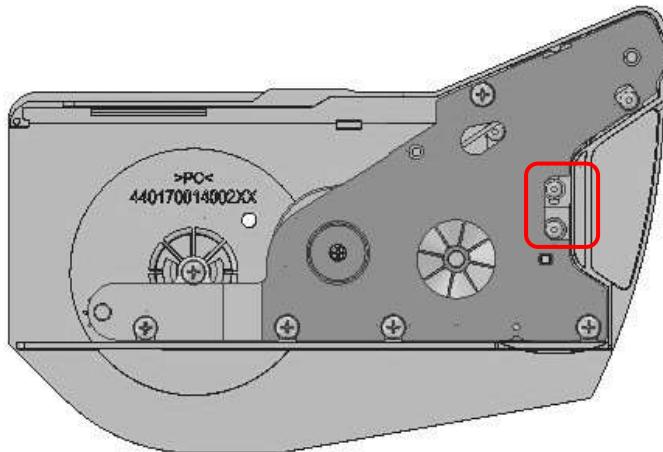


Bubble

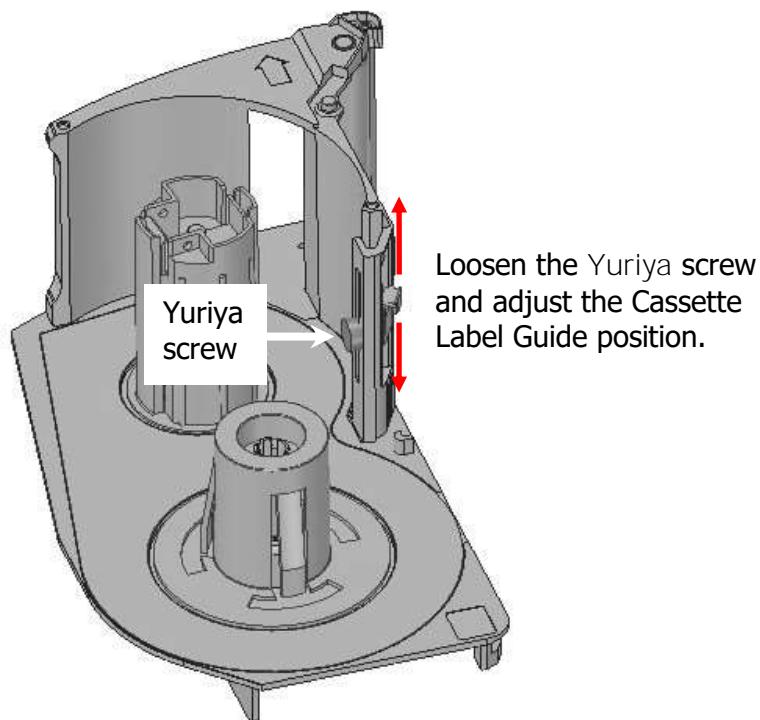


# Initial Setup

## 4.2 Cassette Belt Tension and Label Guide Adjustment



Loosen the screw and adjust the bracket for Belt Tension becomes the Tight (Up) or Loose (Down).



Loosen the Yuriya screw and adjust the Cassette Label Guide position.

# Initial Setup

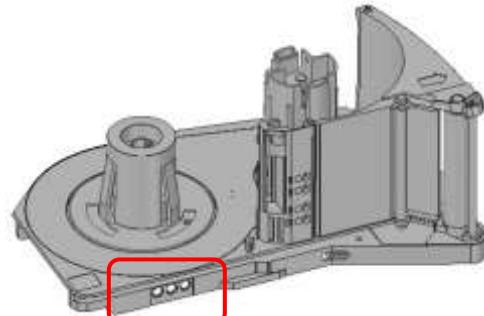
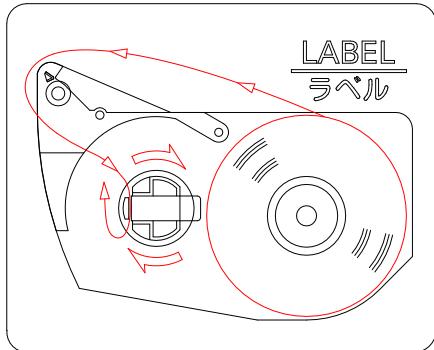
## 4.3 Cassette Label Loading and Printing Option

If printer spec setting [143A016 Printer 1 Label/Receipt Control] is set to [0: By Sensor], the table in below shows the holes setting for the cassette.

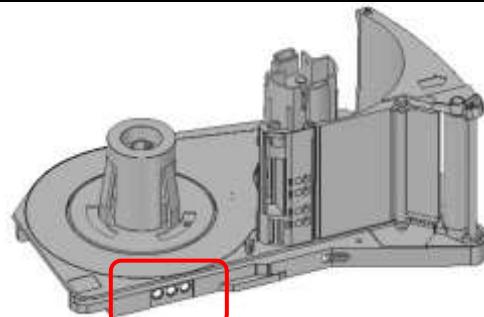
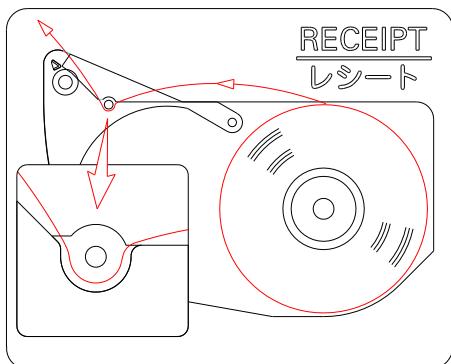
○—Unblock

●—Block (*cover by white paper*)

### Label Printing



### Receipt Printing



# Initial Setup

## 5.8 Bracket for Receipt Paper printing (SM-5500G LL)

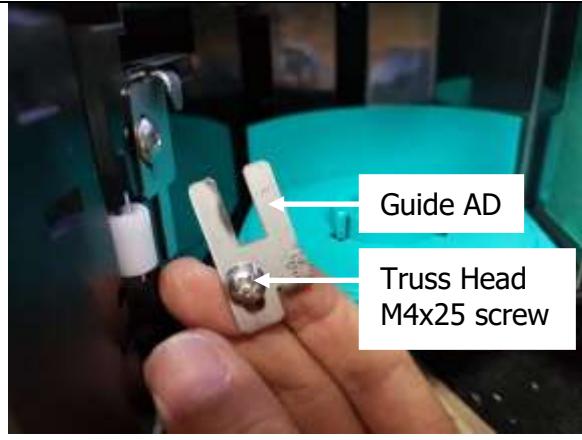
For Linerless scale, Install Bracket (Guide AD) to avoid the Receipt Paper tendency of dropping into the gap, it will cause to drill while printing.



Procedure	Picture
1. Push the printer button slide to left to open the printer door.	
2. Remove upper hole inside the screw.	

# Initial Setup

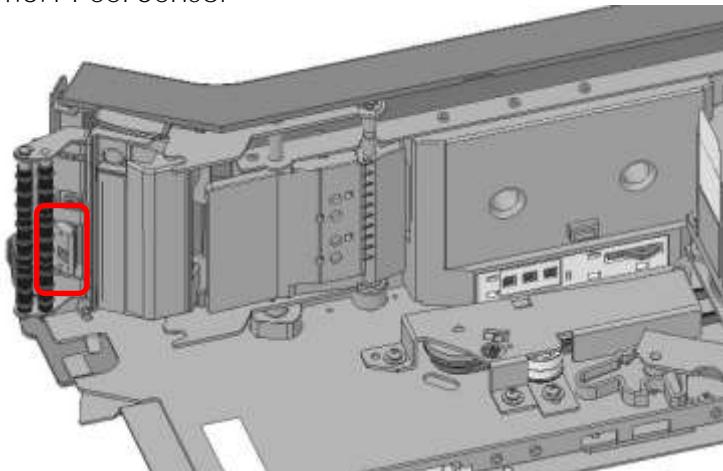
## 4.4 Bracket for receipt paper printing

Procedure	Picture
3. Install 44017004200400 Guide AD (LL PRT Receipt T) with the Truss Head M4x25 screw.	 Truss Head M4x25 screw Guide AD
4. Remove bottom hole inside the screw. Install 44017004200500 Guide AE (LL PRT Receipt B) with the Truss Head M4x25 screw.	 Guide AD Truss Head M4x25 screw
5. After finish will show as picture.	

# Initial Setup

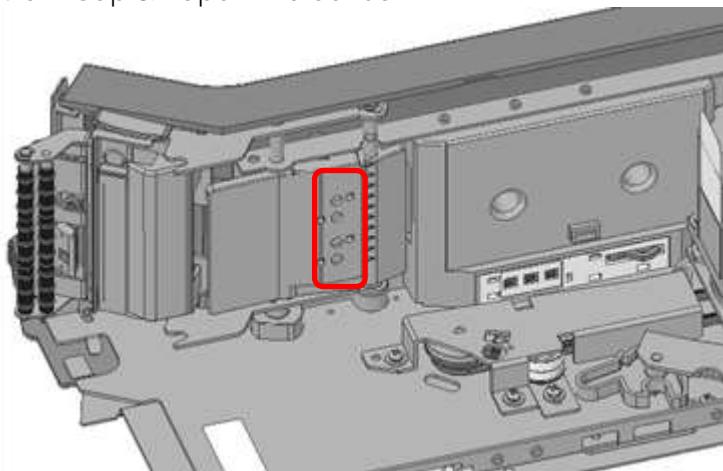
## 4.5 Sensors Location

### 4.5.1 Peel Sensor



When Gap Label Cassette is used.

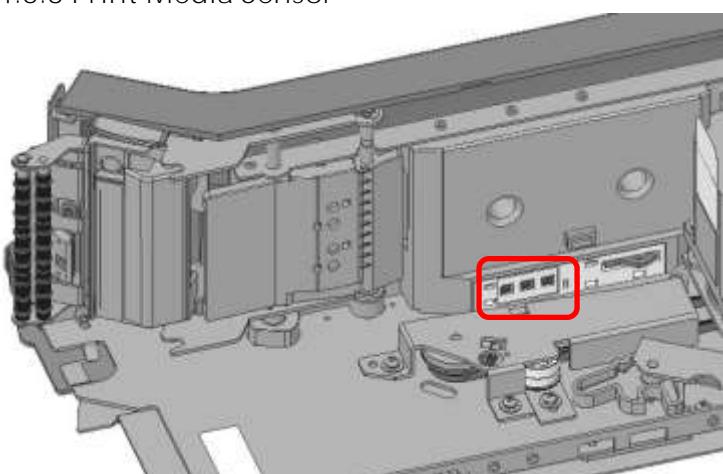
### 4.5.2 Gap & Paper End Sensor



When Gap Label Cassette is used.

*Note: There are two positions to set depending on Label type.*

### 4.5.3 Print Media Sensor

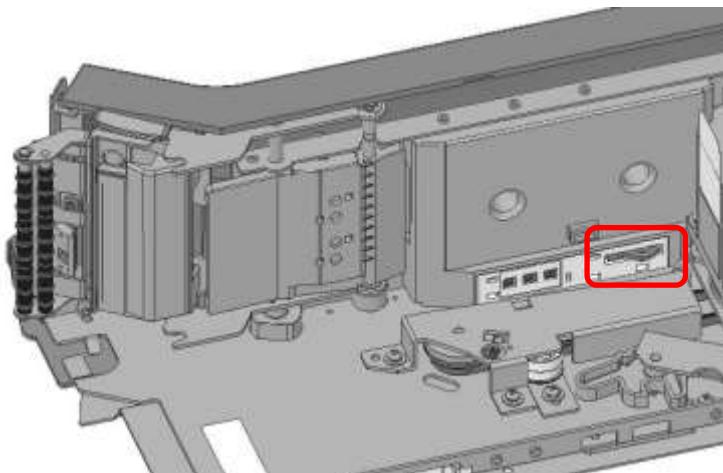


Depends on cassette to set the LABEL or RECEIPT printing.

# Initial Setup

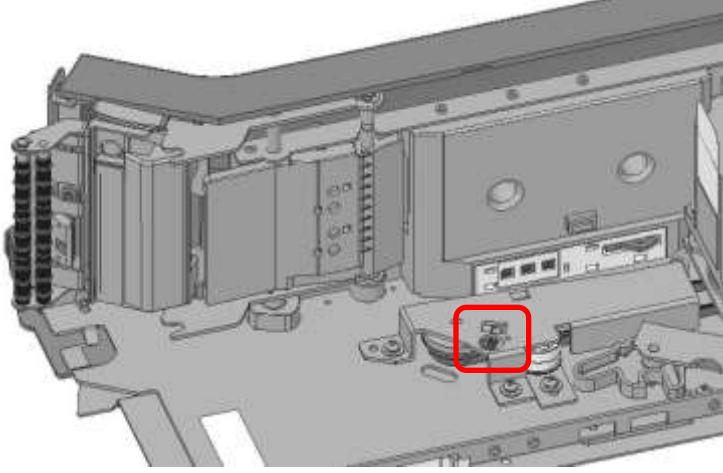
## 4.5 Sensors Location

### 4.5.4 Cassette Detection Sensor



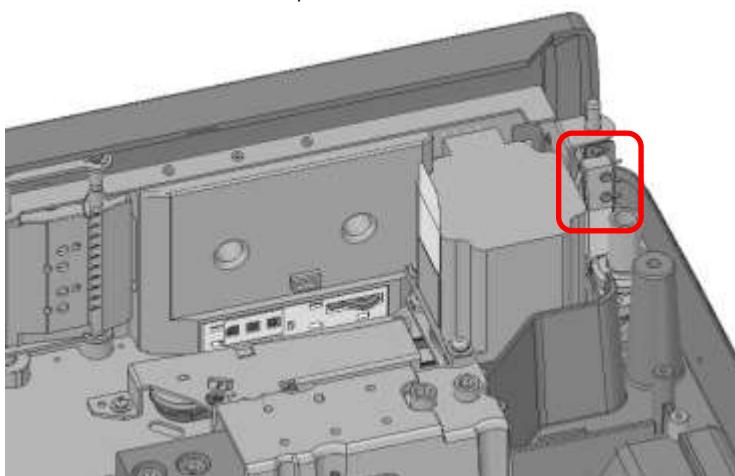
If cassette loading is incorrect, the switch will be inactive and printing function will not work.

### 4.5.5 Paper Low Sensor



This paper low sensor kit is optional and is used to alert when label roll is almost depleted.

### 4.5.6 Printer Door Open/Close Sensor



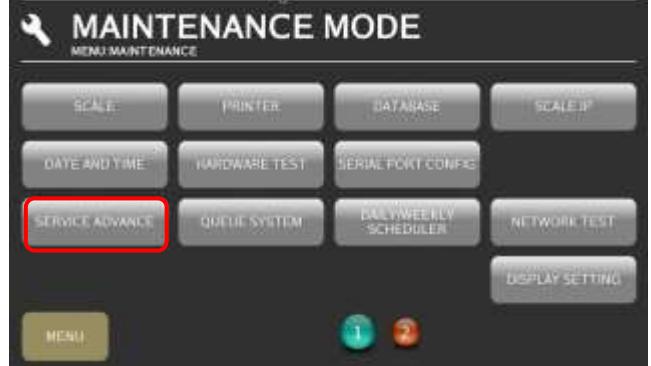
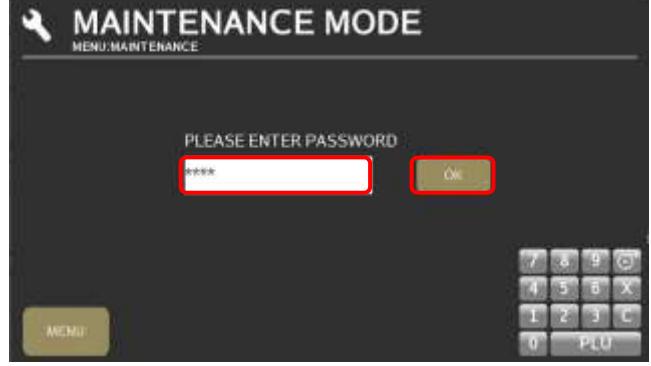
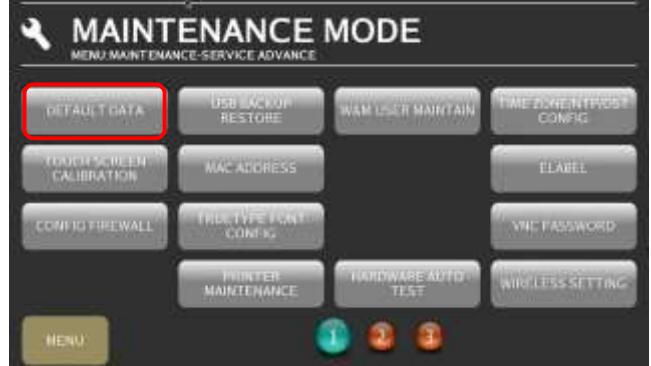
If Printer door not closed properly, this switch will be inactive and printing function will not work.

# Initial Setup

## 4.6 Software Setup

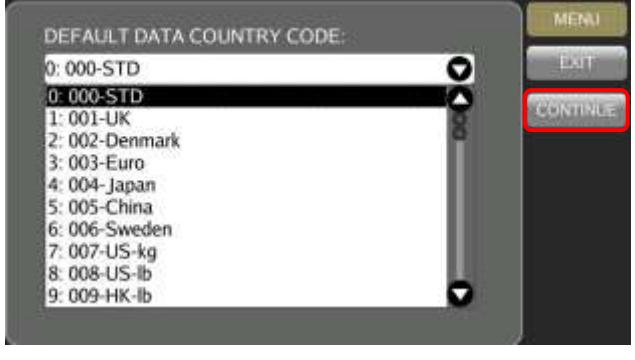
### 4.6.1 Default Country SPEC

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

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SERVICE ADVANCE] to go to Service Advance mode.	
3. Enter the Password and select [ENTER] button.  Password: 0953	
4. Select [DEFAULT DATA].	

# Initial Setup

## 4.6 Software Setup

Procedure	Picture
5. In DEFAULT SPEC mode, select [LOAD FACTORY DEFAULT].	
6. If message appear as shown. Turn on span switch and press [PLU] key button to continue.  Note: To view "W&M" specs, press [X].	
7. Touch ▶ icon to select the country. And then click [CONTINUE].	

# Initial Setup

## 4.6 Software Setup

### 4.6.2 User SPEC

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [USER SPEC].	
3. In USER SPEC mode, select the desired SPEC option, e.g. [BARCODE].  Note: Refer to Section <a href="#">4.6.5.1</a> on SEARCH function procedures	
4. Select the desired SPEC option, e.g. [ITEM BARCODE].	

# Initial Setup

## 4.6 Software Setup

Procedure	Picture
5. Touch the column and enter new setting or touch the  icon to select the new setting.	
6. Select [SAVE] button to save the changed setting.	

# Initial Setup

## 4.6 Software Setup

### 4.6.3 Module SPEC

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MODULE SPEC].	
3. Enter the Password and press [PLU] key button.  Password: 6289	
4. In MODULE SPEC mode, select the desired SPEC option, e.g. [DISCOUNT].  <u>Note:</u> Refer to Section <a href="#">4.6.5.1</a> on SEARCH function procedures:	

# Initial Setup

## 4.6 Software Setup

Procedure	Picture
5. Touch the column and enter new setting or touch the  icon to select the new setting.	
6. Select [SAVE] button to save the changed setting.	

# Initial Setup

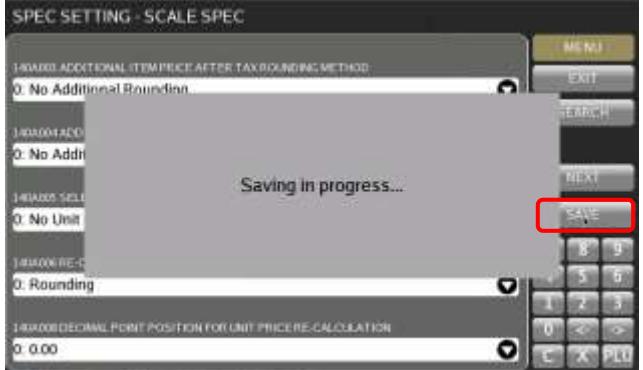
## 4.6 Software Setup

### 4.6.4 Scale SPEC

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [SCALE SPEC].	
3. Enter the Password and press [PLU].  Password: 3846	
4. In SCALE SPEC mode, select the desired SPEC option, e.g. [SCALE PRICE].  <u>Note:</u> Refer to Section <a href="#">4.6.5.1</a> on SEARCH function procedures:	

# Initial Setup

## 4.6 Software Setup

Procedure	Picture
5. Touch the column and enter new setting or touch the  icon to select the new setting.	
6. Select [SAVE] button to save the changed setting.	

# Initial Setup

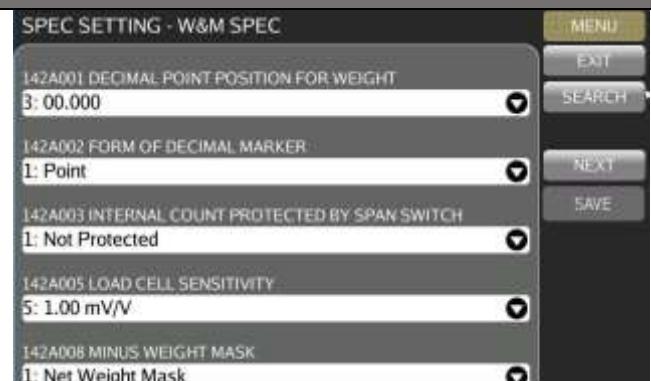
## 4.6 Software Setup

### 4.6.5 Weight & Measure SPEC

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SCALE] → [W&M SPEC] to go to W&M (Weight & Measure) SPEC mode.	
3. Turn on the Span Switch.	
4. In W&M SPEC mode, select desired SPEC option, e.g. [W&M SCALE].	
<u>Note:</u> Refer to Section <a href="#">4.6.5.1</a> on SEARCH function procedures	

# Initial Setup

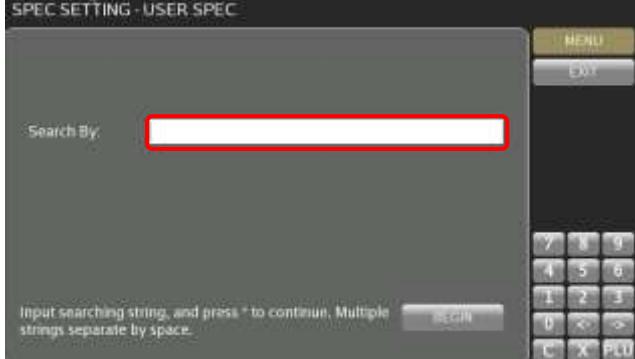
## 4.6 Software Setup

Procedure	Picture
5. Touch  icon to select the new setting.	
6. Select [SAVE] button to save the changed setting.	

# Initial Setup

## 4.6 Software Setup

### 4.6.5.1 SEARCH Function Procedure:

Procedure	Picture
1. Touch [SEARCH] button.	
2. Touch the "Search By" column area.	
3. Keyboard screen will pop out. Enter the SPEC no. or key word follow by [ENTER] button.	

# Initial Setup

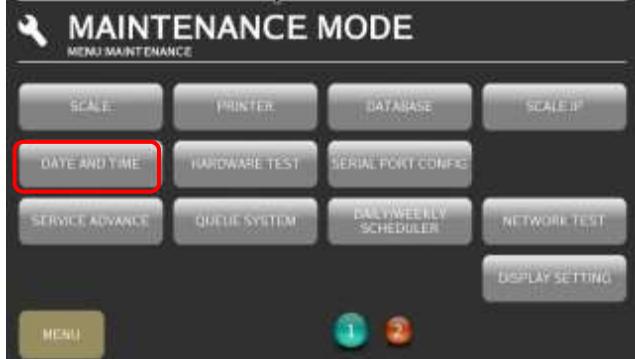
## 4.6 Software Setup

Procedure	Picture
4. Message will display on screen indicating the search results as shown.	 <p>SPEC SETTING - USER SPEC</p> <p>Search E</p> <p>Searching SPEC ...</p> <p>Input searching string, and press * to continue. Multiple strings separate by space.</p> <p>REGIN MENU EXIT</p> <p>8 9 5 6 1 2 3 0 &lt; &gt; C X PLO</p> <p><u>Spec found</u></p>
	 <p>SPEC SETTING - USER SPEC</p> <p>Search E</p> <p>0 SPEC found, please try again.</p> <p>Input searching string, and press * to continue. Multiple strings separate by space.</p> <p>REGIN MENU EXIT</p> <p>8 9 5 6 1 2 3 0 &lt; &gt; C X PLO</p> <p><u>Spec not found</u></p>
5. All related SPEC would display on the screen.	 <p>SPEC SETTING - USER SPEC</p> <p>MANUFACTURE CONNECTION</p> <p>0: No</p> <p>SEARCH SAVE</p> <p>7 8 9 4 5 6 1 2 3 0 &lt; &gt; C X PLO</p>

# Initial Setup

## 4.6 Software Setup

### 4.6.6 Date and Time

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [DATE AND TIME] to go to Date and Time menu.	
3. At Date mode, use ▶ arrow key to select the "Year" and select the date.	
4. Select [TIME] to go to Time mode, then press "Number" button to enter the time. Select [SAVE] button to save the change setting.	

# Initial Setup

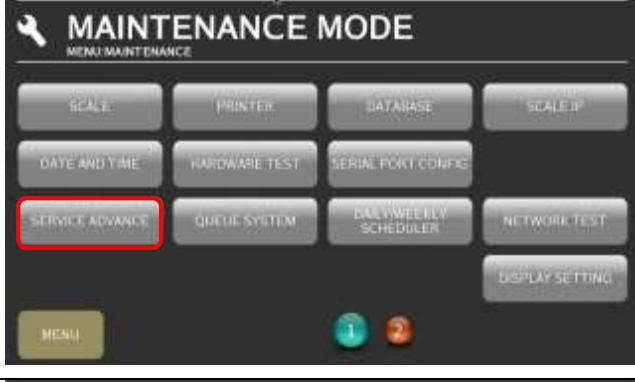
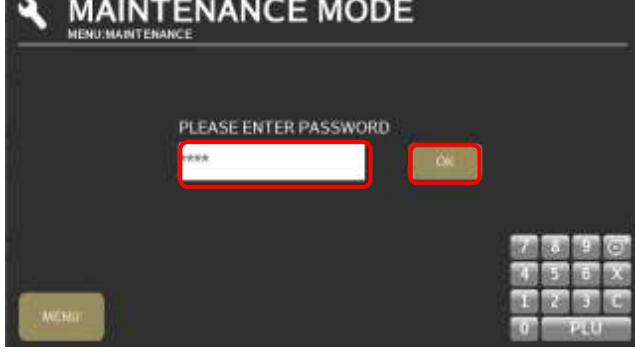
## 4.6 Software Setup

Procedure	Picture
5. Date and Time saved successfully.	

# Initial Setup

## 4.6 Software Setup

### 4.6.7 Daylight Saving Time

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SERVICE ADVANCE] to go to Service Advance mode.	
3. Enter the Password and select [ENTER] button.  Password: 0953	
4. In Service Advance mode, select [TIME ZONE / NTP / DST CONFIG].	

# Initial Setup

## 4.6 Software Setup

Procedure	Picture
5. Set the setting and touch [SAVE] button to save the setting changed.	

# Initial Setup

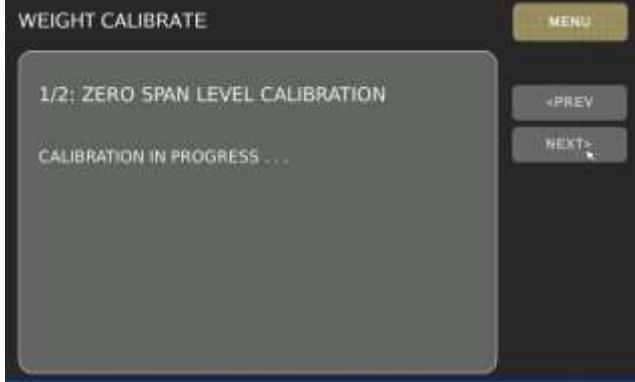
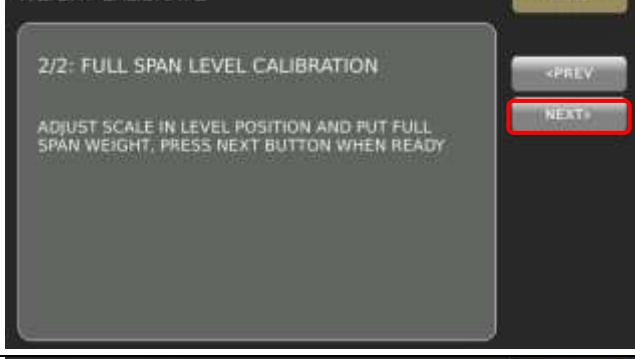
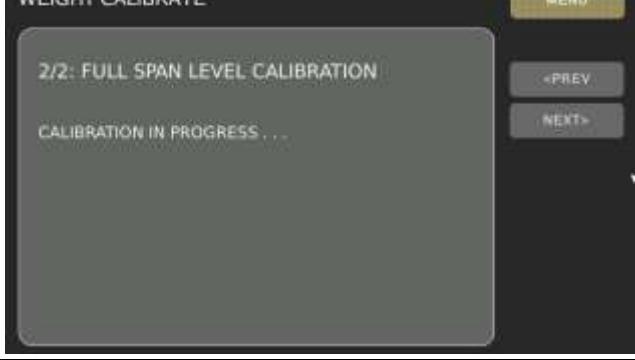
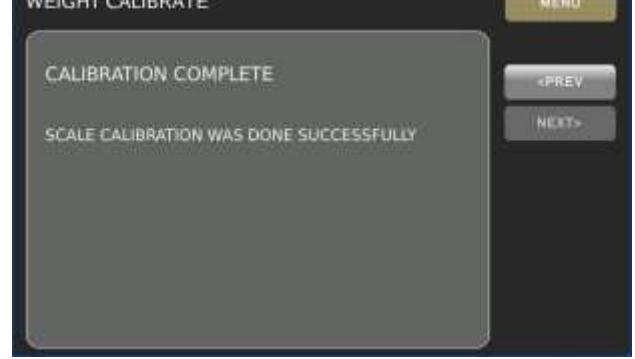
## 4.7 Span Adjustment (Weight Calibration)

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

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SCALE] → [CALIBRATION] to go to calibration mode.	
3. In Calibration mode, check the setting and touch [NEXT] to continue.	
4. Ensure there is no weight on the platter, and touch [NEXT].	

# Initial Setup

## 4.6 Span Adjustment (Weight Calibration)

Procedure	Picture
4. Wait for Zero Weight calibration in progress.	
5. Put capacity weight [e.g. 15Kg] on the platter and touch [NEXT].	
6. Waiting for Full Weight calibration in progress.	
7. Screen shows "CALIBRATION COMPLETE" indicating the process is completed.	

# System Setup

## 5.1 Network Setup

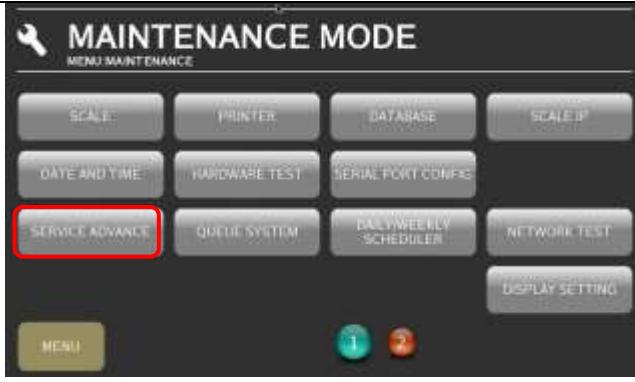
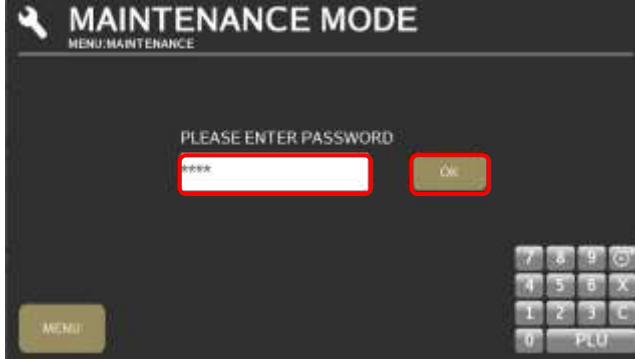
### 5.1.1 Network Configuration

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SCALE IP] to go to SCALE IP mode.	
3. Enter setting (Interface, Address, Net Mask, Gateway, DNS) and touch [SAVE] button.	
4. Scale IP address saved successfully.	

# System Setup

## 5.1 Network Setup

### 5.1.2 Scale MAC Address

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SERVICE ADVANCE] to go to Service Advance maintenance mode.	
3. Enter the Password and select [ENTER] button.  Password: 0953	
4. In Service Advance mode, touch [MAC ADDRESS].	

# System Setup

## 5.1 Network Setup

Procedure	Picture
4. Editing the MAC Address and then press [SET] button to save the changed setting.	 <p>The screenshot shows a 'MAC ADDRESS SETTING' screen. At the top, it displays 'eth0'. Below that is a text input field containing '00:60:03:09:17:BD'. To the right of the input field is a 'SET' button, which is highlighted with a red box. Below the input field is a numeric keypad with digits 0-9 and letters A-F. At the bottom of the screen, there is a note: 'Edit MAC and press * to save'.</p>

# System Setup

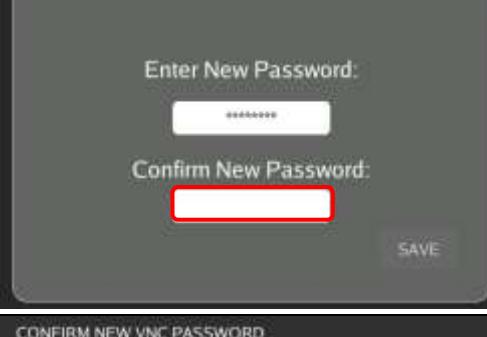
## 5.1 Network Setup

### 5.1.3 VNC Password

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SERVICE ADVANCE] to go to Service Advance maintenance mode.	
3. Enter the Password and select [ENTER] button.  Password: 0953	
4. In Service Advance mode, touch [VNC PASSWORD].	

# System Setup

## 5.1 Network Setup

Procedure	Picture
5. Touch the column of "Enter New Password".	
6. Enter the Password (max. 8 number/character)	
7. Touch the column of "Confirm New Password".	
8. Enter the same Password for confirmation.	

# System Setup

## 5.1 Network Setup

Procedure	Picture
8. Touch [SAVE] to save the setting.	
9. Touch [YES] to reboot the scale.	

# System Setup

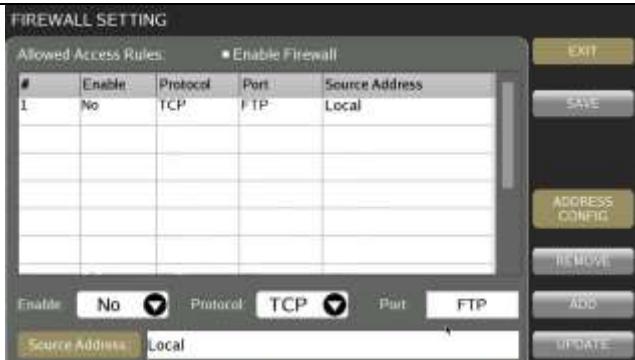
## 5.1 Network Setup

### 5.1.4 Firewall Setting

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SERVICE ADVANCE] to go to Service Advance maintenance mode.	
3. Enter the Password and select [ENTER] button.  Password: 0953	
4. In Service Advance mode, touch [CONFIG FIREWALL].	

# System Setup

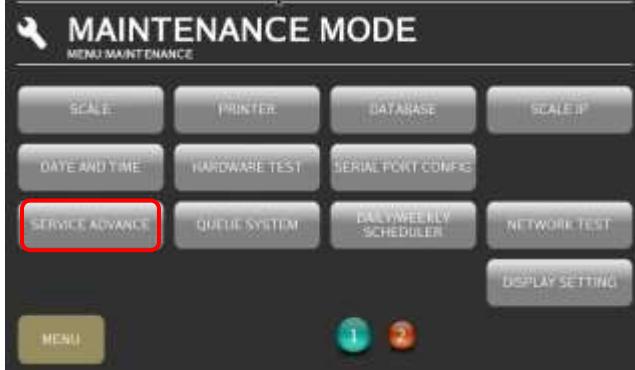
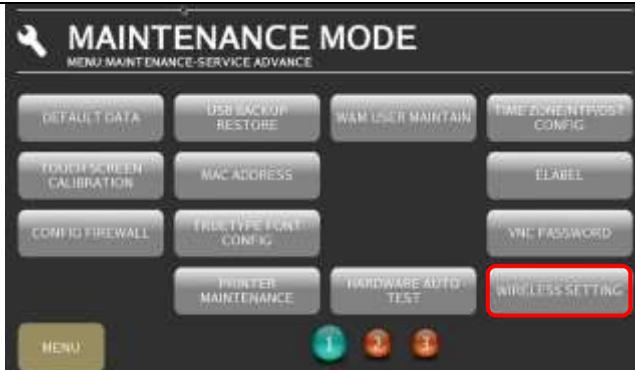
## 5.1 Network Setup

Procedure	Picture
5. Select [CONFIG FIREWALL SETTING].	
6. Set the setting and touch [ADD] button.	
7. Completed.	

# System Setup

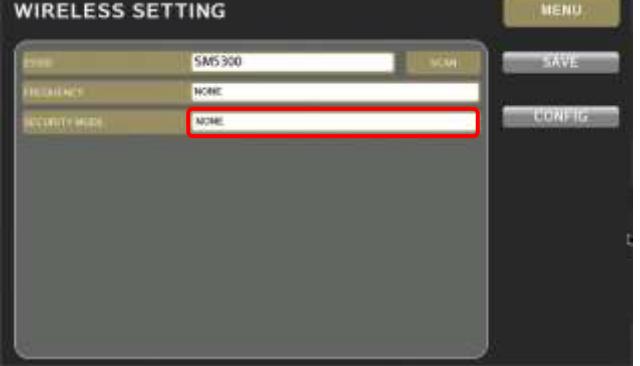
## 5.2 Wireless Adapter Setting

### 5.2.1 WLAN AP-3001G/AP-3002AN Setup

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SERVICE ADVANCE] to go to Service Advance maintenance mode.	
3. Enter the Password and select [ENTER] button.  Password: 0953	
4. In Service Advance mode, touch [WIRELESS SETTING].	

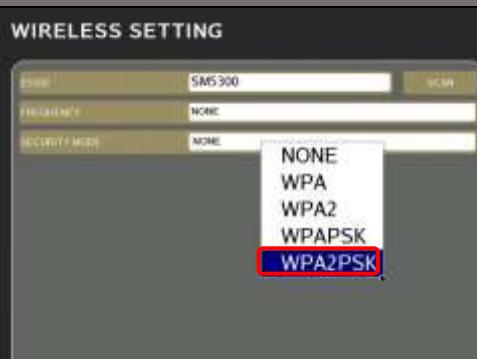
# System Setup

## 5.2 Wireless Adapter Setting

Procedure	Picture
5. Enter the Password to login Wireless setting.  Default Password: 1234 (For user access) 4321 (For admin access)	
6. Touch the column of "ESSID".	
7. Enter the ESSID. (E.g. SM-5300). Then touch [ENTER].	
8. Select the column of "SECURITY MODE".	

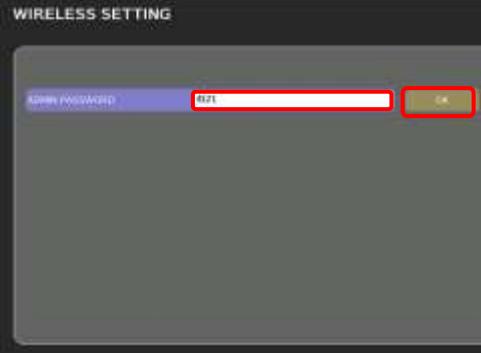
# System Setup

## 5.2 Wireless Adapter Setting

Procedure	Picture
9. Select desired security mode ( <i>E.g. WPA2PSK</i> ), then touch [SAVE] to save change setting.	
10. Select the column of "KEY".	
11. Enter the Password. ( <i>E.g. 1234567890</i> ). Then touch [ENTER].	
12. Touch [SAVE] button to save setting changed.	

# System Setup

## 5.2 Wireless Adapter Setting

Procedure	Picture
13. Setting Successfully changed.	
14. To change the Admin and User default password, select [CONFIG].	
15. Enter the current Admin login password and touch [ENTER].  Password: 4321 (default)	
16. Enter the New Admin and User password. And then touch [OK].	

# Hardware Test and Maintenance

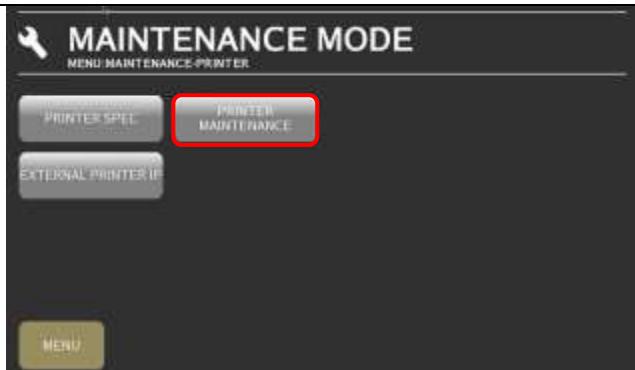
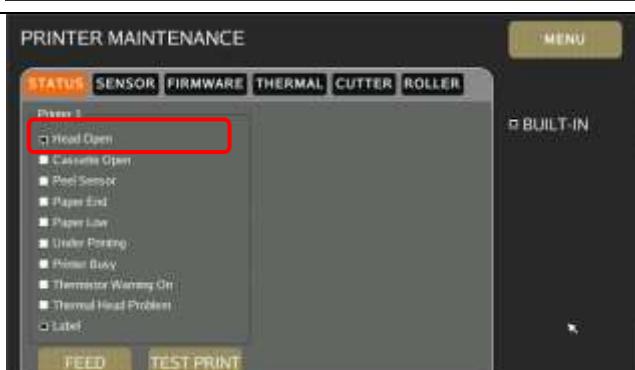
## 6.1 Internal Count

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SCALE] → [IR COUNT] to go to Internal Count mode.	
3. Internal Count mode.	<p>SCALE INTERNAL COUNT</p> <p>IR COUNT: 0 AD-COUNT: 194999</p> <p><u>No Weight</u></p> <p>SCALE INTERNAL COUNT</p> <p>IR Count: 60000 AD Count: 410786</p> <p><u>Full Weight</u></p>

# Hardware Test and Maintenance

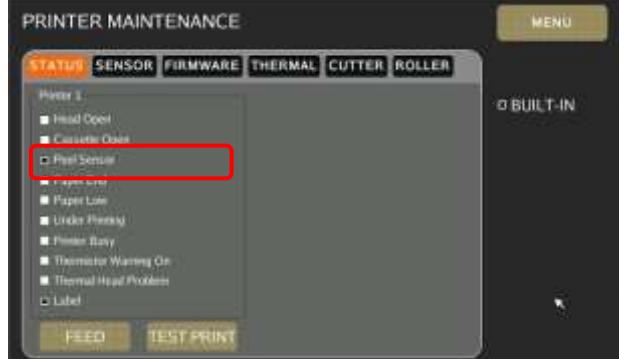
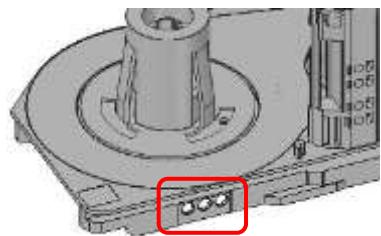
## 6.2 Printer Maintenance

### 6.2.1 Sensors Status

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [PRINTER] → [PRINTER MAINTENANCE] to go to printer test mode.	
3. In Printer Test menu, select [STATUS] will show the status of Printer.	
4. Open the scale front door; the [Head Open] check box will appear tick mark that means the Head Open Switch is working.	

# Hardware Test and Maintenance

## 6.2 Printer Maintenance

Procedure	Picture
5. Pull out the Cassette a little bit; the [Cassette Open] check box will appear tick mark that means the Head Open sensor is working.	 The screenshot shows the 'PRINTER MAINTENANCE' screen with the 'SENSOR' tab selected. Under 'Printer 1', the 'Head Open' checkbox is checked, while 'Cassette Open' is unchecked. Other checkboxes like 'Paper End', 'Paper Low', etc., are also listed but not checked. Buttons at the bottom include 'FEED' and 'TEST PRINT'.
6. Take a label paper and place in front of the peel sensor, and then check the [Peel Sensor] check box will appear tick mark, that means the peel sensor is working.	 This screenshot shows the same 'PRINTER MAINTENANCE' screen. Now, the 'Peel Sensor' checkbox under 'Printer 1' is checked, indicating it is working correctly. The other sensor status checkboxes remain unselected.
7. Remove the cassette and the 3 holes is covered, then put back the cassette to the scale, and check the [Receipt] check box will appear tick mark.	 A photograph of a printer's paper cassette. Three circular holes are visible along the right edge. A red rectangular box highlights these three holes. To the right, there is a screenshot of the 'PRINTER MAINTENANCE' screen showing the 'Receipt' checkbox under 'Printer 1' is checked.

Type of Printing Media	Cassette Holes Setting
Label	
Receipt	

# Hardware Test and Maintenance

## 6.2 Printer Maintenance

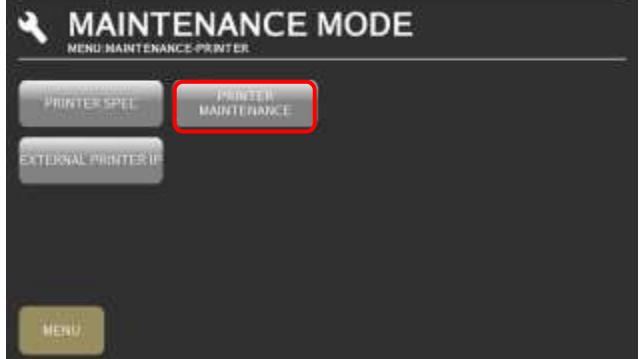
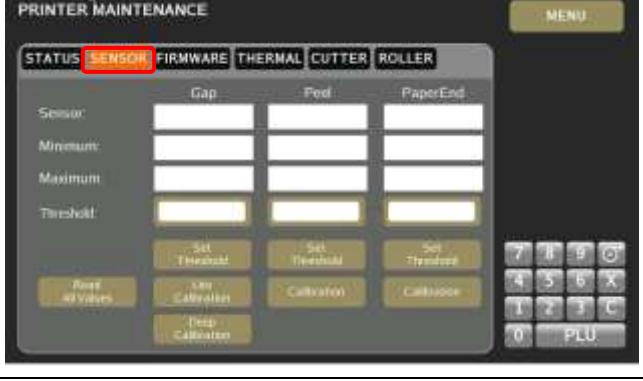
### 6.2.2 Sensor Calibration

#### Note (If mainboard changed):

For Sensors Calibration sequence is:

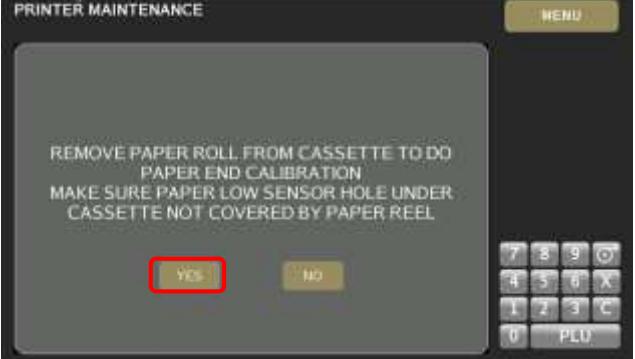
- a) [6.2.2.1 Paper End Sensor Calibration] or [6.2.2.2 Paper Low Sensor Calibration] (Optional)
- b) [6.2.2.3 Gap Sensor Calibration]
- c) [6.2.2.4 Peel Sensor Calibration]

#### 6.2.2.1 Paper End Sensor Calibration

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [PRINTER] → [PRINTER MAINTENANCE] to go to printer test mode.	
3. At Printer Maintenance menu, select [SENSOR].	

# Hardware Test and Maintenance

## 6.2 Printer Maintenance

Procedure	Picture
4. Under "Paper End" column, touch [Calibration] to calibrate the Paper End Sensor.	
5. Remove the label from cassette (without any label or receipt paper) and put back empty cassette to scale. Then select [YES].	
6. A reading of Minimum, Maximum and Threshold will appear.	

# Hardware Test and Maintenance

## 6.2 Printer Maintenance

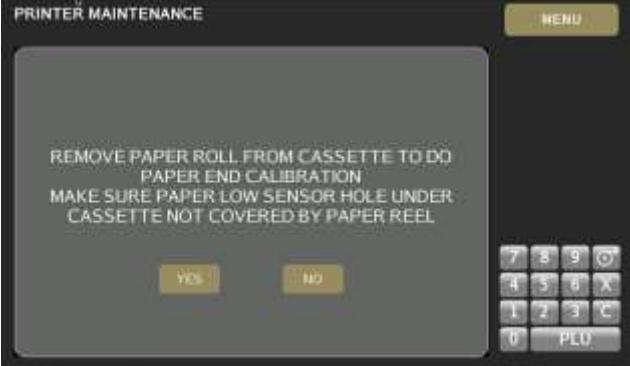
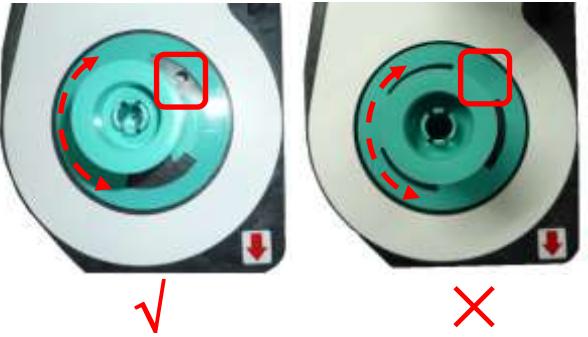
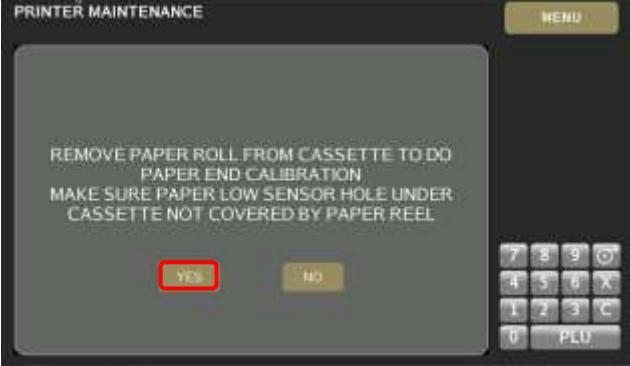
### 6.2.2.2 Paper Low Sensor Calibration (Optional)

Note: Please go to [MAINTENANCE] → [MODULE SPEC] → [143A028 PAPER LOW SENSOR] change spec setting to [1: Enable].

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [PRINTER] → [PRINTER TEST] to go to printer test mode.	
3. At Printer Maintenance menu, select [SENSOR].	
4. Under "Paper End" column, Touch [Calibration] to calibrate the Paper End Sensor.	

# Hardware Test and Maintenance

## 6.2 Printer Maintenance

Procedure	Picture
5. Remove the label roll from Cassette.	
6. Ensure the Paper Low Sensor hole on cassette NOT covered by Paper Reel (green colour).	<p>Location of hole on Cassette</p> 
7. Put back the empty cassette (without any label or receipt paper) to printer unit and close the printer door. Then select [YES].	
8. A reading of Minimum, Maximum and Threshold will appear.	

Note:

If Paper Low sensor calibration have done, it will include the Paper End sensor calibration.

# Hardware Test and Maintenance

## 6.2 Printer Maintenance

### 6.2.2.3 Gap Sensor Calibration

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [PRINTER] → [PRINTER TEST] to go to printer test mode.	
3. At Printer Maintenance menu, select [SENSOR].	
4. Under "Gap" column, touch [Lite Calibration] to calibrate the gap sensor. A reading of Minimum, Maximum and Threshold will appear.	

# Hardware Test and Maintenance

## 6.2 Printer Maintenance

### 6.2.2.4 Peel Sensor Calibration

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [PRINTER] → [PRINTER TEST] to go to printer test mode.	
3. At Printer Maintenance menu, select [SENSOR].	
4. Under "Peel" column, Touch [Calibration] to calibrate the Peel Sensor. A reading of Minimum, Maximum and Threshold will appear.	

# Hardware Test and Maintenance

## 6.2 Printer Maintenance

### 6.2.3 Thermal Head Type Detection

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [PRINTER] → [PRINTER MAINTENANCE] to go to printer test mode.	
3. In Printer Maintenance menu, select [THERMAL] and touch [DETECT] to read the Printer Thermal head type.	

# Hardware Test and Maintenance

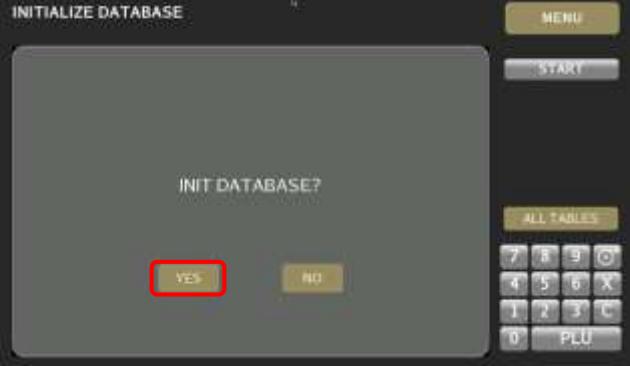
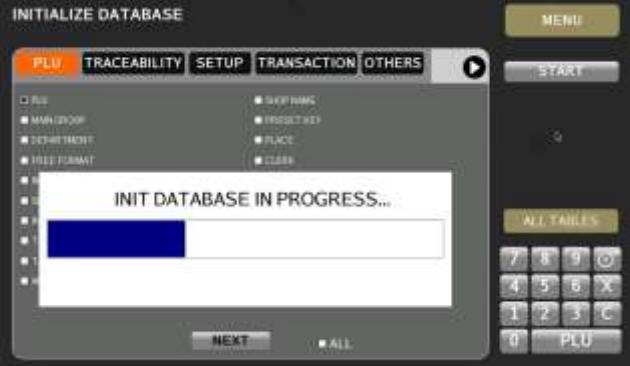
## 6.3 Database Maintenance

### 6.3.1 Database Initialization

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [DATABASE] to go to DATABASE mode.	
3. In Database menu, select [INIT].	
4. Select the desired any or all database, then touch [START] button to start initialization.	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
5. Select [YES] to confirm initialization database.	
6. Waiting for initialization progress.	
7. Initialization database successfully.	

# Hardware Test and Maintenance

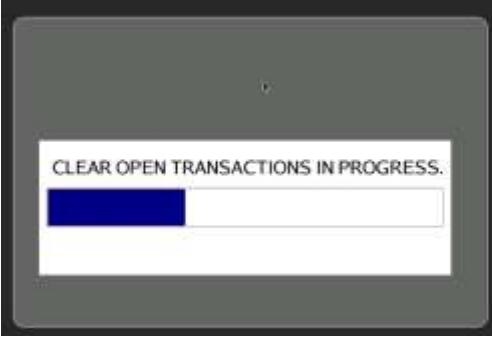
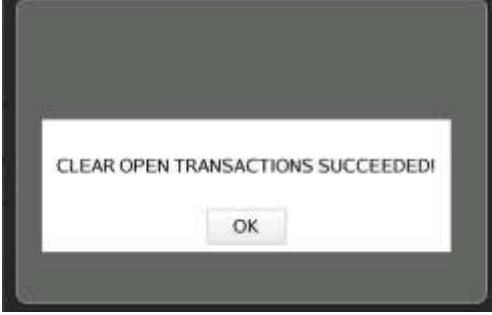
## 6.3 Database Maintenance

### 6.3.2 Database Clear Open Transaction

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [DATABASE] to go to DATABASE mode.	
3. In Database menu, select [CLEAR OPEN TRANSACTION].	
4. Select [YES] button.	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
5. Waiting for database clear open transaction in progress.	
6. Clear Open Transaction Database successfully.	

# Hardware Test and Maintenance

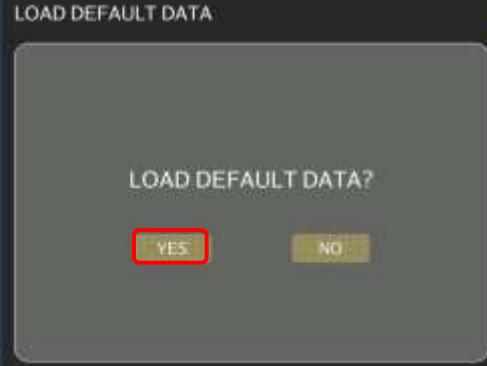
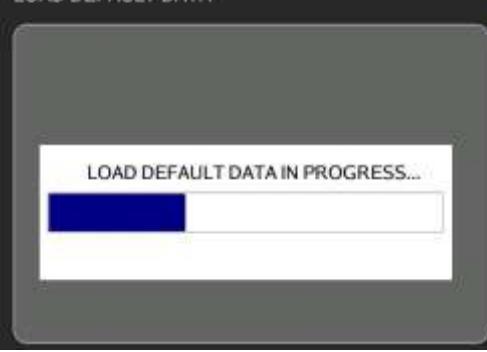
## 6.3 Database Maintenance

### 6.3.3 Load Default Data

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [DATABASE] to go to DATABASE mode.	
3. In Database menu, select [LOAD DEFAULT DATA].	
4. Select the desired data e.g. DATABASE and touch [START] button to loading default data.	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
5. Select [YES] to confirm loading the default data.	
6. Wait for default data to complete loading.	
7. Default data loaded successfully.	

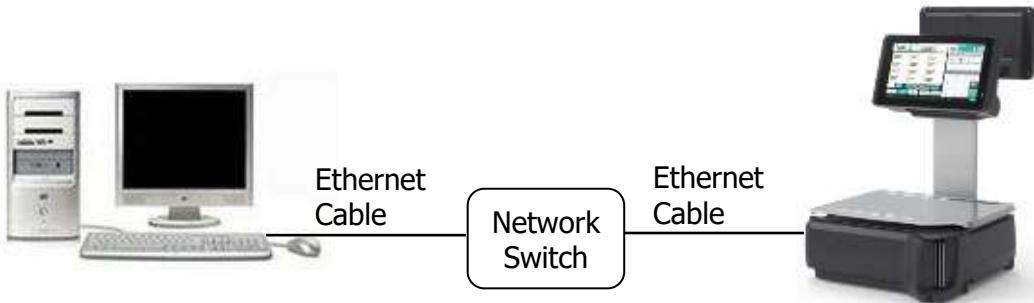
# Hardware Test and Maintenance

## 6.3 Database Maintenance

### 6.3.4 Database Backup

This "Database Backup" method is allow the scale to back-up data file for further "Database Restore" and "Database Migration" to use.

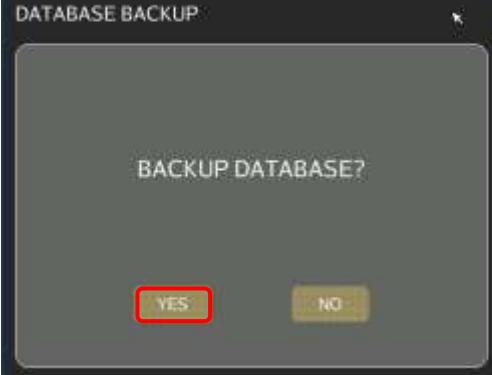
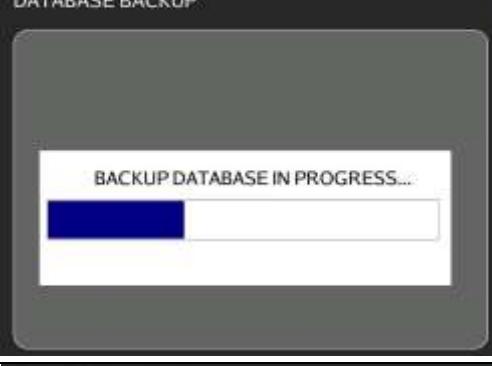
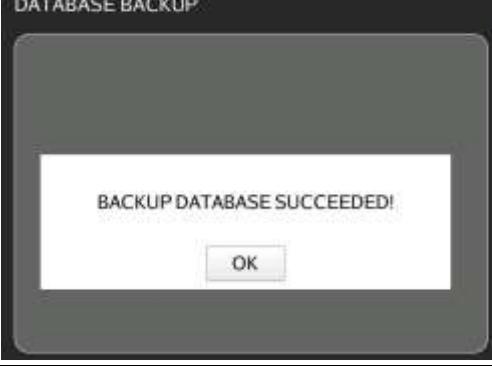
(Note: Please refer to "7.3.5 Database Restore" and "7.3.6 Database Migration").



Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	<p>The image shows the main menu interface of the scale. It features a numeric keypad at the bottom. Above the keypad, there are several buttons labeled 'TRAINING', 'PLU', 'SEARCH', and 'MENU'. The 'MENU' button is highlighted with a red box.</p>
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [DATABASE] to go to Database mode.	<p>The image shows the maintenance mode interface under the 'MAINTENANCE' section. It includes buttons for 'SCALE', 'PRINTER', 'DATABASE', 'DATE AND TIME', 'HARDWARE TEST', 'SERIAL PORT CONFIG', 'SERVICE ADVANCE', 'QUEUE SYSTEM', 'DAILY/WEEKLY SCHEDULER', 'NETWORK TEST', and 'DISPLAY SETTING'. The 'DATABASE' button is highlighted with a red box.</p>
3. In Database menu, select [BACKUP].	<p>The image shows the database maintenance interface under the 'MAINTENANCE MODE' section. It includes buttons for 'SERVER IP', 'INIT', 'BACKUP', 'RESTORE', 'LOAD DEFAULT DATA', 'DATABASE MIGRATION', and 'CLEAR OPEN TRANSACTIONS'. The 'BACKUP' button is highlighted with a red box.</p>

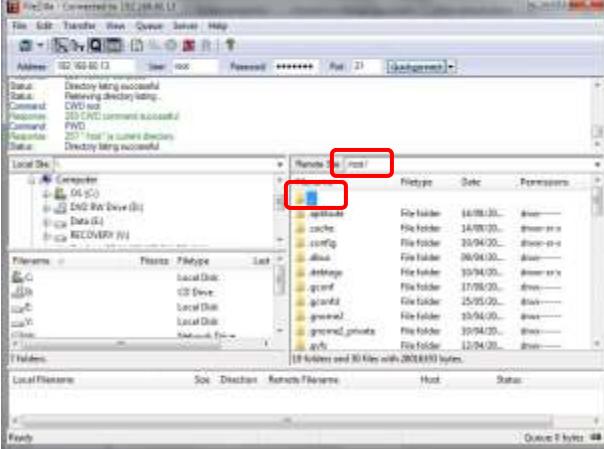
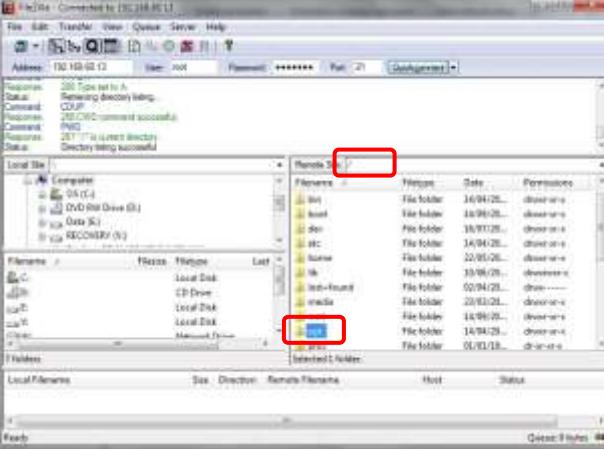
# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
4. Select [YES] to confirm backup database.	 A screenshot of a "DATABASE BACKUP" dialog box. It asks "BACKUP DATABASE?" and has two buttons: "YES" (highlighted with a red box) and "NO".
5. Waiting for backup database in process.	 A screenshot of a "DATABASE BACKUP" dialog box. It displays "BACKUP DATABASE IN PROGRESS..." above a progress bar that is partially filled with blue.
6. Backup database successfully.  Note: Step 6 to 10 below shows the method to retrieve the backup file.	 A screenshot of a "DATABASE BACKUP" dialog box. It says "BACKUP DATABASE SUCCEEDED!" and has an "OK" button.
7. In PC, run the Filezilla Client program.	 The FileZilla logo, which consists of a stylized orange and yellow "FZ" monogram followed by the word "FileZilla" in a serif font.

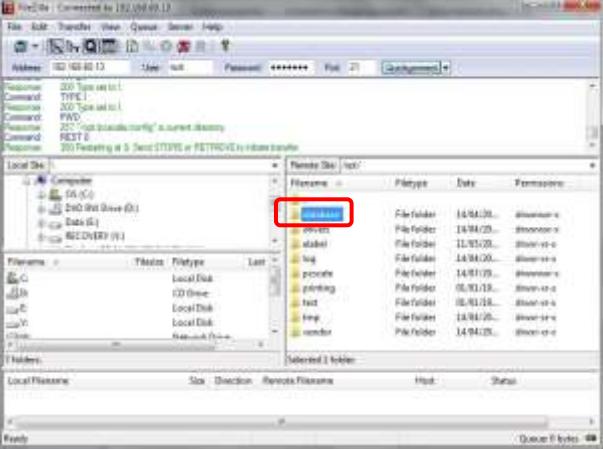
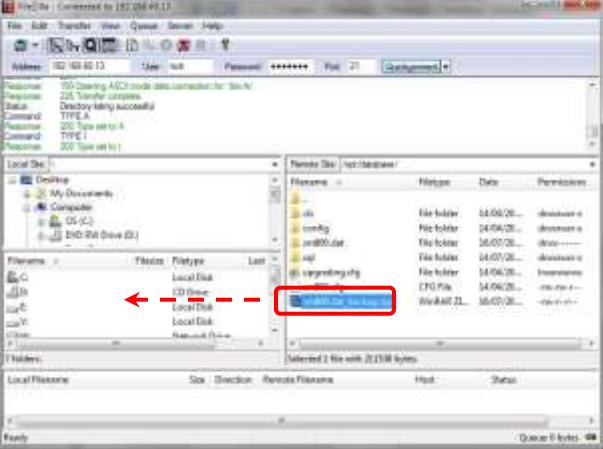
# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
8. Enter the scale "IP address", "User name" and "Password". Then click [Connect] to connecting the scale.	 A screenshot of the WinSCP graphical user interface. The top bar shows the address as '192.168.0.13', user 'root', and password '*****'. The 'File' tab is selected. The main window displays a file browser with two panes: 'Local Site' on the left and 'Remote Site' on the right. The 'Local Site' pane shows standard Windows file system icons. The 'Remote Site' pane shows a directory structure with files and folders. A red box highlights the connection parameters in the top bar.
Note: For "User Name" and "Password" please inquiry from Manufacturer.	
9. Under the [root] directory, double click [...] to go to upper level directory.	 A screenshot of the WinSCP graphical user interface, similar to the previous one but with a different directory listing. The 'Local Site' pane shows the contents of the root directory. A red box highlights the 'root' folder icon in the 'Local Site' pane.
10. Under [/] directory, select [opt] folder.	 A screenshot of the WinSCP graphical user interface, similar to the previous ones. The 'Local Site' pane shows the contents of the root directory. A red box highlights the 'opt' folder icon in the 'Local Site' pane, indicating it has been selected.

# Hardware Test and Maintenance

## 6.3 Database Maintenance

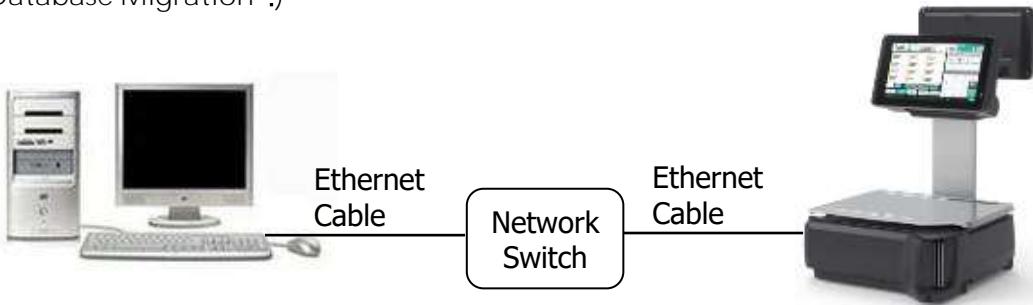
Procedure	Picture
11. Select [database] folder.	
12. The display will show the backup file E.g. [SM5300.dat_backup.zip].  <u>Note:</u> Copy the backup file to PC to save a copy of the database backup.	

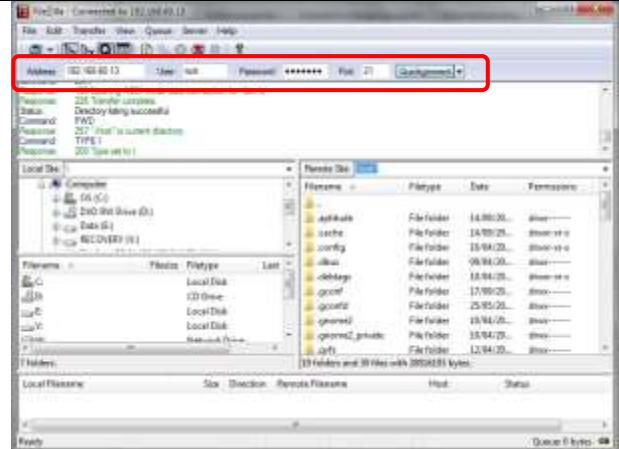
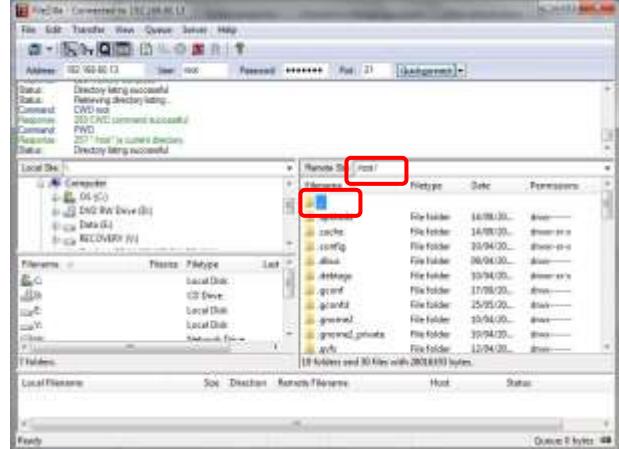
# Hardware Test and Maintenance

## 6.3 Database Maintenance

### 6.3.5 Database Restore

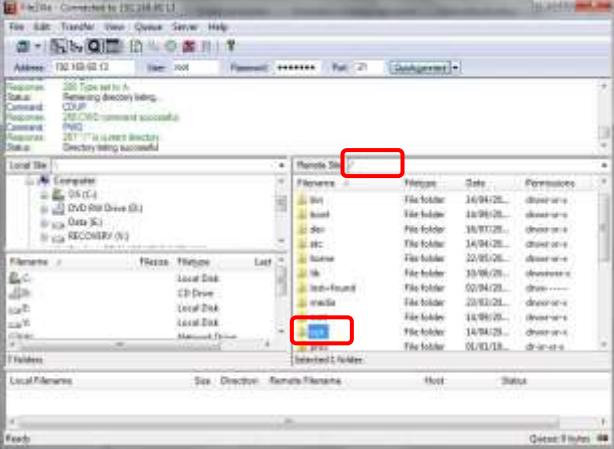
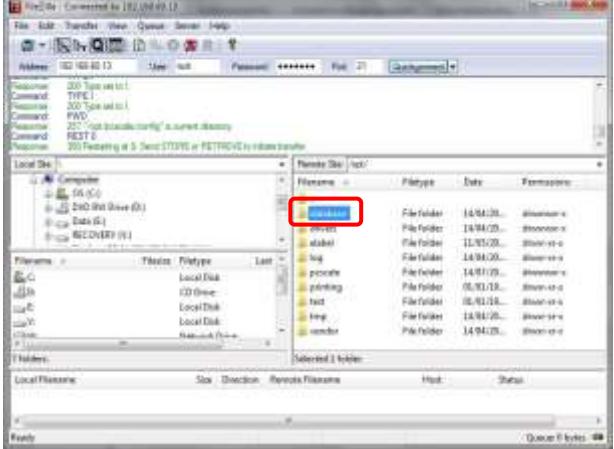
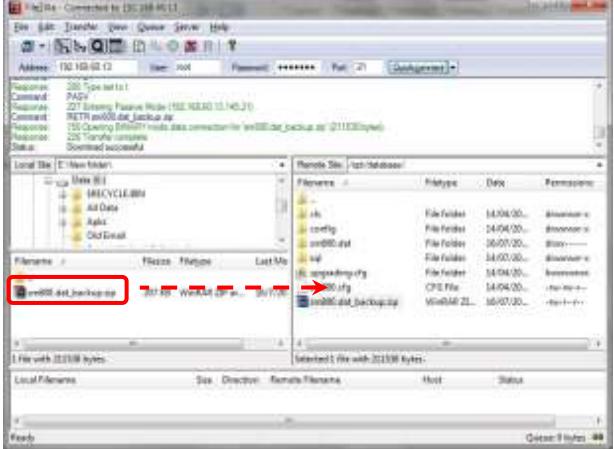
- This “Database Restore” method is used to restore the database backup file from one scale to the other scale with the same PCScale software version.
- Please refer to instruction of “7.3.4 Database Backup” for database backup file.  
(Note: For those database restore in different PCScale software version please follow the instruction of “7.3.6 Database Migration”.)



Procedure	Picture
1. In PC, run the Filezilla Client program.	 The image shows the FileZilla logo, which consists of a stylized orange 'F' and 'Z' followed by the word 'FileZilla'.
2. Enter the scale “IP address”, “User name” and “Password”. Then click [Connect] to connecting the scale.  User Name: user (default) Password: user (default)	 A screenshot of the FileZilla interface. The 'Address' field is set to '102.100.80.13'. The 'User' field is 'user' and the 'Password' field is 'user'. The 'Transfer' tab is selected. The status bar at the bottom right says 'Queue: 0 bytes'. The left panel shows local files on the computer, and the right panel shows remote files on the scale. A red box highlights the 'Address' field and the 'User' and 'Password' fields.
3. Under the [root] directory, double click [...] to go to upper level directory.	 A screenshot of the FileZilla interface showing the contents of the root directory on the scale. The left panel shows local files, and the right panel shows remote files. A red box highlights the 'Host' entry in the status bar at the bottom right, which displays 'Queue: 0 bytes'.

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
4. Under [/] directory, select [opt] folder.	 A screenshot of the FileZilla interface. The left pane shows the local site tree with several drives listed. The right pane shows the remote site tree for the root directory. A red box highlights the 'opt' folder under the 'Remote Site' tree.
5. Open the [database] folder.	 A screenshot of the FileZilla interface. The left pane shows the local site tree. The right pane shows the remote site tree with the 'database' folder expanded. A red box highlights the 'database' folder under the 'Remote Site' tree.
6. Transfer the previously save backup file E.g. [SM880.dat_backup.zip] on the PC to this folder.	 A screenshot of the FileZilla interface. The left pane shows the local site tree with a file named 'SM880.dat_backup.zip'. The right pane shows the remote site tree with the 'database' folder expanded. A red box highlights the 'SM880.dat_backup.zip' file in the local site tree, and another red arrow points from it to the 'database' folder in the remote site tree.

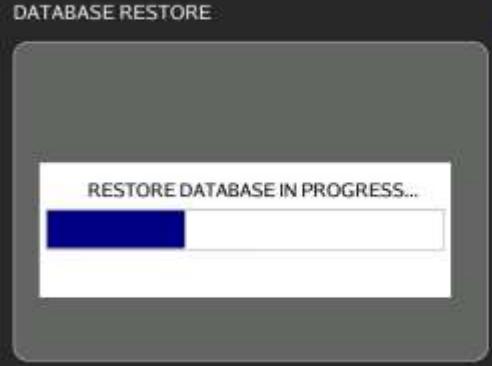
# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
7. In Registration mode, press [MENU] to go to Main Menu mode.	
8. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [DATABASE] to go to Database mode.	
9. In Database menu, select [RESTORE].	
10. Select [YES] to confirm restore database.	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

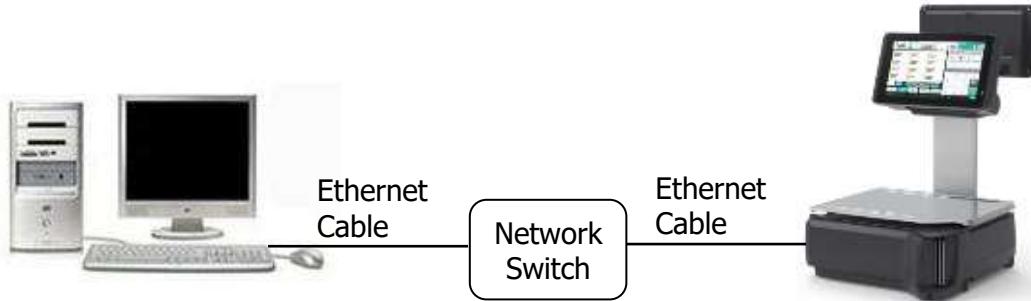
Procedure	Picture
11. Wait for restore process to complete.	
12. Restore database successfully. Click [OK] to exit.	

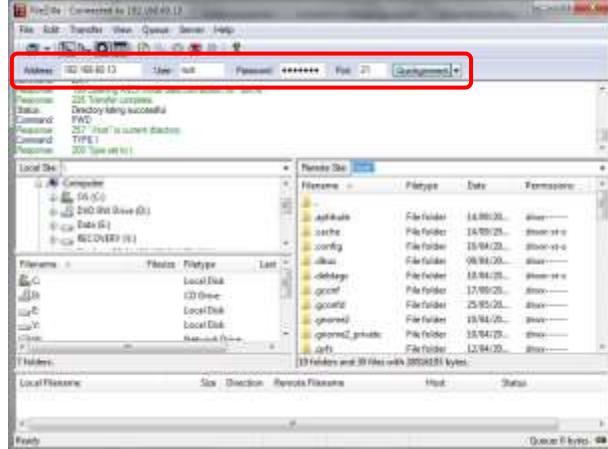
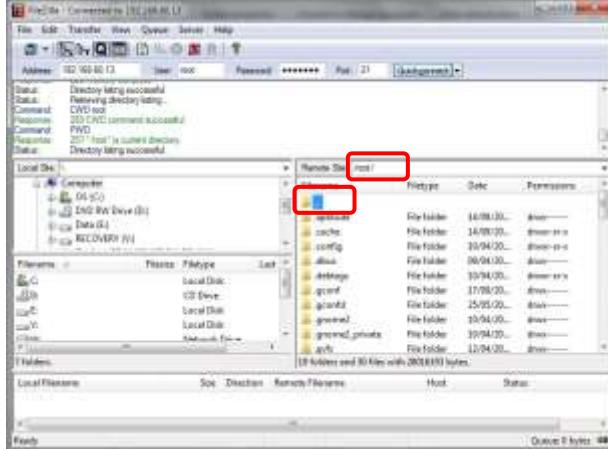
# Hardware Test and Maintenance

## 6.3 Database Maintenance

### 6.3.6 Database Migration

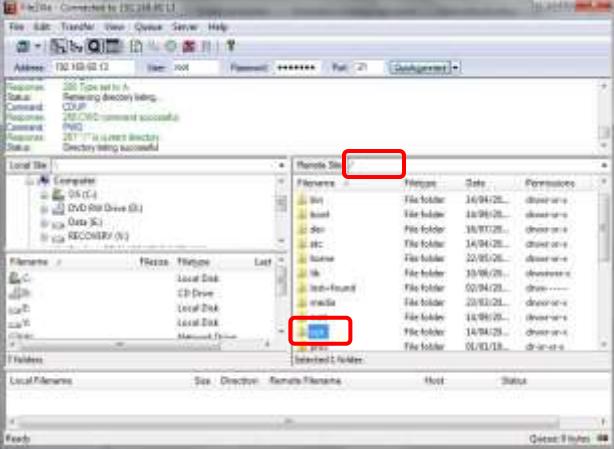
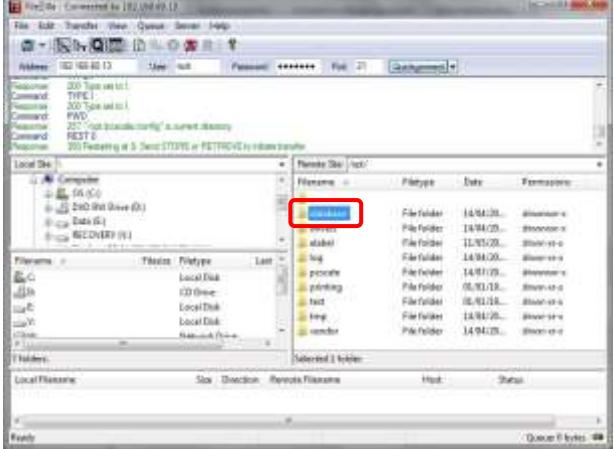
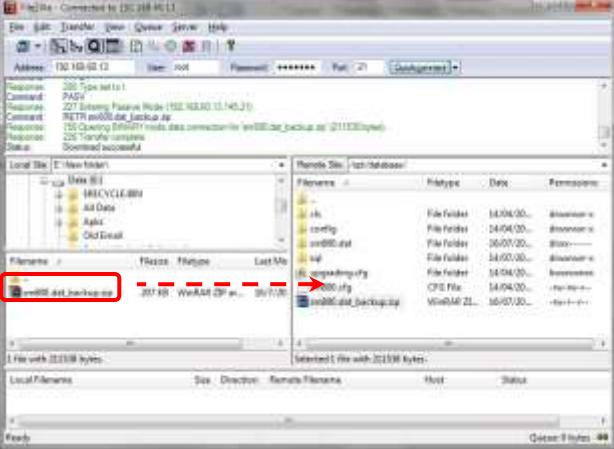
- This “Database Migration” method is used to migrate the database backup file from one scale to the other scale with different PCScale software version.
- Please refer to instruction of “7.3.4 Database Backup” for database backup file.  
(Note: Ensure migrate the file from “Lower” to “Upper” PCScale software version)



Procedure	Picture
1. In PC, run the Filezilla Client program.	 The FileZilla logo consists of a stylized orange 'F' and 'Z' followed by the text "FileZilla" and "FileZilla".
2. Enter the scale “IP address”, “User name” and “Password”. Then click [Connect] to connecting the scale.  User Name: user (default) Password: user (default)	 A screenshot of the FileZilla interface. The title bar says "FileZilla Connected to 192.168.0.13". The "Address" field contains "192.168.0.13" and is highlighted with a red box. Below it, the "User" field is set to "root" and the "Password" field contains "*****". The "Directories" button is also highlighted with a red box. The main window shows a local site tree on the left and a remote site tree on the right, both listing various files and folders. The status bar at the bottom right shows "Queue 0 bytes".
3. Under the [root] directory, double click [...] to go to upper level directory.	 A screenshot of the FileZilla interface showing the same connection as above. The "Root" folder icon under the local site tree is highlighted with a red box. The remote site tree shows the same directory structure as the previous screenshot. The status bar at the bottom right shows "Queue 0 bytes".

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
4. Under [/] directory, select [opt] folder.	 A screenshot of the FileZilla interface. The left pane shows the local site tree with drives C:, D:, E:, F:, and G:. The right pane shows the remote site tree for '192.168.0.13' with several folders like 'bin', 'lib', 'log', 'media', 'opt', 'src', 'tmp', and 'var'. The 'opt' folder is highlighted with a red box in the remote tree.
5. Open the [database] folder.	 A screenshot of the FileZilla interface. The left pane shows the local site tree. The right pane shows the remote site tree for '192.168.0.13'. The 'opt' folder is expanded, revealing subfolders 'bin', 'etc', 'log', 'media', 'opt', 'sbin', 'tmp', and 'var'. The 'opt' folder is highlighted with a red box in the remote tree.
6. Transfer the previously saved backup file [SM880.dat_backup.zip] on the PC this folder.	 A screenshot of the FileZilla interface. The left pane shows the local site tree with a file 'SM880.dat_backup.zip' selected and highlighted with a red box. The right pane shows the remote site tree for '192.168.0.13'. The 'opt' folder is selected and highlighted with a red box. A red dashed arrow points from the selected file in the local tree to the selected folder in the remote tree, indicating the transfer operation.

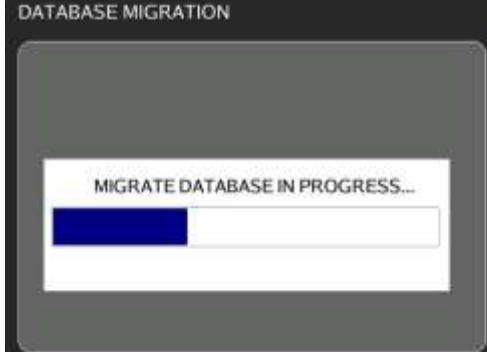
# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
7. In Registration mode, press [MENU] to go to Main Menu mode.	
8. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [DATABASE] to go to Database mode.	
9. In Database menu, select [DATABASE MIGRATION].	
10. Select [YES] button.	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
11. Wait for database migration progress to complete.	
12. Migration Database successfully. Click [OK] to exit.	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

### 6.3.7 USB Backup/Restore

- Plug in the USB storage device to scale USB port.

#### 6.3.7.1 USB Manual Backup



(Note: Make sure the Backup data file restore for other scale is the same PCScale software version.)

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [USB BACKUP/ RESTORE] to go to USB Backup/Restore mode.	
3. In USB Backup/Restore menu, select [MANUAL BACKUP].	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
4. Select the desired data and touch [CONFIRM] button.	
5. Select the USB storage disk [USB 1 (/dev/sda1)] and click [CONFIRM] button to start backup the file.	
6. Data backup in USB storage device is successful. Then touch [BACK] (x2) return back to USB Backup/Restore menu.	
7. Select [SCHEDULE DAILY BACKUP] to set the backup schedule.	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
8. Touch “DAILY BACKUP” button to enable the setting. Set the desired setting and touch [CONFIRM].	
9. Select [SCHEDULE WEEKLY BACKUP] to set the backup schedule.	
10. Touch “WEEKLY BACKUP” button to enable the setting. Set the desired setting and touch [CONFIRM].	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

### 6.3.7.2 USB Restore

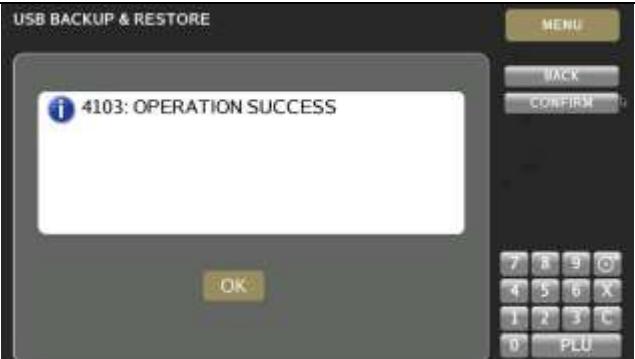
(Note: Make sure Backup data file restore from other scale is the same PCScale software version.)



Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [USB BACKUP/RESTORE] to go to USB Backup/Restore mode.	
3. In USB Backup/Restore mode, select [RESTORE BACKUP].	

# Hardware Test and Maintenance

## 6.3 Database Maintenance

Procedure	Picture
4. Select the USB storage disk [USB 1 (/dev/sda1)] and touch [CONFIRM] button.	
5. Tick the check box and touch [CONFIRM] button to start restoring the backup file.	
6. Data restored from USB storage device is successful.	

# Hardware Test and Maintenance

## 6.4 Hardware Test

### 6.4.1 Input

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [HARDWARE TEST] to go to Hardware Test menu.	
3. At Hardware Test menu, touch [INPUT] then press scale key button, scan barcode or slide the magnetic card.	
4. The screen will show the value (Value may different depend on different data input). If there is not data on the screen, that mean the input test has fail.	

# Hardware Test and Maintenance

## 6.4 Hardware Test

### 6.4.2 USB

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [HARDWARE TEST] to go to Hardware Test menu.	
3. At Hardware Test menu, connect USB keyboard/Mouse to scale USB port, then select [USB] and touch [DETECT] button.	

# Hardware Test and Maintenance

## 6.4 Hardware Test

Procedure	Picture
4. If Ok, the screen will display message [I: Bus=0003 Vendor=413c Product=21 <b>06...</b> ], If fail the message will display [NO USB HID DEVICE DETECTED].	 <p>The screenshot shows the 'HARDWARE TEST' menu with the 'USB' tab selected. The main display area shows the message: 'I: Bus=0003 Vendor=413c Product=2106 Version=0110'. Below the display is a numeric keypad and a 'DETECT' button.</p> <p>Ok</p>  <p>The screenshot shows the 'HARDWARE TEST' menu with the 'USB' tab selected. The main display area shows the message: 'PLUGIN LOOPBACK CABLE &amp; PRESS TEST BUTTON.' Below the display is a numeric keypad and a 'DETECT' button.</p> <p>Fail</p>

# Hardware Test and Maintenance

## 6.4 Hardware Test

### 6.4.3 Ethernet

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [HARDWARE TEST] to go to Hardware Test menu.	
3. At Hardware Test menu, connect Ethernet LAN cable from PC to Scale and select [ETHERNET], then touch [DETECT] button. (Ensure the PC & Scale is to set the IP Address already)	
4. Scrolls down the screen will display the Ethernet information, TX and RX data transit rate. Please check the RX & TX data transit rate as below.	

# Hardware Test and Maintenance

## 6.4 Hardware Test

### 6.4.4 Drawer

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [HARDWARE TEST] to go to Hardware Test menu.	
3. At Hardware Test menu, select [CASH DRAWER] then connect the Cash Drawer cable to the Scale cash drawer port.	
4. Touch [OPEN] the status message will show [OPENED] and the Drawer door should be open.	

# Hardware Test and Maintenance

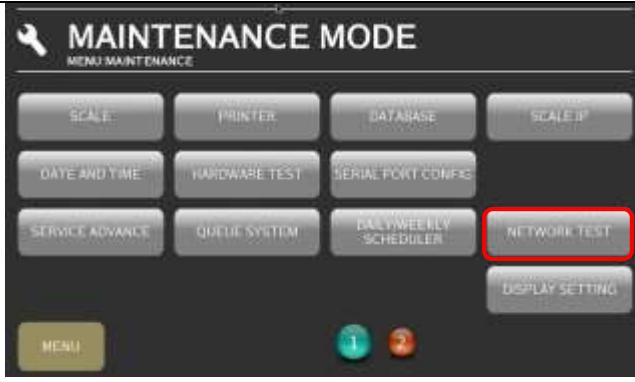
## 6.4 Hardware Test

Procedure	Picture
<p><u>Note:</u></p> <ul style="list-style-type: none"><li>i. If the cash drawer does not open, supplied power may be insufficient. In this case, try setting different value e.g. [100ms] in Drawer1 Open Pulse Width.</li><li>ii. Two cash drawers can be supported in the same port with special cable.</li></ul>	 <p>The screenshot shows the 'HARDWARE TEST' software interface. At the top, there are tabs for 'CASH DRAWER' (highlighted in orange) and 'LCD'. On the right side, there's a 'MENU' button. Below the tabs, there are two sections labeled 'STATUS 1:' and 'STATUS 2:'. Each section has a dropdown menu titled 'PULSE WIDTH' containing the following values: 20 ms, 50 ms, 100 ms, 200 ms, 300 ms, and 400 ms. The '100 ms' option is selected in both dropdown menus. To the right of each dropdown is a 'SET' button. At the bottom of the screen, there are numeric keypad buttons (0-9) and a 'PLU' button.</p>

# Hardware Test and Maintenance

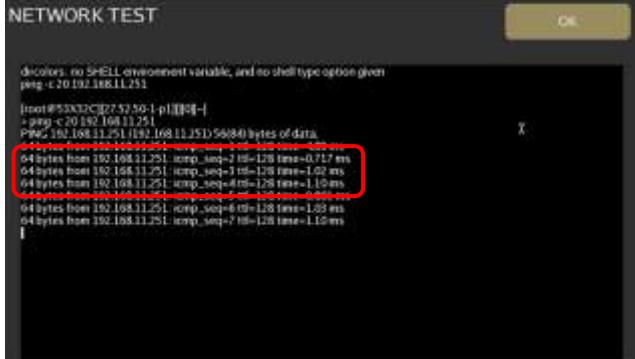
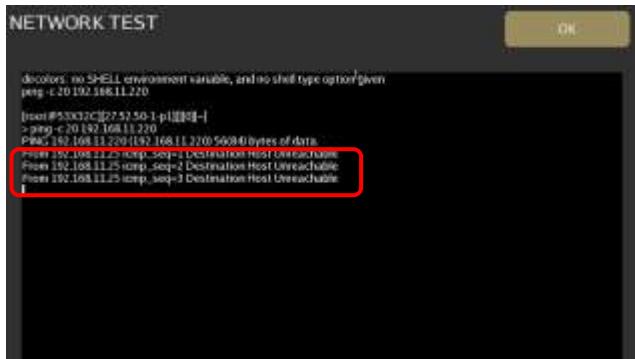
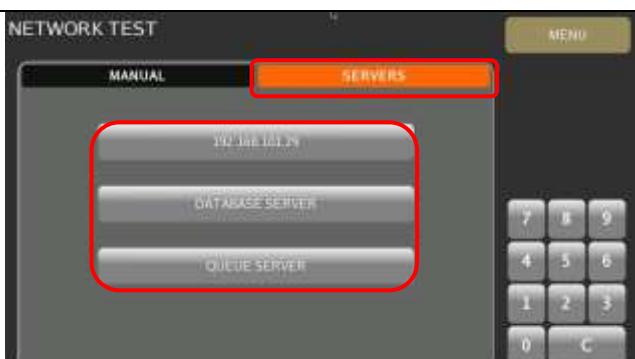
## 6.4 Hardware Test

### 6.4.5 Network Test

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [HARDWARE TEST] to go to Hardware Test menu.	
3. Manually enter IP address and press the [PING] button.	

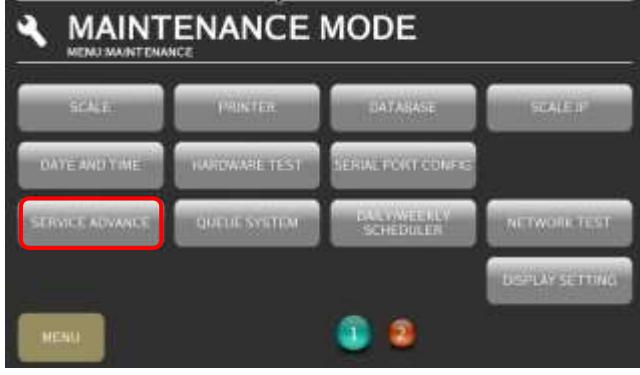
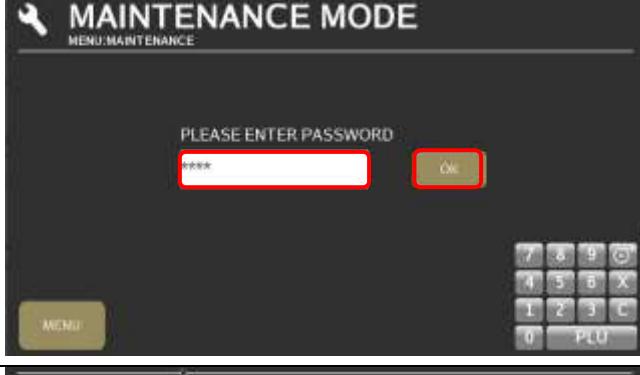
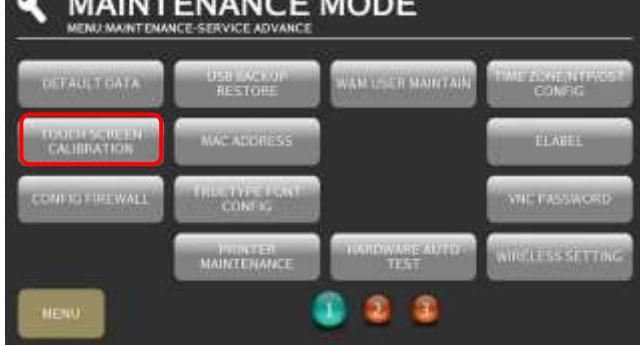
# Hardware Test and Maintenance

## 6.4 Hardware Test

Procedure	Picture
4. The display will show the communication status.	 <p>NETWORK TEST</p> <pre>root@5330X:~# ping -c 20 192.168.11.251 PING 192.168.11.251(192.168.11.251) 56(84) bytes of data. 64 bytes from 192.168.11.251: icmp_seq=1 ttl=128 time=0.717 ms 64 bytes from 192.168.11.251: icmp_seq=2 ttl=128 time=0.727 ms 64 bytes from 192.168.11.251: icmp_seq=3 ttl=128 time=0.727 ms 64 bytes from 192.168.11.251: icmp_seq=4 ttl=128 time=0.727 ms 64 bytes from 192.168.11.251: icmp_seq=5 ttl=128 time=0.727 ms 64 bytes from 192.168.11.251: icmp_seq=6 ttl=128 time=0.727 ms 64 bytes from 192.168.11.251: icmp_seq=7 ttl=128 time=0.727 ms</pre> <p><u>Communication OK</u></p>
	 <p>NETWORK TEST</p> <pre>root@5330X:~# ping -c 20 192.168.11.220 PING 192.168.11.220(192.168.11.220) 56(84) bytes of data. 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=1 ttl=128 time=0.717 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=2 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=3 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=4 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=5 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=6 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=7 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=8 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=9 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=10 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=11 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=12 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=13 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=14 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=15 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=16 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=17 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=18 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=19 ttl=128 time=0.727 ms 64 bytes from 192.168.11.220(192.168.11.220): icmp_seq=20 ttl=128 time=0.727 ms</pre> <p><u>Communication Fail</u></p>
5. If want to ping Server IP address, select [SOURCES] and touch the server IP address e.g.[DATABASE SERVER].	 <p>NETWORK TEST</p> <p><b>SOURCES</b></p> <p>192.168.11.250 DATABASE SERVER FILE SERVER</p>
6. The display will show the Server communication status.	 <p>DATABASE SERVER</p> <pre>root@5330X:~# ping 127.0.0.1 PING 127.0.0.1(127.0.0.1) 56(84) bytes of data. 64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=0.180 ms 64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.132 ms 64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.156 ms 64 bytes from 127.0.0.1: icmp_seq=4 ttl=64 time=0.098 ms</pre>

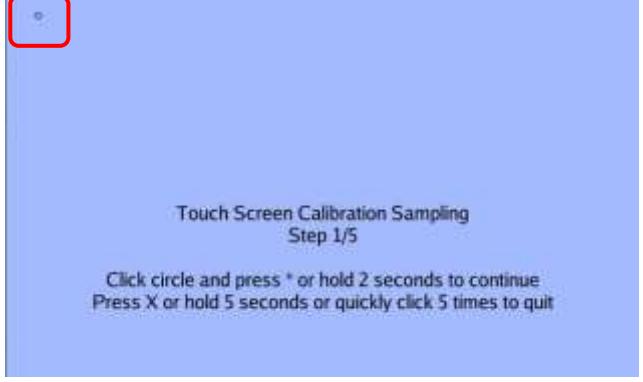
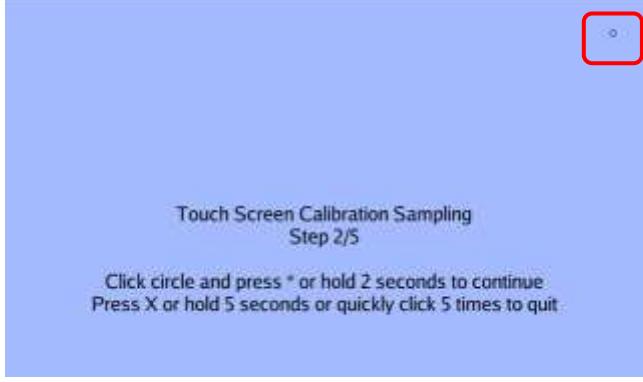
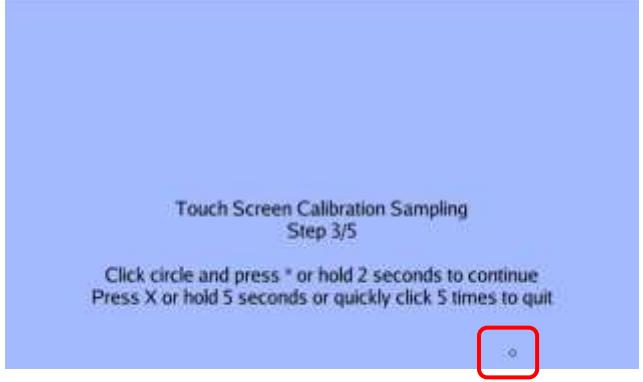
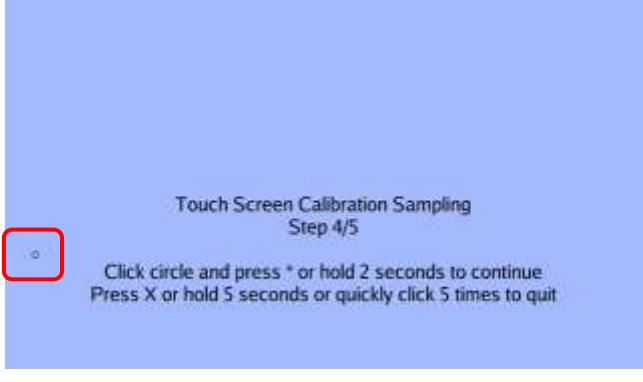
# Hardware Test and Maintenance

## 6.5 Touch Screen Calibration

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SERVICE ADVANCE] to go to Service Advance maintenance mode.	
3. Enter the Password and select [ENTER] button.  Password: 0953	
4. In Service mode, touch [TOUCH SCREEN CALIBRATION].	

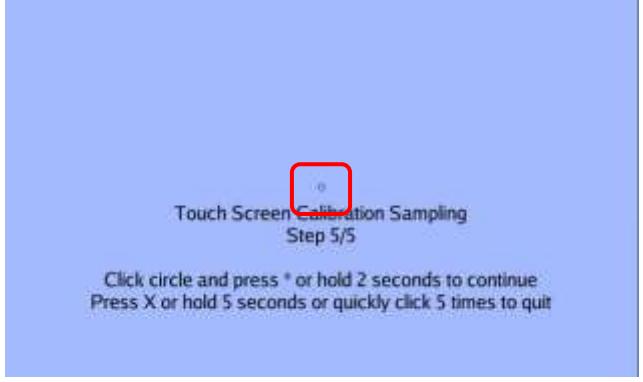
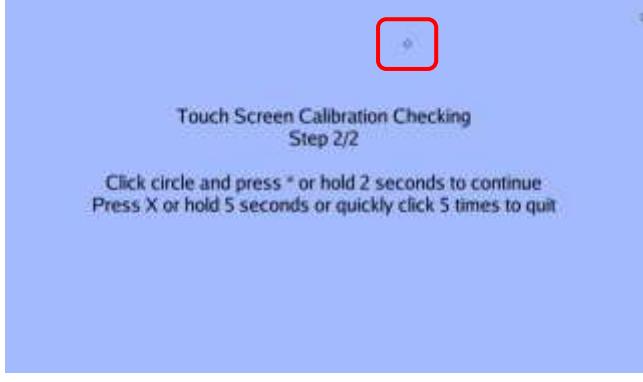
# Hardware Test and Maintenance

## 6.5 Touch Screen Calibration

Procedure	Picture
5. Touch and Hold [Circle point] for 2 second at left side top corner.	 <p>Touch Screen Calibration Sampling Step 1/5</p> <p>Click circle and press * or hold 2 seconds to continue Press X or hold 5 seconds or quickly click 5 times to quit</p>
6. Touch and Hold [Circle point] for 2 second at left side bottom corner.	 <p>Touch Screen Calibration Sampling Step 2/5</p> <p>Click circle and press * or hold 2 seconds to continue Press X or hold 5 seconds or quickly click 5 times to quit</p>
7. Touch and Hold [Circle point] for 2 second at right side bottom area.	 <p>Touch Screen Calibration Sampling Step 3/5</p> <p>Click circle and press * or hold 2 seconds to continue Press X or hold 5 seconds or quickly click 5 times to quit</p>
8. Touch and Hold [Circle point] for 2 second at left side area.	 <p>Touch Screen Calibration Sampling Step 4/5</p> <p>Click circle and press * or hold 2 seconds to continue Press X or hold 5 seconds or quickly click 5 times to quit</p>

# Hardware Test and Maintenance

## 6.5 Touch Screen Calibration

Procedure	Picture
9. Touch and Hold [Circle point] for 2 second at center area.	 A blue screen titled "Touch Screen Calibration Sampling Step 5/5". It features a small red square containing a white circle in the upper right quadrant. Below the title, the text reads: "Click circle and press * or hold 2 seconds to continue" and "Press X or hold 5 seconds or quickly click 5 times to quit".
10. Touch and Hold [Circle point] for 2 second at center top area.	 A blue screen titled "Touch Screen Calibration Checking Step 2/2". It features a small red square containing a white circle in the upper right quadrant. Below the title, the text reads: "Click circle and press * or hold 2 seconds to continue" and "Press X or hold 5 seconds or quickly click 5 times to quit".
11. If completed, the screen will display message [Touch Screen Calibration Success], press and hold anywhere for 3 second will to exit.	 A blue screen titled "Touch Screen Calibration Success". It features a small red square containing a white circle in the upper right quadrant. Below the title, the text reads: "Press X or click screen to quit".

# Hardware Test and Maintenance

## 6.6 Write AD Board Checksum

Note:

- 1) Ensure the Span Switch is set to "Enable".
- 2) This procedure should be performed when replacing a new AD board.

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SCALE] to go to DATABASE mode.	
3. At Scale menu, select [WRITE CHECKSUM].	
4. Enter the Password or Enable the Span Switch, then touch [CONFIRM] button.	

# Hardware Test and Maintenance

## 6.6 Write AD Board Checksum

Procedure	Picture
5. Waiting for write checksum in process.	 A screenshot of a digital scale's control panel. The screen displays the text "WRITING CHECKSUM...". At the top right are two buttons: "EXIT" (yellow) and "CONFIRM" (grey). On the right side of the screen is a numeric keypad with buttons for 7, 8, 9, 4, 5, 6, 1, 2, 3, 0, <, >, C, X, and PLU. The background is dark grey.
6. Write Checksum successfully.	 A screenshot of a digital scale's control panel. The screen displays the text "WRITE CHECKSUM DONE". At the top right are two buttons: "EXIT" (yellow) and "CONFIRM" (grey). On the right side of the screen is a numeric keypad with buttons for 7, 8, 9, 4, 5, 6, 1, 2, 3, 0, <, >, C, X, and PLU. The background is dark grey.

# Hardware Test and Maintenance

## 6.7 System Information

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [SYSTEM INFO].	
3. In System Info mode, select [SCALE] will show the information of "Software Version", "Model Name", "AD Version", "Checksum", "QT version" and "Serial Number".	
4. Select [SUBCPU] will show the information of "Printer version", and "Printer Boot Loader version".	

# Hardware Test and Maintenance

## 6.7 System Information

Procedure	Picture
5. Select [BOOT FLASH] will show the information of "Boot Flash" and "Boot Loader".	 A screenshot of a handheld device's display showing the 'SYSTEM INFORMATION' menu. The tabs at the top are 'SCALE', 'SUBCPU', 'BOOT FLASH' (which is highlighted with a red box), 'DATABASE', and 'SYSTEM'. Below the tabs, the text 'BOOT FLASH = 800 FLASHER = 7.14' is displayed. At the bottom right, there is a numeric keypad and a 'PLU' button.
6. Select [DATABASE] to show the quantity of "PLU", "Main Group" and "Department".	 A screenshot of the same handheld device's display, now showing the 'DATABASE' tab selected (highlighted with a red box). The screen displays data related to database records: 'TABLE RECORD COUNT', 'PLU = 3', 'MAIN GROUP = 10', and 'DEPARTMENT = 14'. The bottom right features the numeric keypad and 'PLU' button.
7. Select [SYSTEM] to show the information of "Linux Operating System version", "Memory Capacity" and "Disk Space".	 A screenshot of the handheld device's display with the 'SYSTEM' tab selected (highlighted with a red box). The screen shows system details: 'LINUX VERSION = 3.10.11-MEE', 'DRIVE CAPACITY = 16GB', 'MEMORY': 'TOTAL RAM = 1,025,084 KB', 'FREE RAM = 164,488 KB', 'BUFFER RAM = 55,880 KB', 'CACHED RAM = 355,744 KB', 'DISK SPACE': 'TOTAL SIZE = 7.271 MB', 'FREE SIZE = 5,795,809 KB', and 'SOUND CARD0': '...'. The bottom right includes the numeric keypad and 'PLU' button.
8. Touch  arrow button to go to next screen and select [SD CARD] to show the information of "Manufacturer ID", "OEM ID", "Name", "Size" and "Manufacturing Date".	 A screenshot of the handheld device's display with the 'SD CARD' tab selected (highlighted with a red box). The screen shows SD card details: 'MANUFACTURER ID = 0x000077 (PHISON)', 'OEM ID = 0x048', 'NAME = SD000G', 'SIZE = 7.68GB', and 'MANUFACTURING DATE = 02/0018'. The bottom right has the numeric keypad and 'PLU' button.

# Hardware Test and Maintenance

## 6.7 System Information

Procedure	Picture
9. Select [BANK TERMINAL] to show the information of "Message Module Checksum" and "Bank Terminal Interface checksum".	 <p>The screenshot shows a handheld device's display screen with a dark background. At the top, there are three tabs: 'SD CARD', 'BANK TERMINAL' (which is highlighted with a red box), and 'RF READER'. Below the tabs, the text 'SYSTEM INFORMATION' is displayed. Underneath, it says 'MESSAGE MODULE CHECKSUM = 7D9ECE38' and 'BANK TERMINAL INTERFACE CHECKSUM = 9'. At the bottom right of the screen, the text 'DIGI SINGAPORE PTE LTD.' is visible. To the right of the screen, there is a numeric keypad with digits 7, 8, 9, *, 4, 5, 6, #, 1, 2, 3, 0, and a 'PLU' button.</p>

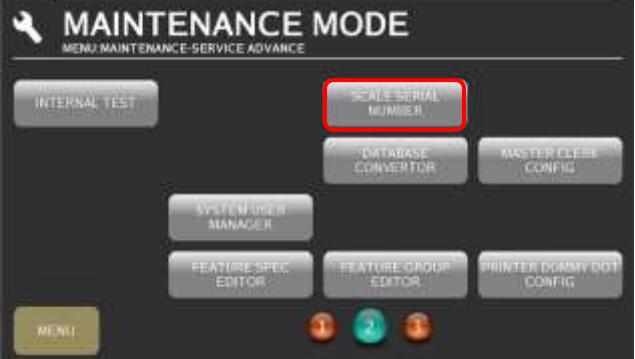
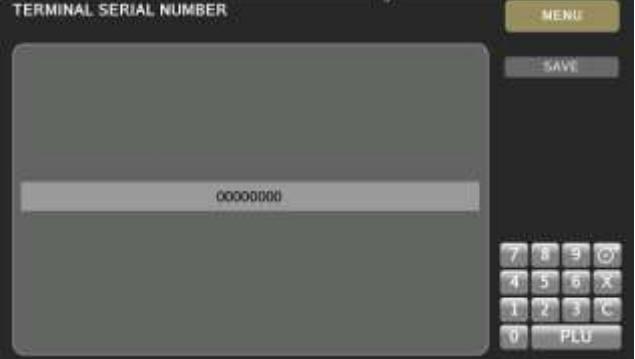
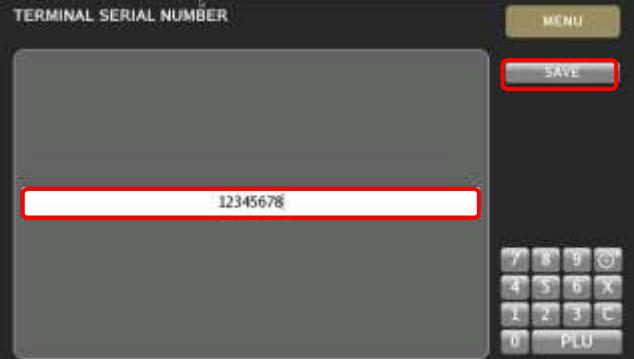
# Hardware Test and Maintenance

## 6.8 Scale Serial Number

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select [MAINTENANCE] → [MAINTENANCE] → [SERVICE ADVANCE] to go to Service Advance maintenance mode.	
3. Enter the Password and select [ENTER] button.  Password: 0953	
4. In Service mode, touch	

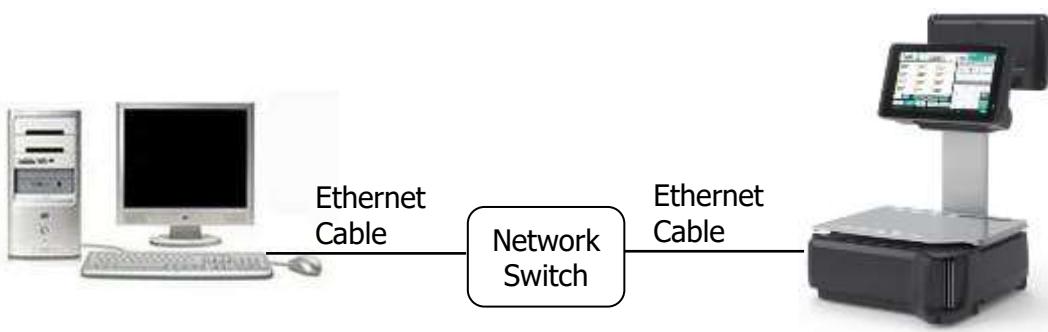
# Hardware Test and Maintenance

## 6.8 Scale Serial Number

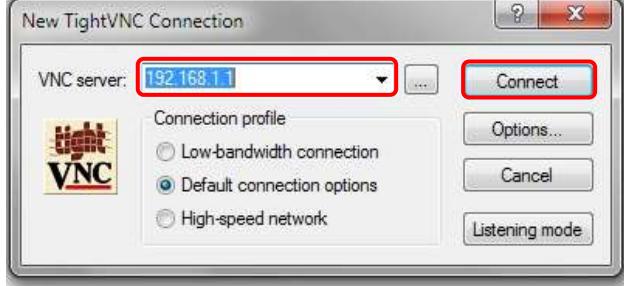
Procedure	Picture
5. Touch [SCALE SERIAL NUMBER].	
6. The screen will show the [00000000] and enter the password to enable the function to change.  Password: 5178	
7. Enter the 8 digits serial number according the scale serial number and touch [SAVE] button to save changed.	
8. Completed.	

# Hardware Test and Maintenance

## 6.9 VNC Client Theme Viewer



1. Connect the Ethernet cable from PC to Network Switch/Hub.
2. Connect the Ethernet cable from SM-5300X to Network Switch/Hub.

Procedure	Picture
1. Open any VNC Client program. (Eg. vncviewer)	 A screenshot of a Windows Start menu or taskbar showing icons for 'vncviewer' and 'TightVNC Group'.
2. Enter the SM-5300X machine IP address [e.g. 192.168.XXX.XXX] and then click [Connect] button.	 A screenshot of the 'New TightVNC Connection' dialog. The 'VNC server:' field contains '192.168.1.1' and the 'Connect' button is highlighted with a red rectangle.
3. Enter the scale login password and select [OK].	 A screenshot of the 'Standard VNC Authentication' dialog. The 'Password:' field contains '*****' and the 'OK' button is highlighted with a red rectangle.
4. The PC will link and show the display from SM-5300X machine.	 A screenshot of the SM-5300X scale's internal display. The 'MENU' option in the top right corner is highlighted with a red rectangle. The display shows various weighing data and a numeric keypad.

# Hardware Test and Maintenance

## 6.10 Maintenance

### 6.10.1 Scale Surface Cleaning

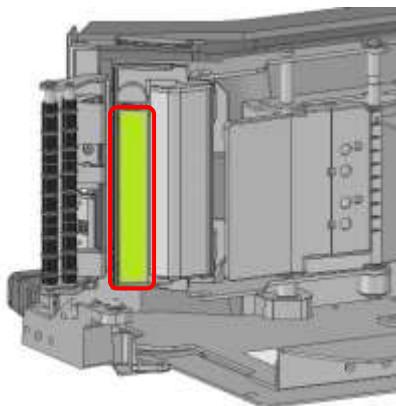
Clean scale surfaces and platter periodically with a soft damp cloth. Do not use alcohol or detergent.

### 6.10.2 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 door by pulling the printer latch outward horizontally.
3. Swing open the printer door in a clockwise direction.
4. Pull out the cassette.
5. Use the tip of the cleaning tool to clean the thermal head portion (green colour):



#### 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.

6. After cleaning, put back the cassette with Label into the main unit.
7. Close the printer door by pushing at the lower area of the printer door until a lock sound is heard.  
Refer to diagram below:



8. Turn ON the scale power and depress [FEED] key to feed label/receipt paper/linerless label.

# Hardware Test and Maintenance

## 6.10 Maintenance

### 6.10.3 Dismantling of Thermal Head (SM-5300X)

Note: Please switch off the power first.

Procedure	Picture
1. Push the printer button slide to left to open the printer door and remove the cassette kit.	
2. Press the two latches from the rear side.	
3. Press the two latches from the front side.	
4. Disconnect the Thermal Head cable connector.	

# Hardware Test and Maintenance

## 6.10 Maintenance

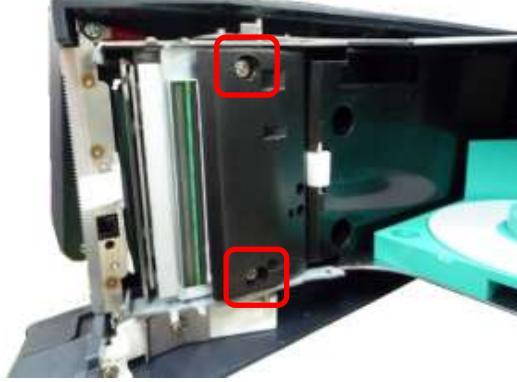
Procedure	Picture
5. Loosen the 2pc screws.	
6. Remove the Thermal Head.	

# Hardware Test and Maintenance

## 6.10 Maintenance

### 6.10.4 Dismantling of Thermal Head (SM-5300X LL)

Note: Please switch off the power first.

Procedure	Picture
1. Push the printer button slide to left to open the printer door and remove the cassette kit.	
2. Unscrew the 2pcs screw to remove the Thermal Head cover.	
3. Push the bracket to inside and slide the Thermal Head to right hand side.	

# Hardware Test and Maintenance

## 6.10 Maintenance

Procedure	Picture
4. Disconnect the Thermal Head cable connector.	
5. Unscrew the 2pcs M3x6 Binding Head screw.	
6. Thermal Head.	

# Hardware Test and Maintenance

## 6.10 Maintenance

### 6.10.5 Dismantling of Thermal Head (SM-5300H X)

Note: Please switch off the power first.

Procedure	Picture
1. Press the printer open button to slide down the printer.	 <u>Bottom View</u>
2. Turn the Printer Head latch and remove the Cassette.	
3. Disconnect the Thermal Head cable.	
4. Loosen the 2pcs Sems A M3x8 screw.	

# Hardware Test and Maintenance

## 6.10 Maintenance

Procedure	Picture
5. Remove the Thermal Head from the printer kit.	
6. Thermal Head. (Completed)	

# Hardware Test and Maintenance

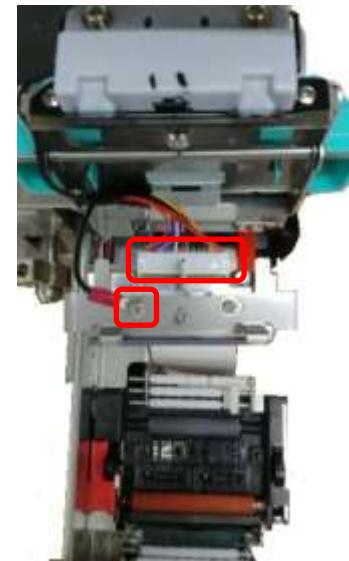
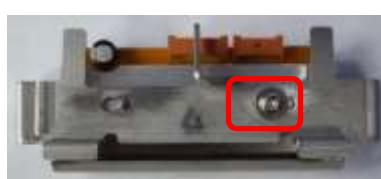
## 6.10 Maintenance

### 6.10.6 Dismantling of Thermal Head (SM-5300H X LL)

Procedure	Picture
1. Press the printer open button to slide down the printer.	 <u>Bottom View</u>
2. Push the Cover (green colour) from bottom to up for release the holder.	
3. Open the cover.	
4. Press the both side of Thermal Head cover to remove the cover.	

# Hardware Test and Maintenance

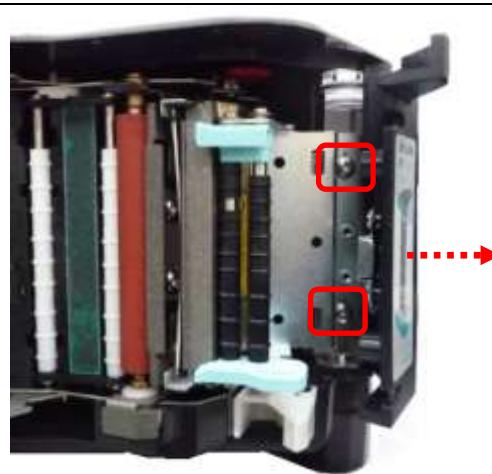
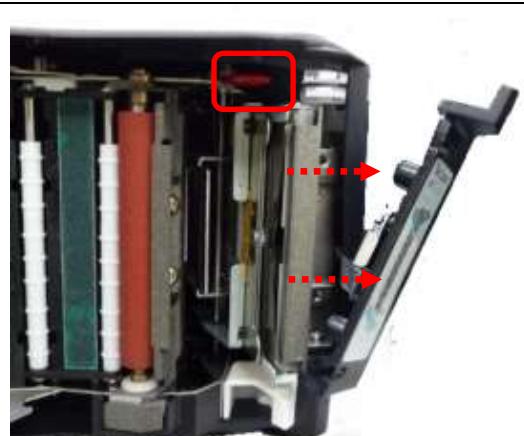
## 6.10 Maintenance

Procedure	Picture
6. Release the catch bracket to remove the Thermal Head.	
7. Remove the Thermal Head Cable and unscrew the 1pc M3x8 Sems B Screw.	
8. Remove the 1pc M3x8 Sems B screw.	
9. Completed.	

# Hardware Test and Maintenance

## 6.10 Maintenance

### 6.10.7 Dismantling of Cutter Unit (SM-5300X LL)

Procedure	Picture
1. Push the printer button slide to left to open the printer door.	
2. Open the printer cutter cover and unscrew the 2pc M3x6 Binding Head screw.	
3. Press down the cutter release lever, <b>cutter unit will open toward to right side.</b>	

# Hardware Test and Maintenance

## 6.10 Maintenance

Procedure	Picture
4. Cutter will open toward to right side.	
5. Pull out the cutter unit toward to in front. (Please careful the cutter unit blade)	
6. Disconnect the Cutter unit connector.	

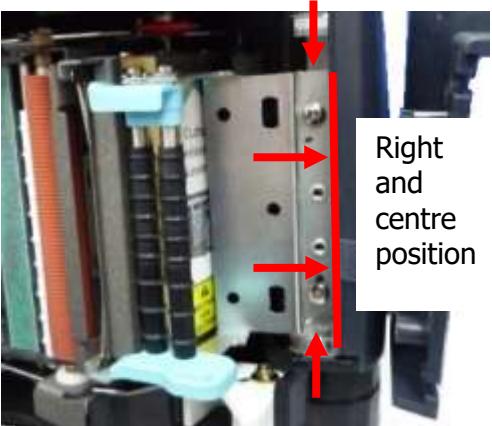
# Hardware Test and Maintenance

## 6.10 Maintenance

Procedure	Picture
7. Cutter Unit.	 A photograph of the cutter unit assembly, showing the internal components and wiring.

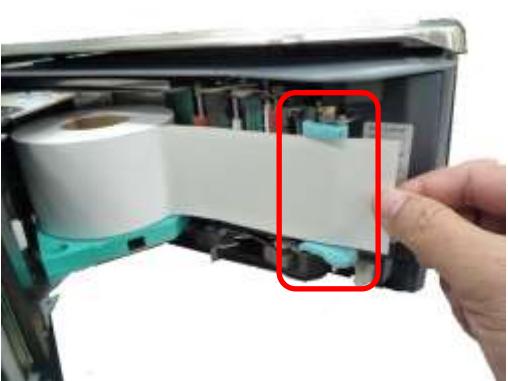
**Note:**

1. Ensure assembly back the roller bracket, adjust the bracket in "Right" and "Centre" position when tighten screw.



A photograph showing the roller bracket being adjusted. Red arrows point to the adjustment screws on the bracket, and a callout box indicates the "Right and centre position".

2. Check and ensure the Linerless Label in centre position of green label guide.



A photograph of the label guide mechanism. A hand is adjusting a white plastic component, and a red box highlights the area where the linerless label should be positioned in the center of the green label guide.

# Hardware Test and Maintenance

## 6.10 Maintenance

### 6.10.8 Dismantling of Cutter Unit (SM-5300H X LL)

Procedure	Picture
1. Press the printer open button to slide down the printer.	 <u>Bottom View</u>
2. Push the Cover (green color) from bottom to up for release the holder.	
3. Open up the cover.	
4. Unscrew the 2pcs Yuraya screw.	

# Hardware Test and Maintenance

## 6.10 Maintenance

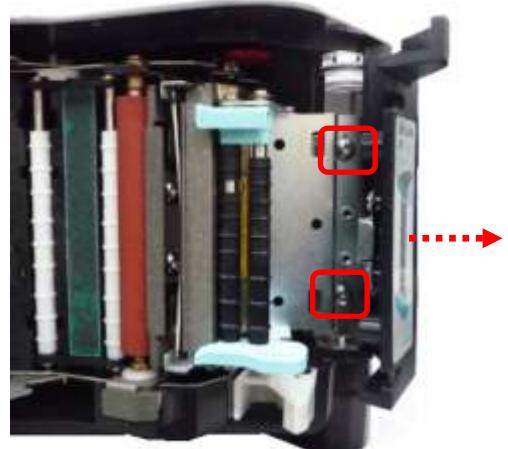
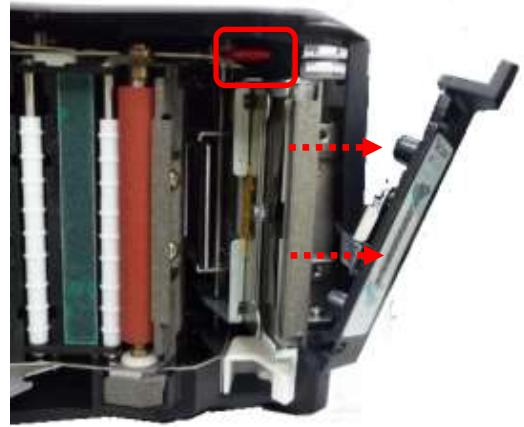
Procedure	Picture
5. Unscrew the 2pcs M3x6 Binding Head screw.	
6. Cutter Blade.	
7. Unscrew the 1pc Yuriya screw.	

# Hardware Test and Maintenance

## 6.10 Maintenance

### 6.10.9 Dismantling of Platen Roller (SM-5300X LL)

Note: Please switch off the power first.

Procedure	Picture
1. Push the printer button slide to left to open the printer door.	
2. Open the printer cutter cover and unscrew the 2pc M3x6 Binding Head screw.	
3. Press down the cutter release lever, <b>cutter unit will open toward to right side</b> .	

# Hardware Test and Maintenance

## 6.10 Maintenance

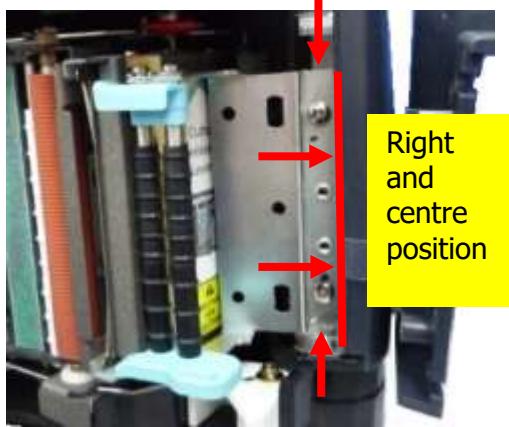
Procedure	Picture
4. Unscrew the 2pcs M3x6 screws.	
5. Remove the Platen Roller bracket.	
6. Remove the Platen Roller.	

# Hardware Test and Maintenance

## 6.10 Maintenance

Procedure	Picture
7. Platen Roller.	

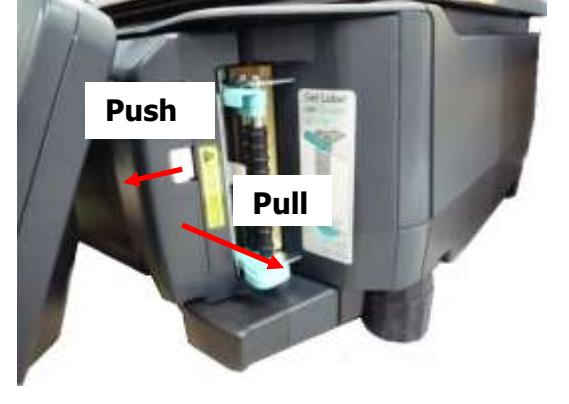
**Note:**

1. Ensure assembly back the roller bracket, adjust the bracket in "Right" and "Centre" position when tighten screw.  

2. Check and ensure the Linerless Label in centre position of green label guide.  


# Hardware Test and Maintenance

## 6.10 Maintenance

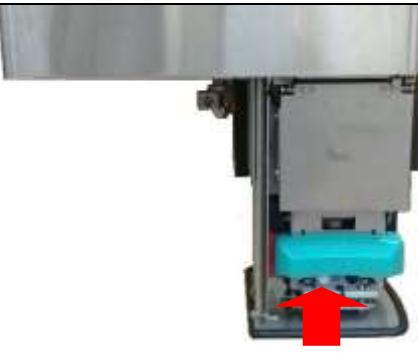
### 6.10.10 Dismantling of Oil Tank (SM-5300X LL)

Procedure	Picture
1. Push the lever to unlock and pull out the cutter oil tank cover.	
2. Unscrew the Yuriya screw.	
3. Remove the oil tank.	

# Hardware Test and Maintenance

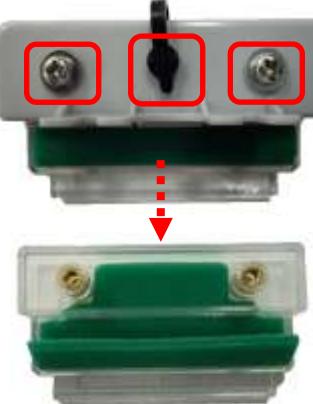
## 6.10 Maintenance

### 6.10.11 Dismantling of Oil Tank (SM-5300H X LL)

Procedure	Picture
1. Press the printer open button to slide down the printer.	 <u>Bottom View</u>
2. Push the Cover (green color) from bottom to up for release the holder.	
3. Open up the cover.	
4. Unscrew the 2pcs Sems B M3x8 screw.	

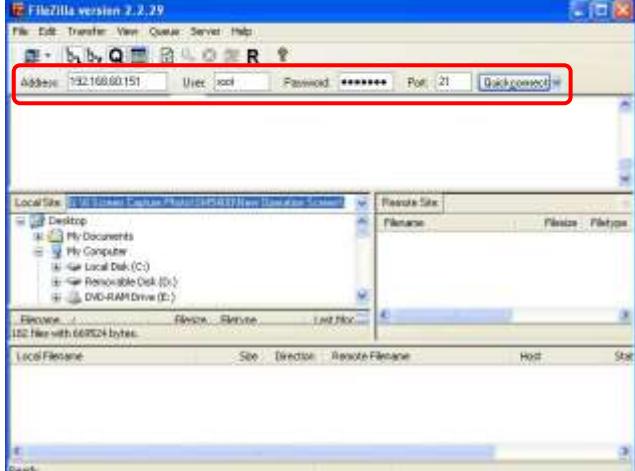
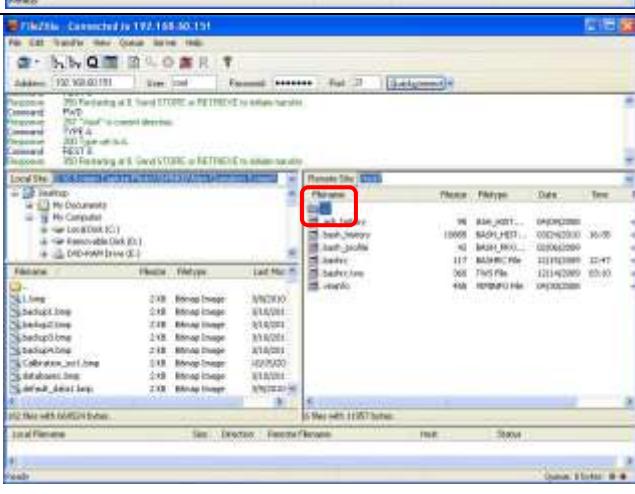
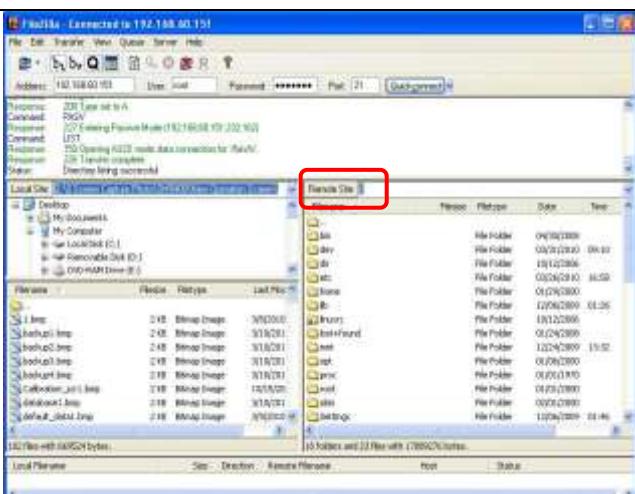
# Hardware Test and Maintenance

## 6.10 Maintenance

Procedure	Picture
5. Unscrew the 2pcs Yuraya screw.	
6. Unplug the Inlet and unscrew the 2pcs M3x8 screw to remove the holder. (Completed)  Note: Proper handling of cutter oil to prevent spillage is required.	 Cutter Oil Tank

# Firmware Upgrading

## 7.1 PCScale Software

Procedure	Picture
1. Open and run the FTP client program, e.g. [FileZilla].	 FileZilla
2. Enter the scale IP address, User and Password, then click the [Quickconnect] button.  Note: For "User Name" and "Password" please inquiry from Manufacturer.	
3. Double click the [...] symbol to go to upper level.	
4. Copy and paste the upgrading PCScale software (Installer) under the [/] directory. Reboot the scale after uploading. Scale will upgrade automatically after reboot.	

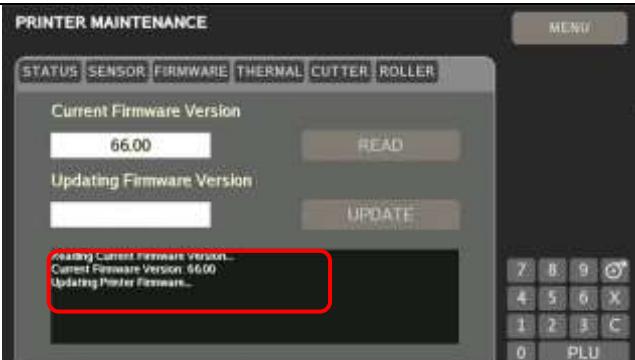
# Firmware Upgrading

## 7.2 Printer Firmware

Procedure	Picture
1. In Registration mode, press [MENU] to go to Main Menu mode.	
2. At Main Menu mode, select → [MAINTENANCE] → [MAINTENANCE] → [PRINTER] → [PRINTER MAINTENANCE] to go to printer test mode.	
3. In Printer Maintenance menu, touch [FIRMWARE].	
4. Touch [READ] to reading the current firmware version. (The below column will show the new firmware version).	

# Firmware Upgrading

## 7.2 Printer Firmware

Procedure	Picture
5. Touch [UPDATE] button.	
6. Touch [YES] to confirm start updating the firmware.	
7. Waiting for firmware upgrading process.	
8. Firmware updated successfully.	

# Firmware Upgrading

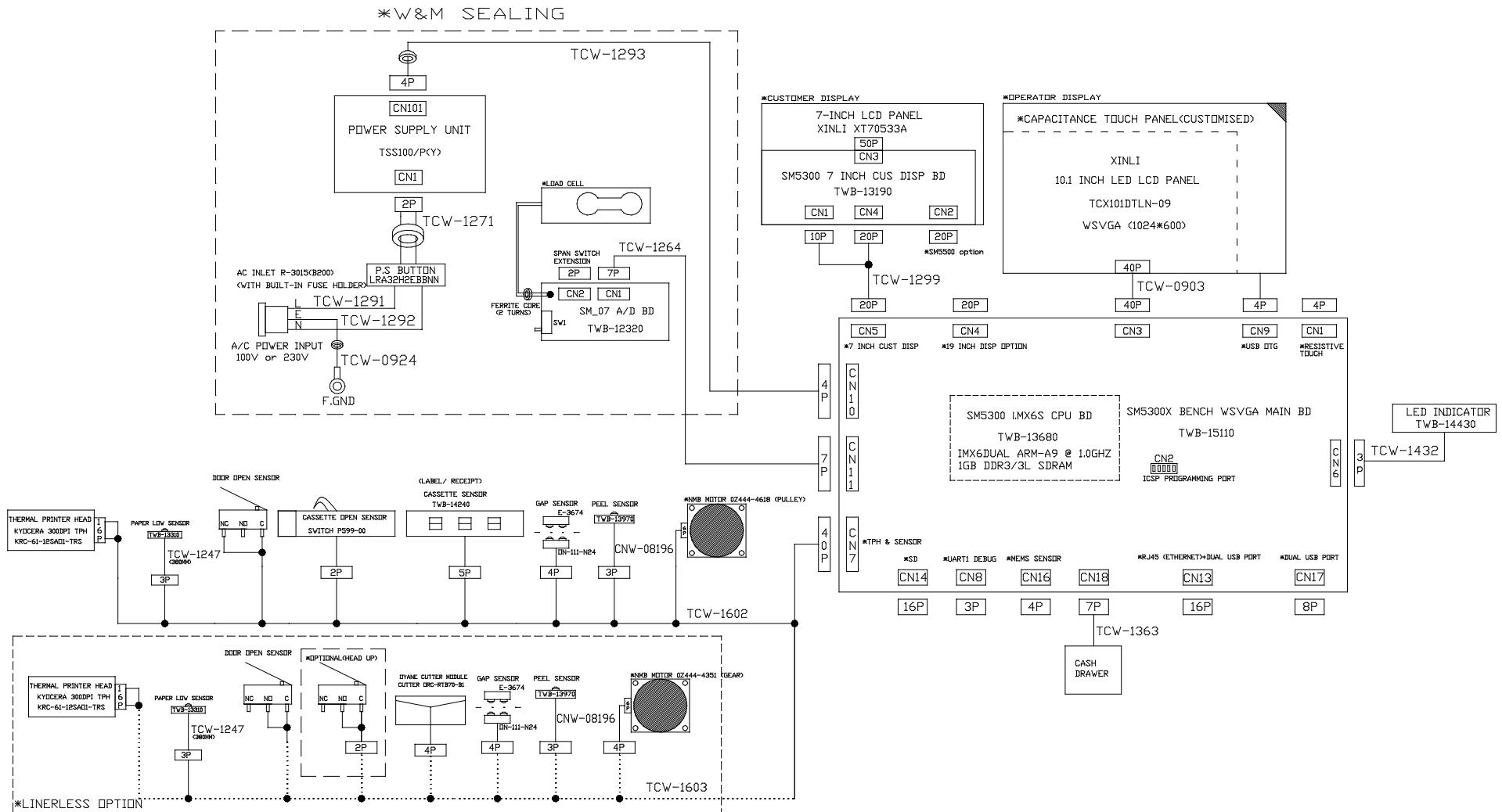
## 7.2 Printer Firmware

Procedure	Picture
8. Touch [READ] again to confirm the new firmware version is updated.	 <p>The image shows a printer's touchscreen interface during a firmware update process. The top menu bar includes STATUS, SENSOR, FIRMWARE (which is highlighted in orange), THERMAL, CUTTER, and ROLLER. Below the menu, the 'Current Firmware Version' is listed as '68.00'. A red box highlights the 'READ' button. The main display area shows the progress: 'Updating Firmware Version' followed by '68.00' and a red box around the 'UPDATE' button. A status message at the bottom of the screen reads: 'Reading Current Firmware Version... Current Firmware Version: 68.00 Updating Printer Firmware... Update Successfully! Reading Current Firmware Version... Current Firmware Version: 68.00'. To the right of the screen is a numeric keypad with digits 7, 8, 9, 0, 4, 5, 6, X, 1, 2, 3, C, and 0 PLU.</p>

# HARDWARE DETAILS

## 8.1 Block Diagram

### 8.1.1 Bench/Pole

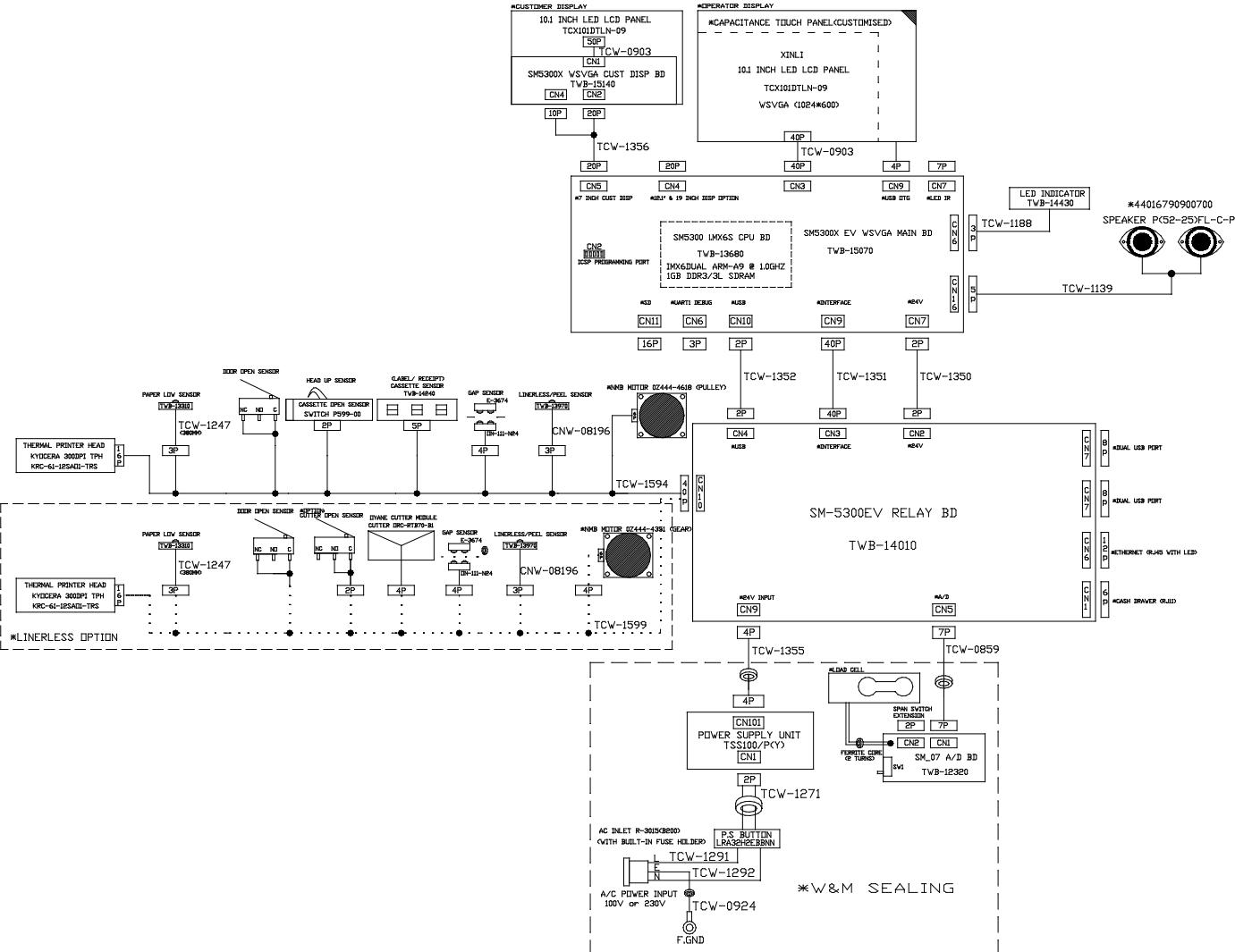


CONFIDENTIAL

# HARDWARE DETAILS

## 8.1 Block Diagram

### 8.1.2 Elevated

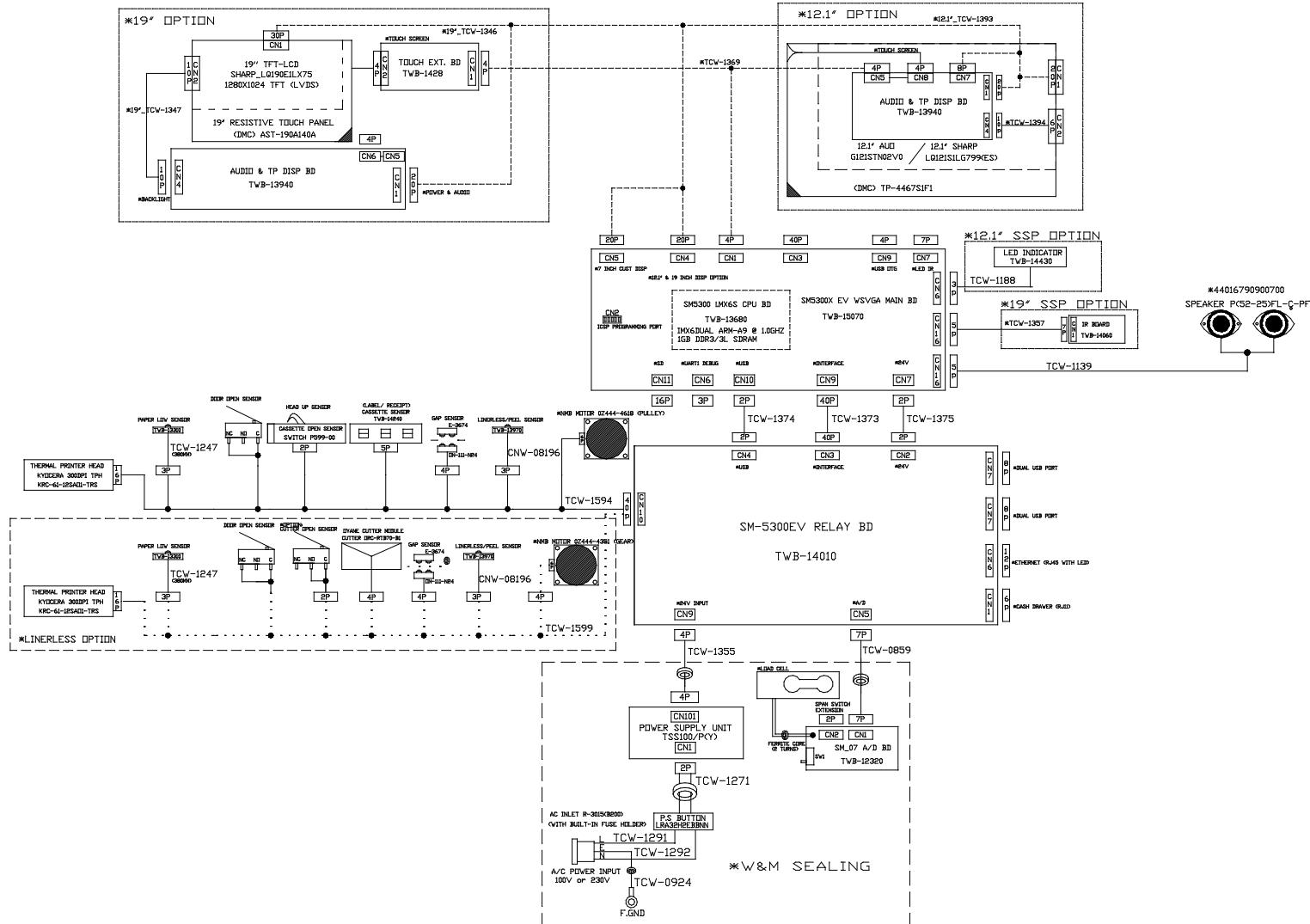


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# HARDWARE DETAILS

## 8.1 Block Diagram

### 8.1.3 Self-Service Pole

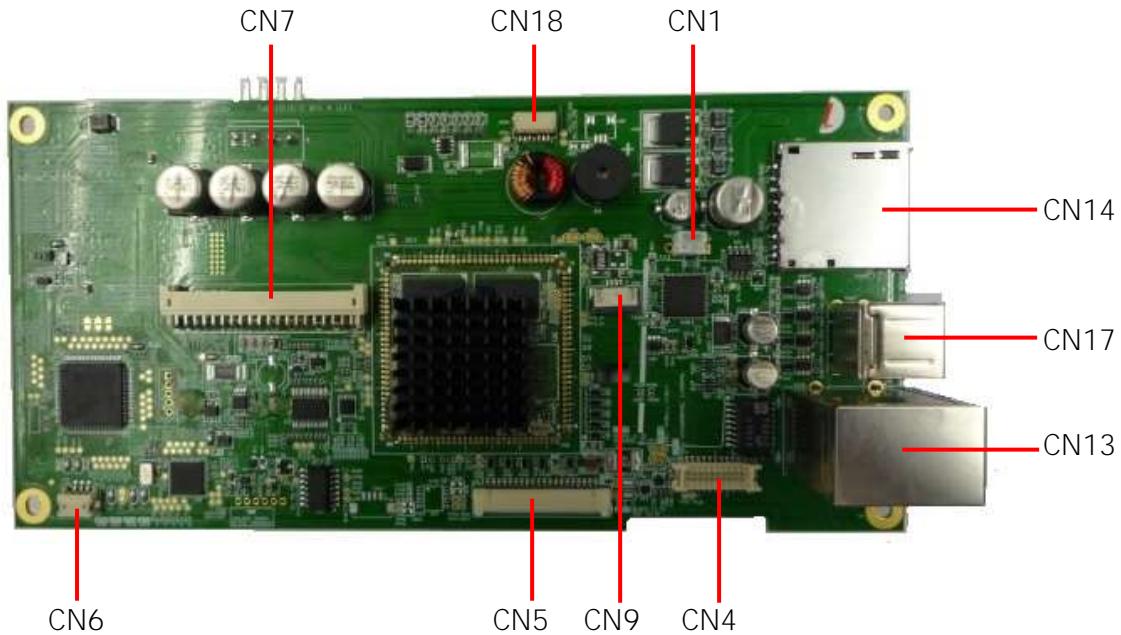


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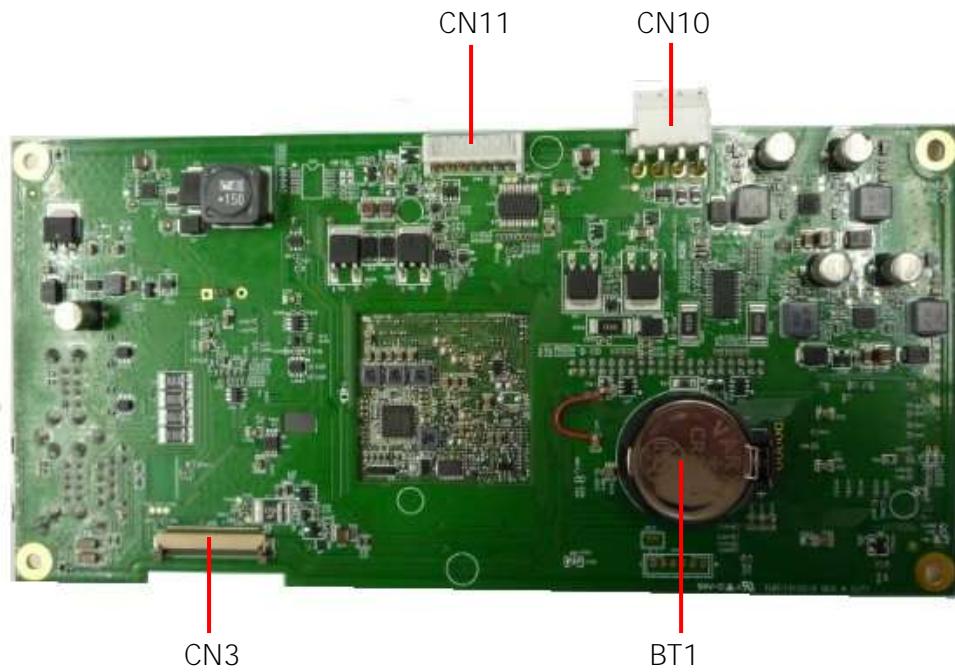
# Hardware Details

## 8.2 Main Board (TWB-15110-0) (Bench/Pole)

### Component side



### Solder side



### Connector Functional Listing

Connector	Description
CN1	Super Capacitor Pack
CN3	10.1" Operator Display
CN4	Not Available
CN5	Customer 7" LCD Display Interface

# Hardware Details

## 8.2 Main Board (TWB-15110-0) (Bench/Pole)

Connector	Description
CN6	LED Indicator
CN7	Thermal Head, Printer Sensor and Stepper Motor Interface
CN9	10.1" Touch Panel Interface
CN10	Power Supply DC 24V Input
CN11	AD Board Interface
CN13	Dual USB Port V2.0 (x2) & Ethernet 10/100 Base-T Connector (RJ-45)
CN14	SD Card slot
CN17	Dual USB Port V2.0 (x2)
CN18	Cash Drawer
BT1	Lithium Cell Button CR2450 Battery

TWB-15110-0 Rev. B (SM-5300B/P X)

Jumper Pad	Jumper Setting
JP1, JP2, JP5, JP6, *JP7, JP13, JP14, JP16, JP17, JP19, JP21, JP30	Short (1-2)

\*JP7 Short(Paper Low),Open(No)

TWB-15110-0 Rev. B (SM-5300B/P X LL)

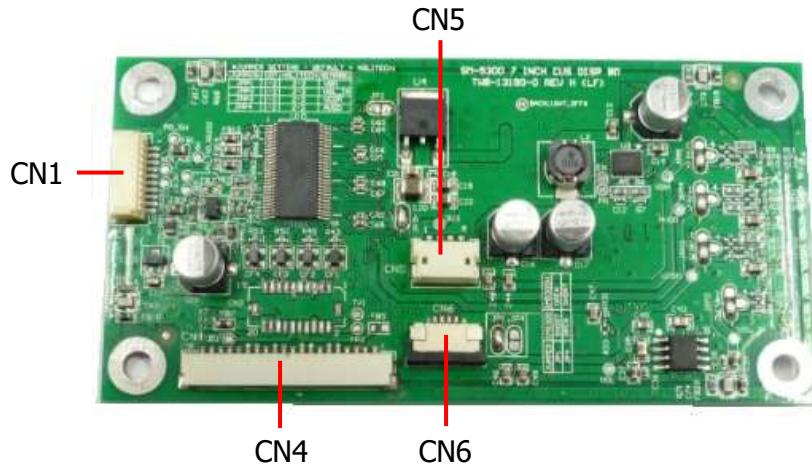
Jumper Pad	Jumper Setting
JP1, JP2, JP5, *JP7, JP13, JP14, JP16, JP17, JP21, JP30	Short (1-2)
JP19	Short (2-3)

\*JP7 Short(Paper Low),Open(No)

# Hardware Details

## 8.3 Customer Display Board (TWB-13190-0) (Bench/Pole)

### Component Side



### Solder Side



Connector	Description
CN1	LCD Display Power
CN3	LCD Panel Interface
CN4	LVDS Display Interface
CN5	Touch screen from Mainboard.
CN6	To Touch Panel Communication.

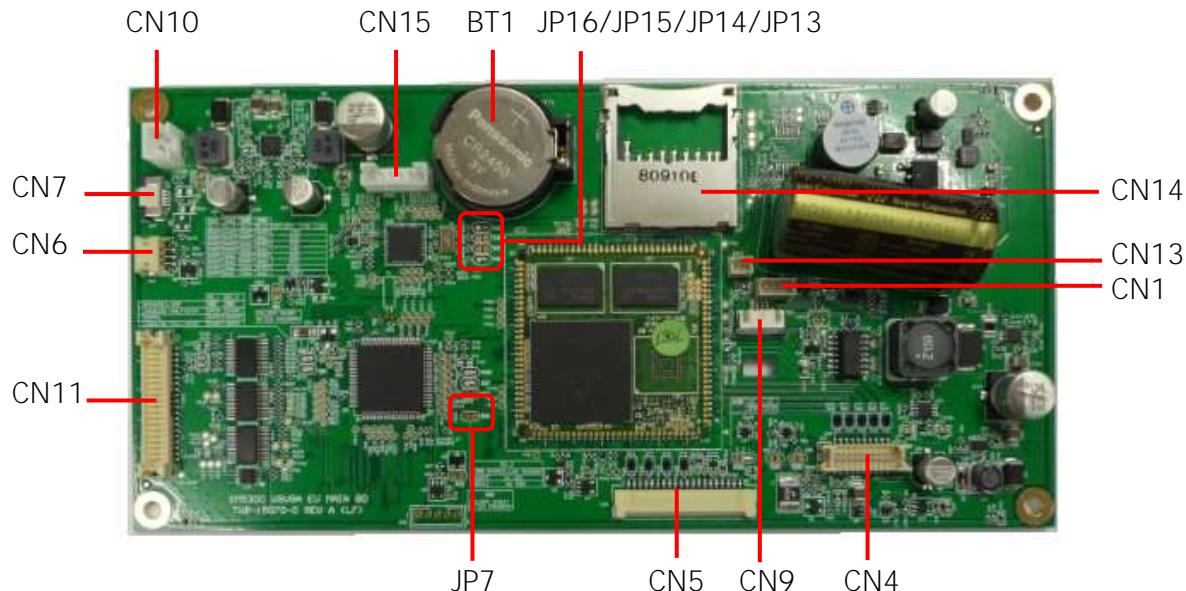
TWB-13190-0 Rev. L (SM-5300B/P X and SM-5300B/P X LL)

Jumper Pad	Jumper Setting
JP1, JP3	Short
JP6	Short (1-2)
JPM1, JPM2, JPM3, JPM4	Short (2-3)

# Hardware Details

## 8.4 WSVGA EV Base Board (TWB-15070-0) (Elevated)

### Component side



### Solder side



### Connector Functional Listing

Connector	Description
CN1	12.1" & 19" Resistive Touch Panel Interface
CN3	Operator LCD Display Interface (1024x600)
CN4	12.1" & 19" SSP LCD Display Interface (800x600) & (1280x1024)
CN5	Customer LCD Display Interface (800x400)
CN6	12.1" SSP LED Indicator Interface
CN7	Infrared Interface (For LCD Activation)
CN9	10.1" Touch Panel Interface
CN10	Base Board to Relay Board Interface (24V input)
CN11	Base Board to Relay Board Interface (I/O: Printing, AD & Sensor)
CN13	Base Board to Relay Board Interface (USB host)

# Hardware Details

## 8.4 WSVGA EV Base Board (TWB-15070-0) (Elevated)

Connector	Jumper Pad
CN14	SD Card Slot
CN15	*CPLD ISP connector (Not for end user)
BT1	Lithium Cell Button Battery

TWB-15070-0 Rev. B (SM-5300EV/SSP X)

Jumper Pad	Jumper Setting
JP1, JP2, JP5, JP6, *JP7, JP13, JP14, JP16, JP17	Short (1-2)

\*JP7 Short(Paper Low), Open(No)

TWB-15070-0 Rev. B (SM-5300EV/SSP X LL)

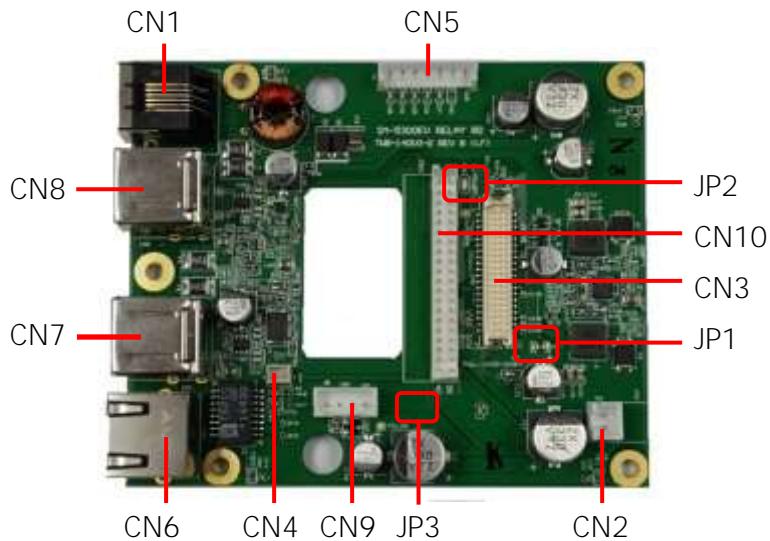
Jumper Pad	Jumper Setting
JP1, JP2, JP5, *JP7, JP13, JP14, JP16, JP17	Short (1-2)
JP6	Open (1-2)

\*JP7 Short(Paper Low), Open(No)

# Hardware Details

## 8.5 Relay Board (TWB-14010-0) (Elevated)

### Component side



Connector Functional Listing

Connector	Description
CN1	Cash Drawer Connector (RJ-11)
CN2	DC 24V to Base Board
CN3	Base Board to Relay Board interface
CN4	Internal USB
CN5	AD Board Interface
CN6	Ethernet 10/100 Base-T Connector (RJ-45)
CN7	Dual USB Port V2.0 (x2)
CN8	Dual USB Port V2.0 (x2)
CN9	Power Supply DC 24V Input from Power Unit
CN10	Thermal Head, Printer Sensor and Stepper Motor Interface

TWB-14010-0 Rev. E (SM-5300EV/SSP X)

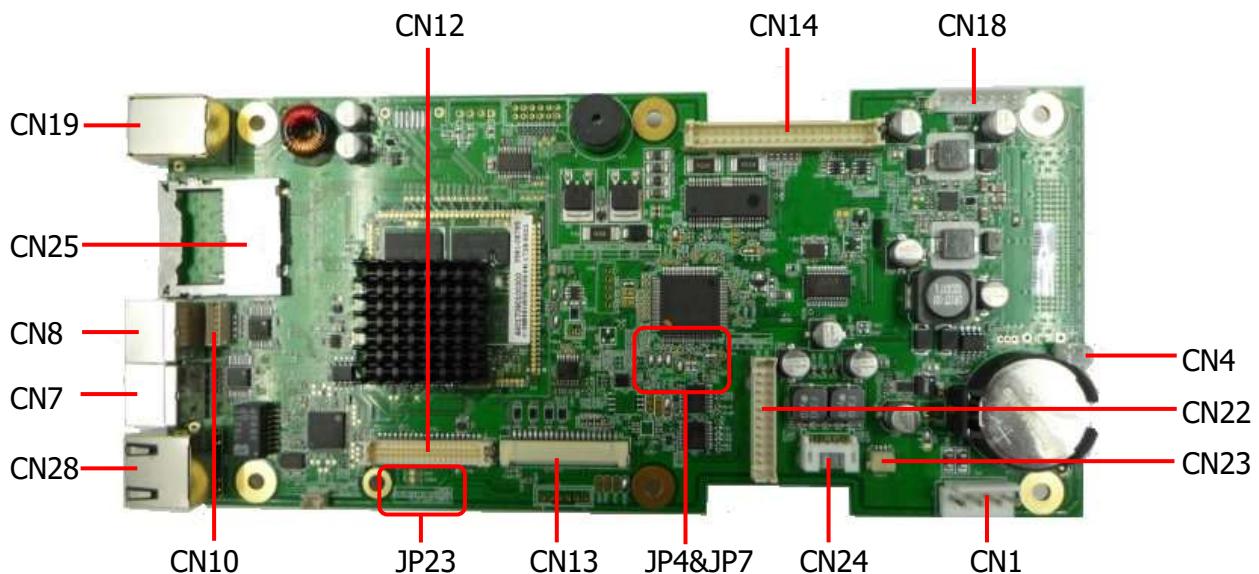
Jumper Pad	Jumper Setting
JP2, JP3	Short (1-2)
JP1	Open

TWB-14010-0 Rev. E (SM-5300EV/SSP X LL)

Jumper Pad	Jumper Setting
JP3	Short (2-3)
JP1, JP2	Open

# Hardware Details

8.6 CPU and Base Board (TWB-14320-0) (Hanging Scale)



Connector	Description
CN1	Power Supply DC 24V Input
CN4	Super Capacitor Connector
CN7	RS-232 (Com 1)
CN8	RS-232 (Com 2)
CN12	Customer LCD Display Interface
CN13	Operator LCD Display Interface
CN14	Thermal Head, Printer Sensor and Stepper Motor Interface
CN18	AD Board Interface
CN19	Cash Drawer Connector (RJ-11)
CN21	Magnetic Card Reader (Optional)
CN22	Second Printer Interface
CN23	Audio Line-out
CN24	Audio Speaker Connector
CN25	SD Card Slot
CN28	Ethernet 10/100 Base-T Connector (RJ-45)

## TWB-14320-0 (Rev. G) Jumper Setting

Jumper Pad	SM-5300H X (Hanging Scale)	
	Label	Linerless (LL)
JP4	1-2	2-3
JP7	Short	Open
JP15	Short	Short
JP24	2-4	2-3
JP25	2-4	2-3

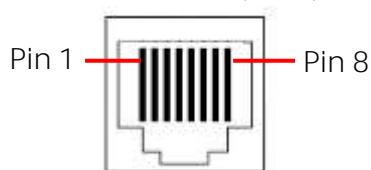
Jumper Pad	Jumper Setting
JP23	Short (12.1" Customer Display Flip Up)

# Port Pin Configuration

## 9.1 Ethernet Port/USB Port/Cash Drawer Port

Scale side

Ethernet Port (RJ45)



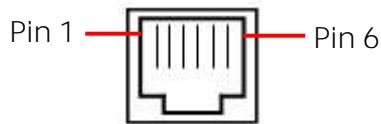
Pin	Signal
1	TX+
2	TX-
3	RX+
4	NC
5	NC
6	RX-
7	NC
8	NC

USB Port



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

Cash Drawer Port (RJ11)



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

# Revision Records

SM-5300X (Doc. No. SER-SM-104)

Serial No.	Date	Description of Changes	Software Version	Remarks
001	20 Mar 2020	First Release	27.52-50-1	Tentative Edition