

Yamato



Digital Portion Scale

AW-300P

SERVICE MANUAL

PLEASE TAKE THE TIME TO READ THESE INSTRUCTIONS BEFORE
STARTING TO USE THE SCALES

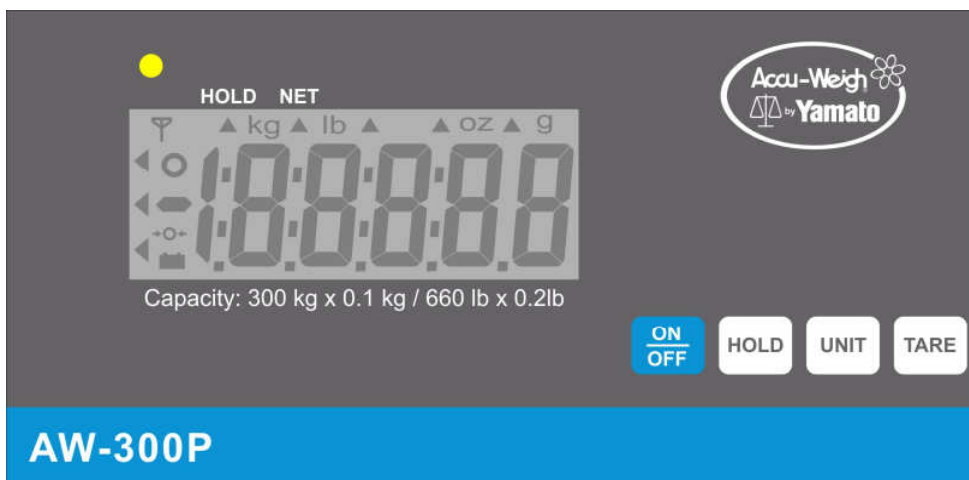
TABLE OF CONTENTS

TABLE OF CONTENTS	1
SPECIFICATIONS	2
OVERLAY	2
KET FUNCTIONS	3
USING SCALE	4
USING TARE FUNCTION	4
USING HOLD FUNCTION	5
SETTING MODE	6
SETTING FUNCTION DESCRIPTION	6
CALIBRATION PROCEDURE	7
CONTROL PANEL	8
LCD FORMAT	9
PART LIST & ASSEMBLY DRAWING	10
TROUBLE SHOOTING	12
INSTRUCTION FOR CHARGE AND CONNECT	13
INSTRUCTIONS FOR REPLACING BATTERIES	14
Parameters of RS232 interface	15
Connecting with PC	16
ERROR MESSAGE	17











SPECIFICATIONS

Model	AW-300P
Capacity	300 kg x 0.1 kg / 660 lb x 0.2 lb
Weight Unit	kg / lb
LCD Readout	1.0" LCD display with 5 1/2 digits
Dimensions	Assembled size: 210×110×45 mm Platform size: 550×550×65 mm
Buttons	ON/OFF, UNIT, HOLD, TARE
Power Supply	➤ 6-AA size batteries ➤ 15V DC adapter 100~300mA
Operation Temperature	5°C / 35°C

OVERLAY




KET FUNCTIONS

Key	Description
	Turn ON/OFF the scale
	To hold weighing result on the display / determine stable weighing value
	To select the weighing unit. (kg/lb)
	Tare weight during weighing process.
	The 'Hold' weighing function is active.
	Stored 'Tare' value.
	Stable symbol
	Minor weight value
	Indicates scale is at center of zero
	Low battery indication

USING SCALE

WEIGHING

- ◆ Switch on the scale using  key. The diagnostic scale self-check is performed and the software version is displayed.
- ◆ The scale is ready for weighing when the “ **0.0 kg** ” displays on the screen.
- ◆ Person stands on the middle of the scale for weighing. Wait until the scale stabilizes and stable sign (o) shows on the screen

Direction:

If a weight is over the scale capacity, the display will show the „Err” message (= overload).

USING TARE FUNCTION

Tare allows the user to zero the instrument to cancel the weight of a container/ clothes from the reading of the instrument, thus giving the true weight of the animal being tested.

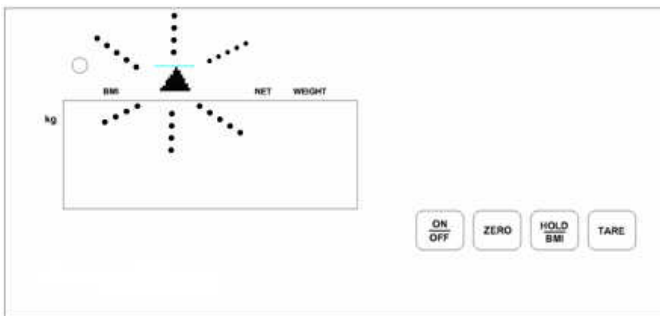
- Place the object need to be tare on the tread platform.
- Press TARE key after the weight stabilizes and stable sign displays.
- Move the animal need to be weighed on the scale platform(without removing the tare object)

To delete the saved tare value, remove the tare object from the tread platform and press [TARE] key.

USING HOLD FUNCTION

AW-300P is provided with the integrated hold function (determination of average value). It's weighing accurately although they are not still on the scale plate. Once the HOLD key is pressed, the weight reading will remain on the display, so the reading can easily be read.

- Switch 'ON' the scale using [ON/OFF] key. The diagnostic self-checks is performed. The scale is ready for weighing when the „0.0 kg” displays on the screen.
- Place weight on the center of the scale plate.
- Press the [HOLD] key. When the triangle is flashing on the display, the scale records the fluctuating weight values and then calculates average weight and displays the result on the screen.



- Move the weight from the scale platform, the weight reading will remain on the display.

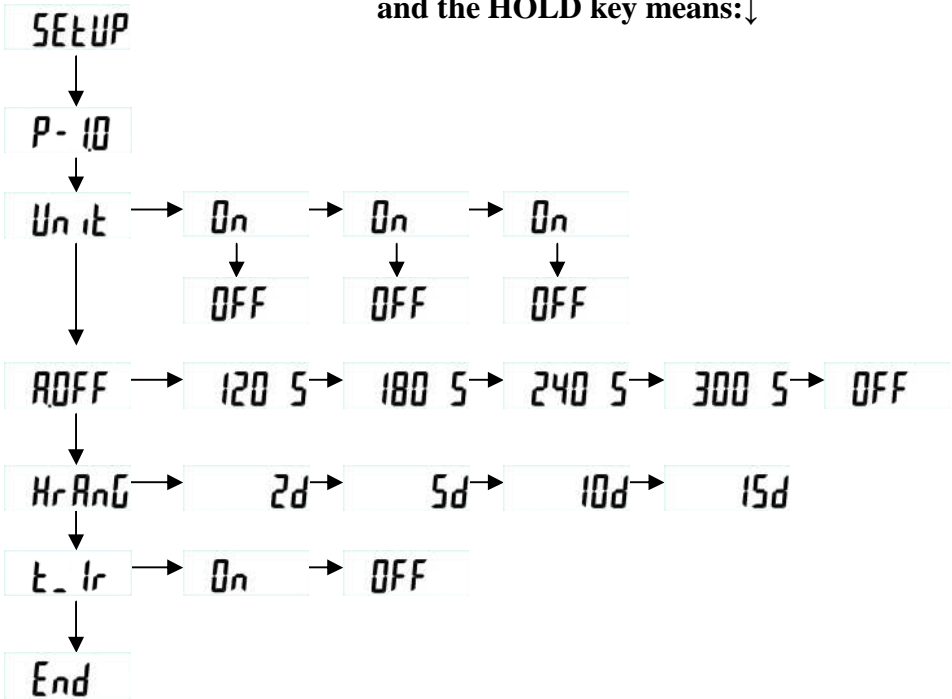


- Press the [HOLD] key again to return the scale to the normal weighing mode.

SETTING MODE

With the weighing scale switched on, long press TARE 3seconds, to enter into the setting mode. The display will shows SETUP and then followed by UNIT appears.

A selection is made by pressing the TARE key means: →,
and the HOLD key means: ↓



SETTING FUNCTION DESCRIPTION

Unit: Unit (kg/lb/oz)

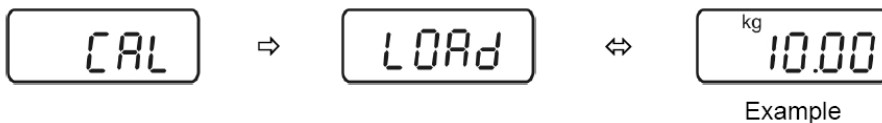
ROFF: Auto off time (120s/180s/240s/300s/off)

HrAnG: Hold range (2d/5d/10d/15d)

t_lr: Touchless Tare Function (on/off)

CALIBRATION PROCEDURE

In weighing mode press the UNIT key and keep it pressed until “CAL” followed by the weight value of the required adjustment weight in displayed. “LOAD” is displayed alternatively.



Carefully place the required adjustment weight in the centre of the weighing plate press TARE key, adjustment is started.



Wait until the stability display appears, after that the adjustment is finished. The balance will automatically return to weighing mode upon successful completion of the adjustment and will display the weight of the adjustment weight.



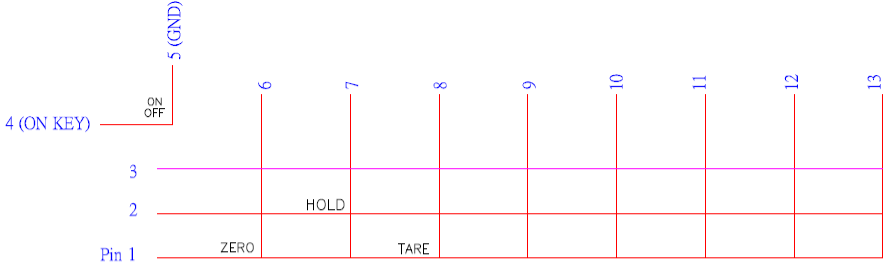
Take away adjustment weight.



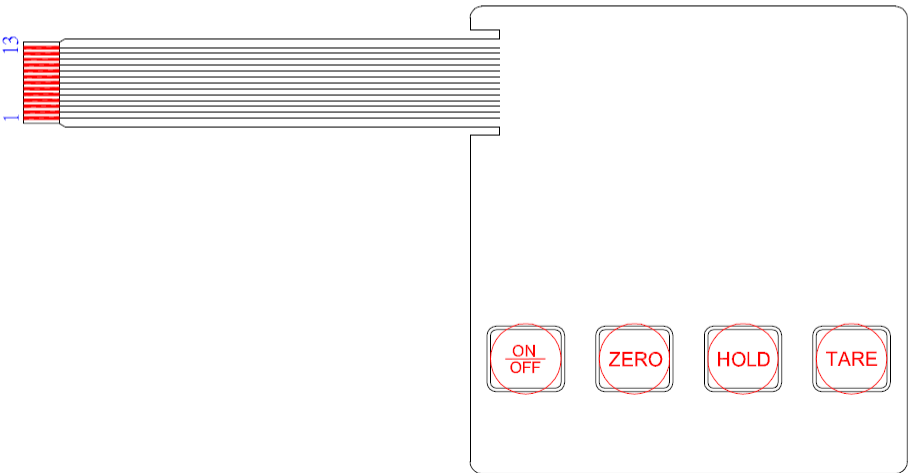
CONTROL PANEL

When control panel switch damaged. Using multi-meter to measure voltage of control panel. Reconnect control panel. Make sure that control panel is connected to the correct housing.

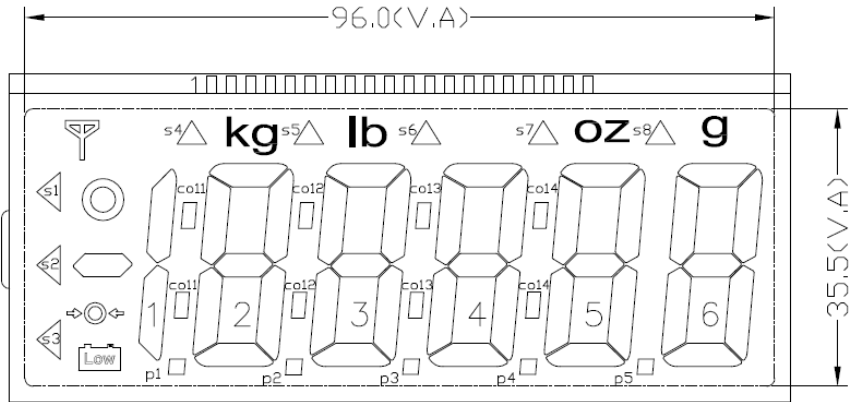
If problem persists, replace a new control panel.



PIN Assignment



LCD FORMAT



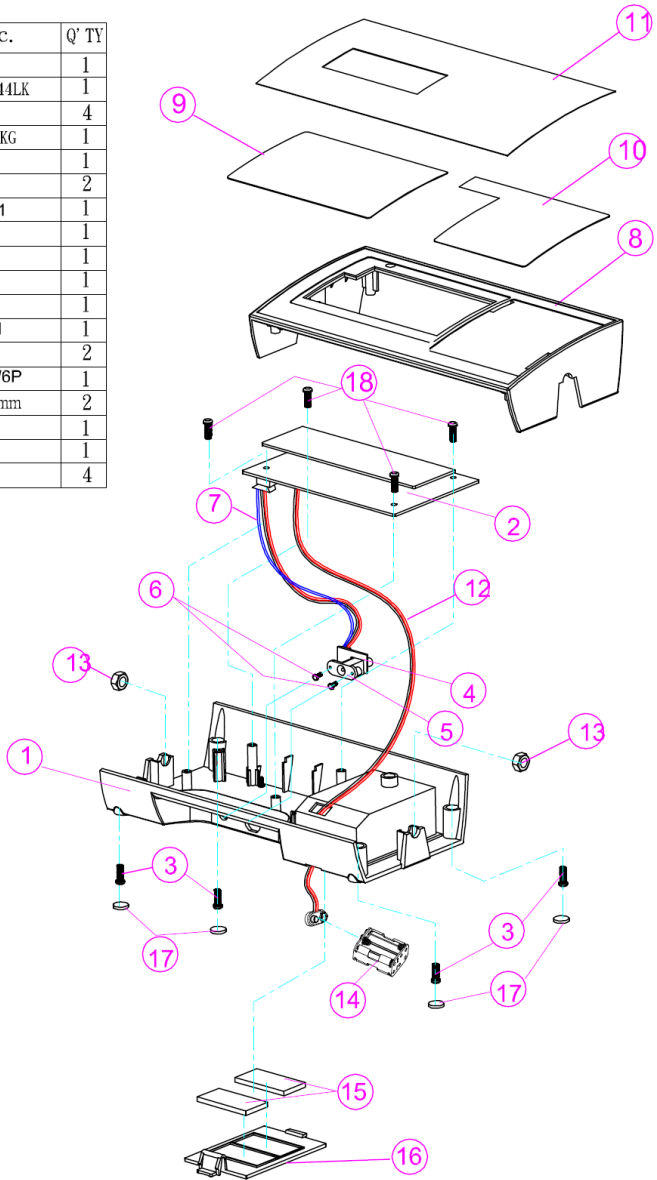
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
COM1			s4	2a	kg	s5	3a	lb	s6	4a	s7	oz	5a	s8	6a	g	C1	/	/	/
COM2	s1		1b	2f	2b	co12	3f	3b	co13	4f	4b	co14	5f	5b	6f	6b	/	C2	/	/
COM3	s2		1c	2g	2c	p2	3g	3c	p3	4g	4c	p4	5g	5c	6g	6c	/	/	C3	/
COM4	s3		co11	2e	2d	p1	3e	3d	/	4e	4d	p5	5e	5d	6e	6d	/	/	/	C4

When power on, the scale shows non-complete segments. Please check the LCD pin (please refer to above LCD format). Check whether LCD pins are soldered properly or not.

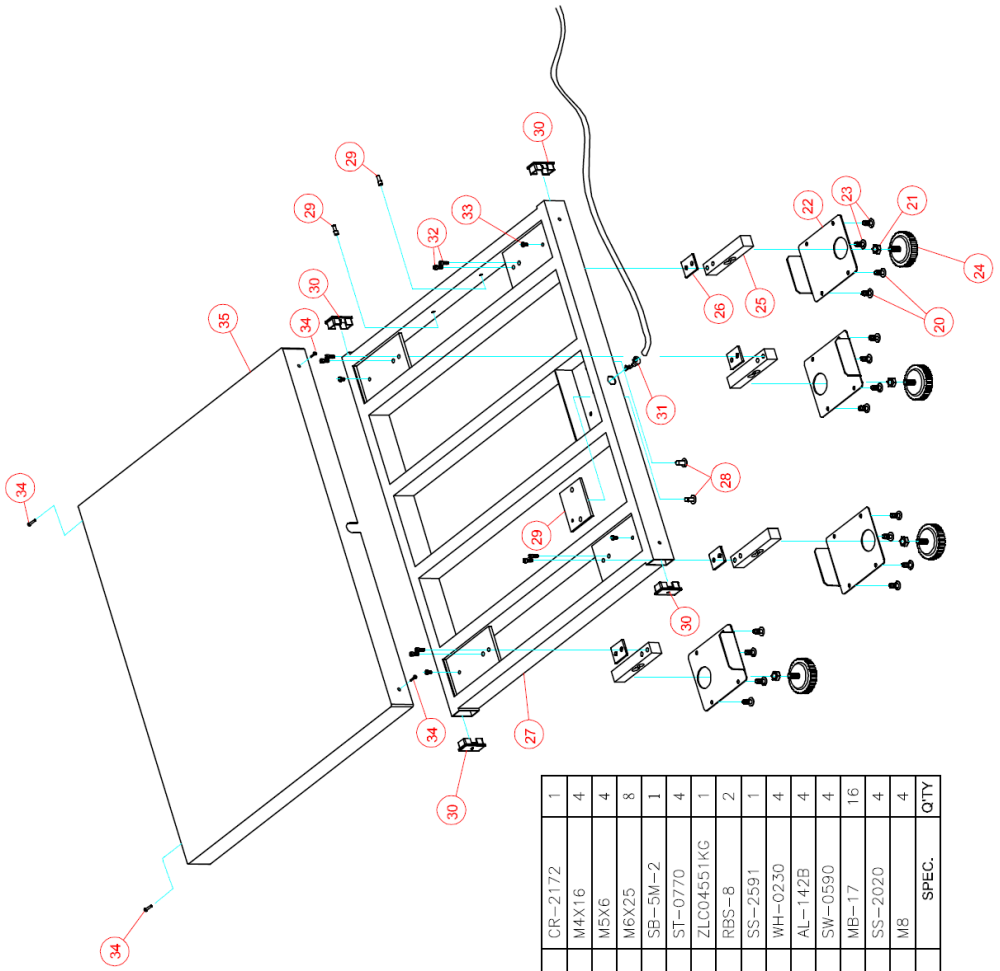
PART LIST & ASSEMBLY DRAWING

Indicator part list

No.	Item	Spec.	Q' TY
1.	Plastic Base	BM-1222	1
2.	Main Board	ZLC150044LK	1
3.	Screw	M3x10	4
4.	Power Board	ZLC04348KG	1
5.	AC Jack	LD-0201	1
6.	Screw	M2x5	2
7.	Wire + housing	WR-2421	1
8.	Plastic Cover	CR-8085	1
9.	LENS	LS-8045	1
10.	Control Panel	NP-4381	1
11.	Overlay	NP-4371	1
12.	Battery clips	WR-2371	1
13.	Nut	M6X1.0	2
14.	Battery Holder	SN-36-1/6P	1
15.	Foam	3x20x40mm	2
16.	Battery cover	BT-8051	1
17.	Rubber Feet	SW-0170	1
18.	Screw	M3x8	4

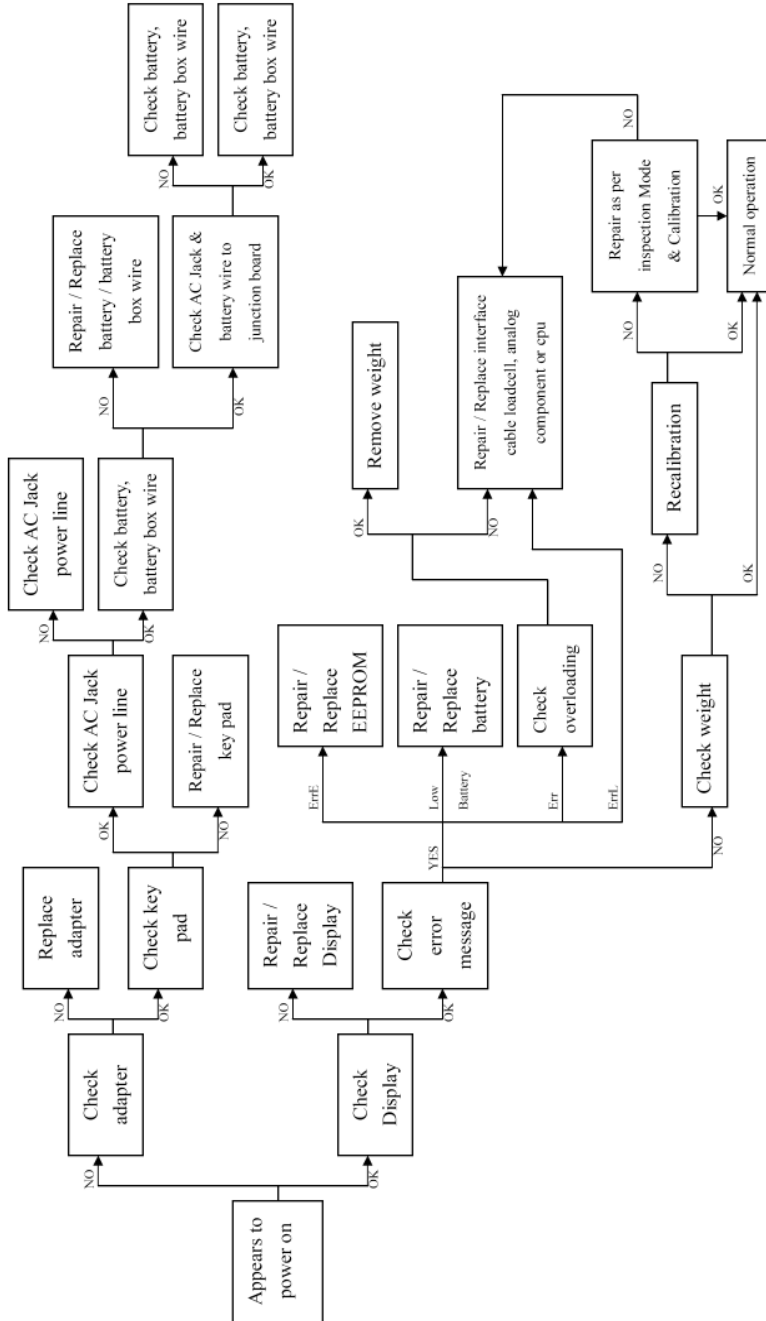


Deck part list



NO	ITEM	SPEC.	QTY
35	SS Platform	CR-2172	1
34	Self-tapping Phillips Screw	M4X16	4
33	Phillips Screw	M5X6	4
32	Hexagon Screw	M6X25	8
31	Strain Relief	SB-5M-2	1
30	Plastic Cap	ST-0770	4
29	PCB	ZLC04551KG	1
28	PCB Spacer	RBS-8	2
27	Frame	SS-2591	1
26	Washer	WH-0230	4
25	LOAD CELL	AL-142B	4
24	Adjustable feet	SW-0590	4
23	Hook Up Knob	MB-17	16
22	Protecting Cover	SS-2020	4
21	Nut	M8	4

TROUBLE SHOOTING



Trouble Shooting

INSTRUCTION FOR CHARGE AND CONNECT

If **. Lo** prompt displays on the LCD, please charge the scale with AW-300P exclusive adaptor or replace the batteries.
Locate adaptor plug-in at the back side of indicator.



CAUTION:

- Always connect the AC adaptor with the indicator before connecting to the mains power supply.
- Please disconnect the adaptor from main power supply before taking out the AC adaptor pin from indicator.

INSTRUCTIONS FOR REPLACING BATTERIES



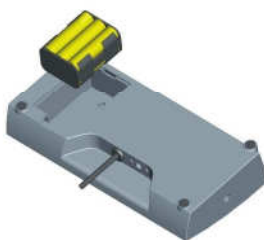
1. Remove battery cover.



2. Take battery housing out.



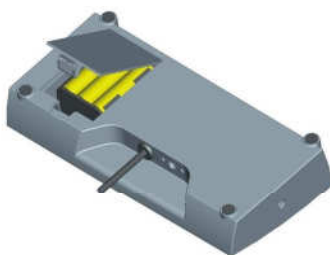
3. Installing six AAA batteries.



4. Make sure battery direction is correct.



5. Put battery housing back.



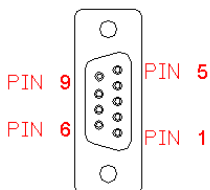
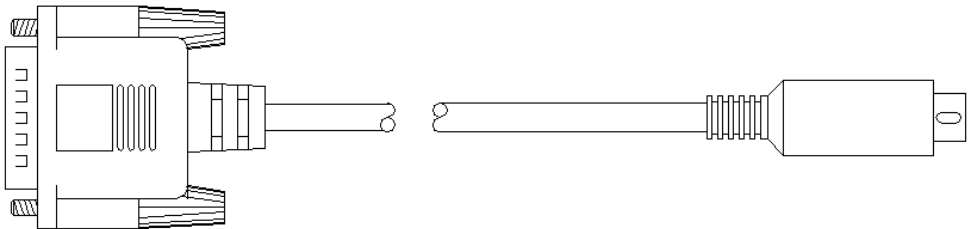
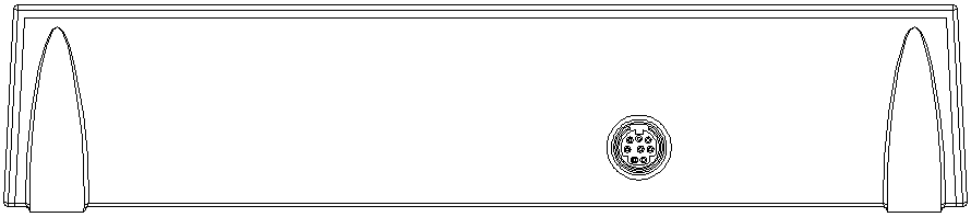
6. Put battery cover back.

Parameters of RS232 interface

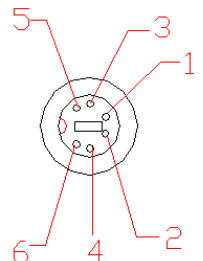
Set parameters of the scale interface on the connected device. It is not possible to change the scale parameters.

- Baud rate: 9600 bps
- Parity check: None
- Data length: 8 bits
- Stop bit: 1 bit
- Handshake: RTS/CTS
- Data code: ASCII

PS2 Pin out



PIN ASSIGNMENT	
DB9P(FEMALE)	MINI DIN(MALE)
7	1
3	3
5	5
2	2
S	S



Connecting with PC

1. Start Hyper Terminal

Start Hyper Terminal program from clicking

Start Menu → Programs → Accessories → Communication → Hyper Terminal.

2. New Connection Description

Give new connection a name then click OK.

3. Select Your COM Port

Click Connect to select your COM port. Usually there's only one option for select. Then click OK.

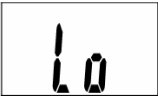






4. Port Settings

Click Bits per second to set up rate at 9600, Data bits at 8, Parity at None, Stop bits at 1 and Flow control at Hardware. Then click OK to complete your setting.

5. Output Data

The weighing result will transfer to PC

ERROR MESSAGE

ERROR MESSAGE	REASON	ACTION
	Low Battery: This warning shows that the voltage of battery is too low to use	Please replace a new battery or plug the AC adaptor for operation.
	Overload: The total load exceeds the maximum capacity of scale	Please reduce the loading and try again.
	Counting error (too high): Indicates that the signal from the load cell/s is too height	This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.
	Counting error (too low): Indicates that the signal from the load cell/s is too low	This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.
	Zero count over calibration zero range +10% while power on	Please re-calibrate the instrument.
	Zero count under calibration zero range -10% while power on	Please re-calibrate the instrument.
	EEPROM Error: Indicates that there is a fault with the scales software	This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.