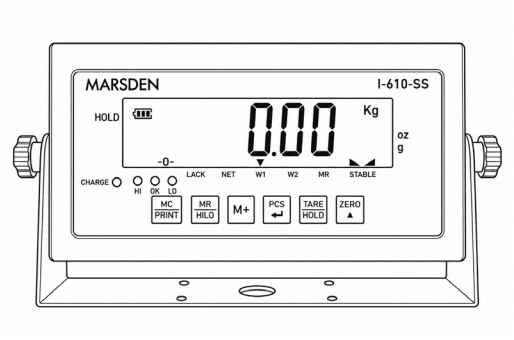
MARSDEN

USER MANUAL

I-610-SS



Please keep the instruction manual at hand and follow instruction for use.

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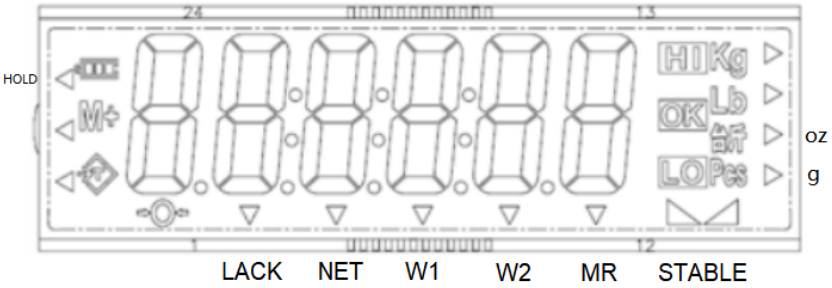
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1. FEATURE

① Zero tracking range adjustable.
② Battery remaining indication for easier identification of power.
③ Easy setting and calibration.
④ Good filter function to prevent from instability caused by vibration.
⑤ Over Low voltage secure function.
⑥ Large LCD display, illustrated indication, easy operation, and backlight setting for better application.
⑦ Function of accumulation, counting, tare and weight units selectable good for all applications.

2. LCD INDICATION AND KEYPAD INTRODUCTION

2.1 LCD indication



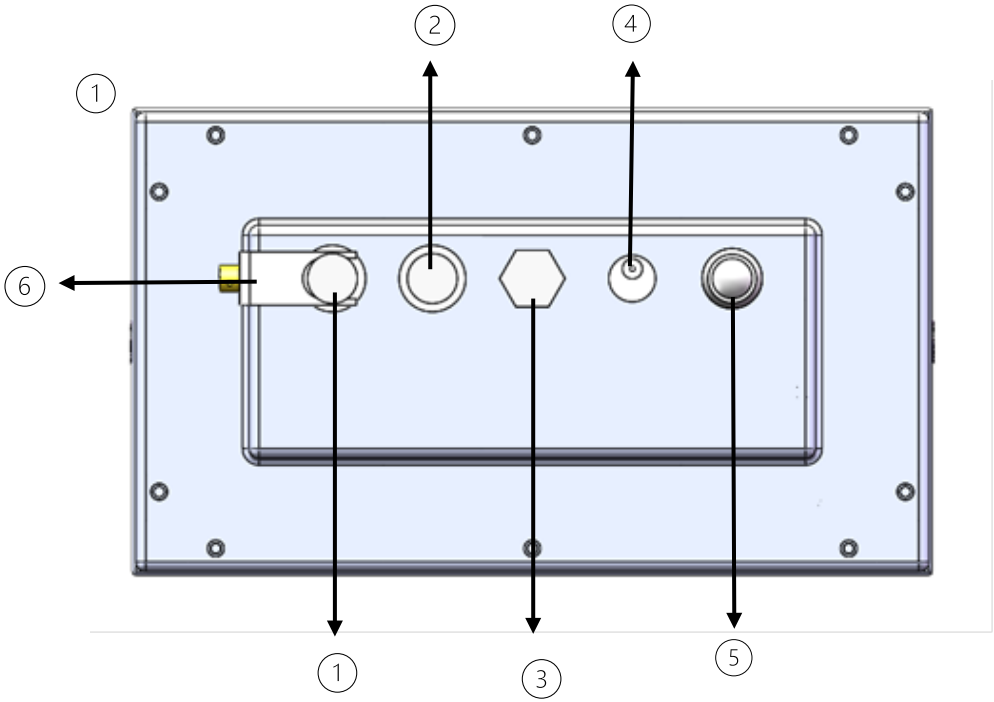
① Battery indication: There are 3 filled blocks in the indication. When the battery is lower than 5.5v, the indication box is empty.
② M+: the indication is shown as accumulation is activated.
③ The weight unit indication is shown as the weigh unit is applied.
④ PCS: The indication is shown as counting function is activated.
⑤ LACK: The indication is shown as Insufficient sample instruction
⑥ NET: The indication is shown as Net weight
⑦ W1/W2: W1 as range 1, W2 as range 2
⑧ MR: The indication is shown as accumulation recall is activated.
⑨ Stable: The indication is shown as the weighing is stable.
⑩ HOLD: The indication is shown as HOLD function is activated.

2.2 Key introduction

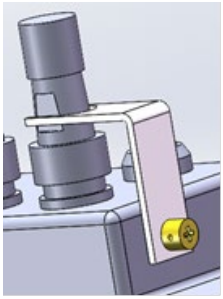


2.2.1 [MC/PRINT]: to send the data or delete data.
2.2.2 [MR/HILO]: to check the accumulation weights and times.
2.2.3 [M+]: to sum up the total weight
2.2.4 [PCS]: to select weight unit or to enter counting mode.
2.2.5 [TARE]: to tare the value of container's weight.
2.2.6 [ZERO]: to reset ZERO

2.3 Back Side Specification



1. Load cell connector
2. RS232 (3-pin)
3. Air Valve
4. Mains Power
5. ON/OFF
6. Seal (as show photo below)



3.0 FUNCTION SETTING

Normal Function

3.1 ZERO

Press ZERO key,the display will show ZERO · it will show 0 after stable, the zero indication light will light, ZERO range is 2% of Max capacity.

3.2 TARE

Press TARE key, the display will show TARE · it will show 0 after get gross value, the **NET** light will light. TARE range is 100% of Max capacity.

3.3 PCS

Press PCS key to choose different weight unit, it will show (kg) and the indication light will be on.

3.4 PRINT

OPTIONAL

Special function

3.5 SAMPLE

When the weight unit is PCS, keep pressing PCS key for 3sec · the display will show S= 10 · then press PCS to choose the sample quantity, then put on the object it will show SMPL in 3 sec, it will auto sampling after stable.

S=10 sample quantity is 10 PCS	S= 20 sample quantity is 20 PCS	S= 50 sample quantity is 50 PCS	S= 100 sample quantity is 100 PCS

3.6 M+

Press M+ the window will show Total Accu.Weight 1Ses · Accu. numbers 1Ses · Accu. weight 1Ses ; then return into normal weighing mode, now the M+ indication light will light, when the window show M- Err · it means it can not be accumulated.

3.7 MR

Press MR, the window will show Total Accu. numbers 1Ses · Accu. weight 1Ses ; then return into normal weighing mode.

3.8 MC

Keep pressing PRINT/MC the window will show CLr-AC · clear all the accumulated value, and the scale will enter into normal weighing mode.

3.9 HOLD

Press and hold TARE key for 3 seconds, the display will show H-ON or H-OFF. To choose H-ON to activate the hold function. When hold function is activated. Press any key to cancel the present hold function.

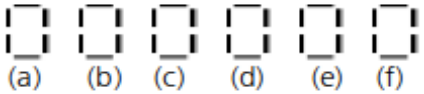
3.10 HILO

Note: TARE is the shift key; ZERO is the numeric key; PCS is the confirmation key.

Firstly: To set low limited value and high limited value
At normal weighing mode, Press MR/HOLD key for 3 seconds, LO signal will be on and LCD show 000000 to set low limited

value. Then press PCS key to confirm. Then HI signal will be on and LCD show 000000 to set high limited value. Press PCS key to confirm and enter into normal weighing mode.

Secondly: To set weighing check mode.
Pressing and hold ZERO key and turn on the indicator, the indicator will show :



C=0	Alarm off
C=1	HI range Alarm
C=2	LO range Alarm
C=3	OK range Alarm
C=4	Beyond HI, LO, OK range alarm

To set C position based on different requirements, Then press PCS to confirm.
The indicator will automatically turn on again.
Eg: Low limited value set as 5.000kg, High Limited value set as 7.000kg

Weighing check mode set as c=1 (High range Alarm)
Put 7.5kg weights on scale, after stable, the HI signal Light will be on and the buzzer will beeper.

3.11 Check Calibration Times

Keep pressing M+ key and turn on indicator, it display CAL x. (X means the calibrated times)

3.12 BL & Filter setting

Step 1	Keep pressing ZERO key and turn on the scale	
	↓	
Step 2	LCD shows XXXXXX	It will show the current setting value
	↓	
Step 3	LCD shows XXXXXX	Press ZERO TARE key to set internal function
	↓after the setting	
	LCD shows XXXXXX	Press PCS key to finish and skip into next step
	LCD shows XXXXXX	Press PCS key to finish and skip into next step

NOTE	
	(a) (b) (c) (d) (e) (f) (a) BL setting and Sleep mode 0 =BL Auto 1 =BL ON 2 =BL OFF 3=5 minus 4=15 minus 5=30 minus 6=1 hour (b) Filter setting 0~9 The value bigger, the scale will be more stable (c) Alarm mode of Hi-Lo-Ok function 0=off 1=Hi 2=low 3=in 4=out (d) Weight checking when the weight is stable or unstable 0=stable 1=unstable (e) Hold setting 0=off 1=peak holding 2=stable holding 3=animal lock function (f) Allowable error range of animal lock function 0=1% 1=2% 2=5% 3=10% 4=15% 5=20% 6=35% 7=50% 8=75% 9=100%

Note:

A. When (a) set to 0 is backlight on when there is weight, off when there is no weight.

B. When (a) set to 1 is the backlight always on.

C. When (a) set to 2 is the backlight always off.

D. When (a) set to 3, 4, 5, 6 are for sleep mode, 3=5 minus 4=15 minus 5=30 minus 6=1 hour

For example, when **(a) set to 3**, display shows as follows.
The backlight is on when there is weight, and after 5 minutes **backlight off** and shows "-";
The backlight is off when there is no weight, and after 5 minutes it shows "-";
If the weight changes during this 5 minutes, the indicator will restart the timing.

3.13 Unit setting

Step 1	Keep pressing PCS key and turn on the scale	
	↓	
Step 2	LCD shows XXXXXX	It will show the current setting value
	↓	
Step 3	LCD shows XXXXXX	Press Zero Tare key to set internal function
	↓after the setting	
	LCD shows XXXXXX	Press PCS key to finish and skip into next step

NOTE	
	(a) (b) (c) (d) (e) (f) (a) UNIT kg 0 =OFF 1 =ON (b) UNIT lb 0 =OFF 1 =ON (c) UNIT oz 0 =OFF 1 =ON (d) UNIT pcs 0 =OFF 1 =ON (e) UNIT g 0 =OFF 1 =ON (f) setting the initial unit 0=kg, 1=lb, 2=oz,3=g, default as 0

4.0 OPTIONAL FUNCTION

4.1 RS232 OPTION

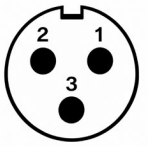
4.1.1 RS232 Output setting

Step 1	Keep pressing Print key and turn on the scale	
	↓	
Step 2	LCD shows XXXXXX	It will show the current setting value
	↓	
Step 3	LCD shows XXXXXX	Press Zero Tare key to set internal function
	↓after the setting	
	LCD shows XXXXXX	Press PCS key to finish and skip into next step

NOTE	 (a) (b) (c) (d) (e) (f) (a) RS-232 output mode 0 =Continuous 1 =Stable 2 =PRINT key outputting 3=M+ key outputting (b) output format 0 =easy format 1 =complete format (c) line feed setting 0 =0 line 1 =1 line 2=line 2 3 =line 3 4= line 4 5=line 5 6=line 6 7= line 7 8= line 8 9= line 9

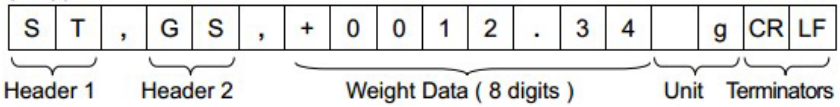
4.1.2 RS 232 Connection

pin 1. RXD
pin 2. TXD
pin 3. GND



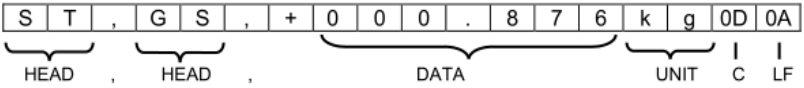
4.1.3 RS 232 Output format

① Easy format



HEAD1:ST: weighing data stable, US: weighing data unstable
HEAD2: NT: net weight GS: gross weight
DATA: weighing data
UNIT: kg. Lb, g,oz

For example: weighing data as +0.876, no tare weight, weighing data stable, the output is as :



② M+ format, when pressing M+ key to print

S/N WT kg

0001 1.000 （press M+ key to output single weighing data）
0002 1.000
0003 1.000

0004 3.000 （press PRINT key to output accumulate weighing data）

③ Complete format

G/W: 1.000kg

T/W: 0.500kg

N/W: 0.500kg

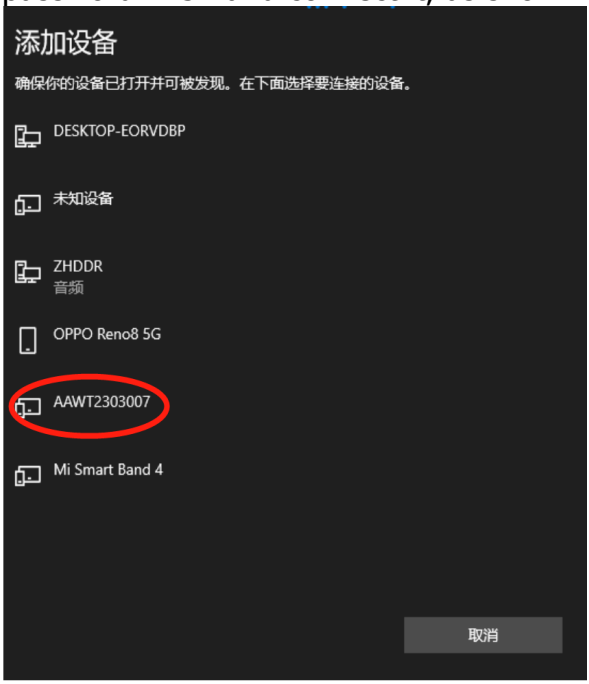
4.2 BLUETOOTH OPTION

① There is no password when bluetooth connect to mobile phone; the password is 1234 if bluetooth connect to PC.

② How to transfer data to PC:

Eg. use UartAssist as the serial receiver to output weighing data:

Step 1, Open the PC bluetooth, searching for the indicator bluetooth name in PC. Indicator bluetooth name was marked on the name plate, which located at back side of this indicator. For example bluetooth name is AAWT2303007, then input password 1234 and connect it, as shown in the below photos.





Step 2, Open the serial receiver application, for example UartAssist (UartAssist software can be provided if required).

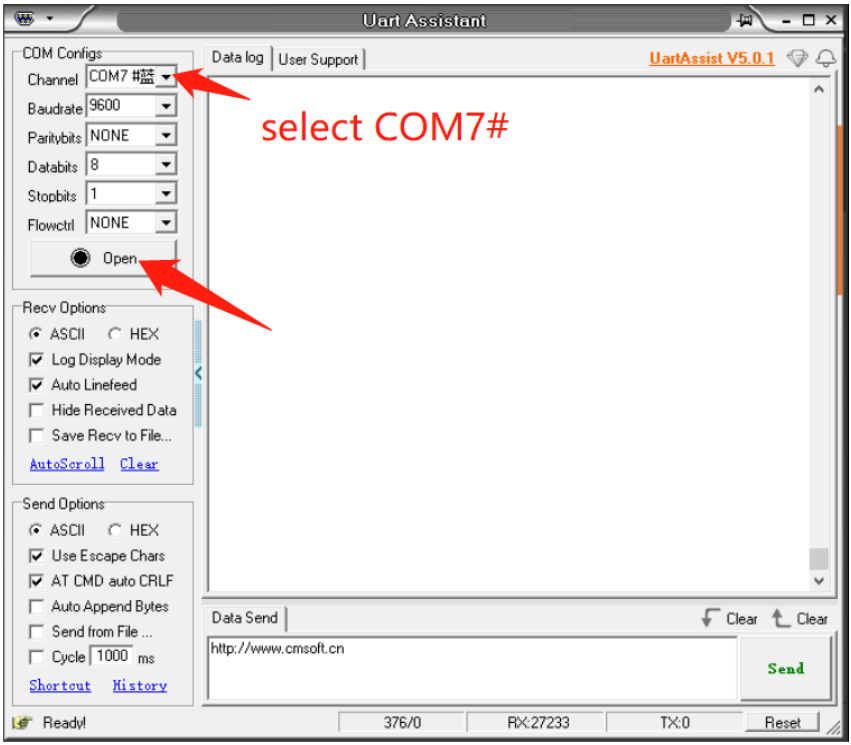
Set it baud rate: 9600,

Parity bits: NONE

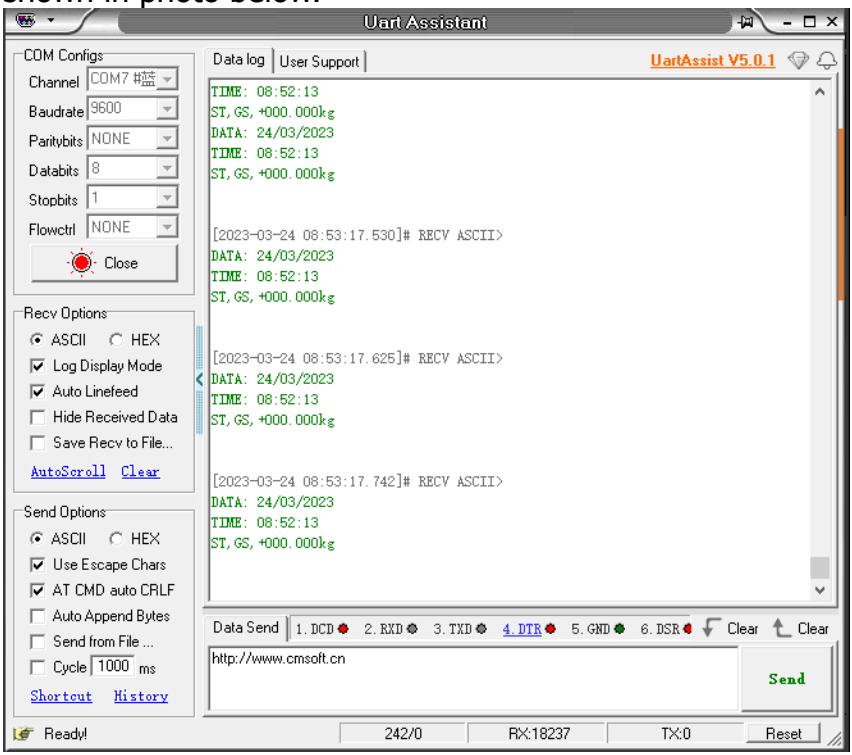
data bits: 8

Stop bits: 1

Then click **open**, as shown in below photo


Uart Assistant
COM Configs
Channel
COM7 #蓝
Baudrate
9600
Paritybits
NONE
Databits
8
Stopbits
1
Flowctrl
NONE
Open
Recv Options
ASCII
HEX
Log Display Mode
Auto Linefeed
Hide Received Data
Save Recv to File...
AutoScroll
Clear
Send Options
ASCII
HEX
Use Escape Chars
AT CMD auto CRLF
Auto Append Bytes
Send from File ...
Cycle
1000
ms
Shortcut
History
Data log
User Support
UartAssist V5.0.1
select COM7#
Data Send
Clear
Clear
http://www.cmsoft.cn
Send
Ready!
376/0
RX:27233
TX:0
Reset

Step 3, UartAssist receives the weighing data automatically, as shown in photo below.



Step 4, UartAssist automatically receives the weighing data as shown below.

DATE：24/03/2023
TIME：08:52:13
G/W: 2.00 kg
T/W: 0.00 kg
N/W: 2.00 kg

Note: Regarding the format of receiving data, pls refer to 4.1.3 in this manual to set the required formats. There are easy format, M+ format and complete format are for option.

The Bluetooth and RS232 output formats are the same, the only difference is the way the data is transmitted.

5.0 ERROR MESSAGE AND TROUBLE SHOOTING

Problem in	Error message	Problems	Solution
POWER ON	Battery symbol	Lower voltage	Charging
POWER ON	B Err	Lower voltage indicate the scale to be charging in time	Battery no power
WEIGHING OPERATION	OL	Overload (MAX+9e)	Check if the object over MAX+9e
POWER ON	Z- Err	ZERO range is too high or too low	1. calibration 2. Check Load cell cable connection 3. Remove the weights on pan
WEIGHING OPERATION	M-ERR	Accumulation error	Accumulation weight under 20d

Note:

①. When the charger light turns green and the indicator battery voltage is higher than 8.1V (with lithium battery 7.4v/4Ah), that means the indicator is fully charged;
②. When the power is lower than 5.5V, the indicator will display ”B-Err”, it’s time to charge the battery.
③. Keep pressing ”Tare” key and power on the indicator, it will show current voltage;

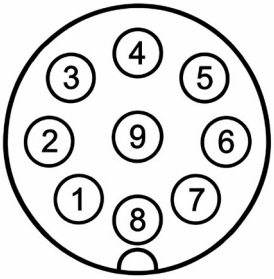
6.0 LOAD CELL CONNECTOR

6.1 9-pin plug and socket for option

A. With female connector for L/C side

1:E+	5:S+	9:BLANK
2:EX+	6:S-	
3:E-	7:GND	
4:EX-	8:BLANK	

B. Female connector in the indicator



6.2 Waterproof gland for option



7.0 ACCESSORY LISTING

No.	Name	Quantity (unit)	Note
1	Indicator	1	With mains power
2	U-shape frame	1	
3	Pole bracket	1	
4	Nut + gasket	2	to secure indicator
5	Sealing bag	1	2 screws + 1 wire + 1 block
6	M4 screw + nut	4	to secure U-shape frame
7	3 pin connector (watertight)	1	for RS232
8	User's manual	1	

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