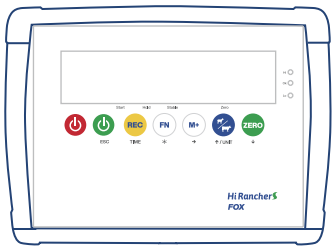
Hi Rancher

FOX Weighing Indicator
User Quick Start


Hi Rancher

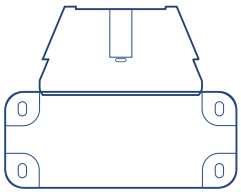
Part 1
UNBOXING

Standard

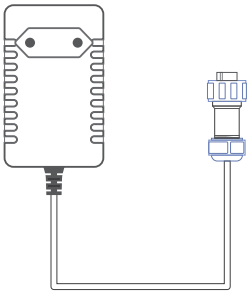


FOX Indicator

Operating Temperature：10℃-40℃
Battery Life：13h
Charging Specification：12V1A



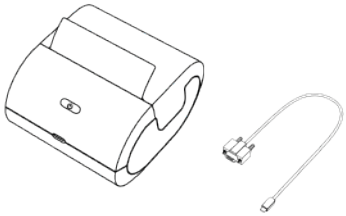
Bracket



Power Adapter

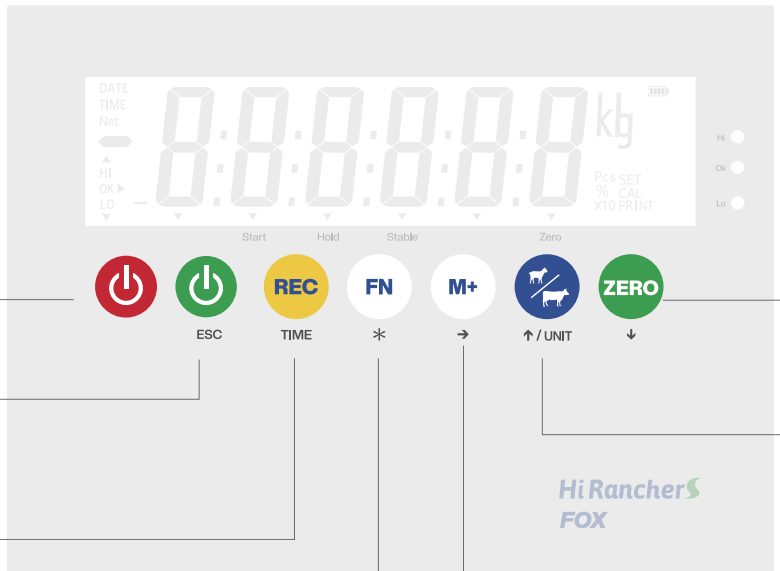
RS232

Optional



Printer

Key Functions



Power off

Power on
ESC

For manually recording and printing
REC
TIME

For function selection and confirmation
FN
*

For resetting and decreasing the number progressively
ZERO

For setting the mode of livestock weighing and increasing the number progressively
↑ / UNIT

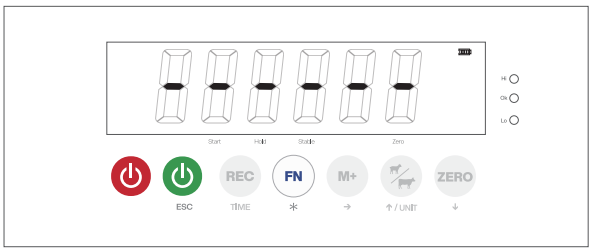
For digital shift function
M+

Press ESC to power on, load the product version number【Uer 2.05】, the panel will sequentially display the numbers 0 to 9 for self - testing, and finally show【0.0】.

If you want to skip the self - test, press FN, display【------】, Processing is completed, showing【0.0】

Press to power off.

【Uer 2.05】



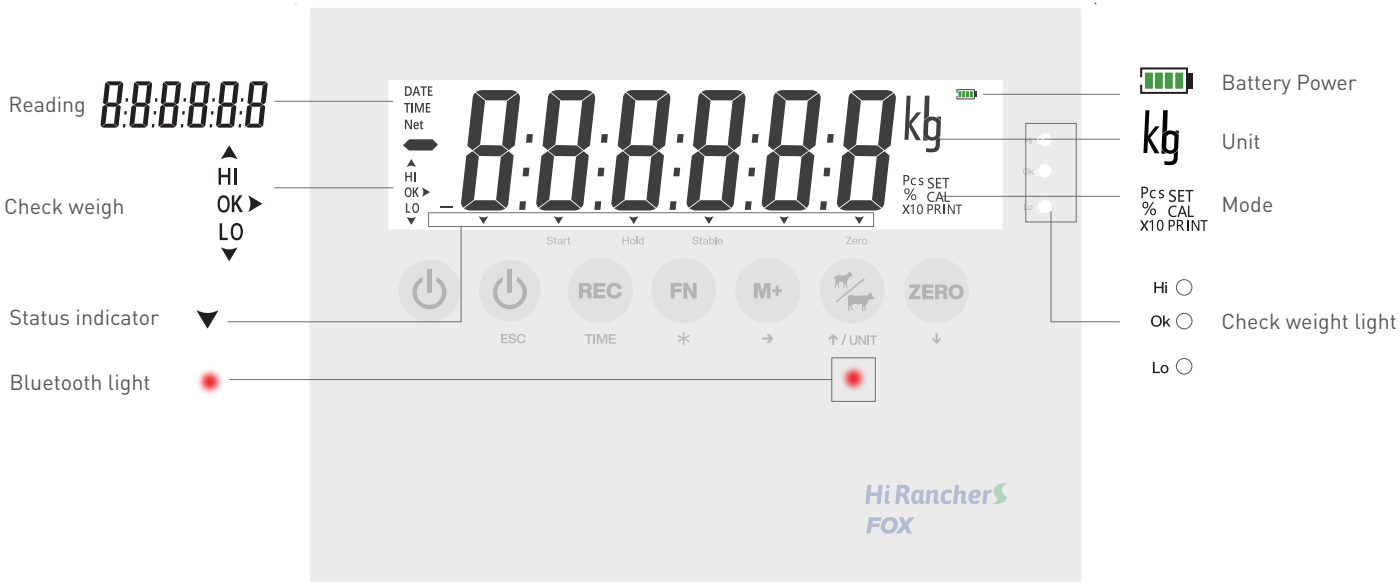
【------】

【0.0】

Tips:

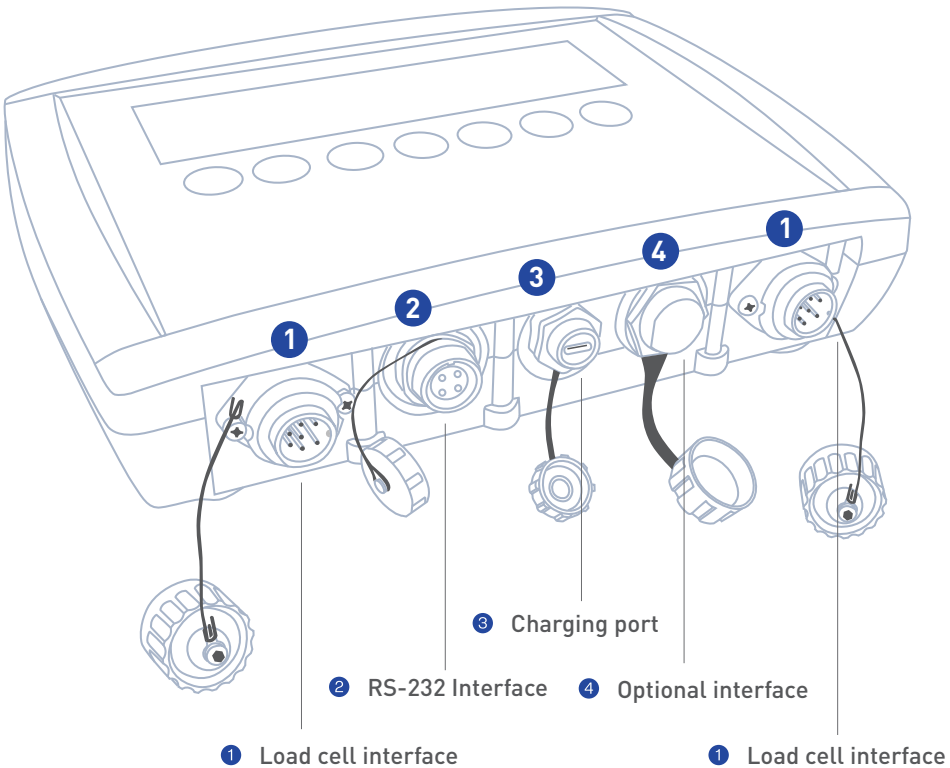
When the load bars are correctly connected and stable, the device can enter the weighing state, and the ▼ Stable stays on.

Display Panel



Tips:
When the battery level is low, the battery indicator flashes. It is recommended to recharge before use.

Interface Introduction



Part 2
INITIAL SETUP

2.1 Date and Time Set

2.2.1: Hour, Minute, Second Setting

1. Long press REC, release after the long beep "dri - " ends.

Default display is hour, minute, second.

2. Press M+ to change the time; the currently flashing character can be calibrated.
Press ↑ / UNIT or ZERO to select the digit. Press M+ continue to shift and set each digit.

3. Press FN to confirm it.
Press ESC to return.

2.2.2: Year, Month, Date

1. Long press REC (TIME) , release after the long beep "dri - " ends, press ↑/UNIT switch to year, month, day.

2. Press M+ to enter the year setting; the currently flashing character can be changed by ↑/UNIT or ZERO. Press M+ to shift and set each digit.

3. Press FN to confirm year, month,and day setting, press ESC to return.

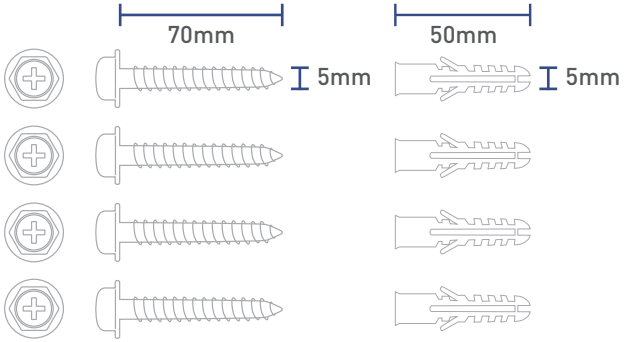
2.2 Unit Conversion

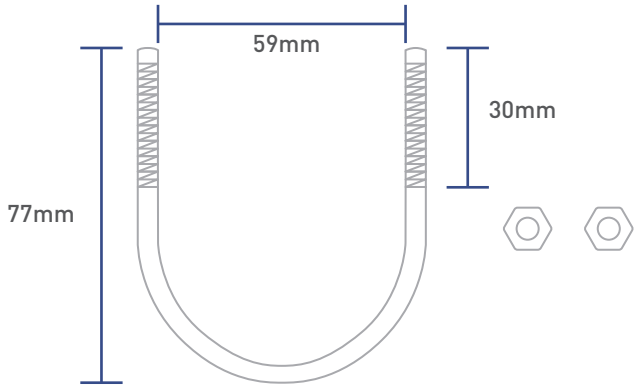
The default unit of the indicator is kilograms. If you need to use pounds as the unit, follow the steps below to switch between the two units.

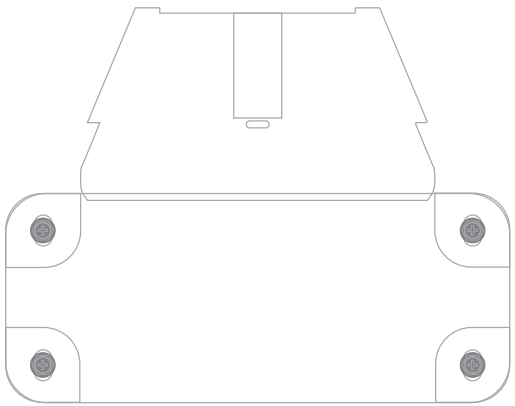
1. Long press ↑/UNIT, and you'll hear a long beep of "dri - " .Release after the long beep ends.

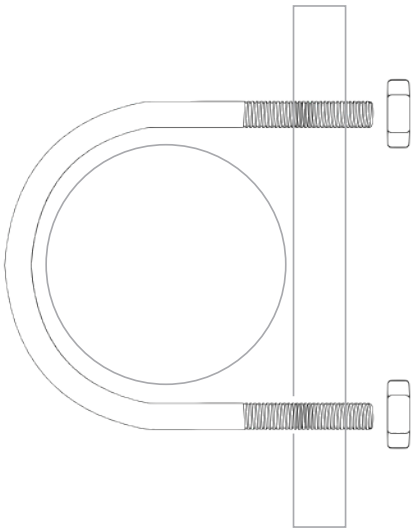
2.Hear a short "drip drip" sound,indicating a successful unit conversion.

Part 3
INSTALL BRACKET







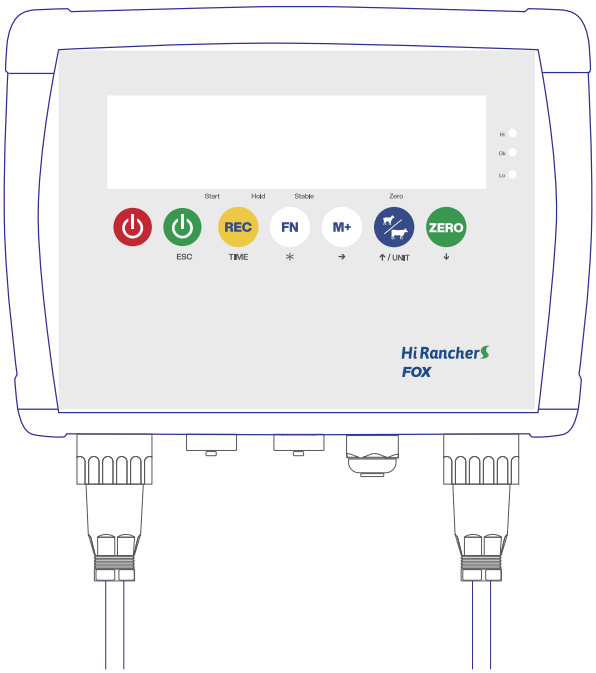


Two installation ways:

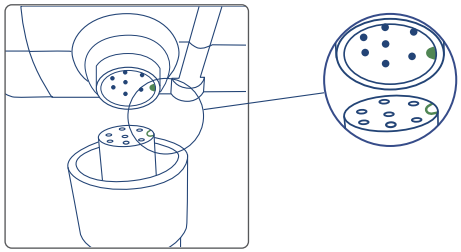
1. Mount the stand on a flat vertical surface or a round wooden post using the 4 screws provided with the unit;
2. Install the bracket on a vertical or horizontal pole and secure with "U" shaped bolts.

Part 4
START WEIGHING

4.1 Connecting the Load Bars

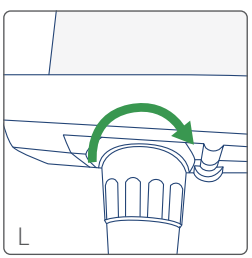


Step1.



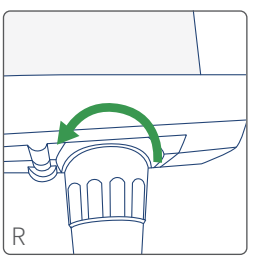
Hold the black plug and insert it into the hole. We have set up corresponding raised parts and recesses for proper alignment. (As shown in the green part of the figure)

Step2.



Turn clockwise to tighten.

Step3.



Tighten the other end in the same manner by turning counterclockwise.

Tips:

1. When removing the connector, hold the connector body itself. Do not pull it out by holding the blue cable, as this may cause damage and affect the weighing accuracy.

2. After use, cover the connector with the black cap to prevent dust from entering and causing blockages, which may affect precision.

4.2 Power On and Zero the Scale

Normally, the indicator will display【0.0】, after it is powered on and stabilized.
IIf it has weight when power on, press ZERO key to zero the indicator.
(Zero range: 2% of the full scale.)

【0.0】

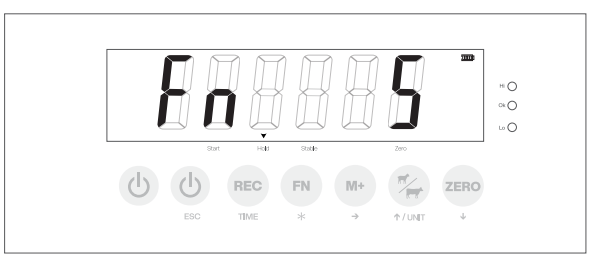
Full Scale*: The maximum measurement range that the scale can measure.

4.3 Session

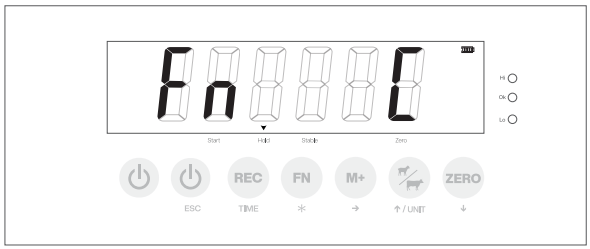
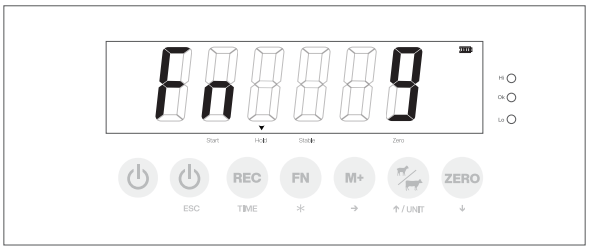
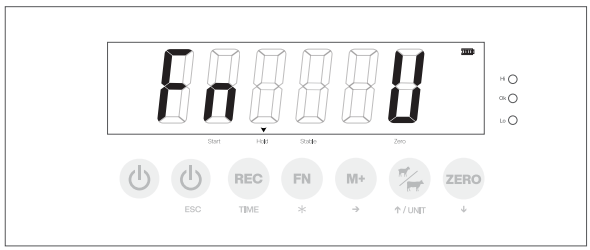
To help you monitor and manage the weight of animals more effectively, Indicator supports to create sessions of each weighing, which allows you to record the weight of each session of animals at different stages of growth, store and analyze the gained weight, etc. You can also use the check-weighing function to sort and select.

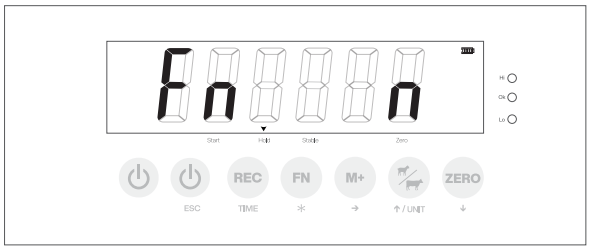
4.3.1: Set Animal Mode

Due to the varying habits and body sizes of different animal species, their behavior on the scale can differ significantly, which affects the stabilization time of the indicator reading **t*** and, consequently, the accuracy of the weighing results. To achieve more precise weighing results and enable dynamic weighing, the indicator is equipped with an Animal Mode function to meet the needs of various scenarios.

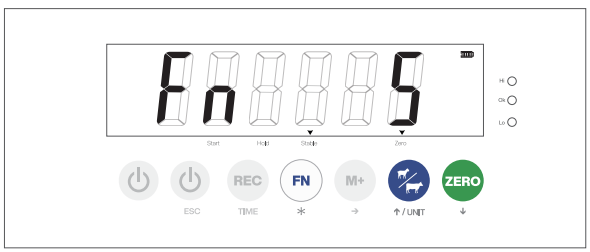
Animal Mode	Meaning	Stability Time (t)
	SHEEP	3s

t*: The interval time from the appearance of the Start symbol to the Hold symbol .

Animal Mode	Meaning	Stability Time (t)
	CATTLE	5s
	GROUP	7s
	USER	0-9s

Animal Mode	Meaning	Stability Time (t)
	Manual Weighing	3s

When you choose this mode, after cattle steps onto the scale, press M+ key, it will start weighing when Start lights up; and Hold lights up after 3 seconds, the value is locked. If the weight is not correct, press M+ key to reweigh it.



Operating Procedures:

Set the animal mode by pressing ↑/UNIT . The device will default to the last set animal mode 【Fn S/C/g/U/n】. If no setting has been made before, it will display 【Fn S】. Use the ↑/UNIT or ZERO to select the mode, and press FN to confirm.

4.3.2: Set Animal Group

【S 000A】

【S 002A】

【S 002B】

After confirmation(4.3.1), it will display the session number (defaulting to the last set session). For the first time setting, it will display【S 000A】.
(The three-digit range is 001 to 255; 000 is an unconfirmable state.)

Use the ↑/ UNIT or ZERO to select the number, and press to confirm.

Example:

If the same session is weighed a second time/batch, directly press FN, it will default to the next letter. For example.

If the animal session number was previously set to【S 002A】, and you'll keep weighing the same session, press FN directly, the last letter will automatically change to the next letter in the alphabet, displaying as【S 002B】, and so on.

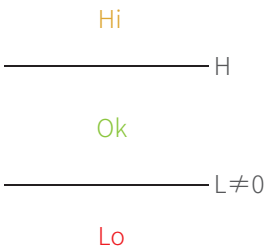
Tips:

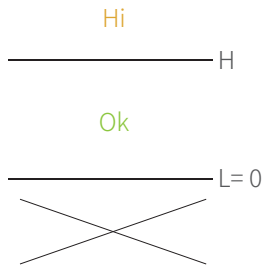
The session pattern is e.g.【S 001A】.
The first letter is the animal mode, S/C/g/U/n; the three digit number represents the session number --001 to 255 can be set; the last letter denotes the batch number A...Z.

4.3.3: Checkweigh (i.e., setting the upper and lower limits of the weighing range)

By default, it is divided into three zones-- High, Ok, Low. If this weighing function is not required, you can set L to 000000 and H to a value greater than the maximum capacity of the scale, like 900000.

Once the weight checking settings are completed, a corresponding indicator light will light up for each weighing: Hi ● Ok ● Lo ● .





【L01000】

【000000】

Lower Limit Setting:

(Continue 4.3.2)

Press FN and M+ to display the previously set lower limit value. If no value has been set before, it will display【L01000】, indicating a lower limit of 100.0 kg (the decimal point is not displayed). Press M+ to display【000000】. The currently flashing character can be changed by ↑/UNIT or ZERO. Press M+ to move the digit, and press FN to confirm.

【H02000】

【000000】

Upper Limit Setting:

After confirming the lower limit setting, the display will immediately jump to the previ ously set upper limit value. If no upper limit has been set before, it will display a random value e.g.【H02000】, indicating an upper limit of 200.0 kg (the decimal point is not displayed). Press M+ to display【000000】. The currently flashing character can be adjusted.

Use ↑/UNIT or ZERO to select the desired number. Press FN to cycle through each digit for adjustment, and press M+ to confirm.

To use the animal session saved in the last shutdown, on the【0.0】interface, click ↑/UNIT and M+ to enter.

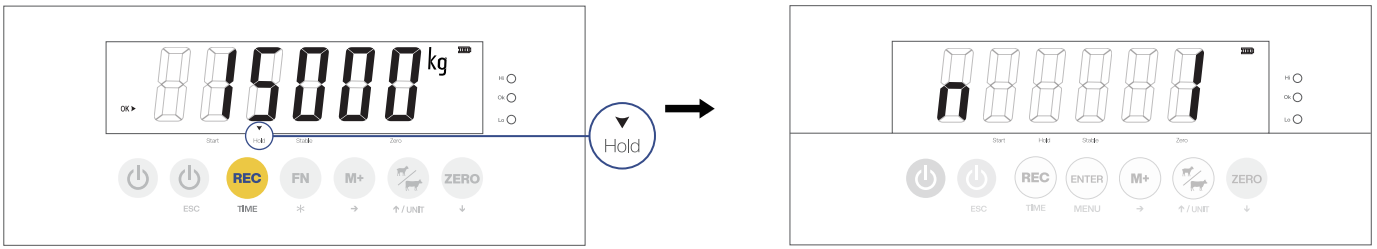
If there are issues with inaccurate or unstable weight readings, ensure that the weighing beam is securely and evenly mounted on a level surface, free from stones or soil. Also, ensure that the weighing beam is correctly connected to the indicator.

Part 5
RECORD DATA

If you have not set up an animal group, the weighing data will not be recorded. For instructions on setting up a group, refer to Section 4.3 in the table of contents.
When the weight value is stable (the Stable indicator appears), press REC to record the displayed weight value and the number of records.

For example, If the stable weight value is 1500 kg, it will display【1500.0】.

When the Hold indicator appears, click REC to record. The display will show 【n 1】, where the number 1 indicates the sequence number of the recorded entry.



Part 6
TRANSFER DATA

6.1 Setting the Print Format

1.Press FN , display【Print】

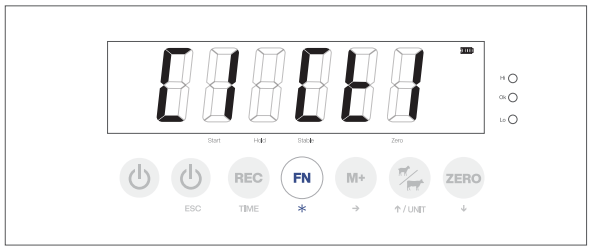
2.Press M+ , display【Adr 00】

The default display value is 00, and no change is required.

3.Press FN , display【b1 24】

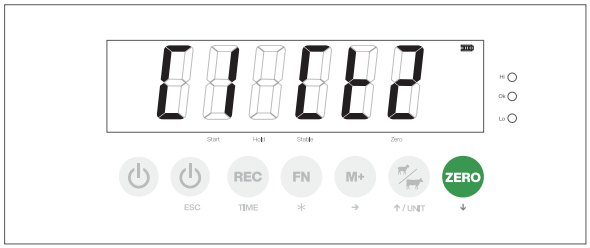
The default display is 96. It can be changed to 24, 48, 96 or 192 as needed.

4.Press FN, display【CHE1 n】

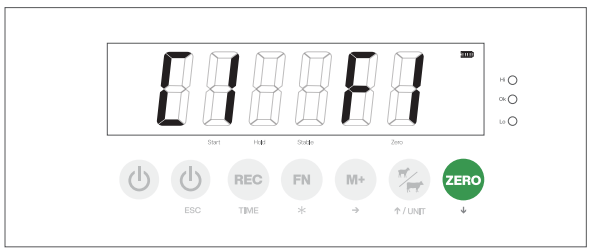


5.Press FN, default display【C1 Ct1】

The format for CT1 is described in Section 6.5.



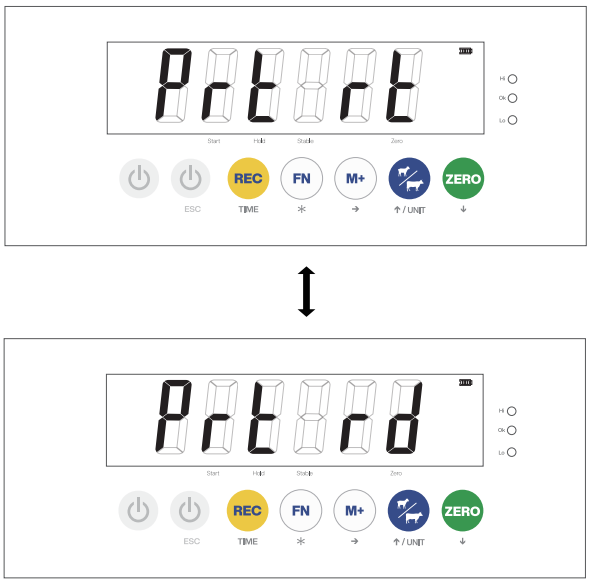
7.Press ZERO, display【C1 Ct2】

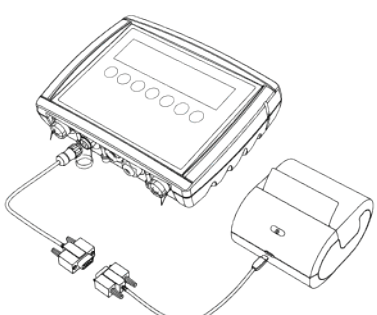


8.Press ZERO, display【C1 F1】

The format for F1 is described in Section 6.5. If you need to connect to a printer, the output format must be set to F1.

6.2 Connecting the Printer





Connection Diagram

Press FN twice to display the latest session. Press ↑/UNIT or ZERO to switch groups, and press M+ to proceed to the next step.

By default, 【Prt rt】 is displayed, indicating that all summary data of the group will be printed. Press ↑/UNIT or ZERO to switch the printing mode. 【Prt rd】 will be displayed, indicating that all data of the group will be printed item by item. Press REC to initiate the transfer, and 【------】 will be displayed to indicate that the transfer is in progress.

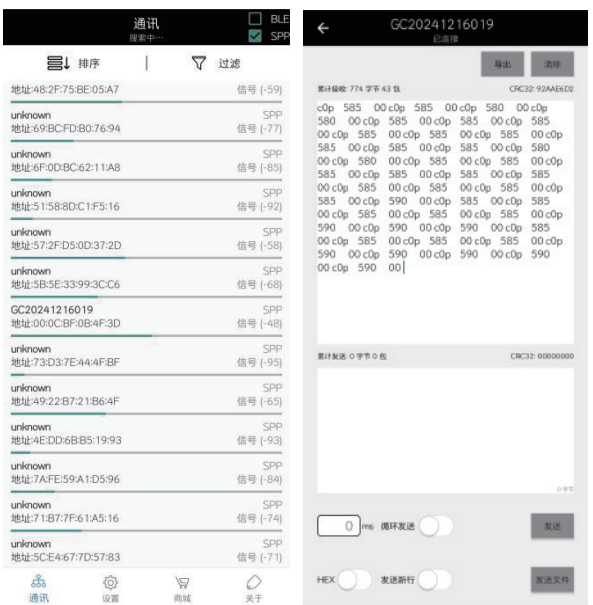
If you connect to our company's matching printer, the connecting cable will be included. For other printers, please prepare the connecting cable yourself.

6.3 Connecting Bluetooth

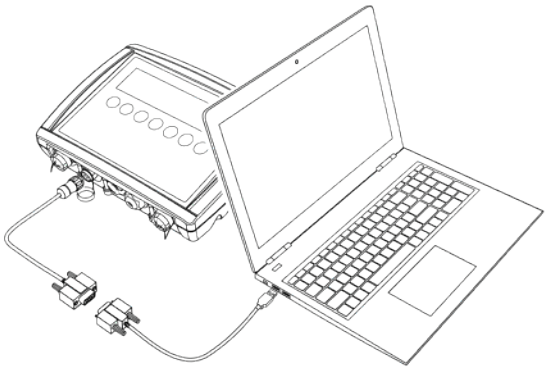
The Bluetooth module replaces the original wired serial port transmission with wireless Bluetooth transmission, and the parameter settings are consistent with those inside the indicator. By using serial port software on a mobile device, you can connect to the indicator via Bluetooth to receive data.

Connection Steps:

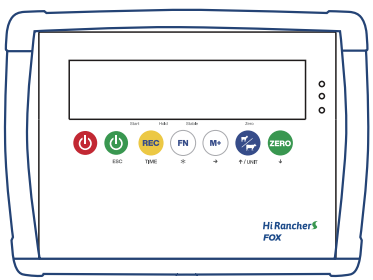
1. Turn on the indicator and ensure that the Bluetooth module is in discoverable mode (indicated by a flashing light).
2. Enable Bluetooth on your mobile device and open a serial port app (e.g., FeasyBlue or any other app that supports the SPP protocol, available for download on app stores for different systems).
3. Select SPP mode in FeasyBlue.
4. Scan and select the Bluetooth name corresponding to the device (consult the supplier for the default name).
5. After a successful connection, the device will transmit data via Bluetooth in the format set in Section 6.1.



6.4 Connect computer.

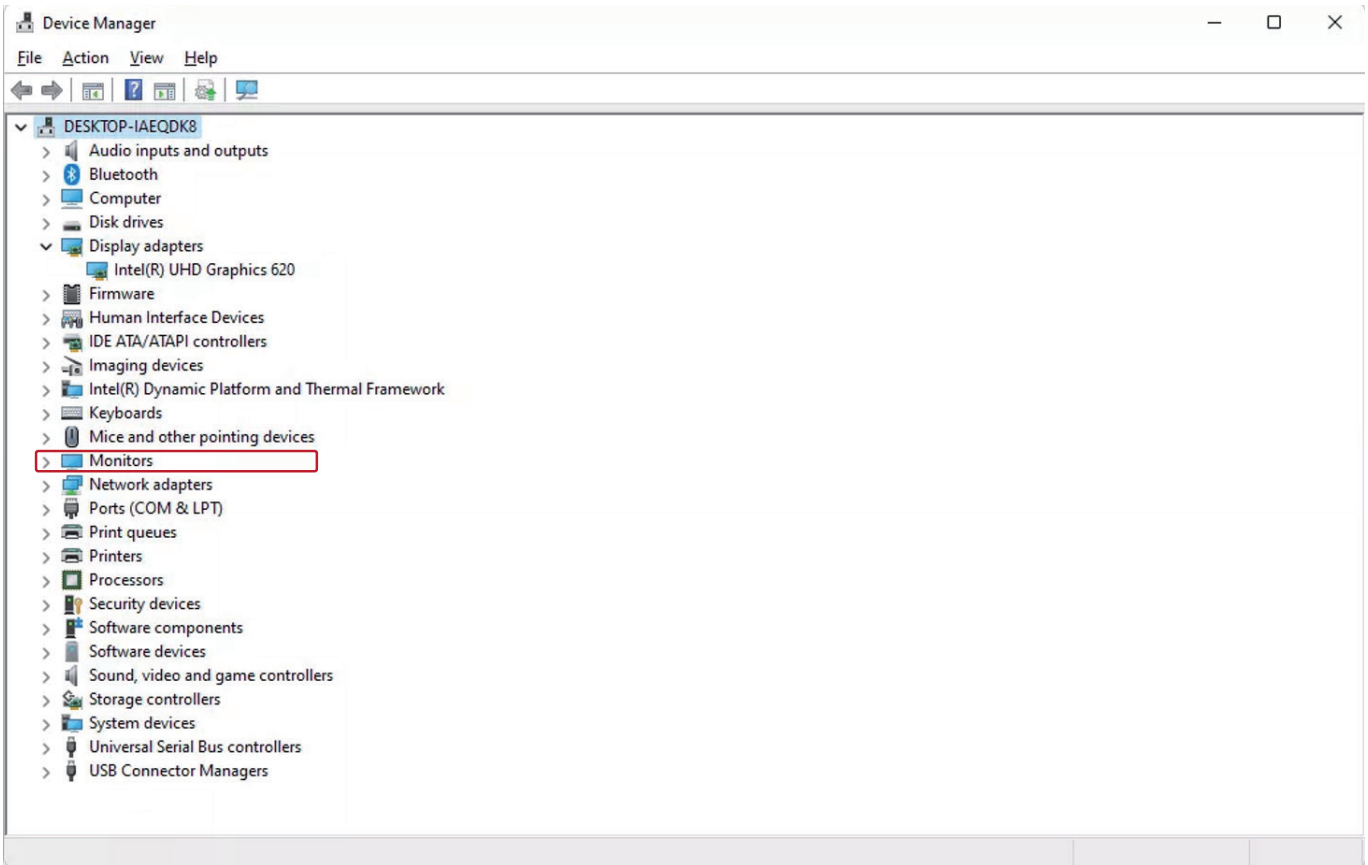


1. Connect the instrument using the 232-to-USB cable included in the packaging (refer to the diagram).

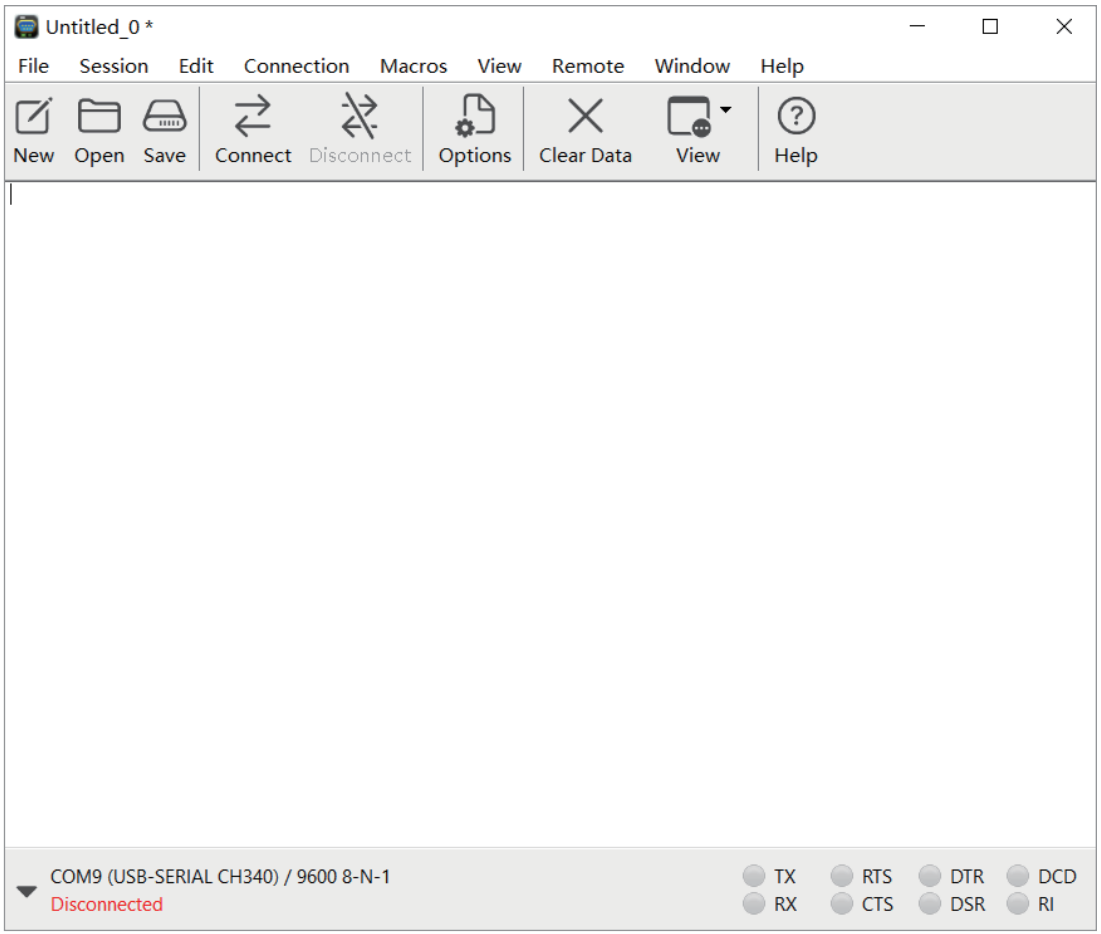


2.Turn on the indicator.

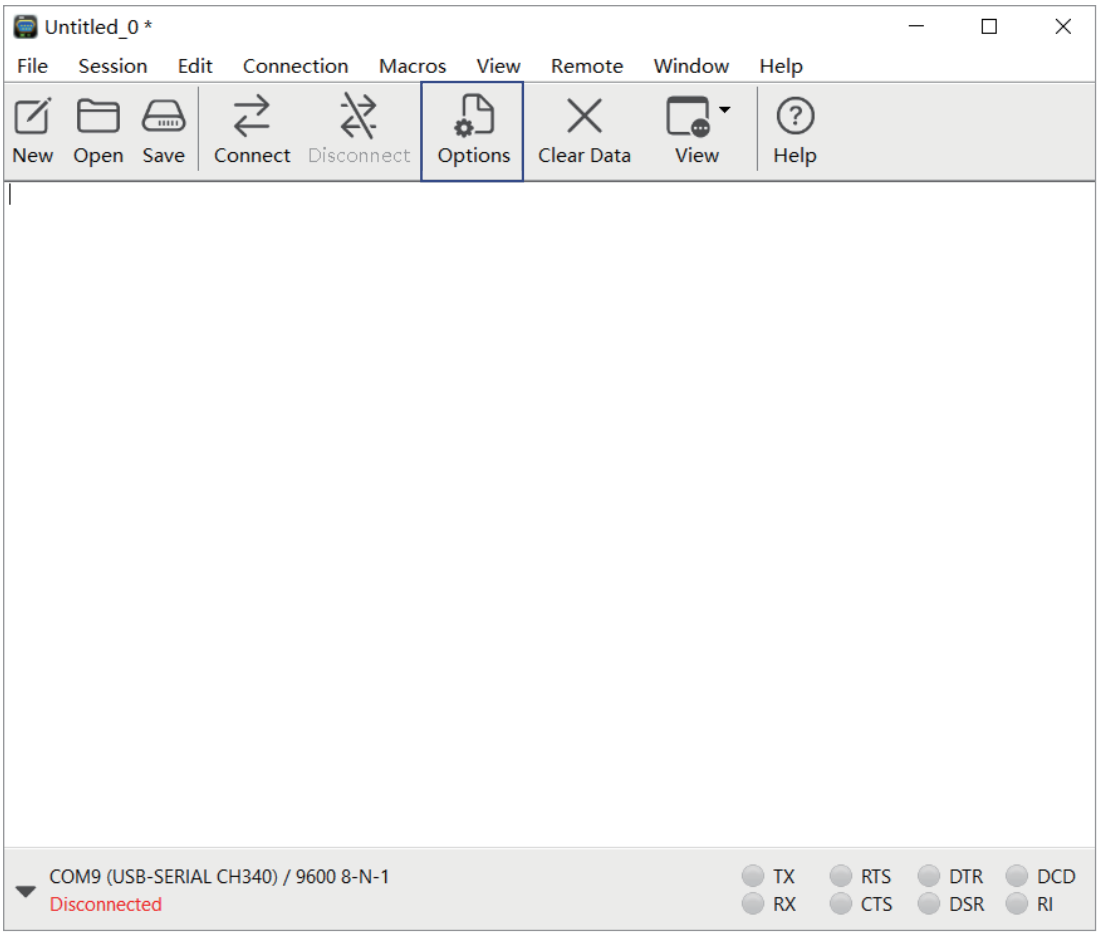
3.On the computer, open Device Manager and locate the COM port under "Universal Serial Bus Controllers." Ensure the USB-to-serial port driver is installed. If not, download it from: [CH341SER.EXE - Nanjing Qinheng Microelectronics] (https://www.wch-ic.com/downloads/CH341SER_EXE.html).



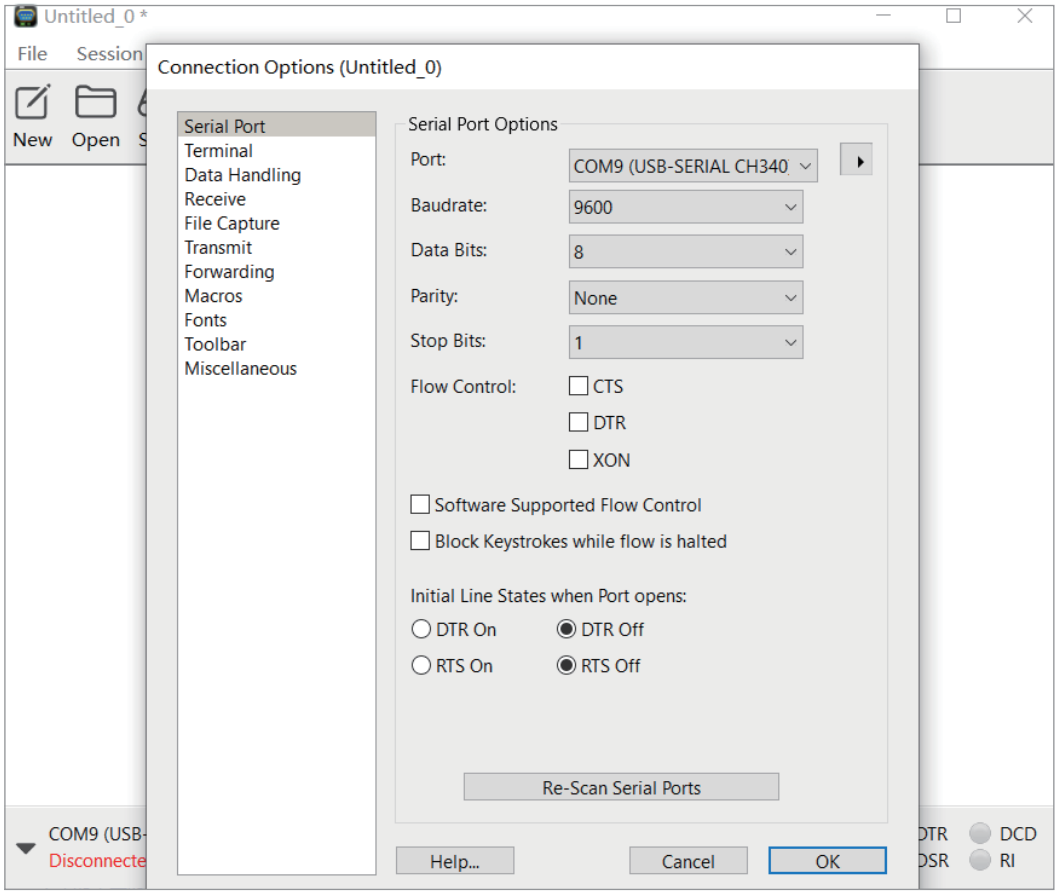
4.Open "CoolTerm", as shown in Figure .
(download address: [Roger Meier's Freeware](https://freeware.the-meiers.org/))



5.Press “Options” to configure the serial port, as shown in Figure .

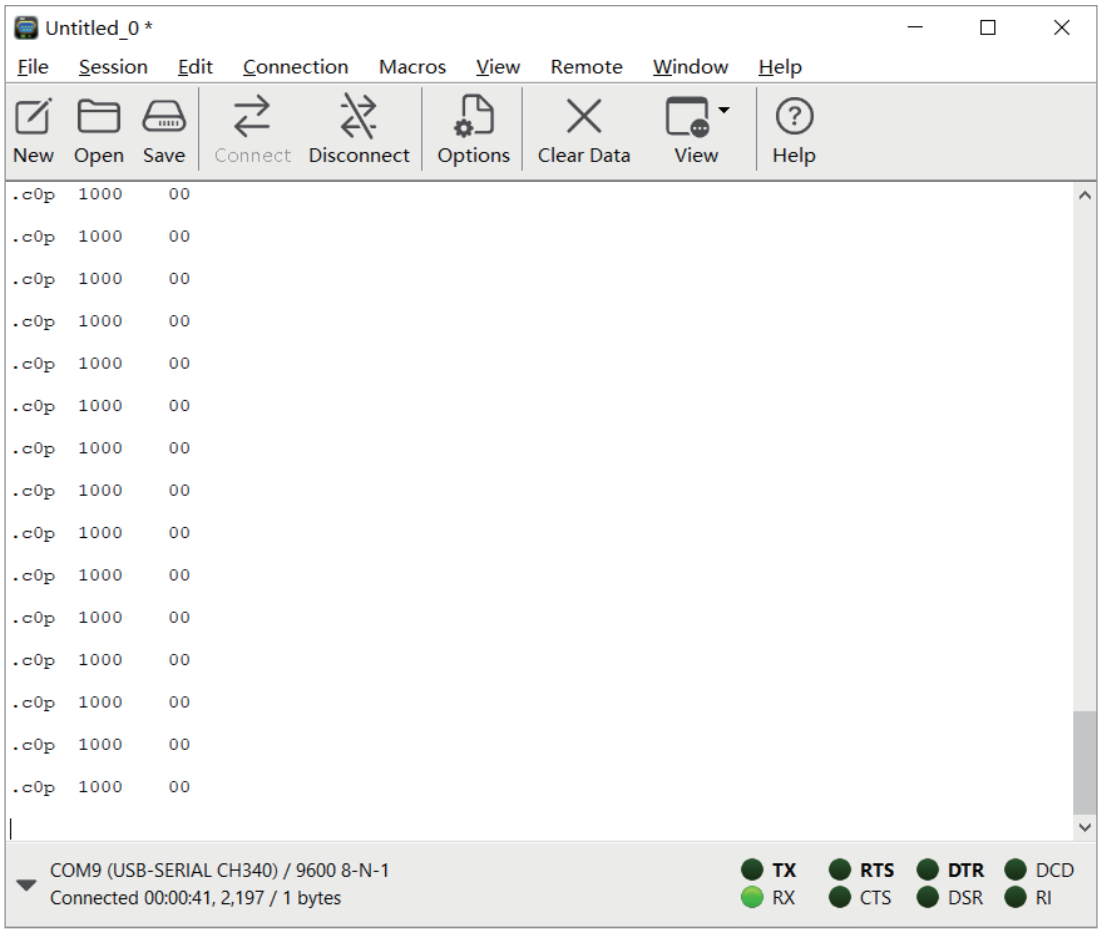


6.Select the port from Device Manager.
Set the software's serial parameters to match the instrument's.
Default serial settings:
Baud rate: 9600, Data bits: 8, Parity: None (n), Stop bits: 1.
Other settings should follow the figure.



7.After configuration, click “Connect” to receive data from the instrument.

The instrument starts transmitting data (default format Ct1), To change the output format, refer to Section 6.1 to adjust the settings.



6.5 Output Format

1.Continuous mode (Ct1, Ct2):

Ct1: Continuously outputs ASCII codes in the specified format, regardless of weighing stability.

Character	1	2	3	4	6-10	11-16	17	18
Data	STX	SWA	SWB	SWC	XXXXXX	YYYYYY	CR	CKS
		Status Word			Display weight			

1. STX: Data output starts with hexadecimal 02, corresponding to the ASCII character for "Start of Text".
2. SWA, SWB, SWC: Status words A, B, and C, respectively. Details are provided in the table below.

SWA	Bite7	Bite6	Bite5	Bite4	Bite3	Bite2	Bite1	Bite0
A	0	1	1	0	0	0	0	1
C	0	1	1	0	0	0	1	1
D	0	1	1	0	0	1	0	0
B	0	1	1	0	0	0	1	0
E	0	1	1	0	0	1	0	1
	Check Digit	Always 1	Always 1	Always 0	Always 0	Corresponding decimal point position 001:X0 010:X 011:X.X 100:X.XX 101:X.XXX		

SWB	Bite7	Bite6	Bite5	Bite4	Bite3	Bite2	Bite1	Bite0
0	0	0	1	1	0	0	0	0
2	0	0	1	1	0	0	1	0
4	0	0	1	1	0	1	0	0
6	0	0	1	1	0	1	1	0
8	0	0	1	1	1	0	0	0
/	0	0	1	0	0	0	0	0
>	0	0	1	1	1	1	1	0
	Check Digit	Always 0	Always 1	0:lb 1:kg	0:Stable 1:Unstable	0:Normal 1:Overload	0:Positive 1:Negative	Always 0

SWC: p(0x70)

1. XXXXXX: Displayed weight, six digits, no sign or decimal point. Leading zeros in non-weight data are replaced with spaces (0x20).

2. CR: 0x0D

3. CKS: Checksum, the complement of the sum of data from STX to CR. The highest bit is the check bit.

4. Ct2: Continuously outputs ASCII codes in the format specified below when the weighing is stable.
   (Format is the same as Ct1.)

Printing Format One (F1):

Summarize Data (Prt rt)

S001A XX-XX-XXXX

Total No.: 0

Over No.: 0

Under No.: 0

Ok No.: 0

Total WT. 0kg

Avg WT. 0kg

Min WT. 0kg

Max WT. 0kg

Each Data (Prt rd)

S001A No.0001 XX-XX-XXXX XX:XX:XX 0kg

S001A No.0002 XX-XX-XXXX XX:XX:XX 0kg

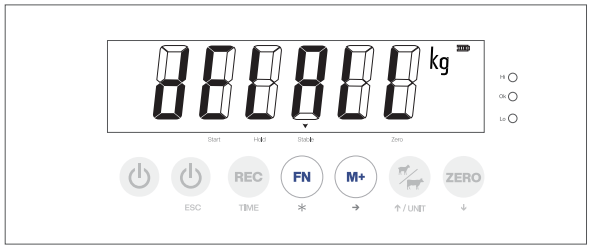
S001A No.0003 XX-XX-XXXX XX:XX:XX 0kg

S001A No.0004 XX-XX-XXXX XX:XX:XX 0kg

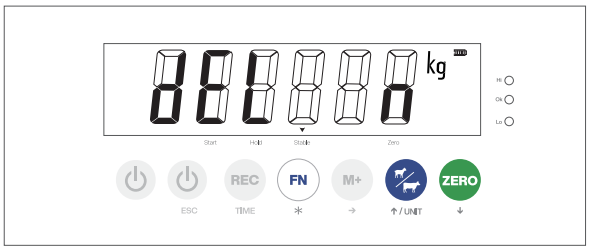
S001A No.0005 XX-XX-XXXX XX:XX:XX 0kg

Part 7
DELETING DATA

7.1 Delete All Data Records

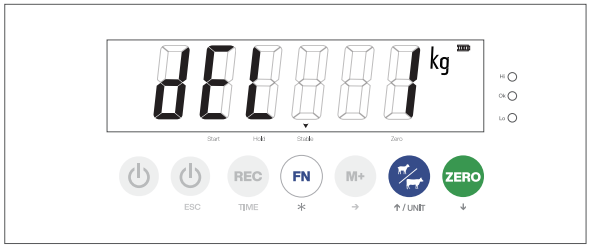


Press FN and hold for three consecutive times, then press M+ to display【dEL ALL】. indicating the deletion of all data. Press FN again to proceed to the next step.



Displaying【dEL n】means canceling deletion, while【dEL y】means executing it. Press ↑/UNIT or ZERO to switch between them, and press FN to confirm the operation.

7.2 Delete Data Records of a Specified Session



Press FN three times in a row, switch by pressing ↑/UNIT or ZERO, and 【dEL 1】 will be displayed, indicating the deletion of a set of data. Press FN to proceed to the next step.

Press FN again to enter session selection, switch sessions by pressing ↑/UNIT or ZERO, and press FN to confirm the session to operate. Then display 【dEL n】 means canceling deletion, while 【dEL y】 means executing it. Press ↑/UNIT or ZERO to switch between them, and press FN to confirm the operation.

Tips:

1. Deleting records of a specified session will remove all related entries under that session.
For example, selecting session S001 (displayed as S 001A, S 001B, ..., S 001Z) will delete all associated records within that session.
2. Deleting the most recent session's records may cause issues with printing functionality when using the checkweighing and recording features for that session. Normal operations will resume after reconfiguring the session or rebooting the device.

【S 001Z】

Part 8
TROUBLE SHOOTING

Problem	Testing Way	Solution
Can't Power On	No Battery Power	Test the battery volume
		Charge the battery
	Battery broken	Test the battery volume whether it's lower than 5v
		Replace the battery
	No AC power	Whether the cable connected well
		Connect it steadily
		AC power cable broken
		Replace the cable
	Main EEprom broken	Change mainboard or EEprom
RS232 No output	Parametersset wrong	Adr=00 or 99 for continuous output
		Choose the right code
	RS232 IC broken	Test the voltage between pin3 and pin5 and it should be between 0.2V-1.2V
		Change the IC
Incomplete display		Power on the indicator again to check
		Change the LCD
	No backlight	Check the backlight pin loose or not
		Re-weld or replace

Problem	Testing Way	Solution
Display vibrating	Load cell problem	Disconnect the load cell and the display ok
		Change the load cell
	Load cell Connect wrong	Disconnect the load cell and the display ok
		Check the connecting and correct it
	Battery lower	When the battery volume ＜10%
		Charge the battery
OUER	Overload	The weight ＞100%F.S. + 9d
		Remove the overload weight
	Load cell problem	Check the load cell ok and also the connecting correct or not
		Recalibrate
-OUER	Minus overload	The weight ＜ -20d or =-100%F.S. on positive/negative weighing mode
		Zero/Tare the scale or put the scale pan or cover
	Load cell problem	Check the load cell ok and also the connecting correct or not
		Recalibrate

Problem	Testing Way	Solution
Can't Calibrate	IC broken	Test whether there is 2.35-2.6V voltage between +S and -S
		Change IC
ERR0R	Calibration weight too small	The calibration weight is less than 30%F.S.
		Use the right weight
	* Error display may follow by some numbers, it's the same reason	


Hi Rancher