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EN

TOUCH CHECK WEIGHING

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1. Before use

1.1 Safety Warnings

- Please read this manual carefully before use. This manual will help extend life of the product and minimize chance of failure.
- Please make sure the input voltage of AC adapter matches the power source.
- Do NOT self-repair or rebuild this product. Please refer to any sales/service center authorized by the manufacturer.
- Keep liquid away from AC adapter. Do NOT plug/unplug with wet hands.
- Please unplug the adapter when the product will not be used. If the product has built-in battery, please store the product after fully charging the battery.
- Please disconnect the power source before plugging/unplugging any connectors, maintenance, and cleaning.
- Please keep this product away from children.
- Do NOT overload this product.
- Keep away from corrosive substances and flammable materials.
- Do NOT use this product in environment with flammable gas or flammable vapors.
- Please place this product under lighting protection in areas with frequent lighting.
- Do NOT use strong solvent to clean this product.
- Do NOT instill liquid or other conductive material into this product.


2. Quick Start

2.1 Power on, Sleep, Power off and Reboot

- Power on
- Press  until you hear a beep. It takes around 30 seconds to run the TOS operating system and application software.
- Sleep
- Press  shortly to put machine into sleep. Press ON/OFF again to turn the monitor on.
- Power off
- Press  until a dialog window appear. Answer YES to power off or NO to back to use.
- Reboot
- Hold  for 6 seconds, the system will restart to recover from abnormal situation.

2.2 Panel Keys functions

 On/Off button:

Press ON/OFF button to power on, sleep, power off and system reboot.  MENU button: Press MENU key, a menu table will appear at the bottom of the display.

 HOME button:

Press HOME key, screen will back to home page.



 TARE button:


Press TARE key to tare the scale. The weight that was displayed is stored as the tare value and that value is subtracted from the measurement, leaving zero on the display. The "Net" indicator will be on.

 ZERO button:

You can press the ZERO key to reset the reading to zero. This will usually only be necessary when the platform is empty. When the zero point is obtained, the zero indication will light up.

2.3 Indications

 When the scale back to zero, ZERO indication turn up.  When the scale is tare, TARE indication turn up.

 When the scale is stable, the indication turn up.

 It indicates maximum capacity, minimum weight and reading of the scale.  v1.00!

It indicates the application software version

 It indicates the status of battery.  2012/8/12 6:00 It shows the date and time.

2.4 Operation user interfaces

2.4.1 Graph mode

Press Graph button to perform weighing operation visually. The graph includes a range check bar and a target quantity reference table. This will help to improve efficiency and avoid mistakes.



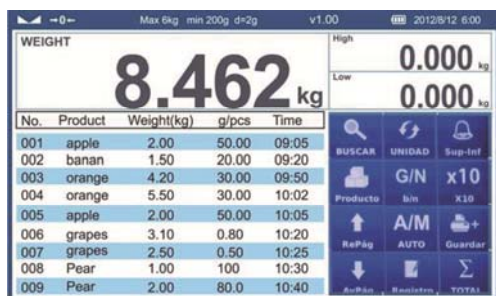
2.4.2 Full-screen Mode

Touch main weight display window, it will change to full screen display mode. Press weight display window again to return to normal display mode.



2.4.3. Record mode

Press RECORD button to view previous weighing record, which includes serial number, product name, weight, unit weight, quantity, and time.



2.5 Function buttons



Product look up

Press Product Look Up button to call out preset product information.



Product look up

Press Product button to show the preset product information.



Product list search

A list of products will appear. Search and select the desired product



Change unit

Press "unit" key to shift between different weighing units. You can turn on/off this unit switch in parameter setting.



Shift Gross and Net

Press "gross/net" key to shift between gross weight and net weight. This function is only available after tare.



Hi Lo setting

Press "HI-LO" key, and enter lower bound, press OK to confirm, then enter upper bound, press OK to confirm. When unit weight is 0, the scale will check the range by weight, so the HI-LO setting will base on weight. When unit weight is not 0, the scale will check the range by quantity, so HI-LO setting will base on quantity.

After input high/low limit, the weight display will change its background color base on weigh checking status. When under load, background will be orange; when in selected range, background will be green; when over load, display will be red. This function is also available in full screen display mode.



Save and print

Press to accumulate the weighing records and print.



Accumulation recall

Press this button to show the accumulated total and print.



Press this button, the display reading will time by 10 by extend a digit



Press this button to shift between graphical operation interface and records interface.



Press this button to select auto accumulation or manual accumulation.



Page up and down

Press to page up or page down the PLU pages.

2.6 Built-in Keyboard



English/numeric: input English letter and numeric Backspace

Tab: when input text, use this key to change line **SIGN:** Special symbols.

123: Numeric keyboard

X: Exit editing

3 Menu popup

Press button, a menu table will popup at the bottom of the display. Parameter setting
 Press settings button to enter system setting, weighing setting, operating setting and communication setting.



Press ID button to enter products edit screen.



press to add product PLU, press to delete current product PLU, press to edit current product PLU; Press button to clear all product information, press button to cancel the action, and press button to save.



Press this button to compile different management report.

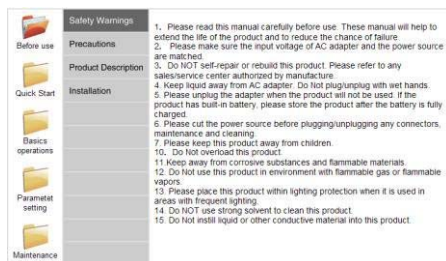
Report Type	No.	Product	Weight(kg)	Tare(kg)	Time
Daily report	01	Screw1	5.35	4.5	11:03
Week report	02	Screw2	5.35	4.5	11:03
Month report	03	Screw3	5.35	4.5	11:03
Custom report	04	Screw4	5.35	4.5	11:03
	05	Screw5	5.35	4.5	11:03
	06	Screw6	5.35	4.5	11:03
Total			0.00		



Press this button to import preset PLUs to scale or export weighing records to a PC.



Press



this button to read an operation manual from the screen.



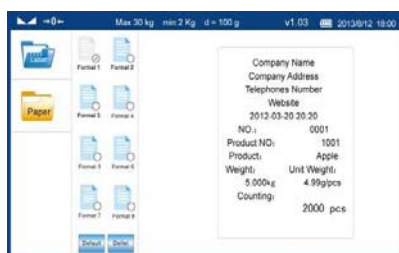
Beep mode

The scales support five beep modes: Over Alarm, In-Range Alarm, Under Alarm, Out-Range Alarm and No Alarm.



Printing format setting

Press "format" key, select label or receipt, and select from the existing formats. Print preview will display on the right. After selecting the format, press "default" button to confirm. Then select desired printing to finish setting the format.



Note: You may select none or multiple printers. If none, it will not print; if multiple, it will print from multiple printers.

4 Setting

Press  menu button. Click on settings to enter the detail settings page.

Setting					
Basic Information	System Setting	Weighing Setting	Operation Setting	Calibration	Communication
User Information	Gravity	Approval setting	Measuring speed	Calibration	Com 1
Advertising	Date and Time	Range mode	Measure unit	Linearity CAL	Com 2
	Language	Decimal	Auto power off	Trim	
	Backlight	Capacity	Auto Dormancy	Internal counts	
	Screen correction	Division			
	Software update	Auto zero range			
	System Info	Manual zero			
	Password	Zero tracking			
	Reset Database	Tare mode			

4.1 Basic Information

4.1.1 User information

Select settings -> basic information -> User information. The company information interface will appear, and insert information with built-in QWERTY keyboard or outlet keyboard. Click on << at the top left corner to exit editing.

Company information will be included in the receipt and reports, and company logo will appear when turning on the machine.

4.2 System settings

4.2.1 Gravity settings

Select setting -> system settings -> gravity settings. Input gravity value with built-in QWERTY keyboard or an outlet keyboard. Click on << at the top left corner to exit editing.

Please assure that you have input correct gravity value every time before calibration

4.2.2 Date and Time

Select settings -> system settings -> Date and Time setting. Insert date and time with built-in QWERTY keyboard or an outlet keyboard. Click on << at the top left corner to exit editing.

4.2.3 Language settings

Select settings -> system settings -> Language. Select language. System will restart after changing and confirming the settings.

4.2.4 Backlight

Select settings -> System settings -> Backlight. Scroll around the bar to adjust brightness of the backlight. Click on << at the top left corner to exit editing.

4.2.5 Touch-screen correction

Select settings -> System settings -> Touch-screen correction. A confirmation pop-up will appear. Confirm to enter calibration page. A white cursor will appear in a black screen; keep clicking on the white cursors until completing the calibration process.

Note: Take effect after re-starting the scale.

4.2.6 Software Update

Unzip the software update file into flash drive's home directory, and insert the flash drive into the USB port. Select settings -> system settings -> System Update. A confirmation pop-up will appear; confirm and finish the updating process. System will restart after the update.

4.2.7 System information

Select settings -> System settings-> System information to check software, Operation System version, remaining storage memory, and other system information.

4.2.8 Set password

Select settings -> system setting->password, you need input current password at first (initial password: 0000), then input new password twice. Press OK to escape.

4.2.9 Reset database

Select settings -> system setting->reset database. Press reset, system will clear all data in the database. The machine has some preset data for test. Before using the scale formally, please clear all data in database.

Please do this operation very carefully. This operation will remove all data in database.

4.3 Weighing setting

4.3.1 Approval setting

Select settings -> weighing settings -> approval setting. Select the approval option. Click on << at the top left corner to exit editing.

Authentication details are below

	OIML	NTEP	None approval
Auto zero range	10%	10%	According to user setting
Manual zero range	2%	2%	According to user setting
Auto zero tracking	0.5e	0.5e	According to user setting
Zero in net mode	disable	disable	enable
Calibration switch	need	need	No need
overload	Max+9e	105%Max	Max+9e
Weighing unit	kg	lb	selectable

4.3.2 Weighing Mode

Select settings -> Weighing Settings -> Range mode. Select signal range, dual interval, dual range, and etc. Click on << at the top left corner to exit editing.

4.3.3 Decimal point

Select settings -> Weighing Settings -> Decimal setting. Select desired decimal digits. Click on << at the top left corner to exit editing.

4.3.4 Capacity Setting

Select settings -> Weighing Settings -> capacity setting. Use the number keypad to input capacity (two windows will be prompted for double indexing value or dual range/dual interval). Click on << at the top left corner to exit editing.

Note: When using dual interval or dual range, it is required to have $\text{max2} > \text{max1}$.

4.3.5 Division setting

Select settings -> Weighing Settings -> Division. Select the desired division. Click on << at the top left corner to exit editing.

Note: When using dual interval or dual range, it is required to have $e2 > e1$.

4.3.6 Auto zero range (initial zero)

Select settings -> Weighing Settings -> Auto Zero. Select the desired choice. Click on << at the top left corner to exit editing.

Note: This setting will be disabled under approval mode.

4.3.7 Manual Zero range

Select settings -> Weighing Settings -> Manual Zero, Select the desired choice. Click on << at the top left corner to exit editing.

Note: This setting will be disabled under approval mode.

4.3.8 Auto zero tracking

Select settings -> Weighing Settings -> Zero Tracking. Select the desired choice. Click on << at the top left corner to exit editing.

Note: This setting will be disabled under approval mode.

4.3.9 Tare Mode

Select settings -> Weighing Settings -> Tare Mode. Select the desired continuous tare choice. Click on << at the top left corner to exit editing.

Note: This setting will be disabled under approval mode.

4.4 Operation Settings

4.4.1 Measure speed

Select settings -> Operation Settings -> Measure speed. Select the desired Measure speed choice. Click on << at the top left corner to exit editing.

4.4.2 Measure Unit

Select settings -> Operation -> Measure unit. Select the desired unit choice. Click on << at the top left corner to exit editing.

4.4.3 Check Beep Mode

Select settings -> Operation -> Check Beep Mode. Select the desired mode. Click on << at the top left corner to exit editing.

4.4.4 Acc only when ok

Select settings -> Operation -> Acc only when ok. Select the desired choice. Click on << at the top left corner to exit editing.

4.4.5 Weight Mode

Select settings -> Operation -> Weight Mode. Select the desired mode. Click on << at the top left corner to exit editing.

4.5 Calibration

4.5.1 Calibration

Press on the menu. Select Settings -> Calibration -> Calibration in the setting page.

Select start and enter step 1: Zero calibration. Clear the plate and wait for the stability signal, and click next.

Enter the calibration weight with the number pad, and click confirm.

Place the corresponding weight on to the plate. Wait for the stability signal, and click next. Calibration failure: please check on the weights and load cell and restart the calibration

Calibration success: Select preference of the next calibration. Click finish. System will remind the user for the next calibration when the date comes.

4.5.2 Linear Calibration

Press on the menu. Select Settings -> Calibration -> Linear calibration in the setting page.

Select start and enter step 1: Zero calibration. Empty the plate and wait for the stability signal, and click next.

First point calibration: Select an integer value weight that is less than that of the second point. Wait for the stability signal, and click next.

Second point calibration: Select an integer value weight that is less than that of the third point. Wait for the stability signal, and click next.

Repeat above process. Note that the weight chosen in the current point should be lighter than the weight used in the next point.

The last point must be full capacity.

Calibration ends when the last point is finished.

4.5.3 Trim

Press on the menu. Select Settings -> Calibration -> Trim in the setting page.

Now display show current weight, the right window show weight after correction. You can use -1d, -10d, +1d, +10d button to adjust, when the right window shows the correct weight, press OK. Press << to back to setting mode.

During correction, if you want to give up current operation, just press reset key.

4.5.4 View Internal Counts

Select Settings -> Calibration -> Internal Counts. The AD internal counts will appear. Click on << at the top left corner when finish viewing.

4.6 Ports Description



USB ports can connect to a mouse, a keyboard, a barcode scanner, a 3G Internet chipset or a flash drive.



RS-232 port can connect to a printer or a computer.



AC adapter port: the device is charged when AC adapter is plugged in.



Load cell port: connect to load cell

4.7 Communication

4.7.1 Serial Ports

Select settings -> Communication. Select the serial port and edit its options, including transmit mode, baud rate, data bits, and stop bits. Click on << at the top left corner to exit editing. When the printer is set to CONT mode, the serial port continuously outputs the following (all data is in ASCII code, baud rate 600-9600 bps, 8-bits, and no parity.)

-/ U								k	g	CR	LF
	WEIGHT DATA							WEIGHT UNIT		TERMINATOR	

4.7.2 Connect RS-232

The RS-232 port is located on the side or rear of the scale(refer to component description). It is a DB9 connector, and its signals are defined in the following.

- pin2: RXD, input signal
- pin3: TXD, output signal
- pin4: VCC, 5V power source, for wireless module
- pin5: GND, Grounding

When connect to computers, please use wiring (2<-->3)

4.7.3 Connecting to load cell

(Only applies to weighing indicator and dual scale)

A weighing indicator has 1 or 2 load cell interface, which normally locate on the side or the rear (refer to component description), it is a 5pin or 7pin air connector.

Optional dual-channel scale (dual scale) has an additional load cell interface. It is a 5pin or 7pin air connector and locates on the side or bottom of the scale (refer to component description), and is wired details as follows:

- 7-core plug
- pin1: EXC+
- pin2: SENSE+
- pin3: SIG+
- pin4: SIG-
- pin5: SENSE-
- pin6: EXC-
- pin7: SHIELD

When a load cell only has 5pin, but load cell connector is a 7pin, please short-circuit SEN+ and EXC+, SEN- and EXC-.

5 Maintenance

5.1 Error Message

Error message	solution
Out of zero range	Zeroing does not work when current weight is out of the zero range. For approved model, manual zero range is 2% of capacity
No A/D signal	A/D chip or load cell is damaged and need replacement
Unstable, can't zero	Please only perform zeroing when stable indication turns on
Cannot Tare	Tare operation does not work when current weight is negative or zero. Tare value must bigger than minimum capacity (20d)
Out of initial zero range	This error message will only show when starting the machine. For approved models, it is outside the 10% of capacity.
overload	For normal model, overload is max+9d; for OIML approved model, overload is max+9e; for NTEP model, overload is 105% max

5.2 Specification

Capacity		Desktop scale: 3kg/6kg/15kg/30kg/45kg	
		Weighing indicator: free setting	
		Platform scale: 30kg/60kg/150kg/300kg/600kg	
External resolution	None approved	3000e	2x3000e dual range
	approved	2x30000e dual range	
Tare range		Max-1d	
Pan size		Desktop scale A/Q series: 230x300mm Desktop scale J series: 240x370mm Platform scale: 350x450mm/420x520mm/600x800mm	
AD method		Sigma delta	
AD speed		Max. 60 times/second	
Internal counts		1,000,000	
Weighing unit		kg, g, oz, lb	
Calibration unit		kg, lb (lb only for NTEP model)	
Load cell excitation		5VDC	
Input signal range		0~20mv	
Zero point signal range		0~5mv	

Load cell sensitivity	1mv/v~3mv/v
Load cells	up to 4 x 350 ohms cells
Operation temperature	-10~40C
Operation humidity	<95%
Display	7" TFT LED backlight
Display resolution	800x480
Display H/V ratio	16:9
Touch control mode	Resistance screen
Communication interface	1xRS-232、2xUSB
Optional interface	Wifi、zigbee
CPU	iMX233 (ARM9 kernel) 454MHz
RAM	128MB DDR
Data memory	256MB NAND flash
power	AC adapter 12V/2500mA or main power 110V/220V