



PRECISION BALANCE **BTH**

User Manual

v.201811

Value Each Gram

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1. ABOUT THE SCALE

1.1 Specification

Model	Range	Division	Repeatability	Linearity	Pan Size
BTH10(C)	10kg	0.1g	±3d	±3d	305x230mm
BTH20(C)	20kg				
BTH30(C)	30kg				

--- BTH*C are the models with internal calibration system

1.2 Features

Stainless Steel Pan

Super 7 inch HD Touch panel display

RS232/RJ45/USB Interface

Mains adapter supplied as standard

Height adjustable feet

Internal Auto Calibration(Optional)

Selectable measure units: mg, g, oz, ct...

Memory for accumulated time

1.3 Applications

Weighing

Net weight / tare

Under weighing

Piece counting function

Density Test

Percentage Test

Check Weighing

Accumulative total

Output/Input

.....

2. THE WEIGHING MODE

2.1 Know Your Balance

Thank you for selecting the BHT Series Weighing Scale!

This Instruction Manual will guide you of the installation, accessories, trouble-shooting, after sales service information, general maintenance of the balance, etc. it will also guide you through the various applications.

Please read this Manual thoroughly before starting the operations. If you need any clarifications, feel free to contact us.

2.2 Weighing Mode

The BHT scale are ideal for laboratory and general purpose weighing. The scale can also be used for some advanced weighing functions.



WEIGHING



CHECKING



PERCENTAGE



COUNTING



DENSITY

WEIGHING: Standard weighing mode

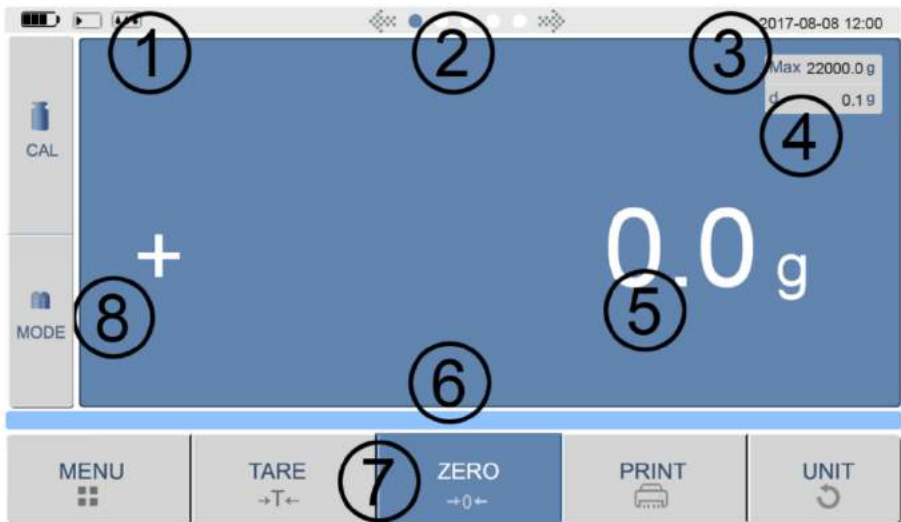
CHECKING: Set the upper and lower limit for checkweigh function

PERCENTAGE: Compare the sample with standard sample.

COUNTING: Count the sample number and total quantity

DENSITY: Testing the solid density value.

2.2.1 Standard weighing mode



1	Status Bar (Battery, Stable, Speed)
2	Weighing mode choose
3	Date and time
4	Capacity and resolution
5	Weighing value
6	Note color (blue mean normal, red means overload)
7	Key pad
8	Auxiliary tools (Calibration, Mode choose, Language)

The weighing function just use for weighing system. The sample weight will direct showing in this page. And we can export the result in output and input page.

2.2.2 Checking



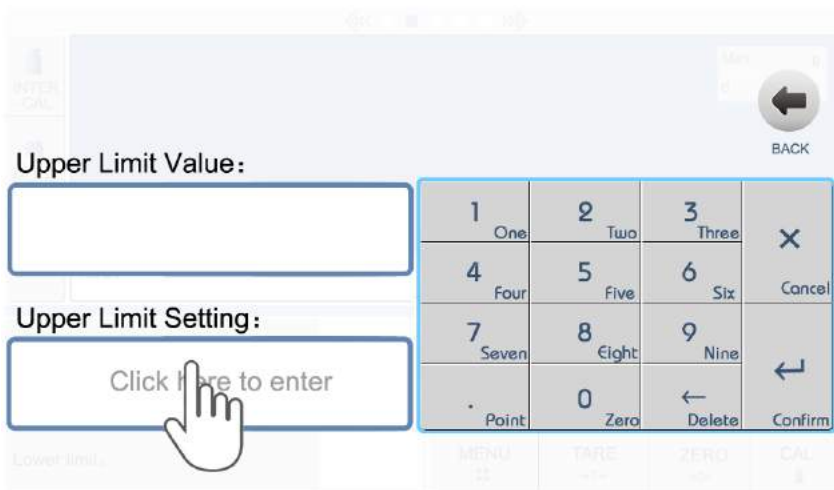
1	Status Bar (Battery, Stable, Speed)
2	Weighing mode choose
3	Date and time
4	Capacity and resolution
5	Weighing value
6	Note color (blue mean normal, red means overload)
7	Key pad
8	Auxiliary tools(Calibration, Mode choose, Language)
9	Tare weight: Put the container, press tare, the tare weight will show here.
10	G.W: Gross weight
11	Total weight and test number
12	Upper and Lower limit setting

Upper and Lower Setting:

Step 1: press the Upper or Lower digit.



Step 2: Press The Enter Input box.



Step 3:

Enter the digit for upper limit.

The lower limit use same steps.

2.2.3 Percentage



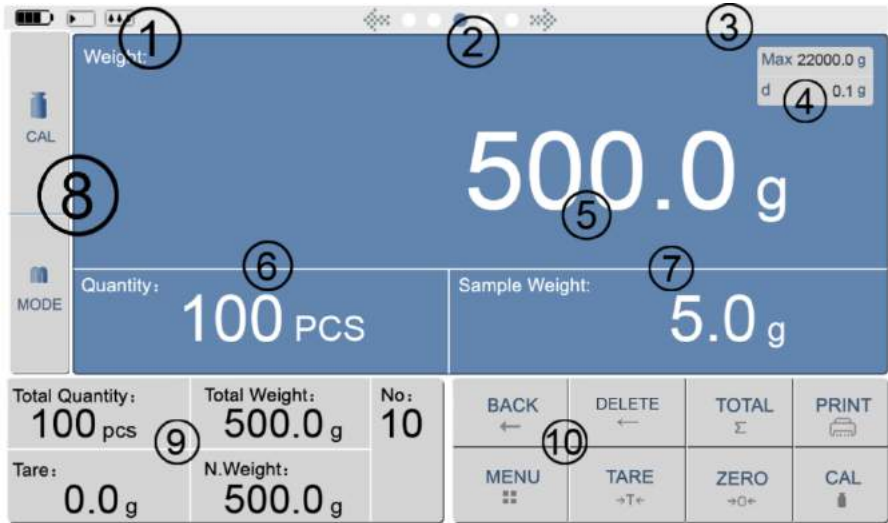
1	Status Bar (Battery, Stable, Speed)
2	Weighing mode choose
3	Date and time
4	100% Weight sample
5	XX% weight sample
6	Percentage
7	Note color (blue mean normal, red means overload)
8	Auxiliary tools(Calibration, Mode choose, Language)
9	Key pad
10	Confirm mark

Step 1: Press 100% then put on the weight, when it goes stable, press again
It will mark a green square, so means 100% set success.

Step 2: Press XX% then put on the weight, when it goes stable, press again
It will mark a green square, so means xx% confirm.

Step 3: Press %, it will come out the result.

2.2.4 Counting Function



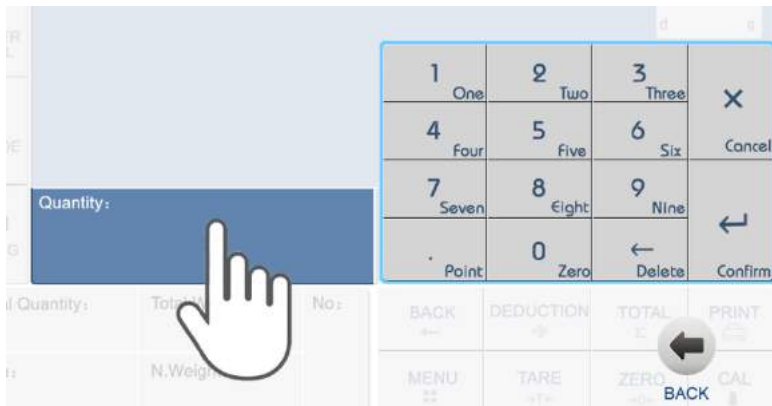
1	Status Bar (Battery, Stable, Speed)
2	Weighing mode choose
3	Date and time
4	Capacity and resolution
5	Weighing value
6	Quantity
7	Sample weight (1 pcs)
8	Auxiliary tools (Calibration, Mode choose, Language)
9	Counting details
10	Key pad

COUNTING FUNCTION

Step 1: Put on the sample weight.



Step 2: Press the quantity. And enter the sample quantity.



Steps 3: Back to the counting page and start the counting test.



We also can direct enter the sample weight and use counting functions.

2.2.5 Density Test



1	Status Bar (Battery, Stable, Speed)
2	Weighing mode choose
3	Date and time
4	The solid weight in the air
5	The solid weight in the liquid
6	Setting the liquid density for solid test
7	Note color bar (blue mean normal, red means overload)
8	Auxiliary tools (Calibration, Mode choose, Language)
9	Key pad
10	Confirm mark
11	The density test result

This density function need use our density kits or under weighing function for density test.

Density hook:

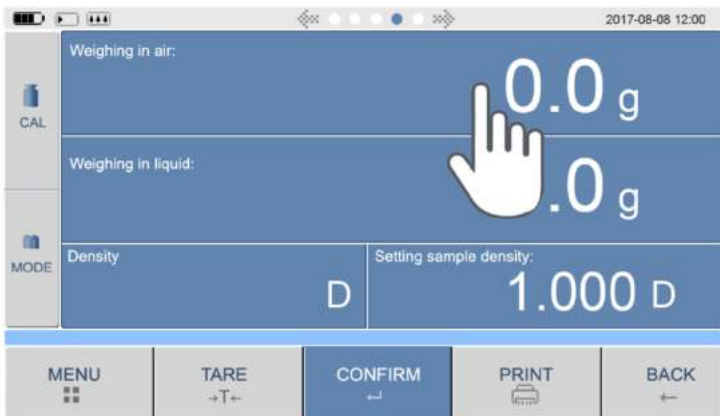


DENSITY TEST

Step 1: Press Setting sample density and enter the density value.



Step 2: Press weighing in the air, then put the sample on the top of density kit.



When the weighing digit value stable, press again then will be show green square. Means confirm the weight in the air.

Step 3: Press weighing in the liquid, then put the sample inside the liquid, when the weighing digit stable, press again then will be show green square. Means confirm the weight in the liquid.



Step 4: Press the density, the result will be come out, the density unit is g/cm^3



2.3 System Setting

2.3.1 We can set the system parameters in system setting function



The setting items include as blew:

1. weighing speed; ne means Fast, 3 means slow)
2. stability; ne means high, 3 means low)
3. language;
4. Printer;
- 5 Date and time setting.



2.4 Calibration

When after shipping or long time without use, we need use calibration for keep the weighing precision, in this function have 3 items function



ONE POINT



MULTI-CALIBRATION



INTERNAL SETTING



BACK

2.4.1 One point calibration.

1. Press one point calibration, please operate follow the note,
2. It will display the value for one point calibration and show put on the weight, then put on the same value weight
3. When it displays move away the weight, then remove the weight.
4. Waiting it go zero. Calibration complete.

ONE POINT CALIBRATION



CALIBRATION

5.000kg

5. If choose internal calibration, please use the automatic calibration in the weighing page.

2.4.2 Multi- Calibration.

This function for calibration the liner, so it can keep liner precision.

Please make sure you have enough weight for this operate, or it will make your scale no stable and no precision.

1.Press MULTI-CALIBRATION key, then operate as the note which will show in the touch screen, there will be show 3-point calibration value for this multi-calibration.

2.After calibration, you can check the liner with your standard weight.



ONE POINT



MULTI-CALIBRATION



INTERNAL SETTING



BACK

2.4.3 Internal Setting

This function is setting the internal calibration period; operator can choose the automatic calibration time for itself calibration.

We can set the time what we need it auto calibration.

INTERNAL CALIBRATION PERIOD SETTING

ENTER → Minutes

1 One	2 Two	3 Three	×
4 Four	5 Five	6 Six	Cancel
7 Seven	8 Eight	9 Nine	←
. Point	0 Zero	← Delete	↵ Confirm



BACK

2.5 Weighing System

This setting only for pro operation, and before you setting, please confirm with our tech support for make sure whether the hardware suitable or not.



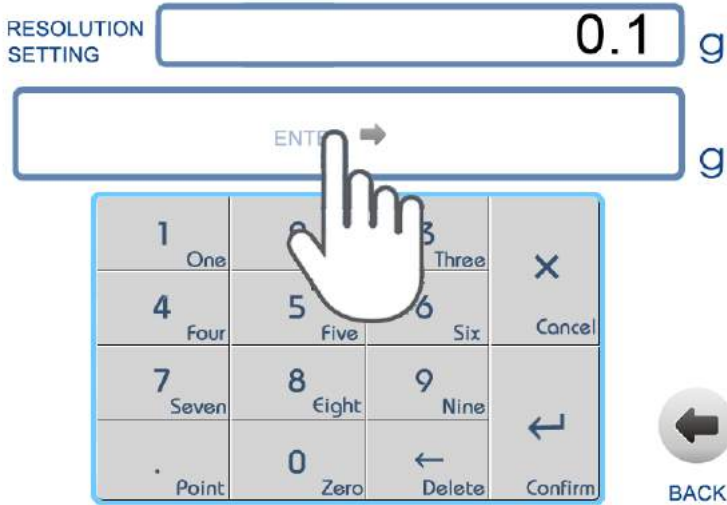
2.5.1 CAPACITY AND RESOLUTION SETTING

We can change the capacity and resolution for each scale. (Need Password)

1. Press CAPACITY RESOLUTION key enter the setting.
2. Press enter blank, then enter the capacity value you want. Press confirm.
3. Press BACK complete setting.



4. We can use same operate enter the resolution setting.



2.5.2 CALIBRATION SETTING

After setting the capacity, we must set the calibration point for keeping best liner ability.

1. One point calibration means we set one point calibration weight. *We advise you choose calibration point $\geq 20\% * Capacity$, it can be reduced error, you'd better choose the full range as one point calibration*

2. MAX: Setting the full capacity weight. (Keep first number, 6200g will set 6000g)

3. HALF: Setting 50% weight value. (Example: capacity 6200g, we set 50%:3000g)

4. MIN: Setting small point 30% capacity, the better way is one weight can meet require, for example 6200g, we can set 1kg or 2kg.

CALIBRATION SETTING

SINGLE:

ENTER →

Multi-Cal:

MAX: ENTER →

HALF: ENTER →

MIN: ENTER →



2.5.3 INPUT AND OUTPUT

The weighing scale can output the weighing data and test report to the excel document. And the base setting also can output to the USB pan ($\leq 4G$).

We can store this base setting and copy to another machine.

Step 1. Press Output/Input key.

Step 2. Insert the USB pan, you will see the usb icon show in the upper bar



Step 3. Choose the output or input you want.

Step 4. There will be note you output or input complete.

2.5.4 AUXILIARY KEY SETTING

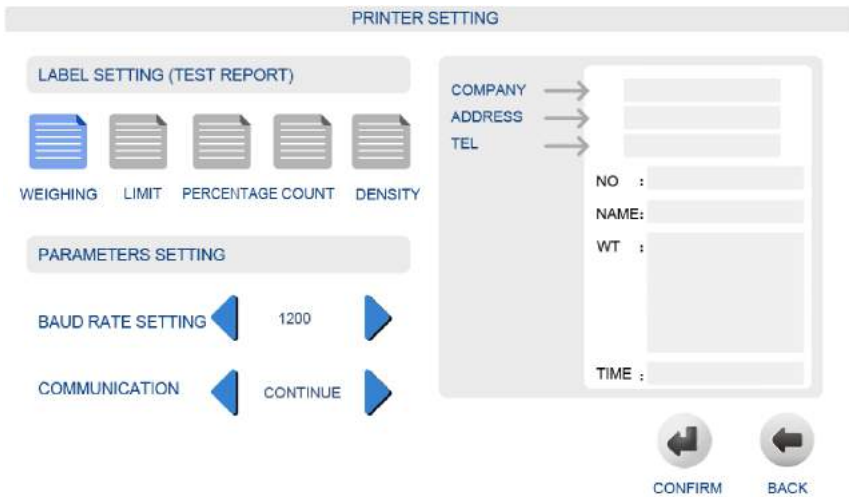
We can set the CAL key function for 1. External calibration or 2. Internal calibration.

3. PRINT

3.1 Data Output

1	Model or a decimal point
2	A space or a decimal point
3	A space or *
4	+ or - or a decimal point
5	data
6	Data or a decimal point
7	Data or a decimal point
8	Data or a decimal point
9	Data or a decimal point
10	Data or a decimal point
11	Data or a decimal point
12	Data
13	Unit 1
14	Unit 2
15	Unit 3
16	Enter
17	Wrap

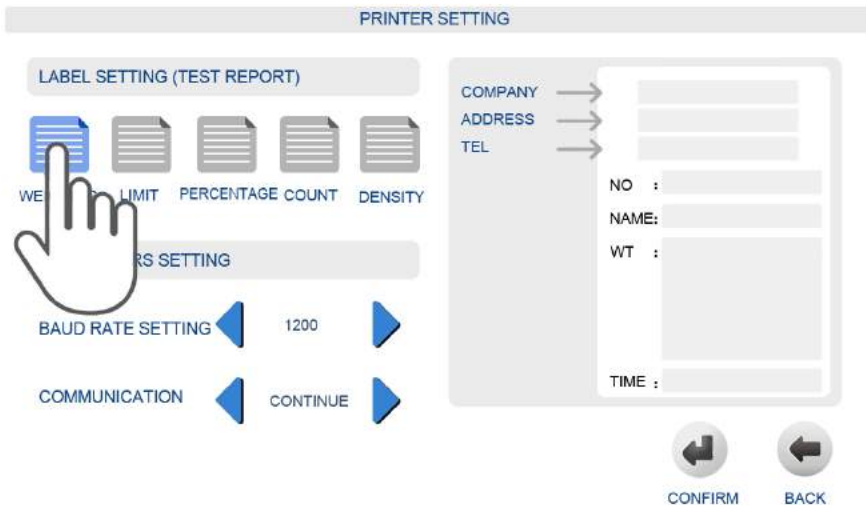
3.2 Printer Setting



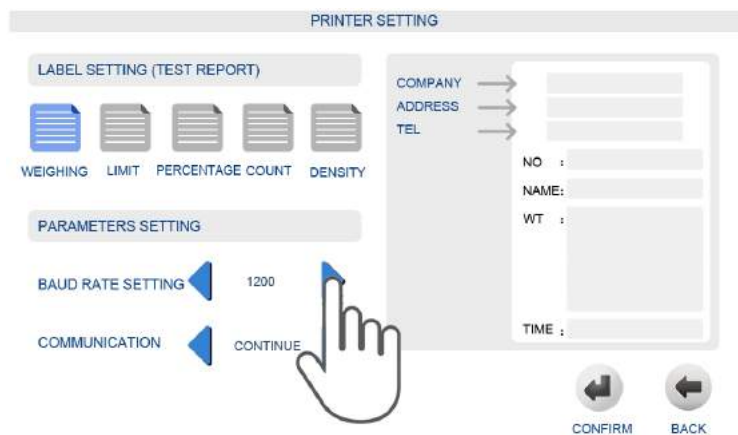
We can choose the suitable baud rate and communication style for different print or connect with the computer.

There are five kinds of print format for label print, we can choose the mode, then enter the information which the operation need. And we also can choose the baud rate and communication which we need.

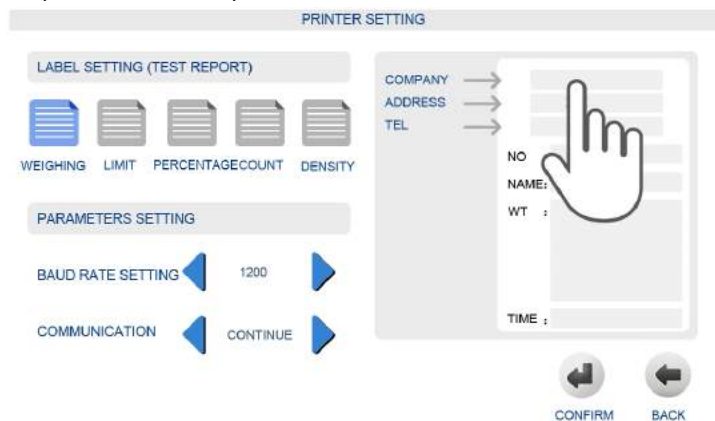
Step 1: Choose the mode which you use.



Step 2: Choose the suitable baud rate and communication mode.



Step 3: Enter the operator information.



Press Confirm can enter the input information.

4. TROUBLE SHOOTING

If you come across any problem, you can check it by you self and find the reasons.

FAULT	REASON	SOLUTION
No display	1.Not connected to the power supply; 2.Fuse is broken; 3.Power transformer damage; 4.The chips lose memory 5.The cable loose	1.Plug in the power line; 2.Replace the fuse; 3.Replacement of power transformer; 4.Multi-Calibration the balance 5.Check the cable which connect display with mainboard. Contact factory
Weighing unstable	Bad working conditions; The wind screen is open; Something between the table and balance; The power unstable; Weighing unstable;	Keep the environment stable, close the windows and doors; Close the glass door; Take away the things; Connect the stable power;
The weighing digits is wrong	The balance not calibration. Not tare before weighing. No adjust the level.	Calibration. Tare before weighing. Adjust the level feet.
Over Load	The weight things heavy than capacity.	Keep the weighing things small than capacity
Under Load	The weight small than zero	Tare and weighing again
Listen the Buzzer voice	The weight out of limit	Reset the limit upper and lower setting.

V. DISPLAY CALIBRATION

Calibration the touch panel

1. Use two fingers quick touch blank place fast until show the blue display



2. Touch the “+” in the left top side corner. And it will go to right-top side, please touch again



3. Then it will go to right down side, and press it, so calibration complete.



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