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JingLiang Electronics (ShenZhen) Co. ,Ltd.

Product Specification for Electronic Bathroom Scale

Model Name: TH400 Body fat (KG/LB)

Documents No.: 602

DOCUMENT No.: 602
REVISION: 1
EFFECTIVE DATE: April 15, 2005
REVISION DATE: April 15, 2005

Product Description: TH400 Body fat

DISTRIBUTION:ENGG(C), RDL, RDL/QA



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1.0 UNIT DESCRIPTION

1.1 General Description

This is a convertible (metric/imperial units) electronic scale with LCD digital readout for weight, body fat and body water measurement featured with temperature detecting.

1.2Operating Conditions:

Conduct all measurements with charged battery.

- 1.3.1 Temperature operating range: $25^{\circ}C \pm 14^{\circ}C$
- 1.3.2 Humidity operating range: 20% to 95%
- 1.3.3 Storage temperature: -10°C +60°C
- 1.3 Net Weight: about 3.0kg
- 1.4 Scale Size: Dia356x48mm
- 1.5 Features:

Technical Parameters:

- Capacity: 0 to 150Kg / 0 to 330Lb
- Operation Range: 10 to 150Kg / 20 to 330Lb
- Resolution:
 - Weight: 0.1Kg / 0.2Lb
 - Body Fat: 0.1%
 - Body Water: 0.1%
- Accuracy:
 - Weight: $\pm (1\% + 0.1 \text{kg} / 0.2 \text{lb})$
 - Body Fat: ±1%
 - Body Water: ±1%
- Display: 1.5"digit LCD, reflective/positive. Visual size: 41.1 x 92mm. Digit height: 37.1mm.
- Sensitivity/Memory: ± 1 Lb /0.5Kg
- Repeatability:
 - Weight: ± 0.3 Kg / ± 0.6 Lb on two successive readings,
 - Body Fat: ±1%
 - Body Water: ±1%
- Off Center Accuracy: The reading difference between the off-center reading and the center reading should be less or equal to 1% Loading weight.
- Switch activation force: 2.5-15 lb
- Power requirement:
 - Scale Base:
 - 4PCS AAA replaceable batteries
 - Battery life: Est. 3 years at 5 operations per day.
 - Low Battery Warning: "S Lo" shows in clock or weight display section at about 4.5 volt +/-0.3.
 - Hand Remote
 - 4PCS AAA replaceable batteries.
 - Battery life: Est. 1 year at 5 operations per day.
 - Low Battery Warning: "H Lo" shows in clock or weight display section at about 4.0 volt +/-0.3.
 - Temperature detector
 - 3PCS AAA replaceable batteries.
 - Battery life: Est. 1.5 years with every 2 minutes auto transmission.
 - Low Battery Warning: "T Lo" shows in temp display section at about 3.0 volt+/-0.2v.
- ESD: contact discharge at ±4Kv and air discharge at ±8Kv



FCC ID:SS5TH400V2TEMP

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Related Functions:

Body Fat function: Y (4 users)

Automatic Zero Tare: Y

Clock

Convertible control: LB/KG

Weighing mechanism: 4 metal Load Cells

5Hard Plastic Buttons (SET, UP, DOWN, USER and CLOCK buttons)

ITO electrodes

Platform: Tempered glass platform

Overload Indication: Err

Cosmetic Requirements:

Part Name	Material	Color	Texture	
Top cover	ABS	Pantone 877c	Polished	Remark
Bottom cover	ABS	Pantone 877c		Silkscreen logo
Plastic Button	ABS		Polished	
LCD top housing	ABS	Pantone 877c	Polished	Silkscreen logo
LCD bottom housing		Pantone 877c	Polished	Silkscreen logo
	ABS	Pantone 877c	Polished	
LCD lens	PMMA	Clear	Polished	<u> </u>
Battery door left	ABS	Pantone 877c	Polished	
Battery door right	ABS		<u> </u>	
Contact cap top	ABS	Pantone 877c	Polished	
Contact cap bottom		Pantone 877c	Polished	
foot	ABS	Pantone 877c	Polished	
	PP	black	1	
LCD		White background with black digits		1.5"

3 Scale Performance:

This radio frequency system consists of 3 units: scale base, handheld remote display unit and temperature unit. Signals from other household devices, such as door bells, home security systems, wireless speakers and headphones as well as entry controls, may interference with those of this product and cause temporarily reception failure. This is normal and does not affect the general performance of the product. The transmission and reception will resume once the interference

Temperature unit should not be exposed in the rain. Temperature can be received at a distance of 30 meters in an open area; obstacles such as walls and buildings etc will minimize the transmission and receiving distance.

Display Unit:

Display unit should be used at distance of within 5 meters from the scale base.

Each scale base should have it's own display unit and temperature unit. Code recognition is done in factory to match the display unit and temperature unit with the scale base.

Code Recognition: (code recognition is done in factory, you need to do this only when you have a mismatched set)

Code Recognition for Scale Base:

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With batteries installed in the scale base and remote unit, press and hold UP key for about 3 seconds. "SCod" appears on the display and flashes.

Press reset key in the back of scale base by using a ball pen. Scale unit starts to communicate with the

remote unit. "SCod" is still flashing.

"SCod" becomes stable and stays for about 3 seconds and then display returns to clock mode. Code recognition for the display remote is complete. If "SCod" did not become stable and stay for about 3 seconds before display returns to clock mode, start from the beginning again.

If code is not matched or recognized, "Err" will appear when trying to measure weight. Please repeat the code

Code Recognition for Temperature Unit:

I. With batteries installed in the temperature unit and remote unit, press and hold DOWN key for about 3 seconds. "tCod" appears and flashes.

Press reset key in the back of the temperature unit by using a ball pen. Display unit starts to communicate

with the temperature unit. "tCod" is still flashing.

"tCod" becomes stable and stays for about 3 seconds and then display returns to clock mode. Code recognition for the display remote is complete. If "tCod" did not become stable and stay for about 3 seconds before display returns to clock mode, start from the beginning again. It takes 1-2 minutes to receive temperature after code match has succeeded.

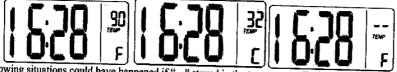
If code is not matched or recognized, "--" will appear in temp display section and temperature won't be received. Please repeat the code recognition again.

Kevs in the display unit: Set key, up and down, clock and user key. Keys and display are in the hand held remote



Temperature:

Temperature displays in Fahrenheit or Celsius when convertible switch is set to lb or kg. Symbol "--" means scale is receiving temperature; temperature updates automatically every minute, user can also update the temperature by pressing



Following situations could have happened if "--" stayed in the temperature display section for more than 10 minutes:

Code Recognition Failure Perform code recognition

Dead batteries in remote display unit ___ Replace batteries.

Temperature unit is not at a right distance or obstacle interference or has broken component ___ put the temperature at a proper distance or location or get customer service to fix the temperature unit.

Clock: Default time is 12:00. In non-clock mode, user can press clock key to enter clock mode. To switch the time system between 12 hours and 24 hours (factory set to 12 hour clock)

- In clock mode, time is displayed e.g. 16:28. Press and hold clock key for about 3 seconds, hour digits start to flash.
- Press clock key. Time has been changed from 24-hour system to 12-hour system to change e.g. 16:28 to 4:28. A small letter A or P will appear to identify the 12-hour clock only switching between 12-hour clock and 24-hour clock.

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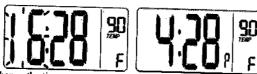
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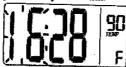
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To change the time

- In clock mode, time is displayed e.g. 16:28. Press and hold clock key for about 3 seconds.
- First 2 digits on the left of the display that represent the hour start to flash. Press up or down to change the hour and press set key to confirm.



• The last 2 digits on the right of the display that represent the minute start to flash. Press up or down to change the minute and press set key to confirm.



Time setting is complete, new time is shown on the display.



When Error appears:

1) Code Error - "Cerr":, need to do the code recognition.

2) Weight Error — "Err" when measuring weight: a) zero error happens when user has stepped on the scale before scale is ready or b) weight cannot be received due to transmission interference or c) weight is over 385lbs.

3) Body Fat Error -- "Err" when measuring body fat: a) body resistance error if not barefooted; b) feet are not properly aligned on the electrodes; c) feet are extremely dry and need to be moisturized; d) transmission interference has occurred; e) resistance value is less than 100 ohms or more than 4K ohms or body fat value is less than 1% or more than 60%.

4) User Error -- "Err" after pressing user key: If a user has no personal data set, user number will show followed with Err.

3.1 Weight Measurement Only

- Operate the scale on a secure flat floor.
- Choose pounds (lb), kilograms (kg) by switching the convertible switch Note: switch should be factory-set to lb
- In clock mode, press set key. All digits appear on the display.
 - Tap on the scale and wait until "---" flashes and "0.0" appears.
 - · Step on the scale and stand still.
 - Weight reading appears and stays for 10 seconds.
 - Scale returns to clock mode

3.2 Setting Data for Body Fat Measurement:

Note:

In the data-setting mode, if no key is entered in 30 seconds, scale enters clock mode.



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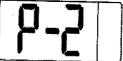
3.2.1 Start Up

In clock mode, set the convertible switch to lb or kg then press set key, "8888" appears on LCD screen.

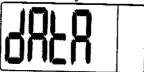


3.2.2 User Setting

Press user key to select a user, each time user is pressed, a user number "P-1" or "P-2", "P-3", "P-4" flashes.



- If wrong user number is pressed accidentally, override by pressing correct user number.
- If the user number is used and has entered data, display will flash "dAtA". Press set to overwrite the user or press another user key.



Press set key confirm the user number, and then user number becomes stable. Scale enters target setting mode in 2 seconds.

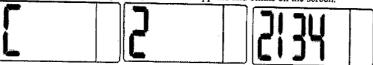
3.2.3 Target Setting

Default target weight (140lbs or 64kg) appears. Press up or down key to scroll to a desired goal weight. Press and hold up/down key to advance the numbers fast. Press set to save the goal weight setting. Scale enters code setting mode in 2 seconds.

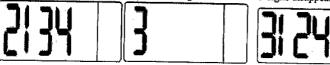


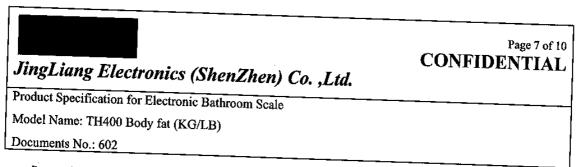
3.2.4 Pass Code Setting

"C" flashes. Press keys that marked as 1, 2, 3, 4 to enter 4-digit pass code or press set key to override pass code setting. Each time a number key is pressed, the number appears and blinks on the screen.



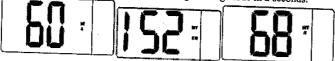
To change a wrong or an unwanted code, re-enter the 4-digit-code after the 4th digit of the wrong code is entered. The fifth number is entered, it replaces the first digit and the other 3 digits disappear.





Press set key to accept 4-digit code. Pass code becomes stable. Scale enters height setting mode in 2 seconds.

Height indicator "HT" and inch or cm symbol light up (if switch set to lb, default is height in inches, if switch set to KG, default is height in cm). Default height flashes (60 inches or 152 cm).. Press up or down to correct the height. Pressing and holding either the "up" or the "down" arrow will advance numbers quickly. Press set to accept the height. Height number becomes stable. Scale enters age setting mode in 2 seconds.



3.2.6 Age Setting

"AGE" appears and default age 30 flashes. Press up or down to correct the age and press set to confirm. Age number becomes stable. Scale enters gender setting mode in 2 seconds.



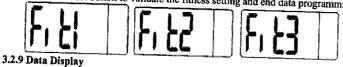
3.2.7 Gender Setting

Default female gender icon flashes. Press up or down to choose between male and female gender. Press set to confirm.

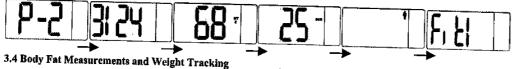


3.2.8 Set Fitness 1, 2, 3(See Definition of Fitness 1, 2, 3 herein)

- Press set to validate gender and enter Fitness Setting.
- Press up or down key to select fitness 1, fitness 2 or fitness 3
- Press set button to validate the fitness setting and end data programming.



Once fitness is set, data setting for body fat setting is complete and each stored data automatically runs on the screen for 2 seconds in setting sequence: user number, target weight, pass code, height, age, gender and fitness. Scale goes to clock mode. Before scale goes to clock mode, press Set key to skip the display sequence or press user key to go through the whole setting procedure and



3.4.1 Start up and Select User



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In clock mode, select KG or LB by switching the kg/lb switch (factory set to LB), press the user key to select the correct user number. Keep pressing the user key until the correct user number appears. User number appears (i.e. P-2) on the



3.4.2 Enter Pass Code

If pass code is previously set, "C" appears and blinks until the correct 4-digit code is entered. Enter 4-digit code within 30 seconds; the correctly entered code becomes stable.

- If incorrect code is entered, display will show Err for one second and then go back to blinking C. user can re-enter correct code.
- If user has forgotten the code, user can hold user number for 3 seconds after "C" appears, pass code will show for 2 seconds, then display goes to "tAP".



If no code is previously set or after the correct code is entered, display goes to "tAP".

3.4.3 Weighing

Tap the scale and wait until "0.0" appears.



3.4.4 Current Weight, Target and Change

Stand on the scale and stay still. Current weight, Target, and Change and displays for 4 seconds.



3.4.5 Body Fat in lbs or kg (factory settable)

"bF" and "LB" or "KG" blinks and shows for 2 seconds and blinks followed with body fat weight for 4 seconds;



3.4.6 Body Fat Rate

"bF %" blinks and shows for 2 seconds followed with body fat percentage for 4 seconds, then





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3.4.7 Body Water Rate

"H2O" shows for 2 seconds followed with body water percentage for 4 seconds.



3.4.9 Repeat Body Fat Sequence

To review target, change, body fat and body water again, press set key within 4 seconds after body water appears. Scale enters clock mode in 4 seconds after body water appears.

Temperature Module

Definition of Fitness1, 2, 3:

Fitness 1: This is the normal mode and represents the first mode selected by the user at the start of a training/diet program.

- •Fitness I corresponds to a level of activity, fitness, diet and overall personal well being that corresponds to a person with a relatively low level of activity.
- •Physical Activity is limited, less than 2 times per week
- *Less than 20 minutes per activity
- *Low level aerobics

Fitness mode 1 should be used for a period of approximately 6-10 weeks as the user progresses through their program of diet/exercise. It should be used by "Normal" people at all times.

Fitness 2:

Fitness mode 2 should be used as the user progresses through their exercise/diet regime at a time when the benefits of an improved overall wellness and fitness are achieved.

- •Moderate Daily Exercise: 20 minute workouts, 5 times per week. (Intensity and Strength at a low level as compared to
- -Cycling
- -Jogging
- -Brisk Walking
- -Raking Leaves
- -Tennis
- -Aerobics

After a period of approximately 8-12 weeks of continued exercise/diet programs the user may advance to the next Fitness level: Fitness 3.

Fitness 3: Fitness 3 is a highly active individual with a healthy diet that has developed a range of flexibility, endurance and strength over an extended period of time. A typical daily workout would include the items listed below and would take place 5 or more times per week.

•WARMUP - 5-10 minutes of exercise such as walking, slow jogging, knee lifts, arm circles or trunk rotations. Low intensity movements that simulate movements to be used in the activity can also be included in the warmup.
•MUSCULAR STRENGTH - a minimum of two 20-minute sessions per week that include exercises for all the major muscle groups. Lifting weights is the most effective way to increase strength. •MUSCULAR ENDURANCE - at least three 30-minute sessions each week that include exercises such as calisthenics, pushups, situps, pullups, and weight training for all the major muscle groups. •CARDIORESPIRATORY ENDURANCE - at least three 20-minute bouts of continuous aerobic (activity requiring oxygen) rhythmic exercise each week. Popular aerobic



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conditioning activities include brisk walking, jogging, swimming, cycling, rope-jumping, rowing, cross-country skilng, and some continuous action games like racquetball and handball.

•FLEXIBILITY - 10-12 minutes of daily stretching exercises performed slowly, without a bouncing motion. This can be included after a warmup or during a cooldown.

•COOL DOWN - a minimum of 5-10 minutes of slow walking, low-level exercise, combined with stretching.

Fitness Summary & Overall Time Line

•Starting From Fitness Mode 1 (Normal) Utilize this mode for less active lifestyles, and also for the initial phases of a diet/exercise program.

 After 6-10 weeks of a moderate Diet/Exercise Regime: Select Fitness Mode 2 and remain in this mode while you progress through your program.

•After 6 months of Controlled Diet/Exercise Regime: Select Fitness Mode 3

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV

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TO OPERATE THE EQUIPMENT.