

# Body Weight®

by DPS-Promatic® srl



People Weighing machine  
Fitness scale model FTS-A  
Operator manual rev. 1.1

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## **IMPORTANT! READ CAREFULLY!**

**MAINTENANCE:** The manufacturer will not accept any liability if the procedures described in the **MAINTENANCE** section of this manual are not followed carefully, and if any modification of repairing is performed on the machine by unauthorized personnel.

**Operating Temperature:** This device has been designed to operate well between 10 and 30° C. Nominal precision is achieved after 15 minutes warmup time.

### **Safety**

This device must operate with a valid Grounding.  
The AC plant must be provided with such feature.

### **Device Positioning**

This device must be placed in such a position and in such stability, not to become a possible cause of risk to people.

### **Measurement repetition**

This is an automatic machine and value given by this machine must be checked by a physician before taking any drugs.

### **Humid Environment**

If this device has to be installed in a humid environment, power supply must be removed from the back and positioned in a dry place, not to be reached by water drops.

**Use of this device in an area with inflammable gases :** This device cannot be used in an area where inflammable gases are at risk of presence.

### **Original spare parts, Fuses and Power cable**

In order to provide continuous safety, only original components are to be used.  
Fuses must be replaced with same type.

### **Anti-sliding Feet Rubber covers**

To avoid risk of sliding on flat surface, always put the rubber covers on the 2 back feet of the scale.

### **Authorized service**

Any technical work on the device must be done by personnel authorized by DPS-Promatic srl

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## Data registration

Model and serial number of this machine are written on a label.  
Please identify them and write them below.  
Always have them in front of you when calling for assistance.

Model : .      FTS- FITNESS SCALE

Serial Number : \_\_\_\_\_

## Warning !

This machine is powered with a detachable power converter that has dangerous voltages inside.  
Never open the scale and the power supply.  
Do not use the scale in a wet place and if there is any such risk always detach the power supply and put it into a safe and not humid place.  
Opening the machine will void warranty.  
Always disconnect machine from power supply before changing fuses.



This symbol indicates presence of dangerous voltages



This symbol indicates that you should read the manual before performing any operation about the area where it is attached.

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## Features

- Weighs from 500g to 180 Kg in 100 g steps
- Power converter from 110/220 VAC to 9V AC detachable for enhanced safety
- 25 mm height displays for better readability
- Innovative design
- Heavy duty construction
- Adjustable feet
- Easy weight calibration
- Weights counter
- Coin acceptor option for coin operation
- BHT height meter option
- Optional PC interface

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## Preliminary checks

### Package opening

- Remove the scale gently from its packing material
- Please check that no parts have been broken during shipment and contact us immediately in case you find something wrong.
- In the package you should find besides this manual and the machine, all necessary screws, the power cable and 2 rubber covers for the back feet of the machine. In case something misses, please contact us immediately.
- Please read this carefully before attempting any operation
- Keep the original package in case you need to send the machine for repairs.

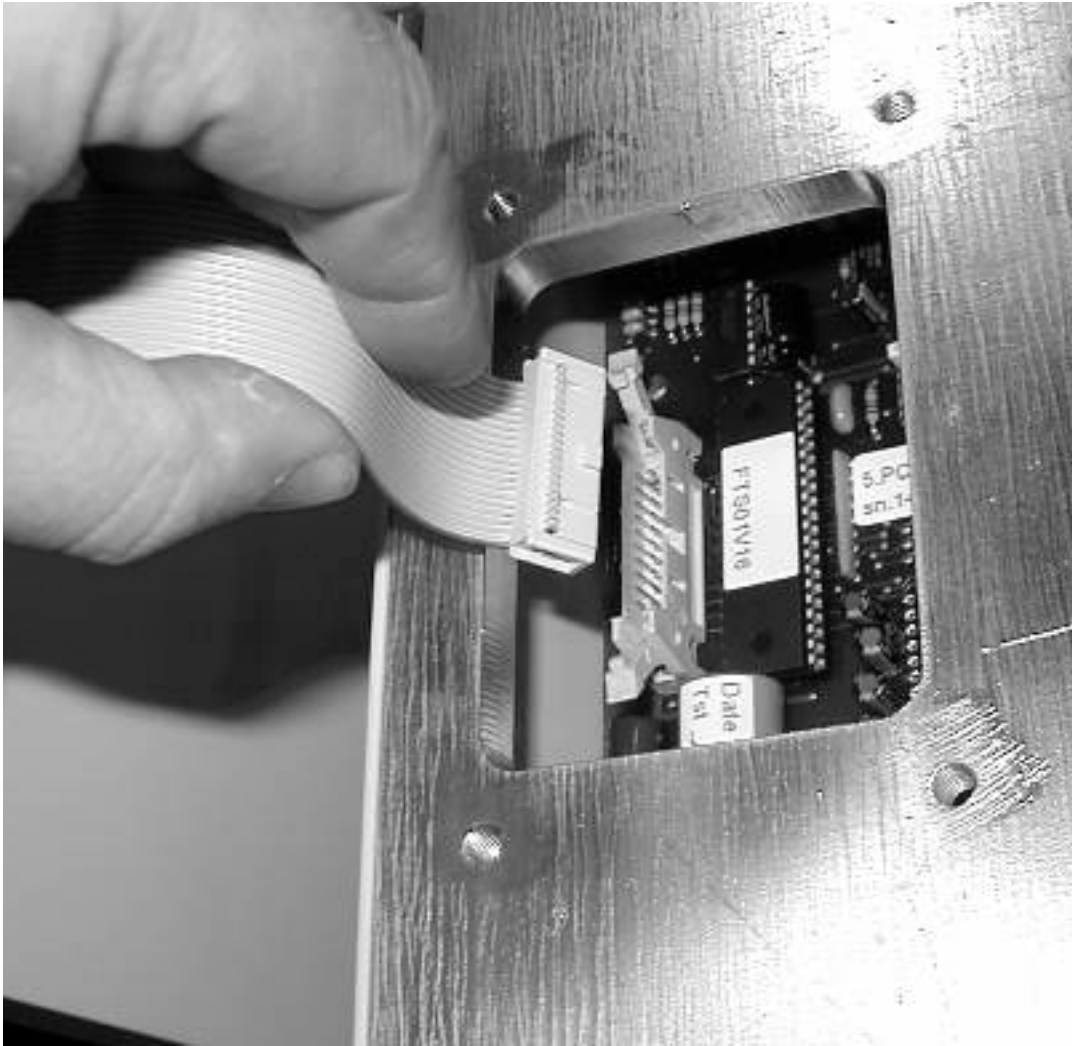
### Preliminary checks (see also pictures in following pages)

- There is nothing too complicated in putting this machine in operation as it has been calibrated and tested before delivery. You just need to follow the instructions. Use the power cable provided or an equivalent with your country safety marks (like VDE or UL or CSA) on it.
- The machine is shipped separated in pieces for shipping purposes. Putting it back together is straightforward. Just follow the instructions in next pages.
- Start putting the column into its position and connect the display flat cable.
- You should perform this operation while keeping the machine on a table
- Tighten screws using the provided Key.
- Mount the rubber protections on the rear feet.

### First Power on

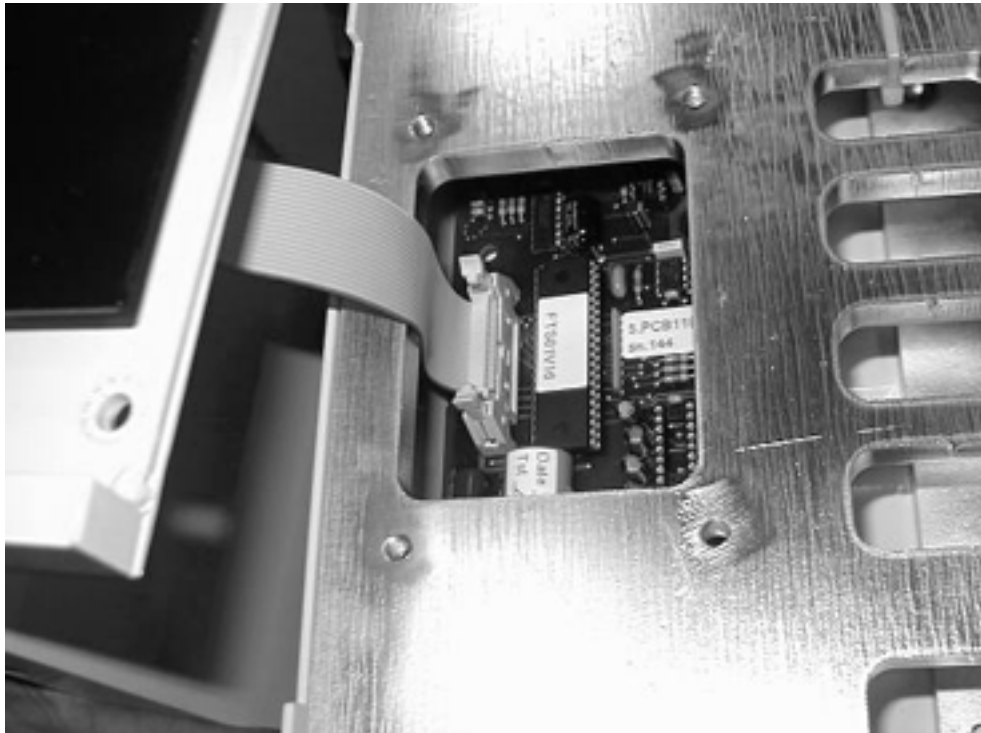
- Check the scale to be stable or adjust Feet otherwise. Check it to be leveled.
- Verify that the Power Switch is in the OFF (0) position
- Insert power cable firmly into the socket of the power supply
- Connect the cable to a properly grounded outlet.
- Do not use low quality multiplugs to connect the machine to power, always use a good socket.
- Try not to put the machine in the same plug with flashing Neon lights
- In case you need to check **fuses**, always disconnect the machine before proceeding.

## Assembly

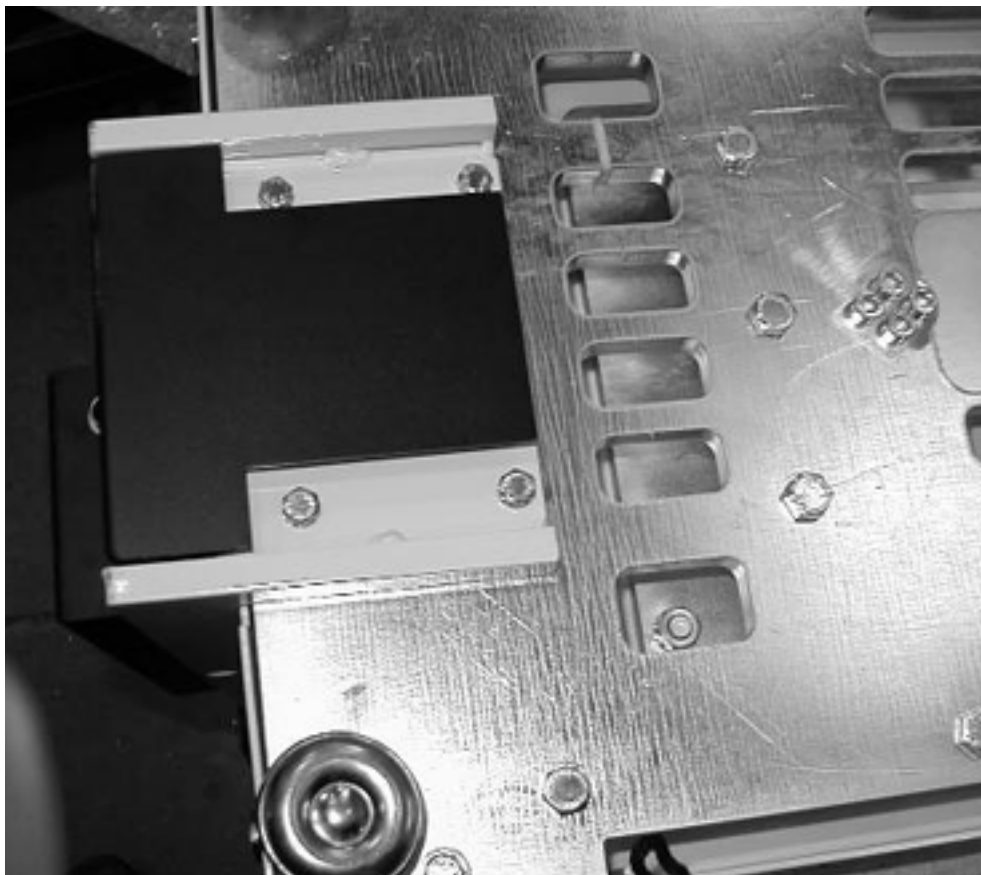


Put platform on a table. Hold column and connect the display flat cable as indicated in picture. The connector has a key and you must insert it in its direction.



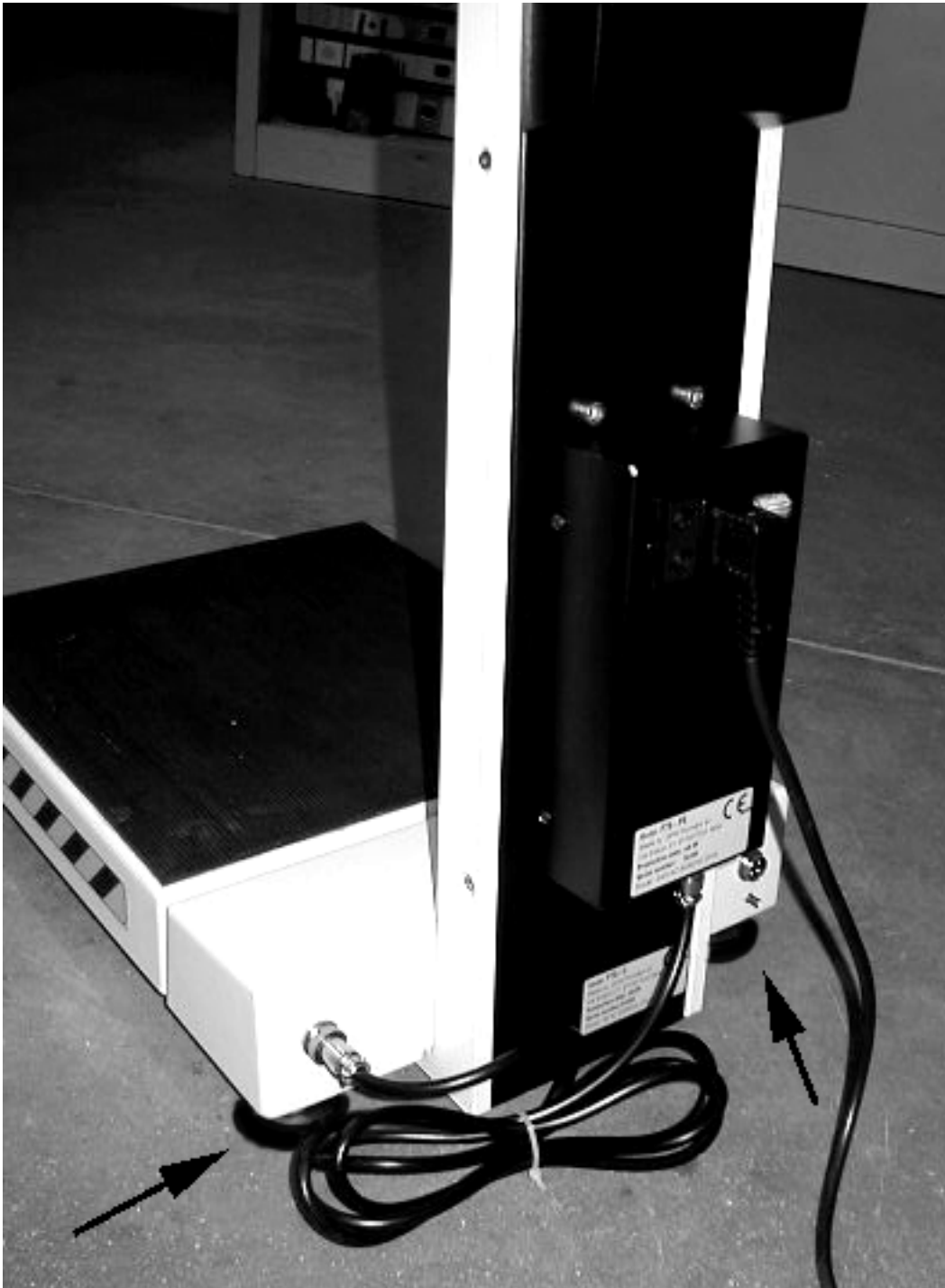


After connectig the cable, put the column gently on the base, without damaging the flat cable.



Fix the column to the base using provided screws and washers and tighten them well.

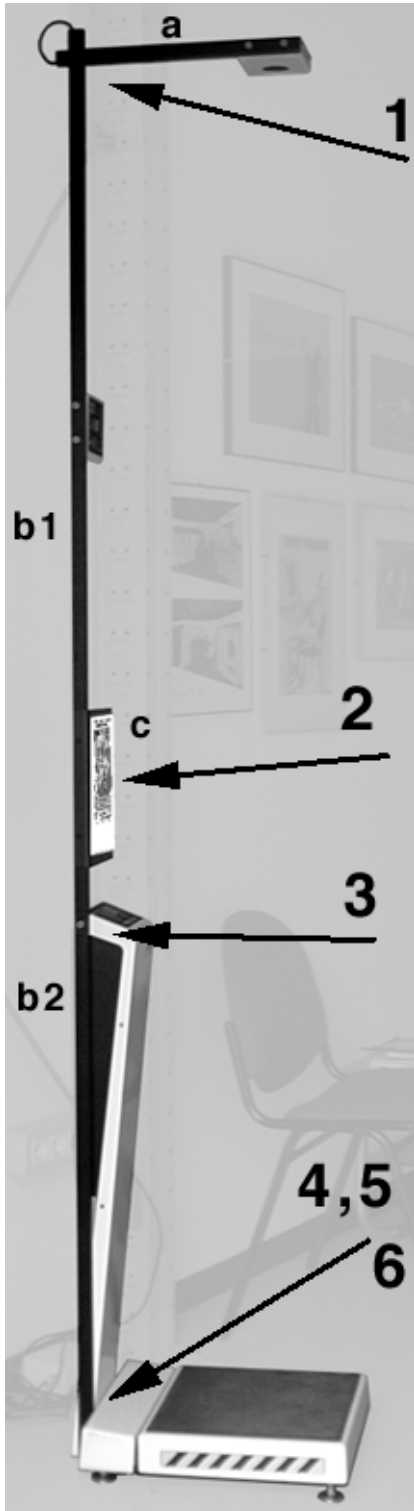
## Assembly



Once the column is fixed, insert the rubber covers into the 2 rear feet and put the scale on the floor. Adjust feet so the scale is perfectly leveled and stable. Insert power cable and follow Power-On instructions.

# Assembly

## Assembly of (optional) BHT (Body Height) height meter



If you ordered it , you will have to install the BHT meter that is shipped in pieces due to its shape.

The pieces to put back together are:

- a) Horizontal arm (sensor holder)
- b) Main vertical rod, shipped in 2 pcs to be connected behind the Ad panel
- c) Advertisement panel, used as a connection for the rod

With scale switched off:

Start putting (b1) and (b2) back together using the AD panel (c) and screws provided

Mount the upper arm (a) as shown

Put the height meter on the scale using the upper (3) and lower (4) screws

Connect BHT cable (5) and Safety Earth (6)

Your scale with BHT should now look as the picture

## Assembly



Start putting (b1) and (b2) back together using the AD panel (c) and screws provided

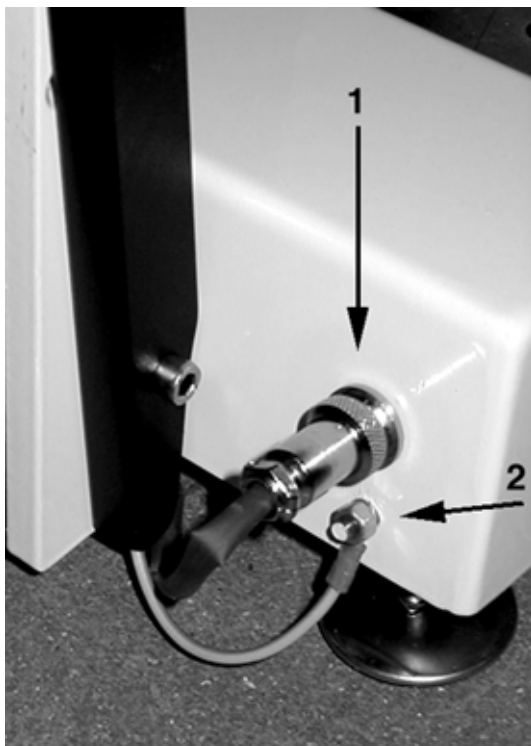


Mount the upper arm (a) as shown using provided screws

## Assembly



Use the provided screw to fix the stud to the column as shown in picture



Fix the lower screw and then connect the height meter connector (1) and the safety earth (green/yellow) wire (2)

# Fundamentals

## Using the weighing-machine

Switch it on putting the power switch to position (1)

All display segments will light up and after a while you will see 'oooo' that is the self-calibration indication, and then after a while you will see the program version (i.e. 1.6)

Eventually 0.0 will appear. It indicates that the weighing-machine is ready to weigh.

If coin per credit is set to zero, you will just have to step on platform to see your weight. If a coin per credit value, other than zero has been programmed, you will need to put a coin (s) or to reprogram it. See 'programming' for further details.

To be weighed correctly it is necessary to stand in the middle of the platform and stand still until the weight indication comes up on display.

It is possible to switch measuring system using the button on panel.

## Using BHT height meter

BHT height meter will start measuring automatically when scale has measured weight. The height will be then measured and its value will be displayed.

To be measured accurately it is necessary to stand still, holding head up, in the middle of the platform.

It is possible to switch measuring system (from cm to Ft and In) using button on BHT panel.

BHT will compute BMI (Body Mass Index) and show it on the panel as a value and as a quick pictorial indication for customers

BMI is the value given by  $\text{weight}/(\text{height} \times \text{height})$ . This value is used to determine people's obesity. There is a vast literature about BMI.

The values used by BHT to determine weight condition are the following:

BMI <20 Slim

20 < BMI < 25 Ideal weight

25 < BMI < 30 slightly overweight

30 < BMI Overweight

Studies done by WHO (World health Organisation) show that who has BMI values between 25 and 29 has 70% more chances to suffer from stroke or CHD than who has a BMI value lower than 25. This risk increases up to 300% for values over 29.

## FTS Programming

### Introduction:

To access the programming menu you need to identify the SET and SELECT button in the machine. The SELECT button is the Zero Button. The SET button is the weight system button.



**SELECT Button**



**SET Button**

# FTS Programming

## How to enter programming menu

Switch the scale and press the SELECT button when program version will appear on display.

3 zeros will come up, the first blinking.

Use the SET button to change the value of the first and then use the SELECT button to pass to next digit.

Using the above procedure you may enter the access codes to the 2 menus

369 = Operator menu

and

999 = Technical menu

## **MENU 369 = Operator**

This menu has a few submenus, shown below, you may access any of them pressing the SELECT button. You may pass to next menu pressing the SET button.

- 1- CN      Counters:** press SELECT to check weights counter
- 2- BU      Buzzer :** press SELECT to enable (1) or disable (0) buzzer
- 3- CC      Coin(s) per Credit:** Press SELECT to choose 0,1,2,3,4 coins per credit. '0' means free weight.
- 9- EN      End :** press SELECT to exit from programming menu



# FTS Programming

## **MENU 999 = Technical**

This menu has a few submenus, shown below, you may access any of them pressing the SELECT button. You may pass to next menu pressing the SET button.

**0-NL NULL:** No function

**1-DS DISPLAY :** Press SELEcT to perform a Display test (used during factory test)

**2-P1        **Default weighing system.**** This is the system, among Kg, Lb or ST&Lb, that will come up on display when weighing.

**3-P2        **Secondary weighing system.**** This is the system, among Kg, Lb or ST&Lb, that will come up on display momentarily when pushing the weight system switch button.

**4-Ot        **Zero Tracking:**** Press SELECT per Enable (1) or Disable (0) ZERO TRACKING function.  
When using scale with Coin(s) , this function must be set to 1

**5-CA **Calibration:**** It allows to perform scale calibration.  
Reserved to qualified personnel with reference weights.

**6-CL **Calibration in Lb:**** allows to perform calibration in Lb.  
Used in countries where it is not possible to find reference weights in Kg.

**7-TP        **Accuracy test :**** Used to verify accuracy of machine, in production.

**8-MV        **Mv indication:**** reserved to factory tests in-production.

## FTS weight calibration

In order to calibrate the scale you need to have reference weights. You need at least 80 Kg to perform a good calibration. With 80 Kg you ensure that you will have maximum precision at that weight, that is common among people, and that you will have up to 100 g error on the lower or upper part of the measuring range (500g-180 Kg).

If for some reason it is not possible to use 80kg, you may use less weight (i.e.20Kg ) as well, but the error in the upper part of weight range will grow.

**IMPORTANT:** before calibrating, always keep the scale into its installation environment for 1 hour (to allow material to reach ambient temperature) and keep it switched on for at least 10 minutes.

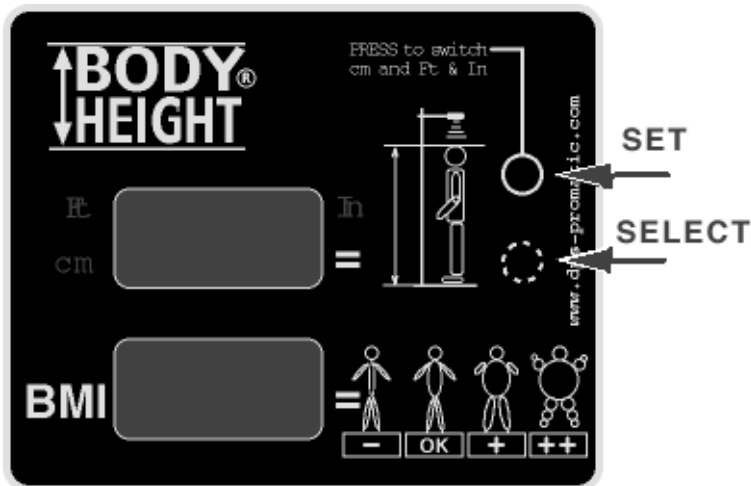
Calibration:

- Enter 999 Menu
  - With the SET access the 5=CA menu ( or 6=CL in case you want to perform a calibration using pounds ).
  - Remove any weight from platform and press SELECT to start ZERO autocalibration.
  - The machine will start looking for the ideal value and eventually the zero point will light up, and a beep will be emitted.
  - Press SELECT, scale will store the new value and will show 'ZERO' on display, in a while '080.0' will appear. This is the recommended calibration value. In case you are calibrating in Lb, 200 will be the suggested value.
  - If you have the suggested reference weights, put them on platform center and press SELECT
  - If you want to change the weight value, press SET to change the first digit and then press SELECT to move to next digit. do this until entering the Weight you want to use as a reference.  
After modifying the rightmost digit, press SELECT to start calibration.
- 
- Exit from the Menu pressing SET until 9=EN and then pressing SELECT

## BHT Programming

### Preliminary:

To access programming menu you should use the SET and SELECT buttons as shown below



### How to enter programming menu

Switch on the device and press the SELECT button when program version appears on display ( i.e. 1.2) 3 zeros will come up on display, the first blinking.

Use SET button to change digit value and SELECT button to move to next digit.

In this way you may enter the codes to

369 = User Menu

and

999 = Technical Menu

## Programmazione BHT

### MENU 369 = USER MENU

This menu has various submenus that may be accessed with SELECT.  
Press SET to change submenu

- 1- **CN**      **Counters**: press SELECT to read number of measures done  
(non available in most versions)
- 2- **BU**      **Buzzer** : press SELECT to enable (1) o disable (0) buzzer  
(Not available in most versions).
- 3- **MOD**     **System**: press SELECT to switch default measuring system from  
Cm to Ft and In.
- 4- **CC**      **Coin(s) per credit**: Press SELECT to choose 0,1,2,3,4  
coins per credit. '0' means no coin or free operation.  
Since the BHT is controlled by the scale, CC must be  
set to '0'.
- 9- **EN**      **End** : press SELECT to quit programming menu

### MENU 999 = TECHNICAL MENU

This menu has various submenus that may be accessed with SELECT.  
Press SET to change submenu

- 1-**CAL**      This option allows for easy calibration of the Height Meter with a  
reference object of known height.  
Any solid item (wood or Iron or plastic) 150 cm high (5Ft)  
with a top dimension of 10x10 cm (4"x4") will work.  
We use a telescopic device adjustable from 100 to 200 cm.  
To perform calibration press SELECT (when in CAL menu) and  
then press SET(+) or SELECT (-) until you read on the display  
the height of your sample. 5 seconds after you stop pressing any  
of the 2 buttons, the procedure will terminate.
  
- 2-**DIS**      Press SELECT to test the displays
  
- 3-**MIS**      We use this submenu to make continuous height tests.

## MAINTENANCE

**Cleaning:** keep your scale clean using appropriate non corrosive products. We recommend not to use denaturated alcohol, best products are the same used to clean PCs or glasses.  
Switch off the machine when cleaning it.

**Scale calibration :** In order to provide a constant precision, we recommend to perform a calibration every 6 months.

**Power cable:** if you lose it, please ask for an original one.

# Troubleshooting

## **1-The scale does not switch on**

Verify the power plug to be properly inserted in the power supply.

Verify the power plug to be properly inserted in the AC outlet

Verify that the SWITCH light is ON.

Verify that the AC outlet erogates power.

Ask an electrician to verify that the 2 fuses in the power supply are functioning.

**Warning: disconnect plug from power before checking the fuses.**

If problem persists, call technical service.

## **2- Weight measured is not constant**

If the scale is not well leveled, weight won't be constant.

Please make sure the 4 feet are properly adjusted.

If some customer say that weight is not constant, please verify it yourself as people not used to accurate scales could not take in consideration that one can easily get or lose weight during the day.

## **3-Height measured is not constant**

Please verify that people do not move during measurement.

Please verify that Height meter fixing screws are well tightened and the height meter do not move.

Verify not to have any tall cabinet or cupboard near the height meter.

Any such device at a 40 cm range from the sensor could induce false readings.

## Technical specifications

### **Fitness scale** Technical specification

AC Power supply:	115-230V 50/ 60Hz
Power consumption:	20VA
Fuses:	2 x 2A, outside the power supply box
Weight transducer:	Load cell
Divisions	100 g
Minimum weight weighable	500 g
Maximum weight weighable	180Kg
Suggested Calibration interval	6 mesi

### **Height Meter BHT** technical specifications

Power supply:	5 V DC
Power consumption:	200 ma
Measuring system:	Ultrasuoni
Measuring steps:	100 g
Minimum height measurable	100 cm
Maximum height measurable	200 cm

**Insulation:** Class I type BF

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## Declaration of conformity



Manufacturer: DPS-Promatic srl  
via Edison 21  
47100 Forlì Italy

Declares that the following product:

Product: People weighing-machine  
Model: FTS-A (with height meter BHT)

Conforms to the following directives

EMC: Directive 89/336/EEC

Low voltage  
Reference norm: Directive 73/23  
CEI 62-5 January 1991 edition

Forlì 5-2-1999

DPS-Promatic srl

Massimo Portolani





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This is revision 1.1  
of instruction manual  
of  
Weighing machine FTS-A  
and Height Meter BHT

This manual will be updated with no prior advise  
please watch latest releases on our web site