BEFOUR

" The BEST in scales and portable scoring systems."

PS-6615

Professional Portable Scale

INSTRUCTION MANUAL

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Introduction

The Befour, Inc. line of electronic portable scales uses the most sophisticated microprocessor technology available. Each precision instrument is designed to provide accurate, reliable and repeatable weight measurements, as well as many other features that make the weighing process simple, fast and convenient.

This operations manual contains instructions for use of this scale. In order to achieve satisfactory results, the operator must read this manual thoroughly before using this scale.

If any questions arise regarding this scale or its use, please contact Befour, Inc.

Cautions & Warnings

Failure to comply with the following may void the warranty on the scale.

- To ensure proper operation of the Model PS-6615 electronic scale, this operator's manual should be reviewed carefully before operation. Keep this manual available for future reference and also for use in the orientation of new personnel.

- If the scale becomes damaged, it should not be used until properly serviced. All repairs should only be performed by Befour, Inc.

- Scales are designed for static weighing only. No scale should be used for human or object transfer.

- Do not gas sterilize or autoclave the scale.

- Do not place liquids on top of the readout console.

- Do not exceed the weight limit of 500 lbs. (225 kg.)

- Scales contain delicate sensors. Do not bang into doors, elevators, etc., as damage may result.

ASSEMBLY INSTRUCTIONS

Before Assembly

Carefully inspect the carton for shipping damage before unpacking. If significant damage is found, keep all packaging and contact your shipper or Befour immediately. Claims must be filed with the shipper as soon as possible after receipt of damaged goods.

Carefully unpack the components from the shipping container. Your scale has been shipped in one (1) carton and contains the following items:

- Scale Platform with leveling feet installed
- Control Console
- Four (4) D-cell alkaline batteries

If the optional AC adapter is ordered with the scale, the adapter will be included in the shipping carton with the other components.

Assembling the Scale

1. Carefully open shipping carton, platform is packaged with leveling feet facing upwards.

2. Remove console and set it nearby.

3. Remove platform and uncoil the cable. Place platform on the floor and position as to minimize the potential for tripping over any cables.

4. Connect the cable to USB platform port receptacle on right side of console (see Fig. 4). The silver label side of the connector should be facing up.
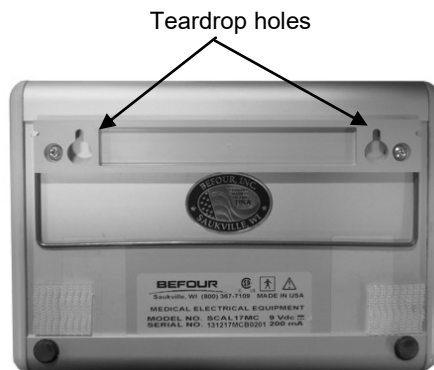
Teardrop holes

Figure 1: Wall Mounting Holes

Figure 2: Table-top Position

Mounting Bracket

A mounting bracket is pre-installed on the back side of the display console You have three options to view your display console.

Option One: Console Flat on Surface
The console can lay flat on any surface. The wire arm should be flat against the console bottom as show in Fig. 1.

Option Two: Wall Mounted
The bracket has two teardrop shaped holes used to mount the console to a wall (Fig 1). You will need to drill two holes 5-3/4" apart. We recommend using wall plugs and screws and leaving a 1/8" gap from screw head to the wall. Position the console so the screw heads align with the large opening in the teardrop holes and lower into place.

Option Three: Table-top Mounted
Rotate the wire arm until it is locked into the slots in the plastic bracket. The console can now be positioned as shown in Fig. 2.

Battery Installation

This scale is powered by four (4) disposable D-cell alkaline batteries and features Befour's exclusive ECO Weigh system that will provide 100,000+ weighings.

 Use the following procedure when installing a new set of batteries:

1. Using a medium Phillips screwdriver, loosen the two screws on the left side of the control console.

2. Gently slide the battery tray out until it stops, about 3 inches.

3. Remove old batteries if necessary.

4. Insert new batteries as shown on the bottom of the tray.

5. Slide tray back into control console and tighten the screws to secure closed.

Figure 3: Battery Tray

 NOTE: *Do not attempt to slide the tray out past its stops. When replacing old batteries, always use four fresh ones.*

Leveling the Platform

To level or adjust the height of the scale platform, carefully lift the platform and adjust the leveling feet by screwing them in or out as needed. When leveled properly, the scale should rest evenly on all four feet.

NOTE: *Use caution when using scale on shag carpeting or similar surfaces. An incorrect reading will result if the platform touches the floor or carpeting.*

Weighing Quick-Start

1. Depress **ON/ZERO** button.
2. Wait until "0.0" appears on display.
3. Step on scale.

Console Keypad

The CX7 console has seven buttons. Note that some buttons perform more than one function.

ON/ZERO: Depress to turn scale on or reset to zero.

MENU: Depress for advanced functions such as programming the clothing deduction for the Pro-BMI calculation.

RECALL: Depress after the subject has stepped off the scale to recall weight. "PRIOR WT" displays on the console and locks the scale so that no further weighing can take place. While a person or object (> 6 lbs.) is on the scale platform, depress **RECALL** to reweigh the subject.

LB/KG: Depress to switch between pounds mode and kilograms mode.

TARE: Depress to activate the Tare function which will subtract the weight of the person or object on the scale.

HEIGHT: Depress to lock-in weight and to enter height value via keypad. BMI will display automatically.

TRANSMIT: Transmit data to a computer. With optional equipment, the scale can send data to a printer or to a wireless device.

Figure 4: Display Console

Special Features

The scale comes standard with these special features.

1. **Auto-Zero:** The scale will automatically display "0.0" when turned on. If the display reads between "-1.0" and "1.0" at any time, regardless of what is on the platform, the scale will automatically reset to "0.0" after 8 seconds.

2. **English/Metric Readout:** With normal operation, you may switch the display units between kilograms and pounds at any time before or after a weighing. When turned on, the scale will display the last used unit of measure. (See pg 9)

3. **Smart View Display:** The CX7 console shows only the information you want: weight only or weight, height, and BMI.

4. **Body Mass Index Calculator with Clothing Deduction:** When calculating body mass index, a clothing deduction can be user-programmed from 0.0 to 6.0 lbs. Factory setting is 2.5 lbs. (See pg 8)

5. **MotionLock Technology:** In most cases the scale will display a true, accurate weight based on a series of consistent and stable measurements. However, if a person or object is moving on the platform, the scale may not achieve consistent readings that are required to give a "stable" weight. This condition is indicated by moving dashes on the display. If movement on the platform continues for seven seconds, the scale will automatically activate the MotionLock feature and "AVG WT" will be displayed on the console.

Because of the movement on the platform, average weight indicates that the scale was not able to achieve a true measurement in line with the listed accuracy specification. However, the average weight deviation from the true weight of a person or object will be minimal, based on the severity of the motion during the weight reading.

6. **Auto-Off:** As a battery saving feature, the scale will automatically turn off when not being used. The Auto-Off feature does not apply to 120V AC power use. The length of the Auto-Off timeout is programmable by the user. (See pg 10)

7. **Always-On:** As a time saving feature, the scale can take normal weighings without the need to press any buttons. Simply stand on the scale and the weight will be displayed within seconds. (See pg 11)

8. **Tare**: An object weighing more than 1.6 lbs. (ie. cane) can be subtracted from the total weight to determine net weight. (See pg 9)

9. **ECO Weigh:** Befour's exclusive ECO Weigh battery management system provides many more weighings (100,000+) per set of batteries than other brands of scales (5 x when compared to other D cell powered scales, 10 x compared to C cell powered scales, and 50 x compared to AA celled scales). Over the life of the scale, the savings from battery replacement costs (in both batteries, and more importantly, time) are substantial.

Using the Pro-BMI Function

When using the scale, the Body Mass Index (BMI) of a user can be calculated. The height of the user must be entered to correctly determine BMI. The Pro-BMI function operates in both pounds (height input in inches or feet and inches) and kilograms (height input in centimeters).
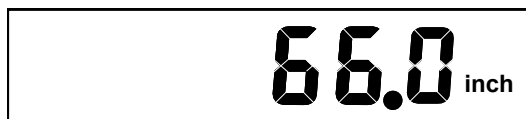

Figure 5: Input height display (inches format)

Figure 6: Body Mass Index display

Entering Height

1. Turn the scale on and wait for the display to read "0.0".
2. Stand on scale platform; the display will show weight.
3. Depress the **HEIGHT** button. Console will display a height value in the chosen format. In inches format, 66.0 will display as shown in Figure 5 with the left most 6 flashing. Use the ▲ and ▼ buttons to input the proper height value for the flashing digit. Press **ENTER**. Continue for all the digits until desired height is entered. *If operating in feet and inches mode, 5' 06.0" will initially display. In kilograms mode, 169.0 cm will initially be displayed.*
4. Depressing the **ENTER** button for the right most digit and the Body Mass Index value will now display (Fig. 6). A legend below the display explains the significance of the BMI result.
5. Scale will return to the weight display after a few seconds. Press **ON/ZERO** to immediately return to weighing mode.

Note: *It is often convenient to attend to the patient immediately after the weighing. The last measurement may be recalled after the patient steps off the scale and locked on the display simply by pressing **RECALL**.(See pg 9)*

Clothing Deduction

Your Pro-BMI scale has been preset with a clothing deduction of 2.5 lbs. This level can be programmed from 0.0 to 6.0 lbs.

1. Depress **ON/ZERO** and wait for "0.0" to display on the readout console.
2. Hold **MENU** button down and depress the **RECALL** button. "Set-0" will be displayed along with the up and down arrows; the "0" will be flashing.
3. Depress the ▲ button until "Set-4" appears; depress **ENTER** button.
4. The current clothing deduction will be displayed (i.e. "2.5"). Use the ▲ and ▼ keys to set the desired value; press **ENTER** to advance to the next digit.
5. Press **ENTER** when complete to save and return to normal weighing.

Using the Tare Function

Note: Only for objects heavier than 1.6 lbs.

1. Turn the scale on and wait for the display to read "0.0".
2. Place the object(s) on the scale platform. The display will indicate the weight of the object(s).
3. Depress the **TARE** button. "0.0" will be displayed on the console.
   If the object is removed from the platform, its weight will be displayed as a negative value.
4. Step on the platform with the object still on it. The weight displayed will be the person's net weight.
5. Depress **ON/ZERO** to return the scale back to normal weighing operation.

Using the Recall Function

The scale has the ability to recall and display the last weight measurement taken.

1. While "0.0" is displayed on the console, depress the **RECALL** button.
2. The most recent weighing will be displayed along with "PRIOR WT" (Fig. 7); if last weight was an averaged reading, "AVG WT" will display (Fig. 8).
3. The scale will be locked from further use for 30 seconds or until either of the following occurs:
   - a. **RECALL** is depressed again
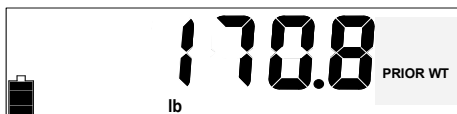   - b. **ON/ZERO** is depressed

Figure 7: Stable prior weight display
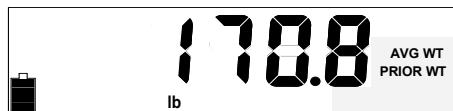
Figure 8: Average prior weight display

Changing Display Units

Your scale can display weight readings in either pounds or kilograms. The unit of measure can be changed at any time by pressing the **LB/KG** button. The current mode of the scale is identified on the bottom of the LCD display.

When powered on, the scale will use the last selected mode. For example, if the scale turns off when in kilograms mode, it will power on with kilograms as the unit of measure.

Note: You may disable the **LB/KG** button so that the scale only will display your selected unit of measure. (See User Settings section on page 11.)

Programming Auto-Off Time

Your scale has been preset at the factory to shut down after one minute of no use. This can be programmed from 12 seconds to 25 minutes to suit your needs.

1. Depress **ON/ZERO** and wait for the display to show "0.0". Do not stand on platform.
2. Hold **MENU** button down and depress the **RECALL** button. "Set-0" will be displayed along with the up and down arrows; the "0" will be flashing.
3. Depress the ▲ button repeatedly until "Set-3" appears, depress **ENTER**.
4. The Auto-Off time currently programmed in the scale will display as minutes and tenths of minutes (i.e. "03.2"); the far left digit will be flashing. Use the ▲ and ▼ buttons to set the desired value, press **ENTER** to advance to the next digit. For example, setting the time to "00.5" will turn the scale off after 30 seconds of no use; "02.0" will turn the scale off after 2 minutes; "25.0" will turn the scale off after 25 minutes.
5. Press **ENTER** when complete to save and return to normal weighing operation.

NOTE: *If an AC adapter is used to power the scale, the scale will remain on at all times and the Auto-Off function is disabled.*

Programming Time & Date

1. Depress **ON/ZERO** and wait for the display to show "0.0". Do not stand on platform.
2. Hold **MENU** button down and depress the **RECALL** button. "Set-0" will be displayed along with the up and down arrows; the "0" will be flashing.
3. Press ▲ once, "Set-1" appears, depress **ENTER**.
4. Use the ▲ , ▼ and **ENTER** buttons to set the time, date and year.
5. Press **ENTER** when complete to save and return to normal weighing operation.

Battery Life Indicators

The scale has excellent battery life with most users getting more than two years from a single set of batteries. Your battery longevity will vary with the frequency of use and the length of the Auto-Off timer. To help ensure you are never without the use of your scale, it comes with a battery life indicator. When the battery pictorial is empty and the frame is flashing, replace batteries within a couple weeks (Fig. 9).

NOTE: *Properly dispose of old batteries. Install four (4) new alkaline D-cell batteries. Do not mix new and used batteries.*

Figure 9: Battery indicators

User Setting Options

Your scale has four additional settings that you may customize for your specific needs. They are:

Tone on/off: A tone sounds whenever a weight is locked in or a button is pressed. (Factory setting = 1 is "on".) 0 = tone off.

LB/KG lock: The LB/KG button can be disabled so that the scale will weigh in only the selected unit of measure. (Factory setting = 1 is "unlocked".) 0 = locked.
> *Note:* When setting the weight mode lock, make sure the scale is in the mode you want locked before proceeding.

Always-On mode: The scale may be set up so that the **ON** button need not be pressed to turn on the scale. This can save valuable time in certain situations. The downside is that the batteries will be depleted faster - battery life will be approximately 1.5 years when the scale operates in this mode. When Auto-On mode is enabled, the scale's display will not turn off and the Always-On symbol will display (oval in the top right corner of LCD display).

Height Display Format: When measuring weight in pounds, height may be displayed in feet & inches (5' 6.2") or in inches (66.2"). When weight is in kilograms, height always displays in centimeters.

To change any (or all) of these settings:

1. Depress **ON/ZERO** button and wait for the scale to display "0.0".
2. Hold **MENU** button down and depress **RECALL** button. "Set-0" will be displayed and the "0" will be flashing.
3. Depress the ▲ button repeatedly until "Set-5" appears. Depress the **ENTER** button.
4. "A1101" will display with the left most "1" flashing. This sets the Tone: "1" = on, "0" = off. Use the ▲ and ▼ buttons to input your desired setting. Press **ENTER**.
5. The second position will now be flashing. This disables the LB/KG button: "1" = unlocked, "0" = locked out. Again use the ▲ and ▼ buttons to input your desired setting. Press **ENTER**.
6. *The third position will now be flashing. This enables/disables the "Always-On" mode: "1" = always on, "0" = normal operation. Use the ▲ and ▼ buttons to input your desired setting. Press* **ENTER**.
   Note: If the optional 120V AC adapter is used to power the scale, the scale will remain on at all times regardless of this setting.
7. *The fourth position will now be flashing. This indicates the height format in the "English mode": "1" = feet & inches, "0" = inches. Use the ▲ and ▼ buttons to input your desired setting. Press* **ENTER**.
8. "b0111" will display with the left most "1" flashing. These positions are not currently used. Press **ENTER** four times to exit.

Calibration

Your scale has been properly calibrated at the factory and should not require any further adjustments. ***The following procedure should be performed only to correct any error in calibration***. Calibration is protected by a security code to avoid inadvertent access.

1. Depress the **ON/ZERO** button on the console and wait for the display to show 0.0".

2. Place an accurately known "sure" weight (100 lbs. minimum) on the platform. If the display reads other than the known weight value by +/- 0.1 pounds, then the scale is out of calibration.

   IMPORTANT NOTE: *A "sure" weight is a weight that has been accurately calibrated and its license is traceable to NBS weights & measures. Weight room free weights are* ***not*** *normally suitable to use as check weights as they may vary from their stated value. If you do not have access to "sure weights", use a weight that has been weighed on a scale* ***you are sure is accurate.***

3. The calibration security code must be entered before attempting to calibrate the scale. Hold the **MENU** button down and press **RECALL** button. Release both buttons. "Set-0" will be displayed and the "0" will be flashing.

4. Depress the ▲ button repeatedly until "Set-6" appears. Depress the **ENTER** button.

5. Use the ▲ and ▼ keys to input "125" as the calibration security code. Press **ENTER** to advance to the next digit. After entering the third digit, press **ENTER** and the scale will return to normal weighing mode. The security code needs to be entered only once, unless the scale is powered off. Access to calibration is denied if the proper code is not entered.

6. With the known weight still on the scale, the weight value will display representing the current calculation of the known weight. The hundreds of pounds digit will be flashing. Use the ▲ and ▼ keys to input the proper value. Press **ENTER** to advance to the next digit. After entering the tenths of pounds digit, press **ENTER** and "-CAL-" will display while the scale calibrates itself.

7. The readout will then re-weigh to show the new calibration weight.

8. Remove weight and depress the **ON/ZERO** button. Wait for "0.0" to display and verify calibration by placing the same known weight back on the platform.

NOTE: *Although the scale will permit a calibration weight as low as 100 pounds (45 kg.), for the most accurate operation, a known weight of at least 200 pounds (90 kg.) is recommended. The scale can be calibrated in either pounds or kilograms.*

<u>**Calibration Error Code**</u>

"Err-4" Scale is below minimum calibration weight. Use at least 100 lbs. (45 kg.) to calibrate the scale.

CARE AND MAINTENANCE

Cleaning Procedures

Proper care and cleaning of Befour scales is essential to ensure a long life of accurate and effective operation. In addition to routine cleaning, include a regular check of all structural apparatus.

All external surfaces can be wiped clean with a damp cloth or tissue.   A mild soap and water solution may be used as well. Wipe unit dry with a clean, soft towel.

- **DO NOT** immerse control console into cleaning or other liquid solution.

- **DO NOT** use isopropyl alcohol or other such solutions to clean control surfaces.

- Remove batteries during extended periods of non-use or extended transport.

- Check overall appearance of the scale for any obvious damage or wear and tear.

Troubleshooting

Scale will not turn on
- Check that fresh batteries are properly inserted into the battery tray.
- If using an AC adapter, be sure adapter is plugged in firmly and/or that there is voltage in the wall plug.

Incorrect weight readings
- Platform is too low and touching the floor. See the section on leveling and adjusting the platform.
- Person or object other than that being weighed is touching the scale.
- Platform is touching a wall or other object.
- Platform is not level. Be sure all four leveling feet are touching the floor.

Weight reading consistently too high or too low
- Check scale calibration and calibrate if necessary.
- Possible broken wire in the connector. Contact the Befour service department for further information.

Cable Replacement

The PS-6615 features a standard computer cable to connect the scale platform to the display console. Should the cable ever become damaged, it can easily be replaced by the scale owner.

For optimal scale performance, only replacement cables from Befour should be used. Please call Befour at 800-367-7109 to order. We will need the serial number of your scale so we can verify the part you will need.

Please contact Befour Technical Service if you require assistance in replacing the cable.

Befour PS-6615 Warranty

Obtaining Service

Call the Befour, Inc. service department at 1-800-367-7109 to obtain a return authorization (RA#) number. Send the product with freight and insurance to:

Befour, Inc.
RA# _____
102 Progress Drive
Saukville, WI 53080

Make certain that your scale is properly packaged to avoid damage in transit to the factory. If your scale is not covered by warranty, or has been damaged, an estimate of repair or replacement costs will be provided to you for approval prior to servicing or replacing.

Record the product serial number below for reference when communicating with Befour, Inc. (This information is located on the back of the console.)

Owner Record

Model: PS-6615

Serial Number:

_____

Date Purchased:

_____

This electronic scale has been inspected and tested in accordance with rigid quality specifications at Befour, Inc. As a result, Befour, Inc. warrants for a period of three (3) years from the date of purchase that this product is free from defects in material and workmanship. Warranty excludes any batteries or AC power adapter (if supplied).

Befour's obligation under this warranty is limited to the repair and/or replacement of defective parts or (at the discretion of Befour) the complete replacement of the scale or a related component.

This warranty does not apply to scales that have been altered, subject to apparent misuse, abuse, accidents, unauthorized repair, or operated other than in accordance with the instructions herein. Befour, Inc. must be notified promptly and within the warranty period of the existence of a defect. Befour shall have the sole right to determine whether a defect exists.

If a product is to be returned to the factory for repair, call for a return authorization number (RA#). Products returned without an RA# will be refused. Purchaser must pay freight charges to Befour on products authorized for return.

If the product is within the warranty period and the defect is in material or workmanship, the product will be repaired or replaced and shipped back at no charge.

If the product is out of warranty or some other defect exists due to misuse, etc, Befour will call with an estimate for repair and return freight.

This warranty is the exclusive obligation of Befour, and the exclusive remedy of the purchaser regarding defects in the scale. Befour, Inc. makes no other warranties expressed or implied. No person is authorized to modify in any manner Befour's obligation as described above. In the event of questions related to this warranty, to report defects, or to request an authorization for return, please contact the Befour service department at 1-800-367-7109.

Model PS-6615 Specifications

DIMENSIONS

Platform

Height	1.75 inches (4.5 cm)
Width	16 inches (41 cm)
Length	18 inches (46 cm)
Weight	11.5 lbs. (5.2 kg)

Console

Height	2.25 inches (6 cm)
Width	6 inches (15.2 cm)
Depth	8.75 inches (22.4 cm)
Weight	2.3 lbs. (1 kg)

POWER REQUIREMENTS

Batteries	4 D-cell Alkaline (6 V)
Battery Life (approx.)	
(1 min Auto-Off)	100,000 weighings
Using "Bluetooth transmission mode	700 hours
AC Adapter	Optional, 6 VDC, 200mA

OPERATING CONDITIONS

68 to 85 degrees F (20 to 30 degrees C)
0% to 85% relative humidity
700 to 1030 hPA atmospheric pressure
Avoid exposure to high pressure water or steam

STORAGE & TRANSPORTATION

14 to 122 degrees F (-10 to 50 degrees C)
0% to 85% relative humidity
500 to 1060 hPA atmospheric pressure
Remove batteries if storing longer than 3 months

SCALE DESCRIPTION

Type	Strain Gauge
Capacity	500 lbs. (225 kg)
Accuracy	+/- 0.1 lbs. (+/- 0.05 kg)
Resolution	0.1 lbs (0.05 kg)

Transmitting Data

This scale supports Befour's optional Bluetooth Smart Module which wirelessly transmits the scale's output to a device.

If you purchased the module with the scale, it may be already installed in your scale console.   You may also purchase the module at a future date and install it yourself — it is easy and takes only minutes.

Please refer to the Bluetooth Smart Module instruction manual for its operation.

Optional AC Power Operation

An AC adapter to power your scale through a standard AC outlet is available from Befour as an option. It plugs into the port located on the console left endcap.

Due to the exceptional battery life, most owners will find battery operation to be the preferred method of powering the scale. If running on AC power instead of the batteries, the Auto-Off feature is disabled as battery preservation is not an issue.

BEFOUR

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