



**7550 Wall-Mount Fold-up
Wheelchair Scale**
with Wi-Fi and Bluetooth 5.0
Owner's Manual

INTRODUCTION

Thank you for purchasing our Detecto 7550 Wall-Mount Fold-Up Wheelchair Scale. The 7550 wall-mount wheelchair scale features a unique fold-up storage design that saves space when not in use. The 7550 easily accommodates most wheelchairs with its spacious 36 in W x 33 in D / 91 cm W x 84 cm D platform, and yet requires very little floor space when folded up. The slim 7.3 in / 18.5 cm profile takes up minimal space when installed in a medical facility hallway, clinical office, or patient room. When you're ready to weigh, simply lower the platform and the gas spring lifting mechanism will gently lower it into place. The patient may be easily rolled onto the scale in a wheelchair, weighed in a chair, or while standing. The scale features a high 1,000 lb x 0.2 lb / 450 kg x 0.1 kg capacity for bariatric weighing, two-way ramps, and built-in Wi-Fi and Bluetooth 5.0 for EMR/EHR.

This manual is provided to guide you through the setup and operation of your scale. Please read it thoroughly before attempting to set up or operate your scale and keep it available for future reference.

This manual is for the following models of the 7550 Wall-Mount Fold-Up Wheelchair Scales:
7550, 7550-AC, and 7550KGEU

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DISCLAIMER

While every precaution has been taken in the preparation of this manual, the Seller assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. All instructions and diagrams have been checked for accuracy and ease of application; however, success and safety in working with tools depend to a great extent upon individual accuracy, skill, and caution. For this reason, the Seller is not able to guarantee the result of any procedure contained herein. Nor can they assume responsibility for any damage to property or injury to persons occasioned from the procedures. Persons engaging in the procedures do so entirely at their own risk.

Serial Number _____
Date of Purchase _____
Purchased From _____

RETAIN THIS INFORMATION FOR FUTURE USE

PRECAUTIONS	
Before using this scale, read this manual and pay special attention to all "NOTIFICATION" symbols:	
	IMPORTANT
	ELECTRICAL WARNING

PROPER DISPOSAL

When this device reaches the end of its useful life, it must be properly disposed of. It must not be disposed of as unsorted municipal waste. Within the European Union, this device should be returned to the distributor from where it was purchased for proper disposal. This is in accordance with EU Directive 2002/96/EC. Within North America, the device should be disposed of in accordance with the local laws regarding the disposal of waste electrical and electronic equipment.

It is everyone's responsibility to help maintain the environment and to reduce the effects of hazardous substances contained in electrical and electronic equipment on human health. Please do your part by making certain that this device is properly disposed of. The symbol shown to the right indicates that this device must not be disposed of in unsorted municipal waste programs.



CAUTION



CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

ATTENTION: RISQUE D'EXPLOSION SI LA BATTERIES EST REMPLAC'E PAR UN TYPE INCORRECT. REJETEZ LES BATTERIES UTILISE'ES SELON LES INSTRUCTIONS.

Contains FCC ID: 2ADHKWINC3400

1. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
 - (1) This device may not cause harmful interference.
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC RADIATION EXPOSURE STATEMENT

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. This equipment must be installed and operated with a minimum distance of 20 cm between the radiator and user body.

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SPECIFICATIONS

Capacity:	1,000 lb x 0.2 lb / 450 kg x 0.1 kg
Platform Size (Flat Portion):	36.0 in W x 33.0 in D / 91.4 cm W x 83.8 cm D
Overall Dimensions	
Width:	50.3 in / 127.6 cm
Depth:	39.3 in / 99.7 cm (with platform extended) 7.3 in / 18.4 cm (without platform extended)
Height:	44.0 in / 111.7 cm
Display Type:	3.2 in (diagonal) full color TFT display 320 x 240 resolution
Number of Characters:	Weight: 5 digits, 0.8 in (20 mm) high Height: 4 digits, 0.35 in (9 mm) high BMI: 3 digits, 0.35 in (9 mm) high
Touch Screen:	Resistive touch panel covering the display
Keys:	Mechanical switch type, Power, Zero, Lock/Release, ID, Cycle Display Mode, Menu, Print
Power Requirements:	Six C-size Alkaline, Ni-Cad, or NiMH batteries (not included) Domestic models: <i>Optional</i> 100 to 240V AC 50/60Hz 12V DC 1A wall plug-in UL/CSA listed AC power adapter (Cardinal part number 6800-1045) International models: <i>Optional</i> 100 to 240V AC 50/60Hz 12V DC 1A Multi-Pin Input AC power adapter (Cardinal part number 6800-1047)
Operating Environment:	Operated Temperature Range: 14 to 104 °F (-10 to +40 °C) Humidity: 0 to 90% non-condensing
Communication Interfaces:	Wi-Fi and Bluetooth 5.0
Weight:	180 lb

Standard Features:

- Slim 7.3 in / 18.5 cm Profile
- Units Locking into LB or KG
- 2-Way Easy Access Ramps
- Auto Weight Lock Feature
- Compact Vertical Fold-Up Platform
- 8-Digit Numeric Patient ID
- Gas Spring Lifting Mechanism
- StableSENSE®¹ Adjustable Filtering
- Sturdy Steel Construction
- Wi-Fi and Bluetooth 5.0

¹ StableSENSE® is a digital filter utilizing proprietary software algorithms to remove or greatly reduce changes in the weight display resulting from movement on the scale platform. StableSENSE® can be used with clinical scales to lessen the effects of the patient's movement or vibration on the scale. Any application affected by vibration or movement on the scale platform can benefit from using StableSENSE®.

SITE PREPARATION REQUIREMENTS

The Detecto 7550 Wall-Mount Fold-Up Wheelchair Scale is a precision weight indicating instrument. As with any precision instrument, it requires an acceptable environment to operate at peak performance and reliability. This section will assist you in obtaining such an environment.

Environmental

- For indoor use only.
- Suitable for dry environments only RH < 90% and non-condensing environments.
- NEVER allow the scale to get wet.
- The scale meets or exceeds all certification requirements within a temperature range of 14 to 104 °F (-10 to +40 °C).

The scale should be placed out of direct sunlight and to provide adequate air circulation, keep the area around the scale clear.

Do not place the scale directly in front of a heating or cooling vent. Such a location will subject it to sudden temperature changes, which may result in unstable weight readings.

When using the AC power adapter, ensure that the scale has good, clean AC power and is properly grounded. In areas subject to lightning strikes, additional protection to minimize lightning damage, such as surge suppressors, should be installed.

Electrical Power

The Detecto 7550 Wall-Mount Fold-Up Wheelchair Scale has been designed to operate from a 100V to 240V AC 50/60Hz 12V DC 1A wall plug-in UL/CSA listed AC power adapter (Cardinal part number 6800-1045). **NOTE:** On installations using 220V to 240V AC, use the optional 100 to 240V AC 12V DC 1A Multi-Pin Input AC power adapter (Cardinal part number 6800-1047).

- The socket-outlet supplying power to the indicator should be on a separate circuit from the distribution panel and dedicated to the exclusive use of the indicator.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

Electrical Noise Interference

To prevent electrical noise interference, make certain all air conditioning and heating equipment, lighting, or other equipment with heavily inductive loads, are on circuits separate from the system. These sources of disturbances can affect the operation of the scale. Steps must be taken to prevent possible adverse effects on the scale. For example, using simple line filters, isolation transformers, power regulators, or uninterruptible power supplies.

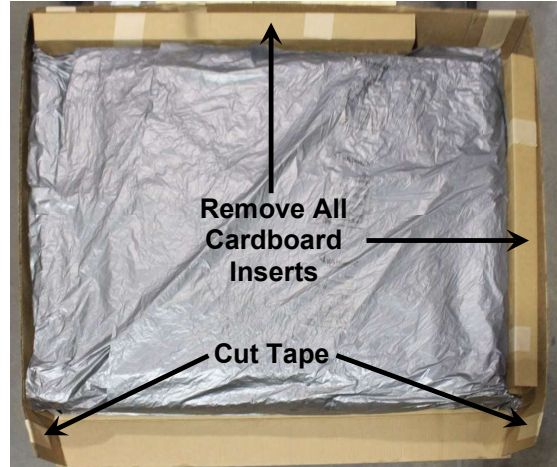
UNPACKING



IMPORTANT: UNPACKING AND INSTALLATION OF THIS PRODUCT SHOULD BE PERFORMED BY TWO PEOPLE. PLEASE READ THROUGH THE INSTRUCTIONS CAREFULLY BEFORE STARTING TO INSTALL THE SCALE.

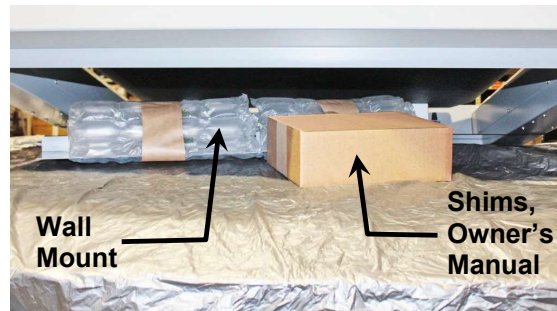
NOTE: Make certain the scale has been received in good condition. Check for any damage incurred in shipping. If the scale has been damaged, place a claim with the carrier. It is the responsibility of the purchaser to file all claims for any damages or losses incurred during transit. Keep the carton and packing material for return shipment if it should become necessary.

1. Cut the shipping straps and remove the shipping carton top to unpack the scale.



2. Remove all cardboard inserts from around the scale, and then cut the tape securing the carton on one end of the carton.

3. Turn back the packing material, exposing the scale. With an assistant, lift the scale high enough in the shipping carton to remove the box containing the shims, owner's manual, and other documents, and the Wall Mount from under the scale. Lower the scale back down into the carton.



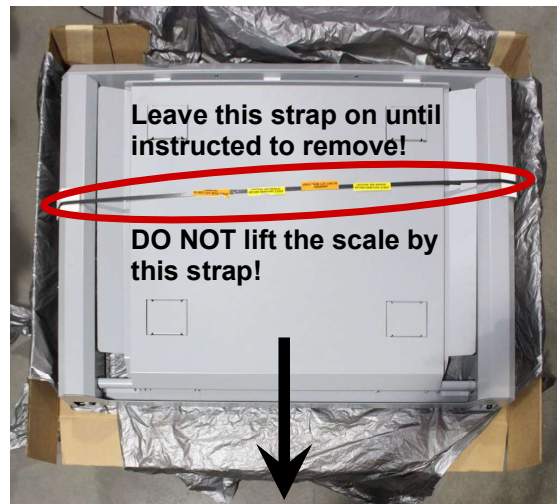
4. With an assistant, slide the scale out of the carton and raise it to an upright position.



NOTE: DO NOT lift the scale by the strap securing the weighing platform to the scale frame to raise the scale to the upright position.



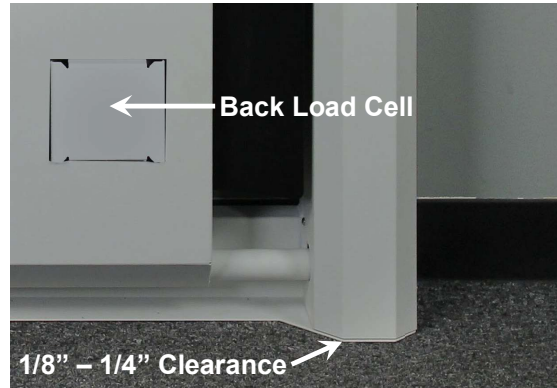
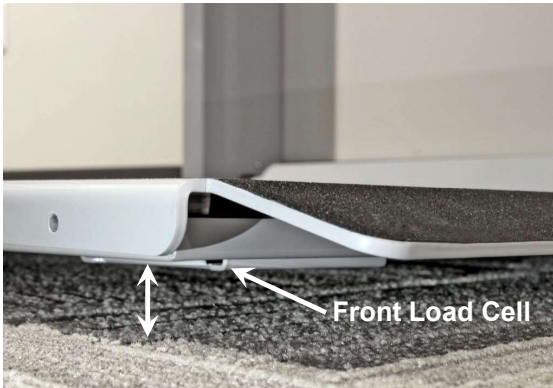
CAUTION! DO NOT remove the strap securing the weighing platform to the scale frame until instructed to remove.



INSTALLATION

Choose the Scale Location

The scale should be installed in a location with a flat, level floor. Note that the weighing platform will not sit completely against the floor. This will not affect the accuracy of the scale as the weighing platform will settle to the floor when the patient is placed on the scale.



NOTE: The front load cells of the weighing platform will be off the floor. The rear load cells must be sitting completely on the floor.

There should be 1/8" to 1/4" clearance between the sides of the scale frame and the floor. This clearance is required for the lift mechanism to close completely. The included shims can be used to raise the scale if there are slight imperfections with the floor or wall mount installation that sits the wall mount too low and prevents the scale from closing completely. If the wall mount is too high, the rear load cells will not touch the floor when the weighing platform is lowered. If the wall mount is too high, it must be moved lower on the wall or the scale will not function correctly.



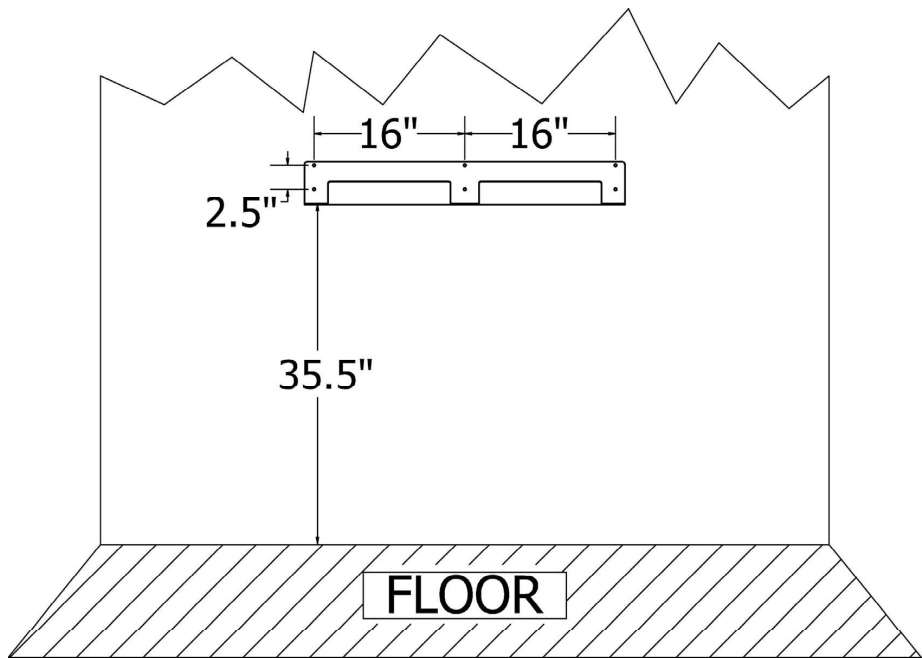
NOTE: It may be necessary to remove any base molding/chair rail/wall guard or to remove a section of the base molding/chair rail/wall guard to provide space to mount the scale in a true vertical position. An alternative method would be to shim the wall mount away from the wall to accommodate any base molding/chair rail/wall guard.

INSTALLATION, CONT.

Install the Wall Mount



NOTE: Due to the various types of wall construction, no mounting hardware is furnished with the scale. Appropriate mounting hardware suitable to the wall's construction will need to be obtained to secure the wall mount to the wall.



The wall mount allows the scale to be adjusted up or down and left or right to accommodate floors that may not be perfectly flat. This ensures the accuracy of the weighing platform and prevents undue stress to the scale.

The wall mount should be secured to the wall using mounting hardware suitable to the wall's construction. The six (6) holes (in groups of two, sixteen (16) inches apart) in the wall mount, allow for 1/4" hardware to be used to secure the wall mount to the wall.

1. Determine the desired location where the scale is to be mounted.
2. With an assistant, place the wall mount against the wall. Make sure it's level and 35 1/2" from the top edge of the wall mount to the floor.
3. Mark the holes to mount the wall mount.
4. Remove the wall mount and drill the required diameter holes for the mounting hardware used.
5. Fasten the wall mount to the wall.



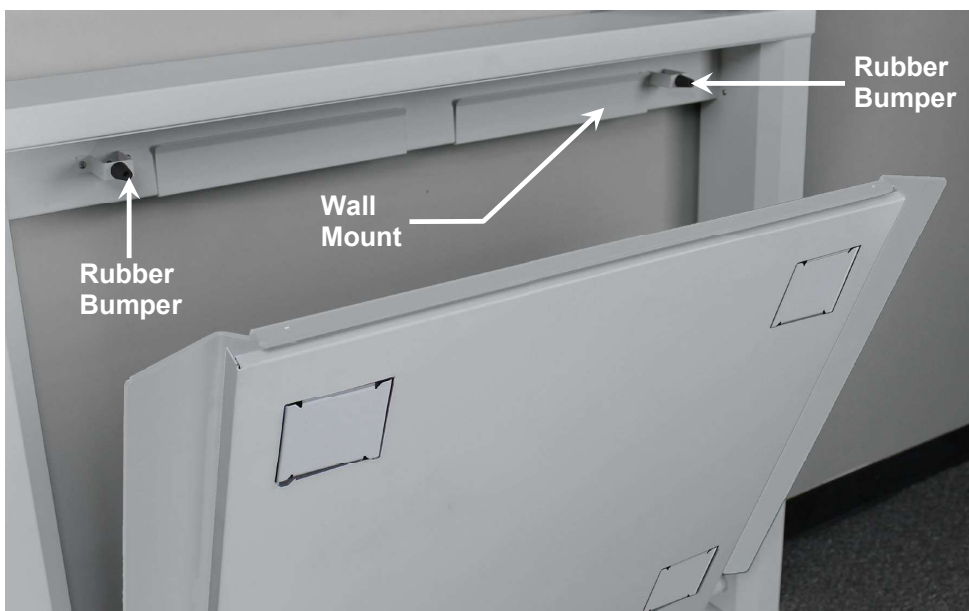
INSTALLATION, CONT.

Install the Scale on the Wall Mount

1. Remove the strap securing the weighing platform to the scale frame, and then remove the foam inserts between the weighing platform and frame. Refer to the notes and picture in Step 4 of the UNPACKING section.
2. With an assistant, lift the scale above the wall mount and then lower it into position in the channel of the wall mount.



3. Center the scale side to side (between the rubber bumpers) in the channel of the wall mount.



INSTALLATION, CONT.

Battery Operation

The scale can use six C-size Alkaline, Ni-Cad, or NiMH batteries (*not included*). You must first obtain and install the batteries before operations can begin. The batteries are contained in a battery holder that is attached to a removable panel on the side frame of the scale and secured in place with a thumbscrew.



CAUTION! The scale can be operated from Alkaline, Ni-Cad, or NiMH batteries. All six batteries must be of the same type. They must all be Alkaline, all Ni-Cad, or all NiMH. **DO NOT** mix Alkaline and Ni-Cad or NiMH batteries.



NOTE: The scale does not have a battery charging circuit. Should you wish to use rechargeable batteries (Ni-Cad or NiMH), they must be fully charged before installing. When discharged, the Ni-Cad or NiMH batteries must be removed and placed in an external charger to recharge.

Battery Status

The battery status will be displayed when batteries are installed. A number will be displayed in the upper right corner of the touchscreen indicating the level of charge remaining in the batteries. For example, 100 = 100% charge, 75 = 75% charge, and etc...

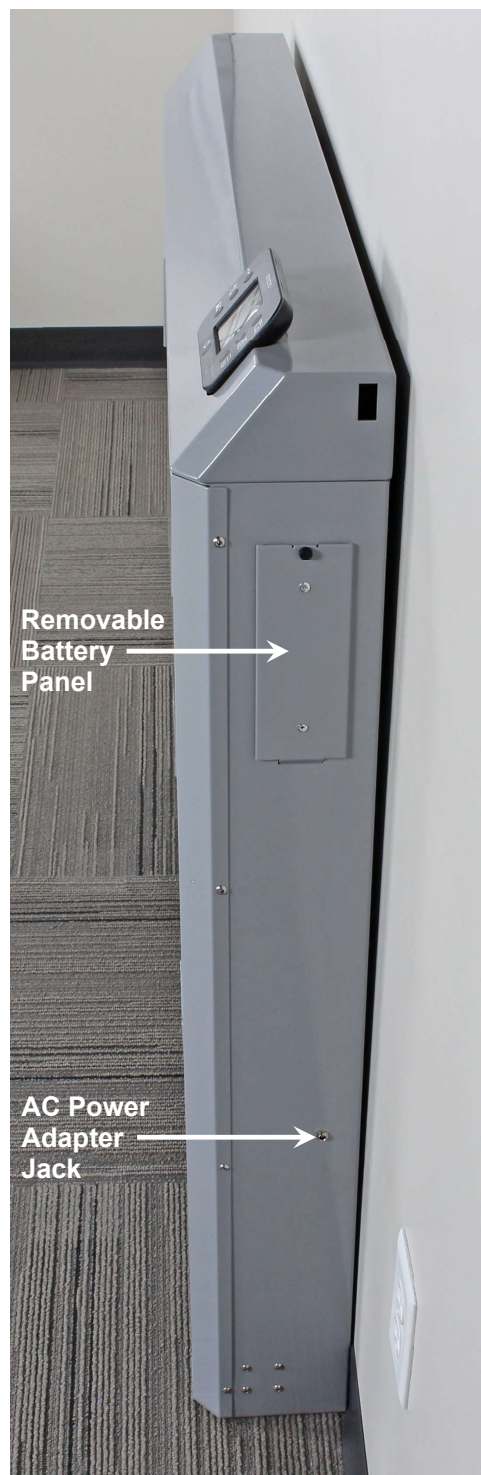
When the batteries are at the point they need to be replaced (Alkaline) or recharged (NiCad or NiMH) and the battery voltage drops too low for accurate weighing, the scale will automatically shut off and you will be unable to turn it back on.

Using Alkaline Batteries

When the batteries are low enough that the scale turns off, remove the old batteries, and replace them with new ones.

Using NiCad or NiMH Batteries


When the batteries are low enough that the scale turns off, remove the discharged batteries, and replace them with fully charged ones. Place the discharged batteries in an external charger to recharge.

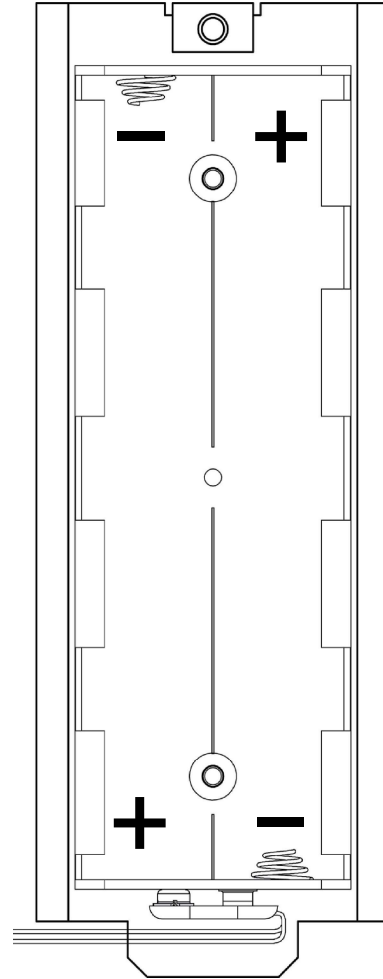


INSTALLATION, CONT.

Battery Installation or Replacement

To install or remove the batteries, the following steps should be followed:

1. Make sure the AC power adapter is unplugged.
2. Referring to the image on the previous page and facing the scale, locate the rectangular panel on the right side of the scale frame, and remove the thumbscrew.
3. Remove the panel (lift straight up and slide it out) exposing the battery holder.
4. If installing new batteries, proceed to step 5. If replacing the batteries, remove all six batteries from the battery holder and then proceed to step 5.
5. Install six new C-size batteries in the holder, noting the polarity markings located in the battery holder. Refer to the adjacent figure.
6. After placing all six batteries in the holder, replace the panel on the side of the scale frame (slide the tab into the slot on the bottom of the opening in the scale frame) and then install the thumbscrew.
7. Press  the key to turn the scale on.
8. If the scale display turns on, the batteries have been installed correctly. If not, remove the panel and check for one or more improperly positioned batteries.
9. Your 7550 Wall-Mount Fold-Up Wheelchair Scale is now ready for operation.




AC Power Adapter

To power the scale using the optional 12V DC wall plug-in UL/CSA listed AC power adapter, 6800-1045, connect the plug from the adapter into the power jack on the side of the scale frame and then plug the power adapter into the proper electrical outlet. On installations using 220V to 240V AC, use the optional 6800-1047, AC power adapter.

NOTE: Referring to the image on the previous page and facing the scale, the AC power adapter jack is located approximately 15 inches below the removable battery panel.


WEIGHING UNITS/HEIGHT MEASUREMENT SELECTION


When the scale is turned on for the *first* time, it will display a prompt to select the weighing units and height measurement to use for your operation, LB/IN (pounds/inches), or KG/CM (kilograms/centimeters). The weighing units and height measurement selection can **ONLY** be made at this time and cannot be changed afterward. Make sure you select the correct weighing units and height measurements before proceeding.



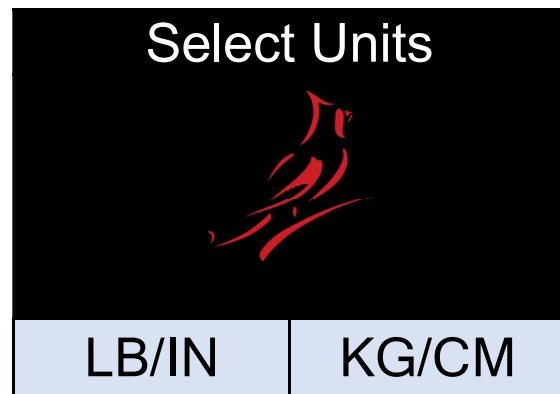
WARNING!

Make sure you select the correct weighing units/height measurement. Once selected the weighing units/height measurement is permanent and cannot be changed.



Press  the key to turn the scale on.

1. The scale display will show the software version for a few seconds, the Detecto logo briefly, and then change to a WARNING screen. This screen is displayed to inform and warn you that once you have made the weighing units/height measurement selection, it is **PERMANENT** and cannot be changed.
3. After reading and understanding the warning screen, press **OK** on the screen to continue.
4. If weighing in pounds (LB) and measuring in inches (IN) is required for your operation, press **LB/IN** at the bottom left of the screen.
5. If your operation requires weighing in kilograms (KG) and measuring in centimeters (cm), press **KG/CM** on the bottom right of the screen.



6. Your 7550 Wall-Mount Fold-Up Wheelchair Scale is now ready for operation.

KEYPAD FUNCTIONS



DO NOT operate the keys or touchscreen with pointed objects (pencils, pens, etc..). Damage to keys or touchscreen resulting from this practice is **NOT** covered under warranty.



This is the **Power** key. With the scale off, pressing this key will apply power to the scale and turn on the display. If the scale is already on, pressing this key will turn it off.



This is the **Zero** key. Press and release this key to reset the display to zero.

Note that when this key is pressed with weight on the scale platform, the display will zero the weight up to 100% of the scale capacity, and the display will change to zero (0.0). When the weight is removed, the display will show a negative weight. Press the $\Rightarrow 0 \Leftarrow$ key again to reset the display to zero (0.0).



This is the **Lock/Release** key. Press and release this key, or touch the weight readout on the display to cause the weight, height, and BMI to lock on the current values until the key is pressed again or the weight readout on the display is touched again. While the weight is locked, the weight status will change to LOCKED to denote that the weight is being held.



This is the **ID** key. Press and release this key to open the ID entry screen, and then using the touchscreen, enter a numeric ID. Note that the ID is **NOT** used for tracking patient measurements, it is only transmitted out of the selected communication port when the \hookrightarrow key is pressed. To change or edit the ID, simply press the **ID** key again to return to the ID entry screen.



This is the **Display Mode** key. Press and release this key to cause the display to cycle between display modes: Weight/Height/BMI or Weight only.

KEYPAD FUNCTIONS, CONT.



This is the **Menu** key. Press and release this key to launch the Menu screen. The first screen that is displayed is the Setup Review screen where you can see all of the settings at a glance. To continue into setup, touch the Setup key at the bottom right of the touchscreen.

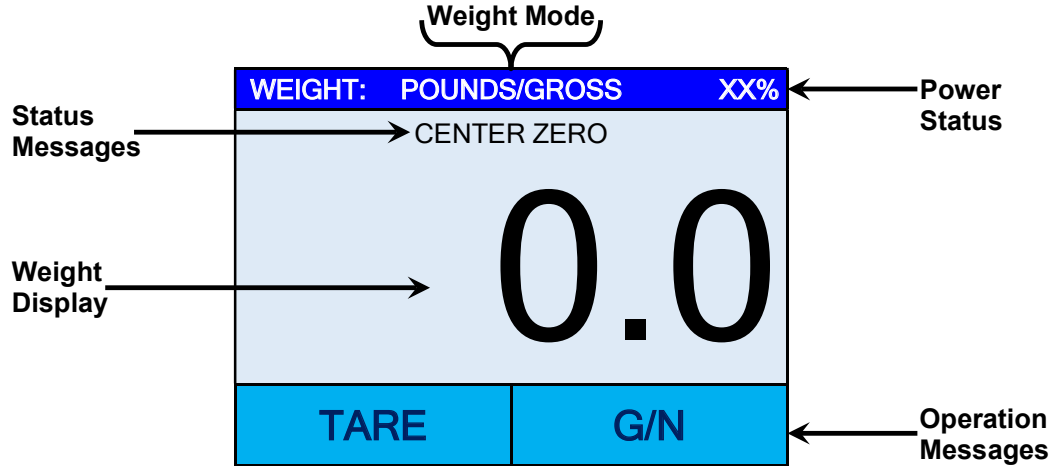


This is the **Enter** key. It serves two purposes. First, pressing and releasing this key is used to signal the completion of data entry and cause the scale to output the current date, time, weight, height, and BMI for data capture for EMR/EHR purposes. Note that the output options include Cardinal SMA, Welch Allyn, Tanita, or IEEE 11073-10415 formats.

Second, the **Enter** key is used as a Print key when using the Wi-Fi and Bluetooth features of the scale. Pressing and releasing the **Enter** key will signal the completion of data entry and cause the scale to output (print) the current date, time, weight, height, and BMI using the Wi-Fi and Bluetooth wireless transmitter.

ANNUNCIATORS

The annunciators are displayed on the Weight screen to show that the indicator is in the mode corresponding to the annunciator label or that the status indicated by the label is active.



POUNDS/GROSS

This is shown on the Weight screen to indicate that the weight displayed is gross weight in pounds.


KILOGRAMS/GROSS

This is shown on the Weight screen to indicate that the weight displayed is gross weight in kilograms.

CENTER ZERO

This is shown on the Weight screen to indicate that the weight is within +/- 1/4 division of the center of zero.

LOCK

This is shown on the Weight screen to indicate that the indicator is locked onto the displayed weight. In operation after obtaining a stable weight value, pressing the  key will cause the indicator to lock onto the weight and turn on the annunciator. Pressing this key, a second time will unlock the display and turn off the annunciator.

XX%

This is shown on the Weight screen to indicate that the scale is powered by the six C-size batteries. The number displayed is the level of charge remaining in the batteries. For example, 100 = 100% charge, 75 = 75% charge, etc.

AC (Replaces XX%)


This is shown on the Weight screen instead of the battery charge percentage to indicate that the indicator is powered by the AC power adapter.


OPERATION

Basic Weighing Operation

1. With the weighing platform in the closed (stored) position, grasp the top edge of the platform and pull it down into the operating position.



2. With the weighing platform in the operating position, press the  key to turn the scale on.

3. When the indicator reads Zero, place the empty wheelchair on the weighing platform and press the  key to zero off the weight of the wheelchair.



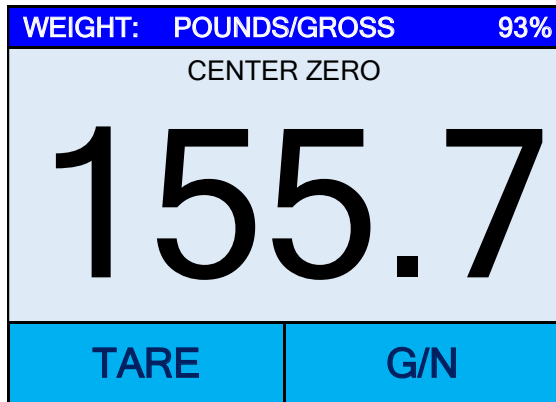
4. Position the patient on the weighing platform by pulling the wheelchair onto the platform. **NEVER PUSH** a patient in a wheelchair onto the weighing platform. **ALWAYS** lock the wheelchair wheels while weighing the patient.





WARNING! Always **PULL** the wheelchair on and off the platform. Serious injury to the patient could occur when pushing a wheelchair on and off the platform.

ALWAYS lock the wheelchair wheels when weighing the patient, and **NEVER** leave the patient unattended while on the scale platform. Failure to maintain control of the patient and/or wheelchair at all times can result in serious injury to the patient and/or you.

OPERATION, CONT.



5. When the weight is stable, a beep will sound, the weight reading will automatically lock and AUTO LOCK will be displayed. Note that the amount of time the reading will hold is dependent upon the Auto Locking setting in Setup. **NOTE:** If more time is needed, press the  key to hold the locked weight reading.
6. Read and record the weight displayed.
7. If "Auto" has been selected for the **Print:** setting in Setup, the scale will output EMR/EHR data when the weight is stable.
If "Manual" has been selected for the **Print:** setting in Setup, press the  key to output EMR/EHR data when the weight is stable.
8. Remove the patient by unlocking the wheels and then pulling the wheelchair, back down the weighing platform. **NEVER PUSH** a patient in a wheelchair off the weighing platform.
9. Lift the weighing platform up to return it to the closed (stored) position.






Lift weighing platform up to return to the closed (stored) position.



Weighing platform in closed (stored) position

OPERATION, CONT.

Basic Weighing Operation with ID – (No BMI)

1. With the weighing platform in the operating position, press the  key to turn the scale on.
2. When the indicator reads Zero, place the empty wheelchair on the weighing platform and press the  key to zero off the weight of the wheelchair.
3. Press the  key.
4. The display will change to show the PATIENT ID screen.



PATIENT ID				
12345678		1	2	3
Key in the numeric patient ID to be transmitted when the Print key is pressed.		4	5	6
		7	8	9
		0	.	DEL
SAVE	CANCEL			

5. Using the numeric keys, enter up to an 8-digit numeric identification number for the patient, and then press **Save**.
6. Position the patient on the weighing platform by pulling the wheelchair onto the platform. **NEVER PUSH** a patient in a wheelchair onto the weighing platform. **ALWAYS lock the wheelchair wheels while weighing the patient.**




WARNING! Always PULL the wheelchair on and off the platform. Serious injury to the patient could occur when pushing a wheelchair on and off the platform.

ALWAYS lock the wheelchair wheels when weighing the patient, and NEVER leave the patient unattended while on the scale platform. Failure to maintain control of the patient and/or wheelchair at all times can result in serious injury to the patient and/or you.

8. When the weight is stable, a beep will sound, the weight reading will automatically lock and AUTO LOCK will be displayed. Note that the amount of time the reading will hold is dependent upon the Auto Locking setting in Setup. **NOTE:** If more time is needed, press the  key to hold the locked weight reading.
9. Read and record the weight displayed.
10. If “Auto” has been selected for the **Print:** setting in Setup, the scale will output EMR/EHR data when the weight is stable.
If “Manual” has been selected for the **Print:** setting in Setup, press the  key to output EMR/EHR data when the weight is stable.
11. Remove the patient by unlocking the wheels and then pulling the wheelchair, back down the weighing platform. **NEVER PUSH** a patient in a wheelchair off the weighing platform.
12. Lift the weighing platform up to return it to the closed (stored) position.

OPERATION, CONT.

Body Mass Index (BMI) Operation (Using Previously Measured Height)

1. With the weighing platform in the operating position, press the  key to turn the scale on.
2. When the indicator reads Zero, place the empty wheelchair on the weighing platform and press the $\Rightarrow 0 \Leftarrow$ key to *zero off* the weight of the wheelchair.
3. Press **HEIGHT** on the touchscreen.
4. If POUNDS/INCHES were selected for **Weighing/Height Units**, the display will change to show HEIGHT IN INCHES on the touchscreen.

Using the numeric keys, enter up to 3 digits and the decimal point (#.#) for height in inches, and then press **Save**.

5. If KILOGRAMS/CENTIMETERS were selected for **Weighing/Height Units**, the display will change to show HEIGHT IN CENTIMETERS on the touchscreen.


Using the numeric keys, enter up to 2 digits and the decimal point (#.#) for height in centimeters, and then press **Save**.


6. Position the patient on the weighing platform by pulling the wheelchair onto the platform. **NEVER PUSH** a patient in a wheelchair onto the weighing platform. **ALWAYS lock the wheelchair wheels while weighing the patient.**



WARNING! Always PULL the wheelchair on and off the platform. Serious injury to the patient could occur when pushing a wheelchair on and off the platform.





ALWAYS lock the wheelchair wheels when weighing the patient, and NEVER leave the patient unattended while on the scale platform. Failure to maintain control of the patient and/or wheelchair at all times can result in serious injury to the patient and/or you.

7. When the weight is stable, a beep will sound, the weight reading will automatically lock and AUTO LOCK will be displayed. Note that the amount of time the reading will hold is dependent upon the Auto Locking setting in Setup. **NOTE:** If more time is needed, press the  key to hold the locked weight reading.
8. The scale will calculate the patient's BMI using their weight and entered height.
9. Read and record weight, height, and BMI displayed.
11. If "Auto" has been selected for the **Print:** setting in Setup, the scale will output EMR/EHR data when the weight is stable.

If "Manual" has been selected for the **Print:** setting in Setup, press the  key to output EMR/EHR data when the weight is stable.
13. Remove the patient by unlocking the wheels and then pulling the wheelchair, back down the weighing platform. **NEVER PUSH** a patient in a wheelchair off the weighing platform.
14. Lift the weighing platform up to return it to the closed (stored) position.

OPERATION, CONT.



Body Mass Index (BMI) Operation with ID (Using Previously Measured Height)

1. With the weighing platform in the operating position, press the  key to turn the scale on.
2. When the indicator reads Zero, place the empty wheelchair on the weighing platform and press the  key to *zero off* the weight of the wheelchair.
3. Press the   key.
4. The display will change to show the PATIENT ID screen.
5. Using the numeric keys, enter up to an 8-digit numeric identification number for the patient, and then press **Save**.
6. Press **HEIGHT** on the touchscreen.
7. If POUNDS/INCHES were selected for **Weighing/Height Units**, the display will change to show HEIGHT IN INCHES on the touchscreen.
Using the numeric keys, enter up to 3 digits and the decimal point (#.#) for height in inches, and then press **Save**.
6. If KILOGRAMS/CENTIMETERS were selected for **Weighing/Height Units**, the display will change to show HEIGHT IN CENTIMETERS on the touchscreen.
Using the numeric keys, enter up to 2 digits and the decimal point (#.#) for height in centimeters, and then press **Save**.
10. Position the patient on the weighing platform by pulling the wheelchair onto the platform. **NEVER PUSH** a patient in a wheelchair onto the weighing platform. **ALWAYS lock the wheelchair wheels while weighing the patient.**



WARNING! Always PULL the wheelchair on and off the platform. Serious injury to the patient could occur when pushing a wheelchair on and off the platform.

ALWAYS lock the wheelchair wheels when weighing the patient, and NEVER leave the patient unattended while on the scale platform. Failure to maintain control of the patient and/or wheelchair at all times can result in serious injury to the patient and/or you.

11. When the weight is stable, a beep will sound, the weight reading will automatically lock and AUTO LOCK will be displayed. Note that the amount of time the reading will hold is dependent upon the Auto Locking setting in Setup. **NOTE:** If more time is needed, press the  key to hold the locked weight reading.
12. The scale will calculate the patient's BMI using their weight and entered height.
13. Read and record weight, height, and BMI displayed.
14. If "Auto" has been selected for the **Print:** setting in Setup, the scale will output EMR/EHR data when the weight is stable.
If "Manual" has been selected for the **Print:** setting in Setup, press the  key to output EMR/EHR data when the weight is stable.
15. Remove the patient by unlocking the wheels and then pulling the wheelchair, back down the weighing platform. **NEVER PUSH** a patient in a wheelchair off the weighing platform.
16. Lift the weighing platform up to return it to the closed (stored) position.

SCALE SETUP

Your Detecto 7550 Wall-Mount Fold-Up Wheelchair Scale has been pre-configured at the factory and should not require changes for use in most applications. However, if the factory settings do not meet the requirements of your operation, the following describes the setup process for your indicator.



NOTE: The keypad and touchscreen are not to be operated with pointed objects (pencils, pens, fingernails, etc.). Damage to the keypad or touchscreen resulting from this practice will NOT be covered under warranty.


Menu Functions

After pressing the **Menu** key to enter the Setup menu, the first screen of the menu is a Setup Review screen where all of the settings can be reviewed at a glance. The Audit Trail Counters for the metrological settings and the non-metrological settings are available for review on this screen as well. Each prompt in the menu screens will show the current value of the setting next to the prompt to easily identify what the current setting for that parameter is.

Setup Menu Keys

- The Sonar Height Rod is not used with the 7550 Wall-Mount Fold-Up Wheelchair Scale and should be disabled. To ensure the sonar height is disabled, press **Sonar**, then using the numeric keys enter a **0**, and finally press **Save**. The sonar height rod is now disabled, and the display will change back to the Settings Overview 1 screen.
- Press **Exit** to exit Setup and return to the Weight screen.
- Press **Setup** on the Settings Overview screen to enter into the scale setup.
- Press **>>>** on the Settings screen to advance to the next menu page.
- Press **<<<** at the Settings screen to return to the previous menu page.

To Enter Setup

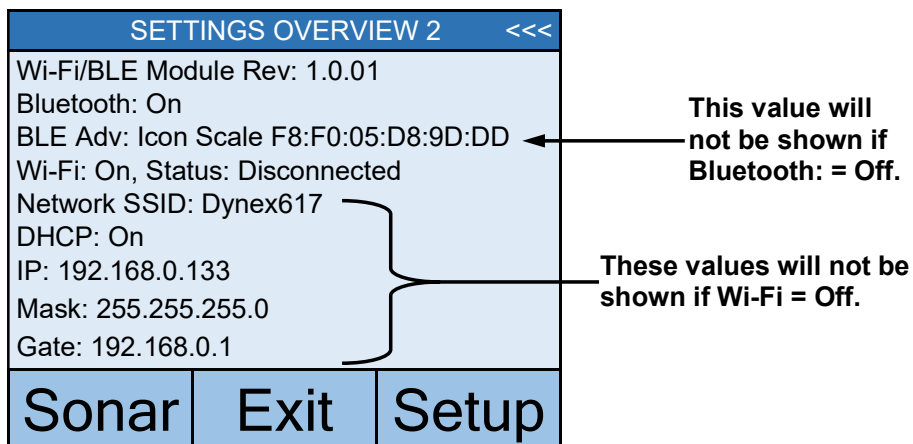
1. Press the  key to turn the indicator on.
2. The indicator will show the Detecto logo briefly and then change to the Weight screen.
3. With the Weight screen displayed, press the **Menu** key.
4. The display will change to show the Settings Overview 1 screen.

SETTINGS OVERVIEW 1		>>>
Revision 1.00.11, Display Rev. 1.0.21		
Audit Trail -- Cal=4, Cfg=2		
Range 1: 1000.0 x 0.2		
Weight Units=lb	Height Units=in	
Auto Lock=0 s	Sonar Ht=0.0 cm	
Motion=3 div.	Filter=Off	
OIML=No	ZeroTrack=10/2 d	
USB: SMA	Gravity=0.000000	
Power up zero=No		
Sonar	Exit	Setup

- Press **>>>** on the touchscreen to advance to the Settings Overview 2 screen.
- Press **Exit** to exit Setup and return to the Weight screen.
- Press **Setup** to advance to the Password screen and proceed with scale setup.

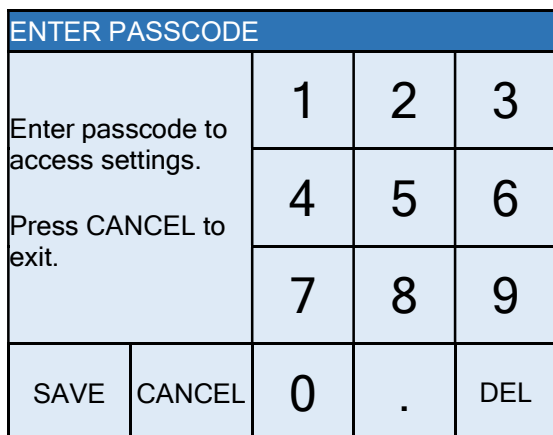
SCALE SETUP, CONT.

To Enter Setup, Cont.



- Press <<< on the touchscreen to return to the Settings Overview 1 screen.
- Press **Exit** to exit Setup and return to the Weight screen.
- Press **Setup** to advance to the Password screen and proceed with scale setup.

5. After pressing **Setup** on the touchscreen, the display will change to show the ENTER PASSCODE screen.



6. Using the 10-key on the touchscreen, enter **64870** and then press **Save**.

7. The scale is now ready for setup and calibration

SCALE SETUP, CONT.

Settings Page 1

SETTINGS		PAGE 1
Model: Wheelchair		
Date: 12/11/2020		
Time: 12:24:44		
Language: English		
<<<	Exit	>>>

Model:

This selection sets the default settings and operation of the scale and should be set to “Wheelchair” to use the software designed for Wheelchairs.

If the model selection is not “Wheelchair”, touch this key to open the model selection screen. Using the numeric keys, enter a **1** (1 = Wheelchair), and then press **Save**.

NOTE: *The other settings are: 0 = icon, 2 = Other, 3 = Dialysis and are not applicable for use with the 7550 Wall-Mount Fold-Up Wheelchair Scale.*

Date:

Touching this key allows entering the date, starting with the year. After pressing **Date:** the touchscreen will show “Key in the Year and press SAVE”.

Year

Enter the 4-digits (YYYY) for the year and then press **Save**.

Month

Enter the 2-digits (MM) for the month and then press **Save**.

Day

Enter the 2-digits (DD) for the day and then press **Save**.

Time:

Touching this key allows entering the time starting with the hour. After pressing **Time:** the touchscreen will show “Key in the Hour HH”.

Hour

Enter the 2-digits (HH) for the hour and then press **Save**.

Minute

Enter the 2-digits (MM) for the minute and then press **Save**.

Second

Enter the 2-digits (SS) for the seconds and then press **Save**.

Language:

This will change the language for the Setup and Operation screens of the scale.

Touch this key to open the language selection screen. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings are: 0 = English, 1 = Spanish, 2 = German, 3 = French

- Press >>> to advance to the Settings Page 2.
- Press <<< to return to the Settings Overview screen.
- Press **Exit** to exit Setup and return to the Weight screen.

SCALE SETUP, CONT.

Settings Page 2

SETTINGS		PAGE 2
OIML: No		
Units: lb, in		
Filter Mode: 0		
Zero Tracking: 10		
<<<	Exit	>>>

OIML:

Touching this key will toggle the OIML setting to Yes or No. **NOTE:** This setting should be enabled for all EU models to comply with regulations.

Allowable settings for OIML are: Yes or No.

Units:

This is for reference only. The weighing/height units selection can **ONLY** be made when the scale is turned on for the *first* time. At that time, a prompt will be displayed to select the weighing/height units to use, pounds/inches (lb/in), or kilograms/centimeters (kg/cm). Once the weighing/height units have been set, they cannot be changed.

Refer to the WEIGHING UNITS/HEIGHT MEASUREMENT section of this manual.

Filter Mode:

Pressing this key will open the weight filtering screen. This will allow you to set the amount of digital filtering being applied to the scale. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings are: 0 = Off, 1 = Minimal, 2 = Moderate, and 3 = Maximum

Zero Tracking:

Touching this key will open the zero-tracking screen. This will allow you to set the number of half (1/2) divisions that the scale will attempt to maintain zero. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings for Zero Tracking are 0 – 20.

- Press >>> to advance to the Settings Page 3.
- Press <<< to return to the Settings Page 1.
- Press **Exit** to exit Setup and return to the Weight screen.

SCALE SETUP, CONT.

Settings Page 3

SETTINGS		PAGE 3
Capacity 1: 1000.0		
Capacity 2: 0		
Interval 1: 2		
Interval 2: 1		
<<<	Exit	>>>

Capacity 1:

Touching this key will open the Capacity 1 screen. This will allow you to set the capacity of the scale. The setting for Capacity 1 should be set to 1000.0.

If the setting for Capacity 1 is not 1000.0, touch this key to open the Capacity 1 screen. Using the numeric keys enter **1000.0**, and then press **Save**.

Capacity 2:

This setting is not used with the Wheelchair Model selection and should be set to (0) zero.

If the setting for Capacity 2 is not 0 (zero), touch this key to open the Capacity 2 screen. Using the numeric keys enter a **0**, and then press **Save**.

Interval 1:

Touching this key will open the interval entry screen. This will allow you to set the scale interval. The setting for Interval 1 should be set to 2.

If Interval 1 is not 1, touch this key to open the Interval 1 screen. Using the numeric keys enter a 1, and then press **Save**.

Interval 2:

Interval 2 is only used when Capacity 2 is used. The Wheelchair Model selection does not use Capacity 2 and Interval 2. Note that even though Interval 2 is not used, the factory setting for Interval 2 is set to 1.

If Interval 2 is not 1, touch this key to open the Interval 2 screen. Using the numeric keys enter a 1, and then press **Save**.

- Press >>> to advance to Settings Page 4.
- Press <<< to return to Settings Page 2.
- Press **Exit** to exit Setup and return to the Weight screen.

SCALE SETUP, CONT.

Settings Page 4

SETTINGS		PAGE 4
Decimal 1: 1		
Decimal 2: 1		
Motion Range: 3		
Gravity: 0.000000		
<<<	Exit	>>>

Decimal 1:

Touching this key will open the decimal entry screen. This will allow you to set the decimal point precision for the first weight range. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings for Decimal 1 are 0 – 3.

Decimal 2:

Decimal 2 is only used when Capacity 2 is used. The Wheelchair Model selection does not use Capacity 2 and Decimal 2. Note that even though Decimal 2 is not used, the factory setting for Decimal 2 is set to 1.

If Decimal 2 is not 1, touch this key to open the Interval 2 screen. Using the numeric keys enter a 1, and then press **Save**.

Motion Range:

Touching this key will open the motion range entry screen. This will allow you to set the number of scale divisions of movement that will be allowed for a stable weight. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings for Motion Range are 0 – 20.

Gravity:

Gravity compensation accounts for latitudes and elevations that are different from where the scale was calibrated. To calculate the setting for this parameter, use the gravitational constant of the location where the scale was calibrated divided by the gravitational constant of where the scale will be installed:

$$\frac{\text{Gravitational Constant (Calibration location)}}{\text{Gravitational Constant (Operation location)}} = \text{setting}$$

This should give you a setting close to 1 that you can enter in to compensate for variation in gravity due to elevation/latitude.

Touching this key will open the gravity compensation entry screen. Using the numeric keys, enter a new setting, and then press **Save**.

NOTE: Set Gravity to 0 (zero) to disable the gravity compensation feature.

- Press >>> to advance to the Settings Page 5.
- Press <<< to return to the Settings Page 3.
- Press **Exit** to exit Setup and return to the Weight screen.

SCALE SETUP, CONT.

Settings Page 5

SETTINGS	PAGE 5
Calibrate Scale	
Load Cell Trim	
Power up Zero: No	
Auto Locking: 0 s	
<<<	Exit >>>

Calibrate Scale

Touching this key will allow for calibration of the scale. Refer to the **CALIBRATION** section of this manual for instructions to select the calibration mode and how to perform calibration.

Load Cell Trim

Touching this key will allow for trimming (adjusting the output of) the load cells in the scale. Refer to the **LOAD CELL TRIM** section of this manual for instructions on how to trim the load cells.

Auto Locking:

This setting is used by the scale to hold a stable patient weight for a desired amount of time. For example, if a setting of 5 seconds is used, then when the scale locks onto a stable patient weight, it will remain locked for 5 seconds before automatically releasing the weight.

Touching this key will open an entry screen for the auto-locking feature of the scale. The setting entered is a time in seconds. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings for Auto Locking are 0 to 10.

Power up Zero:

Touching this key will toggle the power up zeroing of the scale to Yes or No. If enabled, this will cause the scale to attempt to zero the scale upon power up.

Allowable settings for Power up Zero are: Yes or No.

- Press >>> to advance to the Settings Page 6.
- Press <<< to return to the Settings Page 4.
- Press **Exit** to exit Setup and return to the Weight screen.

SCALE SETUP, CONT.

Settings Page 6

SETTINGS		PAGE 6
Serial Type: Pass		
USB: SMA		
Print: Manual		
<<<	Exit	>>>

Serial Type:

The Wheelchair Model selection does not use the Serial RS232 port. Note that even though the Serial Type is not used, the factory setting for Serial Type is set to Pass (pass-through printing).

If Serial Type is not Pass, touch this key to open the serial type selection screen. Using the numeric keys enter a 0, and then press **Save**.

USB:

The Wheelchair Model selection does not use the USB port. Note that even though the USB Port is not used, the factory setting for USB Port is set to SMA.

If USB Port is not SMA, touch this key to open the USB Port selection screen. Using the numeric keys enter a 0, and then press **Save**.

Print:

Touching this key will toggle the Print setting to Auto or Manual for printing (outputting data) when a stable weight has been obtained on the scale.

- If "Auto" is selected, the scale will automatically print (output data) as soon as a stable weight is obtained.
- If "Manual" is selected, after a stable weight has been obtained, you must press the ↩ key to print (output data).

Allowable settings for Print are: 0 = Manual, 1 = Auto

- Press >>> to advance to the Settings Page 7.
- Press <<< to return to the Settings Page 5.
- Press **Exit** to exit Setup and return to the Weight screen.

SCALE SETUP, CONT.

Settings Page 7

SETTINGS		PAGE 7
Bluetooth: On		
Wi-Fi: Off		
SSID: Dynex617		
<<<	Exit	>>>

The SSID: value will not be shown if Wi-Fi: = Off.

Bluetooth:

Touch this key to open a selection screen to turn the Bluetooth 5.0 wireless transmitter “On” or “Off”. This setting should be “On” if pairing to a Bluetooth-capable device is desired. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings for Bluetooth are: 0 = Off, 1 = On

Wi-Fi:

Touch this key to open a selection screen to turn the Wi-Fi wireless transmitter “On” or “Off”. This setting should be “On” if interfacing through a Wi-Fi network is desired. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings for Wi-Fi are: 0 = Off, 1 = On



NOTE: If the Wi-Fi setting is 0 = Off, you will not see the SSID: setting and >>> on the touchscreen to advance to Settings Page 8.

SSID:

This will show you the current SSID of the Wi-Fi network that is saved in memory for the Icon to connect to.

Touching this key will prompt you to CLEAR SSID. Press 1 on the touchscreen, and then press **Save** to clear the Wi-Fi credentials.

- Press >>> to advance to the Settings Page 8.
- Press <<< to return to the Settings Page 6.
- Press **Exit** to exit Setup and return to the Weight screen.

SCALE SETUP, CONT.

Settings Page 8

SETTINGS		PAGE 8
DHCP: On		
IP: 192.168.0.133		
NM: 255.255.255.0		
GW: 192.168.0.1		
<<<	Exit	

The settings for NM: and GW: will not be shown if DHCP: = On.

DHCP:

Touching this key will open an entry screen to allow you to select the DHCP setting. This setting selects whether the Wi-Fi wireless transmitter will use a dynamic IP address assigned by a DHCP server or a static IP address. Consult with your network administrator for the proper selection. Using the numeric keys, enter a new setting, and then press **Save**.

Allowable settings for DHCP are: 0 = Static IP (Off), 1 = DHCP (On)



NOTE: If the setting for **DHCP: = Off**, the settings for **NM:** (Netmask) and **GW:** (Gateway Address) will be shown on the touchscreen.

NM: (Netmask)

Touching this key will open an entry screen to allow you to enter the Wi-Fi network Netmask for the network the scale will be connected to. Using the numeric keys, enter a new setting, and then press **Save**.

The format for the Netmask is: ### . ### . ### . # (e.g., 255.255.255.0).

IMPORTANT! The Netmask of the scale should match the Netmask of the other computers on your network.

GW: (Gateway Address)

Touching this key will open an entry screen to allow you to enter the Wi-Fi network Gateway Address for the network the scale will be connected to. Using the numeric keys, enter a new setting, and then press **Save**.

The format for the Gateway Address is: #, #, #, # (e.g., 192.168.0.1).

- Press <<< to return to the Settings Page 7.
- Press **Exit** to exit Setup and return to the Weight screen.

CALIBRATE SCALE

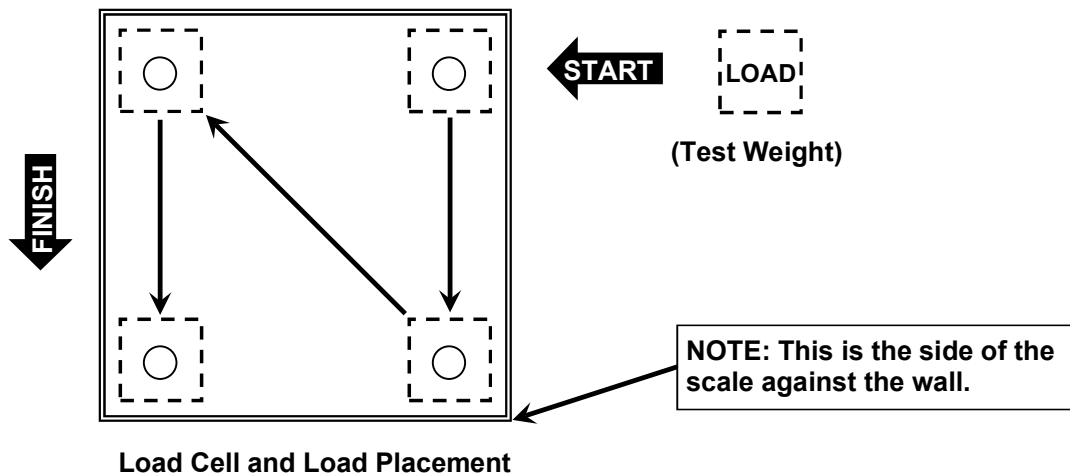
Calibration Modes

The 7550 Wall-Mount Fold-Up Wheelchair Scale has four modes that can be used to perform calibration. The modes are as follows:

1 = SMARTCAL®

SmartCal is the most precise method of calibration. It requires that a calibrated load be placed over each load cell of the scale platform only once. In this method, the scale will be able to derive calibration constants, which will be used to combine information from each load cell into scale weight.

During SmartCal, the display will prompt for the test load to be applied over a particular load cell. With a scale that has four load cells, the order will simply be cell 1, cell 2, cell 3, and cell 4. This order is used so that calibration can be done using a test weight with a minimal amount of maneuvering required. Refer to the illustration below.



2 = Two Calibration Points

This is a standard calibration method requiring an empty scale and one weight. This method uses two calibration points (an empty scale and the full test load on the scale) to establish a zero (no load) calibration value and to span the indicator.

3 = Three Calibration Points

This method requires an empty scale, two weights, and uses three calibration points (an empty scale, half the test load, and the full test load on the scale). The three points correspond to zero (no load) weight, mid-point weight, and test load (weight).

4 = Four Calibration Points

This method requires an empty scale, three weights, and uses four calibration points (an empty scale, one-fourth of the test load, half the test load, and the full test load on the scale). The four points correspond to zero weight, quarter-point weight, mid-point weight, and test load (weight).

CALIBRATE SCALE, CONT.

To Enter Calibration

1. With the scale turned on and the Weight screen displayed, press the **Menu** key.
2. The display will change to show the Settings Overview 1 screen.

SETTINGS OVERVIEW 1		>>>
Revision 1.00.11, Display Rev. 1.0.21		
Audit Trail -- Cal=4, Cfg=2		
Range 1: 1000.0 x 0.2		
Weight Units=lb	Height Units=in	
Auto Lock=0 s	Sonar Ht=0.0 cm	
Motion=3 div.	Filter=Off	
OIML=No	ZeroTrack=10/2 d	
USB: SMA	Gravity=0.000000	
Power up zero=No		
Sonar	Exit	Setup

3. Press **Setup** on the touchscreen.
4. The display will change to show the ENTER PASSCODE screen.

ENTER PASSCODE				
Enter passcode to access settings. Press CANCEL to exit.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

5. Using the 10-key on the touchscreen, enter **64870** and then press **Save**.
6. The display will change to show the Settings Page 1 screen.

SETTINGS	PAGE 1	
Model: Wheelchair		
Date: 12/11/2020		
Time: 12:24:44		
Language: English		
<<<	Exit	>>>

7. Press >>> to advance to the Settings Page 5 screen.

CALIBRATE SCALE

To Enter Calibration, Cont.

SETTINGS		PAGE 5
Calibrate Scale		
Load Cell Trim		
Power up Zero: No		
Auto Locking: 0 s		
<<<	Exit	>>>

8. Select **Calibrate Scale** from the Settings Page 5 screen.
9. The display will change to show the “Number of Points” screen.

CALIBRATE SCALE					
2 Number of points at which the scale will be calibrated. 1 = SmartCal	1	2	3		
	4	5	6		
	7	8	9		
SAVE	CANCEL	0	.	DEL	

10. With the “Number of Points” screen displayed, select 1, 2, 3, or 4 on the touchscreen and then press **Save**.
 - 1 = SmartCal Calibration**
(calibrated load placed over each load cell only once)
 - 2 = Two Calibration Points**
(empty scale and full test load)
 - 3 = Three Calibration Points**
(empty scale, half test load, and full test load)
 - 4 = Four Calibration Points**
(empty scale, one fourth test load, half test load, and full test load)
11. Proceed to the next sections of the manual for the type of calibration selected.

CALIBRATE SCALE

1 = SMARTCAL®

1. With the “Number of Points” screen displayed, press **1** on the touchscreen and then press **Save**.

CALIBRATE SCALE				
1 Number of points at which the scale will be calibrated. 1 = SmartCal		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

2. The display will change to show “Enter the known test weight”. Enter the value for the test weight and then press **Save**.

CALIBRATE SCALE				
0 Enter the known test weight.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

3. The display will change to show “To calibrate zero, remove any weight from the scale before proceeding”. Make certain the scale is empty and then press **Save**.

CALIBRATE SCALE				
0 To calibrate zero, remove any weight from the scale before proceeding		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

CALIBRATE SCALE

1 = SMARTCAL, CONT.

4. The display will change to show “Working” for a few seconds and then change to show “Set test weight over Cell 1”.

CALIBRATE SCALE				
Working To calibrate zero, remove any weight from the scale before proceeding		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

5. Place the calibrated test weight on the scale over Cell 1 and then press **Save**.

CALIBRATE SCALE				
Set test weight over Cell 1 and press Save.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

6. The display will change to show “Working” for a few seconds and then change to show “Set test weight over Cell 2”.

CALIBRATE SCALE				
Set test weight over Cell 2 and press Save.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

7. Place the calibrated test weight on the scale over Cell 2 and then press **Save**.

CALIBRATE SCALE

1 = SMARTCAL, CONT.

8. The display will change to show “Working” for a few seconds and then change to show “Set test weight over Cell 3”.

CALIBRATE SCALE				
Set test weight over Cell 3 and press Save.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

9. Place the calibrated test weight on the scale over Cell 3 and then press **Save**.
10. The display will change to show “Working” for a few seconds and then change to show “Set test weight over Cell 4”.

CALIBRATE SCALE				
Set test weight over Cell 4 and press Save.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

11. Place the calibrated test weight on the scale over Cell 4 and then press **Save**.
12. The display will change to show “Working” for a few seconds and then return to the Settings Page 5 screen.
13. Calibration is now complete.
14. Press **Exit** to exit Setup and return to the Weight screen.

CALIBRATE SCALE

2 = Two Calibration Points

1. With the “Number of Points” screen displayed, press **2** on the touchscreen and then press **Save**.

CALIBRATE SCALE				
2 Number of points at which the scale will be calibrated. 1 = SmartCal	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

2. The display will change to show “To calibrate zero, remove any weight from the scale before proceeding”. Make certain the scale is empty and then press **Save**.

CALIBRATE SCALE				
0 To calibrate zero, remove any weight from the scale before proceeding	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

3. The display will change to show “Working” for a few seconds.

CALIBRATE SCALE				
Working To calibrate zero, remove any weight from the scale before proceeding	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

4. The display will then change to show the “Known test weight”

CALIBRATE SCALE

2 = Two Calibration Points, Cont.

5. Place the calibrated test weight (full test load) on the scale, enter the value for the test weight, and then press **Save**.

CALIBRATE SCALE				
<div style="font-size: 2em; font-weight: bold; margin-bottom: 5px;">1000.0</div> <div style="font-size: 0.8em;">This is the known test weight that is currently on the scale.</div>		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

NOTE: A minimum of 50% of the scale's capacity is required, however 70% to 100% is recommended.

6. The display will change to show "Working" for a few seconds and then return to the Settings Page 5 screen.

CALIBRATE SCALE				
<div style="font-size: 2em; font-weight: bold; margin-bottom: 5px;">Working</div> <div style="font-size: 0.8em;">This is the known test weight that is currently on the scale.</div>		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

7. Calibration is now complete.
8. Press **Exit** to exit Setup and return to the Weight screen.

CALIBRATE SCALE

3 = Three Calibration Points

1. With the “Number of Points” screen displayed, press **3** on the touchscreen and then press **Save**.

CALIBRATE SCALE				
3 Number of points at which the scale will be calibrated. 1 = SmartCal	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

2. The display will change to show “To calibrate zero, remove any weight from the scale before proceeding”. Make certain the scale is empty and then press **Save**.

CALIBRATE SCALE				
0 To calibrate zero, remove any weight from the scale before proceeding	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

3. The display will change to show “Working” and after a few seconds change to show the “Known test weight” screen.

CALIBRATE SCALE				
Working To calibrate zero, remove any weight from the scale before proceeding	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

CALIBRATE SCALE

3 = Three Calibration Points, Cont.

4. With the “Known test weight” screen displayed, place the first calibrated test weight (half the test load) on the scale, enter the value for the test weight and then press **Save**.

CALIBRATE SCALE				
500.0		1	2	3
This is the known test weight that is currently on the scale.		4	5	6
		7	8	9
		0	.	DEL
SAVE	CANCEL			

5. The display will change to show “Working” for a few seconds.

CALIBRATE SCALE				
Working		1	2	3
This is the known test weight that is currently on the scale.		4	5	6
		7	8	9
		0	.	DEL
SAVE	CANCEL			

6. With the “Known test weight” screen displayed, place the second calibrated test weight (full test load) on the scale, enter the setting for the test weight, and then press **Save**.

CALIBRATE SCALE				
1000.0		1	2	3
This is the known test weight that is currently on the scale.		4	5	6
		7	8	9
		0	.	DEL
SAVE	CANCEL			

NOTE: A minimum of 50% of the scale's capacity is required for the full test load, however 70% to 100% is recommended.

7. The display will change to show “Working” for a few seconds and then return to the Settings Page 5 screen.
8. Calibration is now complete.
9. Press **Exit** to exit Setup and return to the Weight screen.

CALIBRATE SCALE

4 = Four Calibration Points

1. With the “Number of Points” screen displayed, press **4** on the touchscreen and then press **Save**.

CALIBRATE SCALE				
4 Number of points at which the scale will be calibrated. 1 = SmartCal		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

2. The display will change to show “To calibrate zero, remove any weight from the scale before proceeding”. Make certain the scale is empty and then press **Save**.

CALIBRATE SCALE				
0 To calibrate zero, remove any weight from the scale before proceeding		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

3. The display will change to show “Working” and after a few seconds change to show the “Known test weight” screen.

CALIBRATE SCALE				
Working To calibrate zero, remove any weight from the scale before proceeding		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

CALIBRATE SCALE

4 = Four Calibration Points, Cont.

4. With the “Known test weight” screen displayed, place the first calibrated test weight (one-fourth of the test load) on the scale, enter the setting for the test weight and then press **Save**.

CALIBRATE SCALE				
250.0 This is the known test weight that is currently on the scale.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

5. The display will change to show “Working” and after a few seconds change to show the “Known test weight” screen.
6. With the “Known test weight” screen displayed, place the second calibrated test weight (half the test load) on the scale, enter the setting for the test weight and then press **Save**.

CALIBRATE SCALE				
500.0 This is the known test weight that is currently on the scale.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

7. The display will change to show “Working” for a few seconds.

CALIBRATE SCALE

4 = Four Calibration Points, Cont.

8. With the “Known test weight” screen displayed, place the third calibrated test weight (full test load) on the scale, enter the setting for the test weight, and then press **Save**.

CALIBRATE SCALE				
1000.0 This is the known test weight that is currently on the scale.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

NOTE: A minimum of 50% of the scale's capacity is required for the full test load, however 70% to 100% is recommended.

9. The display will change to show “Working” for a few seconds and then return to the Settings Page 5 screen.
10. Calibration is now complete.
11. Press **Exit** to exit Setup and return to the Weight screen.

LOAD CELL TRIM

Performing Load Cell Trim

1. With the scale turned on and the Weight screen displayed, press the **Menu** key.
2. The display will change to show the Settings Overview 1 screen.

SETTINGS OVERVIEW 1		>>>
Revision 1.00.11, Display Rev. 1.0.21		
Audit Trail -- Cal=54, Cfg=12		
Range 1: 1000.0 x 0.2		
Weight Units=lb	Height Units=in	
Auto Lock=0 s	Sonar Ht=0.0 cm	
Motion=3 div.	Filter=Off	
OIML=No	ZeroTrack=10/2 d	
USB: SMA	Gravity=0.000000	
Power up zero =No		
Sonar	Exit	Setup

3. Press **Setup** on the touchscreen.
4. The display will change to show the ENTER PASSCODE screen.

ENTER PASSCODE				
Enter passcode to access settings. Press CANCEL to exit.	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

5. Using the 10-key on the touchscreen, enter **64870** and then press **Save**.
6. The display will change to show the Settings Page 1 screen.

SETTINGS	PAGE 1
Model: Wheelchair	
Date: 12/11/2020	
Time: 12:24:44	
Language: English	
<<<	Exit >>>

7. Press >>> to advance to the Settings Page 5 screen.

LOAD CELL TRIM, CONT.

Performing Load Cell Trim, Cont.

SETTINGS	PAGE 5
Calibrate Scale	
Load Cell Trim	
Power up Zero: No	
Auto Locking: 0 sec.	
<<<	Exit
>>>	

8. Select **Load Cell Trim** from the Settings Page 5 screen.

LOAD CELL TRIM		
1: 2.941 mV	-	+
2: 3.334 mV	-	+
3: 3.148 mV	-	+
4: 1.747 mV	-	+
0.00		Exit

9. Place a test weight of at least 10% of the scale capacity on each corner of the scale, one at a time, and note the reading for each corner.
10. Place a test weight on the corner with the lowest reading and adjust the appropriate cell mV reading until the reading agrees with the highest reading obtained in Step 9.
- Press the **+** key to increase the mV reading.
- Press the **-** key to decrease the mV reading.
11. Repeat Step 10 until all corners have the same reading.
12. Press **Exit** to exit Load Cell Trim and return to the Settings Page 5 screen.
13. Press **Exit** again to exit Setup and return to the Weight screen.

Test Weight

Place test weight of at least 10% of scale capacity on each corner of scale, *one at a time*, and note the weight reading of each corner.

WI-FI AND BLUETOOTH 5.0

The Detecto 7550 Wall-Mount Fold-Up Wheelchair Scale has a Wi-Fi and Bluetooth 5.0 wireless transmitter inside the weight display that has been designed to interface the scale to a Wi-Fi network or pair to a Bluetooth-capable device.

The following sections will guide you through the setup and operation of the Wi-Fi and Bluetooth 5.0 features of the scale.

Wi-Fi Features

- Soft Access Point (AP) for setting credentials for Wi-Fi module
- Setup option to select a static or dynamic IP address
- Built-in webserver to display weight, height, and BMI
- TCP/IP connection for continuous output of weight, height, and BMI

WI-FI SETUP

Enable and Configure Wi-Fi Networking

NOTE: Default Network Settings are: Wi-Fi = Off, Bluetooth = Off, and DHCP = On.

1. With the scale turned on and the Weight screen displayed, press the **Menu** key.
2. The display will change to show the Settings Overview 1 screen.

SETTINGS OVERVIEW 1 >>>		
Revision 1.00.11, Display Rev. 1.0.21		
Audit Trail -- Cal=4, Cfg=2		
Range 1: 1000.0 x 0.2		
Weight Units=lb	Height Units=in	
Auto Lock=0 s	Sonar Ht=221.5 cm	
Motion=3 div.	Filter=Off	
OIML=No	ZeroTrack=10/2 d	
USB: SMA	Gravity=0.000000	
Power up zero=No		
Sonar	Exit	Setup

3. Press **Setup** on the touchscreen.
4. The display will change to show the ENTER PASSCODE screen.

ENTER PASSCODE				
Enter passcode to access settings. Press CANCEL to exit.	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

5. Using the 10-key on the touchscreen, enter **64870**, and then press **Save**.

WI-FI SETUP, CONT.

Enable and Configure Wi-Fi Networking, Cont.

6. The display will change to show the Settings Page 1 screen.

SETTINGS		PAGE 1
Model: Wheelchair		
Date: 12/11/2020		
Time: 12:24:44		
Language: English		
<<<	Exit	>>>

7. Press >>> to advance to the Settings Page 7 screen.

SETTINGS		PAGE 7
Bluetooth: Off		
Wi-Fi: Off		
SSID: Dynex617		
<<<	Exit	>>>

The SSID: value will not be shown if Wi-Fi: = Off.

The page advance will not be shown if Wi-Fi: = Off.

8. Touch **Wi-Fi**: to open a selection screen to turn the Wi-Fi wireless transmitter “On”. Press **1** on the entry screen, and then press **Save**.

9. Touch **SSID**: to open a screen that will prompt you to CLEAR SSID. Press **1** on the entry screen, and then press **Save** to clear the Wi-Fi credentials.

CLEAR SSID				
0	1	2	3	
1= Clear wireless profile	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

WI-FI SETUP, CONT.

Enable and Configure Wi-Fi Networking, Cont.

10. Press >>> to advance to the Settings Page 8.

SETTINGS		PAGE 8
DHCP: On		
IP: 192.168.0.133		
NM: 255.255.255.0		
GW: 192.168.0.1		
<<<	Exit	

The settings for NM:
and GW: will not be
shown if DHCP = On.

11. Touch **DHCP**: to open an entry screen to allow you to select the DHCP setting. This setting selects whether the Wi-Fi wireless transmitter will use a dynamic IP address assigned by a DHCP server or a static IP address. Consult your network administrator for the proper selection.

Using the numeric keys, enter a new setting, 0 = Static IP (Off) or 1 = DHCP (On), and then press **Save**.



NOTE: If the setting for **DHCP**: = **Off**, the settings for **NM**: (Netmask) and **GW**: (Gateway Address) will be shown on the touchscreen.

12. Touch **NM**: to open an entry screen to enter the Wi-Fi network Netmask for the network the scale will be connected to, and then press **Save**.

The Netmask of the scale should match the Netmask of the other computers on your network. The format for the Netmask is ### . ### . ### . # (e.g., 255.255.255.0).

13. Touch **GW**: to open an entry screen to enter the Wi-Fi network Gateway Address for the network the scale will be connected to, and then press **Save**.

The format for the Gateway address is: # . # . # . # (e.g., 192.168.0.1).

14. Press **Exit** to exit Setup and return to the Weight screen.

15. Proceed to the Configure Wi-Fi Network Module section.

WI-FI SETUP, CONT.

Configure Wi-Fi Network Module

Without Wi-Fi credentials, the Wi-Fi module will enter listening mode, in which it functions as a Wi-Fi access point. The SSID of the AP is of the form “REDBIRD_WIFI_XX:XX”, where XX:XX is the last 4-digits of the MAC address. Use a Wi-Fi device, such as a Smartphone, tablet, or laptop to connect to the scale. If the connection fails, try moving the scale to another location or cycling power to the scale.

When the connection has been made, open a web browser, and then go to the location **redbird.com**. The “Configure Wi-Fi” page should appear.



2:54

redbird.com/?refresh=S

Cardinal
DETECTO

Configure Wi-Fi

Network Name

Password

Device Name

Connect

Available Networks **Scan**

SSID	Mac Address	Signal Strength
BLUEROOM	54:75:D0:B3:0D:AF	-51
Dynex617	10:DA:43:82:56:2C	-52

Click on the **Scan** button to see a list of available Wi-Fi networks.

WI-FI SETUP, CONT.

Configure Wi-Fi Network Module, Cont.



The screenshot shows a mobile browser interface for configuring a Wi-Fi network. At the top, the time is 2:55 and the URL is redbird.com/?refresh=S. The main heading is "Cardinal DETECTO Configure Wi-Fi". There are three input fields: "Network Name" with the value "Dynex617", "Password" with masked characters ".....", and "Device Name" with the value "icon scale". A red "Connect" button is below the fields. Underneath is a section for "Available Networks" with a "Scan" button. A table lists two networks: "BLUEROOM" with Mac Address "54:75:D0:B3:0D:AF" and Signal Strength "-51", and "Dynex617" with Mac Address "10:DA:43:82:56:2C" and Signal Strength "-52".

SSID	Mac Address	Signal Strength
BLUEROOM	54:75:D0:B3:0D:AF	-51
Dynex617	10:DA:43:82:56:2C	-52

Enter the Network Name (SSID), Password, and Device Name (optional) for the network you wish to connect to. Note that the Device Name can be anything.

Click on the **Connect** button and the module should try to connect to that network. This may take several seconds. The module will store these network credentials and connect to this network each time the scale is turned on.

WI-FI SETUP, CONT.

Changing the Network Credentials

1. With the scale turned on and the Weight screen displayed, press the **Menu** key.
2. The display will change to show the Settings Overview 1 screen.
3. Press **Setup** on the touchscreen.
4. The display will change to show the ENTER PASSCODE screen.
5. Using the 10-key on the touchscreen, enter **64870** and then press **Save**.
6. The display will change to show the Settings Page 1 screen.
7. Press >>> to advance to the Settings Page 7 screen.
8. Touch **SSID:** on the touchscreen.
9. You will be prompted to clear the network credentials.

CLEAR SSID				
0 1= Clear wireless profile	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

10. Press **1** on the entry screen, and then press **Save** to clear the credentials.
11. Press **Exit** to exit Setup, and return to the Weight screen.
12. Repeat the steps in the Configure Wi-Fi Network Module on the previous page to set the new network credentials.

Display the Wi-Fi Network Settings

1. With the scale turned on and the Weight screen displayed, press the **Menu** key.
2. The display will change to show the Settings Overview 1 screen.
3. Press >>> to advance to the Settings Overview 2 screen.
4. The scale's Wi-Fi network settings will be shown.
5. Press **Exit** to exit Settings Overview 2 and return to the Weight screen.

You should see the status of the Wi-Fi on the Settings Overview 2 screen. If a scan of Wi-Fi networks shows the "REDBIRD_WIFI_XX:XX" AP, then the module is in listening mode. Refer to the **Configure Wi-Fi Network Module** section for the procedure to set the Wi-Fi credentials.

WIFI OPERATION

Web Server

While the scale is connected to a network you can access the hosted web page. To view the web page, proceed to the IP address of the Redbird module with “/webserver.html” added to it. For example, if the IP address is “192.168.0.5”, enter **192.168.0.5/webserver.html** and a page like the following should appear.



WIFI OPERATION, CONT.

TCP/IP Connection

Continuous output is available by TCP/IP connection to the scale's IP address at port 10001.

- The scale will transmit a single set of weight data each time the SMA weight request <LF>W<CR> is received.
- Each time the SMA weight request <LF>R<CR> is received, the scale will transmit weight data continually until another SMA command is received.

SMA format for both command <LF>W<CR> and <LF>R<CR>.

<LF><s><r><n><m><f><xxxxxx.xxx><uuu><CR>

Where:

LF =	Line feed (hex 0A) = Start of response message
s =	Scale Status definition
	Z = Center of Zero <xxxxxx.xxx>= 0.000
	O = Over Capacity <xxxxxx.xxx>= +weight
	U = Under Capacity <xxxxxx.xxx>= -weight
	E = Zero Error (clears when the condition clears)
	<space> = None of the above conditions NOTE: For "E" error condition <xxxxxx.xxx>= _____ (center dashes) and "Z", "O", "U" is overridden
r =	Range ("1", "2", "3", etc.) always "1" for a single range
n =	Mode of Operation (Gross/Net status)
	G = Gross normal weight
	T = Tare weight (in response to "M" command)
	N = Net normal weight
	g = gross weight in high-resolution
	n = net weight in high-resolution
m =	Motion status
	M = Scale in Motion
	<space> = Scale not in Motion
f =	Future = Reserved for future or custom use
xxxxxx.xxx =	Weight with a decimal point if necessary
uuu =	Units = e. g. lb, kg
CR =	Carriage Return (hex 0D) = End of response message

SMA Commands

Once a TCP/IP connection has been made to the scale, you can issue SMA commands to it. The scale will respond to the SMA commands in the format shown in the Response column of the WI-FI AND BLUETOOTH SMA COMMANDS table on pages 55 and 56 of this manual.

BLUETOOTH LOW ENERGY (BLE)

The Detecto 7550 Wall-Mount Fold-Up Wheelchair Scale has a wireless transmitter inside the scale weight indicator that can be configured for Bluetooth Low Energy (BLE). When possible, BLE standard specifications are used (those that are adopted by the Bluetooth SIG). Custom services were created to request indicator and scale information whose communication protocol was developed by the Scale Manufacturers Association (SMA).

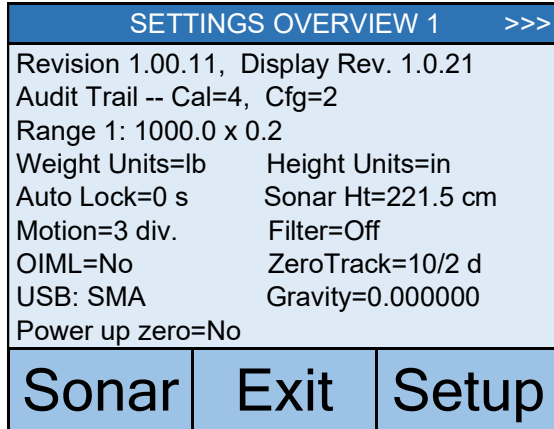
Features Available with BLE

- Device Information Service
 - Manufacturer Name
 - Model Number
 - Software Revision
- Battery Service
 - Battery Level Percentage
- Weight Scale Service
 - Weight Measurement
 - Weight Scale Feature
- Custom Services
 - Detecto SMA Service

Enable Bluetooth (BLE) Networking

NOTE: Default Network Settings are: Wi-Fi = Off, Bluetooth = Off, and DHCP = On.

1. With the scale turned on and the Weight screen displayed, press the **Menu** key.
2. The display will change to show the Settings Overview 1 screen.



3. Press **Setup** on the touchscreen.

BLUETOOTH LOW ENERGY (BLE), CONT.

Enable Bluetooth (BLE) Networking, Cont.

4. The display will change to show the ENTER PASSCODE screen.

ENTER PASSCODE				
Enter passcode to access settings. Press CANCEL to exit.		1	2	3
		4	5	6
		7	8	9
SAVE	CANCEL	0	.	DEL

5. Using the 10-key on the touchscreen, enter **64870**, and then press **Save**.

6. The display will change to show the Settings Page 1 screen.

SETTINGS		PAGE 1
Model: Wheelchair		
Date: 12/11/2020		
Time: 12:24:44		
Language: English		
<<<	Exit	>>>

7. Press >>> to advance to the Settings Page 7 screen.

SETTINGS		PAGE 7
Bluetooth: Off		
Wi-Fi: On		
SSID: Dynex617		
<<<	Exit	>>>

8. Touch **Bluetooth**: to open a selection screen to turn the Bluetooth wireless transmitter "On".
Press 1 on the entry screen, and then press **Save**.

9. Press **Exit** to exit Setup and return to the Weight screen.

10. The scale is now ready to pair with a Bluetooth-capable device.

BLUETOOTH LOW ENERGY (BLE), CONT.

Enable Bluetooth (BLE) Networking, Cont.



IMPORTANT! If an attempt is made to turn Bluetooth (BLE) off when a device is connected to the scale, the display will show the error message Error - BLE Off.

SETTINGS		PAGE 7
Error - BLE Off		
Wi-Fi: On		
SSID: Dynex617		
<<<	Exit	>>>

This message will be shown until <<< or >>> are pressed to change to a different settings page, **Exit** is pressed to return to the Weight screen, or the error message Error - BLE Off is touched, and then **CANCEL** is selected on the Bluetooth selection screen.

Note that at this time, Bluetooth (BLE) is still on, only the message has been cleared.

To turn Bluetooth (BLE) off, the device must be disconnected from the scale or the scale must be turned "Off" and back "On".

Bluetooth Pairing

To pair a Bluetooth-capable device with the scale, select the name of the scale from the list of available connections: Icon Scale XX:XX:XX:XX:XX:XX. Note that the X's represents the MAC address of the BLE wireless transmitter in the scale's weight indicator.

NOTE: If there are multiple 7550 scales nearby, perform the steps below to proceed to the Settings Overview 2 page to view the scale's Bluetooth Advertisement name (BLE Adv:).

BLE Adv: Icon Scale XX:XX:XX:XX:XX:XX

1. With the scale turned on and the Weight screen displayed, press the **Menu** key.
2. The display will change to show the Settings Overview 1 screen.
3. Press >>> to advance to the Settings Overview 2 screen.
4. The scale's Bluetooth setting and Bluetooth Advertisement name will be shown.
5. Press **Exit** to exit Settings Overview 2 and return to the Weight screen.

When a stable reading is achieved, and if the scale is paired with a Bluetooth-capable device, the reading will transmit when the device sends a request to receive data.

INTERFACING TO BLE

Note: 16-bit (4-digit) UUID's are adopted standards. 128-bit (32-digit) UUID's are custom services or characteristics.

Standard Services per Bluetooth SIG

Reference adopted specifications at <https://www.bluetooth.com/specifications/gatt>

Device Information Service (0X180A)

Characteristics	Number	Value(s)	Attributes
Manufacturer Name String	0x2A29	"Detecto"	READ
Model Number String	0x2A24	"Icon"	READ
Software Revision String	0x2A28	"1.0.XX" software of scale	READ

Battery Service (0x180F)

Characteristics	Number	Value(s)	Attributes
Battery Level	0x180F	0x00 – 0x64 (uint16), represents 0 – 100 percent	READ

Weight Scale Service (0X181D)

Characteristics	Number	Value(s)	Attributes
Weight Measurement	0x2A9D	<8bit Flag><uint16 weight><uint16 bmi> <uint16 ht> Supported Flags: Flag bit0: 0 = SI, 1 = Imperial bit3: 0 = BMI and Height not present 1 = BMI and Height present bit4: 0 = Not below zero* 1 = Below zero* SI: Wt is KG with resolution 0.0005 Ht is meters with resolution 0.001 Imperial: Wt is lbs with resolution 0.01 Ht is inches with resolution 0.1	READ INDICATE
Weight Scale Feature	0x2A9E	NOT YET IMPLEMENTED	

- * • If the weight is below zero (0), the weight you will see is zero (0).
- If the weight is below zero (0), bit 4 of Weight Measurement will be set to 1, otherwise, bit 4 is set to zero (0).

NOTE: Maximum weight value displayed is 655.35 in both pounds (lb) and kilograms (kg).

BLUETOOTH INTERFACE STANDARD PROTOCOLS

Bluetooth Characteristic – Weight_Measurement: 0x2A9D

Widely accepted BLE GATT profiles are used to transmit data to other devices/software that have implemented these profiles. Data is passed via BLE using the GATT characteristic “Weight Measurement” (0x2A9D) as defined by Bluetooth SIG. Refer to the data table below about Weight Measurement Characteristics.

Weight_Measurement: 0x2A9D

NAMES	FIELD REQUIREMENTS	FORMAT	MIN. VALUE	MAX. VALUE	ADDITIONAL INFORMATION										
					BIT FIELD										
				Bit	Size	Name	Definition								
							Key	Value	Requires						
Flags	Mandatory	8 bit	N/A	N/A	0	1	Measurement Units	0	SI (Weight and Mass in Units of Kilogram (kg) and Height in Units of Meter)	C1					
								1	Imperial (Weight and Mass in Units of Pound (lb) and Height in Units of inch (in))	C2					
							1	1	Time Stamp Present	0	False				
										1	True	C3			
							2	1	User ID Present	0	False				
										1	True	C4			
							3	1	BMI and Height Present	0	False				
										1	True	C5			
4	1	Below Zero	0	Not Below Zero											
			1	Below Zero											
Weight - SI	C1	uint16	N/A	N/A	Information: Unit is in kilograms with a resolution of 0.005 and is determined when bit 0 of the Flags field is set to 0. Unit: org.bluetooth.unit.mass.kilogram Exponent: Decimal, -3 Multiplier: 5										
Weight - Imperial	C2	uint16	N/A	N/A	Information: Unit is in pounds with a resolution of 0.01 and is determined when bit 0 of the Flags field is set to 1. Unit: org.bluetooth.unit.mass.pound Exponent: Decimal, 02.										
Time Stamp	C3		N/A	N/A	Information: Smallest unit in seconds Unit: org.bluetooth.characteristic.date.time										
User ID	C4	uint8	N/A	N/A	The special value of 0xFF (255 Decimal) for User ID represents "unknown user". Information: Unit is unitless with a resolution of 1 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Key</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td></td> <td>255</td> <td>Unknown user</td> </tr> </tbody> </table> Unit: org.bluetooth.unit.unitless Exponent: Decimal, 0						Key	Value		255	Unknown user
	Key	Value													
	255	Unknown user													
BMI	C5	uint16	N/A	N/A	Information: Unit is unitless with a resolution of 0.1 Unit: org.bluetooth.unit.unitless Exponent: Decimal, -1										
Height - SI	C1 C5	uint16	N/A	N/A	Information: Unit is in meters with a resolution of 0.001 and is determined when bit 0 of the Flags field is set to 0. Unit: org.bluetooth.unit.length.meter Exponent: Decimal, -3										
Height - Imperial	C2 C5	uint16	N/A	N/A	Information: Unit is in inches with a resolution of 0.1 and is determined when bit 0 of the Flags field is set to 1. Unit: org.bluetooth.unit.length.inch Exponent: Decimal, 0-1										

BLUETOOTH INTERFACE STANDARD PROTOCOLS, CONT.

Custom Services

Detecto SMA Service (0X907A0000-8699-47DD-AB30-D7AAD5F83E54)

All custom characteristics have the same base number of the Service UUID 0x907aXXXX-8699-47dd-ab30-d7aad5f83e54 where the XXXX part distinguishes the service.

Characteristics	Sub Number	Value(s)	Attributes
Rx Cmd	0001	SMA string received by scale (up to 20 chars)	WRITE
Tx Cmd	0002	SMA string sent by scale (up to 20 chars)	NOTIFY

SMA Commands

The SMA commands shown in the WI-FI AND BLUETOOTH SMA COMMANDS table on pages 55 and 56 of this manual can be sent using the Detecto SMA Service's Rx Cmd characteristic (0x907a0001-8699-47dd-ab30-d7aad5f83e54).

Responses will put out a notification on the Tx Cmd characteristic (0x907a0002-8699-47dd-ab30-d7aad5f83e54).

WI-FI AND BLUETOOTH SMA COMMANDS

The format used to send SMA commands to the scale is:

<LF>command<CR>

Where “command” is the ASCII letter(s), or the Hex Rep. listed in the table below. For example, <LF>Z<CR> or 0A5A0D would send the command to zero the scale. Note that the response of each command is listed under the Response column of the table.



Any invalid command sent will return a *question mark* for a response. For example, sending a <LF>XZ<CR> will return 0A 3F 0D (<LF>?<CR>).


Command	Hex Rep.	Response
Z – zero scale	0A5A0D	None. You should see scale zero itself.
D – scale diagnostics	0A440D	0A 20 20 20 20 0D = means there are no errors, EEPROM error will show an E in the second space and C will show in the third space if there is a calibration error. 20 = SPACE
W – request weight	0A570D	0A 5A 31 47 20 20 30 30 30 30 2E 30 30 6C 62 0D = Z1G 000000.00lb
H – request high resolution weight	0A480D	0A 5A 31 67 20 20 30 30 30 30 2E 30 31 6C 62 0D = Z1g 000000.01lb
A – about scale first line	0A410D	0A 53 4D 41 3A 32 2F 31 2E 31 0D = SMA:2/1.1
B – about scale scroll	0A420D	Each time sent you will get the next line of information until there is no longer any information. 1. 0A 4D 46 47 3A 44 65 74 65 63 74 6F 0D = MFG:Detecto 2. 0A 4D 46 44 3A 41 70 65 78 0D = MOD:lcon 3. 0A 52 45 56 3A 31 2E 30 2E 31 34 0D = REV:X.X.XX 5. 0A 45 4E 44 3A 0D = END: 6. If B is sent again you will get the unknown command response until the A command is sent again. 0A 3F 0D = ?
I – scale information	0A490D	0A 53 4D 41 3A 32 2F 31 2E 31 0D = SMA:2/1.1

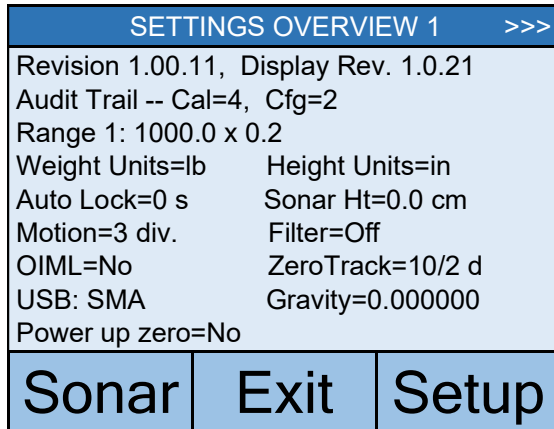
WI-FI AND BLUETOOTH SMA COMMANDS, CONT.

Command	Hex Rep.	Response
N – scale information scroll	0A4E0D	<p>Each time sent you will get the next line of scale information until there is no longer any information.</p> <p>1. 0A 54 59 50 3A 53 0D = TYP:S</p> <p>2. 0A 43 41 50 3A 20 6C 62 3A 36 30 30 2E 30 3A 32 3A 31 0D = CAP: lb:600.0:2:1, this depends on the settings of the lcon. 600.0 – Capacity, 2 – Interval, & 1 – Decimal</p> <p>3. 0A 43 4D 44 3A 48 52 49 4E 58 0D = CMD: HRINX</p> <p>4. 0A 45 4E 44 3A 0D = END:</p> <p>5. If N is sent again you will get the unknown command response until the I command is sent again. 0A 3F 0D = ?</p>
R – repeat displayed weight continuously	0A520D	<p>0A 5A 31 47 20 20 30 30 30 30 30 2E 30 30 6C 62 0D = Z1G 000000.00lb, you should get this continuously until another SMA command is received.</p>
XB – battery level percentage	0A58420D	<p>0A 38 36 2E 32 35 0D = 86.25</p>

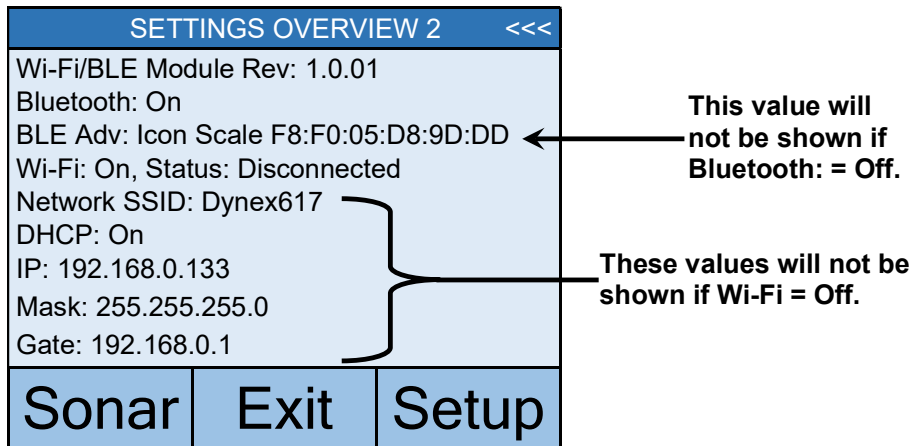
DISPLAY SCALE WI-FI AND BLUETOOTH SETTINGS

To View the Settings:

1. Press the  key to turn the scale on.
2. The scale will show the Detecto logo briefly and then change to the Weight screen.
3. With the Weight screen displayed, press the **Menu** key.
4. The display will change to show the Settings Overview 1 screen.



5. Press >>> on the touchscreen to advance to the Settings Overview 2 screen.



6. Press **Exit** to exit the Settings Overview screen and return to the Weight screen.

ERROR AND OPERATION MESSAGES

The Detecto 7550 Wall-Mount Fold-Up Wheelchair Scale is equipped with diagnostic software that tests various portions of the scale's circuitry and verifies proper operation. Should a problem be detected, an error or status message will be displayed. The following lists these messages and their meaning.

AUTO LOCKED

This message appears if the weight/height has been automatically locked.

BELOW ZERO

The scale weight reading is below zero.

CAL REQUIRED

The indicator requires calibration. Weight will show as dashes. Consult your scale service representative.

CENTER ZERO

The scale weight reading is at the center of zero.

ERROR CANNOT ZERO

Scale cannot zero due to motion on scale.

LOCKED

This message appears if the weight/height has been manually locked.

MOTION

The scale is in motion based on the motion range setting.

OVER CAPACITY

The scale weight exceeds scale capacity.

OVERFLOW ERROR

This message appears if there are too many characters to display on the screen.

BEFORE YOU CALL FOR SERVICE

PROBLEM	POSSIBLE SOLUTIONS
The display does not turn on.	<p>AC Operation:</p> <ul style="list-style-type: none"> • Is the AC power supply fully inserted into the wall receptacle? • Check the wall receptacle for proper AC power. Try another electrical appliance in the same receptacle. Does it work? • Check the circuit breaker. • Has there been a power failure? <p>Battery operation:</p> <ul style="list-style-type: none"> • Check if the batteries are installed and correctly. • If Alkaline, remove the old batteries and replace them with new ones. • If NI-CAD or NiMH, remove the discharged batteries and replace them with fully charged ones. Place the discharged batteries in an external charger to recharge.
Incorrect weight is displayed	Make sure the weighing platform is not touching an adjacent object. Have proper operation procedures been followed?
Weight is not displayed	Refer to Error and Operation Messages.

CARE AND CLEANING

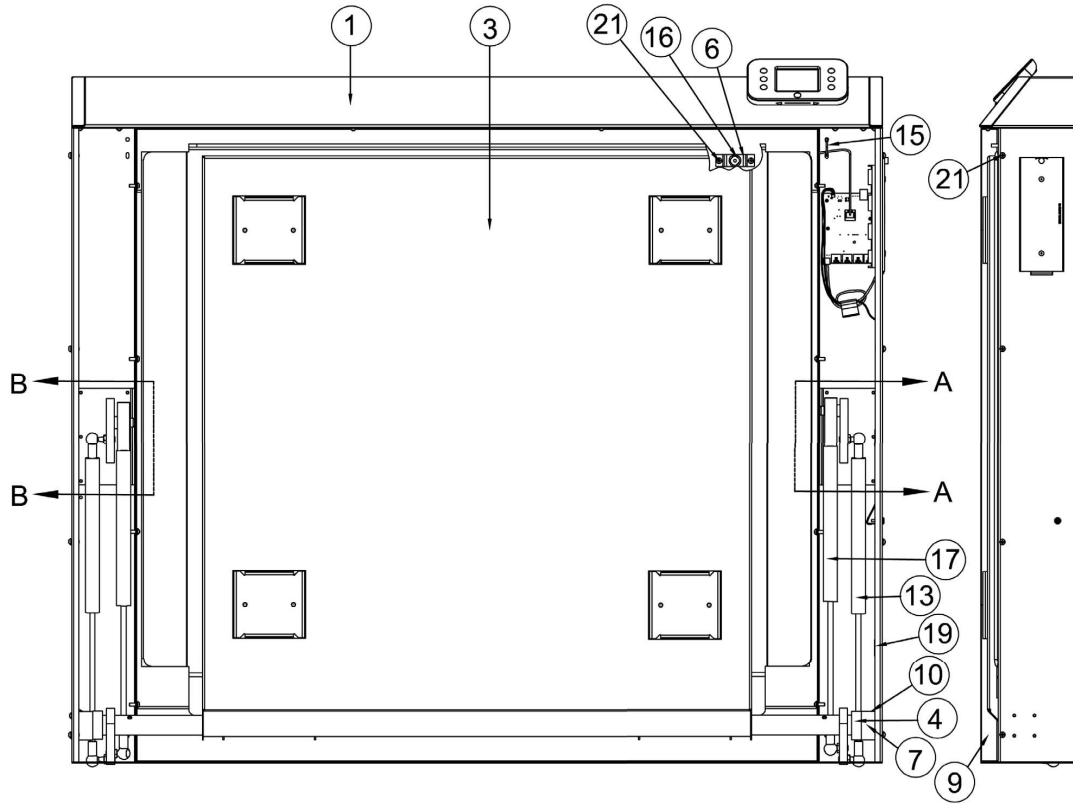


NOTE: The Detecto 7550 Wall-Mount Fold-Up Wheelchair Scale contains no user-serviceable parts and maintenance should be limited to cleaning it thoroughly on a routine basis and battery replacement as required.

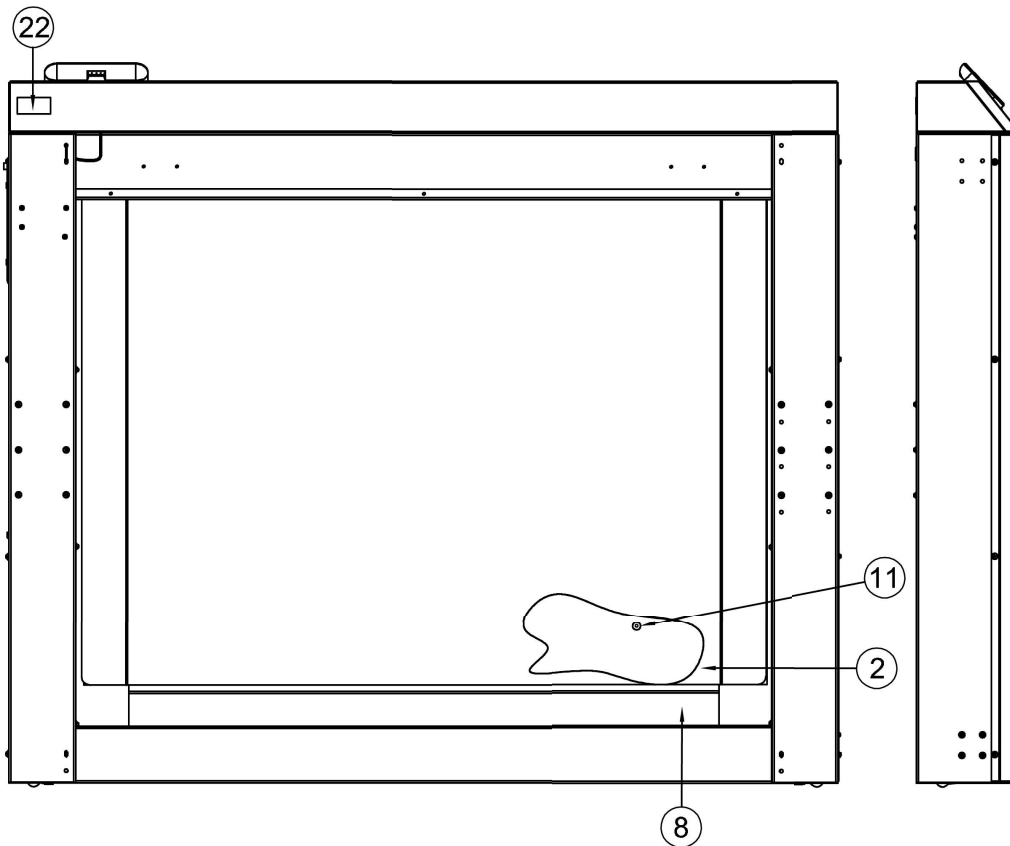
- Always remove the power before cleaning.
- DO NOT pour or spray water directly on the indicator to clean. The indicator is not waterproof and covering it with water will damage it and void the warranty.
- DO NOT use wire brushes, abrasives, or cleaning tools such as steel pads and scrapers, which will scratch the surface. Instead, use soft cloths or plastic scouring pads for cleaning.
- DO clean the indicator with a damp soft cloth and mild non-abrasive detergent.
- When possible, use treated water. Hard water can leave behind deposits. Soft water is much gentler on the indicators and painted steel's surface.
- Avoid the use of acetone, thinner or other volatile solvents, and abrasive type cleaners for cleaning. If required, a mild solvent such as mineral spirits can be used to remove oil, grease, tars, wax, and similar substances. Use a cloth dampened with mineral spirits, and apply only to contaminated areas. Follow up the use of this mild solvent with detergent cleaning and rinsing.

PARTS IDENTIFICATION, CONT.

FINAL ASSEMBLY – FRONT VIEW (SHOWN WITHOUT COVERS)

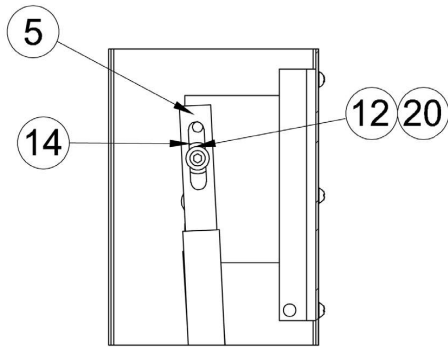


FINAL ASSEMBLY – REAR VIEW



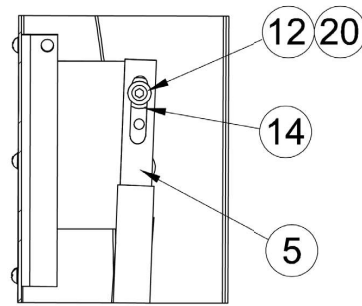
PARTS IDENTIFICATION, CONT.

FINAL ASSEMBLY – FRONT VIEW SECTION B-B and SECTION A-A



SECTION B-B

USE MIDDLE HOLE FOR TOP
INSIDE CYLINDER MOUNTING
ON SIDE THAT HAS CYLINDER
MOUNTED TO THE MIDDLE
HOLE ON THE SUPPORT TRAY.



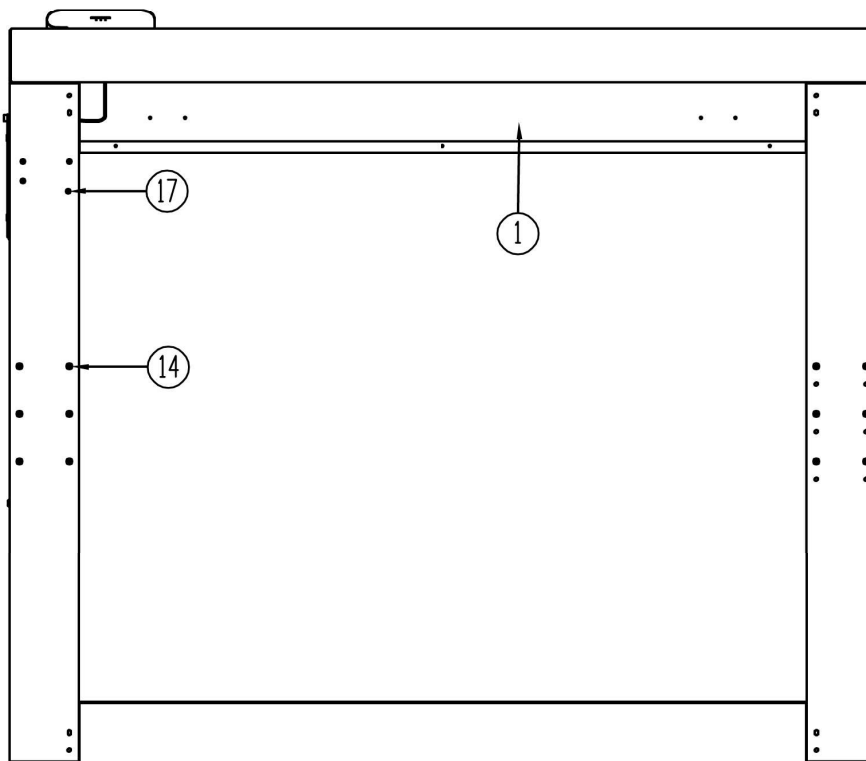
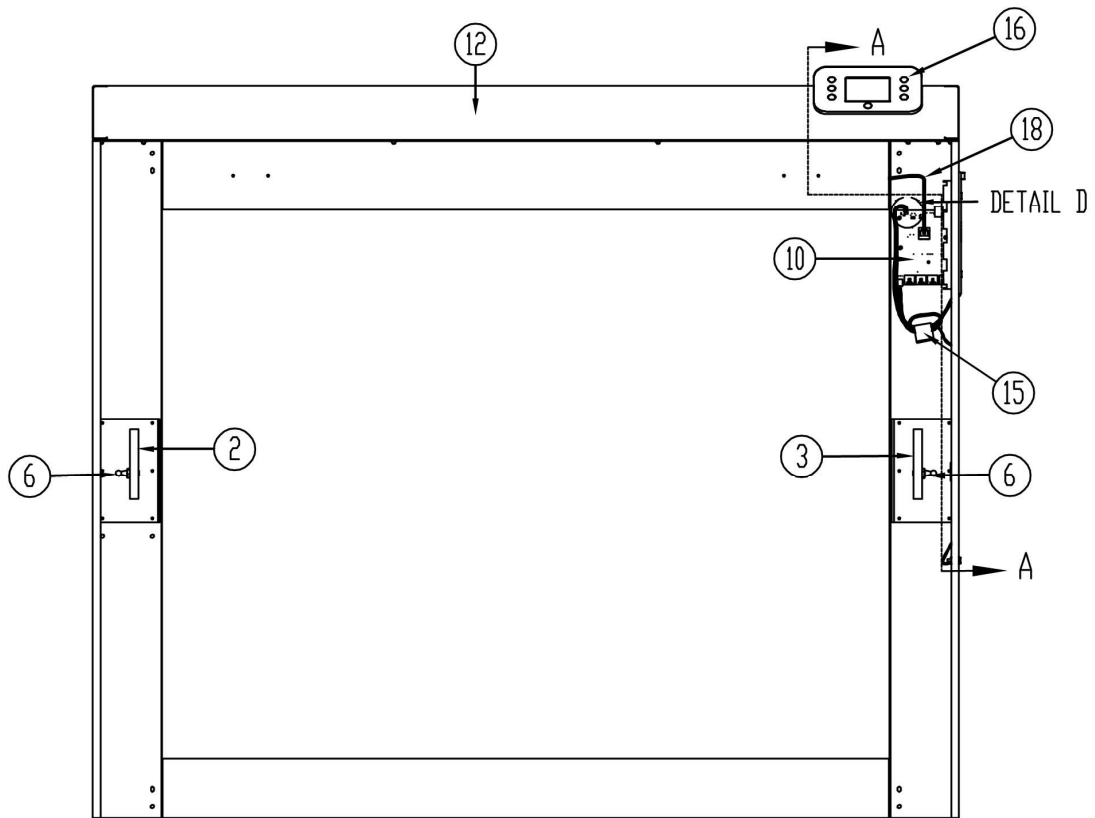
SECTION A-A

USE TOP HOLE FOR TOP INSIDE
CYLINDER MOUNTING ON SIDE THAT
HAS CYLINDER MOUNTED TO HOLE
CLOSEST TO THE TUBE OF THE
SUPPORT TRAY.

Item	Qty.	Part Number	Description
1	1	0065-0844-0A	FRAME ASSEMBLY
2	1	0065-0846-08	MAT-DECK, 7550 GRAY
3	1	0065-0843-0A	SUPPORT TRAY ASSEMBLY
4	2	0065-B610-08	BUSHING
5	2	0065-B613-08	CYLINDER SLIDE
6	2	0065-B621-18	BUMPER MOUNT
7	2	0065-C609-08	PIVOT BLOCK
8	1	0065-0840-08	WEIGHBRIDGE, NO WC STOPS, 7550
9	2	0065-0862-08	FRAME COVER
10	2	6021-1058	SCW TRUSS-HEAD MACHINE-SCW 10-32 X .375
11	4	6021-1801	SCW FLAT-HEAD, SOCKET CAP .25-20 X .375 BLACK OXIDE
12	2	6021-1801	SCW SHOULDER SOCKET HEAD 5/16-18 X 1.0"
13	2	6031-0219	CYLINDER, GAS SPRING, 191 LBS, TWO SOCKET, 8 INCH STROKE
14	2	6680-0021	SPACER NYLON 1.000 OD X .450 ID X .219 LONG
15	1	6980-0014	CABLE TIE, 4"
16	2	8529-B215-08	SUPPORT, TRAY
17	2	6031-0221	CYLINDER, GAS SPRING, 191 LBS, ONE SOCKET, 8 INCH STROKE
18	.001	6050-3049	GREASE, FOOD GRADE, MOLYKOTE G-4500 14oz
19	1	6610-5007	CABLE CLIP 1" x 1"
20	.001	6560-1125	ADHESIVE LOCTITE 290 THRD LCKR, WICKING
21	24	6021-1006	SCW ROUND-HEAD SELF-TAP 10-32 X .500 S.S.
22	1	593GR986	SERIAL TAG ASSEMBLY

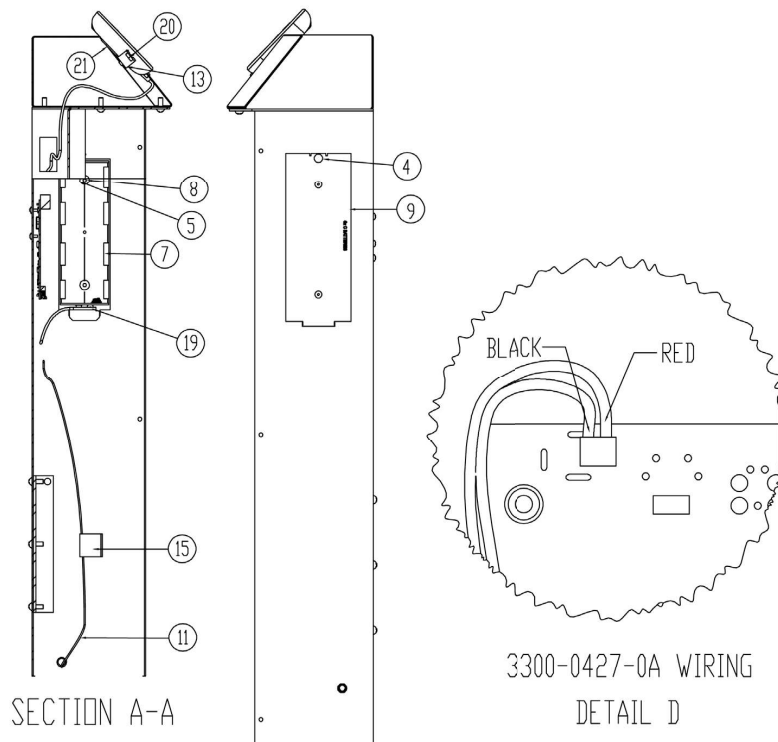
PARTS IDENTIFICATION

FRAME ASSEMBLY, 0065-0844-0A



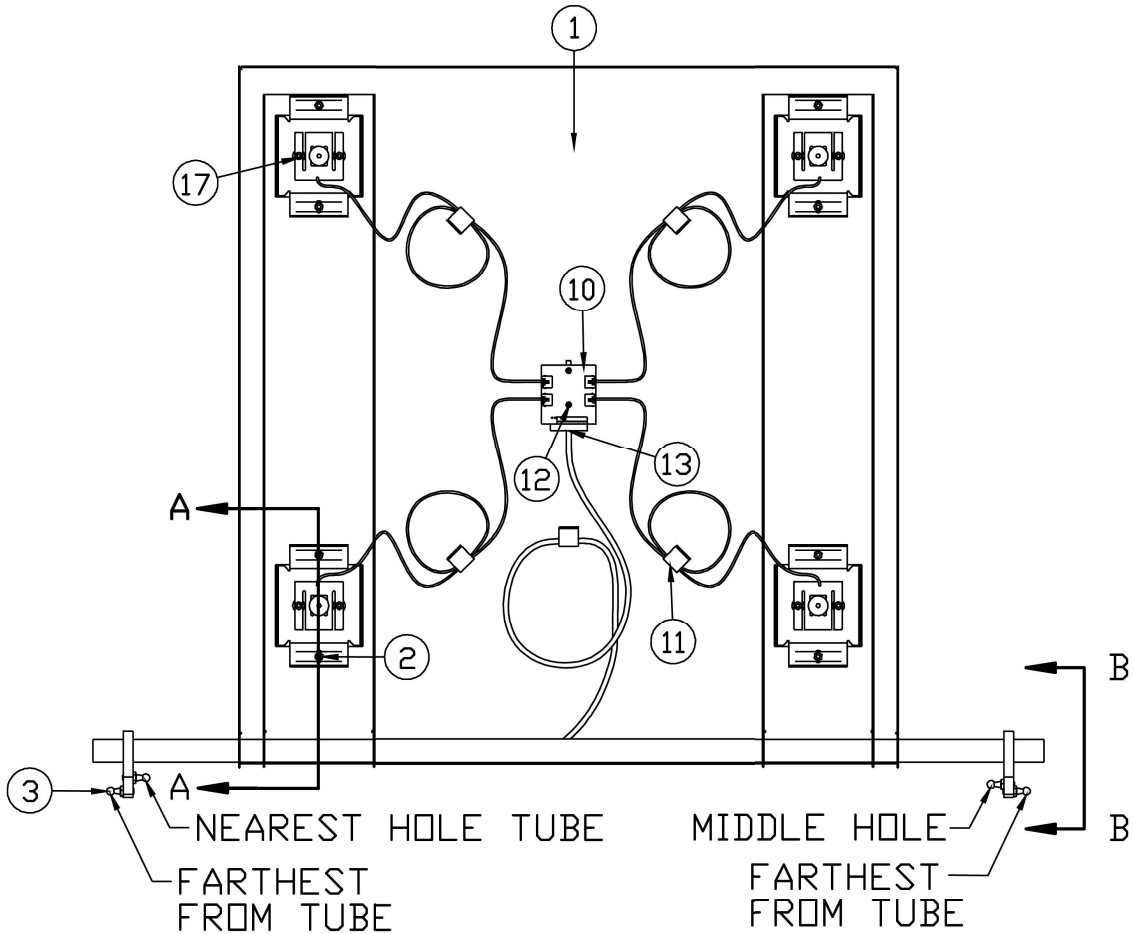
PARTS IDENTIFICATION, CONT.

FRAME ASSEMBLY, 0065-0844-0A – SECTION A-A and DETAIL D



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	0065-0841-0A	FRAME WELDMENT
2	1	0065-C624-0A	CYLINDER MOUNT WELDMENT LEFT
3	1	0065-C624-1A	CYLINDER MOUNT WELDMENT RIGHT
4	1	6021-1065	SCREW, THUMB, MACHINE-SCREW, 06-32 X .375
5	2	6024-0126	WASHER FLAT FOR 5/32 POP RIVET
6	2	6031-0220	BALL STUD, GAS SPRING, 13 MM DIA, 5/16 - 18
7	1	6610-5119	BATTERY HOLDER, 6 "C" CELL, 9V SNAP CONNECTOR
8	2	6680-0214	RIVET POP, BH AL 5/32 DIA x .126-.187 GR
9	1	8555-0529-18	BATTERY COVER, 7550 GRAY
10	1	3300-0321-4A	PCB ASS'Y 855/7550 ANALOG/CONTROLLER
11	1	3300-0427-0A	CABLE, POWER JACK 7550
12	1	0065-0856-0A	TOP COVER WITH 855 MOUNT WELDMENT
13	1	0065-0855-08	ICON MOUNTING STRAP FOR 7550
14	20	6021-1006	SCW ROUND-HEAD SELF-TAP, 10-32 X .500 S.S.
15	2	6610-5007	CABLE CLIP 1" X 1"
16	1		SUB-ASSY, DISPLAY, 7550
17	4	6021-0654	SCREW, PAN-HEAD, MACHINE SCW, 06-32 X .250
18	1	3300-0365-0A	CONTROLLER TO DISPLAY CABLE
19	1	3300-0366-0A	CABLE: BATTERY
20	2	6013-0295	NUT, #10-32 HEX, ZINC PLATED
21	2	6021-1293	SCREW, FLAT-HEAD, THREAD CUTTING TYPE 25, #4-24 X 5/16, PHILLIP DRIVE, ZINC PLATED

PARTS IDENTIFICATION, CONT.
SUPPORT TRAY ASSEMBLY, 0065-0843-0A

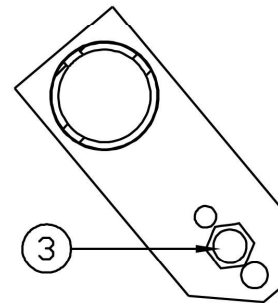
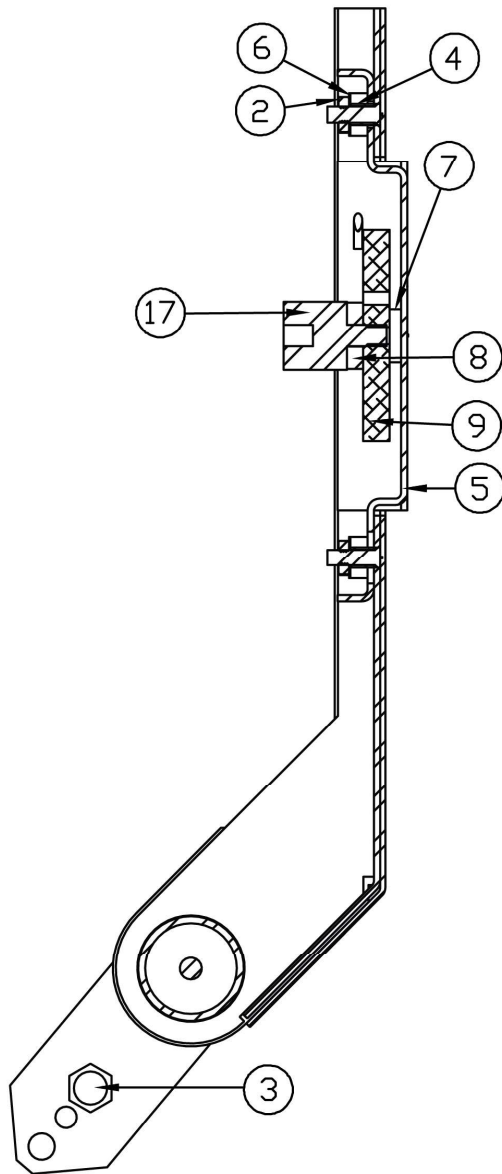


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	0065-0842-0A	SUPPORT TRAY WELDMENT
2	8	6013-0295	NUT #10-32 HEX Z/P
3	4	6031-0220	BALL STUD, GAS SPRING, 13 MM DIA, 5/16" - 18
10	1	0065-0859-0A	7550 LOAD CELL WIRING EXTENDER PCB
11	5	6610-5007	CABLE CLIP 1" x 1"
12	2	6021-0654	SCW PAN-HEAD. MACHINE-SCW 06-32X.250
13	1	3300-0367-0A	LOAD CELL CABLE, 7550-855
17	8	6013-0255	NUT #8-32 Z/P

PARTS IDENTIFICATION, CONT.

SUPPORT TRAY ASSEMBLY, 0065-0843-0A

SECTION A-A and SECTION B-B

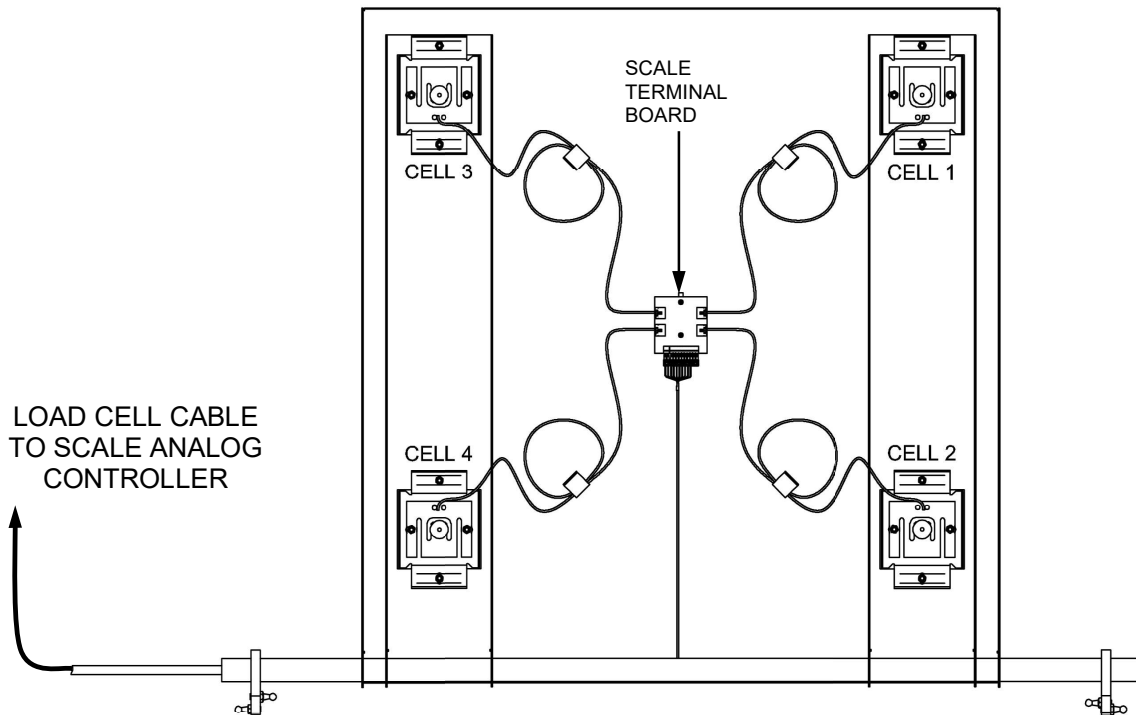
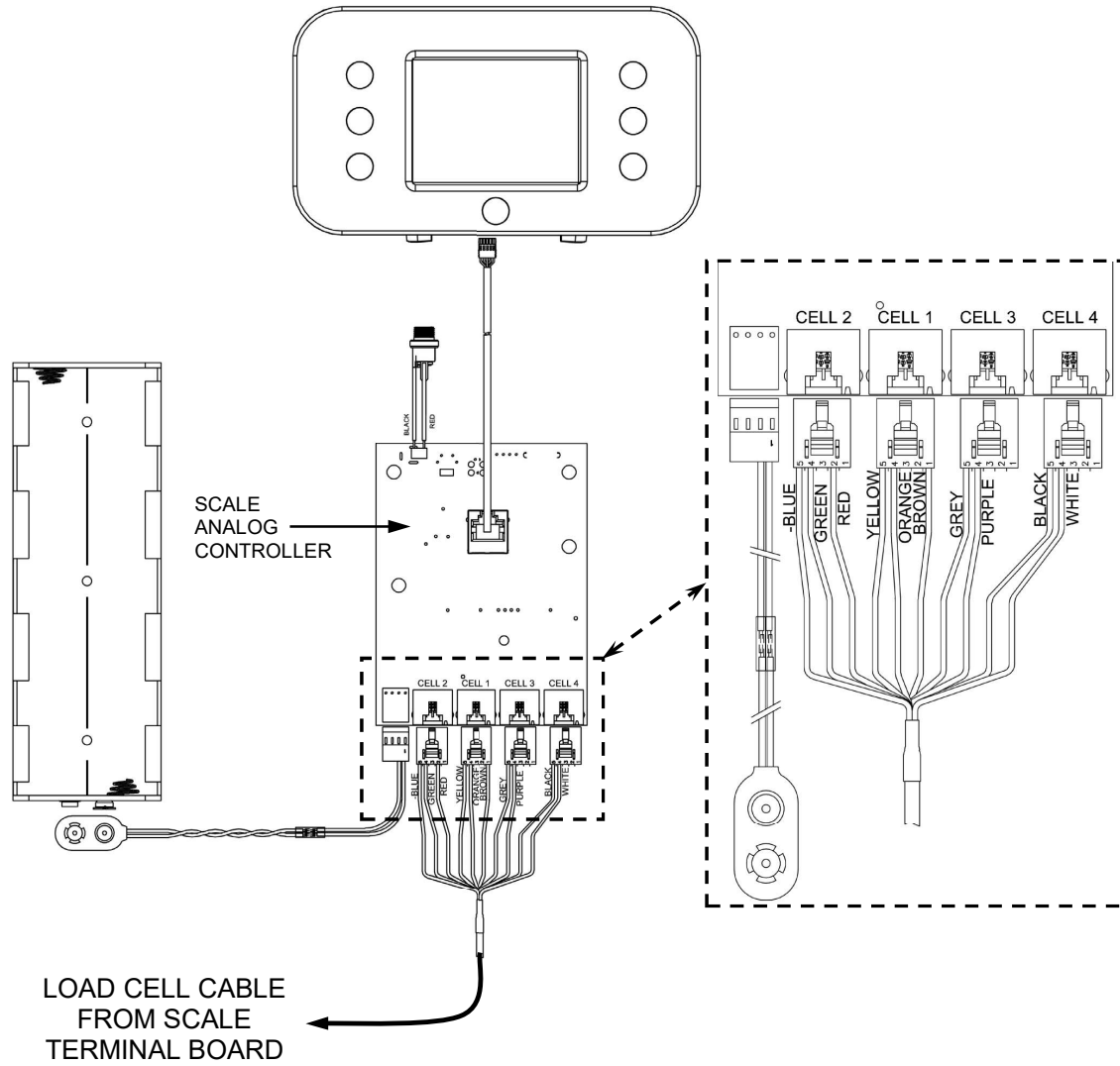


SECTION B-B

SECTION A-A

ITEM	QTY	PART NUMBER	DESCRIPTION
2	8	6013-0295	NUT #10-32 HEX Z/P
3	4	6031-0220	BALL STUD, GAS SPRING, 13 MM DIA, 5/16" - 18
4	8	0031-B014-08	SPACER
5	4	0065-0870-0A	FOOT WELDMENT, FP-240
6	8	0065-B635-08	LOAD CELL MOUNT SPRING
7	8	0065-B637-08	LOAD CELL WASHER
8	4	3300-0440-08	LOAD CELL SPACER
9	4	FP-240	LOAD CELL, FLAT PLATE, 240LBS
17	4	6031-0222	1/4-20 VIBRATION MOUNT

SCALE WIRING DIAGRAM



STATEMENT OF LIMITED WARRANTY

Detecto Scale warrants its equipment to be free from defects in material and workmanship as follows: Detecto warrants to the original purchaser only that it will repair or replace any part of equipment which is defective in material or workmanship for a period of two **(2) years from date of shipment**. Detecto shall be the sole judge of what constitutes a defect.

During the **first ninety (90) days** Detecto may choose to replace the product at no charge to the buyer upon inspection of the returned item.

After the first ninety (90) days, upon inspection of the returned item, Detecto will repair or replace it with a remanufactured product. The customer is responsible for paying for the freight both ways.

This warranty does not apply to peripheral equipment not manufactured by Detecto; this equipment will be covered by certain manufacturer's warranty only.

This warranty does not include replacement of expendable or consumable parts. This does not apply to any item which has deteriorated or damaged due to wear, accident, misuse, abuse, improper line voltage, overloading, theft, lightning, fire, water or acts of God, or due to extended storage or exposure while in purchaser's possession. This warranty does not apply to maintenance service. Purchased parts will have a ninety (90) day repair or replacement warranty only.

Detecto may require the suspect product to be returned to the factory; item(s) must be properly packed and shipping charges prepaid. A return authorization number must be obtained for all returns and marked on the outside of all returned packages. Detecto accepts no responsibility for loss or damage in transit.

STATEMENT OF LIMITED WARRANTY

Conditions Which Void Limited Warranty

This warranty shall not apply to equipment which:

- A.) Has been tampered with, defaced, mishandled or has had repairs and modifications not authorized by Detecto.
- B.) Has had serial number altered, defaced, or removed.
- C.) Has not been grounded according to Detecto's recommended procedure.

Freight Carrier Damage

Claims for equipment damaged in transit must be referred to the freight carrier in accordance with freight carrier regulations.

This warranty sets forth the extent of our liability for breach of any warranty or deficiency in connection with the sale or use of the product. Detecto will not be liable for consequential damages of any nature, including but not limited to, loss of profit, delays or expenses, whether based on tort or contract. Detecto reserves the right to incorporate improvements in material and design without notice and is not obligated to incorporate improvements in equipment previously manufactured.

The foregoing is in lieu of all other warranties, express or implied including any warranty that extends beyond the description of the product including any warranty of merchantability or fitness for a particular purpose. This warranty covers only those Detecto products installed in the forty-eight (48) contiguous continental United States.



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