



Solace In-Floor Dialysis Scale

with Wi-Fi and Bluetooth 5.0

Installation and Technical Manual

INTRODUCTION

Thank you for purchasing the **DETECTO Solace In-Floor Dialysis Scale**. The Solace series in-floor scales are designed for dialysis clinics, emergency rooms, and other clinical facilities where fast and accurate patient weighing is essential. Each scale is flush-mounted with the floor and includes a pit frame, trim ring, and interface cable for connection to the indicator.

The durable stainless-steel construction ensures years of reliable, maintenance-free performance. A built-in thermal printer allows quick printouts for patient record keeping, providing a complete in-floor weighing solution for continuous patient monitoring.

With a high 1,000 lb capacity and platform sizes up to 7.5 ft x 4 ft, the Solace series accommodates wheelchairs, bariatric patients, and even stretchers. Selected models also include a tubular handrail with a padded handgrip for walk-on use.

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 use your scale, and keep it available for future reference.

This manual is for the following models of the Solace In-Floor Dialysis Scales:

ID-3632S-855RM	ID-3636SH-855RMP	ID-4848S-855RMP	ID-7248SH-855RM
ID-3632SH-855RM	ID-4836S-855RM	ID-4848SH-855RMP	ID-7248S-855RMP
ID-3632S-855RMP	ID-4836SH-855RM	ID-7236S-855RM	ID-7248SH-855RMP
ID-3632SH-855RMP	ID-4836S-855RMP	ID-7236SH-855RM	ID-9048S-855RM
ID-3636S-855RM	ID-4836SH-855RMP	ID-7236S-855RMP	ID-9048SH-855RM
ID-3636SH-855RM	ID-4848S-855RM	ID-7236SH-855RMP	ID-9048S-855RMP
ID-3636S-855RMP	ID-4848SH-855RM	ID-7248S-855RM	ID-9048SH-855RMP

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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 by 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

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 the user's body.

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.

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 REMPLACÉ'E PAR UN TYPE INCORRECT. REJETEZ LES BATTERIES UTILISÉ'ES SELON LES INSTRUCTIONS.

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SPECIFICATIONS

Specification	Description
Capacity (All Models):	1,000 lb x 0.2 lb / 450 kg x 0.1 kg
Weighing/Height Units:	Pounds/Inch (lb, in) or Kilograms/Centimeters (kg, cm)
Standard Platform Sizes:	36 x 32 in / 91 x 81 cm, 36 x 36 in / 91 x 91 cm, 48 x 36 in / 122 x 91 cm, 48 x 48 in / 122 x 122 cm, 72 x 48 in / 183 x 122 cm, and 90 x 48 in / 229 x 122 cm (Custom sizes and configurations are available)
Platform Construction:	Anti-corrosion stainless steel
Indicator/Printer:	Recessed-mount, touchscreen model 855 indicator/thermal ticket printer combo with stainless steel cover plate
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:	100 to 240 VAC 50/60 Hz, 15 W
Operating Environment:	Operating Temperature Range: 14 to 104 °F (-10 to +40 °C) Humidity: 0 to 90% non-condensing
Communication Interfaces:	RS232, USB, Wi-Fi, and Bluetooth 5.0
Includes:	In-floor scales include Model 855RMP digital weight indicator/printer combo, 100 to 240V AC universal switching power supply, interface cable from scale to indicator, pit frame, scale, stainless steel deck, and trim ring
Handrail:	Models with H nomenclature (e.g., ID-4848SH-855RMP) include a Wraparound tubular handrail with a padded handgrip.
Country of Origin:	USA
Approvals:	OIML
Shipping Weight:	Refer to the table on the next page

Standard Features:

- Units Locking into LB or KG
- Auto Weight Lock Feature
- 8-Digit Numeric Patient ID
- StableSENSE®¹ Adjustable Filtering
- Wi-Fi and Bluetooth 5.0

¹ StableSENSE® is a digital filter utilizing a proprietary software algorithm that removes or greatly reduces changes in the weight display resulting from movement on the scale platform. When used with clinical scales, it will lessen the effects of the patient's movement or vibration on the scale.

SPECIFICATIONS, CONT.

Model Numbers, Platform Sizes, Features, and Shipping Weight

Model	Platform Size	Handrail	Printer	Ship Weight
ID-3632S-855RM	36" x 32" / 91 x 81 cm			255 lb / 115 kg
ID-3632SH-855RM	36" x 32" / 91 x 81 cm	•		265 lb / 120 kg
ID-3632S-855RMP	36" x 32" / 91 x 81 cm		•	311 lb / 141 kg
ID-3632SH-855RMP	36" x 32" / 91 x 81 cm	•	•	321 lb / 146 kg
ID-3636S-855RM	36" x 36" / 91 x 91 cm			388 lb / 176 kg
ID-3636SH-855RM	36" x 36" / 91 x 91 cm	•		398 lb / 181 kg
ID-3636S-855RMP	36" x 36" / 91 x 91 cm		•	255 lb / 115 kg
ID-3636SH-855RMP	36" x 36" / 91 x 91 cm	•	•	265 lb / 120 kg
ID-4836S-855RM	48" x 36" / 122 x 91 cm			311 lb / 141 kg
ID-4836SH-855RM	48" x 36" / 122 x 91 cm	•		321 lb / 146 kg
ID-4836S-855RMP	48" x 36" / 122 x 91 cm		•	311 lb / 141 kg
ID-4836SH-855RMP	48" x 36" / 122 x 91 cm	•	•	321 lb / 146 kg
ID-4848S-855RM	48" x 48" / 122 x 122 cm			388 lb / 176 kg
ID-4848SH-855RM	48" x 48" / 122 x 122 cm	•		398 lb / 181 kg
ID-4848S-855RMP	48" x 48" / 122 x 122 cm		•	388 lb / 176 kg
ID-4848SH-855RMP	48" x 48" / 122 x 122 cm	•	•	398 lb / 181 kg
ID-7236S-855RM	72" x 36" / 183 x 91 cm			450 lb / 204 kg
ID-7236SH-855RM	72" x 36" / 183 x 91 cm	•		450 lb / 204 kg
ID-7236S-855RMP	72" x 36" / 183 x 91 cm		•	450 lb / 204 kg
ID-7236SH-855RMP	72" x 36" / 183 x 91 cm	•	•	450 lb / 204 kg
ID-7248S-855RM	72" x 48" / 183 x 122 cm			512 lb / 232 kg
ID-7248SH-855RM	72" x 48" / 183 x 122 cm	•		512 lb / 232 kg
ID-7248S-855RMP	72" x 48" / 183 x 122 cm		•	512 lb / 232 kg
ID-7248SH-855RMP	72" x 48" / 183 x 122 cm	•	•	512 lb / 232 kg
ID-9048S-855RM	90" x 48" / 229 x 122 cm			750 lb / 340 kg
ID-9048SH-855RM	90" x 48" / 229 x 122 cm	•		750 lb / 340 kg
ID-9048S-855RMP	90" x 48" / 229 x 122 cm		•	750 lb / 340 kg
ID-9048SH-855RMP	90" x 48" / 229 x 122 cm	•	•	750 lb / 340 kg

SITE ENVIRONMENTAL REQUIREMENTS

The Solace In-Floor Dialysis 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 is provided to 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.

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 Solace In-Floor Dialysis Scale has been designed to operate from 100 to 240V AC 50/60Hz using a universal switching power supply.

- The customer must supply a conduit connector and wire from the power source to connect to the power supply cable using the supplied wire nuts. Refer to the illustration on the next page.
- The conduit connector and wiring should conform to national and local electrical codes and ordinances, and should be approved by the local inspector to ensure compliance.
- Permanently connected equipment must have a readily accessible disconnect device incorporated in the fixed wiring, such as a circuit breaker.

Electrical Noise Interference

To prevent electrical noise interference, make certain all air conditioning and heating equipment, lighting, or other equipment with heavily inductive loads, such as welders, motors, and solenoids, are on circuits separate from the system. Many of these disturbances can seriously affect the operation of the system. These sources of disturbances must be identified, and steps must be taken to prevent possible adverse effects on the system. Examples of available alternatives include isolation transformers, power regulators, uninterruptible power supplies, or simple line filters.

INSTALLATION

This section of the manual describes the construction of the foundation and installation of the framework (coping steel) for the ID Series of in-floor dialysis scales. Included are instructions for the installation of the Model 855RMP digital weight indicator/printer combo. This section includes information for scales with platform sizes of:

- 36 in x 36 in (91 cm x 91 cm)
- 48 in x 36 in (122 cm x 91 cm)
- 48 in x 48 in (122 cm x 122 cm)
- 72 in X 48 in (183 cm x 122 cm)

The engineering drawings that accompany your scale are part of the installation instructions and must be followed during the installation of the pit steel assembly and scale. Please read this manual thoroughly to become familiar with the applicable drawings before beginning the installation.

Scale Model	Scale Size	Handrail Side	Final Assy Dwg.	Pit Steel Assembly Dwg.
ID-3636S-855RM	36 in X 36 in	n/a	1914-0028-0A	1914-0029-0A
ID-3636SH-855RM*		3 ft	1914-0028-1A	
ID-3636S-855RMP		n/a	1914-0028-0A	
ID-3636SH-855RMP*		3 ft	1914-0028-1A	
ID-4836S-855RM	48 in X 36 in	n/a	1914-0015-1A	1914-0021-0A
ID-4836SH-855RM*		3 ft	1914-0015-3A	
ID-4836SH-855RM*		4 ft	1914-0015-2A	
ID-4836S-855RMP		n/a	1914-0015-1A	
ID-4836SH-855RMP*		3 ft	1914-0015-3A	
ID-4836SH-855RMP*		4 ft	1914-0015-2A	
ID-4848S-855RM	48 in X 48 in	n/a	1914-0034-0A	1914-0035-0A
ID-4848SH-855RM*		4 ft	1914-0034-1A	
ID-4848S-855RMP		n/a	1914-0034-0A	
ID-4848SH-855RMP*		4 ft	1914-0034-1A	
ID-7248S-855RM	72 in X 48 in	n/a	1914-0059-0A	1914-0060-0A
ID-7248SH-855RM*		4 ft	1914-0059-1A	
ID-7248SH-855RM*		6 ft	1914-0059-2A	
ID-7248S-855RMP		n/a	1914-0059-0A	
ID-7248SH-855RMP*		4 ft	1914-0059-1A	
ID-7248SH-855RMP*		6 ft	1914-0059-2A	

* Models with Handrail

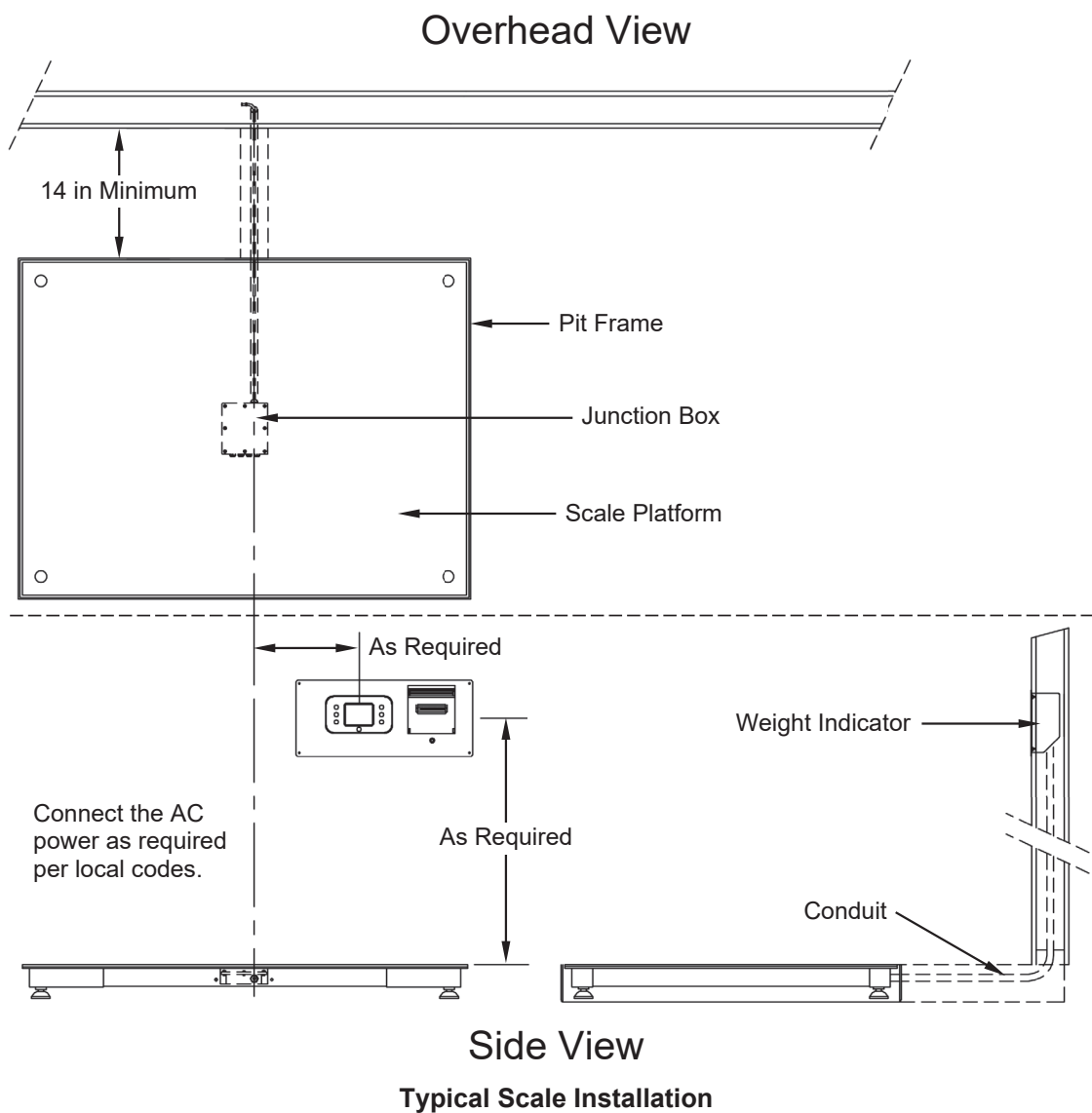
INSTALLATION, CONT.

Foundation Construction

In new construction, the pit steel assembly should be properly positioned and then poured in place. In existing construction, it will be necessary to cut the properly sized hole in the floor, then position the pit steel assembly in the opening and pour it in place. Both types of installations are described in the following section.

Choosing the Location for the Scale

Before beginning the installation, carefully consider the location where the scale will be installed. The location selected must provide easy access to the operator, yet should provide a suitable area for placement of the Model 855RMP digital weight indicator/printer combo. Select a location that is not in the normal flow of traffic and is not subject to temperature extremes. The selected location should not subject the scale to continuous exposure to liquids. It is recommended that the scale be placed as required from an adjacent wall. The illustration below depicts a typical scale installation.



INSTALLATION, CONT.

Preparation of the Floor

A. For Installation in New Construction

The pit steel assembly must be installed within the properly sized opening in the floor. This assembly accepts the scale and provides support for the four load cells. For new construction, the opening for the scale should be formed using the dimensions given in the table below.

NOTES:

- You should refer to the final assembly drawing for the exact requirements for your specific scale model.
- If needed, include a drain system to provide any needed drainage of the pit opening.
- All electrical connections are made to the scale using a 3/4-inch minimum size conduit at least 24" from the closest electrical line. A trench (minimum of 2 inches in width and 4 inches in depth) should be formed to allow a 3/4-inch conduit to be run to the scale. Refer to the Conduit section of this manual for the location of the conduit trench.

Scale Models	Length of Opening	Width of Opening	Depth of Opening
ID-3636S-855RMP, ID-3636SH-855RMP	48.75 inches	48.75 inches	10 inches
ID-4836S-855RMP, ID-4836SH-855RMP	60.75 inches	48.75 inches	10 inches
ID-4848S-855RMP, ID-4848SH-855RMP	60.75 inches	60.75 inches	10 inches
ID-7248S-855RMP, ID-7248SH-855RMP	84.75 inches	60.75 inches	10 inches

B. For Installation in Existing Construction

After determining the location for the scale, it will be necessary to cut an opening in the floor the size shown in the previous table. Make certain that the base of the opening is of sufficient strength, then, if necessary, install the drain. Note that the drain should be below the bottom of the opening defined in the table.

Cut a trench 2 inches wide by 4 inches deep to hold the conduit going to the scale. Refer to the Conduit section of this manual for the location of the conduit opening in the pit steel assembly.

C. For Alternate Installation Requirements

For all other installation requirements, a local Architect/Engineer should be used to determine floor stability and to determine if the floor is sufficient to support the scale.



The following notes apply to the installation diagrams on pages 6 through 13.



NOTES:

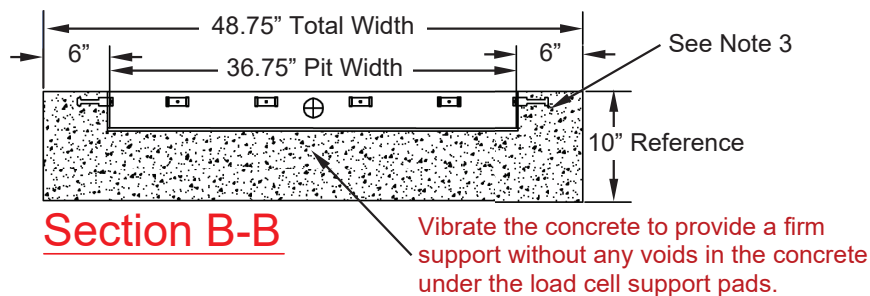
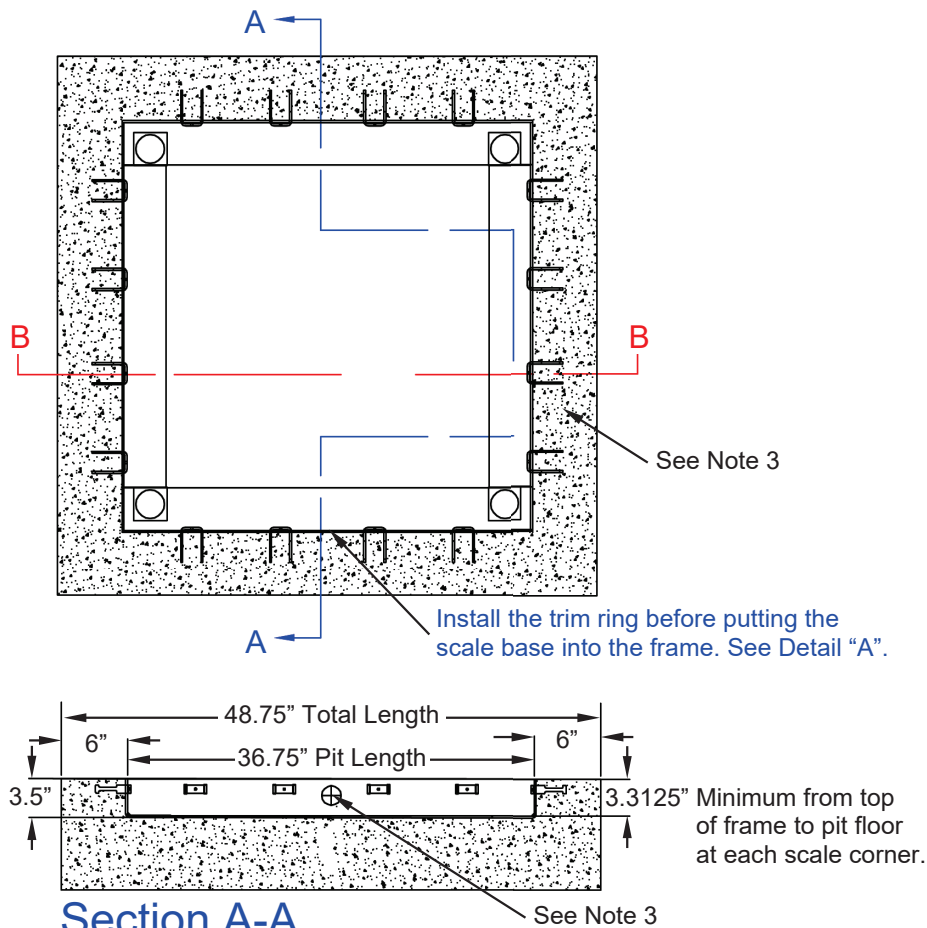
1. The pit frame floor must be smooth, level, and true to plane.
2. Provide a drain for the pit if needed.
3. The transmission cable from the scale to the indicator must be a 3/4" minimum-size steel conduit and at least 24" from the closest electrical line. They may cross at 90° only.
4. Must meet all local codes.
5. For best performance, the floor around where the scale is installed should be a smooth and level surface.
6. It is important that a *minimum pit height of 3.3125"* from the top of the frame to the pit floor is maintained at each corner of the scale.
7. The trim ring, top cover plate, and handrail assembly will need to be removed to obtain access to the load cell adjustment feet and junction board.
8. The handrail can be installed in either direction. It will be drilled and tapped per the sales order.
9. Caution must be taken not to damage the load cells, load cell cables, terminal board, or anything under the scale deck when drilling.

INSTALLATION, CONT.

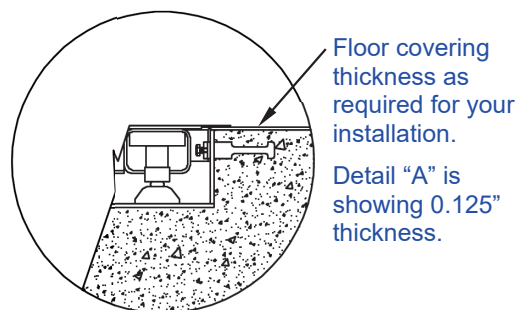
Models ID3636S-855RMP and ID3636SH-855RMP

The floor opening dimensions for the ID3636S-855RMP/ID3636SH-855RMP are as follows:

Length = 48.75 inches, Width = 48.75 inches, and Depth = 10 inches.



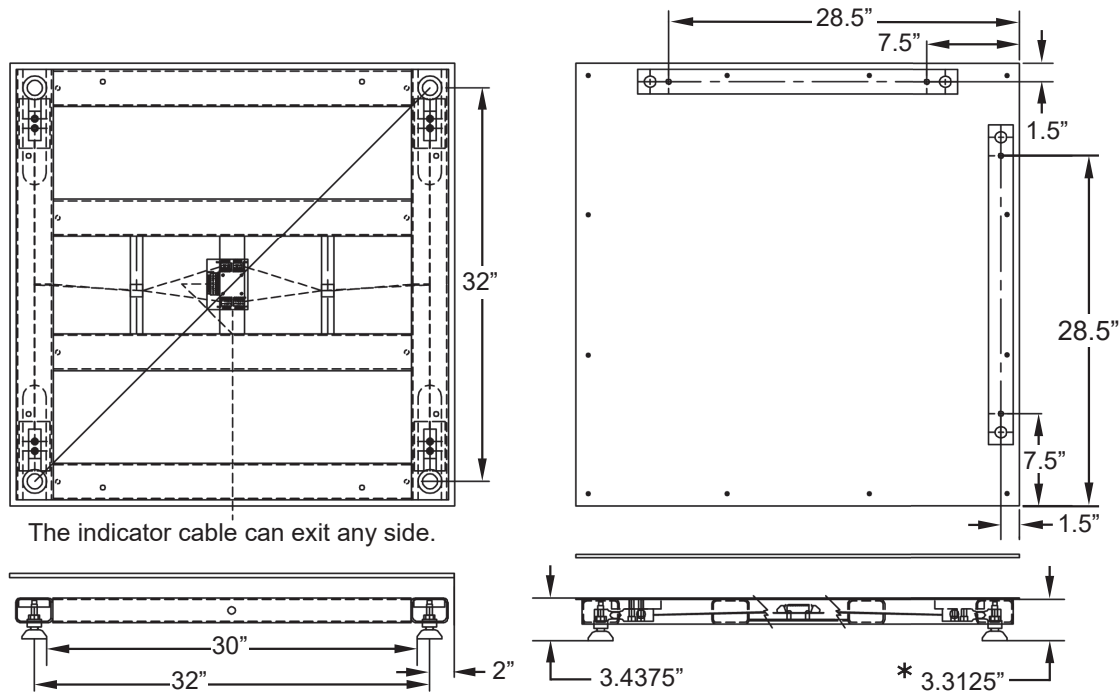
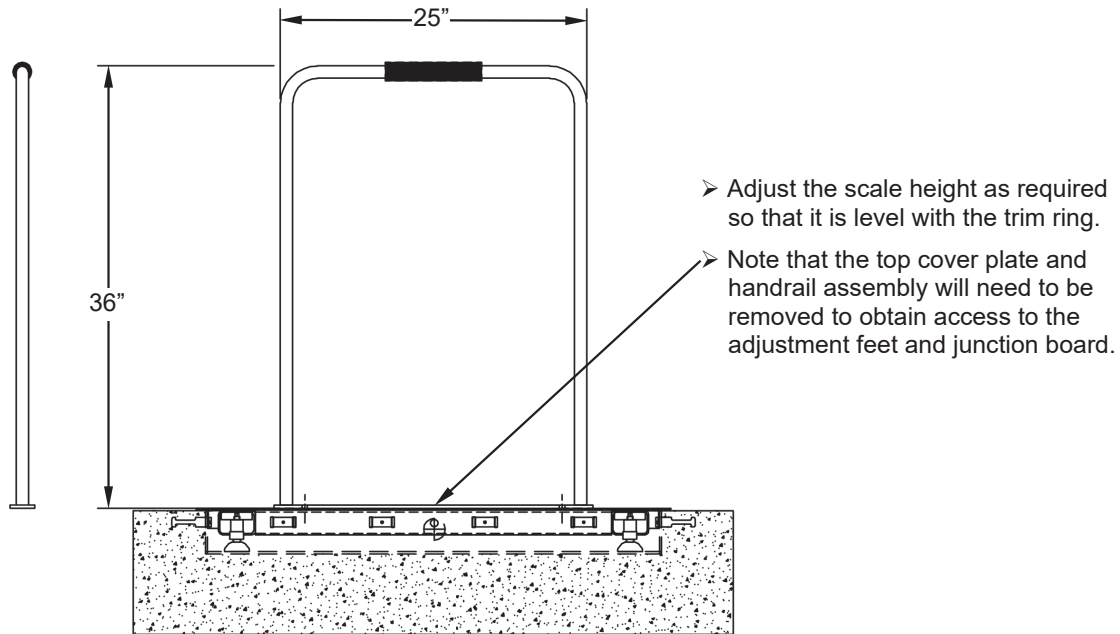
- The concrete should not protrude above the pit frame.
- Attach the trim ring after the floor covering has been installed.
- To attach the trim ring, lower it into place, and then push down all around the trim ring. Once it is flat against the floor covering, hold it in place and install the screws.



Detail "A"

INSTALLATION, CONT.

Models ID3636S-855RMP and ID3636SH-855RMP, Cont.



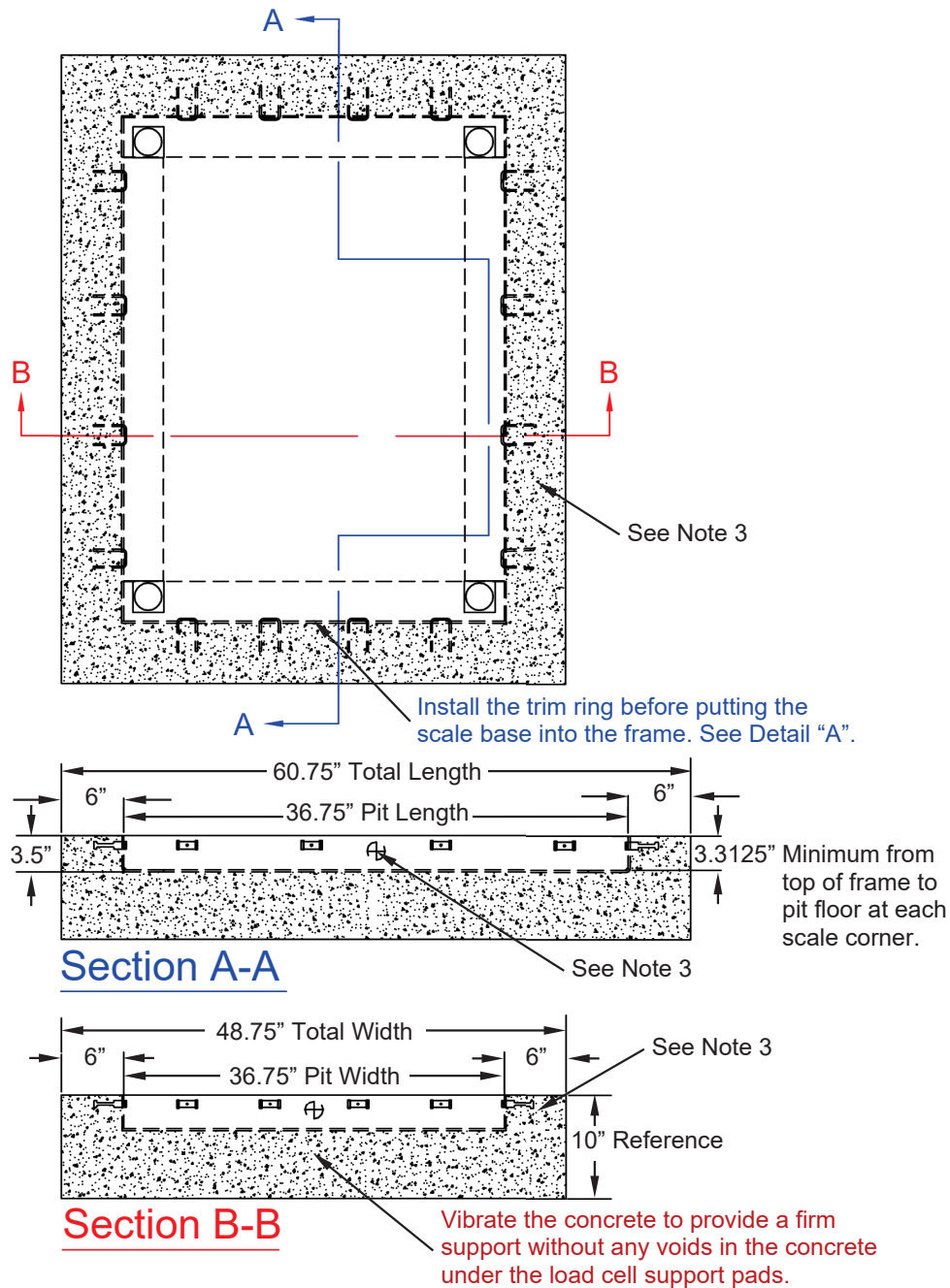
*** IMPORTANT!** There must be a minimum pit height of 3.3125" from the top of the frame to the pit floor at each corner of the scale.

INSTALLATION, CONT.

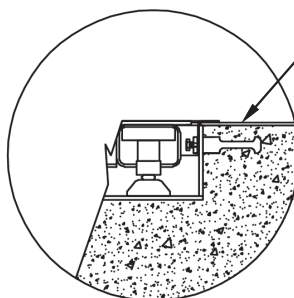
Models ID4836S-855RMP and ID4836SH-855RMP

The floor opening dimensions for the ID4836S-855RMP/ID4836SH-855RMP are as follows:

Length = 60.75 inches, Width = 48.75 inches, and Depth = 10 inches.



- The concrete should not protrude above the pit frame.
- Attach the trim ring after the floor covering has been installed.
- To attach the trim ring, lower it into place, and then push down all around the trim ring. Once it is flat against the floor covering, hold it in place and install the screws.



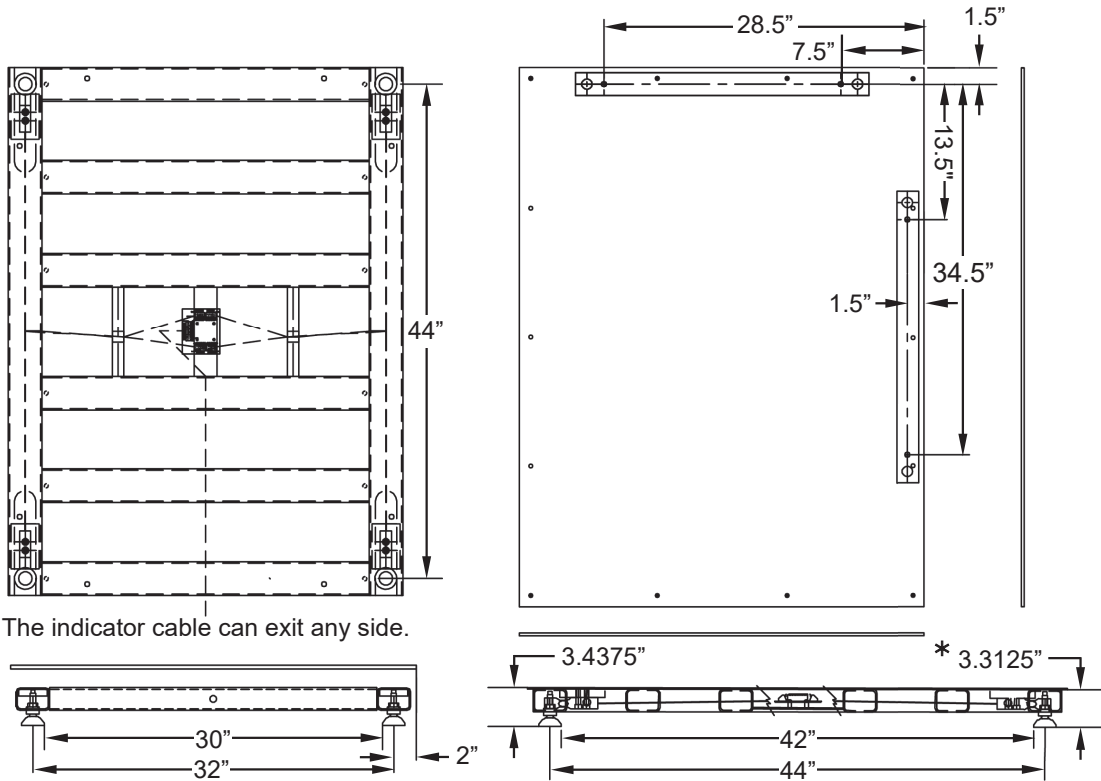
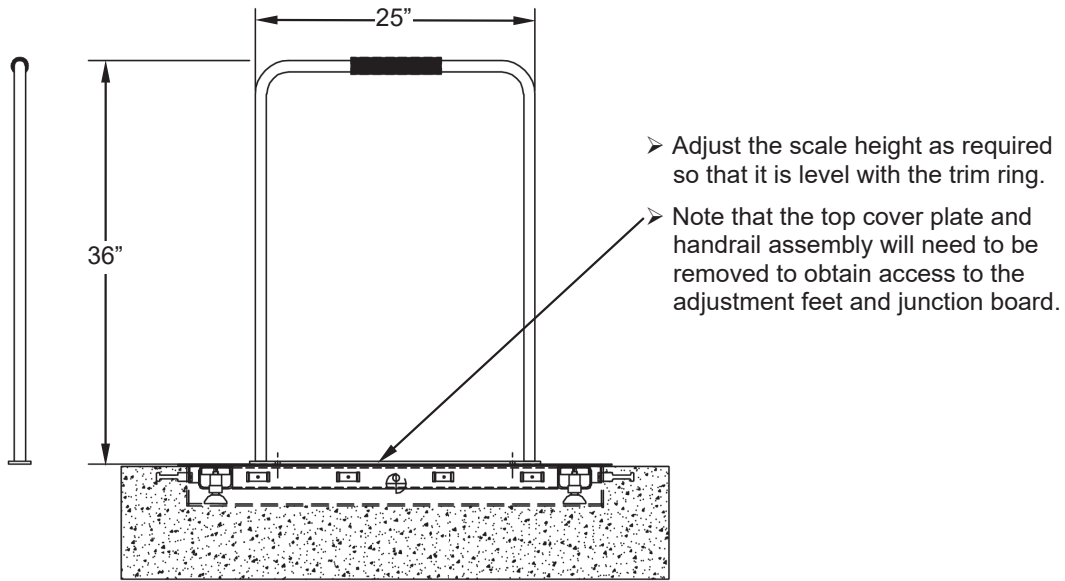
Floor covering thickness as required for your installation.

Detail "A" is showing 0.125" thickness.

Detail "A"

INSTALLATION, CONT.

Models ID4836S-855RMP and ID4836SH-855RMP, Cont.



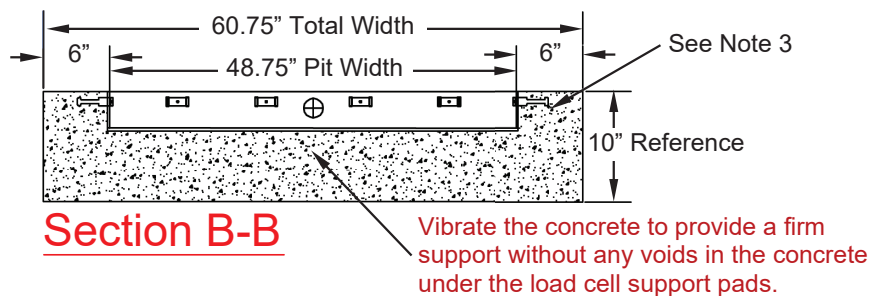
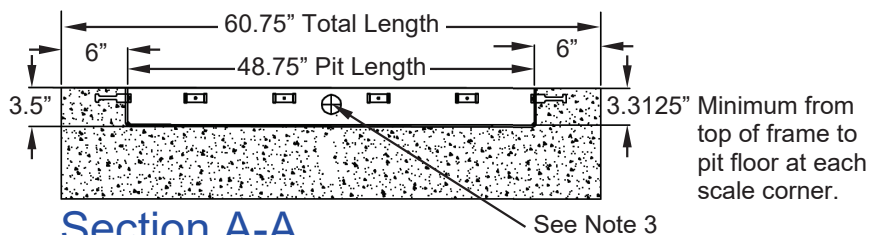
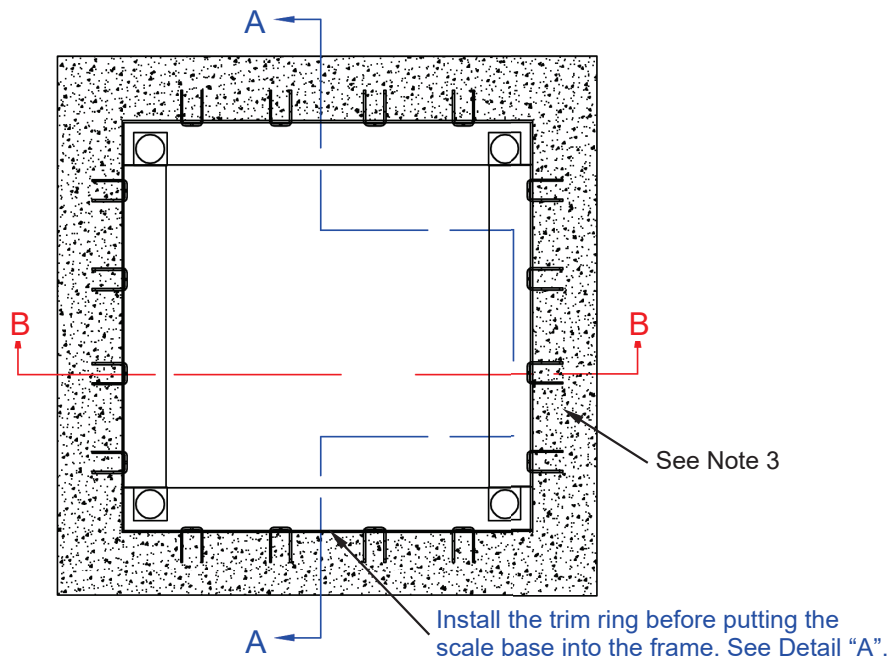
*** IMPORTANT!** There must be a minimum pit height of 3.3125" from the top of the frame to the pit floor at each corner of the scale.

INSTALLATION, CONT.

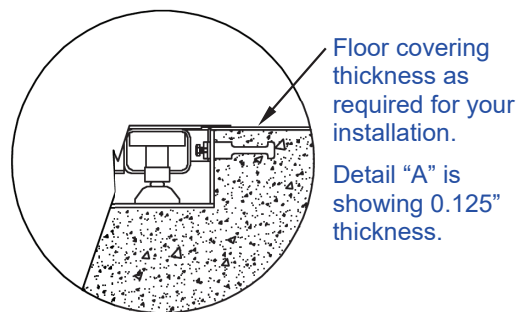
Models ID4848S-855RMP and ID4848SH-855RMP

The floor opening dimensions for the ID4848S-855RMP/ID4848SH-855RMP are as follows:

Length = 60.75 inches, Width = 60.75 inches, and Depth = 10 inches.



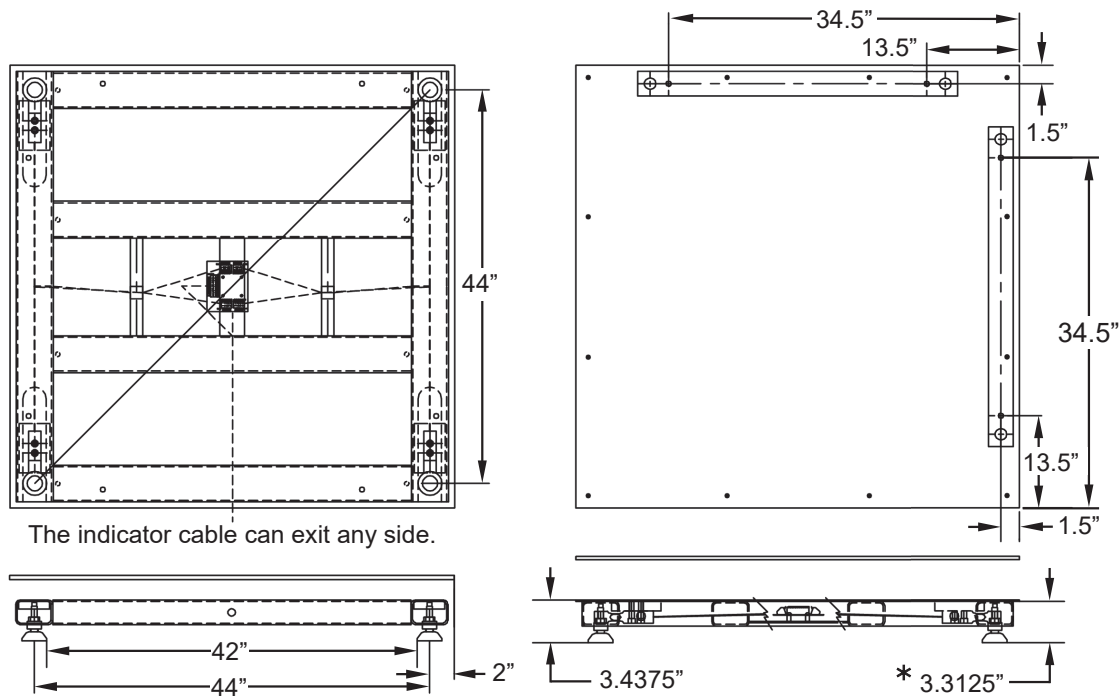
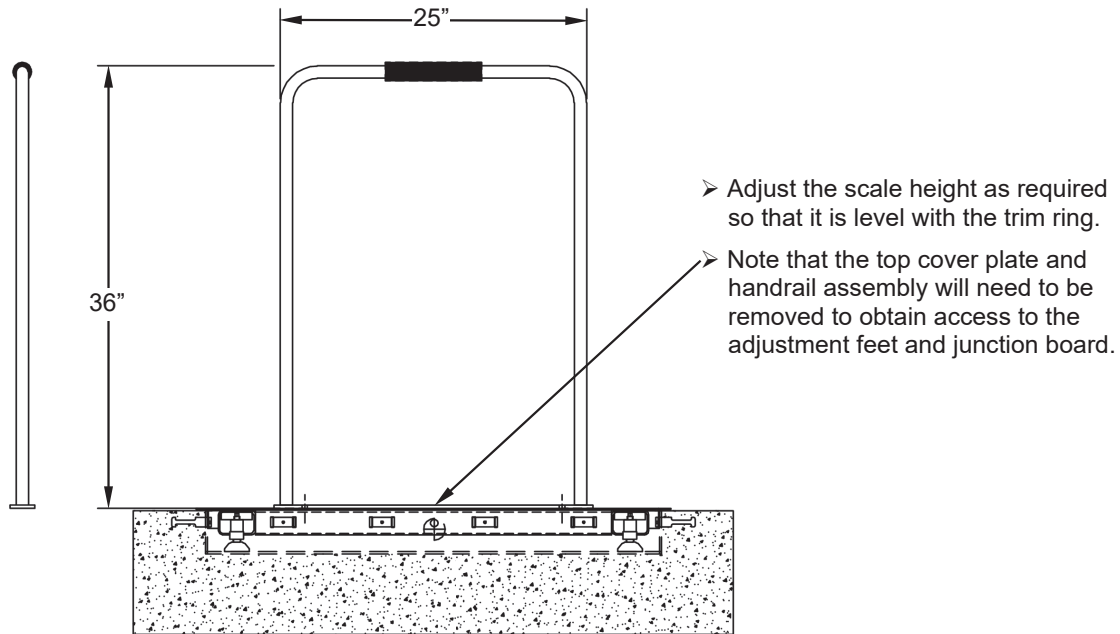
- The concrete should not protrude above the pit frame.
- Attach the trim ring after the floor covering has been installed.
- To attach the trim ring, lower it into place, and then push down all around the trim ring. Once it is flat against the floor covering, hold it in place and install the screws.



Detail "A"

INSTALLATION, CONT.

Models ID4848S-855RMP and ID4848SH-855RMP, Cont.



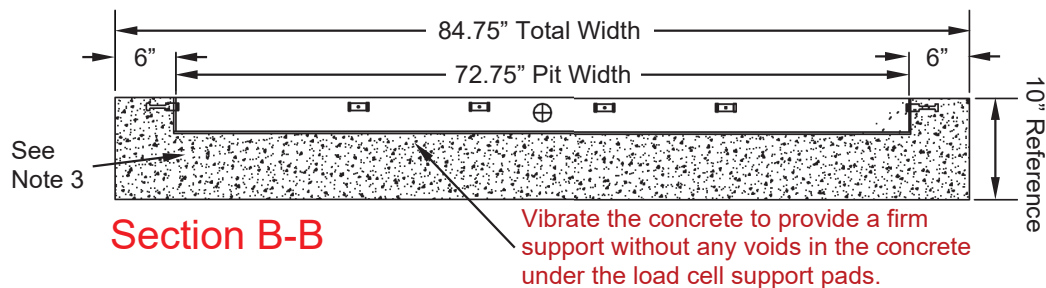
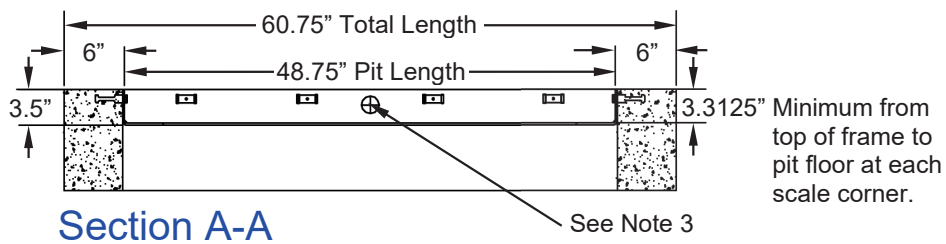
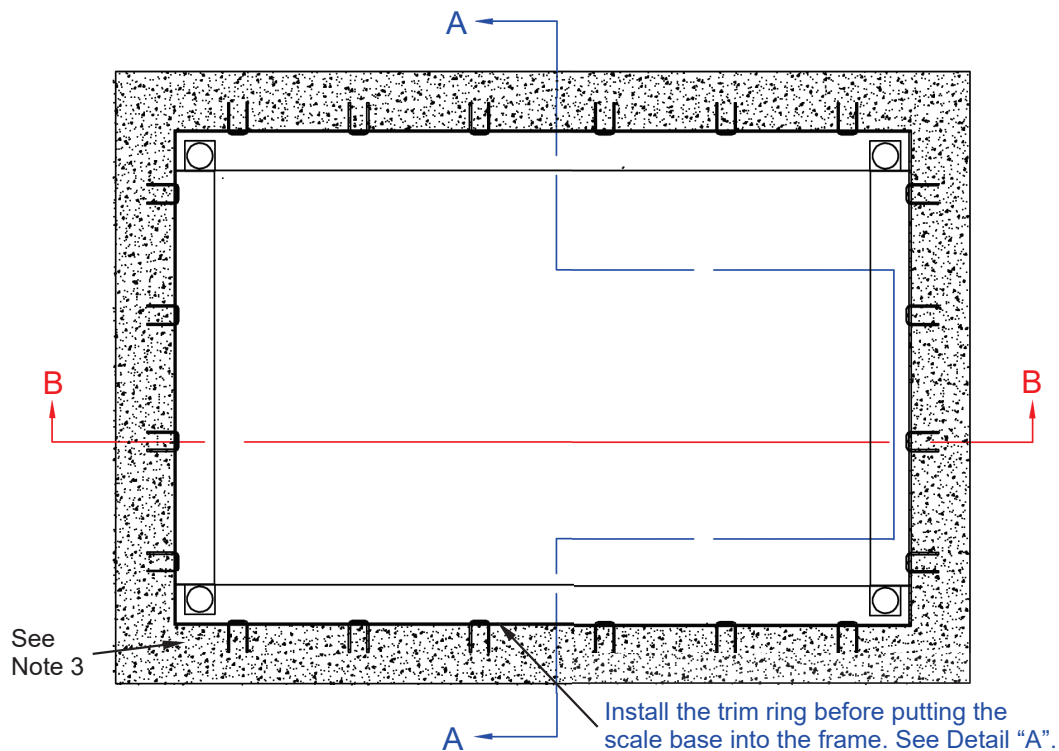
*** IMPORTANT!** There must be a minimum pit height of 3.3125" from the top of the frame to the pit floor at each corner of the scale.

INSTALLATION, CONT.

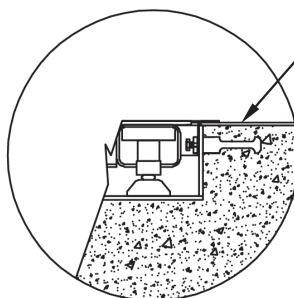
Models ID7248S-855RMP and ID7248SH-855RMP

The floor opening dimensions for the ID7248S-855RMP/ID7248SH-855RMP are as follows:

Length = 84.75 inches, Width = 60.75 inches, and Depth = 10 inches.



- The concrete should not protrude above the pit frame.
- Attach the trim ring after the floor covering has been installed.
- To attach the trim ring, lower it into place, and then push down all around the trim ring. Once it is flat against the floor covering, hold it in place and install the screws.

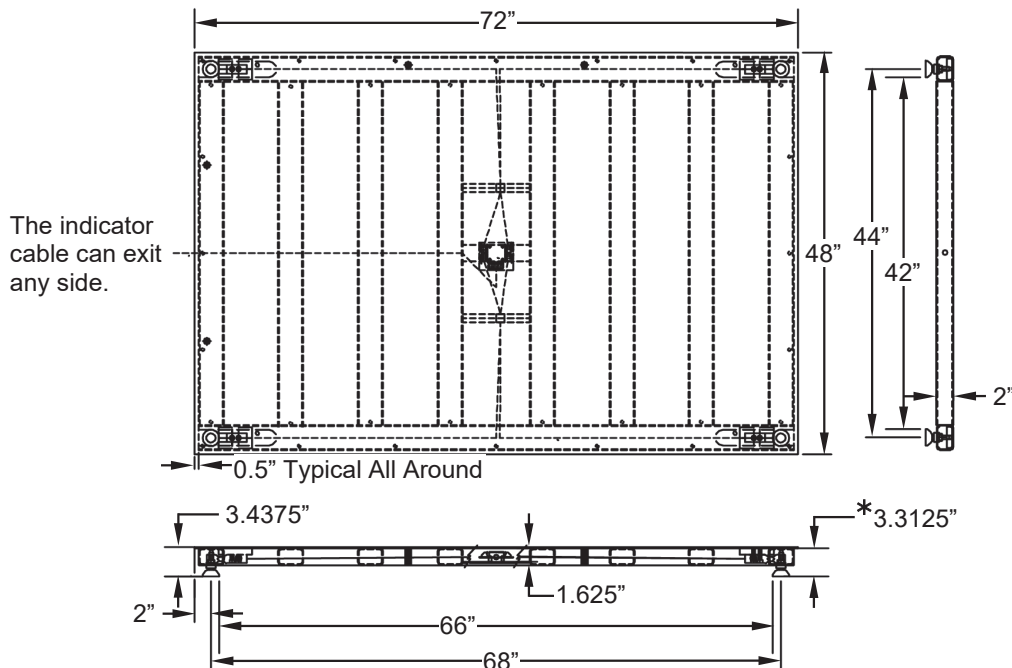
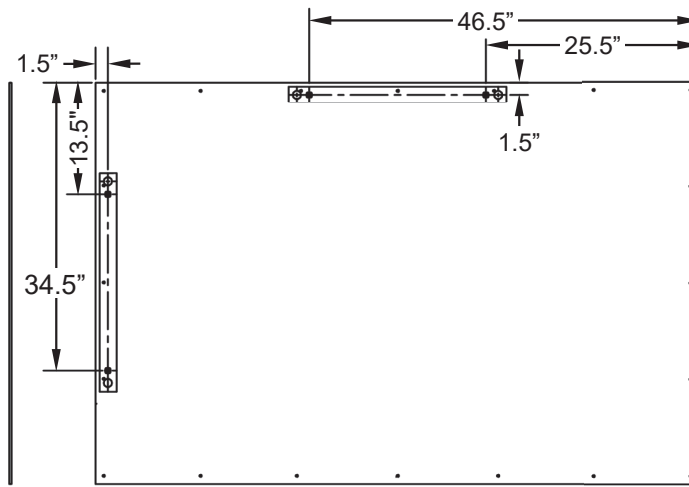
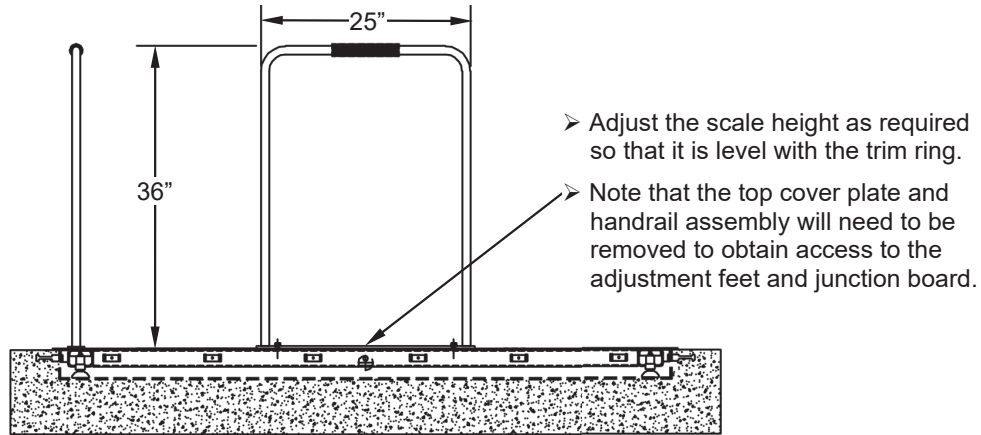


Detail "A" is showing 0.125" thickness.

Detail "A"

INSTALLATION, CONT.

Models ID7248S-855RMP and ID7248SH-855RMP, Cont.



*** IMPORTANT!** There must be a minimum pit height of 3.3125" from the top of the frame to the pit floor at each corner of the scale.

INSTALLATION, CONT.

Placement of Pit Steel Assembly

Verify that the opening is of the proper size and that the trench for the conduit has been completed. Also, make sure that the corner brackets in the pit steel assembly are properly supported. Lower the pit steel assembly into the opening with the junction box toward the conduit trench. Carefully center the pit steel assembly in the opening and level it such that the top of the pit steel assembly is in the same horizontal plane as the finished floor surface. It may be necessary to shim the pit steel assembly to hold it in place while the concrete is being poured.

Conduit

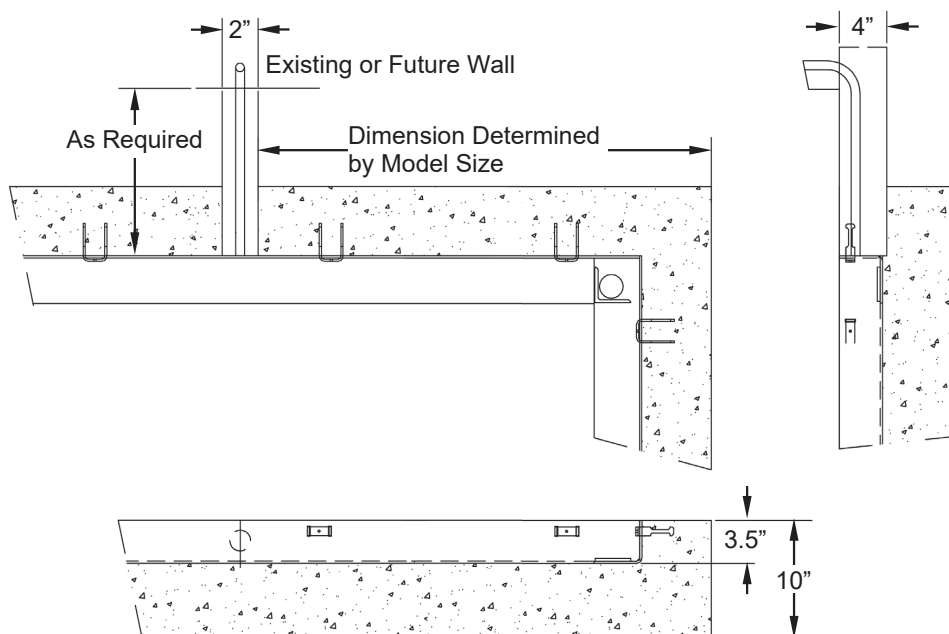
A trench (minimum of 2 inches in width and 4 inches in depth) should be formed to allow a 3/4-inch minimum size conduit (*not provided*) to be installed between the junction box in the pit steel assembly and the location for the Model 855RMP digital weight indicator/printer combo. Note that the illustration below shows an example of the conduit trench in the scale pit.

Steel conduit is recommended for its additional protection and shielding characteristics, although PVC conduit may be used. *Refer to your local electrical codes to determine if a specific type of conduit is required.*

The conduit enters the junction box on the pit steel assembly as shown in the table below. The scale is provided with 10 feet of cable between the junction box and the Model 855RMP digital weight indicator/printer combo. Connect the conduit to the junction box and complete the conduit run to the location where the Model 855RMP digital weight indicator/printer combo will be installed.

Location of Conduit Trench in Scale Pit by Scale Model

Scale Models	Entering on Length Side	Entering on Width Side	Depth of Trench
ID-3636S-855RMP, ID-3636SH-855RMP	24.375 inches	24.375 inches	4 inches
ID-4836S-855RMP, ID-4836SH-855RMP	30.375 inches	24.375 inches	4 inches
ID-4848S-855RMP, ID-4848SH-855RMP	30.375 inches	30.375 inches	4 inches
ID-7248S-855RMP, ID-7248SH-855RMP	42.375 inches	30.375 inches	4 inches



Example of Conduit Trench in Scale Pit

INSTALLATION, CONT.

Pouring the Concrete

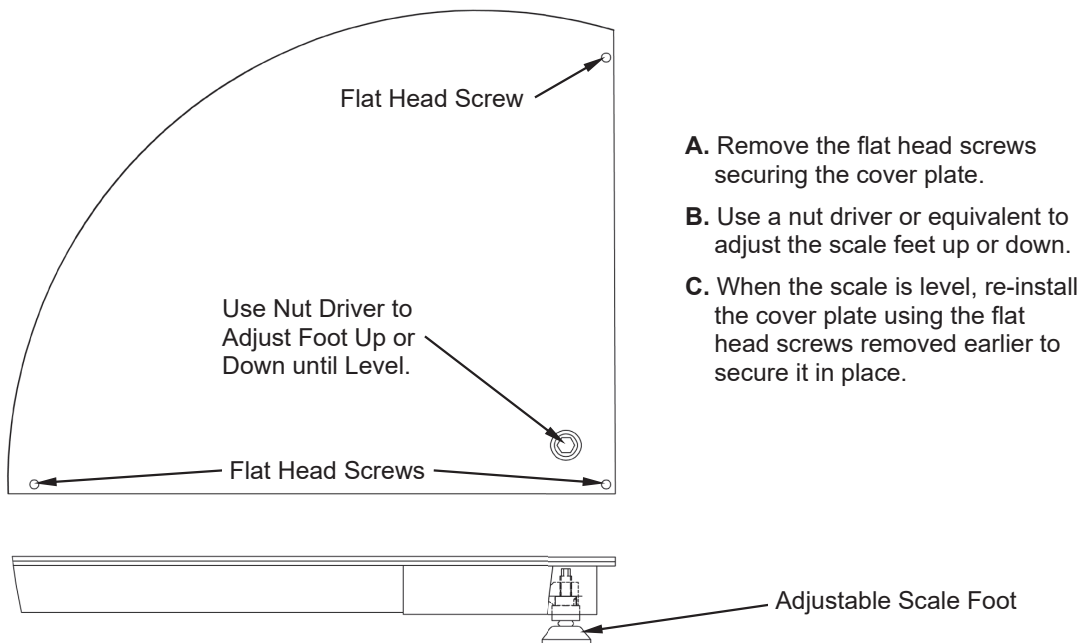
Pour sufficient concrete into the opening between the pit steel assembly and the opening walls to bring the level of the concrete flush with the top of the pit steel assembly and the surrounding floor. Concrete should be a minimum of 3000 psi in strength. Use appropriate finishing methods to finish the top of the concrete flooring. Make certain that no concrete is allowed to collect on the load cell receiving stands at each of the lower corners of the pit steel assembly. Allow the concrete to cure for at least 48 hours before continuing the installation.

Scale Installation

- A.** After the concrete has properly cured and the floor covering has been put around the pit frame; the trim ring can be installed. To attach the trim ring, lower it into place and push down all around the trim ring. While holding it down against the floor covering, install the screws. See the final assembly drawing that is included with your scale.

When placing the scale into the pit frame, start running your cable through your conduit. Make certain the scale feet are placed squarely onto the corner brackets in the pit frame. Refer to the final assembly drawing that accompanied your scale.

- B.** Floor covering may extend over the pit steel assembly, but should not be allowed to extend past the edge of the pit steel assembly. Approximately 1/4 inch of clearance should remain between the scale platform and the edge of the opening and pit steel assembly. If desired, matching floor covering may be placed on the scale platform, but must not extend past the edge of the scale platform.
- C.** To level the scale; **(A.)** Remove the flat head screws securing the cover plate to access the adjustment for the scale feet. **(B.)** Use a nut driver or equivalent to adjust the scale feet up or down. **(C.)** When the scale is level, reinstall the cover plate, securing it in place with the flat head screws removed earlier.



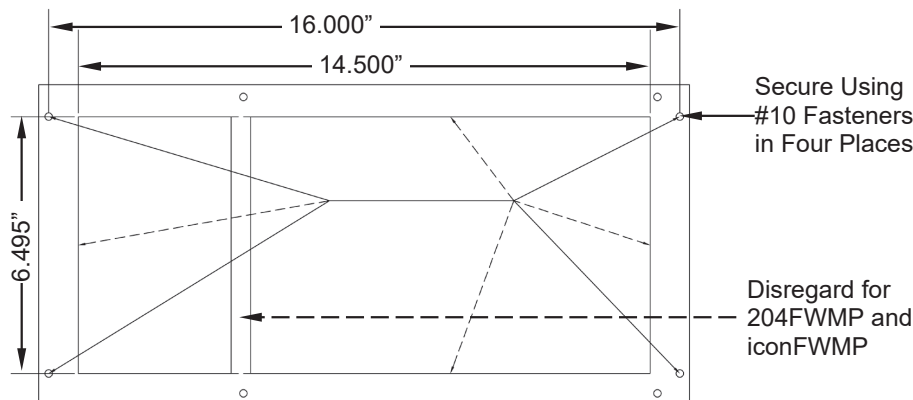
How to Level the Scale

INSTALLATION, CONT.

Weight Indicator/Printer Combo Mounting Instructions

The Solace In-Floor Dialysis Scale includes the Model 855RMP digital weight indicator/printer combo. The following instructions pertain to installing the weight indicator/printer combo.

1. Begin by selecting a location for the weight indicator/printer combo that is approximately 60 in (152 cm) above the floor. This dimension is not critical and may be changed to suit the scale user. **NOTE:** The location must have a 14.5 in (36.8 cm) minimum between the studs.
2. Use the template provided, or cut out detail (see example image below) to lay out the opening to be cut out and mark the mounting hole locations.



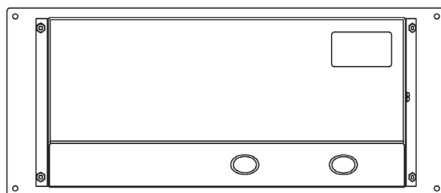
Cutout and Mounting Hole Detail for 204FWMP and iconFWMP

3. A permanent AC power source of 100 to 240 VAC 50/60Hz will be required and must be connected to the internal power supply per local codes.
4. Grounding of the weight indicator/printer is required and must be grounded per local codes.
5. Loosen the gland connector for the power cord and remove the nuts holding the back cover on. Slide the back cover off.

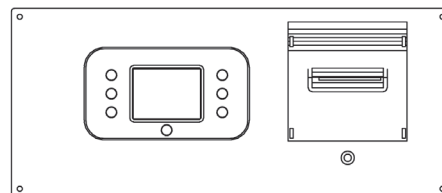
Side View



Back View

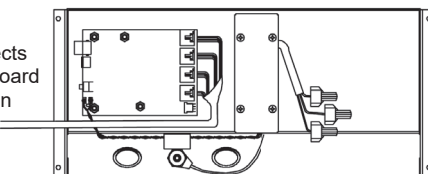


Front View



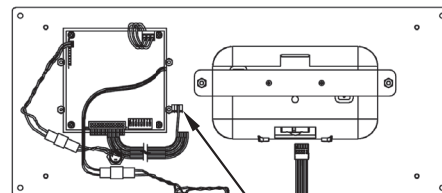
Inside Bottom View

This cable connects to the Junction Board (1914-0009-0A) in the floor scale.



Back View

(Cover and Mounting Hardware Removed)



This connects to the Power Supply (6800-1059).

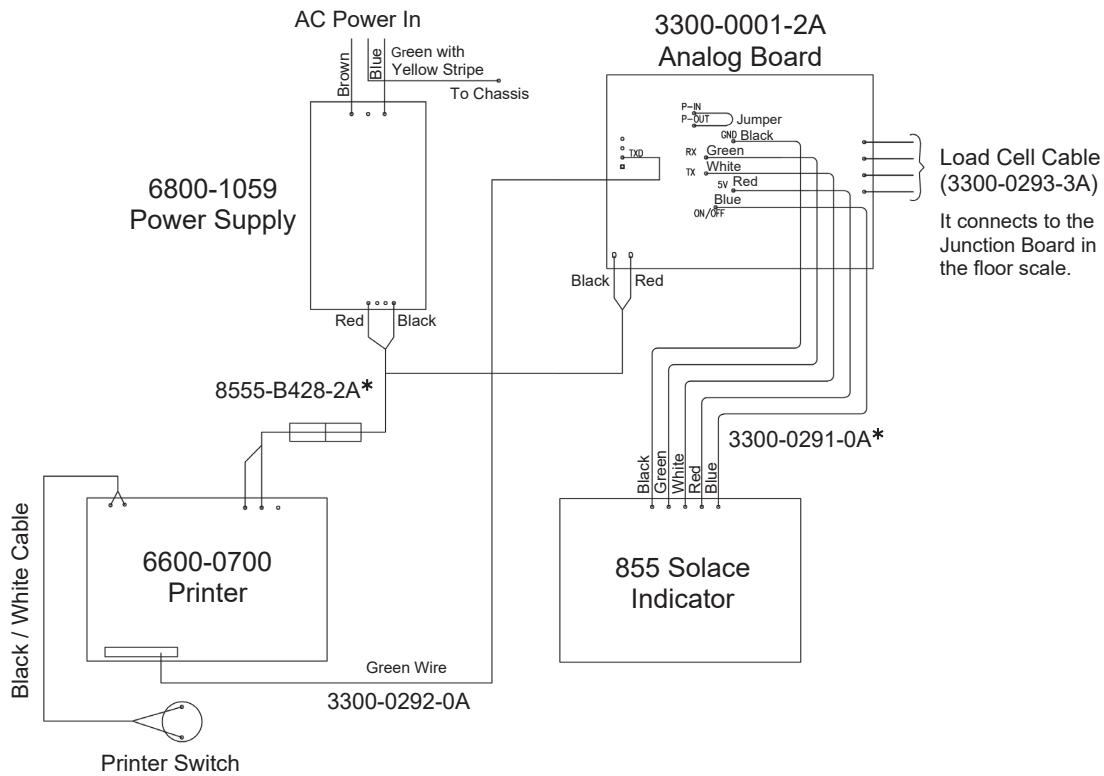
These connect to the Analog Board (3300-0001-2A).

Indicator Connections and Layout

6. Install the indicator cable from the scale into the other gland connector, attaching the wires per the interconnection diagram on the next page.
7. Slide the assembly into the opening and secure using four #10 fasteners appropriate for the wall design.
8. Using calibrated weights equal to at least 250 pounds, check the calibration of the weight indicator. If the weight display is not correct, refer to the setup and calibration section of this manual for instructions to perform the calibration procedure.

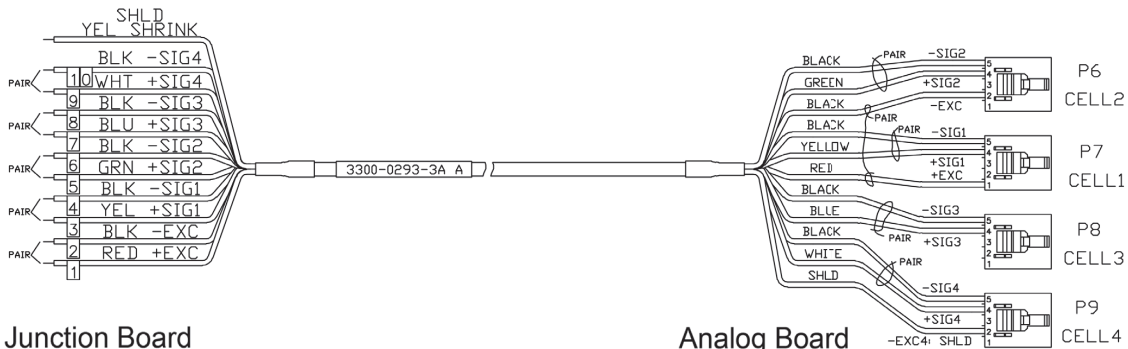
INSTALLATION, CONT.

Scale Interconnection Diagram



*** NOTE:** These two (2) cables are part of the Analog Board Assembly (3300-0001-2A).

Load Cell Cable (3300-0293-3A)



Junction Board Connection

Wire No.	Wire Color	Analog Board Connection
10	BLACK	P9-5
9	WHITE	P9-4
8	BLACK	P8-5
7	BLUE	P8-4
6	BLACK	P6-5
5	GREEN	P6-4
4	BLACK	P7-5
3	YELLOW	P7-4
2	BLACK	P6-2
1	RED	P7-1
SHIELD	YELLOW HEAT SHRINK	P9-2

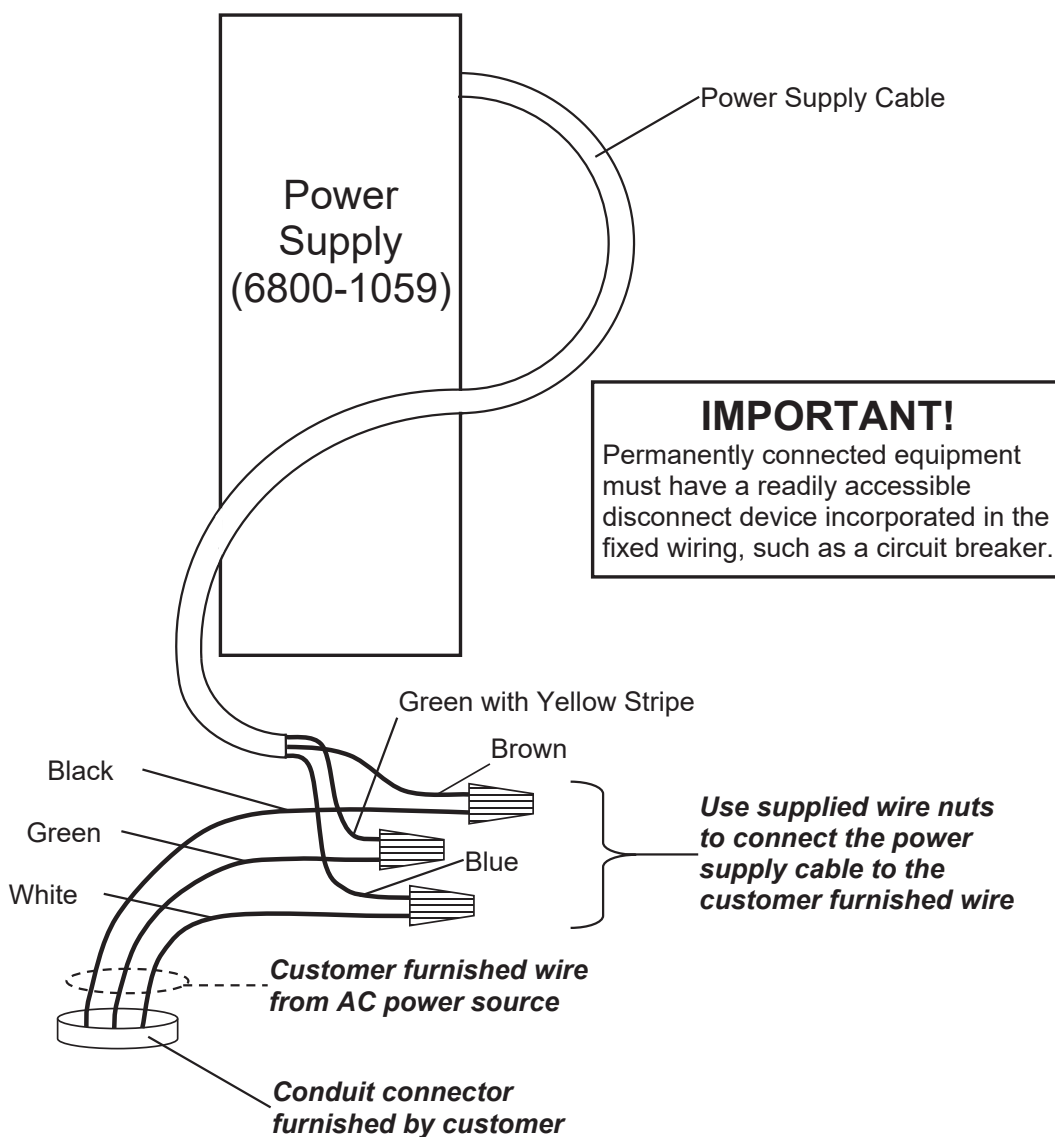
Analog Board Connection

INSTALLATION, CONT.

AC Power Connection

The Solace In-Floor Dialysis Scale has been designed to operate from a connection to a permanent power source and contains an internal power supply that can be easily connected to 100 to 240 VAC 50/60Hz.

1. Referring to the figure below, remove the conduit knockout from the enclosure and replace it with a conduit connector per the local Electrical Code.
2. Trim the jacket back 2 inches from the end of the power supply cable, and then strip the insulation back from the three (3) individual wires approximately 3/8 inch.
3. Run the AC Hot, Neutral, and Ground wires through the conduit into the box area. Trim and strip these wires as required to connect with the power supply cable.
4. Use the supplied wire nuts to connect the three (3) wires from the AC power source to the three (3) wires from the power supply.
5. Remember, the AC power source Black wire connects to the power supply, Brown wire, the AC power source White wire connects to the power supply, Blue wire, and the AC power source Green wire connects to the power supply, Green with Yellow Stripe wire.



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/height measurement to use for your operation: LB/IN (pounds/inches), or KG/CM (kilograms/centimeters). The weighing units/height measurement selection can **ONLY** be made at this time and cannot be changed afterward. Make sure you select the correct weighing units/height measurements before proceeding.



WARNING!

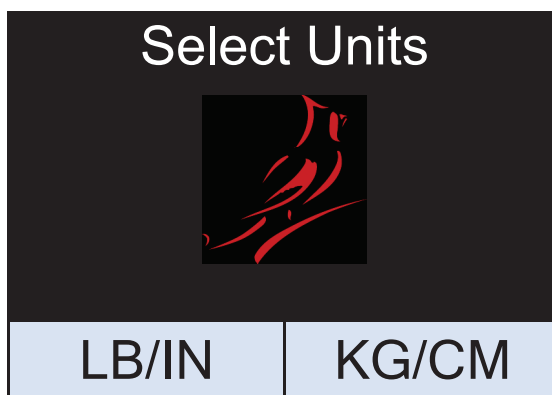
Make sure you select the correct weighing units/height measurement. Once selected the weighing units/height measurement is permanent and cannot be changed.



1. Press the  key to turn the scale on.
2. 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.

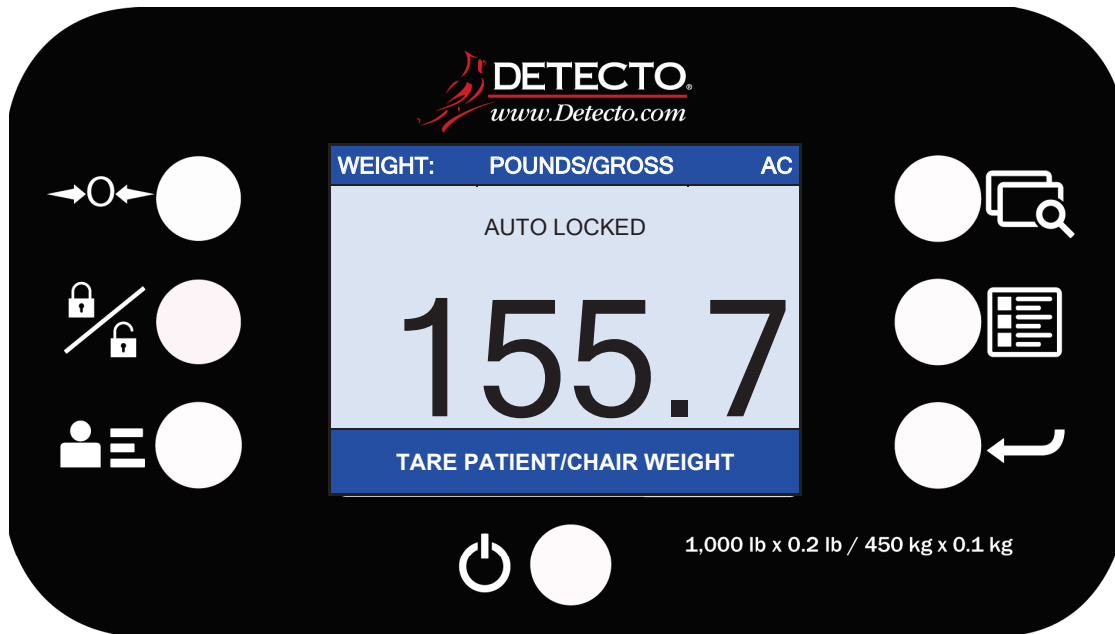


3. After reading and understanding the warning screen, press **OK** on the screen to continue.

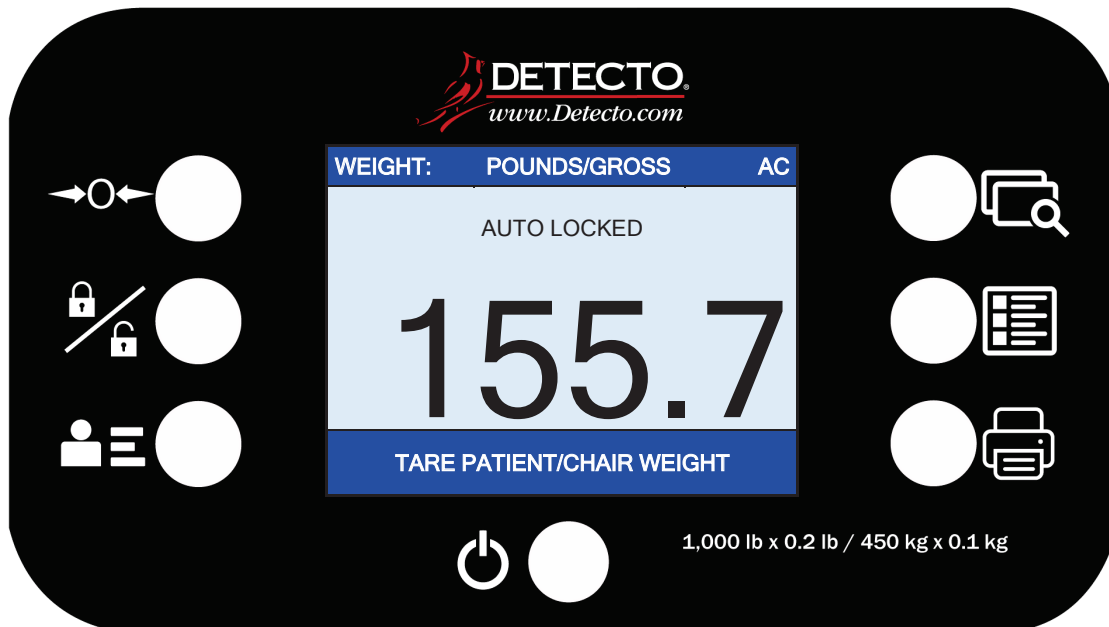


4. If weighing in pounds (LB) and measuring in inches (IN) is required for your operation, press the **LB/IN** key at the bottom left of the screen.
5. If your operation requires weighing in kilograms (KG) and measuring in centimeters (cm), press the **KG/CM** key on the bottom right of the screen.
6. Your Solace In-Floor Dialysis Scale is now ready for operation.

KEYPAD FUNCTIONS



855RM Keypad (without Printer)



855RMP Keypad (with Printer)



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 the key will turn it off.

KEYPAD FUNCTIONS, CONT.



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, where you can use the touch screen to enter a numeric ID. This ID is NOT used for tracking patient measurements. The ID that is entered is only transmitted out of the communication port when the $\hookleftarrow$ 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.



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 touch screen.



This is the **Enter** key. Press and release this key to signal the completion of the entry of data and cause the indicator to output the current weight, height, and BMI for data capture for EMR/EHR purposes. The options include Cardinal SMA, Welch Allyn, Tanita, or IEEE 11073-10415 formats.

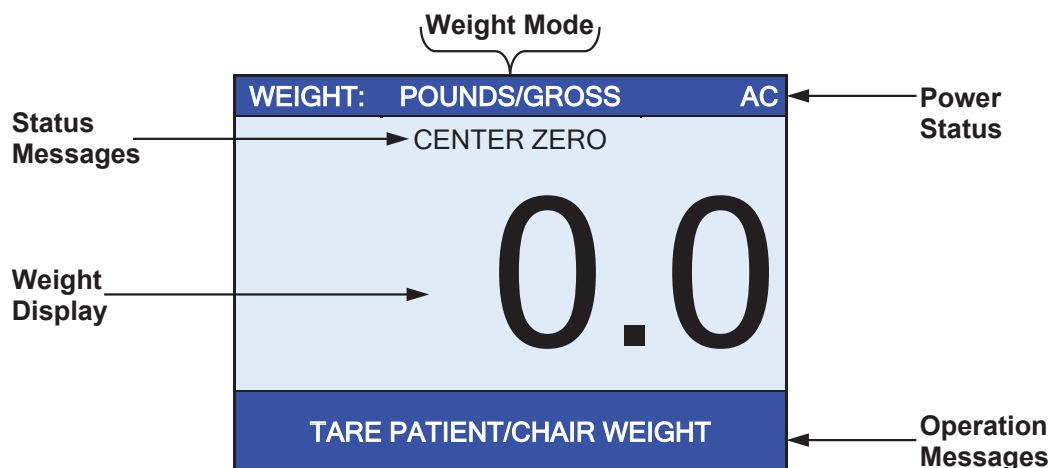
855RMP ONLY



This is the **Print** key. Press and release this key to cause the indicator to output the current patient information (ID and Gross, Tare, and Net Weight) to the printer for record-keeping.

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.



AC

This is shown on the Weight screen to indicate that the indicator is powered by standard 120V AC power.

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 the  key a second time will unlock the display and turn off the annunciator.

DIALYSIS OPERATION



ALWAYS assist the patient on and off the scale to ensure they do not fall. **NEVER** leave a patient unattended while they are on the scale. Failure to maintain control of the patient at all times can result in severe injury to the patient and/or you.

Zero Weight Display

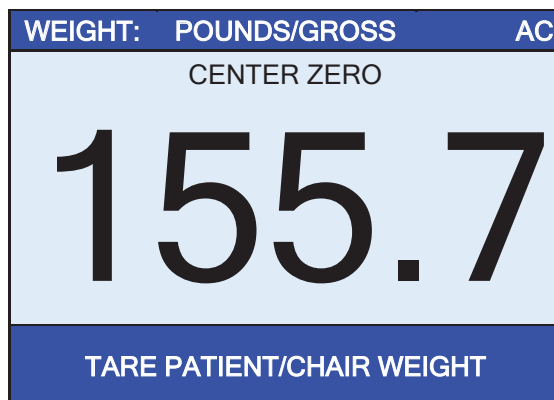
1. Press the  key to turn the scale on.
2. In Gross Weight mode (POUNDS/GROSS or KILOGRAMS/GROSS shown on the weight screen), if the scale is not showing zero weight on the weight screen, press the  key.
3. The weight screen will return to zero (0.0), and CENTER ZERO will be displayed to show that the scale is ready for use.

Zero Weight Display with Item on Scale

1. Press the  key to turn the scale on.
2. Place the item (wheelchair, Dialysis chair, etc.) on the scale.
3. The display will show the weight of the item on the scale.
4. Press the  key.
5. The weight screen will return to zero (0.0), and CENTER ZERO will be displayed to show that the weight of the item has been "zeroed off" and the scale is ready to use.

Operation (No Patient ID)

1. Press the  key to turn the scale on.
2. If required, press the  key to zero the weight screen (with or without an item on the scale).
3. Assist the patient onto the scale



4. 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.

DIALYSIS OPERATION, CONT.

5. Press **TARE PATIENT/CHAIR WEIGHT** on the touchscreen.
6. The display will change to show the **TARGET FLUID REMOVAL** screen.

TARGET FLUID REMOVAL				
5 Key in the numeric target fluid to be removed.	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

7. Using the numeric keys, enter the amount of fluid to be removed from the patient, and then press the **Save** key.
8. The display will change to a weight monitoring screen with a green background and white numbers for the weight.

WEIGHT:	POUNDS/GROSS	AC
0.0		

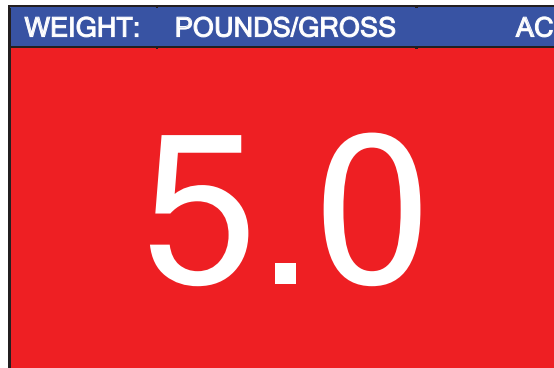
9. As the fluid is being removed from the patient, the scale will display the weight of the fluid.

WEIGHT:	POUNDS/GROSS	AC
1.3		

10. Note that while the amount of fluid removed from the patient is less than the **TARGET FLUID REMOVAL** weight value, the background of the display will remain green.

DIALYSIS OPERATION, CONT.

11. Once the amount of fluid removed from the patient is equal to or greater than the TARGET FLUID REMOVAL weight value, the background of the display will change to red, and an alarm (a beeping sound) will turn on.



12. When the display changes to red and the alarm (beeping sound) turns on, the operator can touch anywhere on the display to end the Dialysis process. The display will change to the **Results** screen with details of the Dialysis process shown.

Results	
Date:	2/24/2020
Target:	5
Actual:	5.0
Exit	Print

13. With the **Results** screen displayed, the operator can press **Print** to print a ticket with the details of the Dialysis process or press **Exit** to return to the main screen.
14. Assist the patient off the scale.

DIALYSIS OPERATION WITH PATIENT ID



ALWAYS assist the patient on and off the scale to ensure they do not fall. **NEVER** leave a patient unattended while they are on the scale. Failure to maintain control of the patient at all times can result in severe injury to the patient and/or you.

Zero Weight Display

1. Press the  key to turn the scale on.
2. In Gross Weight mode (POUNDS/GROSS or KILOGRAMS/GROSS shown on the weight screen), if the scale is not showing zero weight on the weight screen, press the  key.
3. The weight screen will return to zero (0.0), and CENTER ZERO will be displayed to show that the scale is ready to use.

Zero Weight Display with Item on Scale

1. Press the  key to turn the scale on.
2. Place the item (wheelchair, Dialysis chair, etc.) on the scale.
3. The display will show the weight of the item on the scale.
4. Press the  key.
5. The weight screen will return to zero (0.0), and CENTER ZERO will be displayed to show that the weight of the item has been "zeroed off" and the scale is ready to use.

Operation with a Patient ID

1. Press the  key to turn the indicator on.
2. If required, press the  key to zero the weight screen (with or without an item on the scale).
3. Press the  key.
4. The display will change to show the PATIENT ID screen.

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

5. Using the numeric keys, enter up to an 8-digit numeric identification number for the patient, and then press the **Save** key.
6. Assist the patient on the scale.
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.

DIALYSIS OPERATION WITH PATIENT ID, CONT.

8. Press **TARE PATIENT/CHAIR WEIGHT** on the touchscreen.
9. The display will change to show the TARGET FLUID REMOVAL screen.

TARGET FLUID REMOVAL				
5 Key in the numeric target fluid to be removed.	1	2	3	
	4	5	6	
	7	8	9	
SAVE	CANCEL	0	.	DEL

10. Using the numeric keys, enter the amount of fluid to be removed from the patient, and then press the **Save** key.
11. The display will change to a weight monitoring screen with a green background and white numbers for the weight.

WEIGHT:	POUNDS/GROSS	AC
0.0		

12. As the fluid is being removed from the patient, the scale will display the weight of the fluid.

WEIGHT:	POUNDS/GROSS	AC
1.3		

13. Note that while the amount of fluid removed from the patient is less than the TARGET FLUID REMOVAL weight value, the background of the display will remain green.

DIALYSIS OPERATION WITH PATIENT ID, CONT.

14. Once the amount of fluid removed from the patient is equal to or greater than the TARGET FLUID REMOVAL weight value, the background of the display will change to red, and an alarm (a beeping sound) will turn on.



15. When the display changes to red and the alarm (beeping sound) turns on, the operator can touch anywhere on the display to end the Dialysis process. The display will change to a **Results** screen with details of the Dialysis process shown.

Results	
Date:	2/24/2020
Target:	5
Actual:	5.0
Exit	Print

16. With the **Results** screen displayed, the operator can press **Print** to print a ticket with the details of the Dialysis process or press **Exit** to return to the main screen.
17. Assist the patient off the scale.

WHEELCHAIR OPERATION



IMPORTANT! The following operations require you to change the Model: selection in Scale Setup from Dialysis to Wheelchair. Refer to the next section of this manual, **Scale Setup, Settings Page 1, Model:** for the process to change your scale from a Dialysis scale with software specially designed for dialysis patient care to a Wheelchair scale with software designed for wheelchairs (and no dialysis features).

Zero Weight Display

1. Press the  key to turn the scale on.
2. In Gross Weight mode (POUNDS/GROSS or KILOGRAMS/GROSS shown on the weight screen), if the scale is not showing zero weight on the weight screen, press the  key.
3. The weight screen will return to zero (0.0), and CENTER ZERO will be displayed to show that the scale is ready to use.

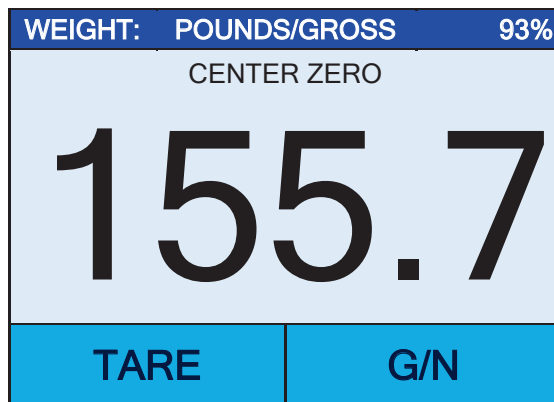
Zero Weight Display with Item on Scale

1. 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. 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. Severe 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 severe injury to the patient and/or you.



6. 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.
7. Read and record the weight displayed.
8. 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.
9. Remove the patient by unlocking the wheels and then pulling the wheelchair off the weighing platform. **NEVER PUSH** a patient in a wheelchair off the weighing platform.

WHEELCHAIR OPERATION, CONT.

Basic Weighing Operation with ID – (No BMI)

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

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. Severe 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 severe 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. Read and record the weight displayed.
9. 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.
10. Remove the patient by unlocking the wheels and then pulling the wheelchair off the weighing platform. **NEVER PUSH** a patient in a wheelchair off the weighing platform.

WHEELCHAIR OPERATION, CONT.

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

1. 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 **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 would 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. Severe 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 severe 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 the weight, height, and BMI 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 off the weighing platform. **NEVER PUSH** a patient in a wheelchair off the weighing platform.

WHEELCHAIR OPERATION, CONT.

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

1. 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**.
8. 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**.
9. 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. Severe 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 severe injury to the patient and/or you.

6. 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.
7. The scale will calculate the patient's BMI using their weight and entered height.
8. Read and record the weight, height, and BMI displayed.
9. 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.
10. Remove the patient by unlocking the wheels and then pulling the wheelchair off the weighing platform. **NEVER PUSH** a patient in a wheelchair off the weighing platform.

SCALE SETUP

Your Solace In-Floor Dialysis Scale has been pre-configured at the factory to operate as a Dialysis scale with software specially designed for dialysis patient care. Should your operation require a “Wheelchair” scale with software designed for wheelchairs (and no dialysis features), you will need to change the **Model**: from Dialysis to Wheelchair. The following describes the setup process for your scale.



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 Scale Setup, the first screen of the menu is a Settings Overview 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 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 Solace In-Floor Dialysis Scale and should be disabled. To ensure the sonar height is disabled, press the **Sonar** key, the **0** key, and then press the **Save** key. The sonar height rod is now disabled, and the display will change back to the Settings Overview 1 screen.
- Press the **Exit** key to exit Setup and return to the Weight screen.
- Press the **Setup** key on the Settings Overview screen to enter the scale setup.
- Press the **>>>** key on the bottom right of the Settings screen to advance to the next menu page.
- Press the **<<<** key at the bottom left of 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 1.00.09, Display Rev. 1.0.18		
Audit Trail -- Cal=4, Cfg=2		
Range 1: 600.0 x 0.2 -- 2: 1000.0 x 0.5		
Weight Units=lb	Height Units=in	
Auto Lock=5 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 top right of touchscreen to advance to the Settings Overview 2 screen.
- Press the **Exit** key to exit Setup and return to the Weight screen.
- Press the **Setup** key to advance to the Password screen and proceed with scale setup.

To Enter Setup, Cont.

SETTINGS OVERVIEW 2 <<<		
Wi-Fi/BLE Module Rev: 1.0.01		
Bluetooth: On		
BLE Adv: Icon Scale F8:F0:05:D8:9D:DD		
Wi-Fi: On, Status: Disconnected		
Network SSID: Dynex617		
DHCP: On		
IP: 192.168.0.133		
Mask: 255.255.255.0		
Gate: 192.168.0.1		
Sonar	Exit	Setup

This value will not be shown if Bluetooth: = Off.

These values will not be shown if Wi-Fi = Off.

- Press <<< on the top right of touchscreen to return to the Settings Overview 1 screen.
- Press the **Exit** key to exit Setup and return to the Weight screen.
- Press the **Setup** key 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.

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

6. Using the 10-key on the touchscreen, enter 64870 and then press the **Save** key.
7. The scale is now ready for setup and calibration.

Settings Page 1

SETTINGS		PAGE 1
Model: Dialysis		
Date: 2/24/2020		
Time: 12:24:44		
Language: English		
<<<	Exit	>>>

Model:

This selection sets the default indicator settings and operation of your scale. Your scale has been pre-configured at the factory as a “**Dialysis**” scale with software specially designed for dialysis patient care. Should your operation require a “**Wheelchair**” scale with software designed for wheelchairs (and no dialysis features), you will need to change the **Model**: from Dialysis to Wheelchair.

To select a “**Dialysis**” scale, touch this key to open the model selection screen, and then using the numeric keys, enter a **3** (3 = Dialysis), and then press **Save**.

To select a “**Wheelchair**” scale, touch this key to open the model selection screen, and then using the numeric keys, enter a **1** (1 = Wheelchair), and then press **Save**.



NOTE: There are two other settings, 0 = icon and 2 = Other. These are not applicable for use with the Solace In-Floor Dialysis Scale.

Date:

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

Year

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

Month

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

Day

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

Time:

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

Hour

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

Minute

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

Second

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

Language:

Touching this key will open the language selection screen for the Setup and Operation screens of the scale. Use the numeric keys to enter a new setting, and press the **Save** key.

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

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

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 the **Save** key.

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 the **Save** key.

Allowable settings for Zero Tracking are 0 – 20.

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

Settings Page 3

SETTINGS		PAGE 3
Capacity 1: 600.0		
Capacity 2: 1000.0		
Interval 1: 2		
Interval 2: 5		
<<<	Exit	>>>

NOTE:

If "Wheelchair" is selected for "Model:",

Capacity 1 = 1000.0

Capacity 2 = 0.

Interval 1 = 2

Interval 2 = 1

Capacity 1:

Touching this key will open the capacity screen. This will allow you to set the capacity of the first range. Using the numeric keys, enter a new setting, and then press the **Save** key.

The first range of the scale should be set to 600.0.

Capacity 2:

Touching this key will open the capacity entry screen for the second weight range. This setting **MUST** be greater than Capacity 1 if used. Using the numeric keys, enter a new setting, and then press the **Save** key.

The second range of the scale should be set to 1000.0.

NOTE: To disable the second weight range, set Capacity 2 to a setting of (0) zero.

Interval 1:

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

Allowable settings for Interval 1 are 1, 2, or 5.

Interval 2:

If a second range capacity has been set, then Interval 2 will be used as the interval of the second weight range if enabled (see Capacity2). Using the numeric keys, enter a new setting, and then press the **Save** key.

Allowable settings for Interval 2 are 1, 2, or 5.

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

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 the **Save** key.

Allowable settings for Decimal 1 are 0 – 3.

Decimal 2:

Touching this key will open the decimal entry screen. This will allow you to set the decimal point precision for the second weight range if enabled (see Capacity2). Using the numeric keys, enter a new setting, and then press the **Save** key.

Allowable settings for Decimal 2 are 0 – 3.

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 the **Save** key.

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 to compensate for the 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 the **Save** key.

NOTE: If you do not wish to use the compensation feature, it must be set to 0 (zero) to disable it.

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

Settings Page 5

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

NOTE:

If "Wheelchair" is selected for "Model:",
Auto Locking = 0 s

Calibrate Scale

Touching this key will allow for calibration of the scale. Refer to the **CALIBRATION** section of this manual for instructions on selecting 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 the **Save** key.

Allowable settings for Auto Locking are 0 to 10.

Power up Zero:

Touching this key will toggle the power on 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 the >>> key to advance to the Settings Page 6.
- Press the <<< key to return to the Settings Page 4.
- Press the **Exit** key to exit Setup and return to the Weight screen.

Settings Page 6

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

Serial Type:

Touch this key to open the serial type selection screen to change the operation of the Serial RS232 port. Using the numeric keys, enter a new setting, and then press the **Save** key.

Allowable settings are: 0 = pass through printing, 1 = Spot LXi¹

If Spot LXi was selected for Serial Type, the scale will automatically interface to a Welch-Allyn Spot LXi interface device to transmit weight data.

USB:

Touch this key to open the USB port selection screen to change the operation of the USB port. Using the numeric keys, enter a new setting, and then press the **Save** key.

Allowable settings are: 0 = SMA, 1 = Welch Allyn¹, 2 = PHDC

- If SMA is selected, and the scale is connected to a computer for transmission of weight data to a PC-based electronic medical record software program, it will transmit a single set of weight data each time an SMA weight request <LF>W<CR> is received.
- If Welch Allyn is selected, the scale will automatically transmit data to a Welch Allyn CVSM Device as soon as a stable weight is obtained.
- If PHDC (Personal Healthcare Device Class) is selected, the scale will transmit data using the CEN ISO/IEEE 11073 Medical / Health Device Communication Standard.

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

¹ Requires the device to have an activated license.
You must purchase DETECTO WACONNECT.

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 the **Save** key.

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 the **Save** key.

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 the >>> key 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 entry screen, and then press the **Save** key to clear the Wi-Fi credentials.

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

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 the **Save** key.

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 the **Save** key.

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 the **Save** key.

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

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

CALIBRATE SCALE

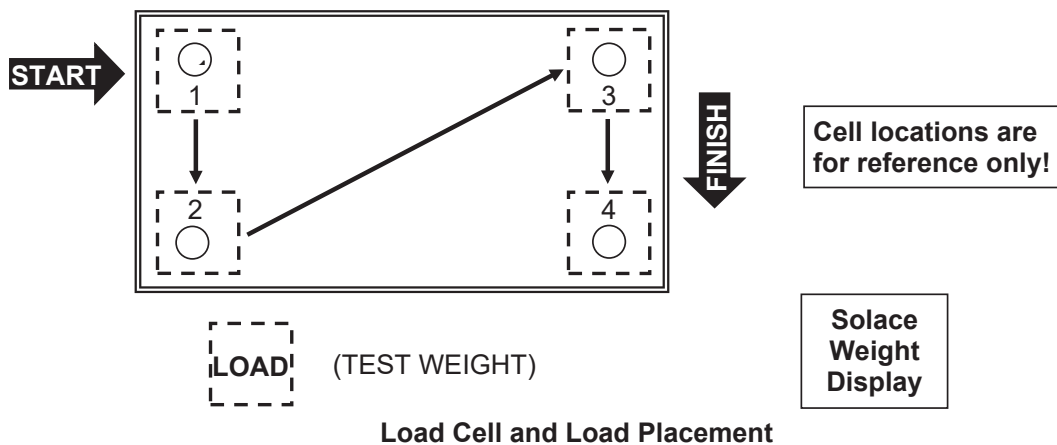
Calibration Modes

The Solace In-Floor Dialysis 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).

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 1.00.09, Display Rev. 1.0.18 Audit Trail -- Cal=4, Cfg=2 Range 1: 600.0 x 0.2 -- 2: 1000.0 x 0.5 Weight Units=lb Height Units=in Auto Lock=5 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

NOTE:

If "Wheelchair" is selected for "Model:",
Range 1 = 1000.0 x 0.2
Range 2 = Not Shown
Auto Lock = 0 s

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

SETTINGS	PAGE 1
Model: Dialysis	
Date: 2/24/2020	
Time: 12:24:44	
Language: English	
<<<	Exit >>>

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

To Enter Calibration, Cont.

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

NOTE:

If "Wheelchair" is selected for "Model:",
Auto Locking = 0 s

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 the **Save** key.

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.

1 = SmartCal®

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

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 the **Save** key.

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 the **Save** key.

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

1 = SmartCal, Cont.

- 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

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

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

- 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

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

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 the **Save** key.
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 the **Save** key.
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 the **Exit** key to exit Setup and return to the Weight screen.

2 = Two Calibration Points

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

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 the **Save** key.

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” screen.

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 the **Save** key.

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

3 = Three Calibration Points

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

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 the **Save** key.

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

3 = Three Calibration Points, Cont.

- 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 the **Save** key.

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

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

CALIBRATE SCALE				
Working 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

- 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 the **Save** key.

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.

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

4 = Four Calibration Points

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

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 the **Save** key.

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

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 the **Save** key.

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 the **Save** key.

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.

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 the **Save** key.

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 the **Exit** key 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 1.00.09, Display Rev. 1.0.18	
Audit Trail -- Cal=54, Cfg=12	
Range 1: 600.0 x 0.2 -- 2: 1000.0 x 0.5	
Weight Units=lb	Height Units=in
Auto Lock=5 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

NOTE:

If "Wheelchair" is selected for "Model:",
 Range 1 = 1000.0 x 0.2
 Range 2 = Not Shown
 Auto Lock = 0 s

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

SETTINGS	PAGE 1
Model: Dialysis	
Date: 2/24/2020	
Time: 12:24:44	
Language: English	
<<<	Exit >>>

NOTE:

If "Wheelchair" is selected for "Model:",
 Model: = Wheelchair

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

Performing Load Cell Trim, Cont.

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

NOTE:

If "Wheelchair" is selected for "Model:",
Auto Locking = 0 s

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	

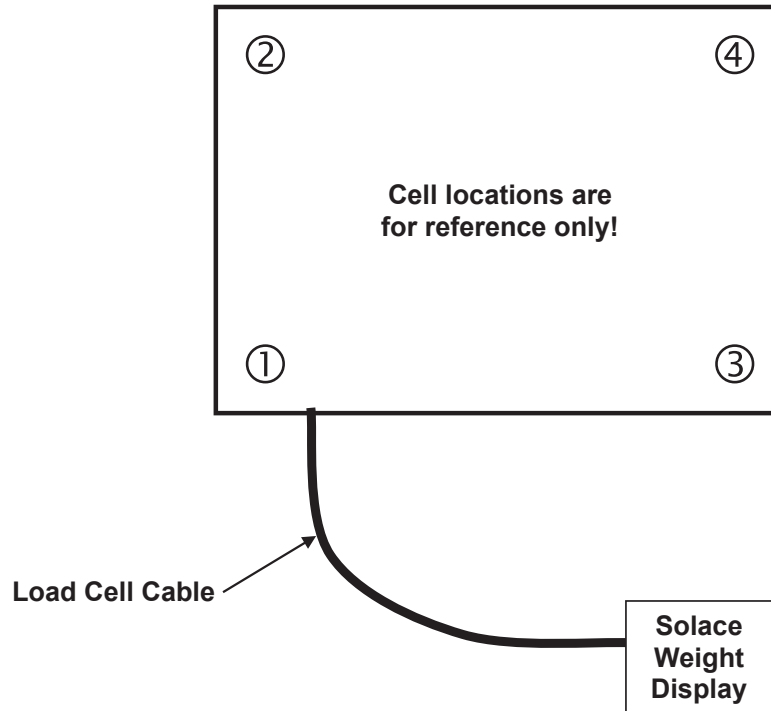
9. Place a test weight of at least 10% of the scale capacity on each corner of the scale, one at a time, and note the reading for each corner.
10. Place a test weight on the corner with the lowest reading and adjust the appropriate cell mV reading until the reading agrees with the highest reading obtained in Step 9.

Press the **+** key to increase the mV reading

Press the **-** key to decrease the mV reading for each cell.

Performing Load Cell Trim, Cont.

11. Repeat Step 10 until all corners have the same reading.



12. Press the **Exit** key to exit Load Cell Trim and return to the Settings Page 5 screen.

13. Press the **Exit** key again to exit Setup and return to the Weight screen.

WI-FI AND BLUETOOTH 5.0

The DETECTO Solace In-Floor Dialysis Scale has a Wi-Fi and Bluetooth 5.0 wireless transmitter inside the weight display that has been designed for an environment where interfacing the scale to a Wi-Fi network or pairing to a Bluetooth-capable device is desired.

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 the Wi-Fi module
- Setup option to select a static or dynamic IP address
- Built-in web server 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 1.00.09, Display Rev. 1.0.18 Audit Trail -- Cal=4, Cfg=2 Range 1: 600.0 x 0.2 -- 2: 1000.0 x 0.5 Weight Units=lb Height Units=in Auto Lock=5 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

NOTE:

If "Wheelchair" is selected for "Model:",
Range 1 = 1000.0 x 0.2
Range 2 = Not Shown
Auto Lock = 0 s

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 the **Save** key.

Enable and Configure Wi-Fi Networking, Cont.

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

SETTINGS		PAGE 1
Model: Dialysis		
Date: 11/6/2019		
Time: 12:24:44		
Language: English		
<<<	Exit	>>>

NOTE:

If "Wheelchair" is selected for "Model:",
Model: = Wheelchair

7. Press the >>> key 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 the **Wi-Fi:** key to open a selection screen to turn the Wi-Fi wireless transmitter On. Press 1 on the entry screen, and then press the Save key.
9. Touch the **SSID:** key to open a screen that will prompt you to CLEAR SSID. Press 1 on the entry screen, and then press the **Save** key to clear the Wi-Fi credentials.

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

Enable and Configure Wi-Fi Networking, Cont.

10. Press the >>> key 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 the **DHCP:** key 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 the Save key.



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

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

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 the **GW:** key 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 the Save key.

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

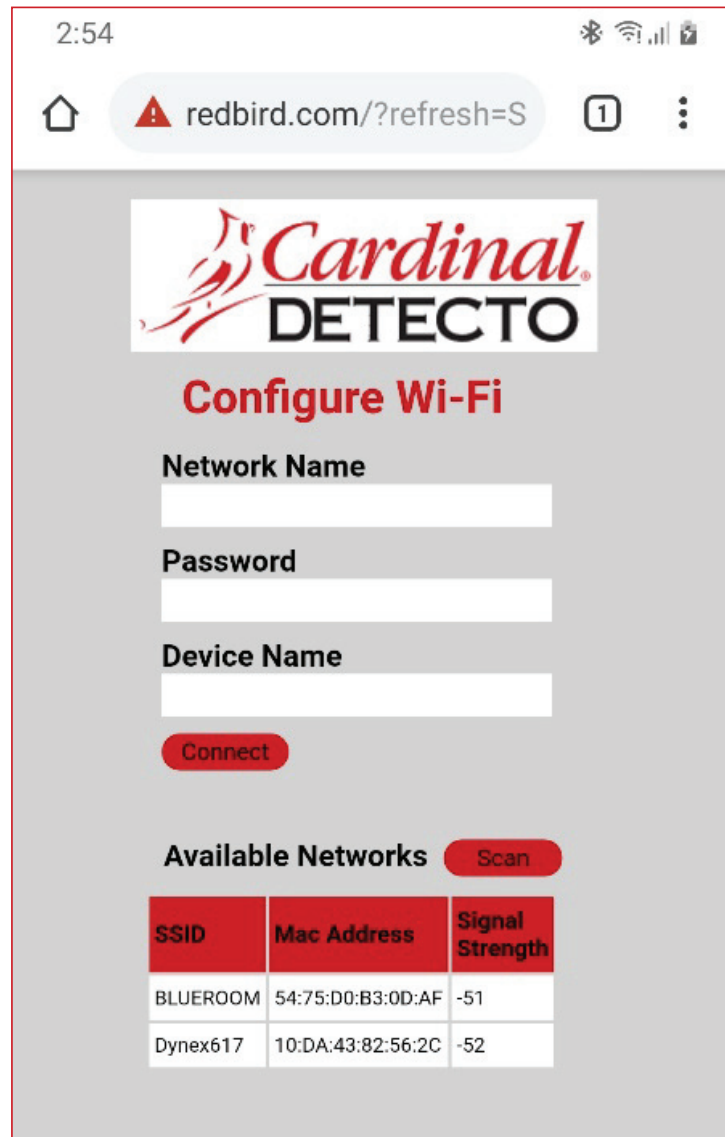
14. Press the **Exit** key to exit Setup and return to the Weight screen.

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

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 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.

2:55
Bluetooth
Wi-Fi
Cellular

Home
redbird.com/?refresh=S
1
Menu



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

Configure Wi-Fi Network Module, Cont.

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.

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 the **Save** key.
6. The display will change to show the Settings Page 1 screen.
7. Press the >>> key to advance to the Settings Page 7 screen.
8. Touch the **SSID:** key.
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 the **Save** key to clear the credentials.
11. Press the **Exit** key 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 Wi-Fi Network Settings

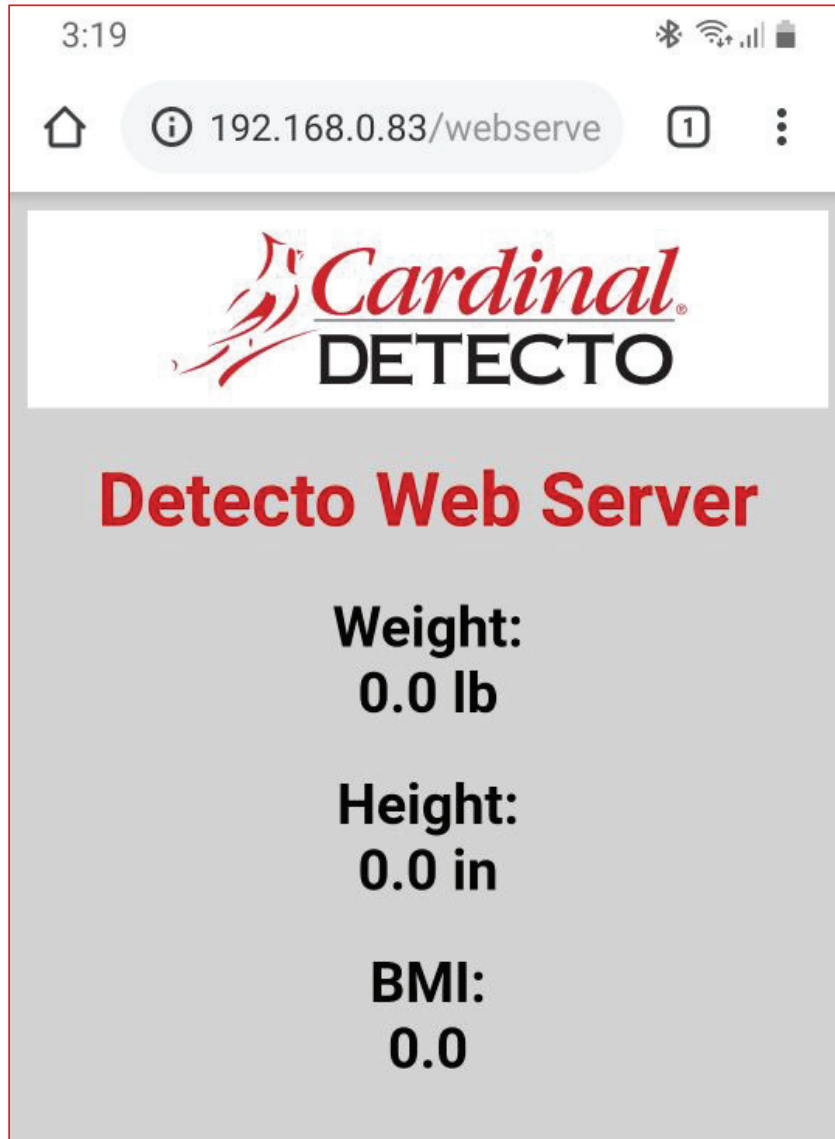
1. With the scale turned on and the Weight screen displayed, press the **Menu** key.
2. The display will change to show the Settings Overview 1 screen.
3. Press the >>> key to advance to the Settings Overview 2 screen.
4. The scale's Wi-Fi network settings will be shown.
5. Press the **Exit** key to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



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" are overridden
r =	Range ("1", "2", "3", etc.) always returns "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 dialysis 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 Solace In-Floor Dialysis 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 via 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.

SETTINGS OVERVIEW 1		>>>
Revision 1.00.09, Display Rev. 1.0.18		
Audit Trail -- Cal=4, Cfg=2		
Range 1: 600.0 x 0.2 -- 2: 1000.0 x 0.5		
Weight Units=lb		Height Units=in
Auto Lock=5 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

NOTE:

If "Wheelchair" is selected for "Model:",

Range 1 = 1000.0 x 0.2

Range 2 = Not Shown

Auto Lock = 0 s

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

Enable Bluetooth (BLE) Networking, Cont.

- 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

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

SETTINGS		PAGE 1
Model: Dialysis		
Date: 11/6/2019		
Time: 12:24:44		
Language: English		
<<<	Exit	>>>

NOTE:

If "Wheelchair" is selected for "Model:",
Model: Wheelchair

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

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

- Touch the **Bluetooth:** key to open a selection screen to turn the Bluetooth wireless transmitter On. Press 1 on the entry screen, and then press the Save key.
- Press the **Exit** key to exit Setup and return to the Weight screen.
- The scale is now ready to pair with a Bluetooth-capable device.

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 the <<< or >>> keys are pressed to change to a different settings page, the **Exit** key 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 represent the MAC address of the BLE wireless transmitter in the scale's weight indicator.

NOTE: If there are multiple dialysis 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 the >>> key to advance to the Settings Overview 2 screen.
4. The scale's Bluetooth setting and Bluetooth Advertisement name will be shown.
5. Press the **Exit** key 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) UUIDs are adopted standards. 128-bit (32-digit) UUIDs 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: The 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					
Flags	Mandatory	8 bit	N/A	N/A	BIT FIELD					
					Bit	Size	Name	Definition		Requires
								Key	Value	
					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	C3
								1	True	
					2	1	User ID Present	0	False	C4
								1	True	
					3	1	BMI and Height Present	0	False	C5
								1	True	
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					
						Key	Value			
						255	Unknown user			
					Unit: org.bluetooth.unit.unitless					
Exponent: Decimal, 0										
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 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 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:Icon 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	Each time sent, you will get the next line of scale information until there is no longer any information. 1. 0A 54 59 50 3A 53 0D = TYP:S 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 Icon. 600.0 – Capacity, 2 – Interval, & 1 – Decimal 3. 0A 43 4D 44 3A 48 52 49 4E 58 0D = CMD: HRINX 4. 0A 45 4E 44 3A 0D = END: 5. If N is sent again, you will get the unknown command response until the I command is sent again. 0A 3F 0D = ?
R – Repeat Displayed Weight Continuously	0A520D	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.
XB – battery level percentage	0A58420D	0A 38 36 2E 32 35 0D = 86.25

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.

SETTINGS OVERVIEW 1 >>>		
Revision 1.00.09, Display Rev. 1.0.18 Audit Trail -- Cal=4, Cfg=2 Range 1: 600.0 x 0.2 -- 2: 1000.0 x 0.5 Weight Units=lb Height Units=in Auto Lock=5 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

NOTE:

If "Wheelchair" is selected for "Model:",

Range 1 = 1000.0 x 0.2

Range 2 = Not Shown

Auto Lock = 0 s

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

SETTINGS OVERVIEW 2 <<<		
Wi-Fi/BLE Module Rev: 1.0.01 Bluetooth: On BLE Adv: Icon Scale F8:F0:05:D8:9D:DD Wi-Fi: On, Status: Disconnected Network SSID: Dynex617 DHCP: On IP: 192.168.0.133 Mask: 255.255.255.0 Gate: 192.168.0.1		
Sonar	Exit	Setup

This value will
not be shown if
Bluetooth: = Off.

These values will not be
shown if Wi-Fi = Off.

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

ERROR AND OPERATION MESSAGES

The Solace In-Floor Dialysis 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 CAN NOT ZERO

The scale cannot be zeroed due to motion on the 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.

OVERCAPACITY

The scale weight exceeds the scale capacity.

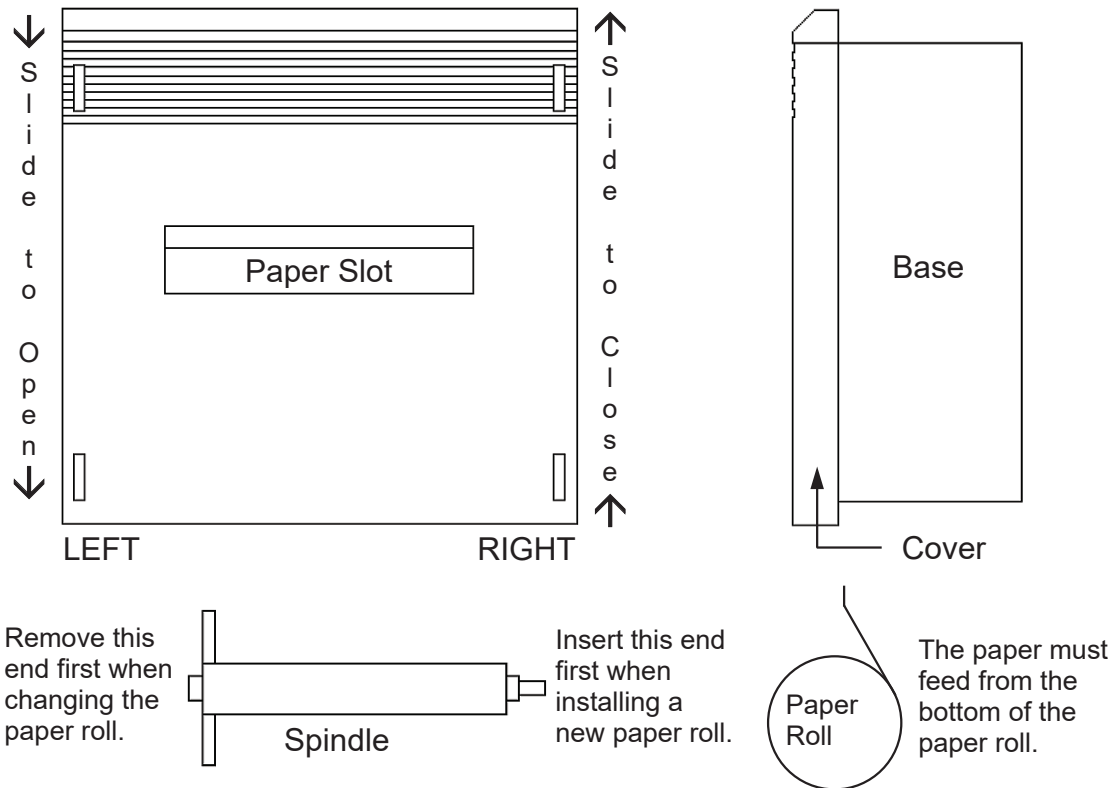
OVERFLOW ERROR

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.	• Check the circuit breaker. • Has there been a power failure?
The incorrect weight is displayed.	Ensure that an adjacent object is not touching the scale platform. Have proper operation procedures been followed?
Weight is not displayed.	Refer to Error and Operation Messages.

CHANGING THE PAPER ROLL AND RIBBON CARTRIDGE



To Change the Paper Roll

1. Referring to the upper two images, slide the cover in the direction indicated to OPEN, and then lift the cover off the base and set it aside. Note that the cover only moves one-half inch.
2. With a rotating motion, lift the LEFT end of the paper spindle first, then remove it.
3. Insert the end of the new roll of paper into the paper slot of the printer mechanism with the paper coming off the roll at the bottom as shown in the lower right image.
4. Use the paper feed switch to advance the paper so that it extends at least three inches above the printer.
5. Place the spindle in the new paper roll with the two round shafts on the left end.
6. Insert the RIGHT end of the paper spindle in its holder first and then snap the LEFT end of the spindle into position.
7. Feed the loose end of the paper through the paper slot and locate the cover flush with the base at a position one-half inch from the top.
8. Referring to the upper two images, slide the cover in the direction indicated to CLOSE and snap it into position.

To Change the Ribbon Cartridge

1. Referring to the upper two images, slide the cover in the direction indicated to OPEN, and then lift the cover off the base and set it aside. Note that the cover only moves one-half inch.
2. Use the paper feed switch to advance the paper so that it extends at least three inches above the printer.
3. Press down on the left end of the ribbon where it is marked PUSH, and then lift both ends to remove the old ribbon.
4. Turn the knob on the right end of the ribbon (as needed to keep the ribbon tight) while placing the new ribbon over the extended paper, and then snap it down firmly into place.
5. Feed the loose end of the paper through the paper slot and locate the cover flush with the base at a position one-half inch from the top.
6. Referring to the upper two images, slide the cover in the direction indicated to CLOSE and snap it into position.

CARE AND CLEANING



IMPORTANT! The scale contains no user-serviceable parts, and maintenance should be limited to occasional cleaning.

General Cleaning Instructions

- 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 indicator'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.

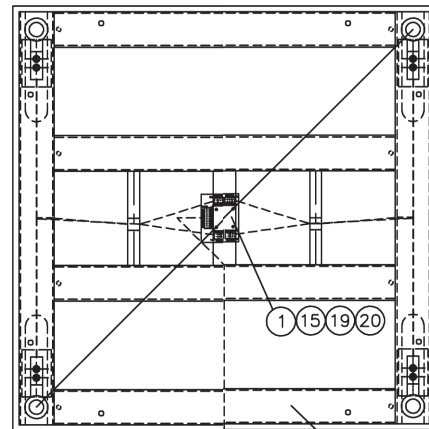
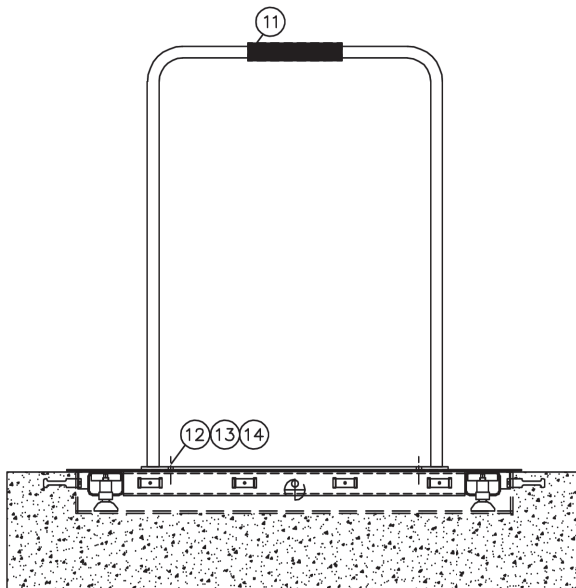
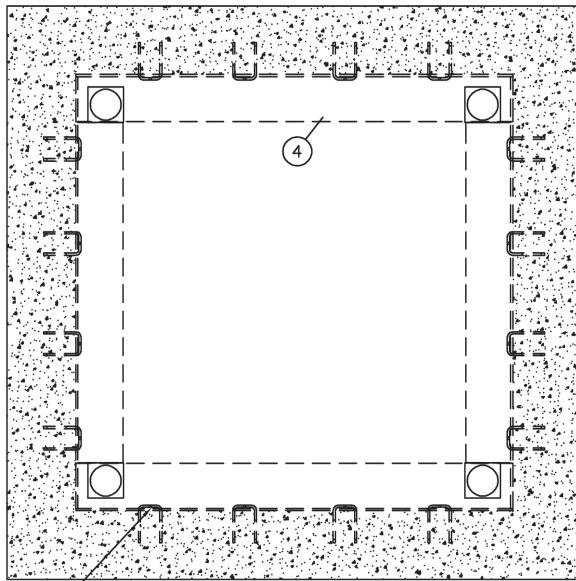
Stainless Steel Cleaning Instructions

While stainless steel is a sturdy and attractive material, it is not incorruptible. Stainless steel is susceptible to rusting. Three basic things can break down stainless steel's outer layer and allow corrosion.

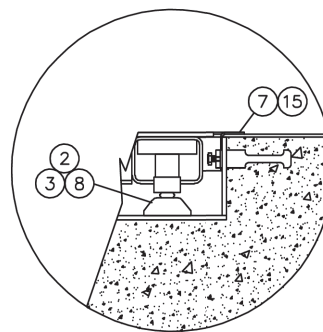
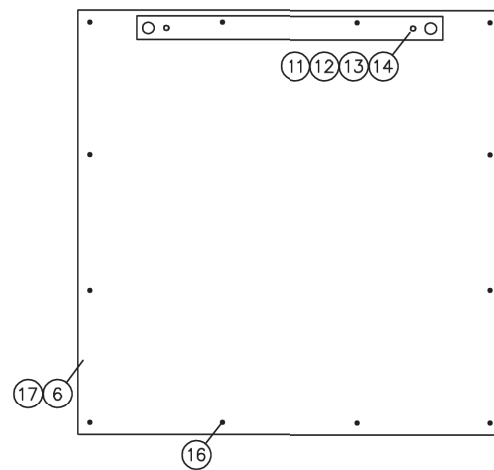
1. Mechanical abrasion - those things that will scratch the steel's surface, such as steel pads, wire brushes, and scrapers. Instead, use soft cloths or plastic scouring pads for cleaning and brush with the polish line or "grain."
2. Water - especially hard water, which can leave behind deposits. When possible, use treated water - soft water is much gentler on the stainless steel's surface.
3. Chlorides - often found in water, food, and table salt. One of the worst perpetrators of chlorides can come from household and industrial cleaners, especially those with quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel. Instead, use non-chloride cleaners. If chlorinated cleaners must be used, rinse several times and wipe dry immediately.

PARTS IDENTIFICATION

Scale Final Assembly



The indicator cable can exit from any side of the scale.



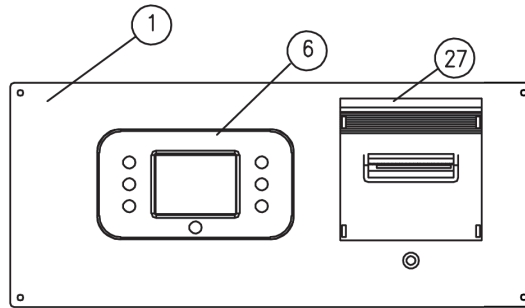
PARTS IDENTIFICATION, CONT.

Scale Final Assembly, Cont.

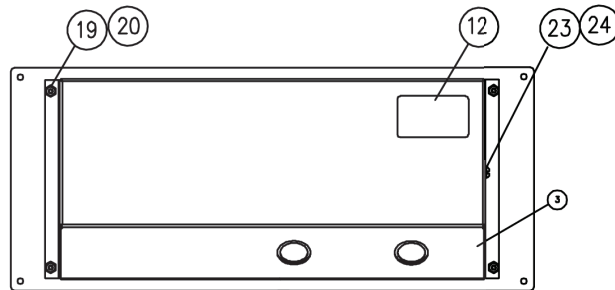
ITEM	QTY	PART NO.	DESCRIPTION
1	1	1914-0009-0A	Junction Board
2	4	6021-2064	Screw, Socket-Head Cap, .375-24 x 1.25
3	4	1930-B363-0A	Foot Assembly, Floor Hugger, 2 in Diameter
4	1	1914-0029-0A	ID-3636S(SH), Pit Steel Assembly
	1	1914-0021-0A	ID-4836S(SH), Pit Steel Assembly
	1	1914-0035-0A	ID-4848S(SH), Pit Steel Assembly
	1	1914-0060-0A	ID-7248S(SH), Pit Steel Assembly
5	1	1934-B072-0A	Identification Marking
6	1	1914-0030-08	ID-3636S(SH), Cover Plate, Stainless Steel, No Handrail
	1	1914-0020-08	ID-4836S(SH), Cover Plate, Stainless Steel, No Handrail
	1	1914-0036-08	ID-4848S(SH), Cover Plate, Stainless Steel, No Handrail
	1	1914-0060-08	ID-7248S(SH), Cover Plate, Stainless Steel, No Handrail
7	1	1914-0031-0A	ID-3636S(SH), Pit Frame Cover, Stainless Steel, Trim Ring
	1	1914-0062-0A	ID-4836S(SH), Pit Frame Cover, Stainless Steel, Trim Ring
	1	1913-0365-0A	ID-4848S(SH), Pit Frame Cover, Stainless Steel, Trim Ring
	1	1913-0456-0A	ID-7248S(SH), Pit Frame Cover, Stainless Steel, Trim Ring
8	4	LFB-500HMTP	Load Cell, Shear Beam, 250 Kg, Nickel Plated Alloy
9	1	1914-0032-0A	ID-3636S(SH), Base Assembly, 36 in x 36 in
	1	1914-0015-0A	ID-4836S(SH), Base Assembly, 48 in x 36 in
	1	1914-0038-0A	ID-4848S(SH), Base Assembly, 48 in x 48 in
	1	1914-0058-0A	ID-7248S(SH), Base Assembly, 72 in x 48 in
10	1	3300-0293-1A	Load Cell Cable
11	1	1934-B110-0A	Handrail Assembly
12	2	6007-0041	Bolt, Hex Head, 3/8-16 x 1 in, Stainless Steel
13	2	6024-0046	Washer, Lock, 3/8 in Stainless Steel
14	2	6024-0019	Washer, Flat, 3/8 in Stainless Steel
15	16	6021-1002	Screw, Hex Head, #10-32 x 1/2 in Stainless Steel for ID-3636S(SH), ID-4836S(SH), and ID-4848S(SH)
	20	6021-1002	Screw, Hex Head, #10-32 x 1/2 in Stainless Steel for (ID-7248S(SH))
16	12	6021-1224	Screw, Flat Head, #12-24 x 3/4 in S.S. for ID-3636S(SH)
	14	6021-1224	Screw, Flat Head #12-24 x 3/4 in S.S. for ID-4836S(SH)
	16	6021-1224	Screw, Flat Head #12-24 x 3/4 in S.S. for ID-4848S(SH)
	20	6021-1224	Screw, Flat Head #12-24 x 3/4 in S.S. for ID-7248S(SH)
17	1	1914-0030-18	ID-3636S(SH), Cover Plate, Handrail, 3 ft Side
	1	1914-0020-28	ID-4836S(SH), Cover Plate, Handrail, 3 ft Side
	1	1914-0020-18	ID-4836S(SH), Cover Plate, Handrail, 4 ft Side
	1	1914-0036-18	ID-4848S(SH), Cover Plate, Handrail, 4 ft Side
	1	1914-0060-18	ID-7248S(SH), Cover Plate, Handrail, 4 ft Side
	1	1914-0060-28	ID-7248S(SH), Cover Plate, Handrail, 6 ft Side
19	4	6680-0097	Spacer, #10 x 3/8 in OD x 3/16 in Tall
20	4	6024-1010	Washer, Lock, #10 Stainless Steel

PARTS IDENTIFICATION, CONT.

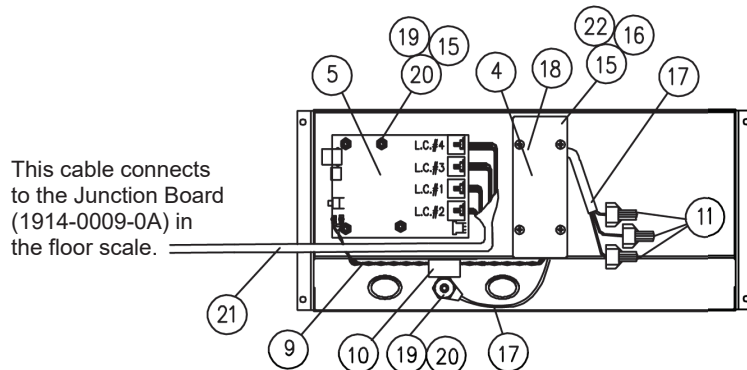
Printer/Display Combo Assembly



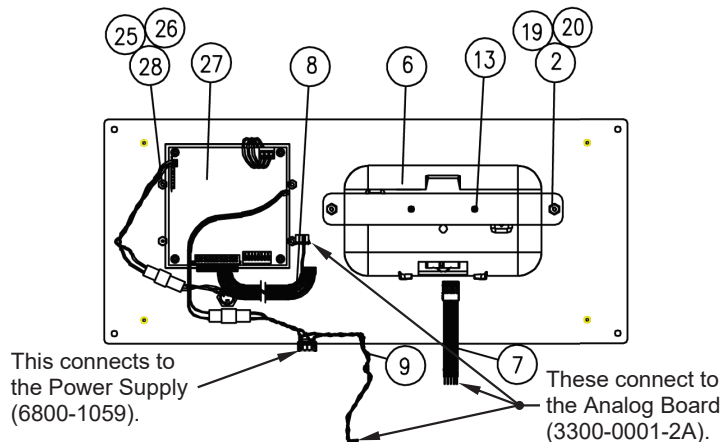
Front View



Back View



Inside Bottom View



Back View

(Cover and Mounting Hardware Removed)

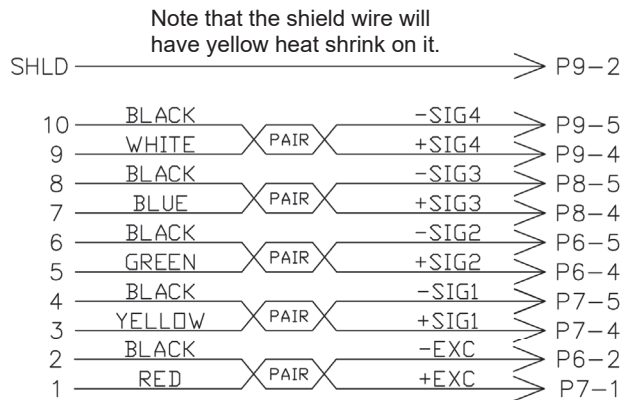
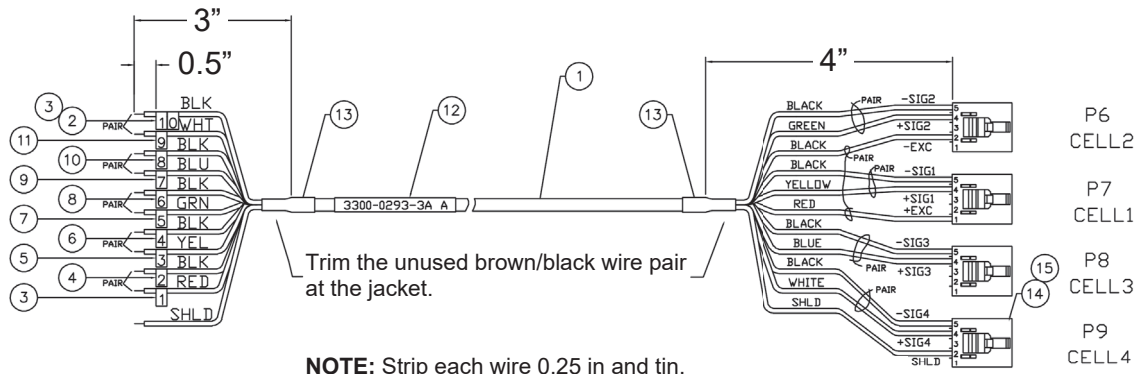
PARTS IDENTIFICATION, CONT.

Printer/Display Combo Assembly, Cont.

ITEM	QTY	PART NO.	DESCRIPTION
1	1	1914-0012-0A	Bezel Weldment, 855RMP
2	1	1914-0011-08	Clamp Bracket, 855RMP
3	1	1914-0014-1A	Cover Weldment, 855RMP
4	1	1914-0024-18	Power Supply Cover, 855RMP
5	1	3300-0321-2A	Dialysis Analog/Controller Assembly Board
6	1	3300-0354-0A	Subassembly: Display, Solace
7	1	Part of Item 5	Cable, Indicator, Icon Dialysis
8	1	3300-0292-0A	Cable, Printer, Icon Dialysis
9	1	Part of Item 5	Cable: Power Supply Output 855RMP
10	1	6610-5007	Cable Clip, Gray
11	3	6610-2481	Wire Nuts, Yellow
12	1	593GR986	Serial Tag Assy.
13	2	6021-1286	Screw, #4 X 0.25, Thread Cut #25
15	8	6680-0201	Spacer, #6-32 X 0.50, Nylon
16	4	6680-1042	Spacer, #6-32 X 1.29, Hex, Aluminum
17	1	1914-0055-2A	Power Cable, 3 Wire Power Cordage
18	1	6800-1059	Power Supply 12V / 1.7A
19	11	6013-0039	Nut, #6-32 Hex
20	11	6680-0004	Lock Washer, #6 Internal Tooth
21	1	3300-0293-3A	Cable, Load Cell
22	4	6021-0608	Screw, #6-32 X .375
23	1	6021-1058	Screw, #10-32 X .375 Truss Head Machine Screw
24	1	6024-1010	Lock Washer, #10 Internal Tooth
25	4	6013-0256	Nut #2-25 Hex
26	4	6021-0004	Screw, Pan-Head, Machine-Screw #2-56x.5625
27	1	6600-0700	Printer, Dot Matrix
28	4	6680-0084	Lock Washer, Helical #2
REF	REF	6600-0701	Ink Ribbon For PI180 Printer
REF	REF	6600-0702	Paper Roll, Plain Paper, 2 1/4 in W, 1.6 in OD

PARTS IDENTIFICATION, CONT.

Load Cell Cable Assembly



ITEM	QTY	PART NO.	DESCRIPTION
1	10.0 ft	6980-0326	6 Pair, 24 GA, Shielded Cable
2	.028	6980-0140	Wire Marker 0
3	.056	6980-0141	Wire Marker 1
4	.028	6980-0142	Wire Marker 2
5	.028	6980-0143	Wire Marker 3
6	.028	6980-0144	Wire Marker 4
7	.028	6980-0145	Wire Marker 5
8	.028	6980-0146	Wire Marker 6
9	.028	6980-0147	Wire Marker 7
10	.028	6980-0148	Wire Marker 8
11	.028	6980-0149	Wire Marker 9
12	1	6650-0078	Label
13	.083 ft	6980-0114	Heat Shrink
14	4	6610-5181	Connector, 5-Pin, Female
15	11	6610-5182	Terminal, Female

STATEMENT OF LIMITED WARRANTY

DETECTO 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 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 items lost or damaged in transit.

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 properly 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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