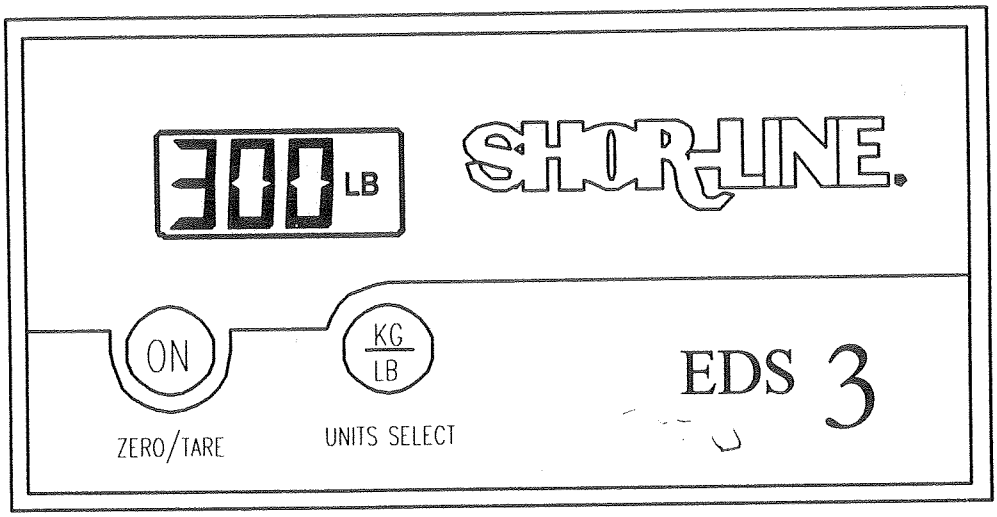
Installation and Operating Instructions

Electronic Digital Scale



Schroer Manufacturing Company

SCHROER MFG CO.

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006.3010.01 Revision 4

INTRODUCTION

Your new SHOR-LINE scale is designed to provide you with years of accurate and reliable service. Consideration of the needs of the veterinarian and his or her staff has produced a scale that is easy to use and requires very little maintenance. This manual is provided to explain the various features of your new scale and to illustrate how to best use them.

The *EDS 3 Scale* is designed for easy setup.

- Electronic self-diagnostics insure proper functioning and accurate results.
- The display module may be configured to power up in either LB or KG for the default units.

The *EDS 3 Scale* is designed to display accurate weights up to 300 lb. (136 kg.)

- Units will be displayed in 1/10 increments through 99.9 units. Units will be displayed in whole increments from 100 to full capacity.

The *EDS 3 Scale* is designed to withstand the heavy traffic associated with a busy small animal practice.

- Stainless steel platform construction.
- Electrical protection is designed into the circuitry of the display module.

The display module may be mounted in a variety of locations.

- The indicator may be mounted at any convenient location near the scale platform.
- A post is available that allows you to mount the indicator directly to the scale frame.

The display module operates on low voltage DC power.

- Power supplied by four AA batteries, or AC wall plug transformer.

IMPORTANT!

The EDS 3 Scale is incompatible with any telephone equipment.

We have designed the wire connectors for this product with modular plugs and jacks. This allows easy assembly and field replacement of components and cables. Damage to the scale electronics and to your telephone equipment may occur if any telephone equipment is plugged into the jacks. Damage of this nature may void your warranty.

WARRANTY

Schroer Manufacturing Company warrants to the customer (CUSTOMER) who originally purchased the EDS 3 SCALE (EQUIPMENT) that the EQUIPMENT shall be free from defects in material and workmanship for period of two years (platform) and one year (display module) from the date of delivery to the CUSTOMER.

Schroer Manufacturing Company agrees to either repair or replace, as its option, any of the EQUIPMENT or portion thereof which is defective and fails to meet the foregoing warranties (DEFECTIVE EQUIPMENT). If any EQUIPMENT needs warranty service hereunder, the CUSTOMER should contact:

United States: Technical Service Department

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Kansas City, Kansas 66105
Phone: 1-888-551-4064
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Some states do not allow limitation on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages and the exclusion of implied warranties may not be legally enforceable, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may have other rights that vary from state to state.

Except as expressly provided herein, Shor-Line makes no warranties, expressed or implied, including without limitation warranties of merchantability and fitness for a particular purpose.

PARTS LIST: STANDARD AND OPTIONAL EQUIPMENT

Please review the following illustrations and part lists carefully.

If any parts are damaged or missing, call 1-800-444-1579 for immediate assistance.

Part Number	Description	Quantity required
Standard	**Remote Scale Packing List**	
181.0052.20	Indicator Assembly	1
	181.0052.11 Adapter 120VAC/60Hz	1
	OR 181.0052.12 Adapter 220VAC/50Hz	1
300.0649.00	Indicator Bracket	1
	Thumb Knob Assembly	2
	062.2506.01 ¼-20 Screw	1
	058.3002.00 Knob	1
065.2500.80	¼" Nylon Washer	2
188.0003.00	Quick Clips	8
006.3010.01	EDS 3 Operating Manual	1
300.0652.00	Wall Mount Bracket	1
182.0005.00	Gray Rubber Mat	1
	Scale Platform Assembly	1
	Hardware Kit	
062.2517.00	¼-20 x 1 ¾" Hex bolts	4
062.25000 ~~062.2500.00~~	¼ ~~Flat Washer~~ Nut .	4
060.1006.01	#10 x 5/8" Roundhead Phillips Screw	2
06010000	#10 x 1" Plastic Wall Anchor	2
060.1012.00	#10 x 1½" Roundhead Phillips Screw	2
06012200	1/8 x 2" Toggle Bolt Assembly	2
-Optional -	**Post Mount Hardware**	
300.0650.00	Post	1
300.0647.00	Post Anchor Bracket**A**	1
300.0648.00	Post Anchor Bracket**B**	1
062.2517.00	¼-20 x 1 ¾" Hex Head Bolt	3
065.2500.00	¼ Flat Washer	3
-Optional -	**Lift Table Hardware** (Supplied with Lift Table)	
300.0303.00	Lift Table Display Module Bracket	1
310.0355.00	Lift Table Scale Spacers	2

PARTS LIST: PLATFORM ASSEMBLY

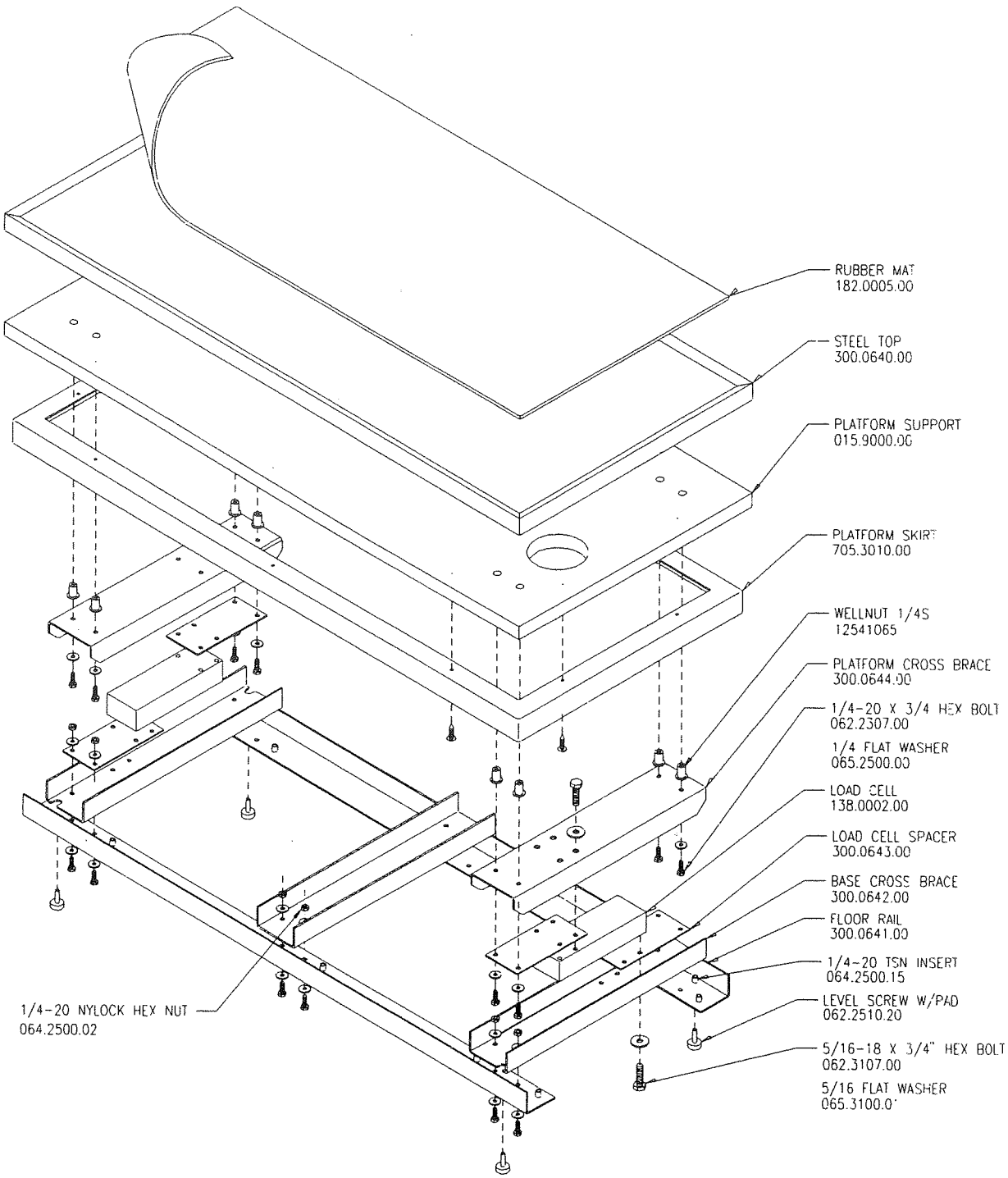

Figure 1. Platform assembly parts locator

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PARTS LIST: DISPLAY MODULE MOUNTING OPTIONS

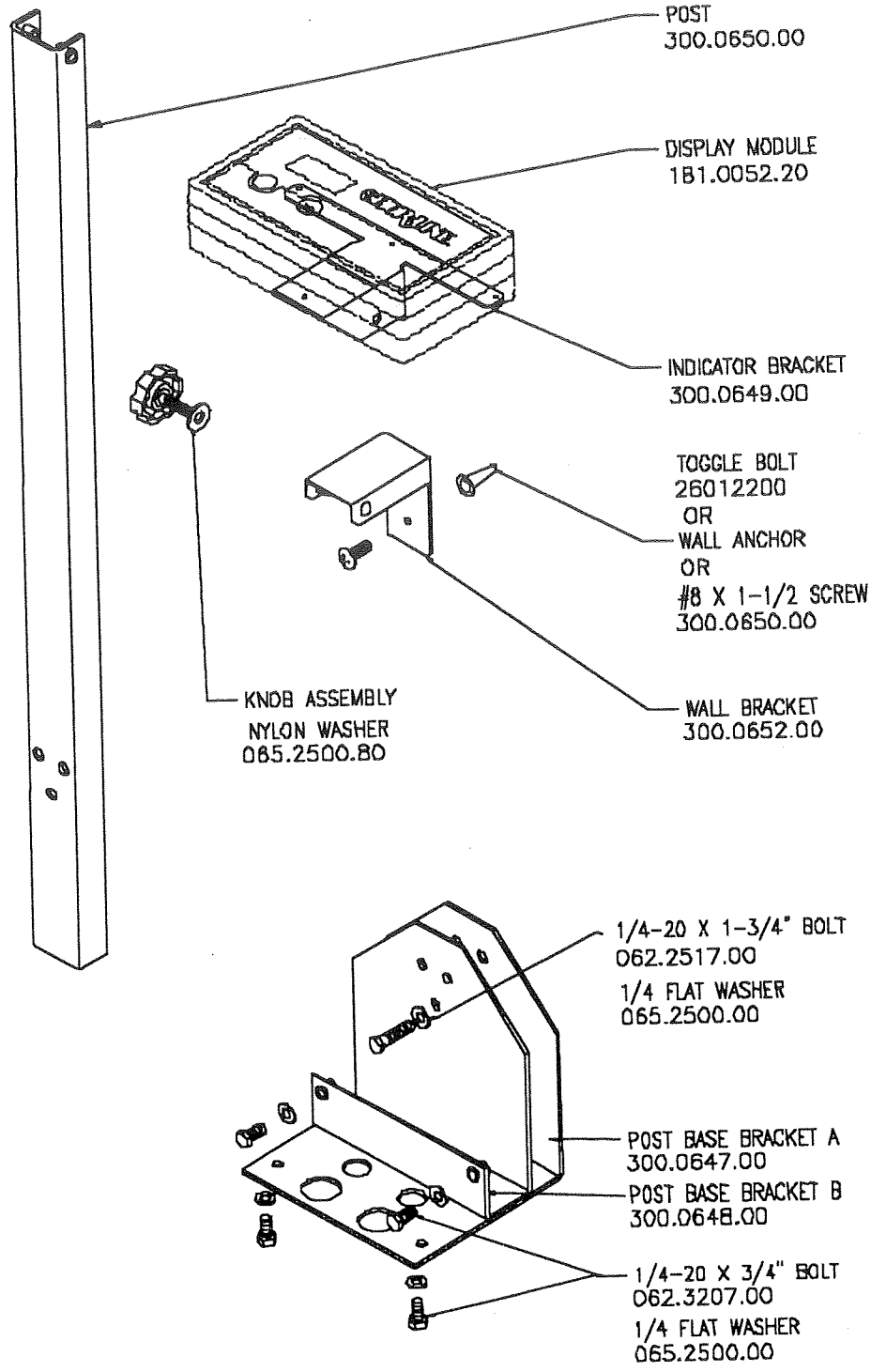


Figure 2. Display module mounting parts locator

INITIAL SETUP

FOR **POST MOUNT** DISPLAY MODULE INSTALLATION

Turn platform upside down. You will notice 6 sets of permanently installed ¼-20 fasteners.

Determine the desired location of the post mount brackets. Location choices are as follows:

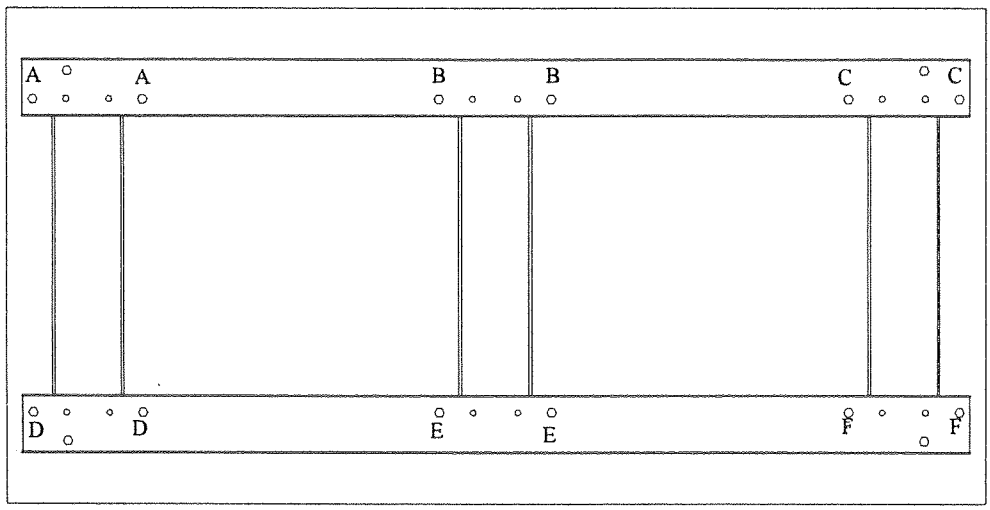


Figure 3. Post bracket mounting locations

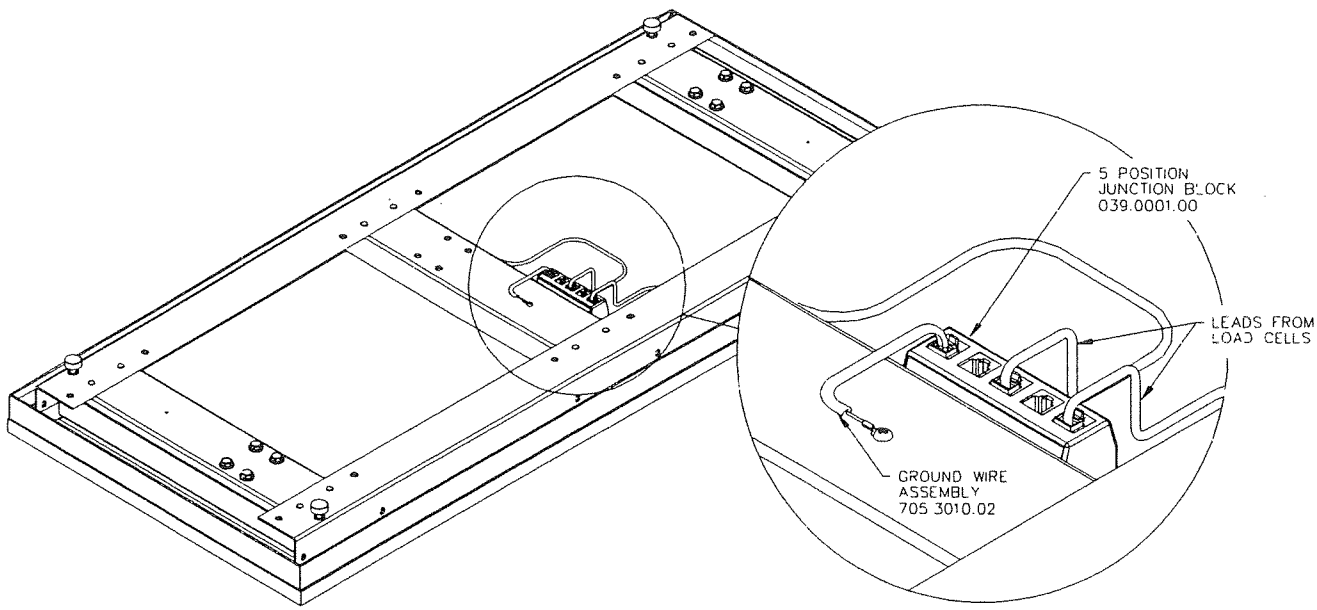


Figure 3A. View of underside of scale showing load cell connections.

POST MOUNT ASSEMBLY

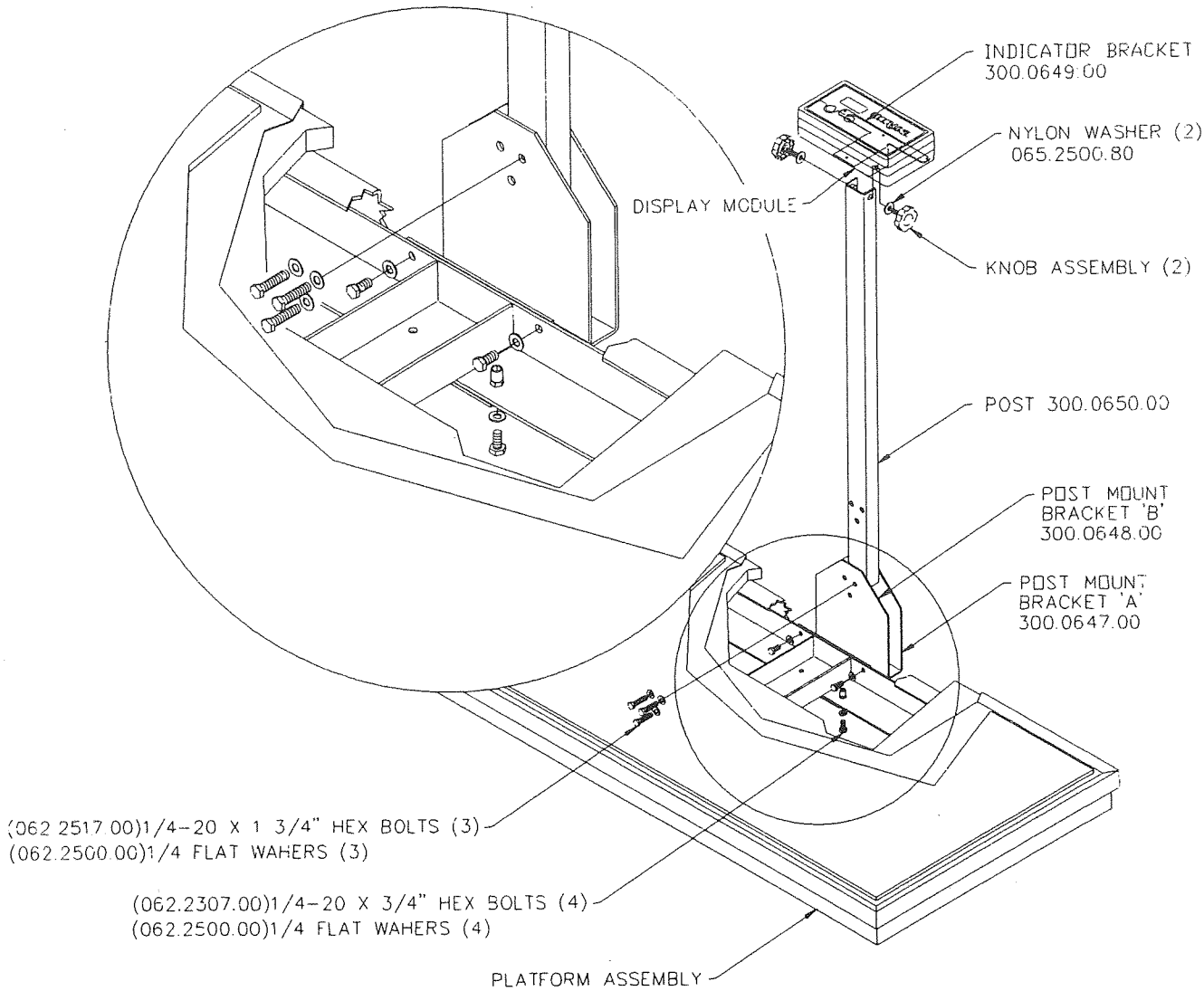


Figure 4. Post mount assembly diagram.

Turn platform right side up. Locate post as shown, or at another location from *Figure 3*, and secure with supplied ¼-20 hardware.

Attach display module to the post with supplied Knobs as shown.

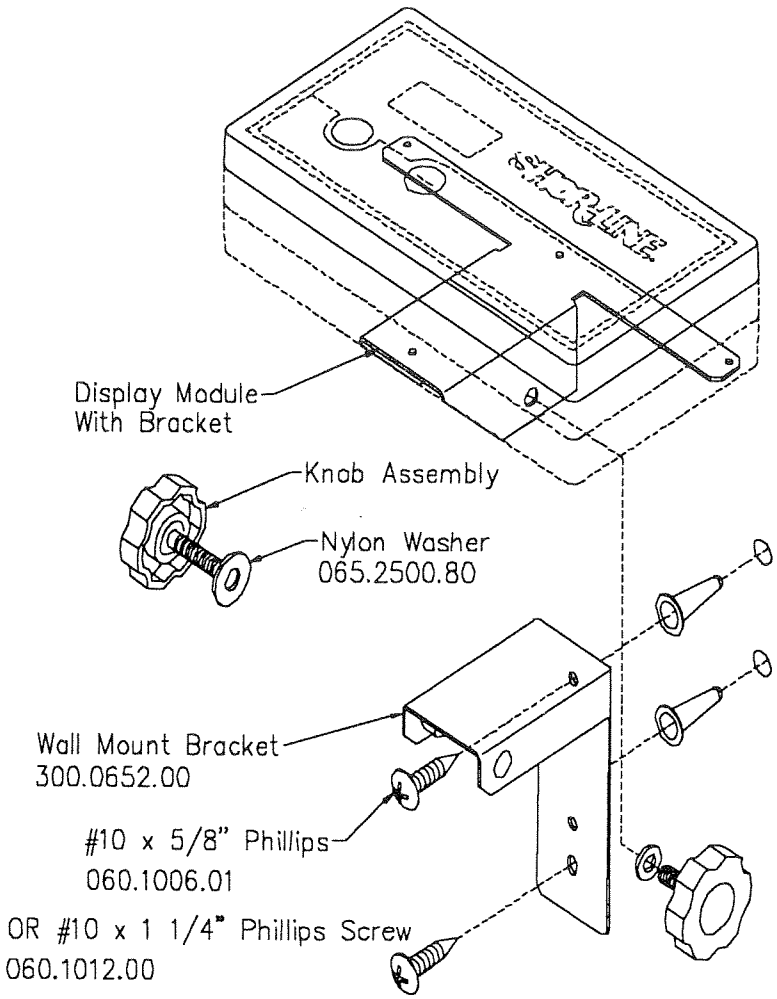
WALL MOUNT INSTALLATION (DISPLAY MODULE)

Determine the desired location of the display module on the wall. The type of construction of the wall will determine the hardware that will be used to attach the wall bracket to the wall.

Masonry walls: (block, brick, cement, or concrete)
Locate template at the end of this manual. Mark holes at desired location. Drill (2) ¼" holes approximately 1 ¼" deep. Insert Masonry wall anchors. Place the wall mount bracket over the anchors and insert the screws. Tighten screws firmly.

Drywall or paneling:
Locate template at the end of this manual. Mark holes at desired location.
If the desired location is over a wall stud (recommended) drill (2) 1/8" holes. Place the wall mount bracket over the holes and insert screws as shown. Tighten securely.

If the desired location is not over a stud, drill (2) 3/8" holes. Place the toggle screws through the holes in the wall mount bracket and start the toggle bolts on the screws. Insert the toggle bolts through the holes and tighten securely.



1) Attach display module to the wall mount bracket with supplied knobs.

2) Connect the cord from the platform to the back of the display module.

3) Place wire "quick clips" on the wall with the supplied adhesive so that the wire will not be crimped or stretched. Insert the wire into the clips.

4) Install the batteries in the display module **OR** plug in the AC adapter.

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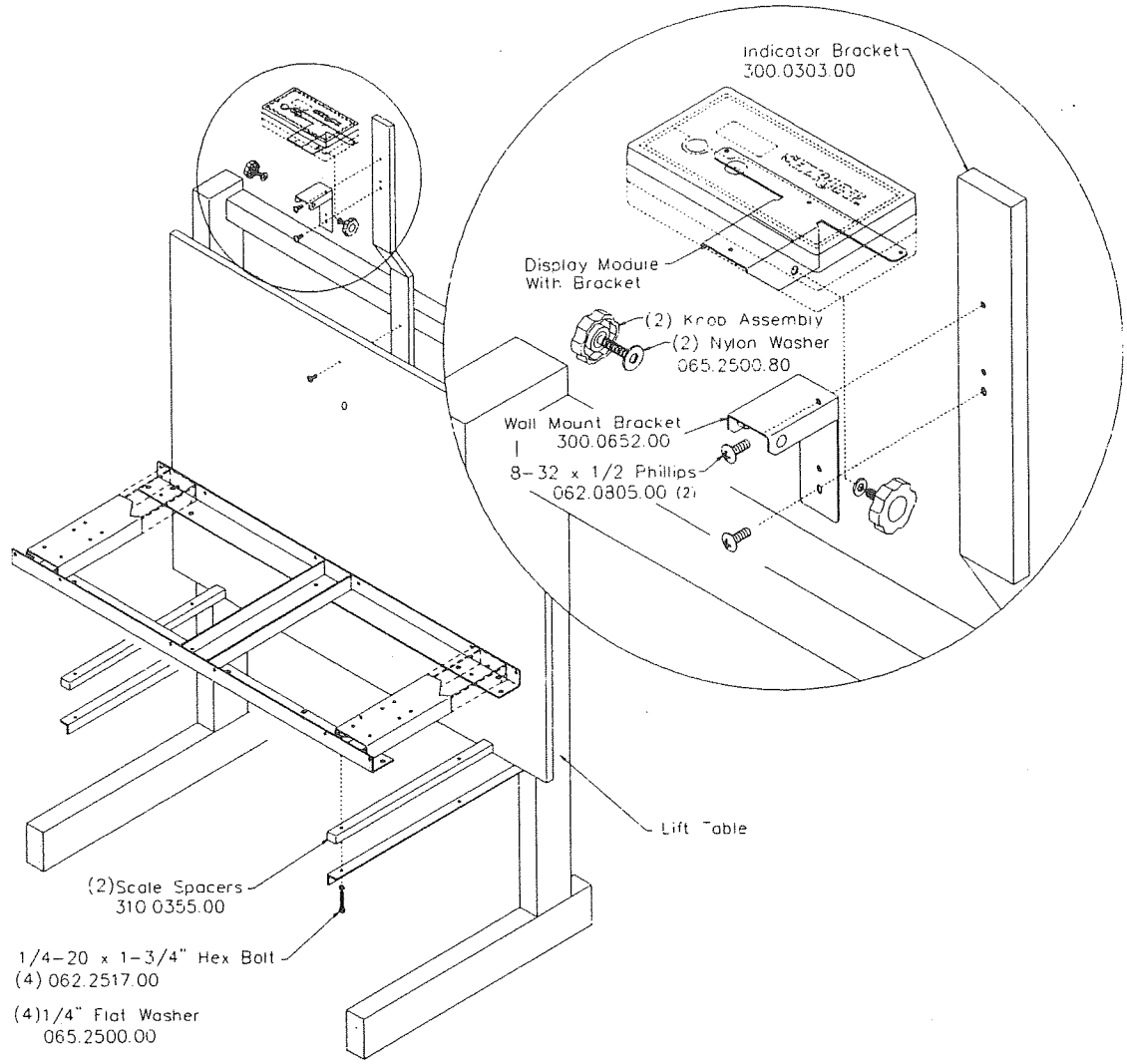
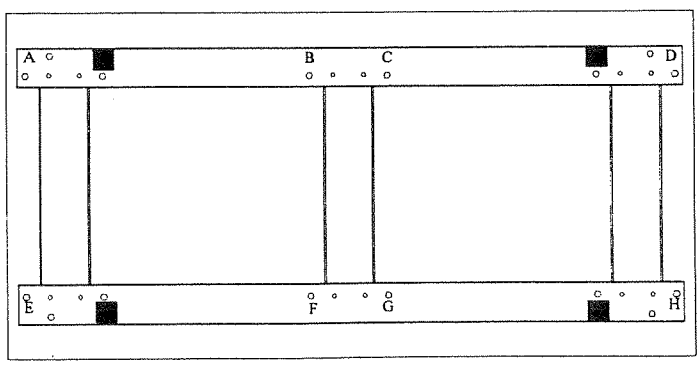
Figure 5. Wall Mount Detail

LIFT TABLE INSTALLATION



Position the scale platform on the lift table arms. Secure from under the platform with hardware (4 PL).

Figure 6. Lift table installation.



The four mounting locations for Lift Table installation are marked in Figure 7 (black X's). Insure that the holes in the spacer bars line up with the angle supports attached to the Lift Table. Insert four ¼-20 bolts and thread them into the permanently installed inserts located in the scale platform. Tighten these bolts securely.

Figure 7. Lift table mounting locations.

FINAL SETUP

Plug in the AC adapter to your wall outlet and the display module. No power source is required in the platform assembly.

If you have purchased a floor model scale, please place the platform on a hard level surface. Make sure that the platform's leveling feet are adjusted so that the platform is level to the floor. All of the leveling pads must firmly contact the floor. No rocking or movement should be evident when a person stands at various positions on the platform.

Connect the cord from the platform to the back of the display module.

Make sure all plugs are firmly seated in their respective jacks.

Install self adhesive "quick clips" as needed so that the wire from the display module to the platform will not be crimped or stretched. Insert the wire into the clips.

Place rubber mat on scale.

NOTE: If you notice any variation in the displayed weight from point to point on the scale platform, adjust the leveling feet so that all points on the scale display a consistent value.

PROCEEDURE FOR WEIGHING

1) Press the **ON** button on the display module.
2) The display will show **0.0**.
3) Place subject on the platform.
4) The display will show the weight of the subject in units as indicated on the right side of the display window.
5) If you need to convert to the alternate units, press the LB/KG button.
6) Remove the subject from the platform.
7) The display will return to **0.0**.

If you are using the AC wall adapter, the display module will remain on and ready for weighing for a period of thirty minutes. If any buttons are pushed on the display module, or if activity is sensed on the platform during this thirty-minute period, the timer will reset.

If you are using batteries, the display module will remain on and ready for weighing for a period of one minute. If any buttons are pushed on the display module, or if activity is sensed on the platform during this one-minute period, the timer will reset. The LOW BATTERY indicator at the lower right corner of the display window will activate when your batteries are too weak to allow the display module to function properly.

The "time on" period may be changed to suit your practice. The one-minute default "time on" has been selected to conserve battery power. Changing this setting will have no effect when using wall power with the AC adapter. Refer to page 15 and 16 for the procedure to select a different "time on" period.

DISPLAY MODULE FUNCTIONS

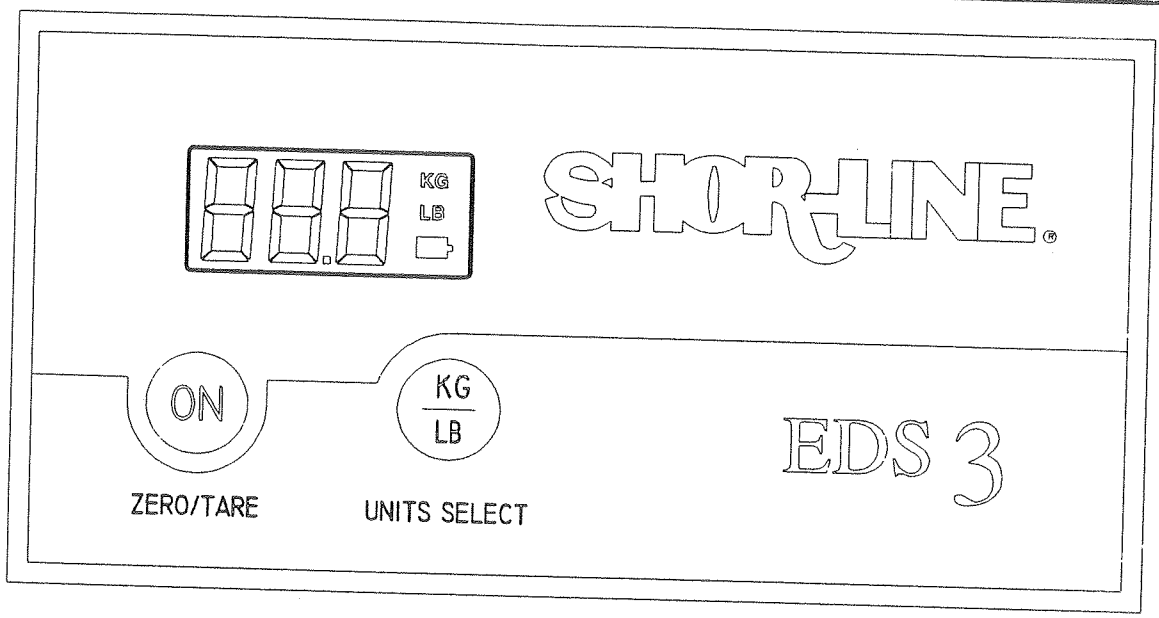


Figure 9. Display module panel

ON: Press the ON button to activate the display module. The unit will perform brief, automatic diagnostics, then the display will show **0.0**.

- The unit will automatically deactivate after a period of thirty minutes if you are using the AC adapter, and after a period of one minute if using batteries. Activity sensed at the display module or the platform will reset the timer in either case.

Zero: Press the **ON** button while the unit is activated to re-zero the display. This function is used in conjunction with the "TARE" function, and is also used to clear a "TARE".

Tare: (târ) noun 1. The weight of a container or wrapper that is deducted from the gross weight to obtain net weight. 2. A deduction from gross weight made to allow for the weight of a container.[1]

- Please review the following examples for illustration of this important feature.

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[1] *The American Heritage® Dictionary of the English Language, Third Edition* copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from InfoSoft International, Inc. All rights reserved.

- **To turn Display Module OFF:** Press and hold the 'ON' button for 3 seconds.

TARE FUNCTION EXAMPLES:

Example *A*: An empty carrier is placed on the platform. The weight of the carrier is displayed.
Press the ON button.
0.0 is displayed.
Place the subject to be weighed in the carrier.
The display will indicate the net weight of the subject (the weight of the carrier (tare) has already been deducted from the gross weight).
Remove the carrier and the subject from the platform.
"---" is displayed.
Press the ON button again and the display module will show **0.0.**
The scale is ready for the next regular weighing.

Example *B*: A person steps on the platform. The weight of the person is displayed.
Press the ON button.
0.0 is displayed.
The person steps off the platform to retrieve the subject to weigh.
"---" is displayed
The person steps on the scale with the subject to be weighed.
The display will indicate the net weight of the subject (the weight of the person (tare) has already been deducted from the gross weight).
The person steps off of the platform with the subject.
"---" is displayed.
Press the ON button again and the display module will show **0.0.**
The scale is ready for the next regular weighing.

THE KG/LB BUTTON

This button converts displayed weight to units that correspond to the active indicator displayed at the right of the display window. If the display window shows POUNDS, the LB indicator will be active on the right side of the display window. You may convert the weight displayed in pounds to its corresponding value in kilograms by pressing the KG/LB button. The display window will continue to display in KILOGRAMS until the KG/LB button is pressed again or until the display module deactivates.

Regardless of the state of the LB/KG indication, the display module display will return to the default units when the scale is turned on again. Refer to the next section to change the default units from LB to KG.

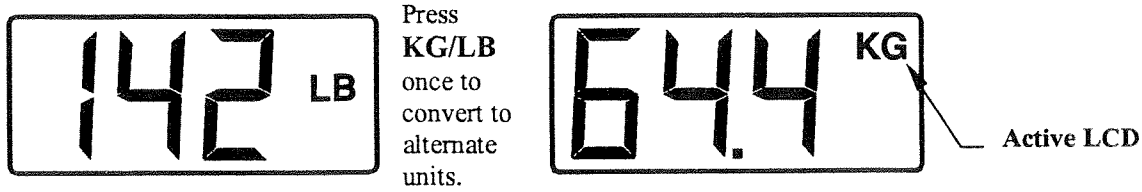

Figure 10. Units select feature (illustration of display window located on display module).

QUESTIONS AND ANSWERS

Q: The display does not show a consistent weight when a weight is placed different locations on the platform. Does the scale need to be calibrated?

A. No. You may adjust the leveling feet located underneath the platform at each corner. If one corner reads high, adjust that foot out ¼ to ½ turn. If one corner reads low, adjust that foot in ¼ to ½ turn.

Q: If I use the 'Tare' function (page 14), can I still weigh a subject up to 300 LB?

A: The capacity of the scale is 300 LB. That capacity is the combined weight of both 'Tare' and subject. If the 300-LB capacity is exceeded by more than 15%, the display will echo a value that represents the limit of the display module's processing ability. The weight displayed during 15% or higher capacity overload will not be correct.

Q: May I disinfect the scale with CLOROX or other chemicals?

A: We recommend the use of Shor-Line Quinticare for sanitizing the scale. Quinticare has proven to be a very satisfactory disinfectant and will not affect the finish of the stainless steel. If you must use bleach, please thoroughly rinse and dry the steel to avoid corrosion and discoloration. CLOROX bleach (sodium hypochlorite) may be used to disinfect the scale components when properly diluted with water at a 1:30 solution. Bleach and similar germicides will discolor and corrode the stainless steel of the scale if they are allowed to stand for any length of time. Please rinse all parts thoroughly and dry completely after using these solutions.

Q: Children seem to enjoy jumping on the platform and pushing the buttons on the display. Will this damage the scale?

A: The platform and the display module of the EDS 3 are designed to withstand reasonable stresses of this kind. However, repeated abuse of this nature may bend the platform frame or damage the platform's internal components. Damage due to repeated abuse of this nature will void your warranty.

Q: May I mount my floor model on a cabinet or lift table later?

A: Yes. All scale platforms use common components, regardless of the mounting option you specify at the time of order. Additional or replacement components may be ordered from Shor-Line if necessary.

Q: Will the wall transformer charge the batteries in the display module?

A: No. If you plan to use the supplied wall mount adapter, **YOU MUST REMOVE THE BATTERIES.**

- The wall mount adapter will not charge the AA batteries.
- After several months, neglected batteries may start to leak corrosive acid, causing irreparable damage to the display module and will void the warranty.

Q: Does this scale platform or display module ever require re-calibration?

A: As with any precision instrument, re-calibration may be required (see pg. 18 for calibration procedure).

TROUBLESHOOTING

1. Blank display at the display module after pressing the ON button.
   - ✓ If you are using the AC wall adapter, verify that the unit is plugged into the wall and that the other end is inserted completely in the proper jack located on the back of the display module.
   - ✓ If you are not using the AC wall adapter, verify that the 4 "AA" batteries are seated firmly in the battery compartment, and that the polarity of each battery matches the polarity icons located in the battery compartment.
   - ✓ Your batteries may be dead. Replace the batteries and press the ON button.
2. The displayed value is obviously incorrect.
   - ✓ Check the UNITS indicator at the right side of the display window. Make sure that the proper indicator is visible (LB for pounds and KG for kilograms).
   - ✓ Verify that a TARE weight is not present in the display module. Remove all weight from the platform then press the ON button. The display should read 0.0.
3. Strange characters are displayed in the display module window.
   - ✓ Insure that both load cells leads are firmly connected to the jack located on the underside of the scale platform. Verify that the connecting cord is plugged into the display module and into the jack under the platform. Make sure there are no cuts or breaks in the wires.
   - ✓ Insure that no moisture is evident on or in the jack or on the plugs. Moisture in the jack may be dried with compressed air or a hair dryer.
   - ✓ Verify that you are using the correct AC adapter.
     US: Input 120VAC Output 9VDC (200 - 500mA)
     UK: Input 220VAC - Output 9VDC (200 - 500mA)
4. The back light does not operate when using battery power (Factory Setting)
   - ✓ Insure that jumper location **JP1** is not shorted (no jumper installed) if using battery power.
5. The display module is on, but the display does not change when weighing.
   - ✓ Insure that the cord that connects the platform to the scale is connected and undamaged.
   - ✓ Check under the platform to insure that there are no obstructions that may be interfering with the scale operation.
6. The numbers in the display window fluctuate for no apparent reason.
   - ✓ High frequency noise may be affecting your display module electronics. Examples of situations where high frequency noise may be a problem:
     - Operating walkie talkies too near the scale
     - A malfunctioning fluorescent light fixture near the scale
     - Operating a cavitron or ultrasonic tool too near the scale

     Try moving the scale a few feet or trying to locate the source of the high frequency noise.
   - ✓ Your batteries may be weak. Try replacing the batteries
7. The numbers in the display window fluctuate when the subject is moving.
   - ✓ This is normal. The subject should be kept as still as possible. If the subject cannot be controlled, try using the **TARE** procedure outlined on page **14** to obtain an accurate weight.

CALIBRATION PROCEDURES

a) Remove the battery cover of the display unit and remove the batteries (if installed).
b) Install the AC adapter and plug into wall power.
c) The calibration adj. screw is visible inside the battery compartment through a small hole.
d) Insure that the cord from the scale platform is still attached.
e) Press the ON button to activate the unit.
f) Insure the display shows 0.0.
g) * Place 100 LB on the platform.
h) Adjust the calibration screw so that the display shows 99.9 LB.
i) Remove the 100-LB from the platform.
j) Re-zero the display by pressing the ON button.
k) Place the 100-LB back on the platform.
l) If the display shows anything other than 99.9 LB, repeat steps (g) - (k).
m) Adjust the calibration screw slightly (by ¼ turns) so that 100 LB is displayed.
n) Verify your scale's calibration with other weights.
o) Replace the batteries (if required) and the battery cover of the unit.

* A 20-pound bag of food may work as well. A 20-pound bag of food will average gross weight about 20.4 pounds (net weight 20# food, .4 # bag). Known exact weights will make your calibration more accurate.

MAINTENANCE

The only maintenance required to maintain the finish of the scale consists of wiping the exposed surfaces of the indicator and the platform with a damp cloth soaked in a mild soap and water solution as required. The indicator and the platform are not waterproof, so please do not immerse them in liquid.

We recommend the use of Shor-Line Quinticare for sanitizing the scale. Quinticare has proven to be a very satisfactory disinfectant and will not affect the finish of the stainless steel. If chlorine bleach must be used, take care to thoroughly rinse and dry any area upon which the chlorine bleach has been applied. Some disinfectants and germicides may contain chlorine bleach that acts as corrosive agent that will discolor and pit stainless steel if contact with this chemical is sustained.

We recommended occasionally removing hair that may accumulate under the platform. Especially during the winter months, the drier air promotes electrostatic discharge (ESD) potential in accumulations of animal hair.

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SPECIFICATIONS

Product: **Shor-Line Electronic Digital Scale**

Model: **EDS 3**

Product Code: **905.3010.00**

Weight:	80 LB
Size:	Platform – 44" x 20" x 3.5" Indicator – 7 ½" x 4 ¼" x 2"
Maximum Capacity:	300 LB (136 KG)
Accuracy:	± .1 LB from 0 to 99.9 LB -- ± ½ LB from 100 to 300 LB
Repeatability:	± . 02% throughout range
Power Requirements:	4 "AA" batteries OR AC wall adapter (115VAC/9VDC – 200 to 500mA)
Environmental Requirements:	Temperature: 60° - 100° Fahrenheit Humidity: 20 - 95% Relative humidity (not waterproof)