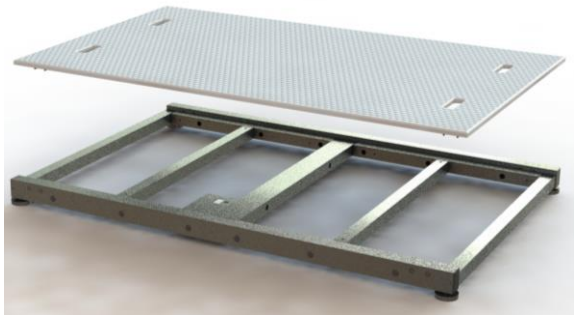
SRScales®
by SR Instruments, Inc.

Model SRV715



Medium Animal Platform Scale

Operating and Service Manual

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Platform Scale

√	DESCRIPTION	QUANTITY
	TOP PANEL - 44 in (112 cm) x 72 in (183 cm)	1 ea
	BOTTOM FRAME – 48 in (122 cm) x 72 in (183 cm)	1 ea
	DISPLAY (ATTACHED TO BOTTOM FRAME)	1 ea
	PACK OF SIX (6) “AA” CELL BATTERIES	1 ea
	CALIBRATION CERTIFICATE	1 ea
	WARRANTY CARD	1 ea
	TABLET and CASE	1 ea
	MANUAL	1 ea

ASSEMBLY

STEP 1: Unpack the Medium Animal Platform Scale (1) and check parts against PACKING CHECKLIST. If there are any missing or damaged parts, call Service Hotline at: 1-800-654-6360.

STEP 2: Place the Platform upside-down on the floor and remove the four (4) screws from the cover on the Battery Compartment.

STEP 3: Install six (6) "AA" cell batteries according to BATTERY REPLACEMENT instructions.

NOTE: TIGHTEN SCREWS ONLY UNTIL RUBBER SEAL STARTS TO COMPRESS. OVERTIGHENING MAY CAUSE WARPAGE AND GAPS.

STEP 4: Place the Bottom Frame with the adjustable stainless feet resting on the floor.

STEP 5: Carefully place the Top Panel Assembly onto the Bottom Frame.

NOTE: ENSURE ALL ADJUSTABLE RUBBER/STAINLESS STEEL FEET ARE IN CONTACT WITH THE FLOOR AND THAT THE SCALE IS LEVEL AND DOES NOT ROCK OR TWIST.

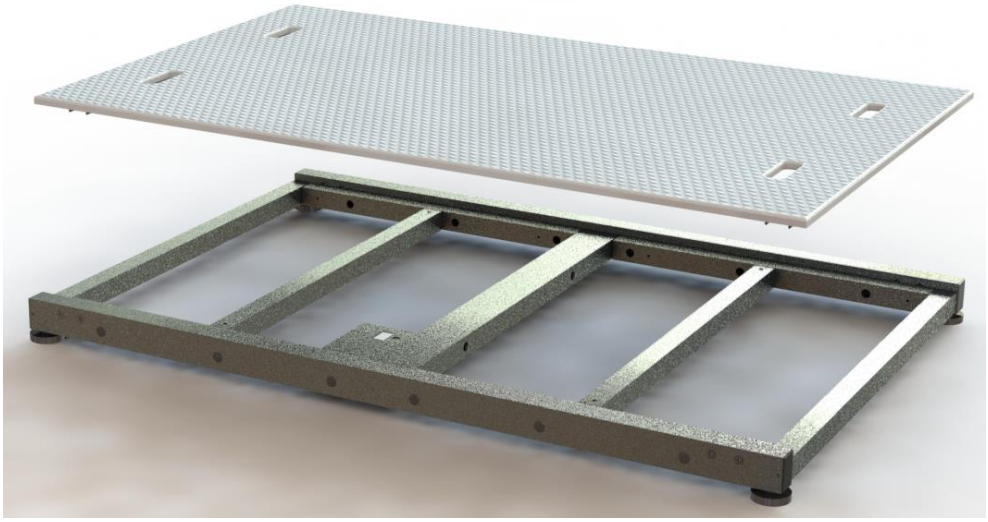

Figure 1: Assembly

REPLACEMENT PARTS and ACCESSORIES

Part #	Description
FK52001079	STAINLESS LEVELING FOOT
MF9090	SPACER FOR LEVELING FOOT
MAN715	MANUAL

SYSTEM DESCRIPTION and INTENDED USE

SYSTEM DESCRIPTION

The SRV715 Medium Animal Platform Scale employs the latest in microprocessor and load cell technology to provide accurate and repeatable weight data. Four (4) identically matched Load Cells are environmentally sealed and strategically placed to ensure an accurate representation of the subject's weight.

The SRV715 Medium Animal Platform Scale derives its power from six (6) "AA" cell batteries.

Weight is displayed with a display resolution of 1 pound or 0.5 kilograms.

The SRV715 Medium Animal Platform Scale is equipped with a wireless communication module. By waking the scale up with the "**ZERO / ON**" button (located at the end of one of the transducer rails), the wireless feature is turned on. Then use the free SR Scales app (Google Play store) to connect with the scale from any Android device to allow for remote wireless operation.

INTENDED USE

The SRV715 Medium Animal Scale is designed for use with farm stock, marine mammals, pinnipeds, and other medium sized animals. It is a preferred means of gathering weight data up to 4,000 pounds or 1,800 kilograms.

WARNING

DO NOT EXCEED
MAXIMUM WEIGHT LIMIT OF
4,000 LB / 1,800 KG

STORAGE and TRANSPORTATION

STORAGE

If storing this equipment for periods longer than three (3) months, remove the batteries. To maintain proper operation of this instrumentation, storage and transport conditions should not vary outside the following conditions:

Relative Humidity 0% to 85%, Ambient Temperature 14°F to 122°F (-10°C to +50°C)

CLEANING and DISINFECTING

CLEANING

To clean the display / user interface and other scale contact areas:

- Use a soft cloth dampened with water and mild detergent to clean scale surfaces.
- Do not use abrasive materials to clean scale surfaces.
- Platform may be rinsed off with a low pressure water hose.

DISINFECTION

To disinfect the display / user interface and other scale contact areas:

- Use a soft cloth dampened with disinfectant or a damp disposable disinfectant cloth. Cloth cannot be dripping wet. Follow manufacturer's instruction on the proper use of commercially available disinfectants.
- Disinfectant solutions with 1% sodium hypochlorite or 70% isopropyl alcohol are suitable for display / user interface and other scale contact surfaces.
- Do not use abrasive material to disinfect / clean scale surfaces.

WARNING: DO NOT USE PRESSURIZED WATER OR STEAM. THE SCALE SYSTEM CONTAINS ELECTRONIC COMPONENTS THAT MAY BE ADVERSELY AFFECTED BY EXPOSURE TO SUCH AN ENVIRONMENT.

SPECIFICATIONS

MAXIMUM WEIGHT CAPACITY	4,000 lb. / 1800 kg. (Minimum 10 lb.)
PLATFORM SIZE	48 in x 72 in x 4.25 in 122 cm x 183 cm x 11 cm
DISPLAY TYPE	LCD
DISPLAY RESOLUTION	1 lb / 0.5 kg
ACCURACY	0.2% +/- 1 digit of displayed resolution for calibrated range
AUTO ZERO	One button operation
STABILIZATION TIME	Five (5) seconds
AUTO POWER DOWN	After ten (10) minutes
WIRELESS COMMUNICATION ON-TIME	10 minutes from last button press
AVERAGING	Automatic digital filter
POWER SUPPLY	Six (6) “AA” cell batteries
CALIBRATION	Calibration is traceable to NIST
OPERATING CONDITIONS	Normal operating conditions for this product: Ambient Temperature Range: 40°F to 95°F (5°C to 35°C) Relative Humidity Range: 0% to 85% Avoid exposure to high-pressure water or steam
TRANSPORTATION AND STORAGE	Storage and transport conditions should not vary outside the following conditions: Relative Humidity 0% to 85% Ambient Temperature 14°F to122°F (-10°C to +50°C) Remove batteries if storing longer than three (3) months
WIRELESS REQUIREMENTS	Refer to the SR Scales App on the Google Play store for further information. Minimum requirements for an OS level of android device are listed at the Google Play store.

BASIC SYSTEM OPERATION

Ensure that the scale is free and clear of any obstructions before operating.

Turn on the SRV715 scale by pressing the "**ZERO / ON**" button located at the end of one of the transducer tubes (There is also a "**ZERO / ON**" button on the top of the display, accessible only before placing the top platform on).

Using the free SR Scales app (from the Google Play store), connect with the scale from any Android device to allow for remote wireless operation.

Then use your Android device to display weight and control the SRV715 scale functions. Ensure your remote display indicates "**CONNECTED**" before use.

The "**WEIGH**" button will display weight in pounds or kilograms as selected.

The "**ZERO**" button is used to zero the system.

The "**POUNDS**" button allows weight data to be viewed in pounds, displayed in a resolution of ± 1 pound.

The "**KILOS**" button allows weight data to be viewed in kilograms, displayed in a resolution of ± 0.5 kilograms.

The "**Held Wt**" button allows access to the last stable weight that was achieved.

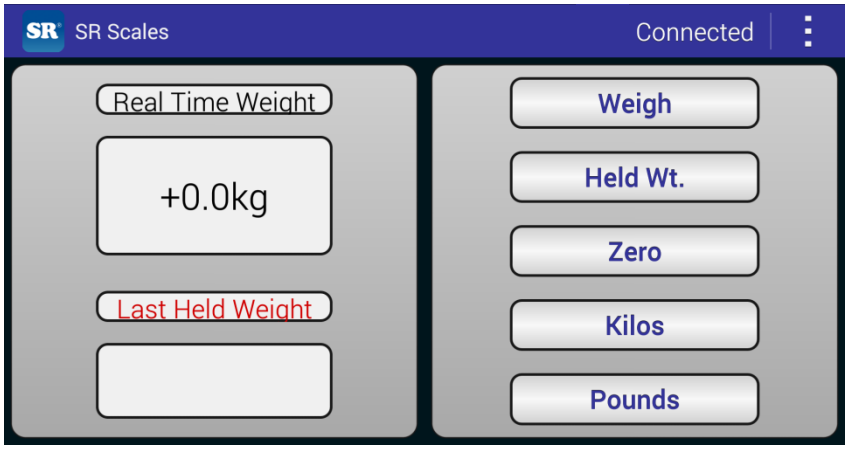

Figure 2: Button Functions

Assist the animal onto the scale's top platform; its weight will appear on the display.

NOTE: The display will automatically shut down after ten minutes of non-use. If the scale shuts down or loses its wireless connection to the Android device you must remove the animal from the scale's top platform and press the "**ZERO / ON**" button located at the end of one of the transducer tubes. After doing so, you can reconnect your Android device.

It is recommended that the system be zeroed prior to each subject being weighed.

BATTERY REPLACEMENT

When battery replacement is needed, an indicator will appear on the display.

STEP 1: Remove the Top Panel, turn over the Base Assembly, remove the four (4) screws from the metal cover on the display and remove the battery cover and gasket.

STEP 2: Remove and replace all six (6) "AA" cell batteries.

STEP 3: Press the "ZERO / ON" button located on the other side of the display or at the end of one of the transducer tubes to confirm the display is working.

STEP 4: Replace the screws in the Battery Cover.

NOTE: TIGHTEN SCREWS ONLY UNTIL RUBBER SEAL STARTS TO COMPRESS. OVERTIGHENING MAY CAUSE WARPAGE AND GAPS.

STEP 5: Turn over the Base Assembly and set the Top Panel back in place.

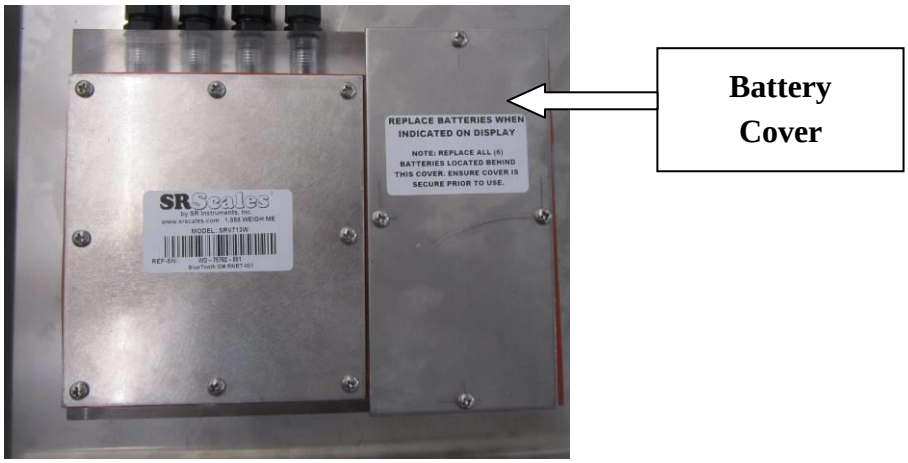

Figure 3: Battery Replacement

THEORY OF OPERATION

SR Instruments patient weighing systems are digital scales. Strain-gauge force cells convert the force of an applied weight into an analog signal. This signal is amplified by an operational amplifier and converted to a digital signal by an analog to digital converter. The digital signal is transferred to a micro-controller where it is filtered, converted to appropriate units and displayed on a liquid crystal display.

Strain-gauge force cells each contain four strain gauges mounted in a full Wheatstone-bridge configuration. These bridges convert the physical movement of the force cell, due to the applied mass on the system, into minute changes in electrical resistance. These changes in resistance produce a voltage difference across the Wheatstone-bridge, which is amplified by the operational amplifier. The amplifier is configured to current sum the output of each cell, with potentiometers serving to adjust the sensitivity (voltage out per unit of weight applied) of each bridge.

The output of the operational amplifier is digitized by the analog to digital converter.

The micro-controller averages and filters the digital output of the analog to digital converter, subtracts the value saved during the system zero operation and scales the filtered output, then displays the result on the liquid crystal display. The micro-controller performs a rolling average of data for continuous weigh.

CALIBRATION

IMPORTANT

CALIBRATION CHECK - Qualified service personnel only should perform this procedure. Load cells have no user serviceable components and should not be tampered with for any reason. Re-calibration is generally not required, but should be verified periodically to ensure accuracy. The recommendation for calibration check is at least once every 12 months, or as individual maintenance policy requires.

NOTE: Ensure that nothing is in contact with the scale system during this procedure. Remove hands from the system when noting the displayed calibration results.

CHECKING CALIBRATION:

STEP 1: Select known calibrated weights, traceable to NIST.

NOTE: Calibrated weight should be equal to or greater than the maximum animal weight, not to exceed the maximum capacity of the scale**. DO NOT USE** barbells or uncalibrated weights.

STEP 2: Zero the scale by pressing and holding the **ZERO/WEIGH** button.

STEP 3: Place calibrated weights on the scale. Wait for scale to stabilize and note scale reading. Remove weights.

Calibration Tol.Chart (+/- 0.2%)		
Low Limit	Applied Load (lbs)	High Limit
0	0	0
499	500	501
998	1000	1002
1996	2000	2004
2994	3000	3006
3992	4000	4008

Figure 4: Calibration Chart

STEP 4: The scale reading should be within the Calibration Tolerance Table (Figure 4)

SETTING CALIBRATION:

STEP 1: Select known calibrated weights, traceable to NIST.

NOTE: Calibrated weight should be equal to or greater than the maximum animal weight, not to exceed the maximum capacity of the scale**.** DO NOT USE barbells or uncalibrated weights.

STEP 2: Remove the top platform and then the two (2) screws holding the display to the frame.

STEP 3: Pull the display out from under the platform and remove the eight (8) screws from the display cover (Figure 3). Place the top platform back on frame.

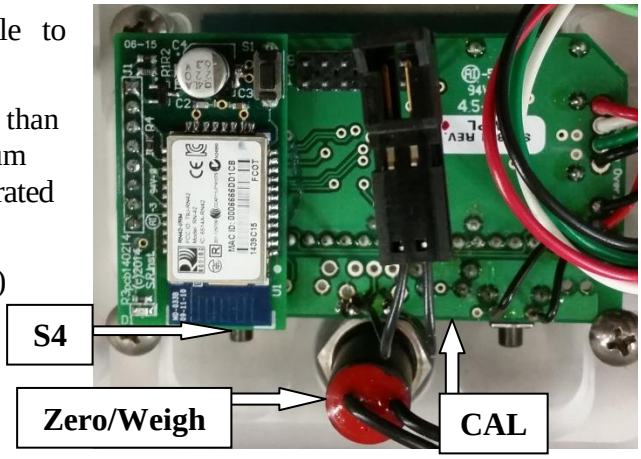

Figure 5: Calibration Buttons

STEP 4: Press the calibration button. The display will read "**CAL**".

STEP 5: Press button "**S4**" to scroll through menu options until "**FULL**" is displayed. Press the **ZERO/WEIGH** button.

Continued next page

CALIBRATION (Cont'd)

STEP 6: Set the "**FULL**" value to the set of selected weights from Step 1. Use the **ZERO/WEIGH** button to select digit positions and use the **S4** button to change the value (Figure 5).

STEP 7: When finished, the display will read "**SAVE**". Press the **ZERO/WEIGH** button to save, or press the **S4** button then **ZERO/WEIGH** to "**QUIT**".

STEP 8: Press the **S4** button to scroll to the menu option "**2 PT**" and press the **ZERO/WEIGH** button.

STEP 9: Ensure nothing is in contact with the scale, then press the **ZERO/WEIGH** button when the display reads "**ZERO**".

STEP 10: When the display reads "**FULL**", place the weight from Step 1 on the platform and press the **ZERO/WEIGH** button.

STEP 11: Press the **ZERO/WEIGH** button once more to "**SAVE"**. To exit without saving, press the **S4** button to select "**QUIT**", then press the **ZERO/WEIGH** button.

STEP 12: When finished making adjustments, remove all weights and top platform from the scale.

STEP 13: Replace the display cover and securely tighten screws. Re-attach display to the frame and securely tighten screws. Place the top platform back on frame.

NOTE: TIGHTEN SCREWS ONLY UNTIL RUBBER SEAL STARTS TO COMPRESS. OVERTIGHENING MAY CAUSE WARPAGE AND GAPS

STEP 14: Press the **ZERO/WEIGH** button to zero the scale. When the display indicates "**0.0**", place a calibrated weight on the scale again and check against the weight displayed. If the weight is not correct, recalibrate. (If calibration cannot be accomplished, call the Service Department.)

CAUTION

The integrated circuits and semiconductors on the printed circuit boards may be damaged by electrostatic discharge (ESD). Be sure to use proper handling precautions at all times.

TROUBLESHOOTING

SYMPTOM	REASON/CORRECTIVE ACTION
Weight reading is much lower than expected.	Check that the scale is clean underneath, stand on each of the four corners to see if one corner is not weighing correctly.
For additional information or assistance, telephone our Service Hotline: 1-800-654-6360 or e-mail: sri@srinstruments.com	

WARRANTY

TWO (2) YEAR LIMITED WARRANTY

Each **SR**Scales® system is manufactured with high quality components. SR Instruments, Inc. warrants that all new equipment will be free from defects in material or workmanship, under normal use and service, for a period of two (2) years from the date of purchase by the original purchaser. Normal wear and tear, injury by natural forces, user neglect, and purposeful destruction are not covered by this warranty. Warranty service must be performed by the factory or an authorized repair station. Service provided on equipment returned to the factory or authorized repair station includes labor to replace defective parts. Goods returned must be shipped with transportation and/or broker charges prepaid. SR Instruments, Inc.'s obligation is limited to replacement of parts that have been so returned and are disclosed to SR Instruments, Inc.'s satisfaction to be defective. The provisions of this warranty clause are in lieu of all other warranties, expressed or implied, and of all other obligations or liabilities on SR Instruments, Inc.'s part, and it neither assumes nor authorizes any other person to assume for SR Instruments, Inc. any other liabilities in connection with the sale of said articles. In no event shall SR Instruments, Inc. be liable for any subsequent or special damages. Any misuse, improper installation, or tampering, shall void this warranty.

DAMAGED SHIPMENTS

Title passes to purchaser upon delivery to Transportation Company. Purchaser should file any claims for shortage or damage with the delivery carrier and should refuse any shipment that has obvious external damage.

RETURN POLICY

All products being returned to SR Instruments, Inc. require a Return Goods Authorization number (RGA). To receive an RGA, call our Customer Service at 716-693-5977 ext 103 or toll-free in the USA and Canada at 800-654-6360 ext 103.

When inquiry is made, please supply model and serial numbers, purchase order and reason for return.

Generally, deleted, damaged, and outdated merchandise will not be accepted for credit. A minimum restocking charge of 15% will be assessed on return of current merchandise unless scale is returned because of SR error.

No returns will be accepted after 30 days.

All returns are to be shipped FREIGHT PREPAID to: SR Instruments, Inc., 600 Young Street, Tonawanda, NY 14150.

RESTOCKING FEE

- **15% fee** will be assessed on return of current merchandise
- **No fees** will be charged if the scale is returned because of an error on the part of SR Instruments, Inc.
- **No returns** accepted after 30 days**.**

SRScales®
By SR® Instruments, Inc.

Precision & Technology in Perfect Balance®

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