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# **SR**Scales®

by **SR**® Instruments, Inc.

**Model SRV415**



**Multi-Purpose Floor Scale**

## **Operating and Service Manual**

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## PACKING CHECKLIST – Model SRV415 Multi-Purpose Floor Scale

√	DESCRIPTION	QUANTITY
	PLATFORM SCALE	1 ea.
	“AA” BATTERY	6 ea.
	CERTIFICATE OF CALIBRATION	1 ea.
	WARRANTY CARD	1 ea.
	MANUAL	1 ea.

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### ASSEMBLY

**STEP 1:** Unpack the scale system and check parts against the **PACKING CHECKLIST**. If there are any missing or damaged parts, call the Service Hotline at: 1-800-654-6360.

**STEP 2:** Unlatch tab on the battery compartment cover on bottom of scale (Figure 1). Insert batteries according to instructions on the battery compartment holder. Replace battery compartment cover.

**STEP 3:** Place the SRV415 scale system on a flat, hard table top or floor surface. Ensure all four corners of scale are in contact with the table top or floor and scale does not rock.

**NOTE:** Scale should not be placed on carpet or uneven floor surfaces as this may interfere with scale accuracy.



**Figure 1: SRV415 Battery Installation**

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## SYSTEM DESCRIPTION and INTENDED USE

### SYSTEM DESCRIPTION:

The SRV415 Multi-Purpose Floor Scale has a low profile design, which allows for easy step access and can be used in a fixed location or as a portable scale.

The SRV415 Multi-Purpose Floor Scale employs the latest in microprocessor and load cell technology to provide accurate and repeatable weight data. Four (4) identically matched transducers are strategically placed to ensure an accurate representation of weight.

Weight is displayed on a LCD screen. With a push of a button, weight data may be viewed in either pounds or kilograms.

### INTENDED USE:

The SRV415 Multi-Purpose Floor Scale is designed for table-top use or for stand-on floor use in weighing up to a maximum of 500 pounds (227 kilograms).



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## STORAGE and TRANSPORTATION

To maintain proper operation of this instrument, 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).

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## 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
- Wipe surface with clean soft cloth dampened with water and then dry with clean soft cloth
- Do not use abrasive materials to clean scale surface to prevent damage to the surface finish
- Do not spray liquid directly onto scale surfaces. Use only a damp cloth

### 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
- After disinfecting, use a soft cloth dampened with clean water and dry with a soft clean cloth to prevent buildup of material on scale finish
- Do not use abrasive material to disinfect / clean scale surfaces to prevent damage to the surface finish
- Do not spray liquid directly onto scale surfaces. Use only a damp cloth

**WARNING: DO NOT SPRAY CLEANING SOLUTION OR LIQUIDS DIRECTLY ON SURFACES TO BE CLEANED**

**WARNING: EXPOSURE TO EXCESSIVE LIQUID WILL DAMAGE USER INTERFACE KEYPAD**

**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.**

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## SPECIFICATIONS

<b>MAXIMUM WEIGHT CAPACITY</b>	500 lb (227 kg)
<b>DIMENSIONS</b>	26.4 in x 18.3 in x 1.6 in (67 cm x 47 cm x 4 cm)
<b>DISPLAY TYPE</b>	1.0" LCD Display
<b>DISPLAY RESOLUTION</b>	+/- 0.1 lb (0.1 kg)
<b>ACCURACY</b>	0.2% +/- 1 digit of displayed resolution for calibrated range
<b>AUTO ZERO</b>	One button operation
<b>AUTO POWER DOWN</b>	Approximately 60 seconds (1 minute)
<b>AVERAGING</b>	Automatic digital filter
<b>POWER SUPPLY</b>	Six (6) "AA" 1.5 volt alkaline batteries
<b>CALIBRATION</b>	Calibration is traceable to NIST standards
<b>OPERATING CONDITIONS</b>	Normal operating conditions for this product: Ambient Temperature Range: 68°F to 85°F (20°C to 30°C) Relative Humidity Range: 0% to 85% Avoid exposure to high-pressure water or steam
<b>TRANSPORTATION AND STORAGE</b>	Storage conditions should not vary outside the following conditions: Ambient Temperature: 14°F to 122°F (-10°C to +50°C) Relative Humidity 0% to 85% Remove batteries if storing longer than three (3) months

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## BUTTON FUNCTIONS



**Figure 2: SRV415 Button Label**

### **HOLD/RECALL**

The “**Hold/Recall**” button freezes the displayed weight and stores it away in memory. Press “**Hold/Recall**” to store the weight into memory.  
To recall last weight reading, press “**Hold/Recall**” button once scale has shut down.

### **LB/KG**

Weight data may be viewed in either pounds or kilograms. Pressing the “**lb/kg**” button allows the operator to toggle between the two readings.

### **ZERO/WEIGH**

The “**Zero/Weigh**” button is used to zero the system before using the scale system. Ensure that nothing is in contact with the weighing surface during this procedure. The display will read “**0.0 Lb**” (or **0.0 kg**).

The “**Zero/Weigh**” button also wakes up the display and shows the weight if it should Auto Power Down before the weighing process is done.

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## BASIC SYSTEM OPERATION

### SETTING SYSTEM ZERO:



Make sure the scale is free and clear of any obstructions. Press and hold the “**Zero/Weigh**” button to zero the system. In a few seconds, the display will read “**0.0 Lb**” (or **0.0 kg**). It is recommended that the system be zeroed prior to each use.

The display will indicate weight in either pounds or kilograms. If scale shuts down, press the “**Zero/Weigh**” button once to wake display and take reading.

### HOLD/RECALL:



The scale display is designed to automatically lock the reading on the display and store the reading in memory, once the weight is stable. If scale cannot lock in reading due to movement, press the “**Hold/Recall**” button to automatically lock the display and store the reading.

To return to **WEIGH** mode when finished, press the “**Zero/Weigh**” button once. The display will become active.

Once the scale has shut down, the last stored weight can be recalled by pressing the “**Hold/Recall**” button. The last stored weight will be displayed until the scale shuts down or the “**Zero/Weigh**” button is pressed.

### DISPLAY INDICATORS



Scale is zeroed and stabilized



Applied weight load has stabilized

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## BATTERY REPLACEMENT

The display will read “**LobAt**” when batteries are low and need to be changed.

**STEP 1:** Turn the scale over and locate the battery cover (Figure 1). Press the latch in and remove the battery cover.

**STEP 2:** Remove and replace all six (6) 1.5 volt “AA” batteries.

**STEP 3:** Press the “**Zero/Weigh**” button to confirm display is working.

**STEP 4:** Place battery cover back on and secure latch in place.

**STEP 5:** Zero the system.



## 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.

**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.



Figure 3: Calibration Button

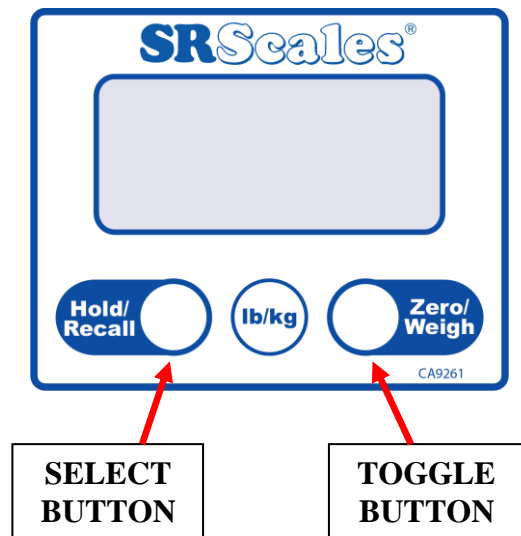


Figure 4: Select and Toggle Calibration Buttons

### INITIAL SYSTEM SETUP

When initially set up, calibration is factory set and re-calibration is not needed. The Local Gravitational Acceleration may have to be re-set for the current geographical location for improved accuracy. Automatic Shut Off is shipped with a factory default of 60 seconds. If a longer period of time (up to 900 seconds) is desired, then it will need to be re-set. Both procedures are found next.

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## CALIBRATION: (Cont'd)

### ACCESS SYSTEM SETUP

To access all settings below, remove the feet, spacers and the seven screws holding on the bottom cover. Press the calibration button (Figure 3) and CAL mode is now active.

The Right Button allows you to toggle through the menus without saving any parameters. The Left Button permits a menu item to be selected or a parameter saved (Figure 4).

**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.

### CAL MENU

- “**data**” Displays saved calibration and model information.
- “**unit**” Set the available units; lb only, kg only, or selection of lb or kg with mode button.
- “**sec**” Set Auto Power Down Timer between 15 and 900 seconds.
- “**grav**” Set Gravitational Acceleration in  $m/s^2$ .
- “**Full**” Applied calibrated mass at full scale.
- “**Half**” Used only with three point calibration curve. Applies calibrated mass at a second point between zero and full scale, usually at half.
- “**zero**” No calibrated weight applied.
- “**2 pt**” Two-point calibration curve, zero and full scale.
- “**3 pt**” Three-point calibration curve; zero, half and full scale.
- “**save**” Saves the calibration data.
- “**quit**” Quits without saving the calibration data.

### Enter CAL Mode

To enter the CAL mode, press the calibration button (Figure 3). Toggle through the menu with Right Button (Figure 4). Select or Save data with the Left Button (Figure 4).

### Auto Power Down Timer (Optional)

- a) Select the Auto Power Down Timer from the CAL menu by pressing the Left Button when the display shows “**sec**”.
- b) The display will show four digits <0123>.
- c) Set the desired time in seconds by selecting the first digit and toggle through the digits using the Right Button until desired value is shown. Press the Left Button and continue the same with the remaining digits. The value cannot be less than 15 or greater than 900.
- d) Press the Left Button to save or Right Button to toggle to “*quit*”. Select “*quit*” by pressing the Left Button to quit without saving changes.
- e) Press the Left Button again to save and the display will show “**SAV’d**”.

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## CALIBRATION: (Cont'd)

### Gravitational Acceleration (Optional)

**NOTE:** Setting the local gravitational acceleration, “**gLOC**”, will not affect the calibration. The local gravitational acceleration, “**gLOC**”, will become the calibrated gravitational acceleration, “**gCAL**” only when it is recalibrated.

- a) Select the Gravitational Acceleration from the CAL menu by pressing the Left Button when the display shows “**grav**”.
- b) The display will show only the four digits to the right of the decimal point <9.XXXX>.
- c) Set the local gravitational acceleration in  $m/s^2$  by selecting the first digit and toggle through the digits using the Right Button until desired value is shown. Press the Left Button and continue the same with the remaining digits.
- d) Press the Left Button to save or Right Button to toggle to “quit”. Select “quit” by pressing the Left Button to quit without saving changes.
- e) Press the Left Button again to save and the display will show “**SAV’d**”.

### Full-Scale value

- a) Select the Full-Scale from the CAL menu by pressing the Left Button when the display shows “**FULL**”.
- b) The display will show only the five digits <XXXX.X> with the thousand-place flashing <1>. Select past to the next digit by pressing the Left Button.
- c) Once in the hundreds-place, set the full scale value (maximum weight capacity) by toggling using the Right Button through the digits until desired value is shown. Select the desired value by pressing the Left Button and continue the same with the remaining digits.
- d) Press the Left Button to save or Right Button to toggle to “quit”. Select “quit” by pressing the Left Button to quit without saving changes.
- e) Press the Left Button again to save and the display will show “**SAV’d**”.

### Half-Scale value

**NOTE:** The Half-Scale value is used only with the three-point calibration. It is a value between zero and the Full Scale values. It is usually close to half of the Full Scale value.

- a) Select the Half-Scale from the CAL menu by pressing the Left Button when the display shows “**HALF**”.
- b) The display will show only the five digits <XXXX.X> with the thousand-place flashing <1>. Select past to the next digit by pressing the Left Button.
- c) Once in the hundreds-place, set the half scale value by toggling using the Right Button through the digits until desired value is shown. Select the desired value by pressing the Left Button and continue the same with the remaining digits.
- d) Press the Left Button to save or Right Button to toggle to “quit”. Select “quit” by pressing the Left Button to quit without saving changes.
- e) Press the Left Button again to save and the display will show “**SAV’d**”.

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## CALIBRATION: (Cont'd)

### Calibrate using the Three-Point Calibration Curve; zero, half scale, and full scale.

**NOTE:** The scale can also be calibrated with a Two-point slope “2Pt”, although it will not be as accurate.

**NOTE:** Select known calibrated weights, traceable to NIST. **DO NOT USE** barbells or uncalibrated weights. The displayed calibrated weight should be within the Accuracy tolerance as listed in the “SPECIFICATIONS” table on page 6.

- a) Select Three-point calibration curve from the CAL menu by pressing the Left Button when the display shows “3Pt”.
- b) Apply no load and ensure stability. Zero the scale by pressing the Left Button when the display shows “zero”.
- c) Display will show “HALF”, apply the predetermined half scale value on the scale and press the Left Button.
- d) Display will show “FULL”, apply the predetermined full scale value on the scale and press the Left Button.
- e) Display will show “SAVE”, press the Left Button to save, display will show “SAV’d” or Right Button to toggle to “quit”. Select “quit” by pressing the Left Button to quit without saving changes.
- f) Save the parameter changes while in the CAL mode by pressing the Left Button when the display shows “SAVE”. To exit the CAL mode without saving the changes press the Left Button when the display shows “quit”.
- g) Press the calibration button (Figure 3) and re-attach the bottom cover, spacers and feet.

**NOTE:** The displayed calibrated weight should be within the Accuracy tolerance as listed in the “SPECIFICATIONS” table on page 6.

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## TROUBLESHOOTING

SYMPTOM	REASON/CORRECTIVE ACTION
Weight reading is much lower than expected.	Check that the platform is clear underneath, stand on each of the four corners to see if one corner is not weighing correctly.
System fails to perform correctly or turn on.	Check to ensure batteries are installed correctly. Ensure the scale is clear of any obstacles and that nothing is touching the scale. Set scale on smooth, hard floor surface.
<b>For additional information or assistance, telephone our Service Hotline: 1-800-654-6360 or e-mail: <a href="mailto:sri@srinstruments.com">sri@srinstruments.com</a></b>	

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## WARRANTY

### TWO (2) YEAR LIMITED WARRANTY

Each **SR Scales**<sup>®</sup> 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.

# **SR**Scales®

By **SR** Instruments, Inc.

**Precision & Technology in  
Perfect Balance™**