R-30

Price Computing Retail Scale

Installation and Service Manual

RICE LAKE WEIGHING SYSTEMS
Industrial Solutions on a Global Scale®

ISO 9001 REGISTERED

44140

Contents

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1.0 Principles of Operation

1.1 Overview

The R-30 microprocessor reads the weight signal from the load cell and the unit price input from the keyboard. The scale then computes the total price and displays the weight, unit price, and total price.

1.2 Start-up Self-Check

When the operator turns on the scale with the ON button, the main program provides the following checks:

- Display check: The display turns on all the segments (display shows sixteen "8" figures) for a few seconds.
- Calibration parameters check: The R-30 stores calibration values in the EPROM along with a checksum value for verification of the stored value. When the operator turns on the scale, the scale calculates a new checksum from the EPROM and compares it to the stored checksum. If the two checksums are not equal, the scale displays an error message.

2.0 Operation

2.1 Power Supply

The R-30 can use power supplied by either a plug-in 120 VAC to 12 VDC wall transformer unit, or 6 "D" size batteries.

- Use alkaline batteries for longer life.
- If AC power is available, use the plug-in transformer unit.
- When using the plug-in transformer, the batteries are automatically disconnected.

In battery mode, the R-30 automatically shuts itself off after 5 minutes of inactivity (no weight changes or keyboard activity). To restart, press ON. When using the plug-in transformer, the scale automatically disables the shut off feature.

To turn on the scale, press the ON button.

To turn off the scale, press and hold >0< for three seconds.

2.2 Function Keys

>0< Zero. Press to zero the scale. The zero annunciator (ZERO) lights.

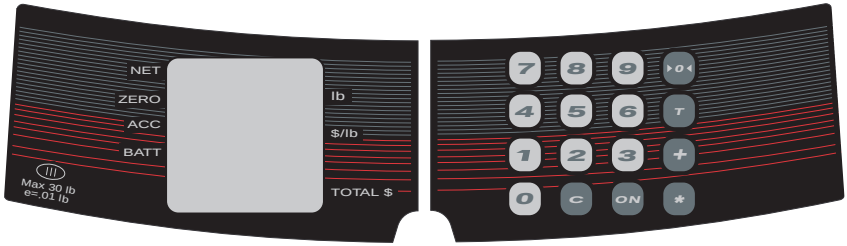
T Tare. Press T to tare the scale. The net annunciator (NET) lights, and the display shows zero. When the tare weight is removed, the display shows the tare weight with a negative sign. Press T again to erase the negative reading.

+ Accumulate. Press + to add the current total reading to the accumulator. The display flashes the number of weighments stored and the total accumulated price. The accumulation annunciator (ACC) lights.

* Total. Press * to display the total accumulated price. Press * again to return to the weigh mode but not clear the accumulator. To clear the accumulator, press C while the total is displayed.

C Clear. Press the C key to clear the unit price or an accumulated value.

0 – 9 Numeric keys. Use the numeric keys to enter price per unit weight.



2.3 Error Messages

Hi OFF The load cell input signal too high. Contact your distributor.

Lo OFF The load cell input too low. Contact your distributor.

Lo Bat The batteries are low. Replace with six “D” size batteries.

- - -.- - The weight value is less than –0.30 LB.

3.0 Configuration

The R-30 is configured at the factory to average 20 weight readings for each displayed weight, to display unit and total prices with two decimal digits, and to accumulate the number of weighments and total price.

If your application requires a different setting for any parameter, enter configuration mode and change the settings using the procedure below. To exit configuration mode at any time, press the * key to save the last changed parameter, then press >0<.

1. Turn power off by holding the >0< key down for three seconds. The current decimal place configuration for the weight, unit price, and total price flashes, then the display goes blank.
2. Hold the * key down and press ON to display the first parameter. The display flashes the word SEtUP.
3. The first configuration parameter, n rEAd, is automatically displayed. Use the + key to adjust the number of readings, 1–20, averaged by the digital filter. The default value is 20.
4. Press the * key to show the next configuration parameter, dP 1. Use the + key to adjust the number of decimal places, 0–4, shown for the *unit* price. The default value, 2, shows two digits to the right of the decimal point.
5. Press the * key to show the next configuration parameter, dP 2. Use the + key to adjust the number of decimal places, 0–4, shown for the *total* price. The default value is 2.
6. Press the * key to show the next configuration parameter, TOTAL. Press T to turn accumulation on (yES) or off (no).
7. Press the * key to save configuration.
8. Press >0< to exit configuration and return to weighing mode.

4.0 Calibration

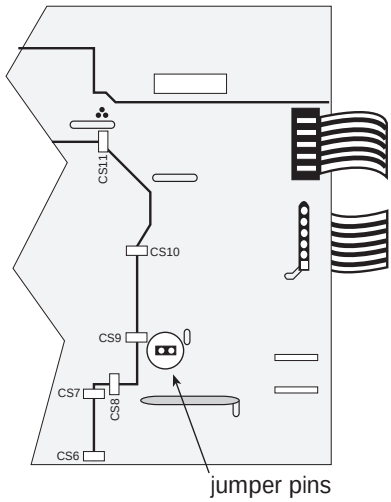
4.1 Entering Calibration Mode

To enter Lb or Kg calibration mode, follow steps 1-7:

1. Turn scale off.
2. Turn scale over and remove two bottom front screws.
3. Set scale upright and lift off the scale platter. Remove the four top screws.
4. Facing the scale, carefully lift the left side of the cover to reveal the CPU board. *Do not detach the two ribbon cables from the right side of the CPU board*. Prop the cover open with the cables still attached.
5. Locate the jumper pin just below CS9 on the board. Remove the jumper from one pin and place it over both pins.
6. With the jumper in place, press the ON button. An electronic "beep" sounds and the display reads:

   yES PndS or no PndS
7. Reinstall the jumper on one pin.
8. **Lb. calibration:** If the display in Step 6 shows no PndS, press the T key to change the value to yES PndS.

   Kg calibration: If the display in Step 6 shows yES PndS, press the T key to change the value to no PndS.



9. Press the * key to select pounds or kg calibration.
10. The display now reads: no CL CLb or yES CL CLb.

    If the display shows yES CL CLb, press the T key to change the value to no CL CLb.
11. Replace the cover, platter, and stainless steel top plate, if applicable. You are now ready to calibrate the scale with test weights as described in the next section.

NOTE: *Calibration steps cannot be reversed. To redo any of the above calibration steps, you must turn the scale off and start again at Step 5.*

4.2 Calibrating with Lb or Kg Test Weights

If the scale is used in a commercial application as a legal-for-trade weighing unit, Class F certified test weights are required to calibrate the scale. Test weights for calibration should be used in an amount equal to the scale capacity (30 lb or 15 Kg).

NOTE: *The R-30 is not NTEP approved for Kg weighing applications*.

1. In calibration mode, press * to display:
   30 if calibrating in Lb
   15 if calibrating in Kg
   FSCALE
   If the display does not show the value 30 or 15, use the + key to set full scale value to 30 lb or 15 Kg.

2. Press * to display:
   2
   AdGAin
   If the display does not show the value 2 AdGAin, use the + key to set this parameter to 2 AdGAin.

3. Press * to display internal counts (*xxxx*):
   n int
   xxxx

4. Press * to display:
   OFF
   SAVinG
   and then:
   PUt

5. Place 30 lb or 15 Kg certified test weights on platter.

6. Press * to display:
   30 if calibrating in Lb
   15 if calibrating in Kg
   PrESS

7. Press * to display:
   End
   The scale returns to the normal display. Remove test weights. Calibration is complete.

8. Replace two bottom front screws and four top screws to secure the scale cover.

5.0 Battery Replacement

To replace batteries, open the battery compartment cover at the bottom of the scale by removing the two locking screws. Insert six “D” size alkaline batteries according to the diagram in the compartment.

Caution! Installing batteries with wrong polarity will damage the scale.

6.0 Specifications

Scale Capacity	Weighing Range	Scale Interval	Tare Limit
30 lb	0.01 lb - 30.0 lb	0.01 lb	Full Scale
15 Kg	.005 Kg - 15 Kg	.005 Kg	9.995 Kg max.

Size

Platter: 12" wide x 8-1/2" deep
Overall: 12-1/4" wide x 13" deep x 5" high

Temperature Range

Storage:	5˚F to 140˚F	- 15°C to 60°C
Operating:	14˚F to 104˚F	- 10°C to 40°C

Batteries

6 x 1.5 volt, size “D” Alkaline

DC Adapter

12 VDC, 50–300 mA

Zero Tracking

Automatic
Center Zero accuracy: ±1/2 div
Maximum Range: ±2%

Tare Reduction

Up to full scale capacity
Tare displayed with [–] sign to the left

Load Cell Excitation Voltage

5 VDC

Display

5 digits for weight and price; 6 digits for total

Approvals

Lb version NTEP-approved; Kg version pending

R-30 Limited Warranty

Rice Lake Weighing Systems (RLWS) warrants that all RLWS equipment and systems properly installed by a Distributor or Original Equipment Manufacturer (OEM) will operate per written specifications as confirmed by the Distributor/OEM and accepted by RLWS. All systems and components are warranted against defects in materials and workmanship for one year.

RLWS warrants that the equipment sold hereunder will conform to the current written specifications authorized by RLWS. RLWS warrants the equipment against faulty workmanship and defective materials. If any equipment fails to conform to these warranties, RLWS will, at its option, repair or replace such goods returned within the warranty period subject to the following conditions:

1. Upon discovery by Buyer of such nonconformity, RLWS will be given prompt written notice with a detailed explanation of the alleged deficiencies.
2. Individual electronic components returned to RLWS for warranty purposes must be packaged to prevent electrostatic discharge (ESD) damage in shipment. Packaging requirements are listed in a publication, "Protecting Your Components From Static Damage in Shipment," available from RLWS Equipment Return Department.
3. Examination of such equipment by RLWS confirms that the nonconformity actually exists, and was not caused by accident, misuse, neglect, alteration, improper installation, improper repair or improper testing; RLWS shall be the sole judge of all alleged non-conformities.
4. Such equipment has not been modified, altered, or changed by any person other than RLWS or its duly authorized repair agent.
5. RLWS will have a reasonable time to repair or replace the defective equipment. Buyer is responsible for shipping charges both ways.
6. In no event will RLWS be responsible for travel time or on-location repairs, including assembly or disassembly of equipment, nor for repairs made by others.

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