Operator Manual

Ultegra™ Bench Scale

SCB-R9000-14U

USB Powered

51222
Revision 3 09/13

Amendment Record

Ultegra™ Bench Scale
SCB-R9000-14U USB Powered

51222

Manufactured by Fairbanks Scales Inc.
821 Locust
Kansas City, Missouri 64106

Created	09/2009	
Revision 1	09/2009	New Product Release
Revision 2	07/2013	Corrected part numbers, added logos for NTEP, MC, and RoHS.
Revision 3	09/2013	New feature added of adjustable gravity compensation and updated manual format.

Disclaimer

Every effort has been made to provide complete and accurate information in this manual. However, although this manual may include a specifically identified warranty notice for the product, Fairbanks Scales makes no representations or warranties with respect to the contents of this manual, and reserves the right to make changes to this manual without notice when and as improvements are made.

TABLE OF CONTENTS

SECTION 1: GENERAL INFORMATION

1.1. INTRODUCTION:

The Ultegra™ Bench Scale is a USB powered unit with a capacity of 150 lbs and is constructed of ABS composite material. The scale may be placed on a desk, bench, or used with an 'Insert' adapter to countersink into a counter-top. Units may be ordered with a ball roller-deck surface.

1.2. DESCRIPTION:

This unit can be powered from any PC that is compliant with version USB 1.1 or later. This includes external hubs, either bus powered or self powered. The scale is identified by a PC as a human interface device (HID) and operates with Windows 2000, Windows XP or later. It also can be powered from a 5VDC AC adapter. A USB port is not required when powered from an AC adapter.

- NTEP Approved
- Measurement Canada Approved
- RoHS Compliant

SECTION 2: SETUP

2.1. INSTALLING:

1. Remove the scale from the packing box and place on a flat surface where it will be used.

2. Using the level bubble, adjust one or two feet minimally to level the platform. Do NOT adjust all four (4) feet.

3. For counter installation, install kit 21100 using the drawing. The suggested cut-out size is 15 ¼" x 15 ¼".

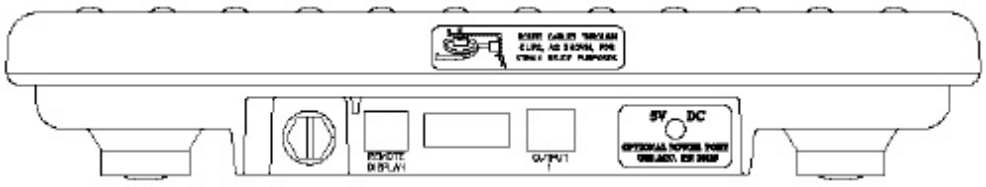
2.2. CONNECTIONS:

1. **USB -** To use the USB interface, plug the included six foot (6') USB cable into the scale base where marked **output 1**. Connect the other end into a USB port on your computer or USB hub. See figure below.

2. **REMOTE DISPLAY -** To use a remote display, plug the remote display into the connector on the scale base where marked **remote display**. Mount the remote using 2 screws or use a velcro strip (not included). A stand PN 20301, can also be used.

3. **AC ADAPTER -** To use an AC adapter, plug the barrel plug into the back of the scale where marked **optional power**, and the AC adapter unit into a proper outlet. Check the AC receptacle for proper voltages prior to plugging in the adapter.

4. **Check with your freight provider** for compatible computer software.



2.3. COMPUTER CONNECTIONS:

1. **USB setup:** The USB port will only function with a computer utilizing Windows 2000, Windows XP, or higher operating system. When the scale-connected USB cable is interfaced to a computer's USB port or USB hub, the computer will prompt ***a device has been found*** and it will automatically install the driver.

2.4. GRAVITY USE COMPENSATION SETTING

The SCB-R9000-14U has a gravity use compensation setting which must be set based upon the geographical zone in which the scale is being installed.

Access this setting by pressing the Program button. The button is located looking at the front of the scale inside the right rear portion of the scale. An access cover must be removed.

1. The display will show ***GrU x***. This is the **Gr**avity **U**se Zone. Select the proper zone number for your location. Use the [**UNITS**] key to toggle to the selection. The choices are:

-8, -7, -6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Zone	Latitude (degrees)	Reference City
-8	68.659	Point Hope, AK
-7	64.929	Fairbanks, AK
-6	61.567	Anchorage, AK
-5	58.444	Fort Vermilion, Alberta
-4	55.485	High Prairie, Alberta
-3	52.638	Coventry, England
-2	49.865	Winnipeg, Manitoba
-1	47.137	Tacoma, WA
0	44.427	St. Johnsbury, VT
1	41.711	Des Moines, IA
2	38.963	Kansas City, MO

Zone	Latitude (degrees)	Reference City
3	36.156	Tulsa, OK
4	33.257	Tuscaloosa, AL
5	30.223	Austin, TX
6	26.992	Navojoa, Mexico
7	23.467	Mazatlan, Mexico
8	19.476	Mexico City
9	14.622	Guatemala City
10	7.326	Bucaramanga, Colombia

Press the [**ZERO**] key to accept the choice selected and the display will indicate *AZt 0.5*. Press the Program button to return to the weighing mode.

This completes setting the **Gr**avity **U**se Zone setting.

SECTION 3: USING THE SCALE

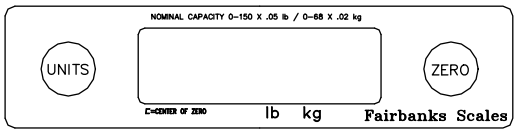
3.1. POWER- ON:

Because the scale uses special low-power circuitry, no warm-up time is required. Weight readings will be accurate as soon as the unit is powered on and set to zero.

When the unit is powered, the liquid crystal display (LCD) will show the software part number and the revision followed by either "0.00", or "------". Dashes are displayed to indicate the scale is registering a weight upon startup. Press the [**ZERO**] key to set the display to “0.00” and start weighing.

3.2. KEYS:

The keys for operating the scale are located on the main display and on the remote display.



50212-10

1. Pressing the [**ZERO**] key resets the display to indicate zero (0).
    a. The zero range is set at 2% or 3.00 lbs when set for Canadian use
    b. The zero range is set at 100 % or 150 lbs when set for USA use
2. The [**ZERO**] key function will be inhibited if the instrument detects any of the following conditions:
    a. Motion on the platform
    b. An underload condition
    c. An overload condition
    d. Outside of programmed zero range
3. Pressing the [**UNITS**] key toggles the weighing units and the display 'indicators' between "lb" to "kg". Verify the units you want to use by noting the arrow 'indicator' on the display.

3.3. WEIGHING:

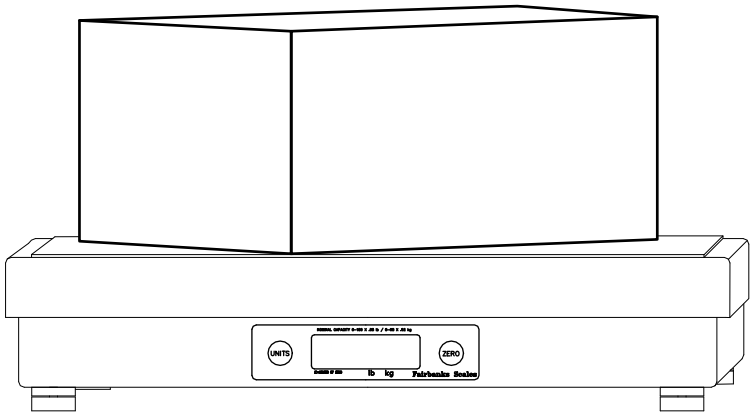
1. With the platform empty, press the [**ZERO**] key. The display will indicate zero

Note: *The "C " to the left of the "0.00" indicates true center of zero.*

2. Check that the correct units are indicated; press the [**UNITS**] key to change to "lb" or "kg".

3. Place the item to be weighed centered on the platform.

4. Read the Gross weight from the display.



50212-11

SECTION 4: CUSTOMER CARE

4.1. CLEANING:

Clean by wiping the scale assembly off with a damp cloth only. **Do not** use running water, harsh chemicals, or allow liquids to drip onto the scale/display.

4.2. OPERATOR INSTRUMENT PROMPTS:

Prompt	Description
HiCAP	Load 150 lbs/ 68 kg or greater - over capacity.
LoCAP	Scale is below normal Zero range - under capacity.
"------"	Shown at startup. Indicates the scale is not within the center-of-zero range. Press the [**ZERO**] key to go to weigh mode.
" ---- "	Shown at startup. Motion is preventing the scale from entering the weigh mode

4.3. TROUBLESHOOTING - In the event the scale does not function properly, check the following:

Problem	Possible Source / Remedy
No Display	Power OFF, plug disconnected, cord damage, faulty USB port or AC adapter. IF you are using a remote display, check the main display first, if it's OK then check the cable plug connection on the remote. Unplug then plug in the power cord to reset the program.
Incorrect Weight	Check platform for binding or rubbing, reposition scale so all sides are clear. Ensure correct UNITS are displayed (lb or kg). For scales in counter inserts, make sure there is nothing jammed around edges Remove load, press the [**ZERO**] key to set the scale to "0.00", then reweigh.
[**ZERO**] key will NOT reset zero	Motion on the platform, ensure that the platform is empty. Check platform for binding or rubbing, reposition scale so all sides are clear. For scales in counter inserts, make sure there is nothing jammed around edges. Unplug then plug in the power cord to reset the program

Problem	Possible Source / Remedy
Pushbuttons Will Not Operate	First unplug, then plug in the power cord to reset the program. IF you are using a remote display, check the main display first, if it's OK then check the cable and plug connection on the remote
Display Locked or Inoperative	First unplug, then plug in the power cord to reset the program . IF you are using a remote display, check the main display first, if it's OK then check the cable and plug connection on the remote.
Display Indicates "HiCAP	Weight on the platform exceeds 150 lbs, remove load.
No USB Output	Check that both cable end connectors are securely fastened. Check the cable for damage. Check the Hub or USB port for problems.

SECTION 5: SPECIFICATIONS

5.1. TECHNICAL SPECIFICATIONS

1. **Capacities:** 150 lb/68 kg factory set
2. **Rounding:** Nearest division per NIST H-44
3. **Weight Display:** .27 inch LCD Display
4. **Power On Lockout:** Scale will display "------", when power is turned on and weight is present. Press ZERO to establish zero reference.
5. **Display update rate:** 0.05 seconds.
6. **Overcapacity Warning:**
   - Displays "HiCAP" for overcapacity
7. **Motion Detection:** Satisfies H-44 requirements
8. **Power Failure Protection:** Zero reference, programming, and calibrations are retained if the instrument loses power
9. **Load Cell Excitation:** 3.3VDC
10. **USB Cable Length:** Type A/B, 6 feet in length
11. **Indicators:**
    - lb, kg
12. **Dimensions:** Platform, Including Feet 14" x 14" x 2.5"
13. **Auto Zero Tracking:** Compensates for gradual buildup of material on platform, factory set at 0.5 divisions
14. **Power Requirements:** 5VDC, USB or AC adapter
15. **Approvals:** **NTEP CC#** 98-198
    MC# AM-5298
    RoHS Compliant

5.2. ENVIRONMENT:

All equipment should be protected from direct sunlight.

- Relative Humidity 0% to 90% non-condensing.
- NOT suitable for water wash down.

5.3. ACCESSORIES:

1. Remote Display 29595C - (ACC-1520-1) 6.98"W x 3.48"H, 1.29”D, RJ45 cable and two (2) function buttons.

Remote Display 29595

2. AC Adapter 30015 - Input voltage range of 90 to 264 VAC, 47 to 63 Hz. Output, 5VDC via 2.1mm barrel plug.

AC Adapter 30015

3. Counter Insert Kit 21100 - Allows the unit to be placed at slightly above a counter-top for easier weighing. A remote display 29595 will be needed for display purposes.

4. Remote Display Stand 20301 - A 18" high stand for mounting the Remote Display, ideal for counter-top applications.

APPENDIX I: USB OPERATION

A. OVERVIEW:

The Ultegra™ Bench Scale is a low power, full speed device. A low power USB device draws less than 100mA. A full speed device operates at 12Mbits/s. It uses default Windows drivers and is installed automatically upon first connection with a PC. The maximum USB cable length is 5 meters unless a self powered hub is used to extend the cable length.

When a PC goes into standby mode the scale is forced into a low power mode to comply with USB specifications. At this time the scale displays “SLEEP “, which remains until the PC resumes normal operation.

The device is displayed at the following location in Windows: Control Panel --> System --> Hardware --> Device Manager There are two items displayed for the unit, HID-compliant device and USB Human Interface Device.

The scale sends data to the PC using a Point of Sale (POS) format. A typical USB report includes scale status, units and weight.

Manufactured by Fairbanks Scales, Inc.
821 Locust
Kansas City, Missouri 64106
www.fairbanks.com

ULTEGRA™ BENCH SCALE

OPERATOR MANUAL

DOCUMENT 51222