



Operator Manual

Roller Conveyor Scale





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Amendment Record

Roller Conveyor Scale

Document 51469 Operator Manual

Manufactured by: **Fairbanks Scales Inc.**

Rev. #	Date	Update
Revision 1	08/19	New product documentation release
Revision 2	07/23	Multiple updates throughout
Revision 3	04/24	Updated: General Information

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Section 1: General Information

1.1. Introduction

Roller Conveyor Scale is a roller deck USB powered unit. The scale has a 250 lb. capacity. The scale is constructed of mild steel.

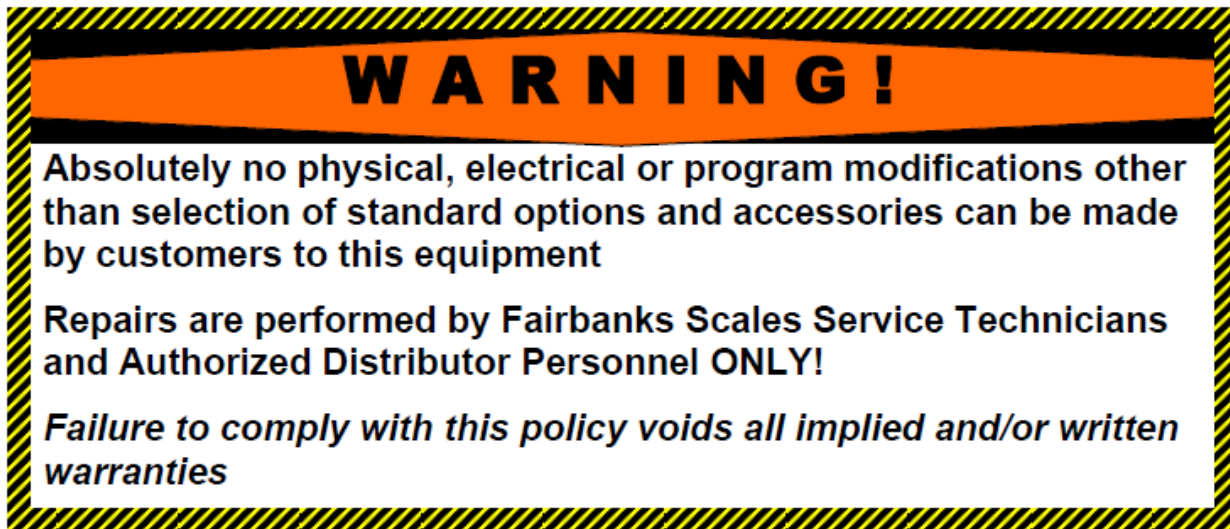
1.2. Description

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 XP or later. The scale utilizes the standard Windows HID Device Driver.

NOTE: All scales shipped after **2/1/2024** are compatible with UPS Worldship. It can also be powered by a 5V DC-AC adapter.

The unit comes with a front, centered display. The USB cable can be routed to the left or right for easier access.

Section 2: Setup



**** IMPORTANT INSTALLATION NOTICE ****

- All load cells, load cell cables and interconnecting cables used to connect all scale components shall be located **a minimum of thirty-six (36") inches distance away** from all single and multiple phase high energy circuits and electric current carrying conductors.
 - This includes digital weight Instruments, junction boxes, sectional controllers, and power supplies.
 - This includes any peripheral devices, such as printers, remote displays, relay boxes, remote terminals, card readers, and auxiliary data entry devices.
 - Also included is the scale components themselves, such as: 120 volt AC, 240 volt AC, 480 volt AC and electric supply of higher voltage wiring runs and stations, AC power transformers, overhead or buried cables, electric distribution panels, electric motors, florescent and high intensity lighting which utilize ballast assemblies, electric heating equipment, traffic light wiring and power, and relay boxes.
- All scale components, including digital weight Instruments and peripheral devices are not designed to operate on internal combustion engine driven electric generators and other similar equipment.
- Electric arc welding can severely damage scale components such as digital weight Instruments, junction boxes, sectional controllers, power supplies, and load cells.

Caution: DO NOT WELD on the scale conveyor or on the adjacent steel structures without observing proper welding precautions.

Failure to observe these precautions will severely damage the equipment.

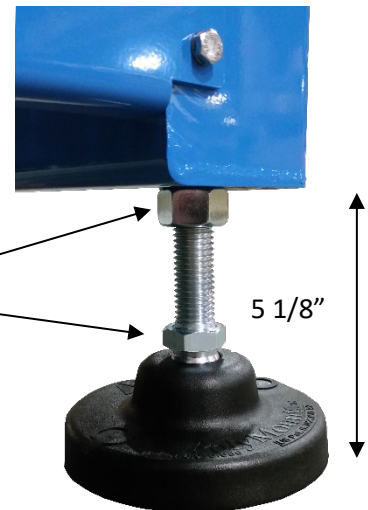
1. **Do not** use higher welding current than absolutely necessary.
2. The welding ground connection **must** be made as close as possible to the weld location.
3. If welding on the conveyor, the load cells must be disconnected and the load cell interface cable disconnected from the indicator.
4. **Do not** lay welding cables across the scale conveyor.
5. Protect the load cells from heating and splattering effects of welding.

For additional information, please contact a
Fairbanks Scales Service Representative.

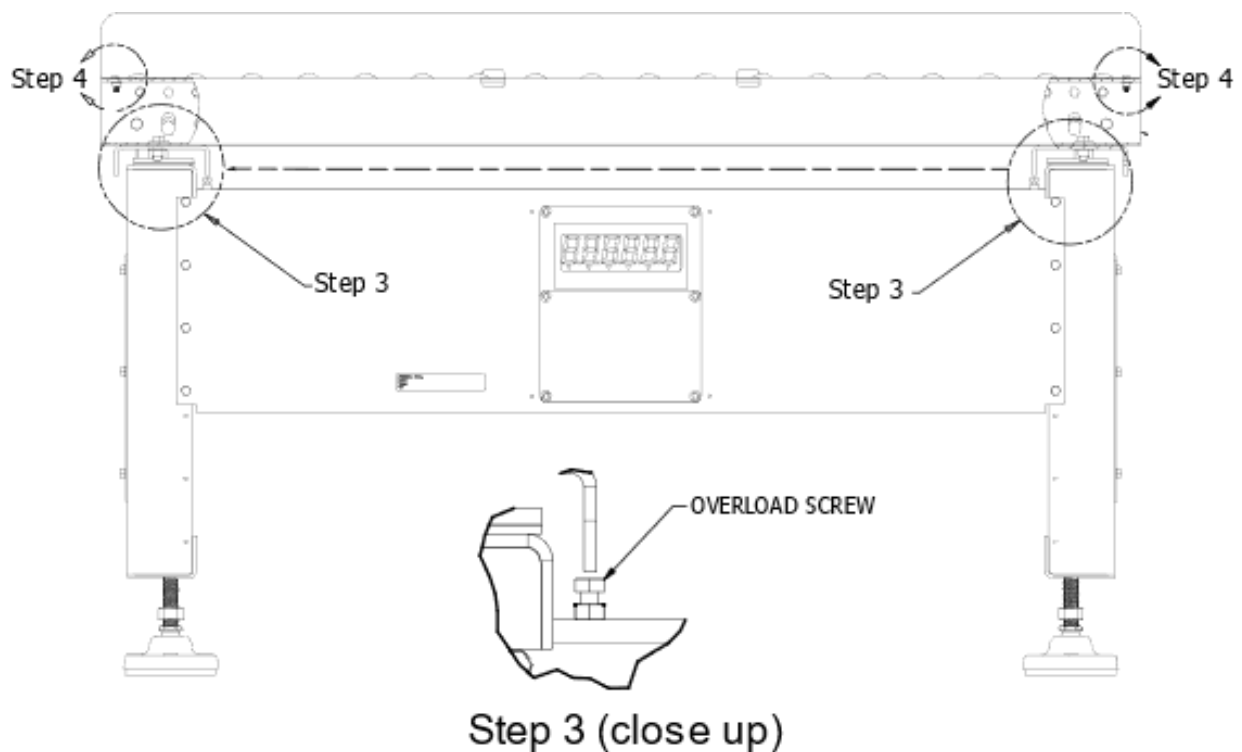
2.1. Installing

Scales are shipped with the feet turned all the way up. Turn them down to the height referenced, then adjust as needed once installed and tighten check nuts. All four feet should have equal weight for proper operation.

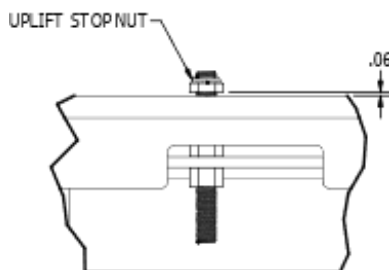
1. **Set the feet to the proper position.** Scales are shipped with the feet turned all the way up. Adjust them, as needed, for the application. A total of 5 1/8" of adjustment is available. See illustration (right).
2. **Tighten check nuts.** All four feet should have equal weight for proper operation.



3. **Loosen and turn down the overload stops.** Overload stops were adjusted all the way up for shipping. Loosen and turn down partway. To set, place 275# in the center of the far left of the scale, then adjust the two corresponding overload stops until they touch the live rail. Then, tighten the check nut. Repeat for the right side of the scale.



4. **Adjust the uplift stops.** Uplift stops have been adjusted all the way down for shipping. To set, remove all weight from the platform. Then, back off the NYLOCK nut until it is .06" from the live rail. **See drawing above for location (Step 4)**



Step 4 (close up)

5. **Plug the USB cable into a USB port on your computer or USB hub.** The USB cable can be routed either left or right of the conveyor.



2.2. Computer Connections

USB setup: The USB port will only function with a PC utilizing 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. The scale utilizes the standard Windows HID device driver.

2.3. Protective Film

(Optional) Some units may ship with a protective film covering the display. Gently remove this film before using the scale.



2.4. Gravity Use Compensation Setting

The Roller Conveyor scale 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
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

2. 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 **Ggravity Use 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.

1. Pressing the [ZERO] key resets the display to indicate zero (0).
 - a. The zero range is set at 2 percent of capacity when set for Canadian use.
 - b. The zero range is set at 100 percent of capacity 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 roller platform empty, press the **[ZERO]** key. The display will indicate zero.

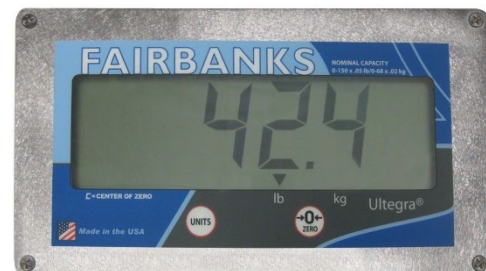


Note: The "C" to the left of the "0.00" indicates true center of zero.

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 on the roller platform.



4. Read the Gross weight from the display.



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 250 lbs/ 114 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 weigh mode

4.3. Troubleshooting

In the event the scale does not function properly, check the following, see appendix for more information:

Problem	Possible Source / Remedy
No Display	Power OFF, plug disconnected, cord damage, faulty USB port or USB to AC adapter. 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). Check adjustable overload steps, 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. Unplug, and then plug in the power cord to reset the program.

Problem	Possible Source / Remedy
Pushbuttons Will Not Operate	First unplug, then plug in the AC adapter to reset the power cord to reset the program.
Display Locked or Inoperative	First unplug, then plug in the AC adapter to reset the program.
Display Indicates "HiCAP"	Weight on the platform exceeds 250 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.
Error message (during calibration)	- Interference or binds with the scale platform / remove any obstructions and attempt re-calibration - Not enough weight added to perform the calibration / add additional weight and attempt re-calibration.

Section 5: Specifications

5.1. Technical Specifications

1. **Capacity:** 250 lbs.
2. **Rounding:** Nearest division per NIST H-44
3. **Weight Display:** 1.5 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:** 0.1 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 or kg
12. **Dimensions:** Platform 36" W x 55" L x 32" H
13. **Auto Zero Tracking:** Compensates for gradual buildup of material on platform, factory set at 0.5 divisions
14. **Power Requirements:** 5VDC, USB or USB to AC adapter
15. **Approvals:** NTEP CC# 19-016

5.2. Environment

All equipment should be protected from direct sunlight.

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

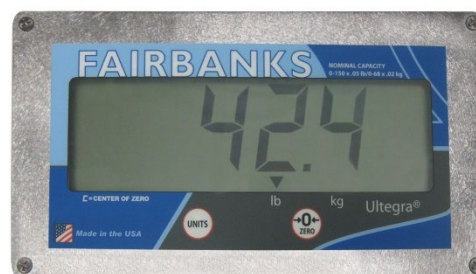
5.3. Accessories

- **P/N 34232 - USB to AC Adapter** - Input voltage range of 100 to 240 VAC, 50 to 60 Hz. Output, 5VDC, 1.2A. (USB cable **NOT** included with adapter.)



- Remote Display

Remote Display Panel Mount 32065 - (ACC-1520-P) RJ45 cable and two (2) function buttons. **Pictured** →



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



Remote Display 32649 – (ACC-1520N),
wall/pillar mount remote display with ABS housing, no
units and zero buttons

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



Remote Display p/n - **29595C**
Remote Display Stand p/n - **20301**

3. **RJ45 Splitter 31162** – This accessory is required when connecting more than one
(1) remote display to a Roller Conveyor scale. Two splitters are required for three (3)
remote displays and three (3) splitters are required to communicate to four (4)
remote displays.



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