

## **Operators Manual**



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# **Slimline Health Scale**

### Product Number: 26889

# Amendment Record Slimline Health Scale

#### Document 51142

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

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# Section 1: General Information

## INTRODUCTION

The Slimline Health Scale is powered by a 12 volt AC adapter. It has a capacity of 600 pounds and is constructed of aluminum material as a light weight, easy to operate health scale.

## DESCRIPTION

The Slimline Health Scale is designed for personal weighing applications or used for an office environment. Some of the primary features include the following:

- It includes a large easy to read remotely mounted LCD display
- A capacity of 600 pounds.
- 12 volt AC adapter.
- RS232 output cable with a DB-9F connector.
- Constructed of aluminum material.

### **BASIC PRECAUTIONS**

To prevent personal injury, please review this manual before using this scale.

- Power supply must be used with a properly grounded outlet.
- Place the scale on a solid and level floor.
  - Keep the unit off of soft, wet or slippery floors.
- Avoid extremes in temperature, humidity, shock, moisture and dust.
- Make sure the user's feet are completely dry to prevent slipping.
- Service for the Slimline Health Scale should only be performed by Authorized Fairbanks personnel *only*.
  - Failure to comply may void all implied and/or written warranties.



#### **TECHNICAL SPECIFICATIONS**

Platform Dimensions	18" x 18" x 1.7"							
Capacity	600 lb / 272 kg							
Resolution	Selectable:							
	0.2 lb / 0.1 kg 0.1 lb / 0.05 kg							
Commercial Approval	3000 Divisions							
Power Supply	Input: 120 VAC 60 Hz Output: 12Vdc 500 mA							
Load Cell Excitation	5v Pulsed DC							
Power Failure Protection	Zero Reference, Programming, and Calibrations are retained if the instrument loses power							
Auto Zero Tracking	Compensates for gradual buildup of material on platform, factory set at <b>0.5</b> divisions							
Rounding	One (1) Division							
Display update rate	0.4 Seconds							
Motion Detection	One (1) Division							
Environment								
Relative Humidity	0% to 90% non-condensing. <i>NOT suitable for water wash-down.</i>							
Approvals								
Certificates	NTEP CC = 98-198 MC = AM-5298							

# **Section 2: Installation**

#### **UNPACKING AND SETUP**

- 1. Remove the scale from the packing box.
- 2. Place on a flat surface where it will be used.

## CONNECTIONS

- 1. Plug display interface cable into the scale base where marked.
- 2. Plug AC power adaptor into the scale base where marked.
- 3. Plug RS 232 interface cable into the scale base where marked, if required.

This completes the installation process.



# Section 3: Operation

#### **OPERATING CONTROLS**

The keys for operating the scale are located on the display.

- 1. Press the **[ZERO]** key to reset the display.
  - The center-of-zero (C) indication is displayed.
  - Zero Range is **100%** of capacity for **USA**.
  - Zero Range is **2%** of capacity for **Canada**.
- 2. The **[ZERO]** key function is inhibited when the instrument detects any of the following conditions:
  - Motion on the platform.
  - An under-load condition.
  - An overload condition.
  - Outside of programmed Zero Range.
- 3. Pressing the **[UNITS]** key toggles the weighing units from **Ib** to **kg**.
  - Set to the correct measure of units by moving the arrow indicator in the display.

#### **GENERAL OPERATING PROCEDURES**

- 1. Place the scale on a level surface. Avoid placing the scale on carpet as this will cause inaccurate weights.
- 2. Check the scale display and ensure it is at zero. If not, press the **[ZERO]** key.
- 3. Press the **[UNITS]** key to select the weighing units desired, **Ib** or **kg**.
- 4. Stand on the scale platform and observe the weight on the display. If connected to a computer, the computer may request the weight data to be sent.
- 5. Step off the scale and the weighing process is complete.

## Section 4: Service and Maintenance

#### **OPERATOR SERVICE**

The following describes maintenance procedures that may be easily performed by the operator.

- No other adjustments or repairs, besides those listed below, can be performed by anyone other than Authorized Fairbanks Personnel. Contact Fairbanks Scales Product Support at 1-800-451-4353 for repairs.
- Failure to comply with this policy voids all implied and/or written warranties.

#### CLEANING

- Wipe the scale assembly with a damp cloth using water only.
  - **Do not** spray cleaners onto scale.
  - **Do not** wash-down with water hose.

**Do not** allow water or liquids to drip onto scale.

#### TROUBLESHOOTING

In the event the scale does not function properly, check the following:

Problem	Possible Source	Possible Solution
No Display	<ul> <li>Power turned off</li> <li>Plug disconnected</li> <li>Power cord damaged</li> <li>Faulty outlet</li> </ul>	<ul> <li>Turn on unit</li> <li>Unplug, then re-plug unit, which resets program</li> <li>Check AC outlet</li> </ul>
Incorrect Weight	<ul> <li>Platform binding or rubbing another item</li> <li>Incorrect UNITS displayed (kg or lbs)</li> <li>Scale not at ZERO with no load</li> </ul>	<ul> <li>Move scale away from wall or other obstructions</li> <li>Check and reprogram UNITS (kg or lbs)</li> <li>Empty scale, then press the ZERO button</li> </ul>



#### Troubleshooting continued

Problem	Possible Source	Possible Solution					
ZERO button does not reset zero	<ul> <li>Motion on receiver</li> <li>Platform binding or rubbing another item</li> </ul>	<ul> <li>Remove source of motion, be certain platform is empty</li> <li>Move scale away from wall or other obstructions</li> </ul>					
No RS232 Output	<ul> <li>No power to scale</li> <li>Bad/improper connections</li> <li>Computer port conflicts</li> </ul>	<ul><li>Check plugs</li><li>Reboot scale</li><li>Test computer ports</li></ul>					
Display Locked or Inoperable	<ul> <li>Bad display cable or plug connection</li> </ul>	<ul> <li>Disconnect, then reconnect the power cord to reset the program</li> <li>Check the cable connections</li> </ul>					
Display indicates HI CAP	<ul> <li>Weight exceeds 600 lbs.</li> </ul>	<ul> <li>Remove load</li> </ul>					
Display indicates X	<ul> <li>Power On Lockout: Scale may display dashes when power is turned on. This indicates the scale is not exactly at center-of zero.</li> </ul>	<ul> <li>Press the ZERO button to return to weighing.</li> </ul>					

#### NOTE:

*If these suggested solutions do not correct the problem(s), please contact Fairbanks Scales Product Support at 1-800-451-4353.* 

# **Appendix I: Data Output Specifications**

#### INTRODUCTION

The single RS232-C Output Port is designed for interface with the customer's data processing equipment.

## **SPECIFICATIONS**

- RS232-C compatible Data Signal
- Seven (7) Data Bits
- Odd Parity
- 9600 Baud Rate (+0.1%)
- Two Stop Bits
- US-ASCII Character Set
- Mark = -3 to -15V
- Space = + 3 to +15V
- Maximum distance of 50 cable-feet
- Connector (at end of the attached cable)
- DB9 Female for connection to a PC Serial Port

#### **CHARACTER FRAME**

Characters are transmitted in an ASCII format at 9600 Baud (+ 0.1%).

- The receiver must be capable of a tolerance of 9600 (+/- 2.5%) Baud to allow for line losses and frequency skew.
- Character frames consist of one start bit, 7-bit character length, odd parity bit and two stop bits.

3 to 15 VDC ON State (Spacing)	S T A T T	D 0 L	D 1	D 2	D 3	D 4	D 5	D 6	P A R I T Y	S T O P B I	S T O P B
Logic State -3 to -15 VDC OFF State (Marking)	T 0 ON	В							I T	0 OFF	0 OFF

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#### **NOTES:**

Least Significant Bit (LSB) DO transmitted first. Space character + HEX 20. Voltage levels above +15 VDC are invalid. Voltage levels below - 15 VDC are invalid. Voltage levels between -2 and +2 are invalid.

#### DATA TRANSMISSION

- Data is transmitted **ON-DEMAND** from the host device.
- Data available for transmission consists of the GROSS weight.
- Transmission to the host occurs when the host transmits a **CR carriage return** (*Hex 0D*) to the scale.

#### **COMPUTER OUTPUT FORMAT**

The instrument will transmit the following string of data.

Character Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
String 1																		
Gross Weight	Х	Х	Х	Х	Х	. >	X	SP	l/k	b/g	SP	G/g	R/r	SP	SP	CR	LF	EOT

#### Footnotes:

- Characters denoted by an X are characters 0-9.
- Leading zeroes are replaced with spaces (SP).
- Character 6 is a decimal point (HEX 2E).
- The decimal will move to the fifth (5) character position when at .05 kg.
- Lower case I and b for Avoirdupois Units.\*
- Lower case **k** and **g** for **Metrics Units**.
- The first weight character will be a minus (-) (**HEX 2D**) If weight is **negative**.
- Characters separated with a / denote that one character will be transmitted.
- Lower case gr in characters 12 &13 indicates scale motion.
  - Upper case **GR** indicates stable weight.



- EOT, HEX 04 is transmitted when the following occur:
  - Power up occurs and scale is **NOT at ZERO**.
  - The scale senses Overcapacity
- Transmission occurs when a **CR** (*Hex 0D*) is received.
- \* **Avoirdupois Units noun** A system of weights based on the 16-ounce pound (7,000 grains)

#### Serial Data Output Format

- 9600 baud
   Odd parity
- 7 bits
   2 stop bits
- RS232 cable (part 21619), DB9 female

Signal
Ground
Transmit (Tx)
Receive (Rx)
+12VDC

• DB9 Female Connector (computer end of cable)





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