FAIRBANKS SCALES

Operator Manual

BlueLine FS Scale System

WITH Bluetooth® TECHNOLOGY

COMMERCIALLY APPROVED

51198

Revision 2 8/09

Amendment Record

BLUELINE FS SCALE SYSTEM

WITH BLUETOOTH® TECHNOLOGY

COMMERCIALLY APPROVED

Operator Manual 51198

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

Created	08/2008	Created Document
Revision 1	08/2008	Documentation Release
Revision 2	08/2009	Added approval numbers

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.

It is the responsibility of the requesting party to develop, maintain, install, and connect networking devices and general network connectivity as it applies to the originating party's network. No warranty or guarantee, expressed or implied, concerning the network, its design, its installation, or operational characteristics has been offered by Fairbanks Scales. Fairbanks Scales shall not be liable for any loss, damage, cost of repairs, incidental or consequential damages of any kind, whether or not based on express or implied warranty, contract, negligence, or strict liability arising in connection with the design, development, installation, or use of an intended network.

Bluetooth® Identification Number B03005

Table of Contents

SECTION 1: GENERAL INFORMATION 7

Introduction 7

The Components 8

The Junction Box (J-Box) 8
Indicator Specifications 9
Comparing the Reliant and Aegis Floor Scales Using BlueLine FS 10

Reliant Floor Scale 11

Description, Features and Applications 11

Aegis Industrial Mild Steel Floor Scale 12

Description, Features and Applications 12

Environmental Characteristics for the System 13

SECTION 2: USER INFORMATION 14

Overview 15

Physical Installation Notes 15
Electronic Component Care 15
Checkout 16
Finding the Best Location 16
Service Technician's Responsibilities 17
Users' Responsibility 17

SECTION 3: BLUETOOTH® TECHNOLOGY 18

Technology Introduction 18

More about Bluetooth® Technology 18
Acquisition and Operational Transmission Ranges 19

SECTION 4: OPERATIONS 20

Basic Scale Operations 20
Shutting Down the Scale Unit 20

SECTION 5: SERVICE & MAINTENANCE 21

Indicator Error Codes 21

LCD Display Indicators 21
Audible Beep Errors/Signals 21

Scale Maintenance 22

Installing four (4) AA Batteries 22
Cleaning the Scale and Indicator 22

Section 1: General Information

INTRODUCTION

The following outlines benefits of the **BlueLine𝔽𝕊 Platform Floor Scale.**

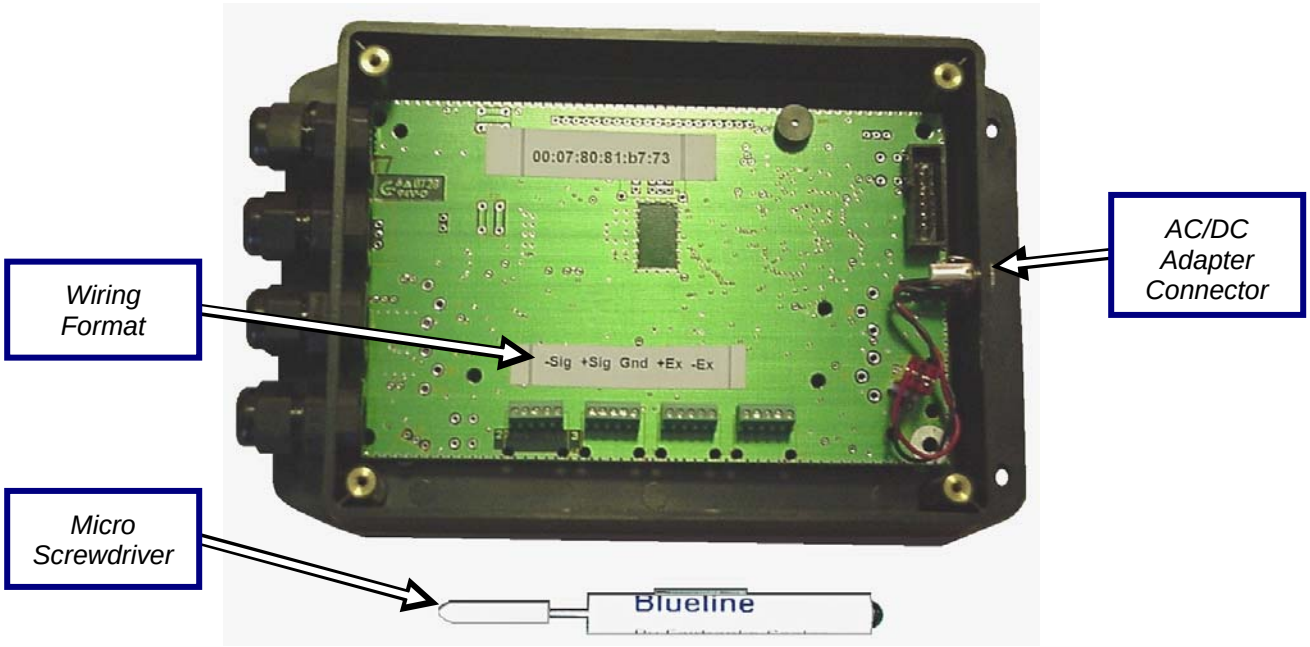
- It is designed for indoor, moisture-free, non-corrosive environments.
- The **BlueLine𝔽𝕊** Junction Box connects directly to either the **Reliant Floor Scale** or the **Aegis Floor Scale** (mild steel).
- The **BlueLine𝔽𝕊** Indicator uses **four (4) AA Alkaline batteries** or **AC Power**.
- The **BlueLine𝔽𝕊** System is **not currently FM Approved.**
- **BlueLine𝔽𝕊 Transmissions** have a typical distance of 100 feet.
- There is currently ***NO RETROFIT KIT*** to convert existing scales to the **BlueLine𝔽𝕊 System**.
- The Indicator is set-up, paired, and calibrated to the floor scale at Fairbanks Manufacturing Plant before they ship out.
- Commercially approved for the **U.S. (NTEP)** and **Canada (MC).**

THE COMPONENTS

The Junction Box (J-Box)

Components	The floor scale's load cells and the BlueLine components are powered by twenty-five foot (25') long 9VDC, 200mA AC/DC adapter.
Dimensions	**7-1/4" x 4-5/8" x 1-1/4"**
Ratings	Commercial Approved – 5000d
Enclosure	IP 12
Wireless System	**Bluetooth®** – **Class 1**
Capacity	Up to **9,990 lbs**.

CABLE COLOR CODE	
GREEN	(+) EXCITE
BLACK	(-) EXCITE
RED	(-) SIGNAL
WHITE	(+) SIGNAL



Indicator Specifications

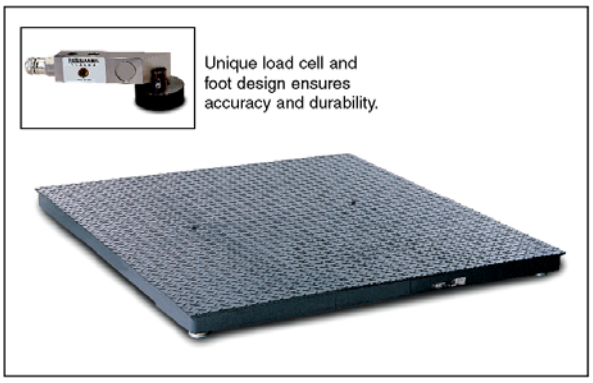
Display Type	• **LCD, 1-1/4 in.** seven (7) segment display • Basic 1-button Indicator (Zero and On/Off functionality) • 4-digits, plus Annunciators • Wireless electronics • Wall mount capable • Displays **Pounds** only • Maximum displayed weight is 9,999 lbs.
Ready Stable	• Small triangle indicates when weight is stable
Ratings	• IP 10 Enclosure Rating
Connected	• Small triangle indicates the scale is connected to a Remote Device in the **Wireless Mode**
Battery/Power	• Four (4) "AA" Alkaline battery powered – 100+ hours battery life with continuous use – Batteries installed by removing the back cover of the Indicator, no tools required. • AC Adapter – 25 feet long cord, 9 VDC, 200mA (supplied). • When battery power is low, ▼ displays on the screen. • When battery power is below the operating range, LbAt appears.
Sleep Mode	• The sleep timer saves battery life.
Approvals	• NTEP COC 08-023 • MC NOA AM-5712

▼ *Displays when battery power is low.*

Comparing the Reliant and Aegis Floor Scales Using BlueLine FS

There are a few main differences between using the Reliant Floor Scale and the Aegis Floor Scale.

Reliant	Aegis Mild Steel
Scale Capacity 2,500 to 5,000	Scale Capacity 1,000 to 10,000
Load Cell capacity **1,000 up to 2,500 lbs.**	Load Cell capacity **1,000 up to 5,000 lbs.**
Unique patented load Cells	*Must* be fitted with stainless steel potted load cells.
New plastic access door allows typical transmissions of a wireless signal **75 to 100 ft.**	Typically transmits a wireless signal **up to 50 feet**
The **Reliant Scale System Kit** includes the following: • BlueLine Junction Box • BlueLine Indicator • **Plastic J-Box Cover** • Reliant Floor Scale	The **Aegis Scale System Kit** includes the following: • BlueLine Junction Box • BlueLine Indicator • **Aegis Industrial Mild Steel Floor Scale** • **Reliant style load cells (with feet)**



Reliant Floor Scale Platform

Aegis Floor Scale Platform

RELIANT FLOOR SCALE

Description, Features and Applications

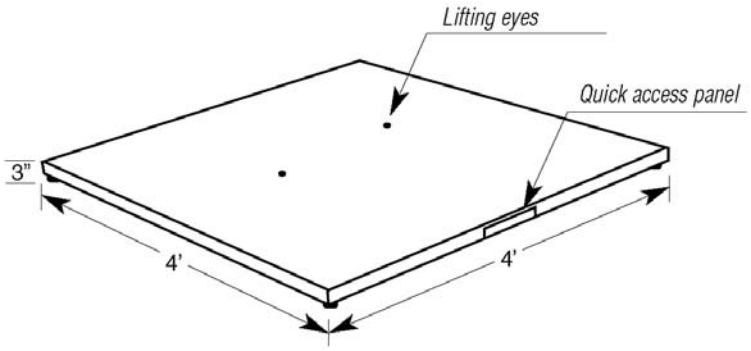
Three inches (3”) height and 4’ x 4’ design allows for material handling equipment access such as drum movers, pallet jacks and fork lifts. Load cell capacity is **1,000 or 2,500 lbs.** Used for applications such as General Industrial, Inventory Management, Pallet Weighing, and Shipping.

SPECIFICATIONS	
Scale Capacities	**2,500 and 5,000 lbs.**
Platform	1/4” plate with diamond tread
Platform height	3.0” on all models
Overload capacity	150% of capacity
Endloading	100% of capacity
Platform construction	Type A36 industrial-grade carbon steel
Paint	Gray epoxy, ester enamel
Load cell capacity	**1,000 or 2,500 lbs**
Load Cell construction	Stainless Steel

ACCESSORIES

- Ramps
- Bumper Guards
- Lifting Eyebolts
- Bolt-down Plates
- Factory Calibration

CABLE COLOR CODE	
GREEN	(+) EXCITE
BLACK	(-) EXCITE
RED	(-) SIGNAL
WHITE	(+) SIGNAL



AEGIS INDUSTRIAL MILD STEEL FLOOR SCALE

Description, Features and Applications

Three inches (3”) height and 2-1/2’ x 2-1/2’ to 6’ x 8’ design allows for material handling equipment access such as drum movers, pallet jacks and fork lifts. Load cell capacity is **1,000 to 5,000 lbs.** Used for applications such as General Industrial, Inventory Management, Pallet Weighing, and Shipping/Receiving.

SPECIFICATIONS	
Scale Capacities	**1,000 to 10,000 lbs.**
Platform	1/4” plate with diamond tread
Platform height	3.0” on all models
Overload capacity	150% of capacity
Endloading	100% of capacity
Platform Construction	Type A36 industrial-grade carbon steel
Paint	Gray epoxy, ester enamel
Load Cell Capacity	**1,000 to 5,000 lbs**
Load Cell Construction	Alloy tool steel*

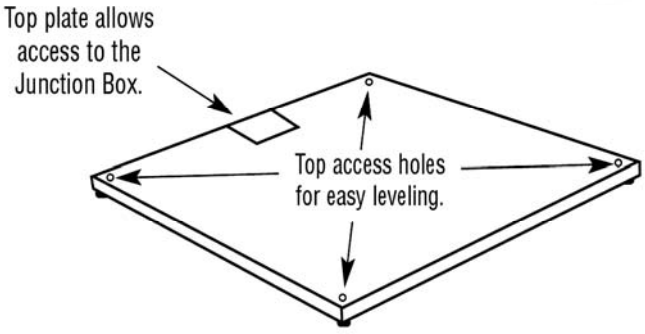
* Scale uses stainless steel load cells on 30” x 30” – 1,000 lbs. and 6’ x 8’ – 9,990 lbs. scales.

ACCESSORIES

- Ramps
- Bolt-down Plate
- Pit Frame
- Lifting Eyebolts
- SS Eyebolt Hole Plugs
- Bumper Guards

MODIFICATIONS

- Smooth Deck and Ramps
- Lower Capacity Load Cells
- Custom Platform, Ramp and Pit Frame sizes
- Lifting Handles



CABLE COLOR CODE	
GREEN	(+) EXCITE
BLACK	(-) EXCITE
RED	(-) SIGNAL
WHITE	(+) SIGNAL

ENVIRONMENTAL CHARACTERISTICS FOR THE SYSTEM

Operating Environment	**Light to Heavy Industrial**
Water Resistance	• Not designed for wash down or light spray • Cleaning with damp cloth is acceptable
Operating Temperature	-10° C to +40° C
Humidity	0-90% Relative Humidity Non-Condensing

SECTION 2: USER INFORMATION

It is the customer/operator's responsibility to ensure the equipment provided by Fairbanks is operated within the parameters of the equipment's specifications and protected from accidental or malicious damage.

W A R N I N G !

Absolutely NO physical, electrical or program modifications other than selection of standard options and accessories can be made by customers to this equipment

Repairs are performed by Fairbanks Scales Service Technicians and Authorized Distributor Personnel ONLY!

Failure to comply with this policy voids all implied and/or written warranties

OVERVIEW

Physical Installation Notes

- Check all devices for proper operation. If any error messages occur, refer to Troubleshooting or the proper manual of that device.
- No physical alterations (mounting holes, etc.) are allowed during installation.

Electronic Component Care

- Much of the equipment consists of printed circuit assemblies, which ***must be*** installed using **ESD handling procedures**.
- These assemblies must be replaced as assemblies or units.
- Replacement of individual components is not allowed.
- These components must be returned intact for replacement credit per normal procedures.
- The AC receptacle / outlet shall be located near the Indicator and easily accessible.
- Electrical connections other than those specified may not be performed.

Checkout

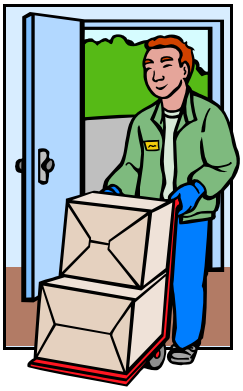
Follow these guidelines when checking out all equipment:

- ✓ Check in all components and accessories according to the product order.
- ✓ Remove all components from their packing material, checking against the invoice that they are accounted for and not damaged.
  - *Advise the shipper immediately, if damage has occurred.*
  - *Order any parts necessary to replace those which have been damaged.*
  - *Keep the shipping container and packing material for future use.*
  - *Check the packing list.*
- ✓ Collect all necessary installation manuals for the equipment and accessories.

Finding the Best Location

Position the equipment with these points in mind:

- Place the scale on a flat, solid, level floor.
- For **Bluetooth**® Technology to work effectively, the scale platform must be within radio range of the remote device. Follow the Remote Device's setup procedure to confirm communication between the scale and that Remote Device.
- Avoid areas which have extreme variations in room temperatures. Temperatures outside the Indicator's specifications will affect the weighing accuracy of this product.
- Keep the scale in a location completely away from all high water, such as low-lying areas that may flood, and away from any drain pipes.
- Intense direct sunlight can harm the display.
- Do not locate near magnetic material or equipment/Indicators which use magnets in their design.



Service Technician's Responsibilities

- ✓ All electronic and mechanical calibrations and/or adjustments required for making this equipment perform to accuracy and operational specifications are considered to be part of the installation.
  - — They are included in the installation charge.
  - — Only those charges which are incurred as a result of the equipment's inability to be adjusted or calibrated to performance specifications may be charged to warranty.
- ✓ The equipment consists of printed circuit assemblies which must be handled using ESD handling procedures, and must be replaced as units.
  - — Replacement of individual components is not allowed.
  - — The assemblies must be properly packaged in ESD protective material and returned intact for replacement credit per normal procedures.

Users' Responsibility

- ✓ ***Absolutely no physical, electrical or program modifications other than selection of standard options and accessories are to be made to this equipment.***

Section 3: Bluetooth® Technology

Bluetooth® TECHNOLOGY INTRODUCTION

The **Fairbanks BlueLine**FS (**F**loor **S**cale) communicates using **Bluetooth**® wireless technology. It is the first scale to *"Cut the Cord"* between the Indicator and the floor scale. It is totally wireless.

Not all **Bluetooth**® wireless devices have software to communicate with the **BlueLine**FS.

- The components of the **BlueLine**FS system are the **Floor Scale, BlueLine**FS **Junction Box, BlueLine**FS **Indicator** and the specialized **BlueLine**FS **Software.**

NOTE: *For more information about* **Bluetooth**® **Technology,** *please go to* **www.Fairbanks.com** **.**

More about Bluetooth® Technology

Bluetooth® Wireless Technology cuts the cable between certain devices and their components.

- The key features of **Bluetooth**® wireless technology are strong signal, low power requirements, and an economical price (compared to other Radio Frequency).

More about Bluetooth® Technology, Continued

- **Bluetooth®** Technologies core system consists of a RF (radio frequency) transceiver, which is the component that sends and receives the wireless signal.
  - The system offers services that enable the connection of devices and the exchange of a variety of data classes between these devices.
  - The system operates in an unlicensed radio band. It also incorporates the use of a broadband spectrum which allows the signal to hop from one frequency band to another.
  - If a band is being used, or is "noisy," then the wireless signal switches to a band that is not being used by other RF devices, or has less interference.
  - This "hopping" also provides a high level of security, since with ever-changing output, it is difficult for external devices to isolate or "pirate" the signal.
  - It checks frequency bands 1600 times *per second*.

Acquisition and Operational Transmission Ranges

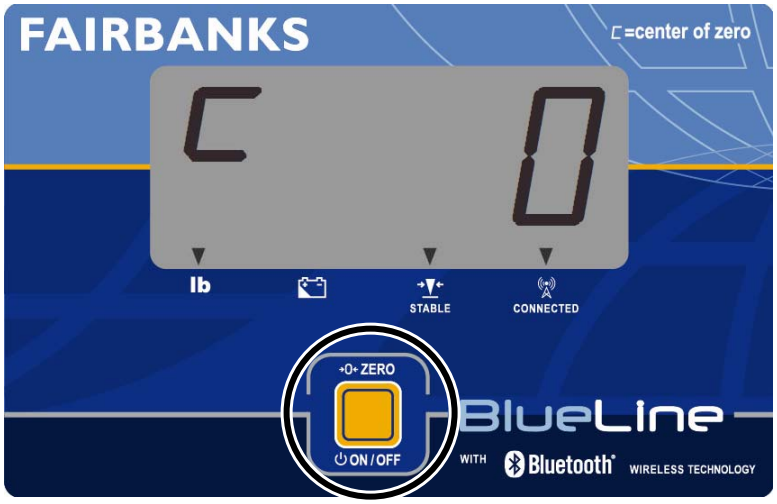
The **BlueLine**FS has an **acquisition range** of approximately **fifty feet** (**50'**), with an **operational range** of up to **one hundred feet** (**100'**).

- **Acquisition Range** is the area where the platform and Indicator's signals are "paired" or find each other.
- **Operational Range** is the area where the floor scale and Indicator operate after "pairing" has occurred.
  - *If the signal is lost because the floor scale and Indicator are outside of the **operational range** (or due to interference), then the operator brings the display back within the **acquisition range**.*
  - *The intuitive* **BlueLine**FS *reacquires the signal automatically.*

Section 4: Operations

Basic Scale Operations

1. Plug in the **Floor Scale Unit** (if not already plugged in).
2. Plug in the **Indicator**, or press the **ON/ZERO** switch to activate the unit.
   - The Indicator seeks a connection with the J-Box in the scale platform, and connects to it if it is in range and is operable.
3. The current weight displays.
4. Press briefly the **ZERO/ON** button to **Zero the scale.**
   - The scale Zeros if it is stable and within the **Zero Limit Range.**



Shutting Down the Scale Unit

1. Press and hold the **ZERO/ON** button on the Indicator for **five (5) seconds**.
   - A visual display shows the button is being held down.
   - If the unit is in its Sleep Mode, the Indicator automatically turns off to save the life of the battery when there is no recent activity.

Section 5: Service & Maintenance

INDICATOR ERROR CODES

There are several error conditions and operational steps indicated by the scale.

- Not all are applicable in every sequence.
- Some errors are indicated using audible beeps and some are shown on the scale display.

LCD Display Indicators

Displayed Text or Annunciator	Description
- - - -	No Bluetooth® connection is established.
Motion/Stable Annunciator	Weight is stable on the scale.
Lb Annunciator	Displayed weight is in pounds.
Connection Annunciator	Connection is established between J-Box/Indicator/Software.
-dL-	Too many digits to display.
- U L -	Weight is **Under Load** capacity.
- O L -	Weight is **Over Load** capacity.
ErrC	**BlueLine**FS **Indicator** or **Software** calibration sequence failed.
Good	Calibration sequence is successful.
COnn	Indicator connected to **BlueLine**FS **Software.**
LbAt	Battery charge below the operating range.
ConF	Scale in **Configuration Mode**. Program changes are possible.
Battery Annunciator	Battery charge getting low warning.
Counter-clockwise Dashes	The Zero button is held down, turning the **display off**.

Audible Beep Errors/Signals

Alerts	Displayed Message	Description
Pulsing (5-sec. beeps)	rinG	Indicator searching for **BlueLine**FS **Software** connection.
Pulsing (10-sec. beeps)	CALL	Indicator attempting to pair with J-box.

SCALE MAINTENANCE

Installing four (4) AA Batteries

1. Carefully pull off the back cover by snapping it open.
   - No tools are necessary.
2. Match the correct poles and **insert** two **batteries** in one direction, then two in the other direction.
3. Replace the Indicator cover.

Cleaning the Scale and Indicator

Use a moist cotton cloth to clean the scale.

- If spray cleaner is needed for shoe sole marks, squirt it into the cloth, and not directly onto the scale.
- Use only tap water in the cloth to wipe off the indicator's clear plastic display.

BlueLine FS™ Scale System

WITH BLUETOOTH® TECHNOLOGY

COMMERCIALLY APPROVED

OPERATOR MANUAL
DOCUMENT 51198

Manufactured by Fairbanks Scale, Inc.
821 Locust
Kansas City, MO 64106

www.fairbanks.com