Scale Store

CHC Crane Scale

51062

Revision 3   09/2015

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Amendment Record

Scale store
ELECTRONIC CRANE scale series
CHC series OWNER'S manual

Document 51062

Manufactured by Fairbanks Scales, Inc.

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Revision 2	06/10	Revised manual
Revision 3	09/15	Revised instructions throughout

Disclaimer

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Section 1: General Information

1.1 INTRODUCTION

The CHC Series Electronic Crane Scales are used as hanging weighing devices in a wide variety of applications. This scale is intended for use in non-commercial applications, and is not legal for trade.

NOTE: It is the owner's responsibility to document, notify, and follow-up regarding shipping damage with the carrier.

1.2 DESCRIPTION

- The scale is shipped in a crate, fully assembled and wired.
- The scale series capacities range from 1300 lbs. to 20,000 lbs.

1.3 POWER

- The power button is located on the front overlay.
- When the unit requires charging, please use the correct power supply (6 VDC/1A).

1.4 CHARGING

- The scale battery should provide 60 hours operating time (6V/10A). To provide sufficient power and prolong battery life, keep the battery charged.
- When the battery is running low, the display will flash to indicate it is time to re-charge the battery. If you are unable to re-charge the battery immediately, the scale battery will last approximately another nine (9) hours.
- If the display reads L L L L L – this indicates a very low battery. Stop using the scale and re-charge the battery immediately to protect the battery!
- When the battery charger is in use, it is best not to share power with other equipment on that same outlet.
- If the scale has not been used for three months or more, charge the battery before using the scale.
- When the charge light on the keyboard is:

  Red - Battery is not fully charged and is in the process of charging.

  Green - Battery is fully charged.

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Section 2: Technical Features

2.1 TECHNICAL FEATURES

1. **Load cell division**: 1/3000

2. **Output voltage**: 0mV ~ +3mV

3. **Display**: 5 digit, 7-segment red LED

4. **General function**: Zero adjustment, auto zeroing, auto calibration

5. **Initial zero set-up**: Maximum capacity < +10%

6. **Related voltage**: 110VAC/60Hz

7. **Working temperature**: -10°C ~ +55°C storage, and 0°C ~ 40°C operating

8. **Battery specifications**:
   6.5V/10A (1 piece)
   12V/7A (2 piece)
   Temperature: 0 ~ 40°C

9. **Charger specifications**:
   110V/60HZ or
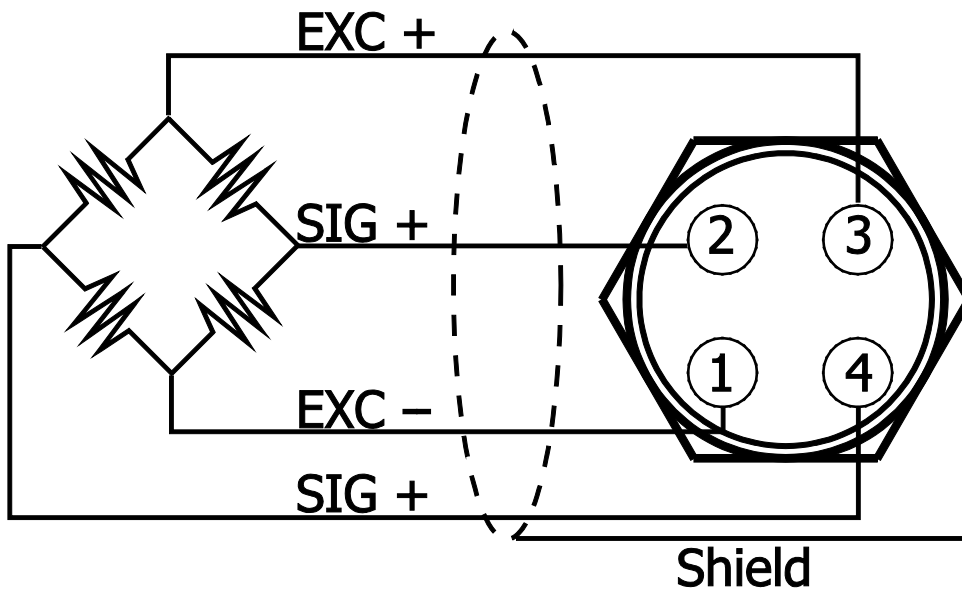   6 VDC/1A
   Temperature: 0 ~ 40°C

2.2 NOTES

- Avoid placing the scale in direct sunlight or in a moist environment.
- Keep the scale dry. Failure to do so will affect operation and weight readings.
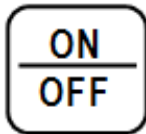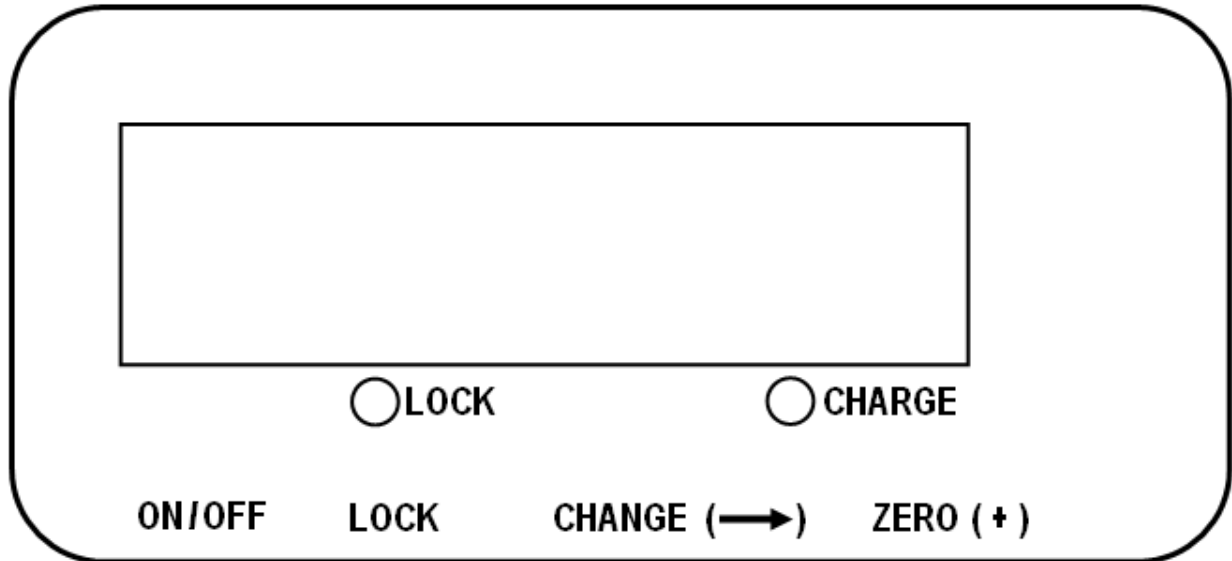- Please provide a stable power supply.

2.3 LOAD CELL CABLE CONNECTION

PIN   SIGNAL NAME
1.   Excitation -
2.   Signal -
3.   Excitation +
4.   Signal +

2.4 KEY BUTTON FUNCTION

Press the **ON/OFF** key to power on or power off the scale.
Turn the scale OFF to conserve battery power when weighing is complete.

Press this key to freeze current weight (the **LOCK** indicator will be on). Press this key again to turn the lock weight function off. In the programming mode, this key is used to confirm a parameter and confirm a setting.

Unit weight conversion (lb or kg) or spare key.
In the programming mode, press this key to change the digit selected.
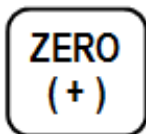
Set the display to zero (0) or press **ZERO** key to deduct the container (tare) weight. Any weight zeroed will be subtracted from the scale capacity.

In the programming mode, pressing this key will increase the value of the selected digit.

2.5 LED LIGHT ADJUSTMENT

1. Press the **CHANGE** key and hold for 5 seconds. The display will change as indicated below:

    L .CHG

2. Press the **ZERO** key to select brightness; 8 different brightness settings are available.

    LiG .H0 - LiG .H7

3. Press the **CHANGE** key again to return to weight mode.
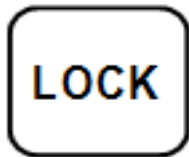
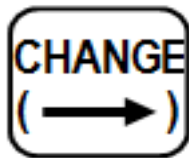   0 .000

Section 3: Function Menu

3.1 NOTES

Some of the following parameters (functions) are not relevant to a crane scale application so a complete explanation is not provided. If a complete explanation is not provided, only the default setting is identified.

3.2 KEYPAD OPERATION

LOCK
Press this key to freeze current weight (the LOCK indicator will be on). Press this key again to turn the lock weight function off. n the programming mode, this key is used to confirm a parameter and confirm a setting.

CHANGE (→)
Unit weight conversion (lb or kg) or spare key.
In the programming mode, press this key to change the digit selected.

ZERO (+)
Set the display to zero (0) or press "ZERO" key to deduct the container (tare) weight. Any weight zeroed will be subtracted from the scale capacity.

In the programming mode, pressing this key will increase the value of the selected digit.

3.3 ENTERING THE FUNCTION MENU

1. Power the scale off

2. Press and hold the **ZERO** key and the **OFF / ON** key.

3. Release the **ZERO** key when 4 is displayed.

4. Press the **LOCK** key, 5 is displayed.

5. Press the **ZERO** key, 6 is displayed.

6. Press the **LOCK** key and 4 5 6 briefly displays, then F 0<u>0</u> is displayed. The underlined digit is flashing.

7. Using the **CHANGE** and **ZERO** keys, you can enter the specific function / parameter needed.

   Example: F   12

   Explanation: This identifies that with a press of the **LOCK** key, you will enter function / parameter 12.

8. Pressing the **LOCK** key enters you into the function / parameter.

   Example: 12   1

   Explanation: The left number represents the function / parameter accessed and the right number is the current, or available, setting.

9. Toggle between the available choices using the **ZERO** key, accept the selection by pressing the **LOCK** key.

IMPORTANT: When you accept the parameter selection by pressing the **LOCK** key, this automatically saves this setting. To exit the Function Menu, you must power off the scale!

3.4 FUNCTION MENU SETTINGS

Function	Function Explanation	Selections Available *(default is underlined)*
F 00	Do not change this setting.	**<u>01</u>**
F 01	Zero Tracking	**<u>00</u>**: No tracking 01: 0.5 div / 1 sec 02: 0.5 div / 2 sec 03: 0.5 div / 3 sec 04: 0.5 div / 4 sec 05: 1.0 div / 1 sec 06: 1.0 div / 2 sec 07: 1.0 div / 3 sec 08: 1.0 div / 4 sec 09: 1.5 div / 1 sec 10: 1.5 div / 2 sec

		11: 1.5 div / 3 sec
		12: 1.5 div / 4 sec
		13: 2.0 div / 1 sec
		14: 3.0 div / 1 sec
		15: 4.0 div / 1 sec
F 02	Do not change this setting.	**01**
F 03	Do not change this setting.	**0**
F 04	Do not change this setting.	**99**
F 05	Do not change this setting.	**00**
F 06	Do not change this setting.	**1**
F 07	Do not change this setting.	**05**
F 08	Filtering – The higher the value, the heavier the filtering.	00 … 99 **04**
F 09	Overload audible setting	**0**: Enabled 1: Disabled
F 10	Do not change this setting.	**1**
F 11	Do not change this setting.	**1**
F 12	Front panel units of measure change. Note: If set to "0", pounds only!	0 = No Units Change **1** = Units change
F 13	Available units of measure	**00**: kg / lb 01: g / oz 02: g / lb 03: kg / kg 04: g / g
F 14	Do not change this setting.	**0**
F 15	Do not change this setting.	**1**
F 16 – F19	No parameters	---
F 20	Do not change this setting.	**0**
F 21	Do not change this setting.	**0**
F 22	Do not change this setting.	**00**
F 23	Do not change this setting.	**0**
F 80	Restore Factory Default	**00**: Do not change 01: Back to original settings

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Section 4: Complete Calibration Menu

Introduction

The complete calibration menu will set the scale's capacity, division size, decimal location and calibrate the scale.

4.1 NOTES

- During calibration, use standard weights that are not over the scale's maximum capacity.

- CHC Calibration is done in kilograms, so if using avoirdupois weights make sure your conversion is accurate.

50 lbs	=	22.68 kgs
100 lbs	=	45.36 kgs
250 lbs	=	113.40 kgs
500 lbs	=	226.80 kgs
1000 lbs	=	453.60 kgs

  Note: The scale's division setting might cause the need to round to the next digit.

4.2 KEYPAD OPERATION

- The **LOCK** key is used to enter a parameter and confirm a setting.
- The **CHANGE** key is used to change the flashing digit.
- The **ZERO** key changes the numeric value of the flashing digit or toggles through the available selections.

4.3 ENTERING THE COMPLETE CALIBRATIONS MENU

1. Power the scale off

2. Power the scale back on. Press and hold the **CHANGE** key and **OFF / ON** key.

3. Release the **CHANGE** key once 7 is displayed.

4. Press the **LOCK** key, 8 is displayed.

5. Press the **CHANGE** key, 9 is displayed.

6. Press the **LOCK** key and $7 \quad 8 \quad 9$ briefly displays, then the "Capacity size . Division size" is displayed <u>in KG</u>. With the left most digit blinking.

   Example: $0600 \ .2$

   Explanation: To the left of the decimal is the scale's capacity, to the right is the division size. In other words, the above example would have a capacity of 600kg with a division size of 0.2 kg.

7. Using the **CHANGE** and **ZERO** keys, you can change the capacity and division size of the scale.

   Note: This should rarely need to be changed, so please ensure this change is necessary before proceeding.

8. Pressing the **LOCK** key accepts the capacity and division size. Now the scale's capacity and decimal places are displayed with the decimal blinking.

   Example: $600 \ .0$

9. Pressing either the **CHANGE** or **ZERO** keys will move the location of the decimal.

   Note: This should rarely need to be changed, so please ensure this change is necessary before proceeding.

10. Pressing the **LOCK** key accepts the decimal location. The display counts down from 99999 to 00000, then displays the last calibration weight with the left most digit blinking.

11. Adjust the reading on the display with the test weight value (**CHANGE** and **ZERO** keys) that will be used to calibrate the scale.

    Note: Remember scale must be calibrated in kgs, so if using pound test weights, convert to kilograms.

12. Make sure no weight is on the scale. Then, to accept the displayed reading, press the **LOCK** key. The display will read $PPP \ . \ X$ (X = random number). The scale has just established a zero reference.

13. Apply the programmed test weight to the under hook. Scale will automatically capture the span calibration.

    Note: Scale will begin capturing the test weight when the weight is stable, so make sure the entire test load is suspended as quickly as possible.

14. When span calibration is captured, the scale will emit an audible beep and the unit will display the test load.

15. BEFORE CYCLING POWER … To recalibrate simply press the CHANGE or ZERO key with no weight on the under hook. Then, restart the calibration sequence starting at *step 13*.

16. Cycle power to accept the calibration.

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Section 5: Calibration ONLY Menu

Introduction

In most situations, the factory default capacity, division size and decimal location won't need to be changed. The Calibration Only Menu provides a means to perform the calibrate ONLY (zero and span calibration) without stepping through all the steps in the Complete Calibration Menu.

5.1 NOTES

- During calibration, use standard weights that are not over the scale's maximum capacity.

- CHC Calibration is done in kilograms, so if using avoirdupois weights make sure your conversion is accurate.

50 lbs	=	22.68 kgs
100 lbs	=	45.36 kgs
250 lbs	=	113.40 kgs
500 lbs	=	226.80 kgs
1000 lbs	=	453.60 kgs

  Note: The scale's division setting might cause the need to round to the next digit.

5.2 KEYPAD OPERATION

- The **LOCK** key is used to enter a parameter and confirm a setting.
- The **CHANGE** key is used to change the flashing digit.
- The **ZERO** key changes the numeric value of the flashing digit or toggles through the available selections.

5.3 +ENTERING THE CALIBRATION ONLY MENU

1. Power the scale off.

2. Press and hold the **LOCK** key and press the **OFF / ON** key.

3. Release the **LOCK** key when 1 is displayed.

4. Press the **ZERO** key, 2 is displayed.

5. Press the **LOCK** key, 3 is displayed.

6. Press the **ZERO** key and 123 briefly displays, then the scale displays "999999" counting down to zero. Finally, the last calibration test weight value is displayed <u>in KG</u>. With the left most digit blinking.

7. Adjust the reading on the display with the test weight value (**CHANGE** and **ZERO** keys) that will be used to calibrate the scale.

    Note: Remember scale must be calibrated in kgs, so if using pound test weights, convert to kilograms.

8. Make sure no weight is on the scale. Then, to accept the displayed reading, press the **LOCK** key. The display will read PPP. X (X = random number). The scale has just established a zero reference.

9. Apply the programmed test weight to the underhook. Scale will automatically capture the span calibration.

    Note: Scale will begin capturing the test weight when the weight is stable, so make sure the entire test load is suspended as quickly as possible.

10. When span calibration is captured, the scale will emit an audible beep and the unit will display the test load.

11. BEFORE CYCLING POWER … To recalibrate simply press the **CHANGE** or **ZERO** key with no weight on the underhook. Then, restart the calibration sequence starting at step 13.

12. *IMPORTANT* Cycle power to accept the calibration.

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