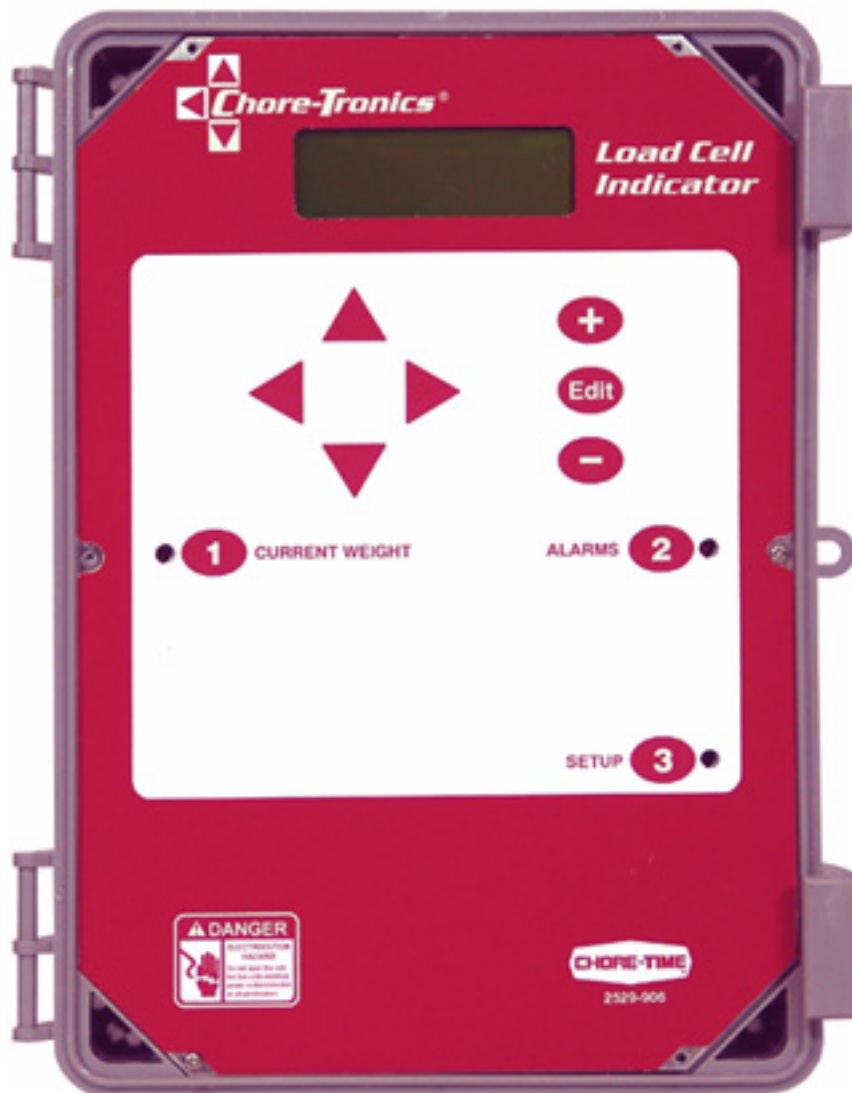




Chore-Tronics® Load Cell Indicator



CTB Inc. Warranty

CTB Inc. warrants each new product manufactured by it to be free from defects in material or workmanship for one year from and after the date of initial installation by or for the original purchaser. If such a defect is found by the Manufacturer to exist within the one-year period, the Manufacturer will, at its option, (a) repair or replace such product free of charge, F.O.B. the factory of manufacture, or (b) refund to the original purchaser the original purchase price, in lieu of such repair or replacement. Labor costs associated with the replacement or repair of the product are not covered by the Manufacturer.

Conditions and Limitations

1. The product must be installed by and operated in accordance with the instructions published by the **Manufacturer or Warranty will be void.**
2. Warranty is void if **all components** of the system are not original equipment supplied by the **Manufacturer.**
3. This product must be purchased from and installed by an authorized distributor or certified representative thereof or the Warranty will be void.
4. Malfunctions or failure resulting from misuse, abuse, negligence, alteration, accident, or lack of proper maintenance shall not be considered defects under the Warranty.
5. This Warranty applies only to systems for the care of poultry and livestock. Other applications in industry or commerce are not covered by this Warranty.

The **Manufacturer** shall not be liable for any **Consequential or Special Damage** which any purchaser may suffer or claim to suffer as a result of any defect in the product. **“Consequential” or “Special Damages”** as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.

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Effective: **July 2008**

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Thank You

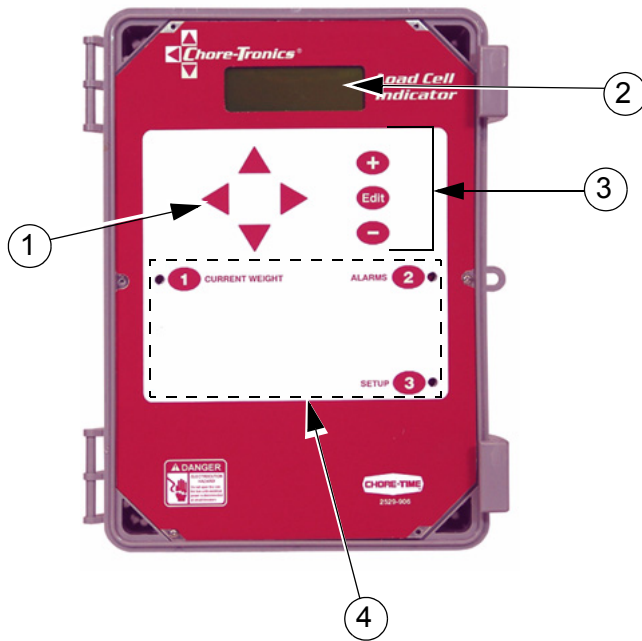
The employees of CTB Inc. would like to thank your for your recent purchase. If a problem should arise, your CTB distributor can supply the necessary information to help you.

Overview

The Chore-Tronics Load Cell Indicator is used to indicate the amount of weight in a maximum of two different feed bins that are setting on two different sets of loadcells.

Introduction to the Control

Description of Control Front Panel



Item	Description
1	Navigation Buttons
2	Viewing Screen
3	Edit Buttons
4	Subject Buttons

Figure 1. Introduction to Control

Viewing Screen

The viewing screen has a display which has 4 lines, each containing 20 characters. This is the area that will display the requested information when a subject button is pressed. The viewing screen always remains lit. Normally the *Current Weight* screen shows (Figure 2).

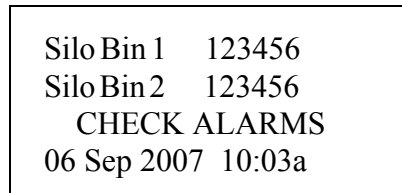
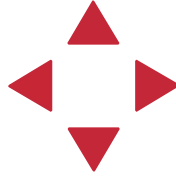


Figure 2. Current Weight Screen.

Navigation Buttons

These buttons allow you to scroll up and down in the screens that have more than 8 lines. Continuously pressing the up or down arrow button increases the scrolling speed. When you are in the *Edit Mode* the left and right arrow keys move the cursor to editable (changeable) positions. The cursor highlights the areas that can be changed.



Edit Buttons

When the button labeled **EDIT** is pressed and you are looking at a screen that has editable fields, the cursor appears. With the *Navigation Buttons*, you can move the cursor to the parameter on the screen that you want to edit. By pressing the “+” or “-” buttons, the numerical values are changed. If you are changing text (i.e. “yes” or “no”), the “+” and “-” keys scroll through the possible text choices. Pressing the **EDIT** button a second time exits the edit mode.



Fast Edit

While editing a number on the screen, you will notice that the digit you are changing is underlined. For example: (72.0). If you wish you can move to different digits of the number in order to change the number more rapidly. To do this See **Figure 3 below**. Fast Edit is very useful when making large changes to numbers.

Action	Result
Press the Edit button	72. <u>0</u>
Press "+" followed by "-"	72. <u>0</u>
Within 3 seconds, Press the Left arrow twice	<u>7</u> 2.0
Press "+" twice arrow	<u>9</u> 2.0

MI1701-065 1/02

Figure 3. Fast Edit.

Security

To provide for security in setting your Controls, there is a security feature that appears when you press the *Edit* button. The Control automatically asks for an access code at that time, The access code is a four digit number that you have selected while setting up the Control and is explained under the “**Changing the Access Code**” section of this manual. Once you have inserted the correct code, the Control allows you to make changes. If five minutes pass since your last change, the access code has to be re-entered.

Subject Buttons

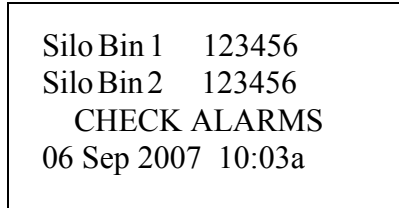
On the front of the Control are 3 subject keys. As each subject button is pressed, the light beside that button turns on and the subject that is described beside the button appears on the screen. If no other buttons are pressed for 5 minutes, the Control automatically returns to the *Current Weight* screen.

How to Maneuver in the Viewing Screen

- The procedures below give a brief overview on the use of the *Navigation Buttons* and the *Edit Buttons*.
- Screen 1, "Setup" is used for this example.

Using the Navigation Buttons

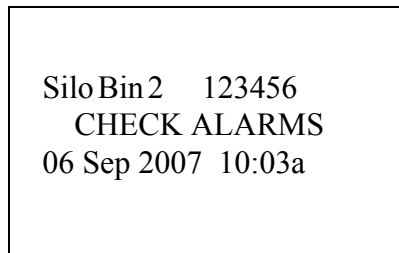
1. Press **BUTTON 1**. **Figure 4** appears in the display.



```
Silo Bin 1 123456
Silo Bin2 123456
CHECK ALARMS
06 Sep 2007 10:03a
```

Figure 4. Navigation Buttons.

2. Press the **DOWN ARROW** once.
The view shown on the screen will scroll down one line as shown in **Figure 5**. If you push the **UP ARROW** once, the text scrolls back to where it was.



```
Silo Bin2 123456
CHECK ALARMS
06 Sep 2007 10:03a
```

Figure 5. Press Down Arrow.

3. The left and right arrow keys are used during the Edit Mode.

Using the Edit Buttons

The Edit Mode is entered by pressing the Edit Button. Pressing the Edit Button a second time exits the Edit Mode.

1. Press **BUTTON 3**.

The *Setup* screen appears (**Figure 6**).

Control Number	
Clock Type	12 HR
Time	11:01p

Figure 6. Setup Screen.

2. Press the **EDIT** button.

This activates the cursor which allows settings to be edited. **Figure 7** shows what the cursor looks like. If the Control asks you for an "Access Code", enter it at this time (**See Page 44**).

CURSOR —

Control Number	1
Clock Type	12 HR
Time	11:01p

Figure 7. Setup Screen in Edit Mode.

3. Press the (+) or (–) buttons to edit the House #.

The (+) key increases the value and the (–) key decreases the value.

4. Press the **DOWN ARROW** (**Figure 8**).

Control Number	1
Clock Type	12 HR
Time	11:01p

Figure 8. Setup Screen in Edit Mode.

5. Press the (+) or (–) buttons to change from Fahrenheit to Celsius.

In this case the (+) and (–) buttons select different text choices.

6. If two or more editable settings are on the same line, the *left* and *right* arrow buttons are used to move between those positions.

When a value or text is edited, it is saved in the memory within a few seconds. If you make a mistake, rechange it to what you really want.

Glossary of Terms

Noticing an Alarm

“Noticing” an alarm is a very important part of using the alarm system. With button presses, you can tell the Control that you have “seen” the alarm message. The simplest way to do this is to first press the alarm button to read the alarm message(s) at the top of the alarm screen. Each additional press of the alarm button (while you’re still looking at the alarm screen) “notices” the alarm(s), one at a time.

SJB Box (Scale Junction Box)

The SJB Box translates information from the Loadcells to the LCI. Each SJB can be connected to a maximum of 6 Loadcells. A maximum of two SJB’s can be connected to the LCI.

Overview of Screens

Screen 1: Current Weight

Screen 1 (**Figure 9**) shows a brief summary of the current conditions of the house. There are no editable values in this screen; it is for viewing only.

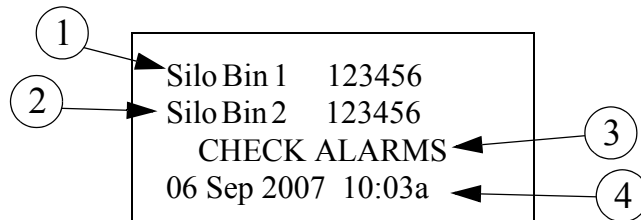


Figure 9. Weight Screen

1. **Silo Bin 1**- The current weight in Bin #1.
2. **Silo Bin 2**- The current weight in Bin #2.
3. **Check Alarms**- This will appear (flashing) if the LCI detects an alarm condition. This will continue to appear until the condition is corrected and noticed.
4. **Date and Time**- Current date and time.

Screen 2: Alarms

At the top of Screen 2, all current alarm conditions will be listed. If there are no alarm conditions, the status of the alarm will show at the top of the screen. The three possible statuses are ENABLED, DISABLED, and TEST. The status field is editable. See the "Alarms" section of this manual for more alarm information.

1. For this example, a power failure has occurred and recovered; this information is at the top of the screen and will remain there until the alarm is NOTICED.
2. The time, date and type of alarm of the most recent 10 alarms are listed in the lower part of the screen.

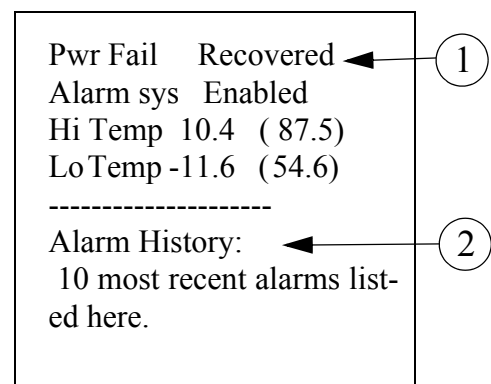


Figure 10. Auxiliary Data Screen

Screen 3: Setup

Control Number	1	1
Clock Type	12 HR	2
Time	11:01p	3
Date	25 Aug 06	
Total Silo Bins	1/2	4
CALIBRATE SILO BIN 1		5
Actual =	123456	
Zero	Y/N	
Weight =	123456 Y/N	
CALIBRATE SILO BIN 2		
Actual =	123456	
Zero	Y/N	
Weight =	123456 Y/N	
Ch. Access code?	Y/N	6

Figure 11. Setup Screen

1. **Control number-** Set the LCI's control number here.
2. **Clock Type-** Choose the desired clock type to use (12 hour or 24 hour)
3. **Time and Date-** Set the current time and date.
4. **Total Silo Bins-** The total number of silo bins connected to the control.
5. **Calibrate Silo Bin 1(2)-** This where the loadcells are calibrated. After connecting the LCI, SJB and Loadcells, make sure there is no feed in the bin. Answer YES to the Zero line to zero calibrate the loadcells. The Actual = line should now read 0. Next place a known weight on the bin. Enter this weight on the weight line. When the proper weight has been entered answer YES on the Weight line to calibrate the span of the loadcells. Remove the known weight and the number in the Actual Weight line should return to 0.

NOTE: The units of measurement are chosen at calibration. If the number entered in the weight line is in pounds, than the LCI will weigh in pounds. If the number entered in the weight line is in Kilograms, then the scale will weigh in Kilograms.

6. **Access Code-** There is always an access code. From the factory the value is set at "1111". The 1111 is a special code that tells the control not to ask for an access code when the edit button is pressed. If it is desired, the access code can be changed to a 4 digit number. To change the access code answer YES to change access code at the bottom of screen 3. Then enter the desired 4 numbers buy pressing the subject buttons on the front of the control. If an access code can not be recalled please contact your Chore-Time distributor or service representative.

Initial Setup Procedure

Once the LCI has been properly installed, the LCI is ready to be setup.

1. Go to the Setup Screen (Screen 3) by pushing button 3.
2. Setup the LCI Control number, time, and date. Key in the LCI how many bins are connected totthe LCI.
3. Follow the calibration prodedure to calibrate the Loadcells of each Bin.

When all of the data has been entered into the Setup Screen (Screen 3), the LCI is now ready to display the weight in the Bin.

Control Operation Overview

In Screen 1 (Button 1) the weight of each Bin is displayed. The unit of measure displayed depends upon how the LCI was calibrated in the Setup Screen.

Alarms

At the top of screen 2 a current alarm condition(s) will be listed. If there are no alarm conditions, the status of the alarm system will show at the top of the screen. The three possible statuses are ENABLED, DISABLED, and TEST. The status field can be changed.

Enabled

If the alarm system is ENABLED and one or more alarms arise, there will be alarm message(s) at the top of the screen. After pressing the screen 2 button the first time, the alarm Relay will be changed to the non alarm state for one minute and the alarm-screen will be shown. By pressing the screen 2 button a second time the alarm message will change from ALARM to the status NOTICED. This second button press is the manner that you tell the Control that you are aware of the alarm condition and, in so doing, NOTICE the alarm condition. If there is more than one alarm condition, you NOTICE each additional alarm condition with an additional button press for each additional alarm condition. If you fail to NOTICE an alarm with the additional button press(s), the alarm Relay will return to the alarm state one minute after the initial screen 2 button press. If the alarm condition is still present when you NOTICE the alarm, the word ALARM to the right of the condition will (for most alarm conditions) change to OFF FOR 24:00. The time setting is editable. It gives you time to deal with the problem. If you do not fix the problem, the alarm Relay will once again trigger your alarm system at the end of the time period. If the alarm condition has RECOVERED by the time you NOTICE the condition, the alarm message disappears when you NOTICE it and it is added to the alarm history at the bottom of the alarm screen.

Disabled

It is possible, but not recommended, to DISABLE the alarm system of the Control. One reason for this could be that the house is empty. The light beside the screen 2 button will flash slowly to remind you that the alarm system is disabled, but the alarm Relay will not change to the alarm state. The alarm history shown at the bottom of screen 2 does list that the alarm system was disabled, when, and for how long.

Test

If the user chooses TEST, the alarm Relay will immediately change to the alarm state. This allows testing the alarm system that is external to the Control (telephone dialer, for instance.) NOTICING the ALARM TEST, as you would a normal alarm, erases the alarm message and returns the alarm Relay to the non alarm state. Also, an ALARM TEST notification will be listed in the alarm history.

Warning

There also is an alarm message status called WARNING. This does not change the state of the alarm Relay, but alerts you that something isn't right. It needs to be NOTICED in the same way as a "hard" alarm in order to turn off the flashing lights, etc. An example is a failed Sensor.

Alarm History

At the bottom of the alarm screen is a listing of the most recent 10 alarms. The date and time of each alarm is shown. The amount of time elapsed (hh:mm) from the time the alarm occurs until the alarm is noticed and recovers is also show.

Alarm Messages

SJB 1 (or 2) IO Net Error

This alarm will occur when the LCI can not communicate with one of the SJB boxes. Check to make sure that the SJB boxes are connected properly to LCI, that the address DIP switches are set properly and that there is power to the SJB. See the wiring diagram on page 14 for information on connecting the SJB to the LCI.

Service Alarms

Listed below are additional alarm codes that relate to the internal operation of the LCI. Contact the nearest Chore-Time Distributor or CTB service personnel if one of these alarms occur.

SYSTEM FAILURE 100
SYSTEM FAILURE 111
ERROR 1
ERROR 2
ERROR 3
ERROR 4
ERROR 5
ERROR 6
ERROR 7
ERROR 8
ERROR 20
ERROR 21
ERROR 22
ERROR 23
ERROR 27
ERROR 29
ERROR 30
ERROR 33
ERROR 34
ERROR 35
ERR 103

Control Installation

Mounting the Control

The LCI Control requires a minimum mounting area of approximately 10" x 14" [55.9 cm x 55.9 cm] This dimension is allowing extra room for the Control Door to open. (See **Figure 12**). The box should be mounted level on a solid backing using the mounting holes provided.

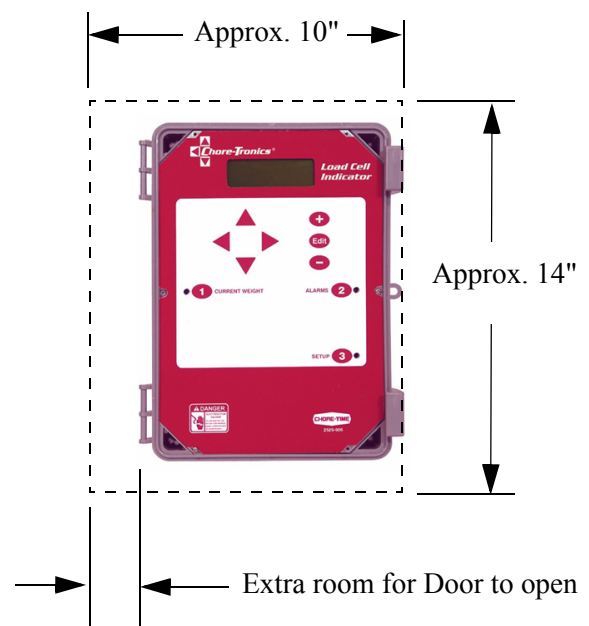
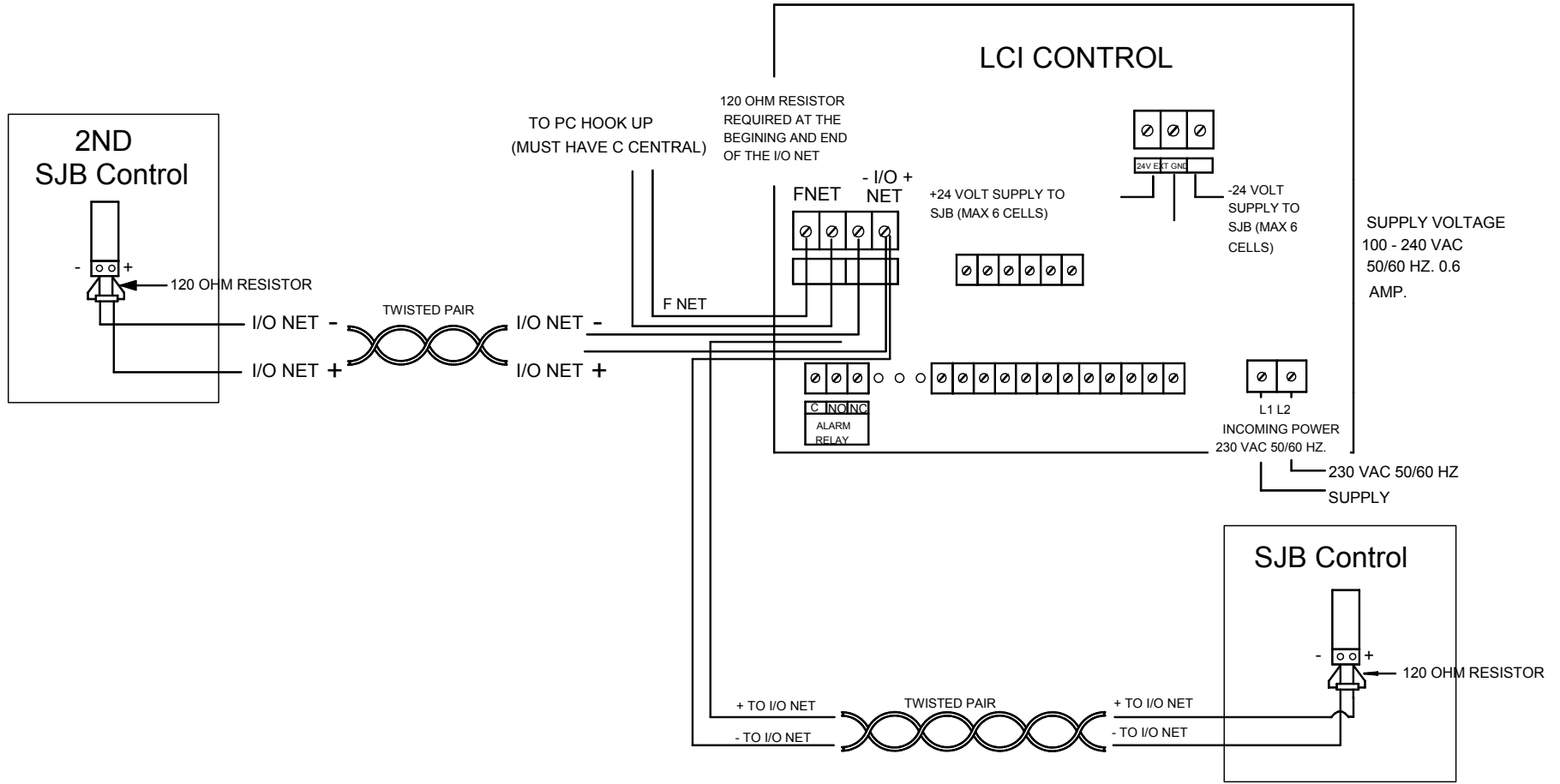
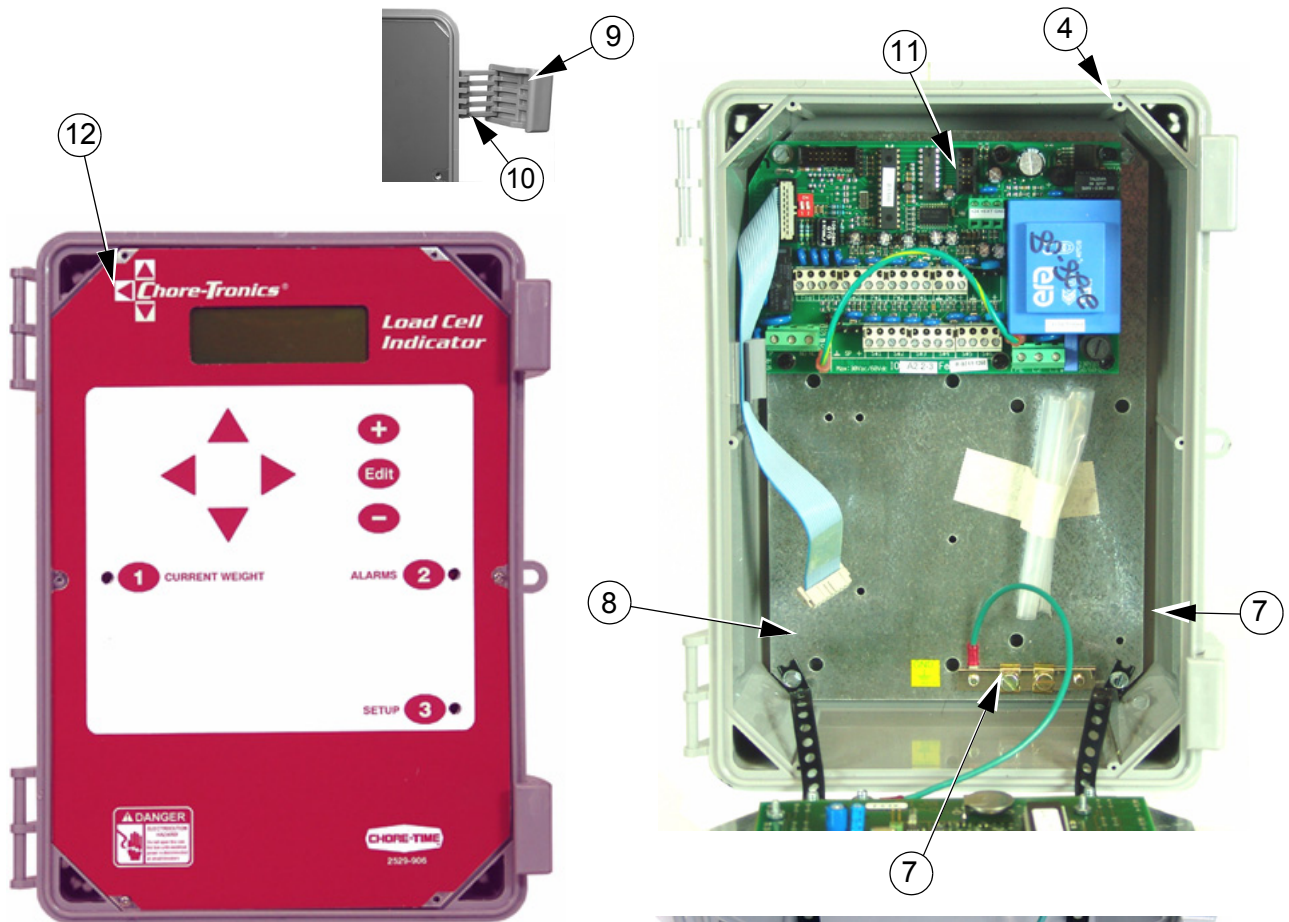


Figure 12. Control Mounting

Wiring Diagram

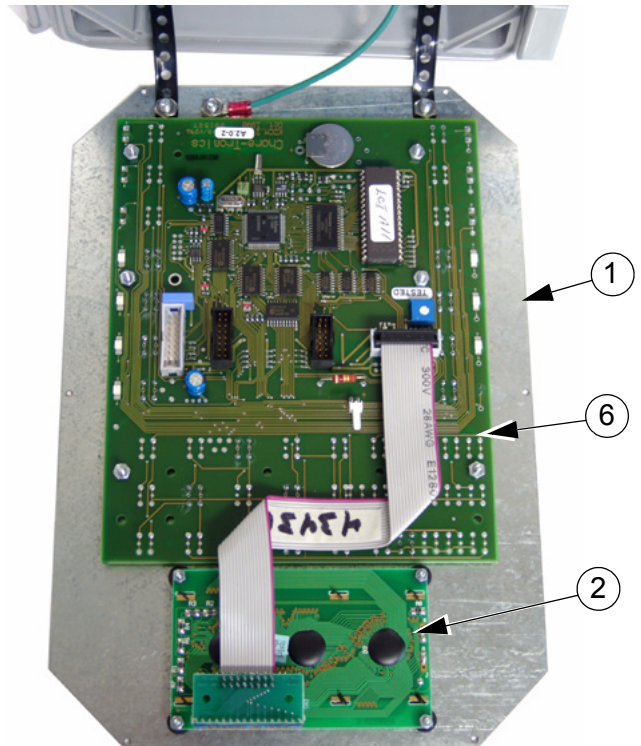


Part Numbers



Item	Description	Part No.
1	Plate, Model 4B Top	41327
2	4 x 20 Display	41318
3*	Plain Control Box Lid	30859-1
4	Control Box	30860-3
5*	Control Box Lid	30859-1
6	KD Board	41316
7	Grounding Rail	43384-2
8	Plate, Mod 4B, SP, NV Bottom	41328
9	Control Box Latch	30862
10	Box Latch Pivot	30863
11	I/O.3 Board	41312
12	LCI Decal	2529-906

*Not Shown





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Revisions to this Manual

Page No.	Description of Change
	New Manual

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