

***C-Collect***<sup>®</sup>  
***by CTB Inc.***

**Feed Scale**  
**Installation & Operator's Instruction Manual**



## CTB Inc. Warranty

**CTB Inc.** warrants each new C-Collect<sup>®</sup> 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.**

THIS WARRANTY CONSTITUTES THE MANUFACTURER'S ENTIRE AND SOLE WARRANTY AND THIS MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

C-Collect<sup>®</sup> Distributors are not authorized to modify or extend the terms and conditions of this Warranty in any manner or to offer or grant any other warranties for C-Collect<sup>®</sup> products in addition to those terms expressly stated above. An officer of CTB, Inc. must authorize any exceptions to this Warranty in writing. The Manufacturer reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

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### Thank You

The employees of CTB Inc. would like to thank your for your recent C-Collect<sup>®</sup> purchase. If a problem should arise, your C-Collect<sup>®</sup> distributor can supply the necessary information to help you.

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## General

### Support Information

The C-Collect® Feed Scale is used to provide the continuous weighing of feed being delivered into a confined growing facility. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury. This manual is designed to provide comprehensive planning, installation, safety, operation, and parts listing information. The Table of Contents provides a convenient overview of the information in this manual. The Table of Contents also specifies which pages contain information for the sales personnel, installer, and consumer (end user).

## Safety Information

**Caution, Warning and Danger Decals** have been placed on the equipment to warn of potentially dangerous situations. Care should be taken to keep this information intact and easy to read at all times. Replace missing or damaged safety decals immediately.

Using the equipment for purposes other than specified in this manual may cause personal injury and/or damage to the equipment.

### Follow Safety Instructions

Carefully read all safety messages in this manual and on your equipment safety signs. Follow recommended precautions and safe operating practices.

Keep safety signs in good condition. Replace missing or damaged safety signs.

### Decal Descriptions

#### **DANGER: Electrical Hazard**



Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

All electrical wiring must be done by a qualified electrician in accordance with local and national electric codes.

Ground all non-current carrying metal parts to guard against electrical shock.

With the exception of motor overload protection, electrical disconnects and over current protection are not supplied with the equipment.

## Introduction to Control

The C-Collect<sup>®</sup> Feed Scale is divided into two hopper compartments. A complete cycle of dumping both hoppers represents 23.2 pounds. The scale is pre-calibrated at the factory to measure this quantity. There should be no need for field calibration. If in fact a calibration is required, this can be performed electronically at the control.

Connected to the scale is a pulse switch that keeps track of the cycles and sends the data to the Chore-Tronics control registration. Each pulse received by the control will add 23.2 pounds to the total consumed.

## Installation

There are multiple choices for installation. Some of those possibilities are shown in the following Figures. The location is dependent upon the house configuration and the activities required to run the house, such as bird collection and litter removal.

### Scale Located in its Own Enclosure

You can locate the Feed Scale in its own enclosure or in an adjacent room to the side room as shown below in **Figure 1**. This installation requires that the Feed Scale be mounted to the Feed Scale Suspension Plate (**Chore-Time part no. 49038**). Be sure to orient the fill slot at the top of the Scale so that it is parallel to the Fill System. This will allow for proper filling of the Hopper compartments.

**Important** Be sure to install an Upper Boot Switch (**Chore Time part no. 46910**) in the Upper Boot that receives the feed from the Feed Scale. This Switch will turn the incoming fill system off to prevent overflowing the Feed Scale

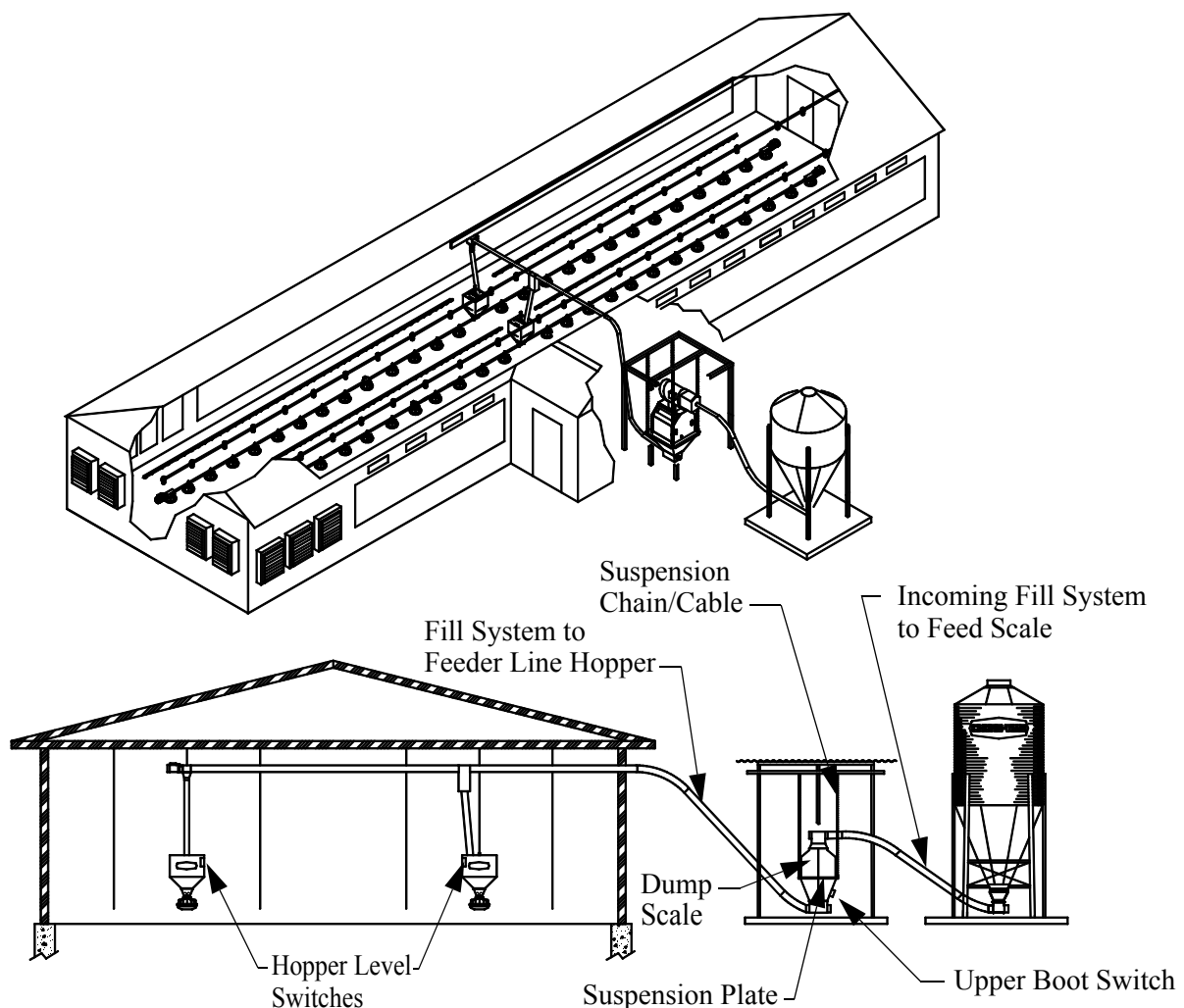


Figure 1. Installation in own enclosure

## Scale Located Inside the House

You can locate the Feed Scale inside at the point the fill system enters the house (See **Figure 2 below**). This installation requires that the Feed Scale be mounted to the Feed Scale Suspension Plate (**Chore-Time part no. 49038**). Be sure to orient the fill slot at the top of the Scale so that it is parallel to the Fill System. This will allow for proper filling of the Hopper compartments.

**Important** Be sure to install an Upper Boot Switch (**Chore Time part no. 46910**) in the Upper Boot that receives the feed from the Feed Scale. This Switch will turn the incoming fill system off to prevent overflowing the Feed Scale

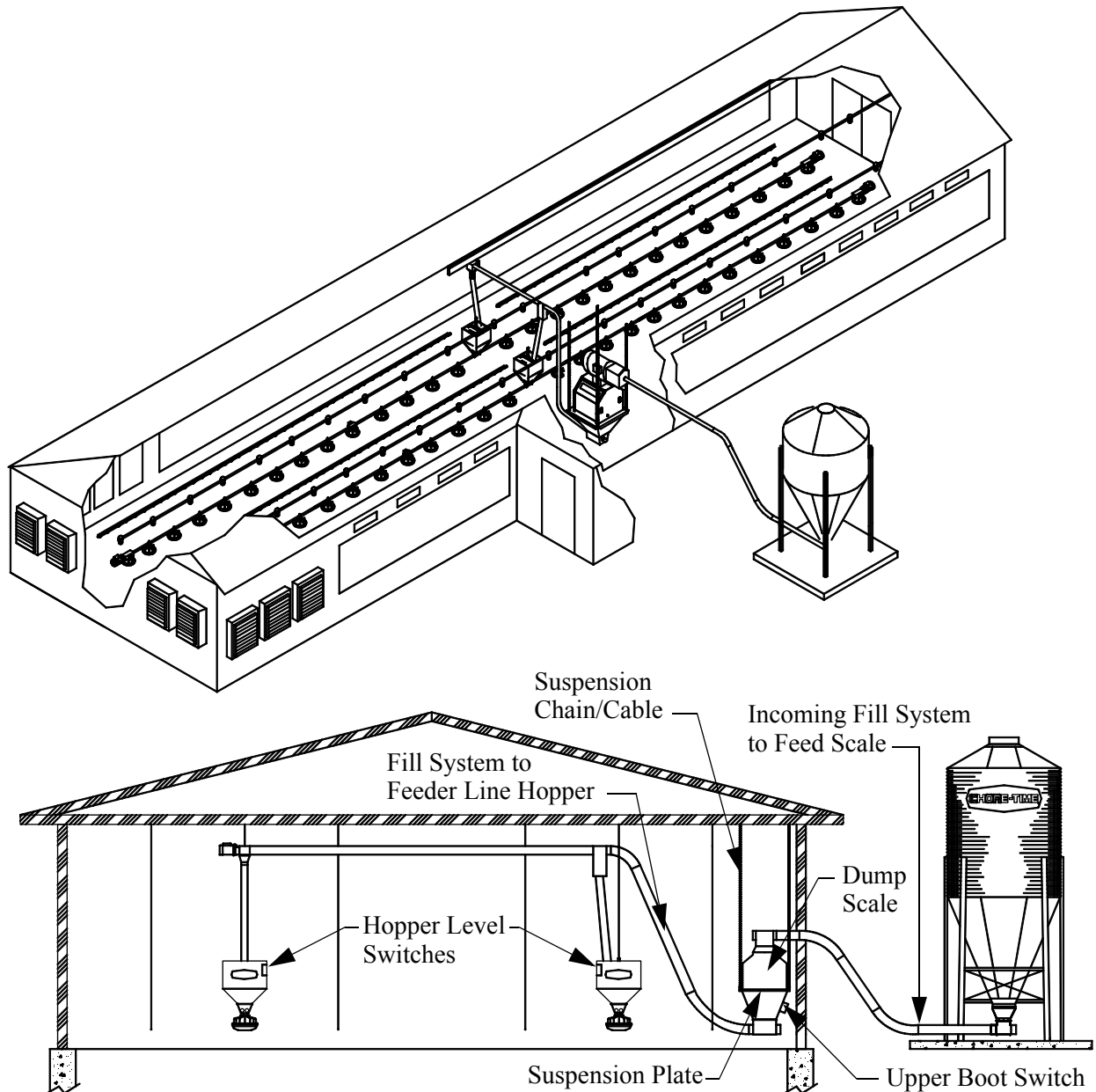
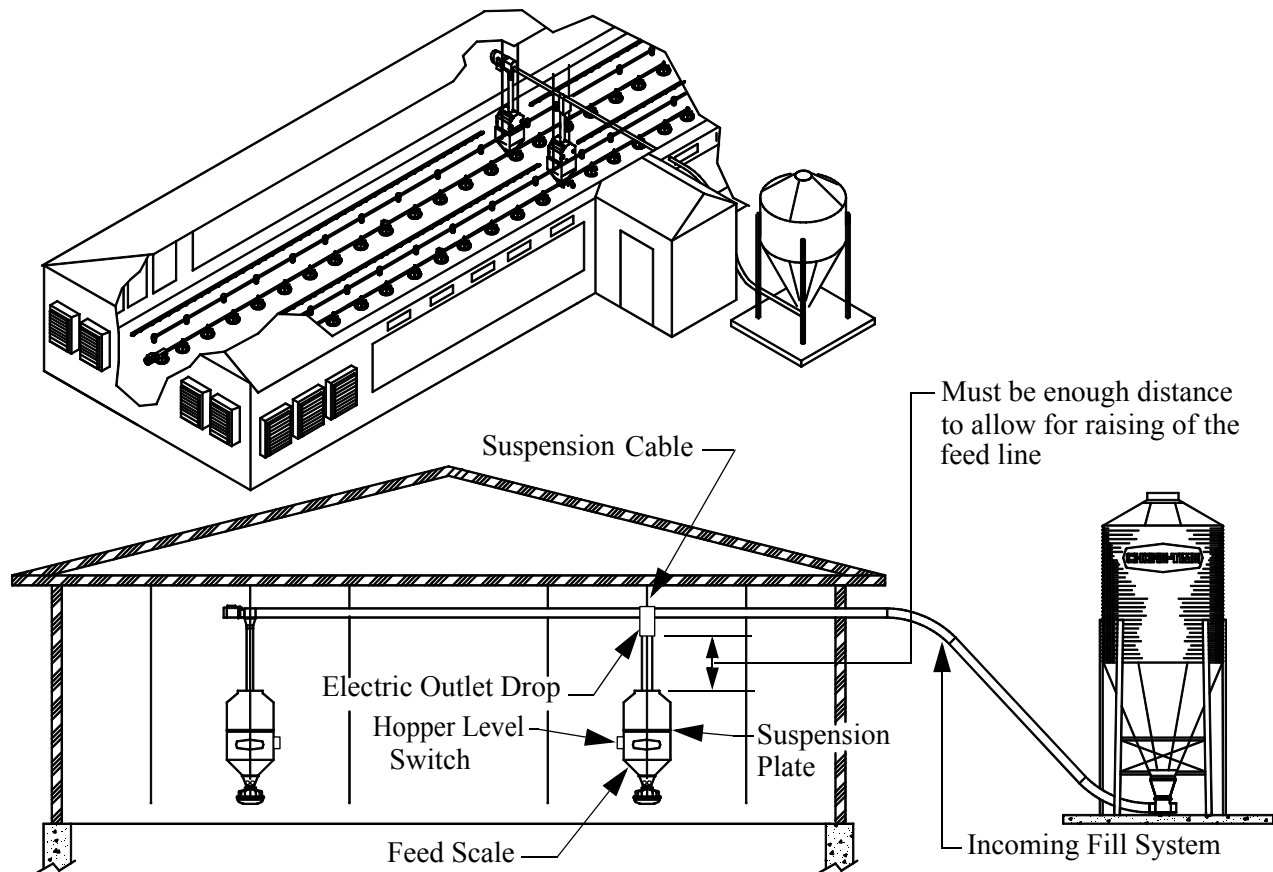


Figure 2. Installation inside the House

### Scale Located Over the Feed Line

You can locate the Feed Scale over the Feed Line Hopper as shown in **Figure 3**. This installation requires that the Feed Scale be mounted to either four-100lb. Hopper Mounting Brackets (Chore-Time part no. 49036) or one 200 lb. Hopper Mounting Plate (Chore-Time part no. 49037). An electric outlet drop, (Chore-Time part no. 29174 for a model 75, or part no 28417 for a model 90), will be required for every Intermediate Drop. This Electric Outlet Drop will be actuated by the Intermediate Hopper Level Switch and prevents overflowing of the Feed Scale. It is recommended that the Hopper Level Switch be hung so that the feed level is below the bottom of the Feed Scale.



**Figure 3. Installation over feed line hopper**

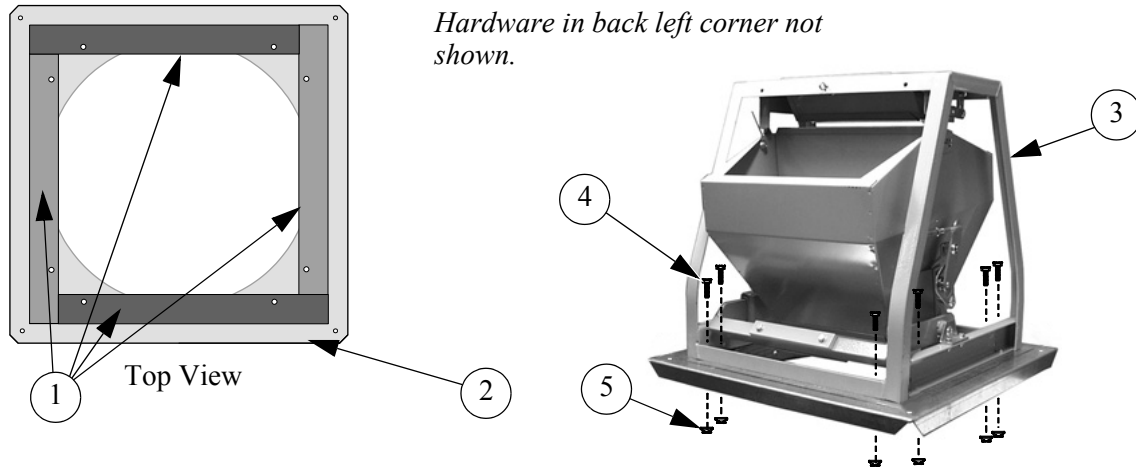
Regardless of where the Feed Scale is located, there are some basic rules of installation to follow.

1. The Feed Scale must be located in a manner that the function of the Scale is not restricted.
2. The Feed Scale must be insulated from the operation of the fill system auger to maintain proper accuracy.
3. The incoming fill system must be sized so that it does not overrun the Feed Scales' capacity. A model 90 auger or smaller, with a 425 rpm power unit or less is suitable for the operation of the Feed Scale.
4. Suspension must be accomplished by using adequate chain size (Chore-Time part number 2128), and hardware kit (Chore-Time part numbers 49035) and secured firmly.
5. The Feed Scale must be suspended or mounted in a way that the Base of the Feed Scale is level.
6. Use the wire provided to wire the pulse switch directly to the Chore-Tronics-Control. If additional wire is needed to reach the Control, use recommended twisted pair wire (Chore-Time part no. 42208). All connection joints should be soldered and housed in a water tight enclosure.



### Suspension Plate Assembly

If you wish to suspend the Feed scale you must attach a Suspension Plate to the bottom of the Feed scale assembly. First lay four Spacers (**Item 1, Figure 4**) on the top of the Suspension Plate (**Item 2**) as shown. Set the Feed Scale assembly (**Item 3**) on top of the Spacers and Use (8) 1/4-20 x .75 Bolts and Flange Nuts to attach the Suspension Plate to the Feed Scale. *Note that the Nuts are to the bottom of the Suspension Plate..*

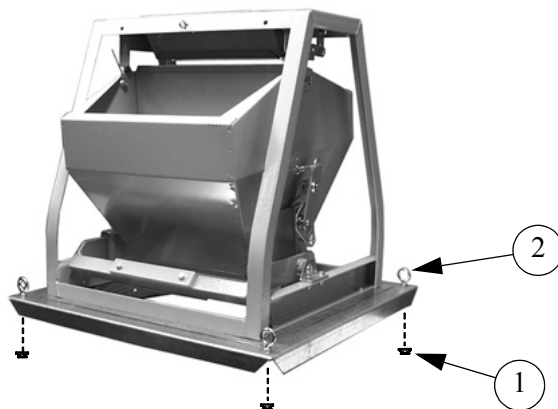


Item	Description
1	Suspension Plate Spacer
2	Suspension Plate
3	Feed Scale
4	1/4-20 x .75 Bolt
5	1/4-20 Flange Nut

Figure 4. Suspension Plate Assembly

### Eyebolts for Hanging

Insert four Eyebolts (**Item 2, Figure 5**) in the holes in the four corners of the Suspension Plate. Use four 1/4-20 Nuts to secure them.

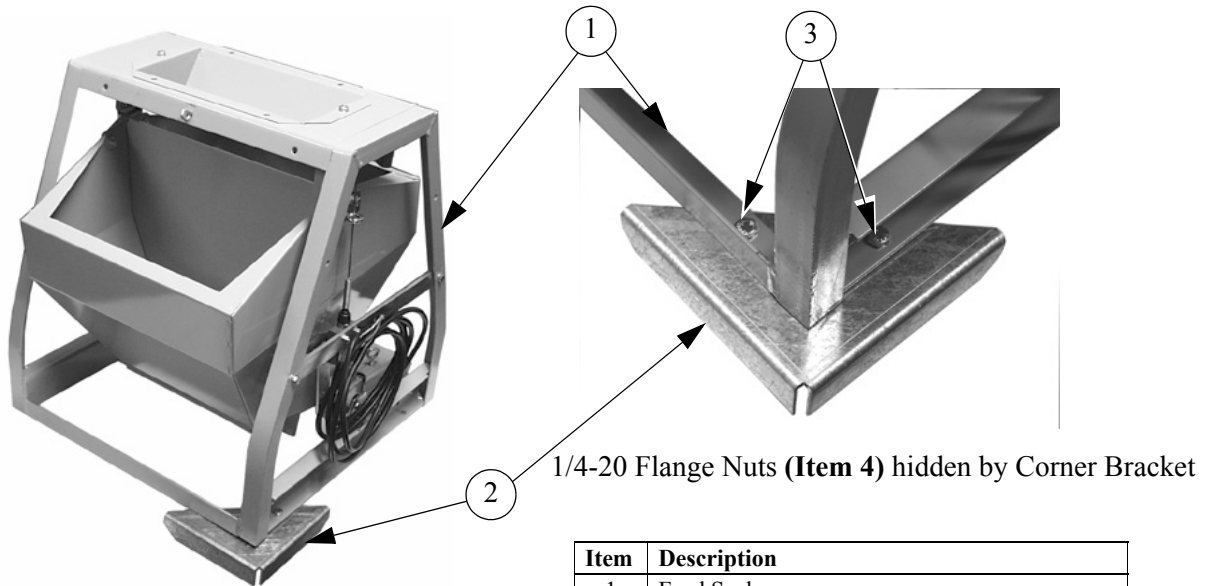


Item	Description
1	1/4-20 Flange Nut
2	1/4-20 Eyebolt

Figure 5. Eyebolts for Hanging

### Installation for 100 LB. Hopper

Attach four Feed Scale Hopper Mounting Brackets (**Item 2, Figure 6**) to the Feed Scale bottom as shown below with eight 1/4-20 x .625 Bolts (**Item 3**) and 1/4-20 Nuts (**Item 4**). This will allow the Feed Scale to sit down on top of a 100# Hopper.

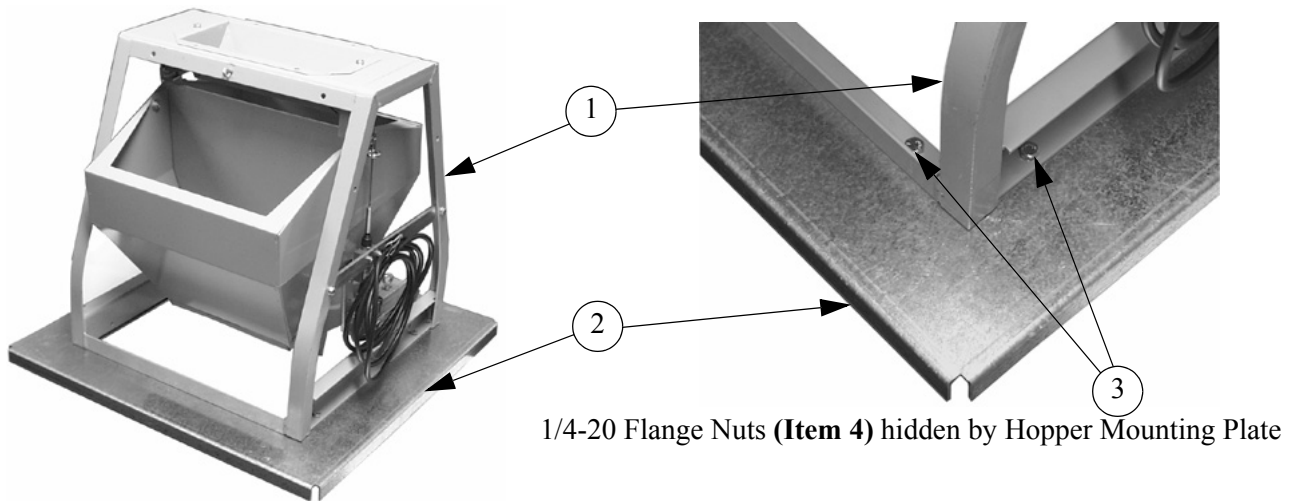


Item	Description
1	Feed Scale
2	100 Lb. Feed Scale Hopper Mounting Bracket
3	1/4-20 Bolt
4	1/4-20 Flange Nut (Not shown)

Figure 6. 100 LB. Hopper Mounting Bracket Installation

### Installation for 200 LB. Hopper

Set the Feed Scale on top of the 200 Lb. Feed Scale Hopper Mounting Plate and attach it with eight 1/4-20 x .625 Bolts (**Item 3**) and 1/4-20 Nuts (**Item 4**). This will allow the Feed Scale to sit down on top of a 200# Hopper.



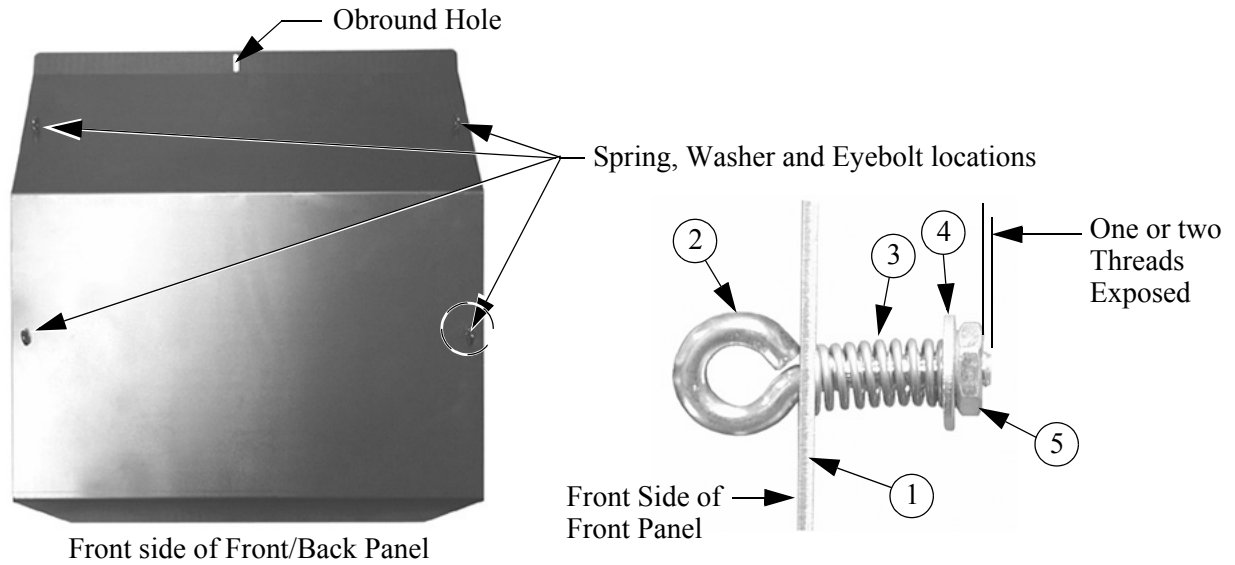
Item	Description
1	Feed Scale
2	200 Lb. Feed Scale Hopper Mounting Plate
3	1/4-20 Bolt
4	1/4-20 Flange Nut

Figure 7. 200 LB. Feed Scale Hopper Mounting Plate Installation

## Dust Cover Installation

### Eyebolt Latch Installation

The Front and Back Panels of the Dust Cover are identical and have an obround hole at the top. Install a Spring, Washer and Eyebolt (**included in the hardware package**) at each of the four locations of each Panel as shown **below in figure 5**. Tighten the Nut so that there are 1 or two threads exposed.

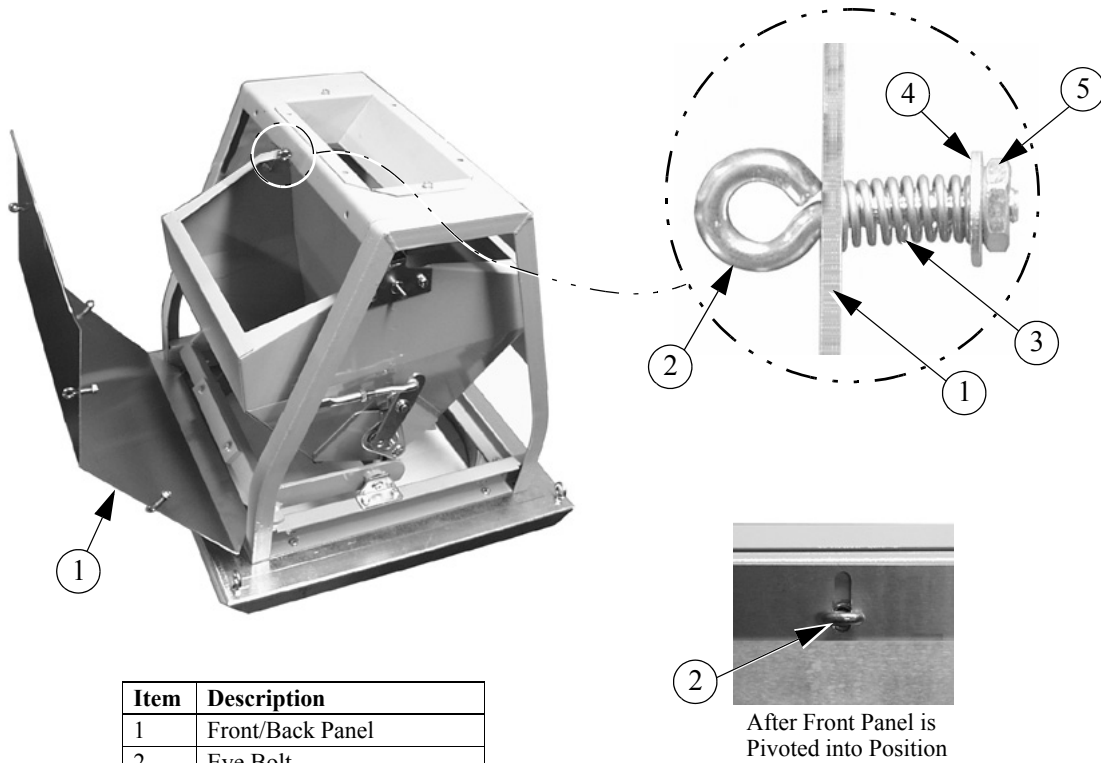


Item	Description
1	Front/Back Panel
2	Eye Bolt
3	Spring
4	Washer
5	Nut

**Figure 5. Eyebolt Latch Installation**

### Front/Back Panel Installation

Install an Eyebolt, Spring and Washer in the hole at the top center of the Scale Frame in the same manner as in the Front and Back Panel **as shown below**. Attach the Front Panel by resting it on the Scale Base, pivoting it up into position, and turning the Eyebolt at the top of the Scale to lock it into place **as shown below in Figure 6**. Fasten the Back Panel on the same way.



Item	Description
1	Front/Back Panel
2	Eye Bolt
3	Spring
4	Washer
5	Nut

Figure 6. Front/Back Panel Installation

### Side Panel Installation

With the Side Panel Flanges outside the Front and Back Panels slide the Side Panel down until the slots slide over the Eyebolts and snap into place as shown below in **figure 7**. Once the Side Panel is in position turn the Eyebolts to lock it into place. Attach the second Side Panel exactly the same way.

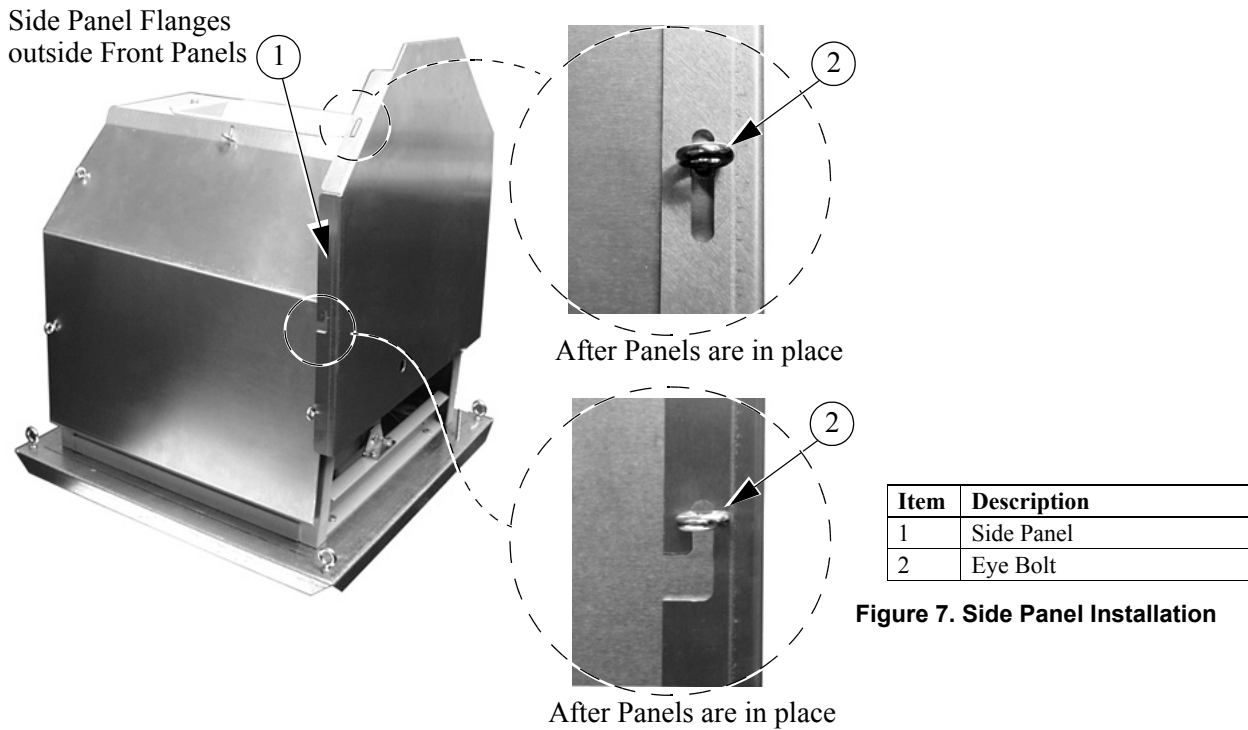


Figure 7. Side Panel Installation

### Cord Routing

Each Side Panel has a Knock-out (**Item 2, Figure 8**) for your Cord to be routed out of the Feed Scale. Decide which Dust Cover side of your Scale you want to route the Cord and remove that Knock-out. Install a Liquid Tight Connector (**supplied in parts package**) in the hole and route the Cord through it as shown in **Figure 8** below.

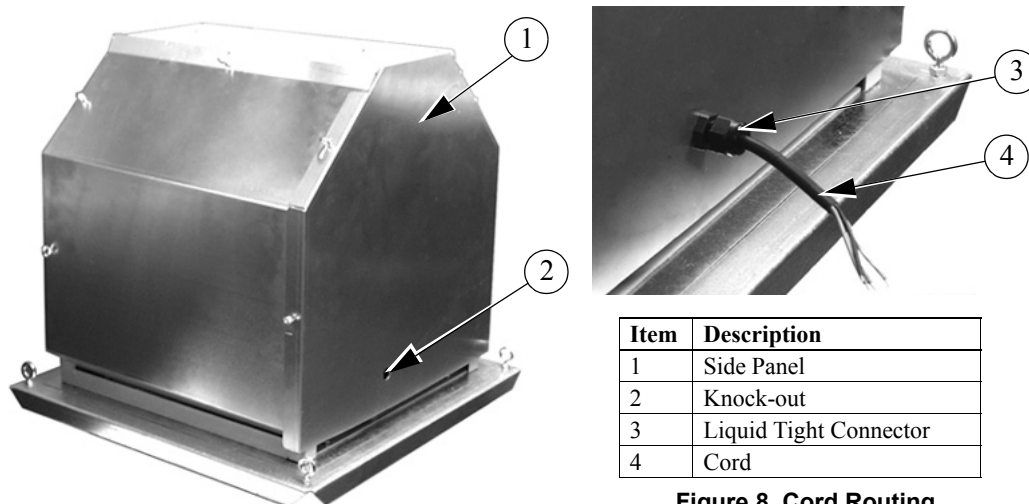


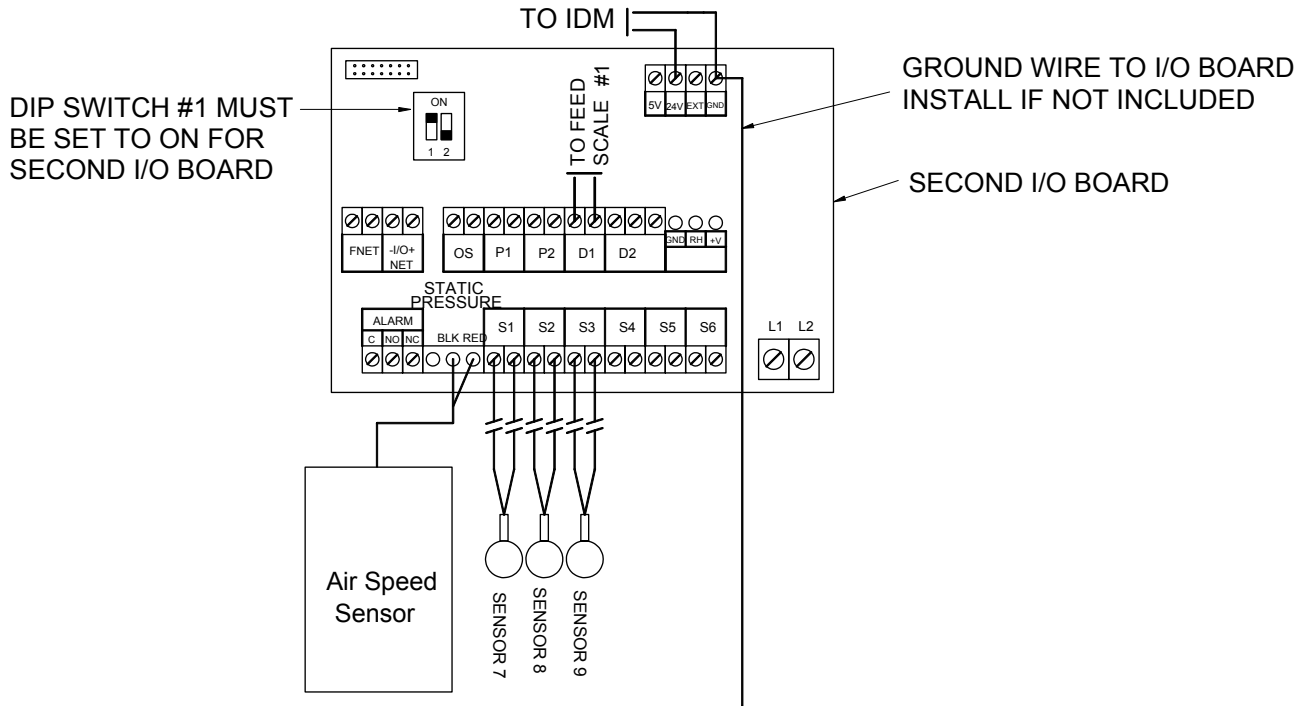
Figure 8. Cord Routing

## Feed Scale Maintenance

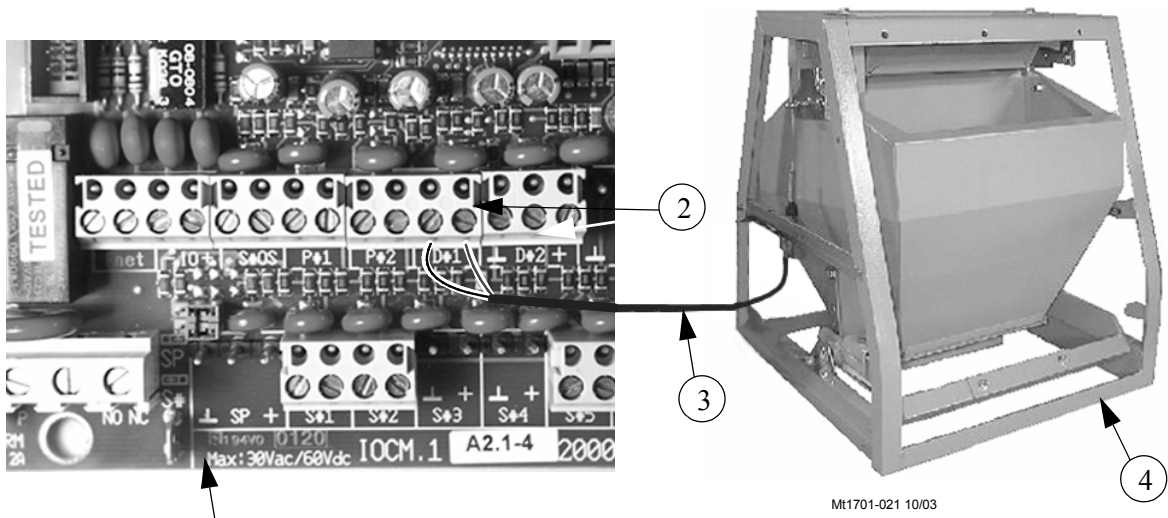
Keeping the Scale clean will help maintain its accuracy and extend its life. In between flocks, remove the dust cover and blow or brush out the dust and feed that has gathered. Apply a light coat of thin oil to all moving parts and remove any excess oil to prevent dust from gathering.

# Wiring Diagrams

## Second I/O Board Wiring



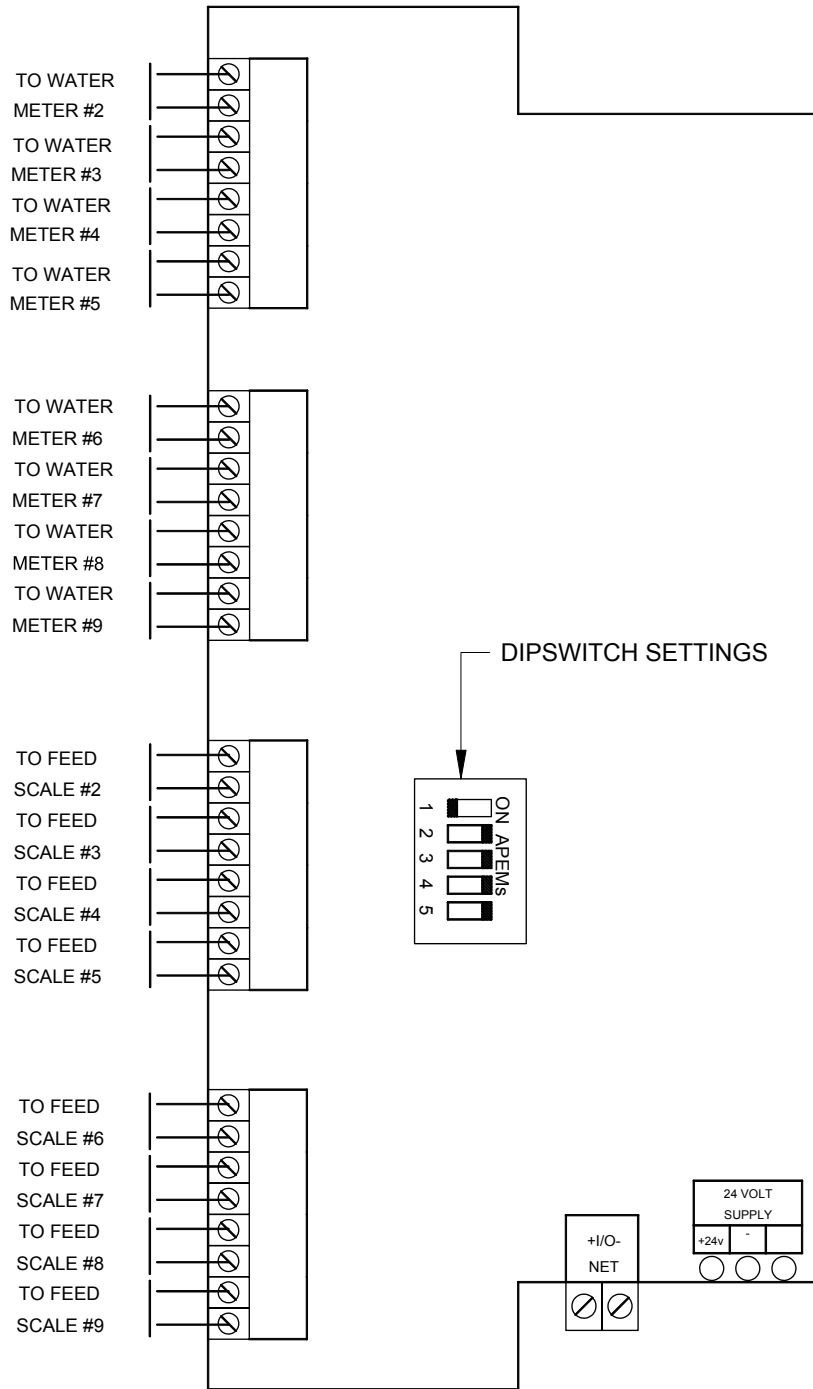
Attach the blue and brown wires from the Feed Scale to the D1 terminals of the Second I/O Board wires as **shown below in Figure 9.**



Item	Description
1	Second I/O Board
2	D1 Terminals
3	Feed Scale Cord / Twisted Pair Wire
4	Feed Scale

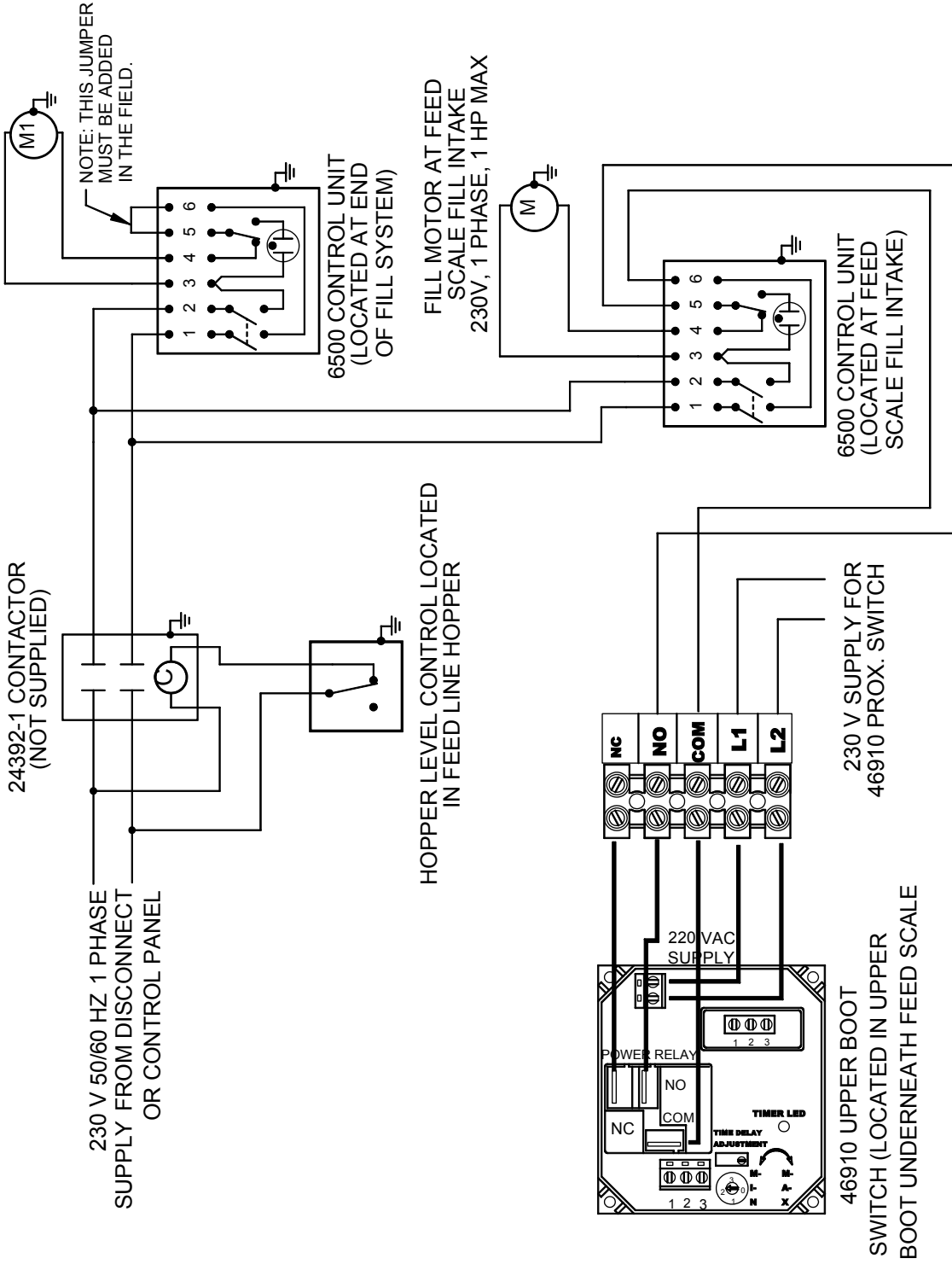
Figure 9. Wiring

# IDM Board Wiring



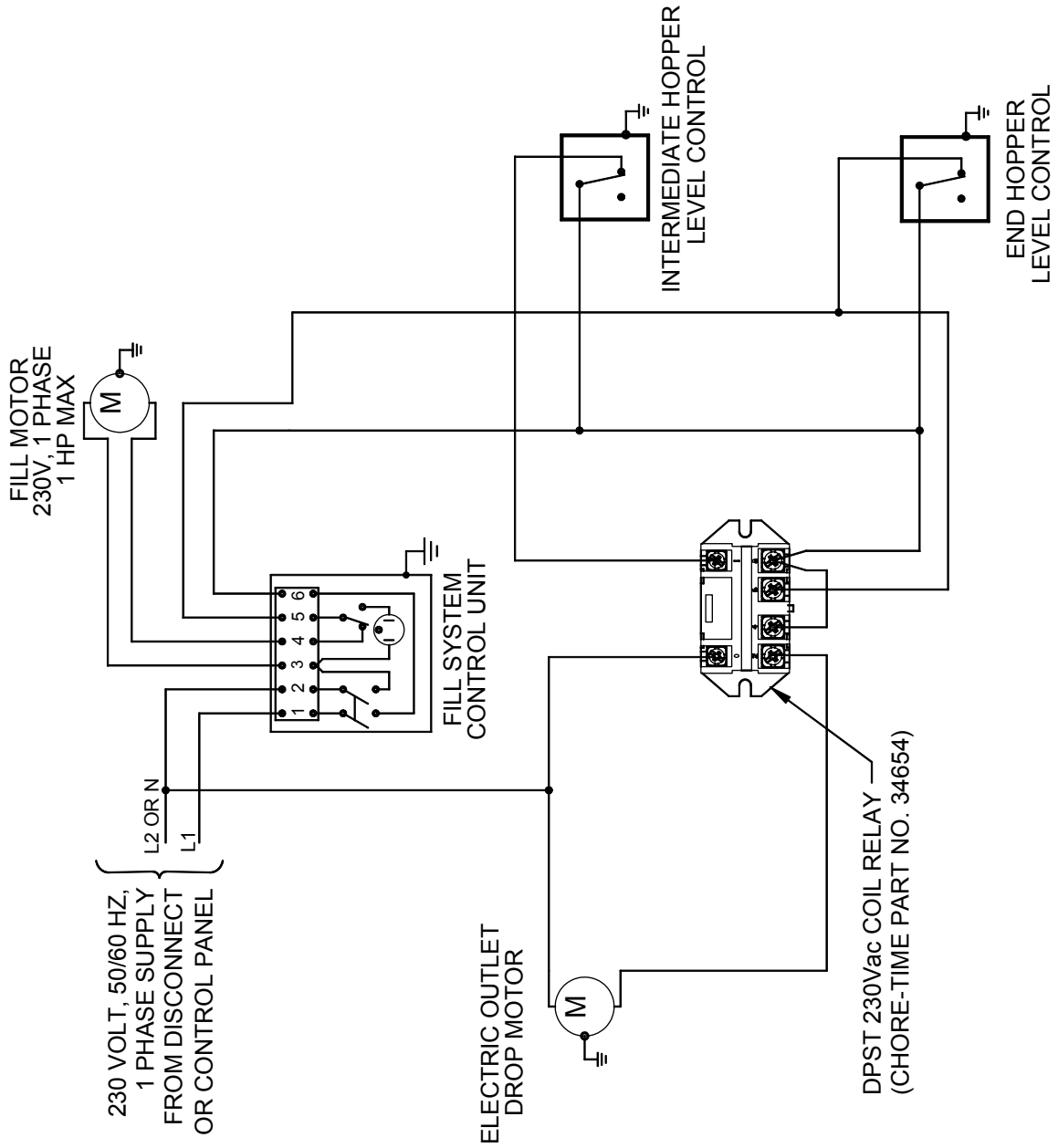
# Fill System Wiring for Feed Scale(s) Inside the House or in an Enclosure

FILL MOTOR AT END OF FILL SYSTEM  
230V, 1 PHASE, 1HP MAX.

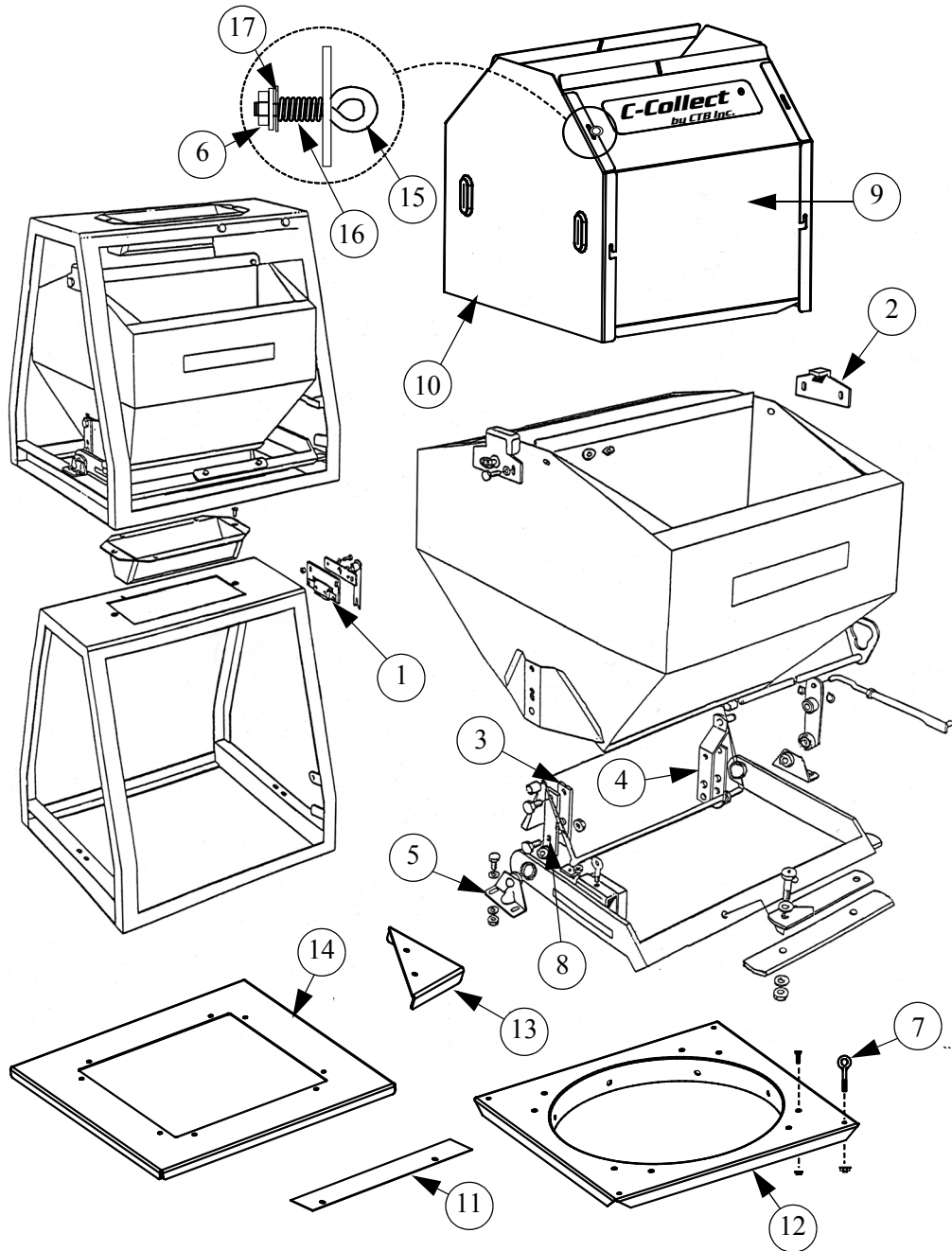




### Fill System Wiring for Feed Scale(s) Located over the Feed Line



# Parts List



Item	Description	Part No.
1	Feed Scale Release Plate	49116
2	Feed Scale Release Facing	49117
3	Feed Scale Basket Holder Fitting	49118
4	Feed Scale Tiltarm Fitting w/Pin	49119
5	Feed Scale Bearing Fitting	49120
6	Nut	8787
7	1/4-20 x 1.75 Eyebolt	22911
8	Feed Scale Ball Bearing	49123
9	Dust Cover Ends	49070

Item	Description	Part No.
10	Dust Cover Side	49071
11	Suspension Spacer	49219
12	Suspension Plate	49038
13	100 Lb. Feed Scale Mounting Bracket	49036
14	200 Lb. Feed Scale Mounting Plate	49037
15	1/4-20 x 1.75 Eyebolt	4006
16	Spring	42047
17	Washer	2955-19

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# ***C-Collect™*** ***by CTB Inc.***

## **Revisions to this Manual**

<b>Page No.</b>	<b>Description of Change</b>
Various	Changed TM to ®

**Contact your nearby C-Collect® distributor or representative for additional parts and information.**

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