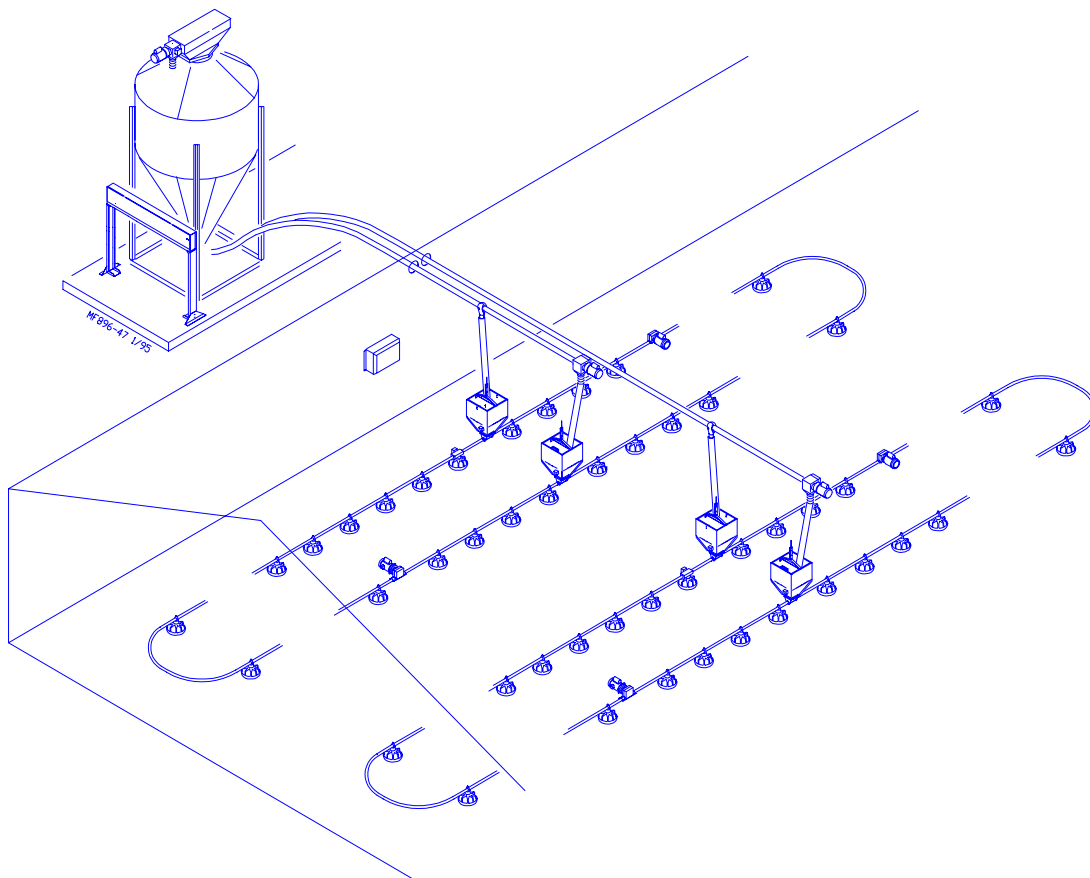


# ULTRAPAN<sup>®</sup>

ULTRAPAN<sup>®</sup>

## *Installation & Operator's Manual*



## The Chore-Time Warranty

Chore-Time Equipment warrants each new product manufactured by it to be free from defects in material or workmanship for one year from the date of initial installation by the original purchaser. If such a defect is found by Chore-Time to exist within the one year period, Chore-Time 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.

Additional extended warranties are herewith provided to the original purchaser as follows:

1. TURBO™ and RLX™ Fans, less motors, for three years from date of installation.
- \*2. Poultry feeder pans that become unusable within five years from date of installation. Warranty prorated after three years usage.
3. MEAL-TIME® Hog Feeder pans that become unusable within five years of installation.
4. Rotating centerless augers, excluding applications involving High Moisture Corn (exceeding 18%), for ten years from date of installation. Note: MULTIFLO® and applications involving High Moisture Corn are subject to a one year warranty.
5. Chore-Time manufactured roll-formed steel auger tubes for ten years from date of installation.
- \*6. Laying cages that become unusable within ten years. Warranty prorated after three years usage.
- \*7. ULTRAFLO® Auger and ULTRAFLO® Feed Trough (except ULTRAFLO® Trough Liners) are warranted for a period of five (5) years from date of original purchase against repeated breakage of the auger or wear-through of the feed trough caused solely by the auger.

Conditions and limitations:

1. The product must be installed and operated in accordance with instructions published by Chore-Time or warranty will be void.
2. Warranty is void if all components of a system are not supplied by Chore-Time.
3. This product must be purchased from and installed by an authorized Chore-Time dealer 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 this 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.

Chore-Time shall not be liable for any consequential or special damage which any purchaser may suffer or claim to have suffered 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 CHORE-TIME'S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

Any exceptions to this warranty must be authorized in writing by an officer of the company. Chore-Time reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

\*See separate Chore-Time Cage Wire Warranty as to these products.

CHORE-TIME EQUIPMENT, A Division of CTB, Inc.  
P.O. Box 2000, Milford, Indiana 46542-2000 U.S.A.

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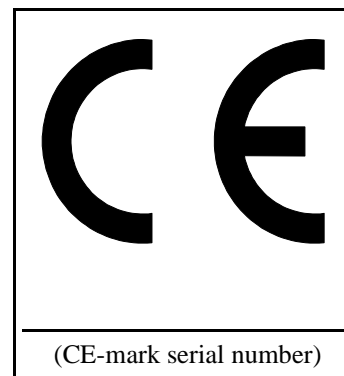
**Legend: C = Customer (end user), D = Distributor (sales personnel), I = Installer**

# Support Information

The Chore-Time ULTRAPAN® Feeding System is designed to feed poultry. 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 and/or death.

This manual is designed to provide comprehensive planning, installation, wiring, operation, and parts listing information. The Table of Contents on page 3 provides a convenient overview of the information in this manual. The Table of Contents also specifies which pages contain information for the distributor, installer, and customer (end user).

Chore-Time Equipment recognizes CE Mark and pursues compliance in all applicable products. Fill in the CE-Mark serial number in the blank space provided for future reference.



Please fill in the following information about your ULTRAPAN® Feeding System. Keep this manual in a clean, dry place for future reference.

**Distributor's Name** \_\_\_\_\_

**Distributor's Address** \_\_\_\_\_

**Distributor's Phone** \_\_\_\_\_ **Date of Purchase** \_\_\_\_\_

**Installer's Name** \_\_\_\_\_

**Installer's Address** \_\_\_\_\_

**Installer's Phone** \_\_\_\_\_ **Date of Installation** \_\_\_\_\_

**System Specifications** \_\_\_\_\_

**Feed Delivery System** \_\_\_\_\_

The following tools are required to install Chore-Time equipment. These tools are not supplied with the equipment and must be supplied locally.

- |  |                                   |
|--|-----------------------------------|
| 1. Open end wrenches (standard)          | 7. Bolt cutters                   |
| 2. Ratchet wrench and sockets (standard) | 8. Hacksaw                        |
| 3. Screwdrivers (standard and phillips)  | 9. Hole-Saw (various sizes)       |
| 4. Side cutters                          | 10. Locking pliers                |
| 5. Wire strippers                        | 11. Electric drill and drill bits |
| 6. Hammer                                | 12. Acetylene Welder              |

# 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 signs.

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

## Safety–Alert Symbol

This is a safety–alert symbol. When you see this symbol on your equipment, be alert to the potential for personal injury. Chore-Time equipment is designed to be installed and operated as safely as possible...however, hazards do exist.



## Signal Words

Signal words are used in conjunction with the safety–alert symbol to identify the severity of the warning.

DANGER .....identifies immediate hazards which WILL result in severe personal injury or death.

WARNING.....identifies hazards or unsafe practices which COULD result in severe personal injury or death.

CAUTION .....identifies hazards or unsafe practices which COULD result in minor personal injury or product or property damage.



**DANGER**



**WARNING**

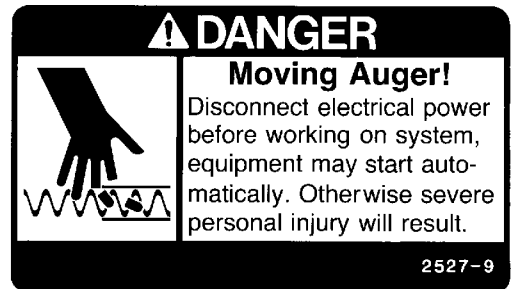


**CAUTION**

## DANGER—MOVING AUGER

This decal is placed on the Clean-Out Cover of the FLEX-AUGER Control Unit.

Severe personal injury will result, if the electrical power is not disconnected, prior to servicing the equipment.



## DANGER—ELECTRICAL HAZARD

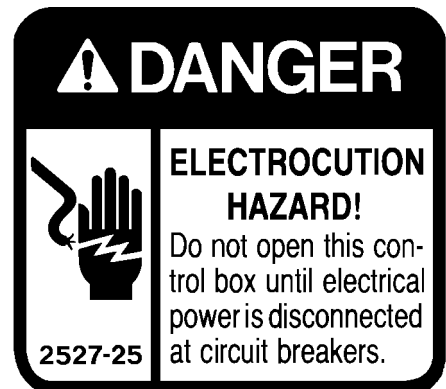
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

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

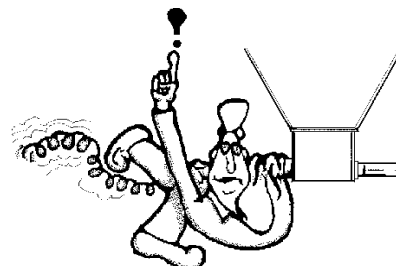
Ground all non-current carrying metal parts to guard against electrical shock.

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



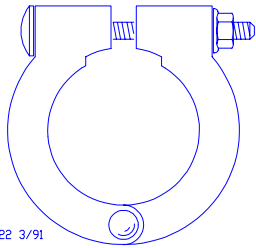
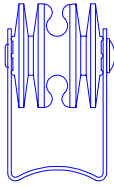
**CAUTION**

*Use caution when working with the Auger.  
Springing auger may cause personal injury.*



# Component Identification

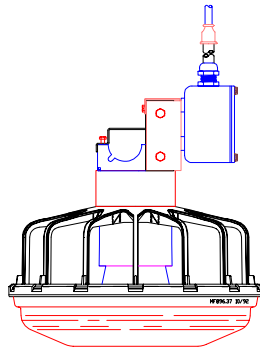
**Anti-roost Bracket**



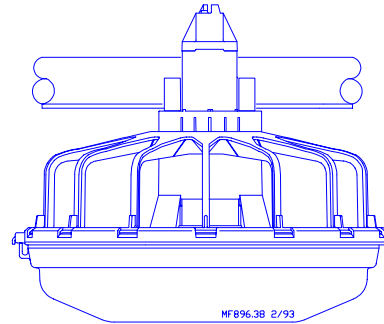
MF896.22 3/91

**Clamp**

**Feeder Control Pan**

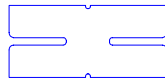


**Model C2 Feeder  
(available with & without windows)**



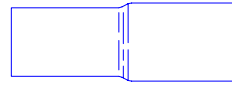
MF896.38 2/93

**Tube Coupling**

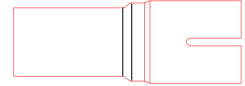


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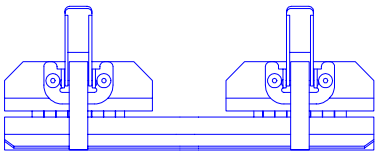
**Adapter Tube**



**Belled Adapter Tube**

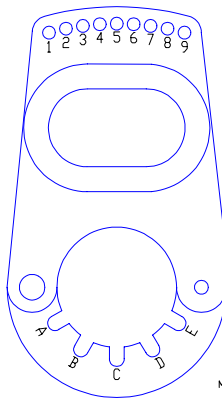


**Brazing Fixture**



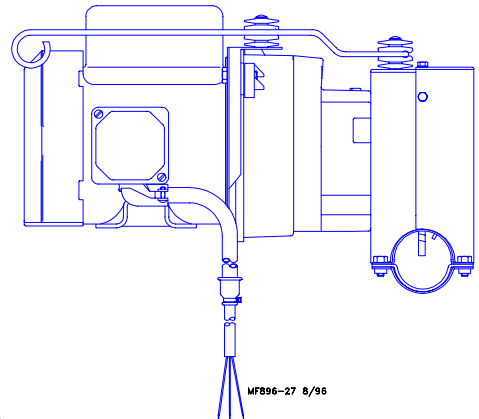
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**Adjustable Hanger**



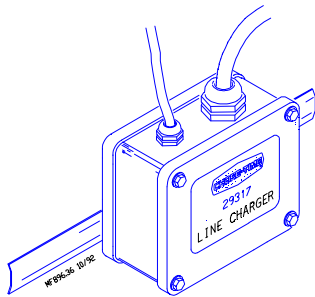
MF896.11 3/91

**Power Unit and Driver Assembly**



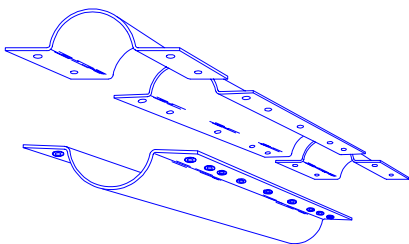
MF896-27 8/96

**Line Charger**



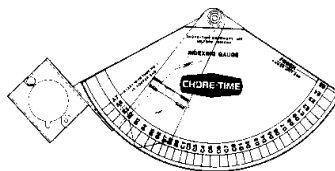
MF896.36 10/96

**Service Section**

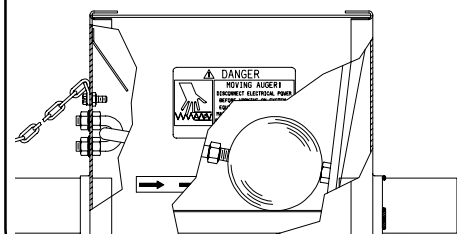


MF896.24 3/91

**Indexing Gauge**



**Intake Cup**



MF896-15 11/94

# Introduction

Chore-Time has designed the ULTRAPAN Feeder to feed breeder pullets and hens faster and with less stress compared to conventional feeders.

Feed is delivered to the hopper(s) by a Chore-Time FLEX-AUGER Feed Delivery System. The ULTRAPAN auger pulls the feed from the hoppers and discharges into the feeder pans.

The Breeder Control uses the AGRI-TIME™ System with channel 1 controlling the feeder start and run times. Channel 2 controls the fill system start times.

## Capacities and Specifications

The WEIGH-MATIC Scales and ULTRAPAN Feeder make up the system, which is designed to weigh and dispense a specific amount of feed automatically over a 24 hour period of time.

- The Weigh-Matic Scales are available in two sizes; 5,000 pounds (2,268 kg) and 8,000 pounds (3,628 kg).
- The Weigh-Matic Scale, Fill System, and feeder may be controlled manually or by using the Breeder Control.
- The feeder will operate automatically to feed the desired quantity of feed. Operating times will be set on the Breeder Control. See Instruction MF1061 for the proper programming and operating procedure for the Breeder Control.
- Nine foot/ four pans per tube, ten foot/ four pans per tube, and twelve foot/ four pans per tube models are available for the ULTRAPAN Feeder. Maximum length of the tube line is 500 feet (152 m).
- Hangers should be placed at 8' (2.4 m) intervals along the feeder line.

The ULTRAPAN Feeder utilizes a 78 RPM power unit. The system utilizes a 95 RPM power unit providing a delivery capacity of approximately 65 pounds (29.5 kg) per minute. Feed will be delivered through the indexed tubes at approximately 130 ft. (40 m) per minute.

## Planning the System

Carefully planning the system prior to beginning the installation will save time and effort. Refer to the FLEX-AUGER Fill System Manual for fill system installation information and specifications.

The diagram on page 8, shows a house with two ULTRAPAN Feeder loops. The line lengths specified for determining power unit placement refer to the distance between the elbows. However, the total system length = line length X 2, plus the elbows (including the tube between the elbows).

The *first loop* shows the recommended placement of the Power Units, Hoppers, Control Unit, and Weigh Bin.

**For line lengths up to 288' (87.7 m),** two (2) power units are recommended. The power units should be evenly spaced opposite each other. For line lengths to 288' (87.7 m), the power units should be placed in positions "A" and "C" below.

**For line lengths from 288' to 387' (87.7 to 118 m),** three (3) power units are recommended. To determine the proper placement of the power units, add the total length of the system, including 9' (2.7 m) for each 90 degree end section, and divide by 3. This will give an approximate distance between power units, round up or down to the nearest suspension drop line. These power units should be staggered (two on one side, one on the other side). The power units should be place in positions "A", "B", and "D" below.

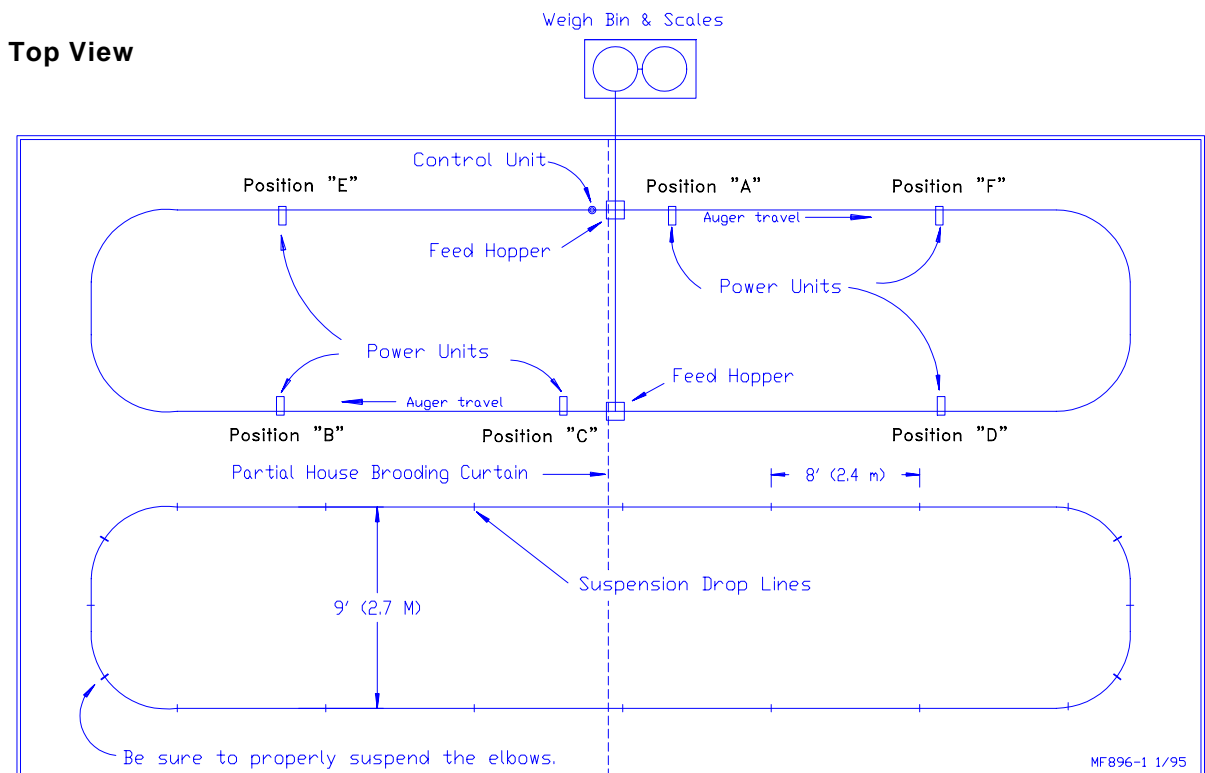
**For line lengths from 387' to 500' (118 to 152m),** four (4) power units are recommended. To determine the proper placement of the power units, add the total length of the system, including 9' (2.7 m) for each 90 degree end section, and divide by 4. This will give an approximate distance between power units, round up or down to the nearest suspension drop line. The power units should be place in positions "B", "E", "D", and "F" below.

The Control Unit should be located on the side of the feeder loop to be used for partial house brooding. The Control will be installed next to the hopper on the return side of the feeder. The two holes prior to the control must be enlarged.

The *second loop* gives some dimensional specifications.

Notice that the suspension drop lines are spaced 8' (2.4 m) apart all through the system. Systems using 10' (3 m) or 12' (3.6 m) tubes may be suspended on 10' (3 m) centers. Be sure to support the elbows as shown in this manual.

The ULTRAPAN Feeder loop is 9' (2.7 m) wide.





# Installation of the ULTRAPAN Feeder

## Suspending the Feeder Line

The ULTRAPAN Feeder uses the 7604 Adjustable Hanger and small "S" hooks to index the feeder tubes for uniform feed distribution. The 7604 Adjustable Hanger must be installed in the correct position to index the ULTRAPAN Feeder as it is suspended.

Refer to [page 28](#) for additional 7604 Adjustable Hanger installation instructions.

## Suspension System

1. The feeder line suspension system is a vital part of your feeding system. Proper planning and installation is necessary to insure proper operation of the system. A system weight chart is provided on [page 75](#) that may be used to determine load requirements.

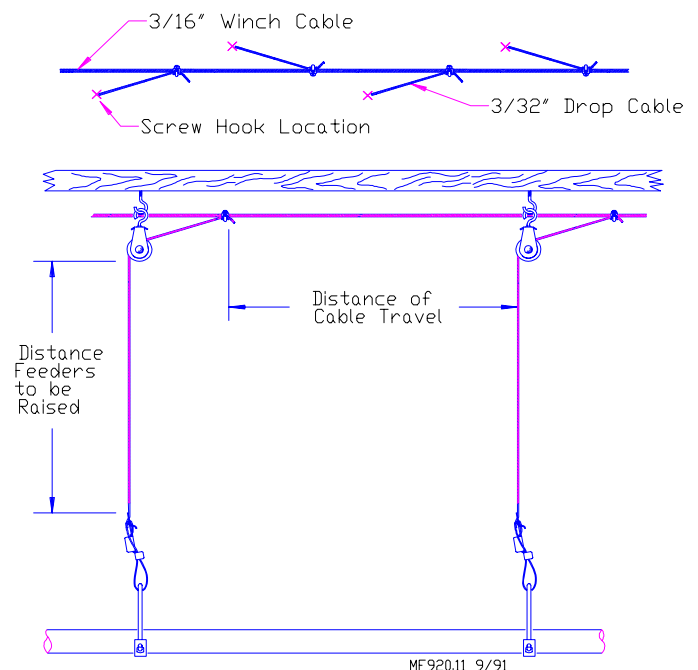
2. **Figure 1**, on [page 10](#), shows the correct suspension system for all feeder line lengths. Notice additional support must be provided at each Hopper, Power Unit, and elbow location.

**IMPORTANT:** Notice that the feeder line **MUST BE SUPPORTED WITHIN 1 FOOT (300 MM) OF THE HOPPER AND 3 FEET (1 M) OF THE MOTOR ON THE CONTROL UNIT**. If a Control Unit or Hopper does not come out directly under a truss, fasten a pulley to a 2x8 (50x200 mm) board that will span (2) trusses supporting the Control Unit.

3. Determine where the feeder line is to be installed. Mark a straight line on the ceiling or rafters the full length of the feeder line. Use a string, chalk line, or the winch cable, temporarily attached with staples, to mark the line. Center the line directly over where the feeder is to be installed.

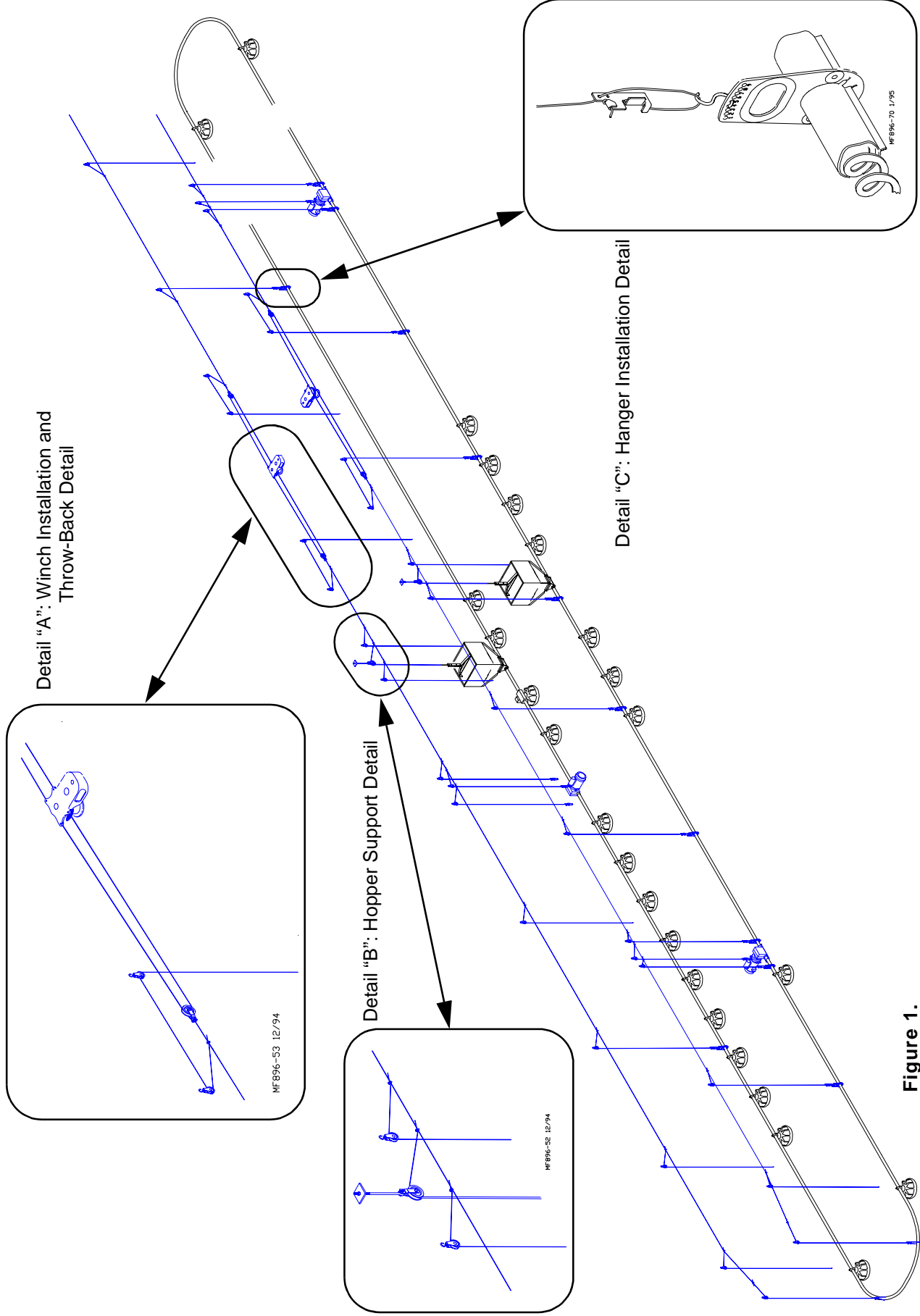
4. The recommended distance between the drops is 8' (2.4 m) on center. Do not exceed 10' (3 m) spacing on drop lines.

5. If the distance raised is greater than the distance between the drop spacings, offset the hooks 3" (75 mm) to each side of the line to prevent the cable clamps from catching the pulleys. See **Figure 2**.



**Figure 2. (Side View)**

# Suspension Layout Graphic



Detail "A": Winch Installation and Throw-Back Detail

Detail "B": Hopper Support Detail

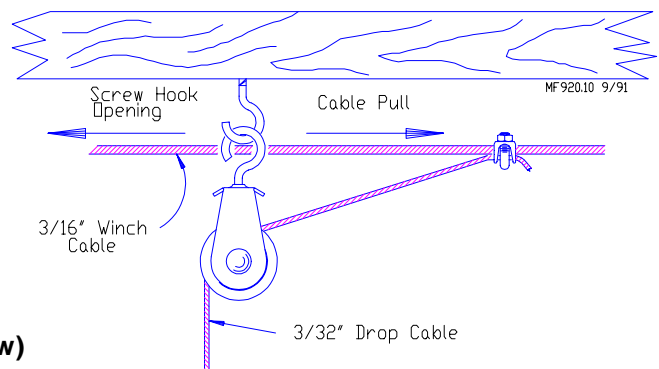
Detail "C": Hanger Installation Detail

Figure 1.

6. Refer to **Figures 3 or 4 through 7** for specific installation instructions for the screw hooks and ceiling hooks.
7. For installations using wood trusses, standard screw hook or the optional Ceiling Hook may be used to hold the pulley assemblies.
8. For installations using steel trusses, the Ceiling Hooks are available to hold the pulley assemblies.

### Screw Hook Installation

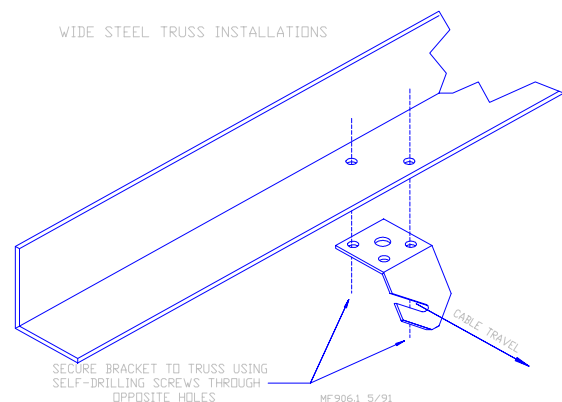
1. Screw the hook into the truss the full length of the threads to prevent bending.
2. The openings of the screw hooks must be pointed away from the direction of travel when the Power Winch raises the feeder line. See **Figure 3**.



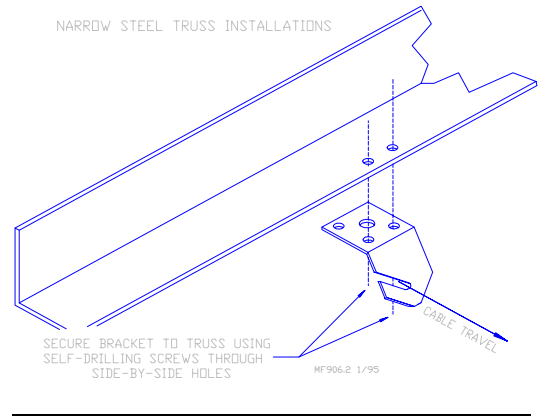
**Figure 3. (Side View)**

### Ceiling Hook Installation

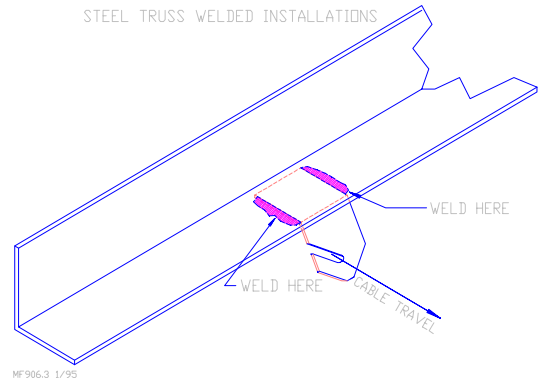
1. The ceiling hook may be used in a variety of installations. Depending on your ceiling or rafter type, install the Ceiling Hooks as shown in **Figures 4 - 7**.



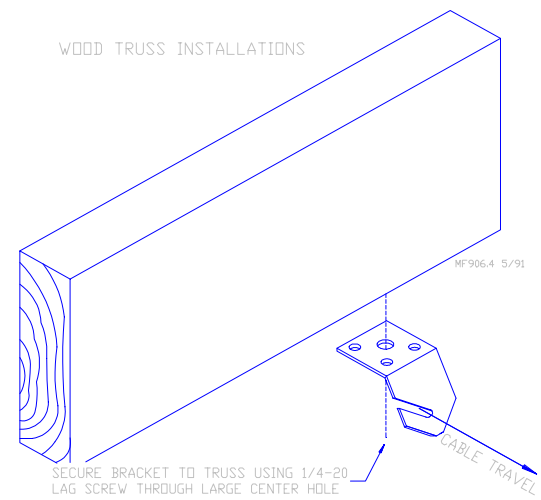
**Figure 4.**



**Figure 5.**

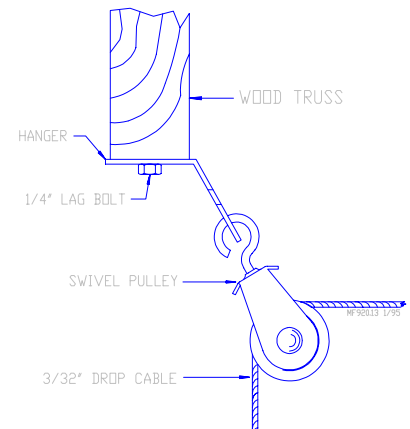


**Figure 6.**



**Figure 7.**

2. After securing the Ceiling Hook to the truss, slide the hook of a Swivel Pulley into the slot, as shown in **Figure 8**.

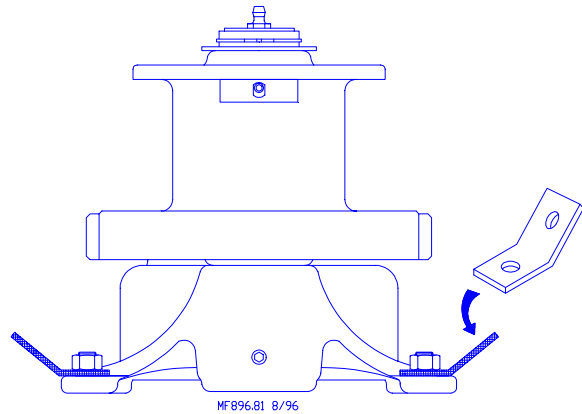


**Figure 8. (End View)**

## Power Winch Installation

1. Bolt the Power Winch, fully assembled, to a 2" x 8" (50 x 200 mm) board that will span at least 3 rafters. The brake mechanism will extend toward one side.

Install a Cable Hook (#2985) between the mounting bolt and Power Winch frame, as shown in **Figure 9**.

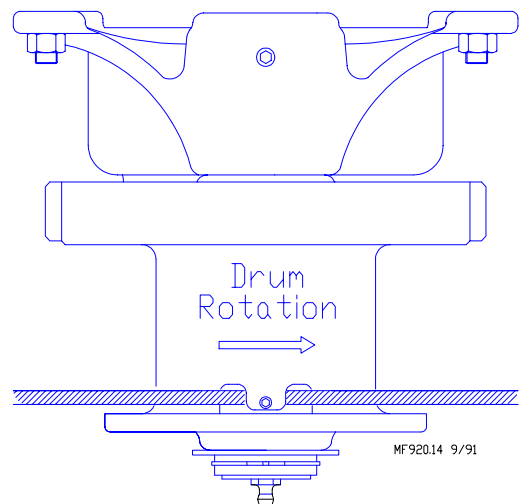


**Figure 9. (End View)**

2. Attach the 2" x 8" (50 x 200 mm) board, with the Power Winch secured, to the ceiling at the center of the feeder line. See **Figure 1** on [page 10](#). The 2" x 8" (50 x 200 mm) must be parallel to the line and must span at least 3 rafters.

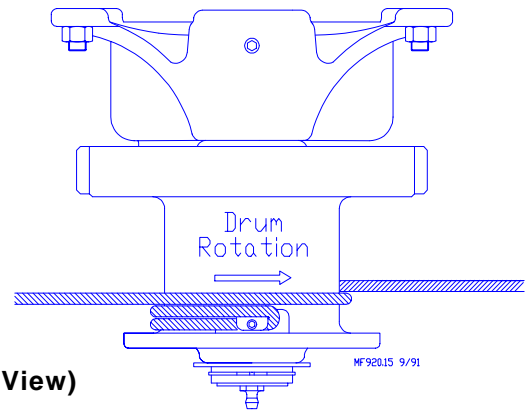
If the hopper is located at the center of the feeder line, locate the Power Winch a few feet offset from the center of the feeder line. However, the Winch Drum must be directly in line with where the main cable is to be installed.

3. Extend the 3/16" (5 mm) cable the full length of the feeder line. Attach the cable temporarily to the ceiling with nails, staples, or some type of fasteners.
4. Wrap the cable through the winch drum relief located near the bottom of the drum. Tighten the set screw to anchor the cable to the drum. See **Figure 10**.



**Figure 10. (End View)**

5. Turn the winch drum one full revolution. Guide the cable against the flange at the bottom of the winch drum. The cable must not wrap over itself on the drum, but should be wrapped as close as possible to each previous wrap. See **Figure 11**.



**Figure 11. (End View)**

### Drop Installation

1. Attach a 3004 Pulley to each hook.
2. Thread the end of the 3/32" or 1/8" cable through the pulley toward the winch. Clamp this end to the 3/16" winch cable about 6" (150 mm) from the last pulley, using a 3/16" cable clamp. See applicable figure; **Figure 3 or 8**.
3. Allow enough cable length for installation of the Adjustment Leveler.

Sufficient cable is included to provide "throwbacks" on drops located beneath and near the winch. Detail "A" in **Figure 1** shows a "throwback" cable arrangement.

4. **Begin installing suspension drops at the winch and proceed to the ends of the feeder line.**

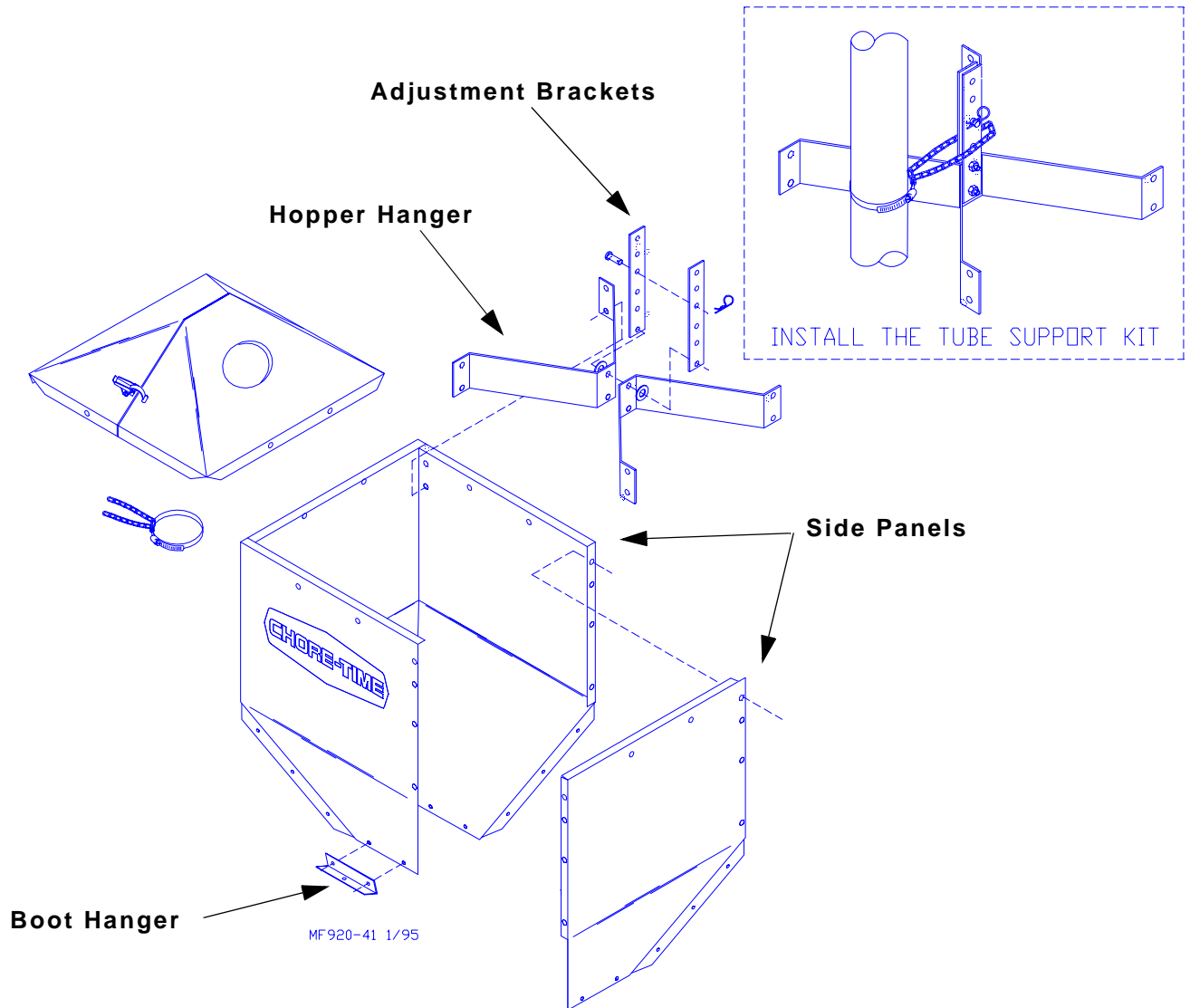
Keep the main cable tight between drops. It may be necessary to hang a weight on the end of the cable to maintain tension on the line.

### 100# Hopper Assembly

**IMPORTANT**— Assemble the hopper so that the Lower Hopper Switch is in-line with the feeder line. Also, the opening in the Lower Side Panel for the Hopper Switch must be located directly above the outgoing feeder line.

1. Loosely assemble the 100# Hopper Side Panels, as shown in **Figure 12**, using 1/4-20 bolts and 1/4-20 hex nuts (supplied in Hardware Package).

2. Secure Adjustment Brackets to the Hopper Hangers, using the 5/16-18 bolt and nut, supplied.
3. Locate the Hopper Hangers (assembled) in the Side Panel corners, as shown, and secure using 1/4-20 hardware supplied.
3. With the Hopper assembled, less the cover, tighten the hardware.
4. Secure the Boot Hangers to the bottom of the Side Panels, using hardware supplied.

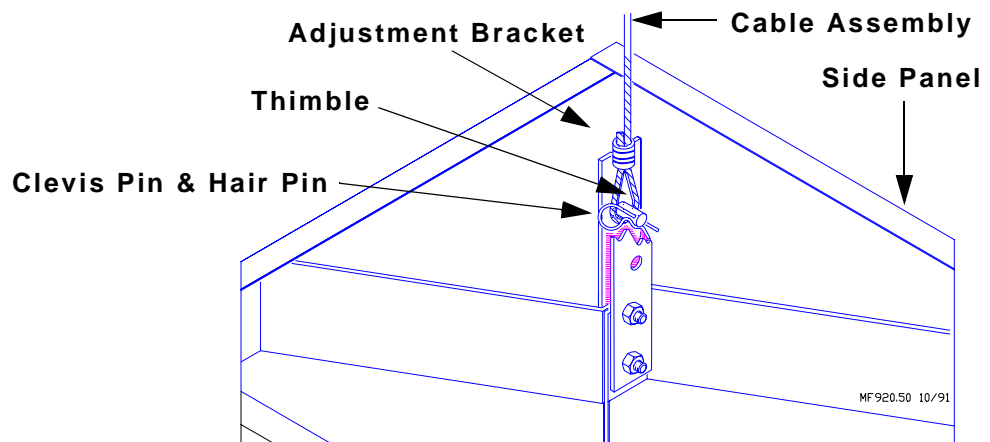


**Figure 12.**

5. A Cable Assembly (including 20' or 6 meters of cable, a Sleeve Clamp, and a 5/32" Thimble) is supplied to suspend the hopper. **Figure 13** shows the suspension components assembled. The pin should be located through the center hole of the Adjustment Brackets.
6. The 100# Hopper may be ordered with the optional Hopper Cover.

Secure the half of the cover with the tube opening on the top of the hopper. The other half of the cover will be secure in place with a latch.

7. Install the Tube Support Kit, as shown in **Figure 12**. The Drop Tube is supplied with the fill system.



**Figure 13. (Top View of Hopper)**

### Pan Assembly Box Construction

Chore-Time recommends building an assembly box to aid in assembling the Model C2 Feeders.

To build the assembly box for the C2 Feeder, use a 16" (406 mm) square piece of plywood and four 14-1/2" (368 mm) pieces of 2" x 10" (50 x 250 mm). These may be cut out of a 5' (1.5 m) section of 2" x 10" (50 x 250 mm).

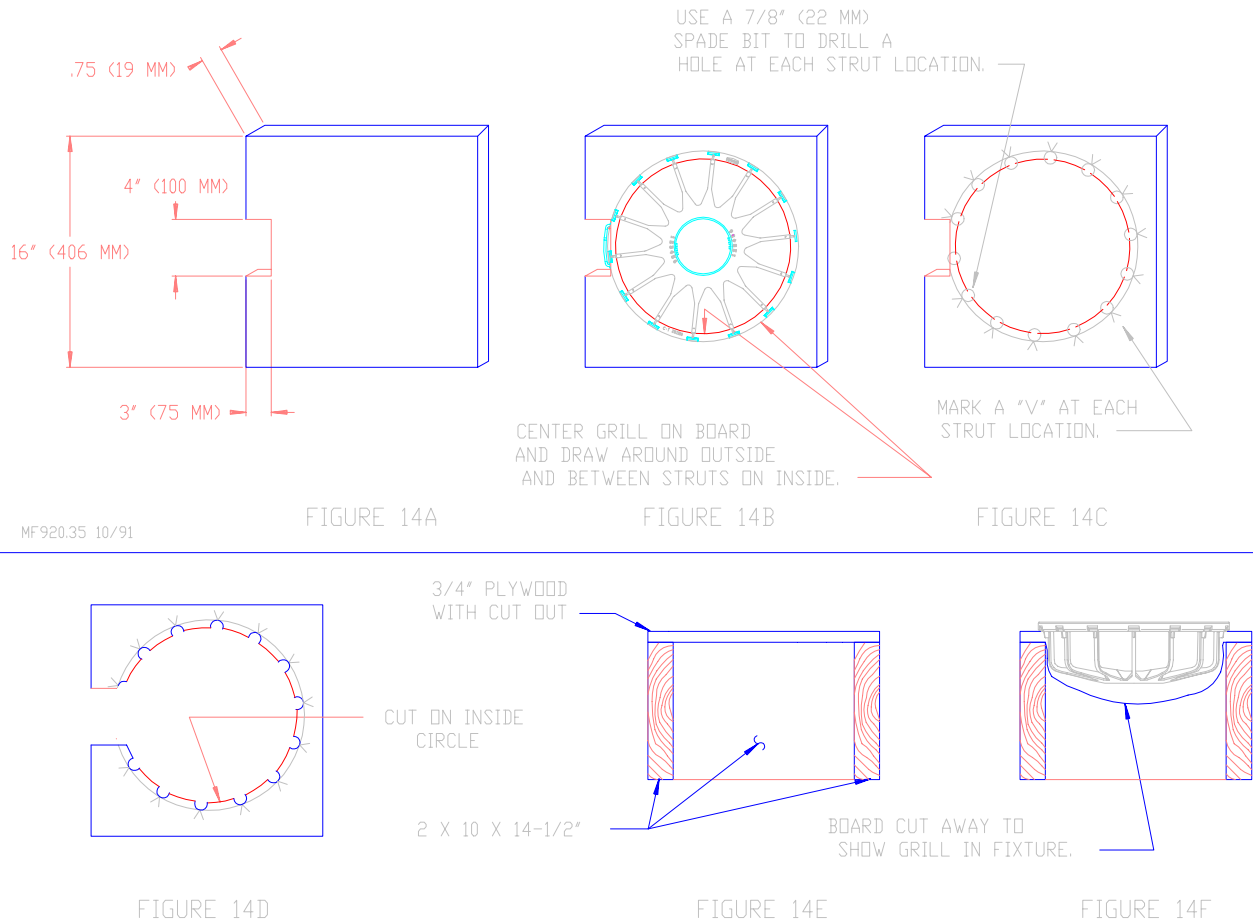
1. Cut a 3/4" (20 mm) piece of plywood 16" (400 mm) square. See **Figure 14A**.  
Cut a 4" (100 mm) notch out of the middle of one side. See **Figure 14A**.
2. Center a grill on the 16" (400 mm) square piece of plywood. Use a pencil and draw around the outside edge of the grill as shown in **Figure 14B**.  
Mark a "V" at each strut location.
3. Remove the grill.  
Use a 7/8" (22 mm) bit to bore a hole at each strut location, as shown in **Figure 14C**.
4. Use a sabre saw to cut along the inside circle, between the 7/8" holes. See **Figure 14D**.



- Use (4) 14-1/2" (370 mm) 2 x 10's (50 x 250 mm) to construct the box sides. Nail the 3/4" plywood fixture to the box. See **Figure 14E**.

It is important to use at least 10" (250 mm) sides for the box. Smaller lumber will not allow sufficient depth for the grill to be placed in the box face down.

**Figure 14F** shows how the grill should fit down in the assembly box. Note: Board is cut away for clarity only.



**Figure 14.**

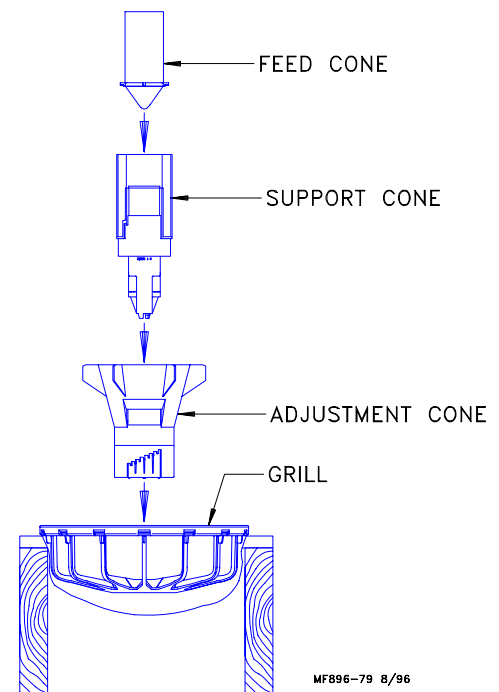
### Feeder Assembly Procedure

- Place a Grill in the pan assembly box fixture. Make sure the hinged lip on the grill is located in the cut out section of the fixture.
- Install the Adjustment Cone and Support Cone in the grill, as shown in **Figure 15**.
- Assemble and glue the Feed Cone together as specified in the instruction supplied with the Feed Cone and Base.

Window Feeders: Cut the Side Tabs off from around the cone.

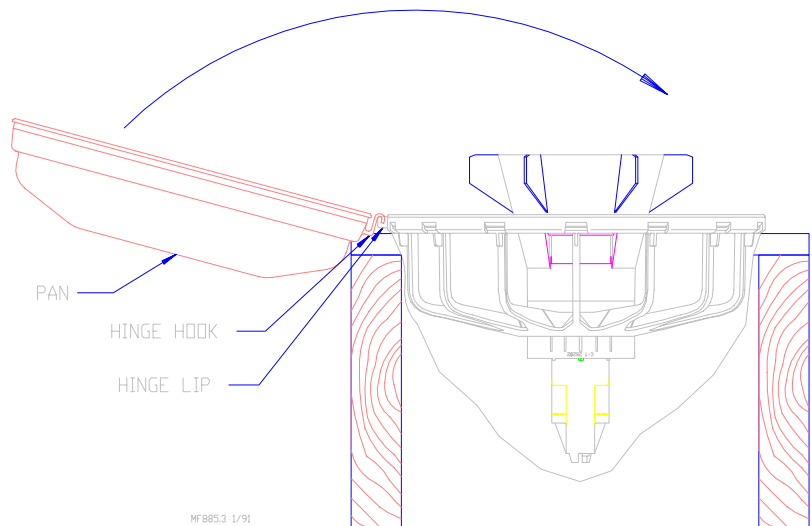
Windowless Feeders: Do not cut the Side Tabs.

Insert the Filler Cone inside the Support Cone, as shown in **Figure 15**.



**Figure 15. (Side View)**

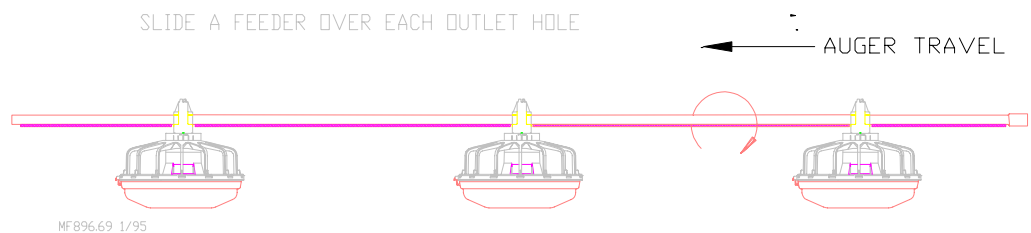
- Interlock the hinge hook on the pan with the hinge lip on the grill. The pan should be face up, as shown in **Figure 16**.



**Figure 16. (Side View)**

- With the feeder still in the fixture, rotate the pan clockwise in the grill until the pan locks engage.
- Remove the pan assembly from the fixture.
- Slide the pan assembly onto a feeder tube.
 

Note: Some applications may use the two-piece Model C2 Feeders. For these applications, the feeders may be installed after the tubes are installed and indexed. See page 32 for two-piece feeder assembly instructions.
- Rotate the auger tubes so that the seam is down, this holds the Pan Assemblies in place on the tubes, as shown in **Figure 17**.
- Set the pan assemblies at the #4 adjustment position. The arrow molded into the top of the Adjustment Cone should point to the #4 on top of the grill.
- The tube sections (with feeders attached) may be positioned end-to-end in approximately their final position, with the belled end of the tubes opposite the direction of travel.



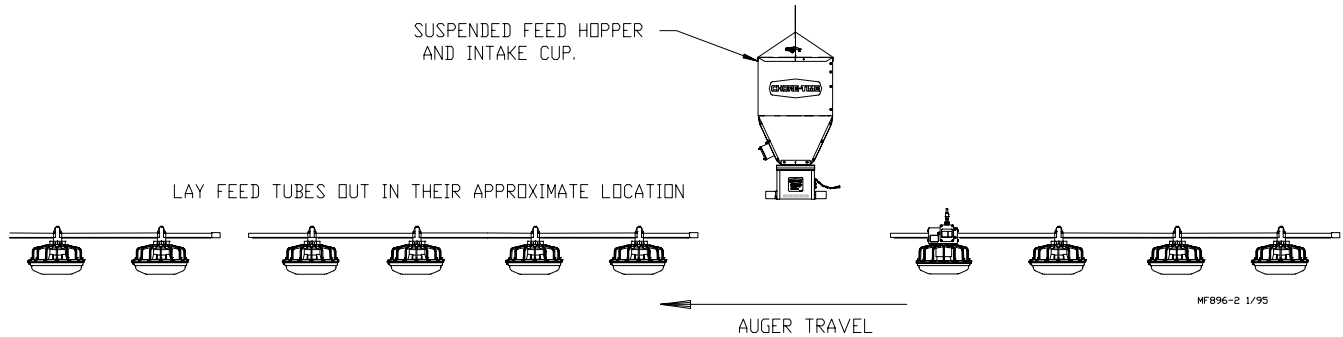
THE PAN ASSEMBLIES ARE HELD IN PLACE BY ROTATING THE TUBES.

**Figure 17. (Side View: Standing *outside* the loop.)**

## Feeder Line Assembly

**Note:** The auger must travel in a clockwise direction when standing inside the loop.

1. Position the tubes end to end in approximately the final location of the line. The feeder tubes should be installed so that the expanded end of each tube points in the opposite direction of auger travel. See **Figure 18**.

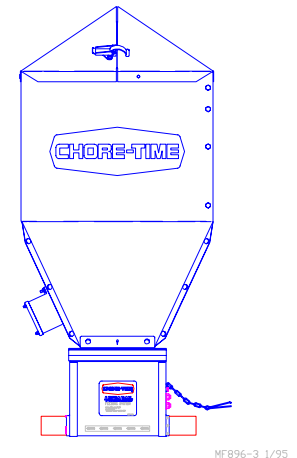


**Figure 18. (Side View: Standing outside of the loop).**

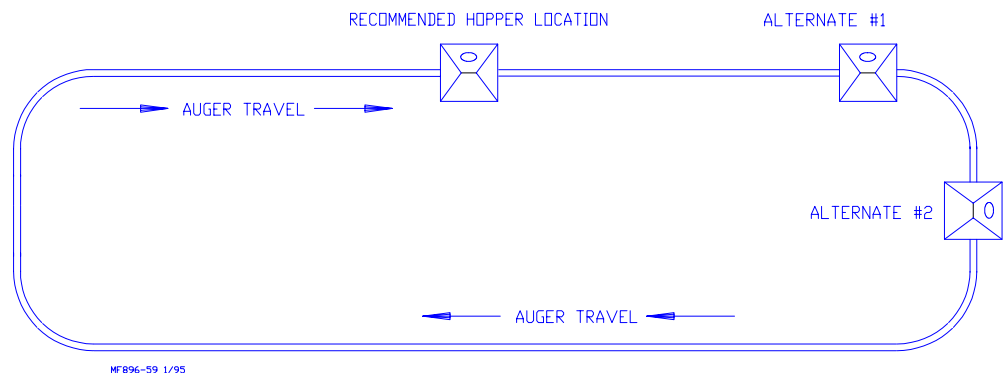
2. Slide the Boot on the bottom rails of the Hopper, as shown in **Figure 19**. Hardware (1/4-20) is supplied to hold the Boot in place on the Hopper Rails.
3. Raise the Hopper and Boot approximately 2' to 3' (60 to 90 cm) above the ground.
4. Two-Hopper systems (systems with over 500' or 152 m total auger length) must have hoppers located as specified in the Planning the System section on page 7 and 8. Skip to step 5 and refer to **Figure 21**.

Single-Hopper systems (systems with less than 500' or 152 m total auger length) may have the hopper located as specified in **Figure 20**.

Chore-Time recommends locating the hopper in the center of the loop, as shown. However, the hopper may be installed at the alternate locations specified. Refer to **Figures 22 - 24** for alternate hopper location component layout diagrams.



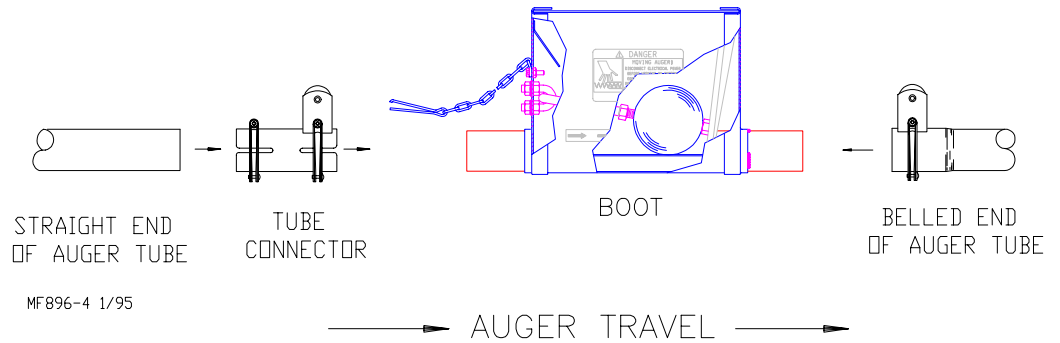
**Figure 19. (Side View)**



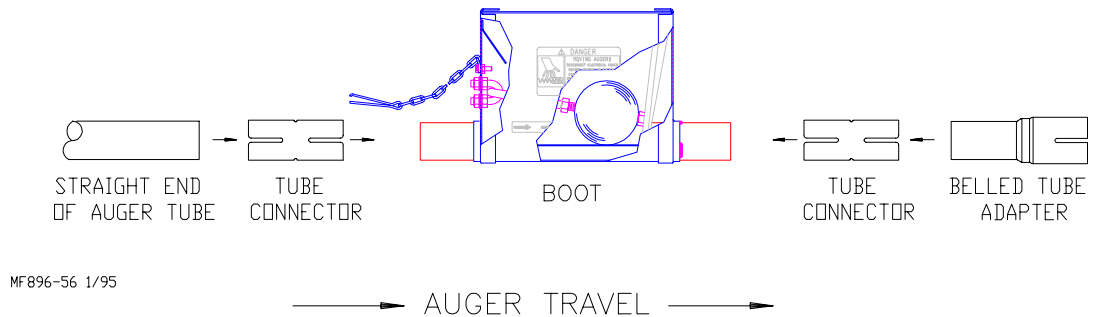
**Figure 20. (Top View)**

- Beginning at the Boot, assemble the Tube Connector, Clamps, Insulator Clamps, and Auger Tubes as shown in the appropriate diagram.

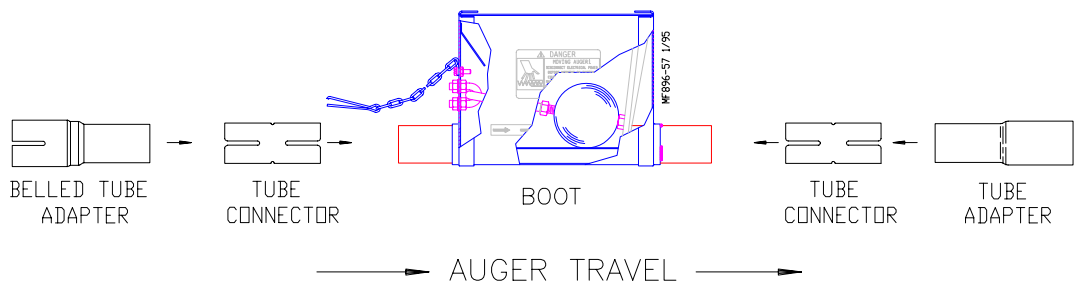
**Note:** The feed tubes should be installed clockwise around the system, starting at the outlet end of one hopper, continuing through the elbows to the incoming end of the other hopper.



**Figure 21. Boot components for Recommended Hopper Location. (Side View: Standing inside the loop).**



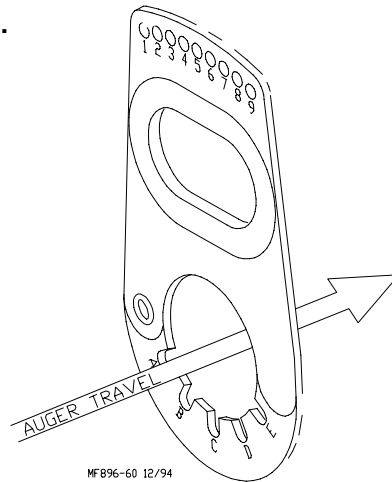
**Figure 22. Boot components for Alternate #1. (Side View: Standing inside the loop).**



**Figure 23. Boot components for Alternate #2. (Side View: Standing inside the loop).**

- Working in the direction of auger travel around the loop, use the appropriate Indexing Chart on [page 31](#), to determine proper hanger setting for each individual tube as it is being installed. Refer to [page 28](#) for Hanger installation instructions.

**Figure 24.**



**IMPORTANT**

When installing the Hangers, make sure;

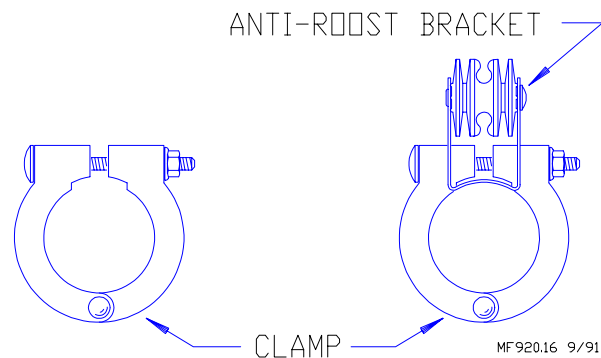
- to work in the direction of auger travel, **and**
- the stamped numbers are facing the outgoing side of the hopper.

Note: The Hangers **MUST** be installed properly for the system to properly dispense feed into the feeder pans.

- Beginning at the outgoing end of the Boot, connect the feeder tubes by inserting the straight end of one tube into the expanded end of another tube section. Be certain the tube is inserted as far as possible.

Use the drop lines and Hangers to support the tubes as they are installed, making sure the tubes are level.

Secure this tube joint together using a Clamp w/Anti-Roost Bracket. See [Figure 25](#).

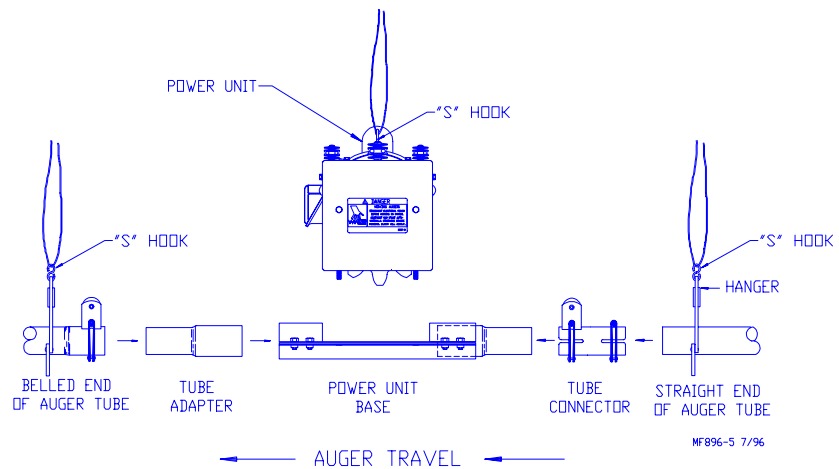


**Figure 25. (Side View)**

- Continue assembling the feeder line until a power unit location is reached. Refer to the section marked "Planning the System" on pages 7 and 8 to determine Power Unit locations for various system lengths.

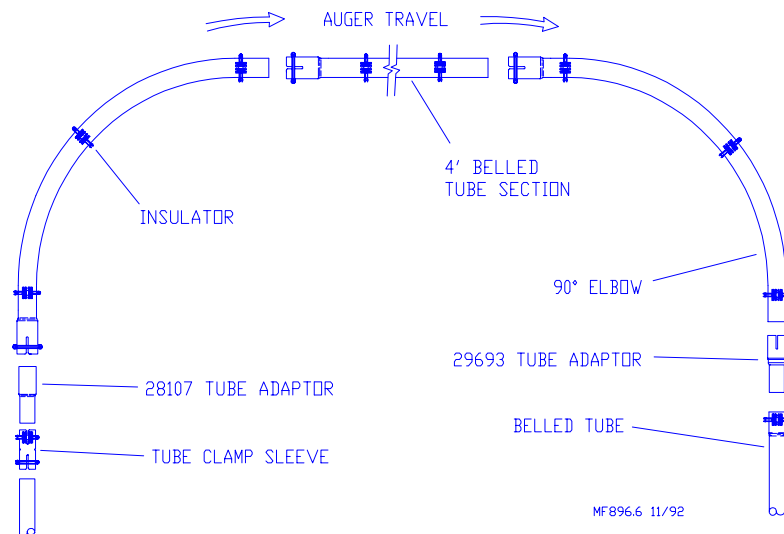
**12' (3.6 m) TUBE SYSTEMS:** Place a standard clamp over the next three joints — then use a Clamp/Anti-Roost Bracket on the fourth joint.

**9' (2.7 m) and 10' (3 m) TUBE SYSTEMS:** Place a standard clamp over the next four joints — then use a Clamp/Anti-Roost Bracket on the fifth joint.



**Figure 26. (Side View): Standing *outside* the loop.**

8. Remove the Power Unit from the Base Connector Weldment and install Base Connector Weldment, as shown in **Figure 26**.
9. Loosen the four bolts on the incoming side of the Power Unit Base.  
Slide the belled end of the Tube Adapter into the incoming side of the Power Unit Base. Tighten the four bolts to secure the Tube Adapter to the Power Unit Base. See **Figure 26**.  
Use a Tube Connector to connect the incoming straight section of auger tube to the Tube Adapter. Secure using a standard Clamp and an Anti-Roost Clamp.
10. Loosen the four bolts on the outgoing side of the Base Connector Weldment.  
Slide the belled end of the Tube Adapter into the outgoing side of the Power Unit Base. Tighten the four bolts to secure the Tube Adapter to the Power Unit Base.
11. Insert the belled end of the next tube section over the Tube Adapter, as shown in **Figure 26**. Secure using a Clamp/Anti-Roost Bracket.
12. Suspend the Power Unit above the Power Unit Base. Additional suspension drops must be installed to support the Power Unit and auger tubes, as shown in the Suspension Section and in **Figure 26**.
13. 12 ft. (3.6 m) TUBE SYSTEMS: Place a standard clamp over the next three joints — then use a Clamp/ Anti-Roost Bracket on the fourth joint.  
**9 ft. (2.7 m) and 10' (3 m) TUBE SYSTEMS:** Place a standard clamp over the next four joints — then use a Clamp/ Anti-Roost Bracket on the fifth joint.
14. Continue installing auger tubes, clamps, and anti-roost clamps until the elbows are reached.
15. Assemble the elbows and related components as shown in **Figure 27**.  
Install the (10) insulators around the elbows, approximately as shown.



**Figure 27. (Side View)**

Additional suspension drops must be installed to support the elbows, as shown in the Planning the System section on [page 8](#). Use the 4207 Hangers to support the elbows.

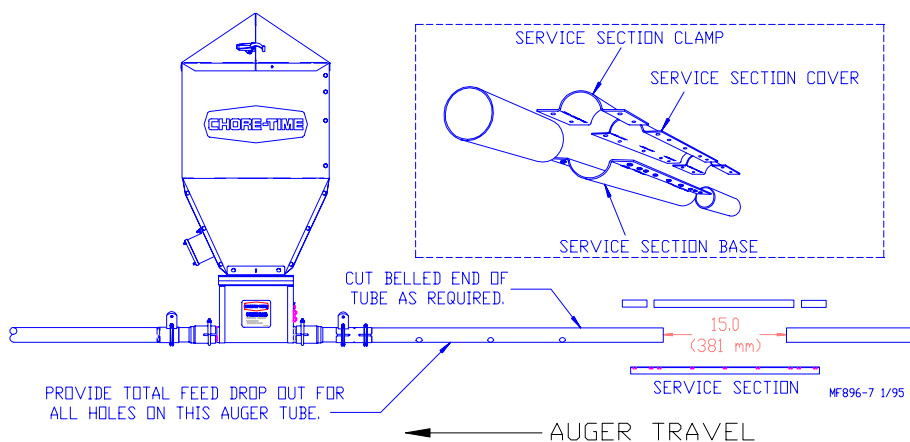
16. Install the remaining auger tubes, power unit bases, hopper, and elbows, the same as the first.
17. **Figure 28** shows the preferred location of the service section.

Cut the belled end of the auger tube leaving 15" (380 mm) between tubes to install the Service Section.

Approximately 4" (100 mm) of the auger tube seam will need to be cut off to allow the Service Section to be installed.

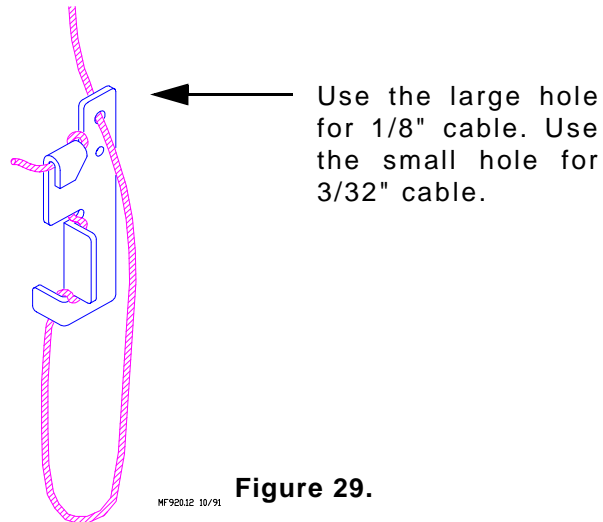
Secure the Service Section Base to the auger tubes by sliding the tubes into the base and fastening the Service Section Clamps on top using the 1/4-20 hardware supplied. Do not install the Service Section Cover at this time.

18. Enlarge the holes in this tube to provide total feed drop out. See **Figures 28 & 41** ([page 33](#)).



**Figure 28. (Side View: Standing outside the loop),**

19. Install Adjustment Leveler within 6" (152 mm) of feeder line. **Figure 29** shows the proper cable threading through the Adjustment Leveler.



**Figure 29.**

20. Following installation of all drops, check drop cables before raising feeder line. Cable must be properly tracking on all pulleys before raising the feeder line.
21. Raise the feeder line to a convenient working height.
22. With the feeder line suspended, measure from the floor or ceiling to the auger tubes to level the system. Make sure each tube is level (not sagging, sloping, etc.).

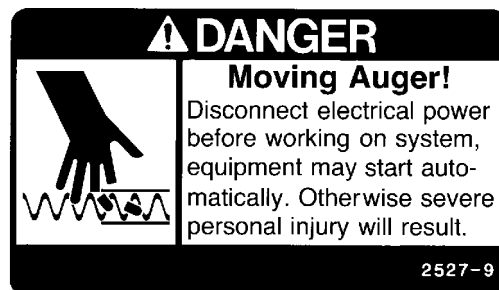
**Note: The system may be indexed at this time or after the auger installation is complete. Indexing instructions are included on pages 28 through 31.**

## Auger Installation

**Note: Use extreme caution when working with the auger. The auger is under tension and may spring causing personal injury. Wear protective clothing, gloves, and safety glasses when working with the auger.**

To avoid kinking the auger, be careful not to drop the rolled auger when handling. Inspect the auger carefully as it is installed. Small kinks may be straightened. Large kinks must be removed and the auger brazed back together.

Cut the leading 18" (450 mm) and last 18" (450 mm) off each roll of auger. Also, cut out any other distorted auger sections and reconnect the auger as specified in the Auger Connector or Auger Brazing section of this manual.





In preparation for the auger installation, complete the following:

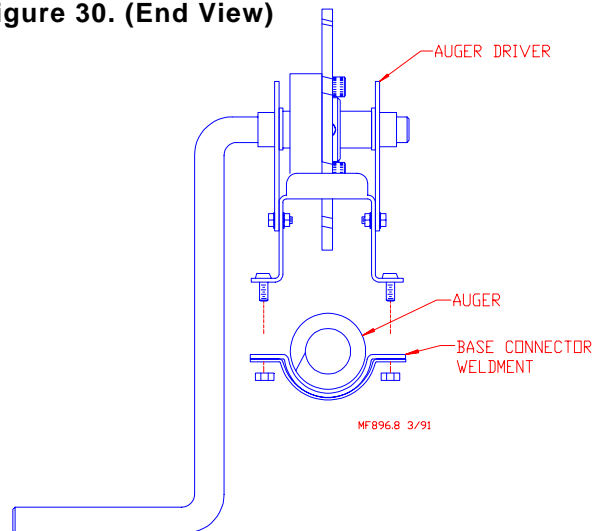
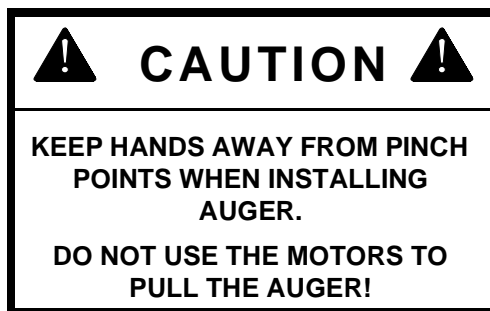
- The Power Unit and Driver Assembly(s) must be removed from the Base Connector Weldment. An Auger Driver must be installed on each Base Connector Weldment. See **Figure 30**.
  - The Service Section Cover must be removed to install the auger.
1. Begin feeding one end of the auger into the auger tubes through the Service Section.

**Chore-Time recommends always feeding the auger into the tubes from the center of the coil (this is the painted end of the auger). This will insure the auger flightings will match.**

Push the auger, by hand, to the first Auger Driver. The Auger Driver may then be used to pull the auger through the tubes. An Auger Driver should be installed at each motor location to aid in pulling the auger around the system. See **Figure 30**.

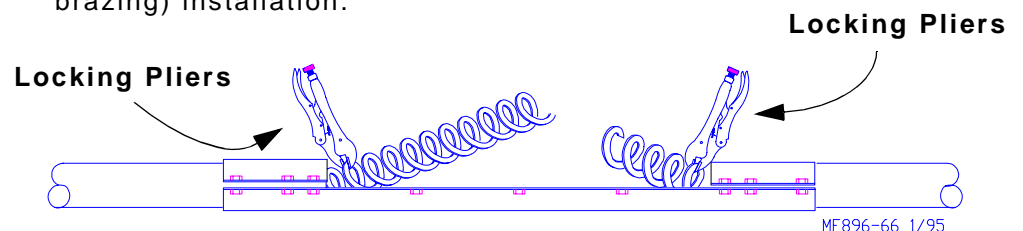
2. If more than one auger is to be installed, the tail end of the first auger and the leading end of the second auger must be connected with an Auger Connector or brazed (optional) together.

**Figure 30. (End View)**



3. Continue installing auger until it reaches the Service Section.
4. Cut excess auger off coil, Leave enough auger to work with when stretching and connecting the auger.
5. Push and pull the auger a few times to allow it to relax to its free length.
6. Use locking pliers to hold one end of auger in place while stretching the auger. See **Figure 31**.

Allow approximately 4" to 6" (100 to 150 mm) of auger to extend past the locking pliers to allow for Auger Connector (or brazing) installation.



**Figure 31. (Side View)**

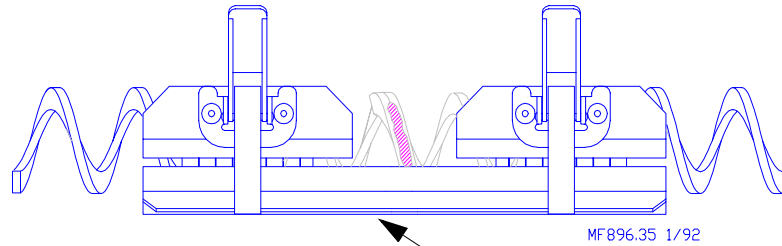
SERVICE SECTION



## Auger Brazing

The feeder auger must to be brazed according to these instructions to obtain a strong joint.

Screw the auger together about 120 degrees (1/3 turn) and secure in the Welding Fixture. See **Figure 33**.

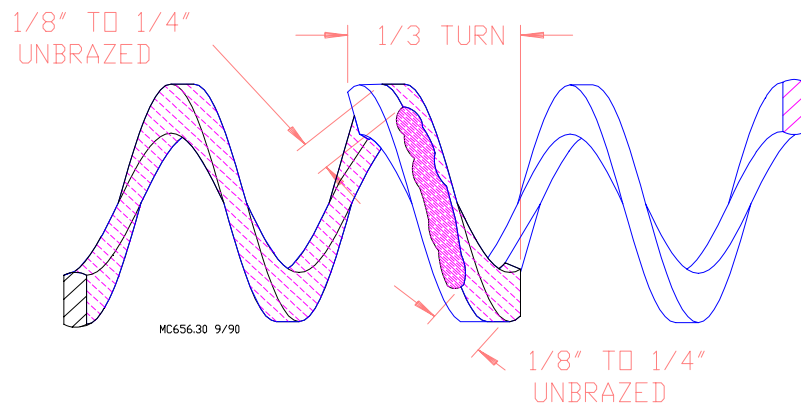


**Figure 33. (Side View)**

Welding Fixture

Slowly heat the auger and apply a braze to the **inside** of the auger. Allow it to cool slightly, then rotate the Welding Fixture and braze the **outside** of the auger.

The braze should extend from 1/8" to 1/4" (3 to 6 mm) from the end of each auger. **DO NOT BRAZE ALL THE WAY TO THE END.** This allows the auger to flex in either direction as it travels around the elbows without becoming weakened. See **Figure 34**.



**Figure 34. (Side View)**

### THINGS TO REMEMBER

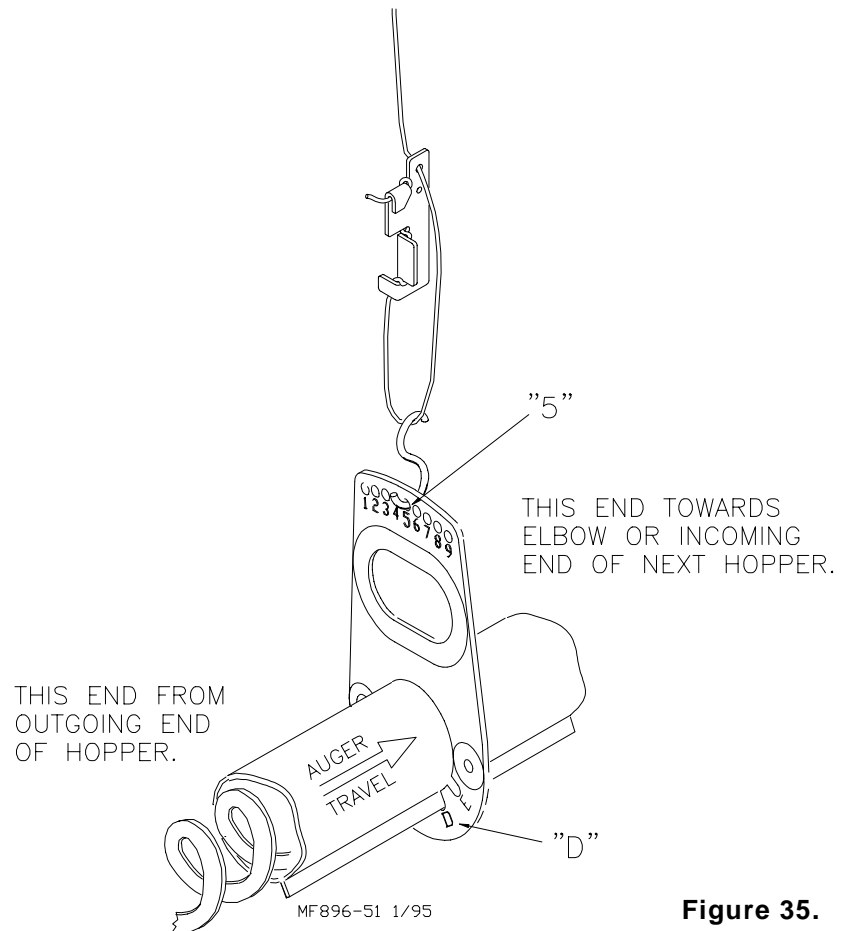
- To insure a good braze, clean dirt, oil, etc., off both ends of the auger.
- A bronze, flux coated filler rod is recommended.
- The joint should be smooth and well filled.
- Do not over heat the auger; apply just enough heat to melt the filler rod.
- Allow the auger to air cool.
- File all edges smooth.
- The outside diameter of the auger at the braze should not be larger than the rest of the auger.

## Adjustable Hanger Installation

The Adjustable Hanger used with the ULTRAPAN Feeder enables the operator to index the feeder line. Use the chart on [page 31](#) to determine hanger settings for your installation.

Note: The chart on [page 31](#) is for use on standard (2) hopper systems where the hoppers are located near the center of the feeder loop.

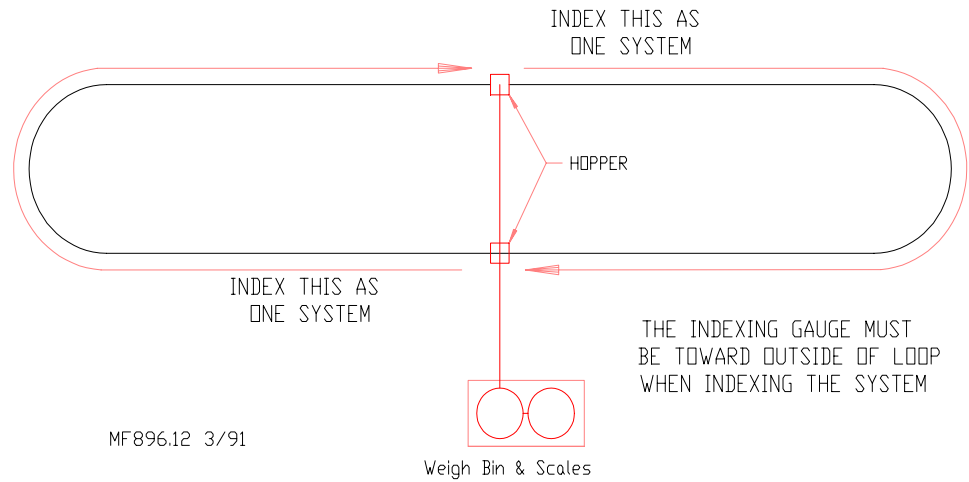
**Figure 35** shows how the setting numbers (C1, C2, etc.) from the chart relate to the Adjustable Hanger. Example: The Hanger in Figure 35 is set to "D5."



**Figure 35.**

## Indexing the Tubes

**NOTE:** When indexing the tubes, index from the outgoing side of one hopper, around the elbows to the incoming side of the next hopper. Repeat the procedure on the remaining section of tubes and elbows. See **Figure 36**.



**Figure 36. (Top View)**

1. Beginning at the hopper, use a marker to number the feeder tubes. Begin with Tube 1 coming out of the hopper, then 2, 3, and so on, continuing until each tube in the line is marked. Do not include elbows in tube count.

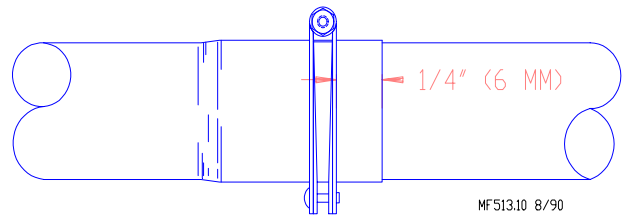
The maximum number of tubes for systems using **9' Auger Tubes** is **44**. The maximum number tubes for systems using **10' Auger Tubes** is **40**. The maximum number of tubes for systems using **12' Auger Tubes** is **32**.

2. Leave the tube clamps loose, until the line has been indexed.
3. Use the chart (page 31) for indexing the tubes.

Find the heading for the number of tubes in your feeder line in the horizontal line at the top of the indexing chart. The correct hanger adjustments for each feeder tube are shown in the column under the appropriate heading.

4. After all Adjustable Hangers have been set, check the settings with the Indexing Gauge to fine tune the line.

Start at the hopper. Standing down the feeder line looking back at the outgoing end of the hopper, the Indexing Gauge should be placed with the notch over the crimped portion of the tube with the gauge on the right side of feed tube (Indexing Gauge will be outside the loop). The Indexing Gauge should be placed between the second and third hole on the first tube.



**Figure 37. (Side View)**

5. Starting with tube number 1, set the clear pointer on the gauge to the proper setting according to the indexing chart. Rotate the tube until the bubble in the leveler comes to the center. Install and tighten the clamp, as shown in **Figure 37**, on the bell toward the hopper.

**NOTE:** If the tube must be rotated so much that the Adjustable Hangers are tilted too far to one side or the other, check the following:

- a. Make sure the Adjustable Hanger is set according to the indexing chart on [page 31](#).
  - b. Make sure the Indexing Gauge is properly positioned on the tube. The Indexing Gauge must always be to outside the loop. It is common **mistake** to switch the Indexing Gauge to be located inside the loop after a corner.
  - c. Make sure the Indexing Gauge is placed on the tube correctly. See point 4, above.
  - d. Make sure that the settings for both the Indexing Gauge and the Adjustable Hangers are taken from the correct column from the chart for length of auger tube being indexed.
6. Continue to set the remainder of the line in the same manner. After each tube has been set, tighten the clamp on the belled end toward the hopper. Take care to insure that the tubes already set, do not move. (This will require a second person to hold the end of the tube that has just been set while you turn the next tube to be set.)

Position the clamps on the tube joints, as shown in **Figure 37**.

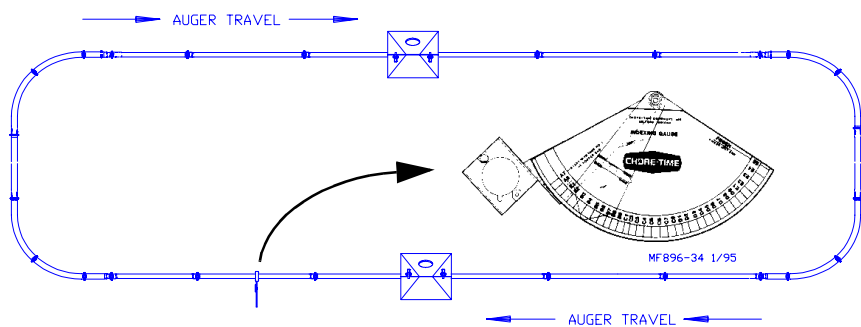
**NOTE:** When rotating the tubes, hold the tubes on each side of the gauge to prevent those already indexed from moving. Use two large adjustable pliers or pipe wrenches to grip the tube. Be careful not to deform the tubes.

# Indexing Chart for ULTRAPAN Feeders

For standard (2) hoppers systems.

## Number Of Tubes

	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56		
1	C1	C1	C1	C1	C1	C1	C1	C1	C1	B8	B8	B8	B8	B8	B8	B8	B7	B6	B6	B6	B6	B6	B6	1	
2	C2	C2	C2	C2	C1	C1	C1	C1	C1	C1	B8	B8	B8	B8	B8	B8	B8	B7	B6	B6	B6	B6	B6	2	
3	C3	C2	C2	C2	C2	C2	C2	C2	C2	C1	C1	C1	C1	C1	B9	B9	B8	B7	B7	B6	B6	B6	B6	3	
4	C4	C3	C3	C3	C2	C2	C2	C2	C2	C1	C1	C1	C1	C1	B9	B9	B8	B7	B7	B7	B7	B7	B7	4	
5	C5	C3	C3	C3	C3	C3	C3	C3	C3	C2	C2	C2	C2	C1	C1	B9	B9	B8	B7	B7	B7	B7	B7	5	
6	<b>C6*</b>	C4	C4	C4	C3	C3	C3	C3	C3	C3	C2	C2	C2	C2	C1	C1	B9	B8	B8	B7	B7	B7	B7	6	
7	C7	<b>C5*</b>	C4	C4	C4	C4	C4	C4	C4	C3	C3	C3	C2	C2	C2	C1	C1	B9	B8	B8	B8	B8	B8	7	
8	C8	C6	<b>C5*</b>	C5	C4	C4	C4	C4	C4	C4	C3	C3	C3	C2	C2	C1	C1	B9	B8	B8	B8	B8	B8	8	
9	D2	C7	C5	<b>C5*</b>	C5	C5	C5	C5	C5	C4	C4	C4	C3	C3	C2	C2	C1	B9	B9	B8	B8	B8	B8	9	
10	D3	C8	C6	C6	<b>C5*</b>	C5	C5	C5	C5	C5	C4	C4	C3	C3	C3	C2	C2	C1	B9	B9	B9	B9	B9	10	
11	D4	D2	C7	C6	C6	<b>C6*</b>	C6	C6	C6	C5	C5	C4	C4	C3	C3	C2	C2	C1	B9	B9	B9	B9	B9	11	
12	D5	D3	C8	C7	C6	C6	<b>C6*</b>	C6	C6	C5	C5	C5	C4	C4	C3	C3	C2	C1	C1	B9	B9	B9	B9	12	
13		D4	D2	C8	C7	C7	C7	<b>C6*</b>	C6	C6	C5	C5	C4	C4	C4	C3	C3	C2	C1	C1	C1	C1	C1	13	
14		D5	D3	D1	C7	C7	C7	<b>C6*</b>	C6	C6	C5	C5	C4	C4	C3	C3	C2	C1	C1	C1	C1	C1	C1	14	
15			D4	D2	C8	C8	C8	C7	<b>C6*</b>	C6	C6	C5	C5	C4	C4	C3	C2	C2	C1	C1	C1	C1	C1	15	
16			D5	D3	D1	C8	C8	C8	C7	<b>C6*</b>	C6	C5	C5	C5	C4	C4	C3	C2	C2	C2	C2	C2	C2	16	
17				D4	D2	D1	D1	C8	C8	C7	C7	<b>C6*</b>	C6	C5	C5	C4	C4	C3	C2	C2	C2	C2	C2	17	
18				D5	D3	D1	D1	D1	C8	C7	C7	C7	<b>C6*</b>	C6	C5	C5	C4	C3	C3	C2	C2	C2	C2	18	
19					D4	D2	D2	D1	C8	C8	C7	C7	C6	<b>C6*</b>	C6	C5	C5	C4	C3	C3	C3	C3	C3	19	
20					D5	D3	D2	D2	D1	C8	C8	C7	C7	C6	<b>C6*</b>	C5	C5	C4	C3	C3	C3	C3	C3	20	
21						D4	D3	D2	D1	C8	C8	C8	C7	C7	C6	<b>C6*</b>	C5	C4	C4	C3	C3	C3	C3	21	
22							D5	D3	D3	D2	D1	C8	C8	C7	C7	C7	C6	<b>C6*</b>	C5	C4	C4	C4	C4	22	
23								D4	D3	D2	D1	D1	C8	C8	C7	C7	C6	C6	<b>C5*</b>	C4	C4	C4	C4	23	
24									D5	D4	D3	D2	D1	D1	C8	C8	C7	C7	C6	C5	<b>C5*</b>	C4	C4	24	
25										D4	D3	D2	D1	D1	C8	C8	C8	C7	C7	C6	C5	<b>C5*</b>	C5	25	
26											D5	D4	D3	D2	D1	D1	C8	C8	C7	C7	C6	C5	<b>C5*</b>	26	
27												D4	D3	D2	D2	D1	D1	C8	C7	C6	C6	C5	<b>C5*</b>	27	
28													D5	D4	D3	D2	D1	D1	C8	C8	C7	C6	C5	<b>C5*</b>	28
29															D4	D3	D2	D2	D1	D1	C8	C8	C7	29	
30																D5	D4	D3	D2	D2	D1	D1	C8	30	
31																	D4	D3	D2	D2	D2	D1	C8	31	
32																		D5	D4	D3	D2	D2	D1	32	
33																			D4	D3	D3	D2	D2	33	
34																				D5	D4	D3	D3	34	
35																					D4	D3	D3	35	
36																						D5	D4	36	
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\* Represents Center Of Elbows

## Feeder Pan Assembly - 2-Piece Feeders only

The ULTRAPAN Feeders are secured on the tubes using Locking Grill Supports.

When using Locking Grill Supports, make sure the tubes are programmed before installing pans.

Leave the feeders off the last feeder line tube at the point where the 28117 Control is to be installed. These holes will need to be enlarged. See the "ULTRAPAN Control Feeder" section on page 33 for specific hole enlarging instructions.

1. Place a Feed Level Tube into a Feeder Pan.
2. Assemble the Locking Grill Support components around the auger tube, as shown in **Figure 38**. Use the locking grill support to keep the pan level and hold the tubes at the properly indexed location.

### Note:

Be sure to install the Filler Cone in the Model C2 Feeders. See Figure 15.

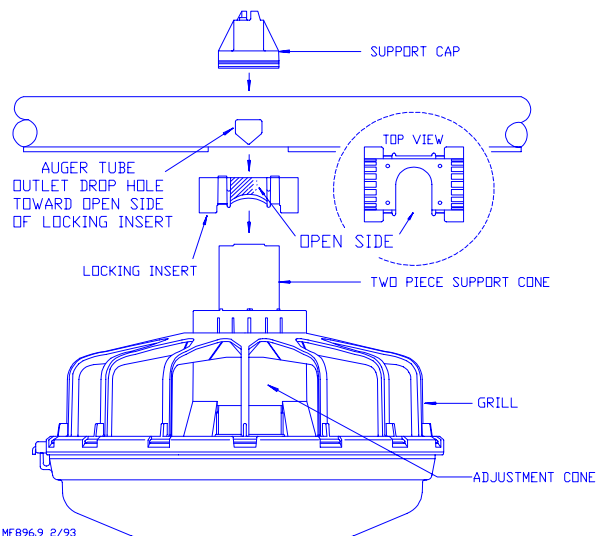


Figure 38. (Side View)

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- Make sure solid side of Insert is not covering the outlet hole.

3. **Figure 39** shows a Model C2 Feeder Assembly with Locking Insert, Two Piece Support Cone, Adjustment Cone, Grill, and pan installed.

Position the Adjustment Cone on number 4.

4. All pans should be installed with grill openings on the same side of the tube to make pan removal easier.

### IMPORTANT

- POSITION PANS SO THAT ALL GRILL OPENINGS ARE ON THE SAME SIDE OF AUGER TUBE.
- INSTALL LOCKING INSERT SUCH THAT IT DOES NOT OBSTRUCT FEED FROM FALLING OUT OF AUGER TUBE.

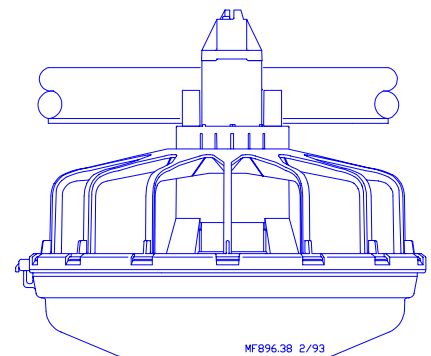


Figure 39. (Side View)

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## ULTRAPAN Control Feeder

The ULTRAPAN Feeder is controlled by an Intermediate Control. See **Figure 40**.

The Intermediate Control should be installed prior to the hopper, on the side of the house to be used for partial house brooding.

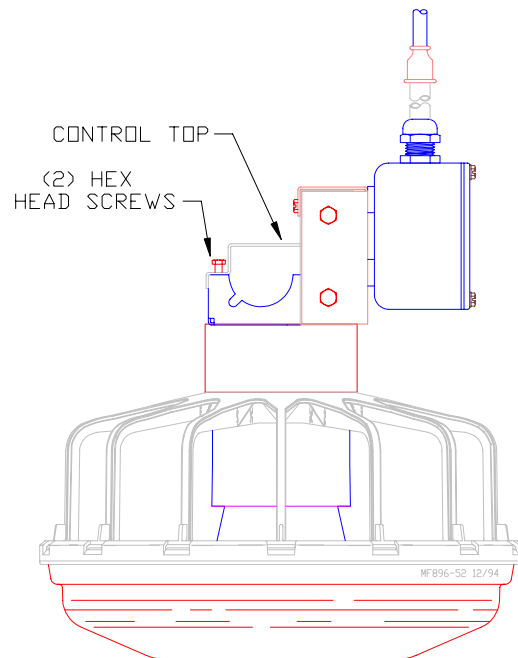
Do not hinder the bird movement around the Intermediate Control pan. Provide adequate lighting so that the birds will not shy away from the Intermediate Control area.

**Note:**

The Control Feeder, shown, is the standard Control Feeder.

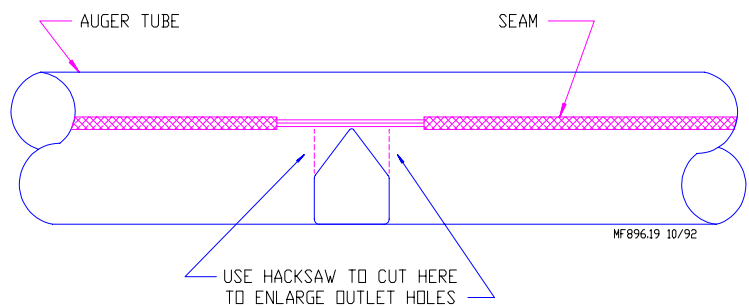
There is also an Off-Delay Proximity Control Feeder (Part No. 36865) available.

See Instruction Manual MF1278 for more information about the Off-Delay Proximity Control Feeder.



**Figure 40. (Side View)**

1. Enlarge each outlet hole in the last tube. This will ensure total feed dropout before the Intermediate Control. See **Figure 41** for recommended size and placement. Use hacksaw and tin snips to enlarge hole size. Be sure there are no burrs inside the tube to catch the auger.



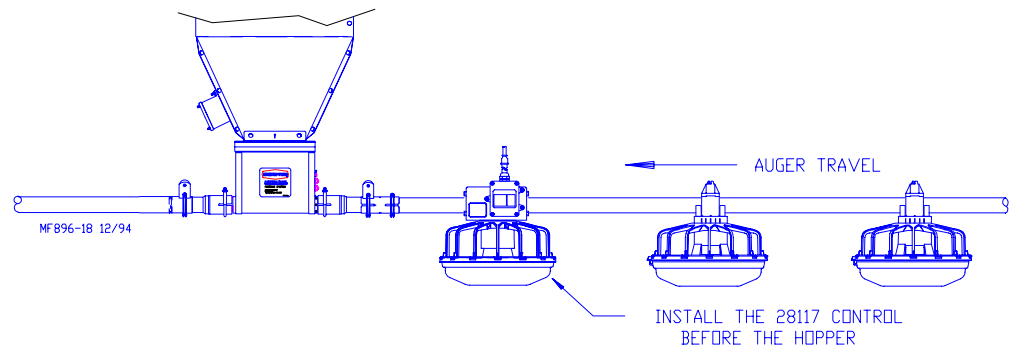
**Figure 41. (Side View)**

2. Install the Intermediate Control:
  - a. Remove the two hex head screws on the Control Top.
  - b. Lift off the Control Top.
  - c. Cradle the feeder tube in the control housing. The feeder tube may have to be turned to allow the pan to hang straight.
  - d. Clamp the control in place by inserting tabs on the Control Top into the slots on the Control Body. Install and tighten the two hex head screws that were removed earlier.

**Figure 42** shows an Intermediate Control installed in the appropriate location.

Do not hinder the bird movement around the control pan. Provide adequate lighting so that the birds will not shy away from the control area.

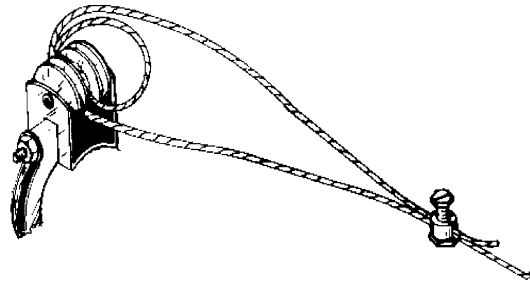
3. Wire the control according to the appropriate wiring diagram in this manual. Be sure all electrical equipment is grounded for safety.



**Figure 42. (Side View: Standing *outside* the loop).**

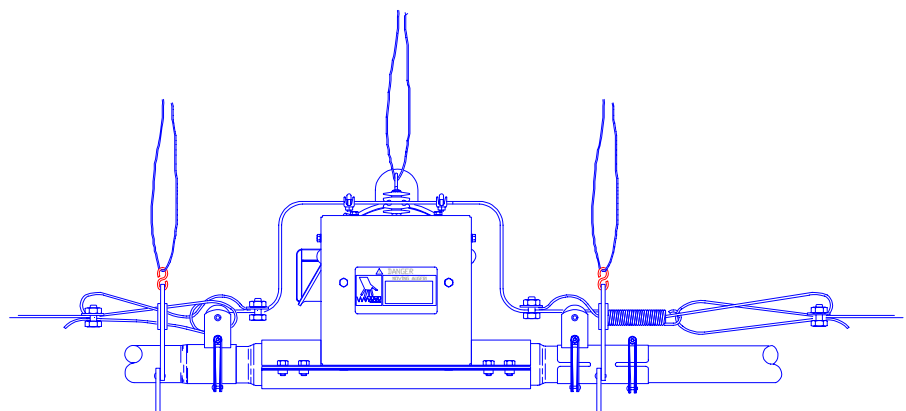
## Anti-Roost Installation

1. Unroll the bulk anti-roost cable for the feeder line.  
**NOTE:** Take 5 loops off the coil with one hand, then changing hands to remove 5 loops as it is unrolled, will make it lie flat during installation.
2. Start at the hopper and form a loop around the anti-roost bracket. For best results, make a double loop around the center groove of the anti-roost insulator and fasten with a 1/16" cable clamp as shown in **Figure 43**.



**Figure 43.**

3. Insert the cable in the insulator on the top of each Grill Support between the hopper and the anti-roost bracket at the Power Unit.
4. Attach a spring in the center groove of the anti-roost bracket.
5. Clamp the cable to the spring, cut the cable about 6" to 8" (15 to 20 cm) longer than necessary.
6. Install the Anti-Roost Guard on the power unit insulators. Be sure the wire snaps into the retainers molded into the insulators.
7. Pull the cable tight so that there is 3/4" to 1" (19 to 25 mm) of stretch in the spring. Clamp the cable to form a loop. Thread the excess cable through the spring and clamp to Anti-Roost Wire. See **Figure 44**.
8. Attach the cable to the insulator on the outgoing side of the power unit. For best results, make a double loop around the center groove of the Anti-Roost insulator and fasten with a 1/16" cable clamp as shown in **Figure 44**.



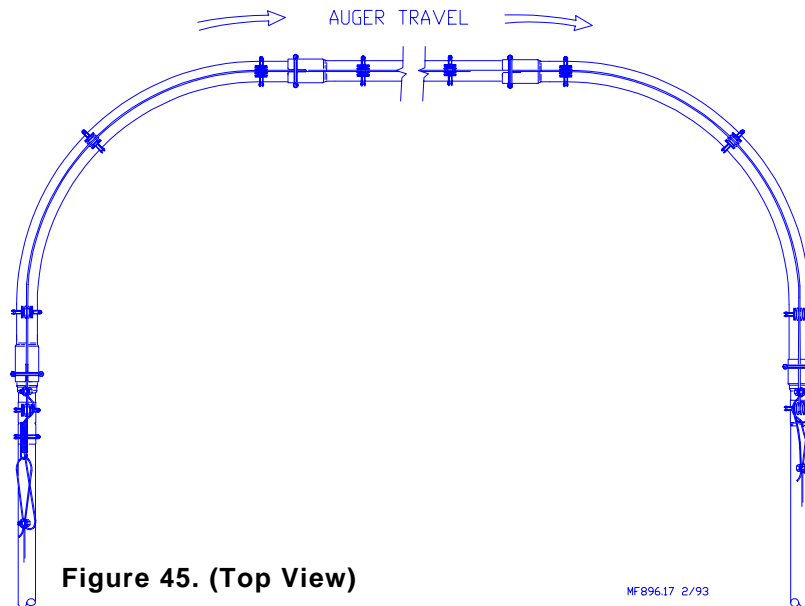
**Figure 44. (Side View)**

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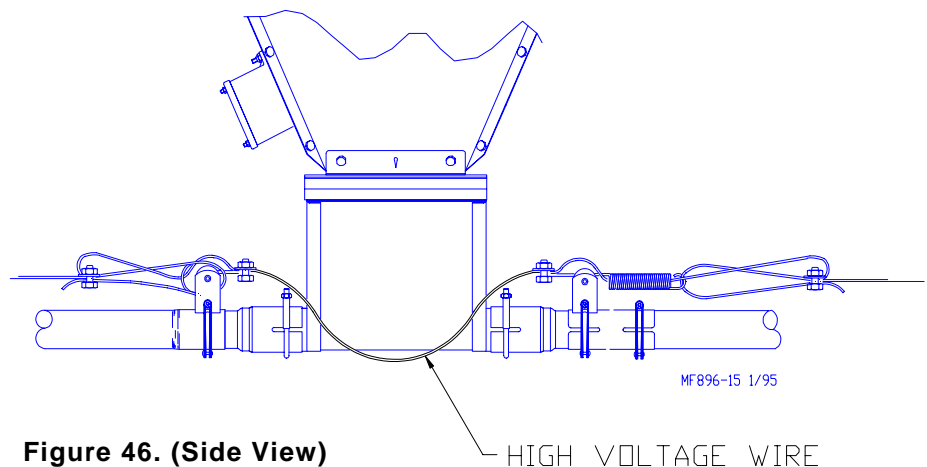
9. Run the cable to the next Anti-Roost Clamp. Attach a spring in the center groove at the Anti-Roost bracket and cut the cable at this point. The cable should be positioned in the insulator built into the top of each Grill Support along the feeder line.
10. Repeat this installation until the anti-roost cable is installed along the feeder line, until a corner is reached.
11. Anti-roost Clamps must be installed around the elbows, as shown in **Figure 45**.

The Anti-roost Wire is provided to be used around the elbows. Snap it down in the center groove of the insulators on the elbows, and on the insulators immediately before and after the elbows. See **Figure 45**.

Install a jumper wire from the shocker cable to the Anti-roost Wire, using a cable clamp, supplied.

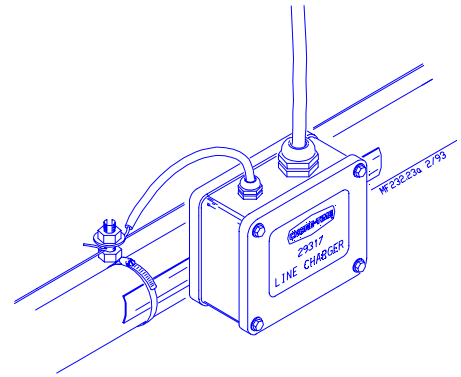


12. Continue installing the Anti-roost cable, springs, etc. similarly around the system.
13. Install the high-voltage wire from the insulator on one side of the boot to the insulator on the other side of the boot. See **Figure 46**.



14. Attach the Line Charger to the side of the feeder tube with two tube clamps, included in the parts package. Connect the charger cable to the Anti-roost line using the cable clamp supplied. See **Figure 47**.

Use only the voltage listed on the Line Charger to operate it. Provide some means of disconnecting the power to the Line Charger; a switch near the door to the building is a good idea, or plug and receptacle may be used.



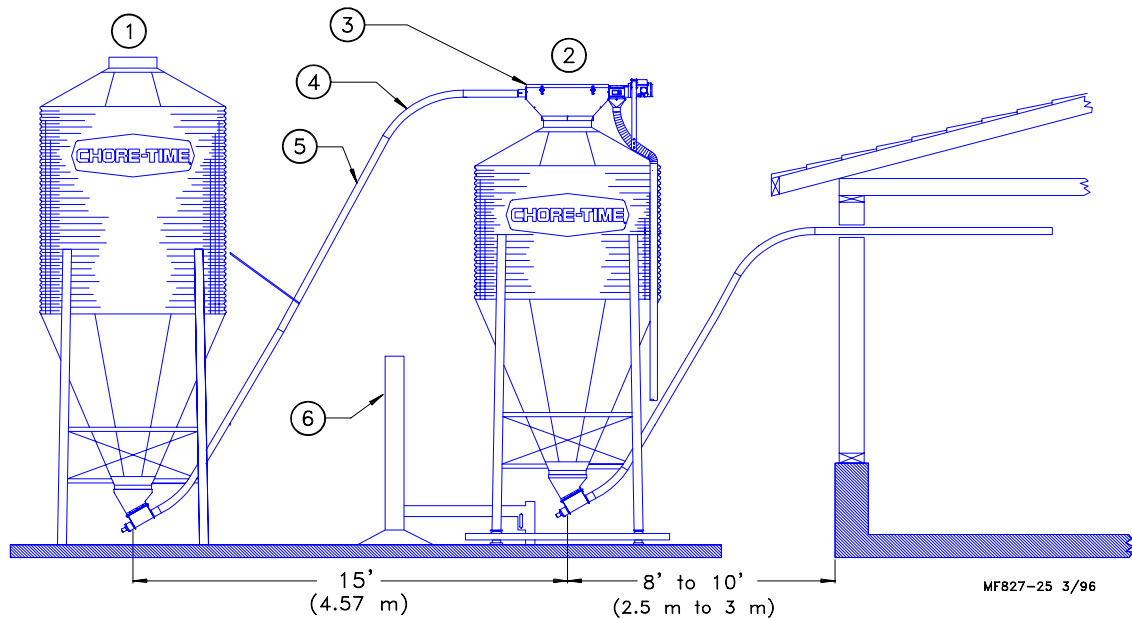
**Figure 47.**

## Installation of the WEIGH-MATIC® Scales

### Bin Location

The ULTRAPAN Feeder requires the use of a feed scale system. Chore-Time has (2) available: the (mechanical) WEIGH-MATIC, shown, and the Digital WEIGH-MATIC. Refer to the instruction manual shipped with the Digital WEIGH-MATIC for installation and operation information.

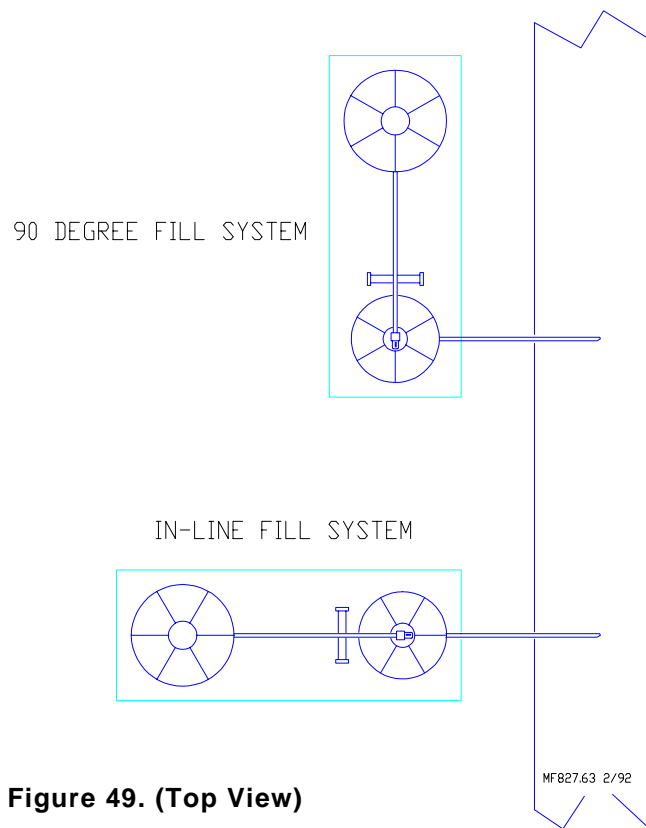
**Figure 48** shows a standard WEIGH-MATIC layout. Typically, the Weigh Bin is set 8 to 10 feet (2.4 to 3 m) from the building. This varies somewhat depending on the desired height of the FLEX-AUGER System inside the building. Two 45 degree PVC elbows and one 10 foot (3 m) PVC tube are standard with the WEIGH-MATIC Fill System. To place the bin nearer to or farther from the building, additional tubes or elbows may be required.



Key	Description
1	Storage Bin
2	Weigh Bin
3	WEIGH-MATIC® Screener

Key	Description
4	Elbow
5	Auger Tube
6	WEIGH-MATIC® Scale

**Figure 48. (Side View)**



**Figure 49. (Top View)**

The Weigh Bin can be located directly in line or at 90 degrees to the FLEX-AUGER Delivery System. See **Figure 49**.

NOTE: The maximum cable length between the Beam Box and the 34380 Control is 40' (12 m).

**Figures 50 - 53** provide pad dimensions for 7' & 9' storage bins, using one pad or separate pads. Refer to the appropriate diagram. The Storage Bin may be located in line with the Weigh Bin or off-set 90 degrees to one side or the other.

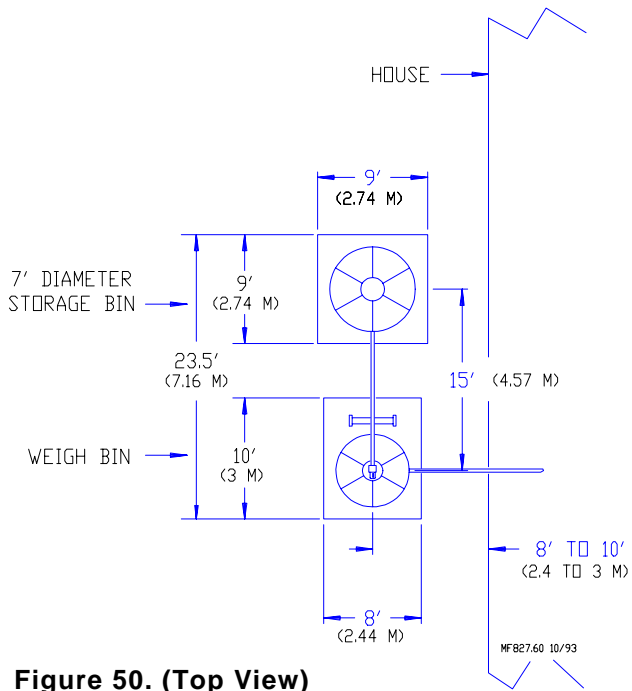
1. Chore-Time recommends the bin pads be approximately 12" (30 cm) thick. The surface of the concrete foundation must be level and smooth.

#### **IMPORTANT NOTE**

Allow concrete to harden completely before anchor bolt holes are drilled.

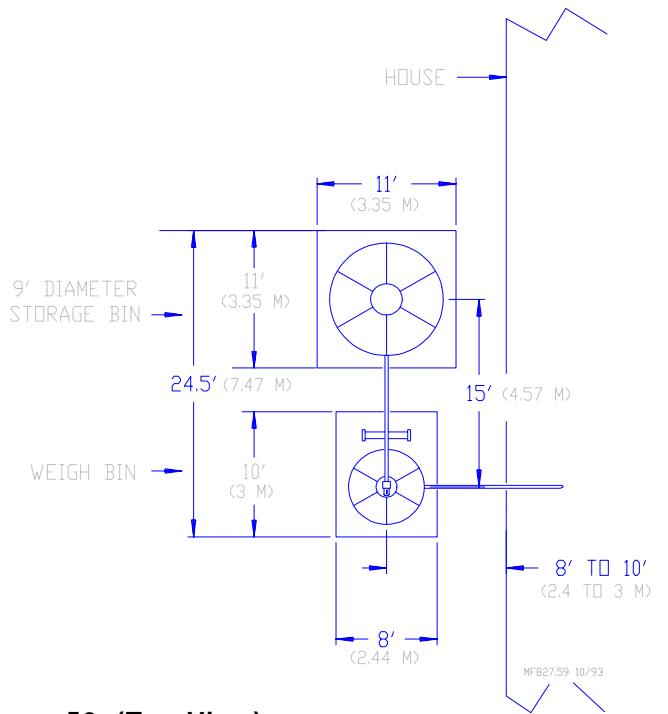
2. Use the 5978 Scale Template, as shown in **Figure 54**, or the Anchor Bolt Setting Diagram in **Figure 55**, to locate the correct position of the 16 anchor bolts for the scales. Use a 1/2 inch (13 mm) masonry drill to bore the holes at least 3 inches (75 mm) into the concrete weigh bin foundation.

**Bin pad locations & dimensions for  
7' Storage Bin & Weigh Bin using two pads**



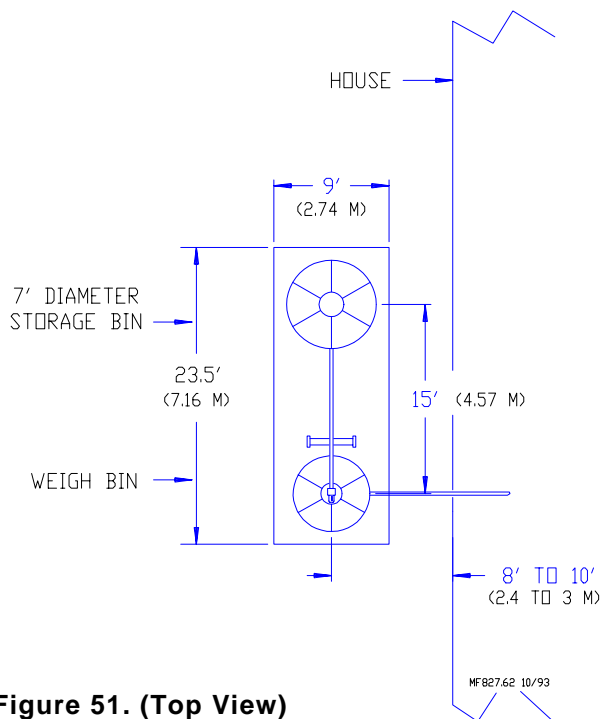
**Figure 50. (Top View)**

**Bin pad locations & dimensions for  
9' Storage Bin & Weigh Bin using two pads**



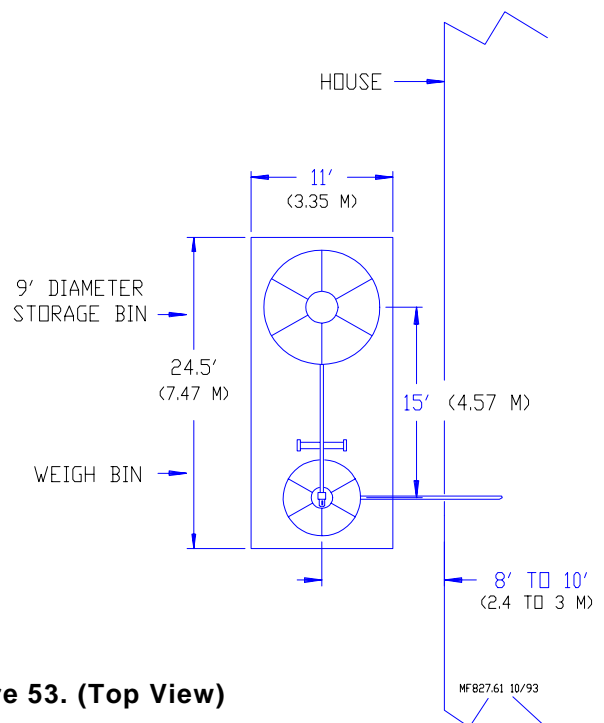
**Figure 52. (Top View)**

**Bin pad locations & dimensions for  
7' Storage Bin & Weigh Bin using one pad**



**Figure 51. (Top View)**

**Bin pad locations & dimensions for  
9' Storage Bin & Weigh Bin using one pad**

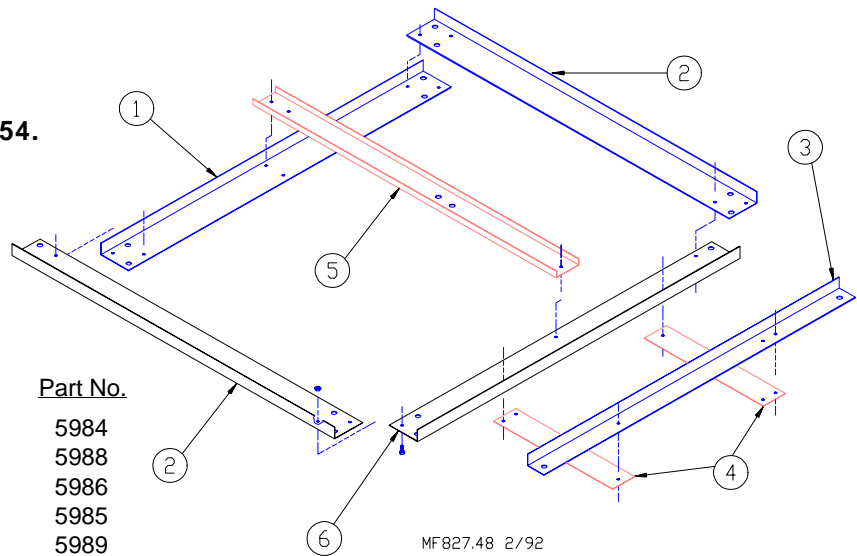


**Figure 53. (Top View)**

**Chore-Time strongly recommends use of the 5978 Scale Template to determine location of Anchor Holes for the Scales and Bin.**

1. The 5978 Scale Template Kit is available to quickly locate the position of the anchor holes for the Weigh-Matic Scales and Bin.
2. Loosely assemble the template as shown, using 5/16-18 hardware supplied.
3. Use a framing square to check all corners of the template. Make sure all corners of the template are square. Tighten the nuts.
4. Use a 1/2 inch (13 mm) carbide tipped masonry drill bit to bore the anchor holes. The holes must be at least 3 inches (75 mm) deep to install the anchor bolts.

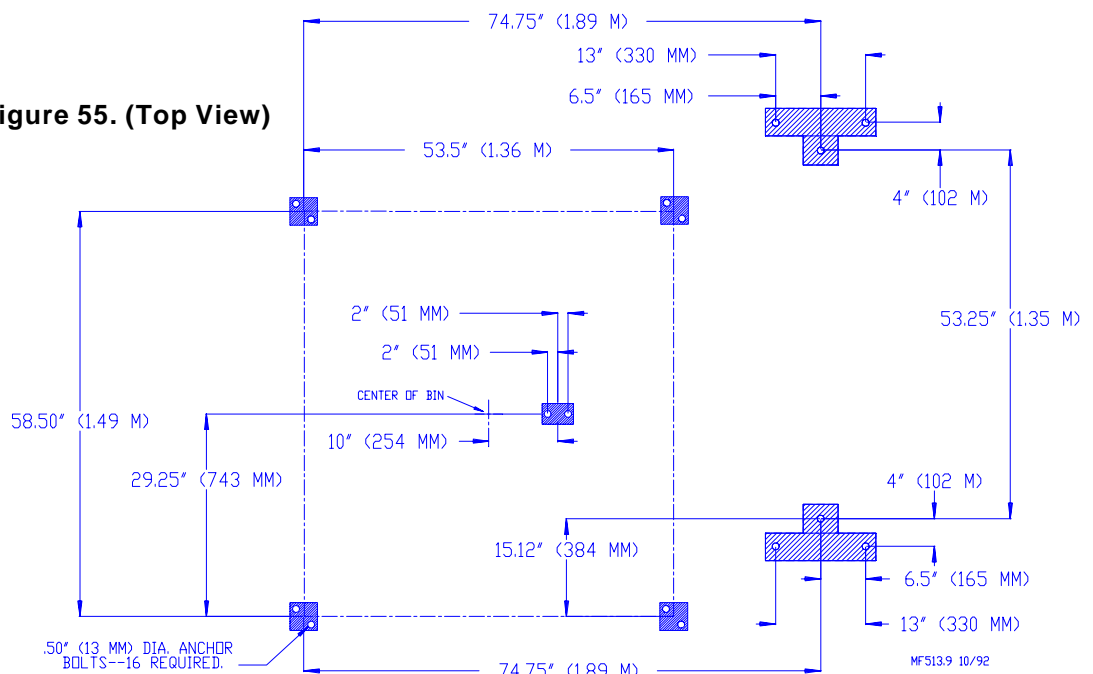
**Figure 54.**



Key	Description	Part No.
1	Rear Plate	5984
2	Side Plate	5988
3	Beam Box Leg Plate	5986
4	Connector Plate	5985
5	Center Plate	5989
6	Front Plate	5987

**Anchor Bolt Setting Diagram**

**Figure 55. (Top View)**





## TWO SCALES ARE AVAILABLE

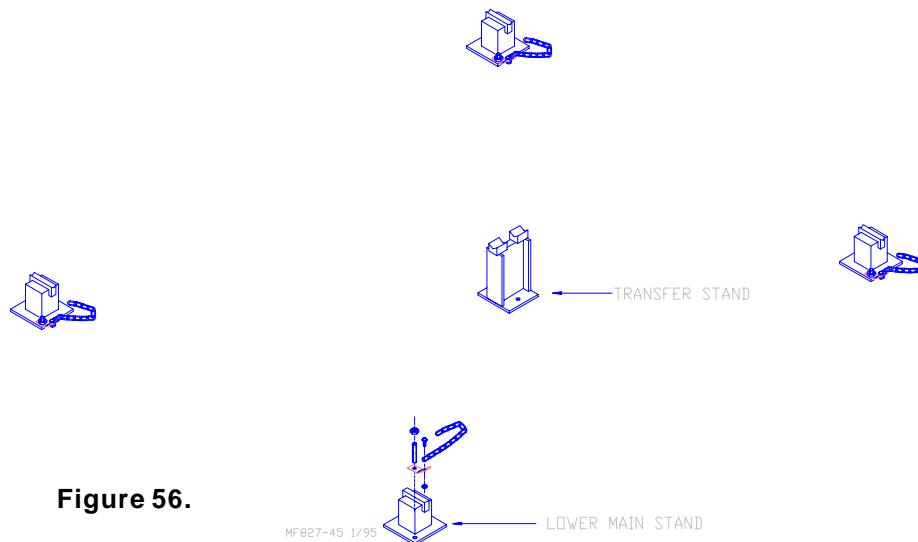
**5,000 Pound (2,268 kg) Scale**

**8,000 Pound (3,628 kg) Scale**

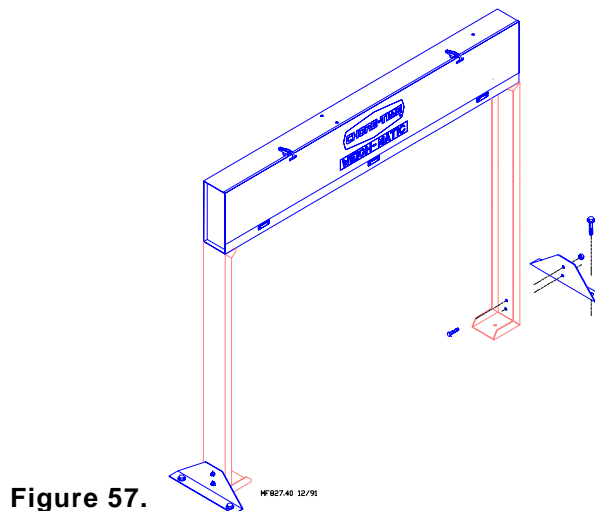
*If larger quantities of feed are desired, divide the total feed requirements into two or more equal feedings.*

### Scale Installation

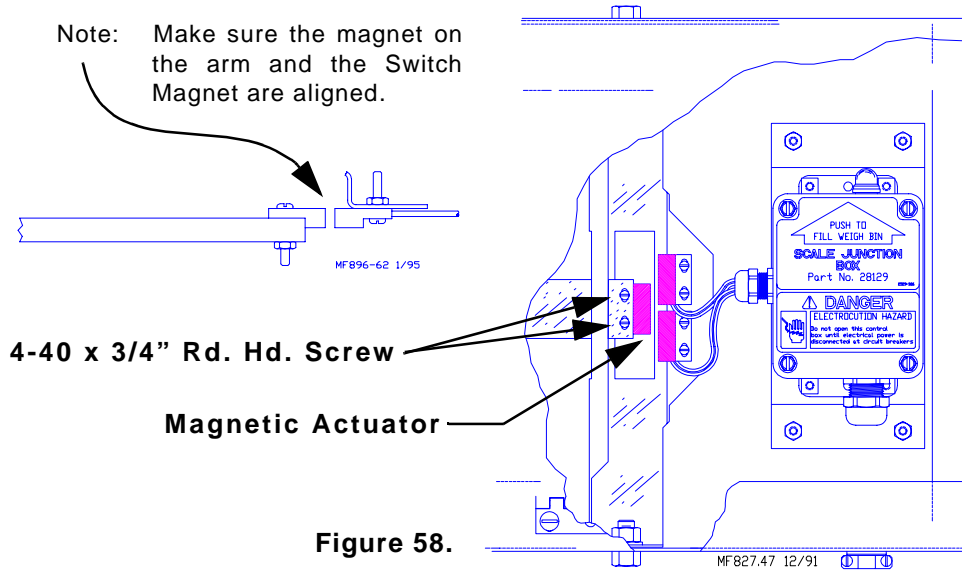
1. Place the four Lower Main Stands and the Transverse Stand over the holes drilled in the foundation. See **Figure 56** for correct placement. Install the Anchor Bolts and Safety Chain Assemblies but do not tighten the anchors until the scale levers are in position.



2. Check all Scale Pivots and Bearings, including those on the weigh-beam. They must be **CLEAN AND FREE OF PAINT OR DIRT**.
3. Attach the Legs and Leg Supports to the Beam Box. Anchor the Beam Box in place on the bin pad. See **Figure 57**.



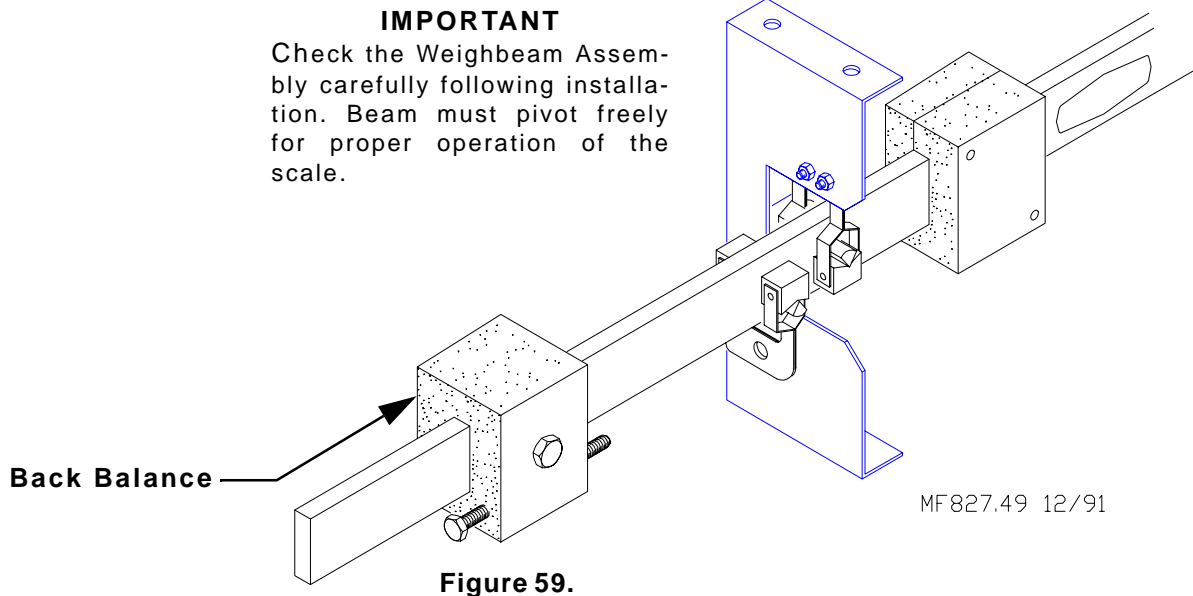
4. Mount the 5789 Magnetic Actuator on the end of the Weighbeam using the two 4-40 X 3/4" Rd. Hd. Screws provided. See **Figure 58**.



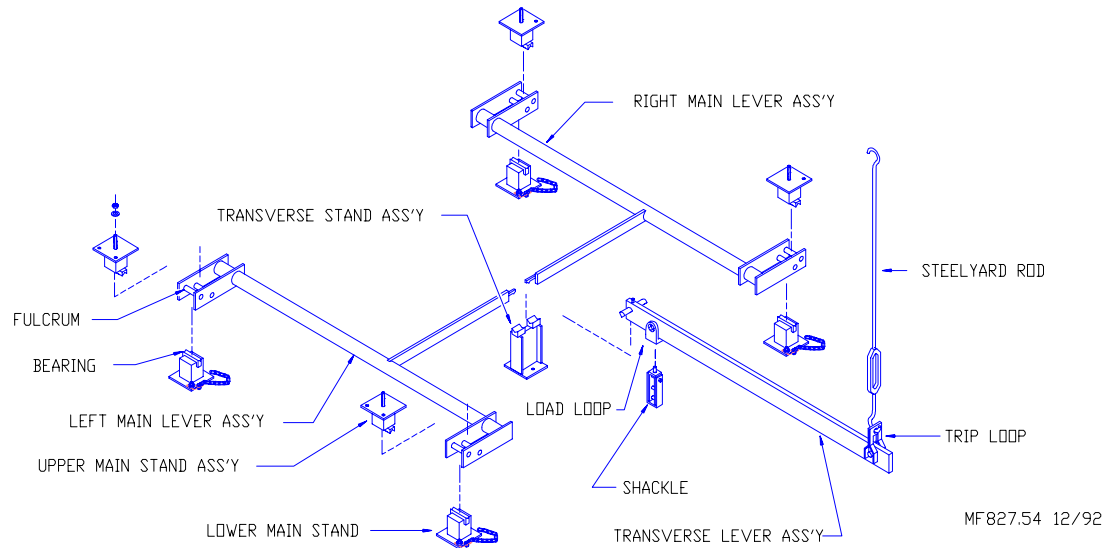
5. Install the Weighbeam Assembly in the Beam Box. Attach as shown in **Figure 58 and 59**.

**BE CAREFUL NOT TO BUMP OR DAMAGE THE MAGNETIC ACTUATOR OR THE TWO PROXIMITY SENSORS WHEN INSTALLING THE WEIGHBEAM.**

6. Adjust the 2 proximity sensors to give 1/8 inch (3.1 mm) clearance between them and the magnetic actuator on the Weighbeam. These adjustments provide a starting point for balancing the scale and protect the switching components during scale assembly.



7. Attach the Shackle to the Transverse Lever. See **Figures 59 & 60**. Rest the Fulcrum Pivot of the Transverse Lever on the bearings of the Transverse Stand.
8. The Back Balance may be installed at this time or any time before the scale is to be balanced. See **Figure 59**.
9. Hook the Steelyard Rod to the Trip Loop of the Transverse Lever and connect the other end of the rod to the Loop Assembly on the Weighbeam. Adjust the turnbuckle so that the Transverse Lever is level. See **Figure 60**.



**Figure 60.**

10. Install the right and left main levers with their fulcrum pivots on the bearings of the lower main stands. The main lever's tip pivots rest directly above each other in the shackle. See **Figure 61 & 62**.

**Figure 61.**

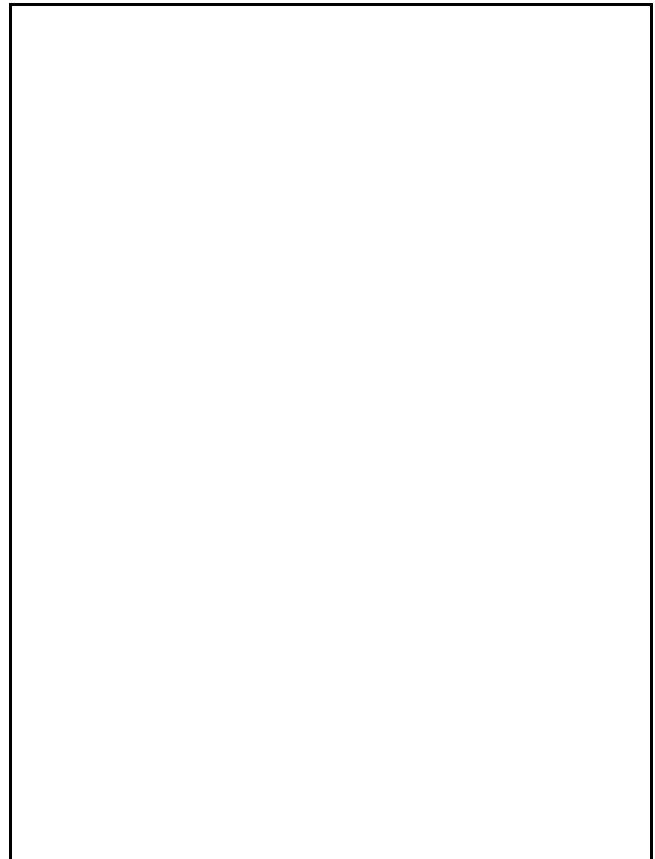




Figure 62.

10. Install upper main stands on the load pivots of the main levers. Place the four channel pieces over the upper main stands as shown in **Figures 60 & 63**. Do not stand on the channel.
11. Check all bearing points to be sure the bearings are centered with the pivots. **The steelyard rod must be plumb and the transverse lever must be level.**

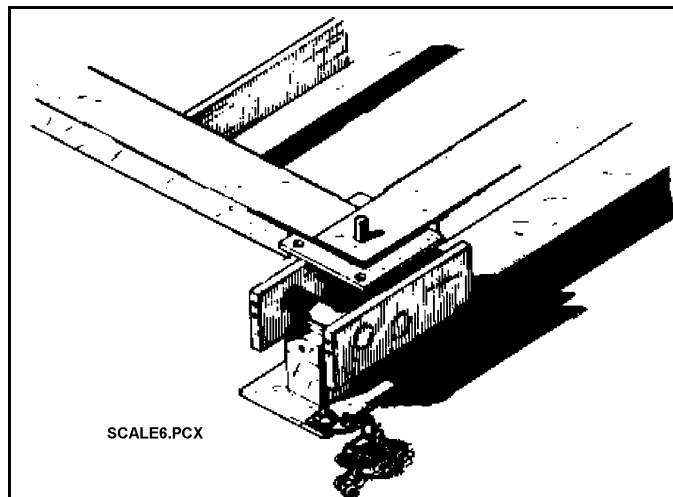


Figure 63.

**IMPORTANT**

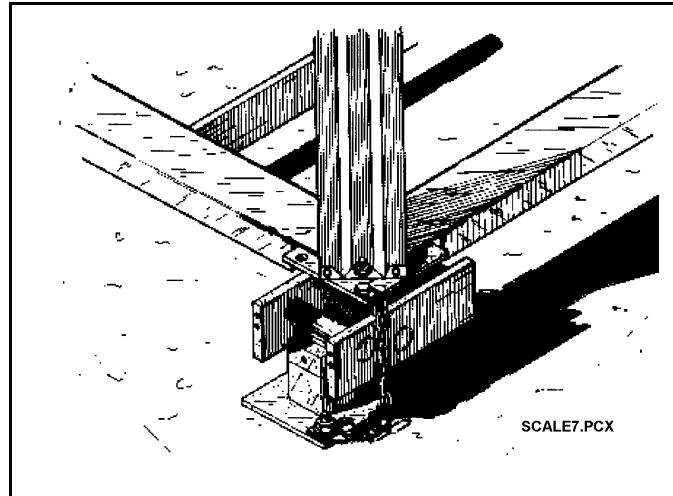
*Tip Pivots should be positioned directly above one another. Shift Lower Main Stands as necessary to accomplish this.*

*Check Weighbeam Assembly carefully following installation. Beam must pivot freely for proper operation of the scale.*

## Feed Bin Installation

1. Assemble the 6 foot (1.8 m) diameter bin according to instructions packed with the bin. Follow the recommendations carefully.
2. Raise the bin onto the Main Stands of the Scale. Use the Leg Anchor Plates provided with the bin plus a 5/8 inch heavy washer at each leg to secure the bin to the Main Stands. Attach the Safety Chain to the Upper Main Stand at each leg. See **Figure 64**.

**NOTE:** *The Safety Chain should not be tight.*



**Figure 64.**

## Installation of the Flex-Auger Feed Delivery System

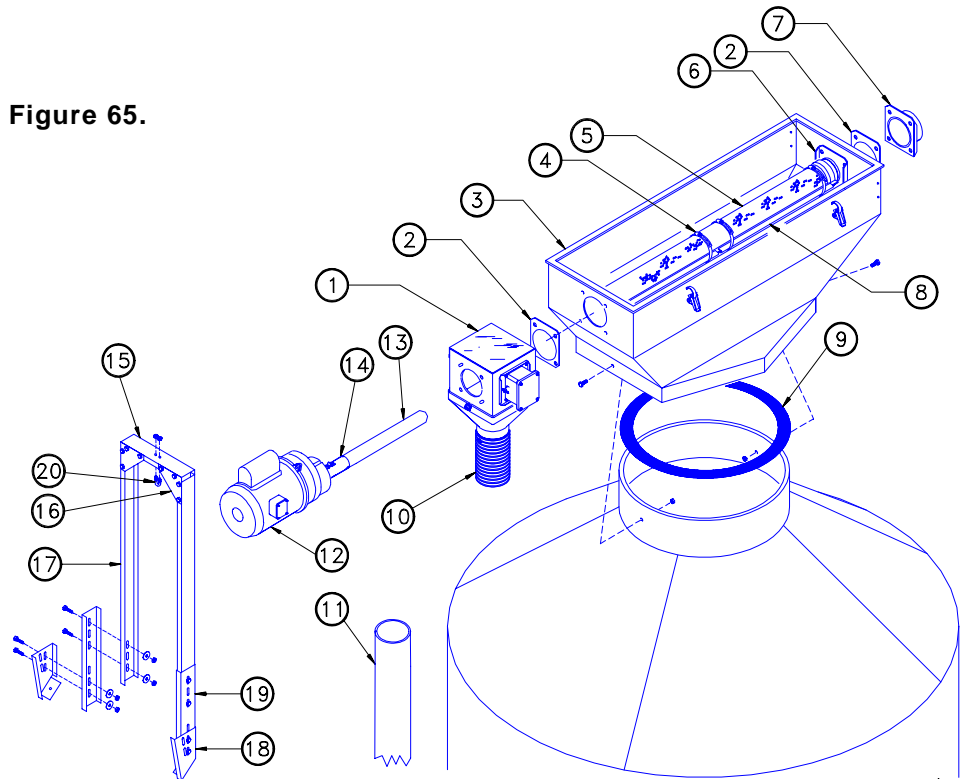
1. Install a 30 degree FLEX-AUGER boot on the storage bin.
2. Mount the WEIGH-MATIC Screener on the Weigh Bin. Refer to the WEIGH-MATIC Screener installation section on [pages 46 and 47](#) of this instruction.
3. Install the auger tubes between the storage bin and weigh bin.  
SEE THE FLEX-AUGER OPERATOR'S MANUAL PACKED WITH THE FLEX-AUGER FOR MORE DETAILED INSTALLATION INFORMATION.
4. Use chain or cable to support the Auger Tube to prevent sagging auger tubes.

# WEIGH-MATIC® Model 90 Screener

The WEIGH-MATIC Model 90 Screener is designed to screen foreign objects out of the feed. Whole kernel shelled corn will also be screened out of feed.

Chore-Time recommends assembling the Screener on top of the feed bin after it has been erected and anchored in place. The bin should be assembled without the lid installed.

Figure 65.



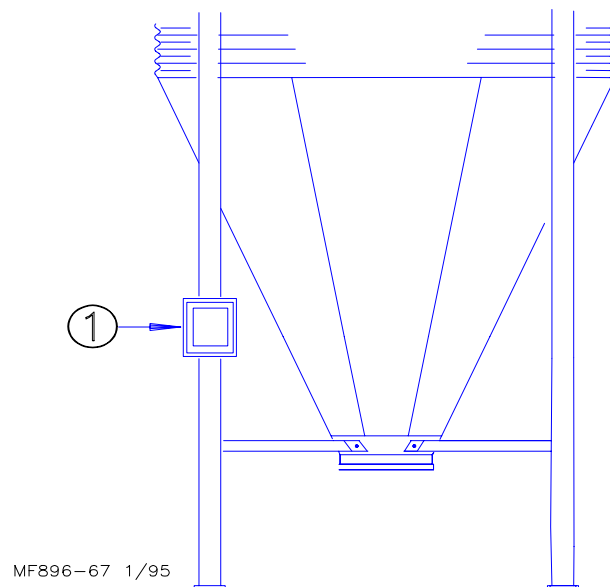
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Item	Description	Part No.	Item	Description	Part No.
1	Control Unit Head	25720	12	Power Unit (not component of 25432)	3259-52
2	Seal	4873	13	Agitator	25674
3	Screener Body	25446	14	Driver Assembly	25705
4	Adjustable Clamp	6183	15	Top Channel	25469
5	Screen	7436	16	Corner Support	25470
6	EXTRUDED Plate	22084	17	Support Channel	25468
7	Anchor Tube	5069	18	Foot (R.H.)	25467-2
8	Screen Retainer	24796		Foot (L.H.)	25467-1
9	Lid Seal Gasket	5928	19	Leg Extension	35800
10	Flexible Drop Tube	25702	20	U-Bolt	28874
11	Drop Tube (not supplied w/Screener)6381				

Refer to **Figure 65** during assembly process.

1. Install the Gasket on the top of the bin.
2. Carry the Screener Body to the top of the bin. The outlets of the bin should be in line with the direction the system will run. Use the holes drilled in the screener collar as guides to fasten the screener to the top of the bin.
3. Install the Extruded Plates, Gaskets, Tube Anchor, and Control Unit Head, using the 5/16-18 hardware supplied.

4. The screens are shipped in halves and must be assembled. Use one Screen Retainer on each side of screens to secure the screen flanges together. Install four adjustable clamps to secure the screen halves together. Do not over-tighten clamps.
5. Fasten the Driver Assembly to the Power Unit Output Shaft and bolt to the Control Unit Head, using 5/16-18 hardware supplied. The Agitator will extend through the Control Unit Head and into the center of the Screener. Be sure to install the Drive Roll Pin through the Driver and Agitator to secure the blade in place.
6. Assemble the Motor Support Kit. The Motor Support will bolt to the top of the bin using self-drilling screws and gasket washers supplied.
7. Fasten the Flexible Drop Tube to the Drop under the Control Unit. Securely fasten a drop tube to run the foreign material into a container on the pad.
8. Install the auger tubes and auger as specified in the FLEX-AUGER<sup>®</sup> Operators Manual.
9. Mount the Junction Box (p/n 25694) to the bin leg, using hardware supplied. See **Figure 66**.



**Figure 66. (Side View)**

10. Refer to the wiring diagrams in this manual for wiring instructions.
11. Set the Screener Cover on top of the Screener and secure it in place using the over-center clamps.

# System Overview for use with Wiring Diagrams

## WIRING NOTES

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

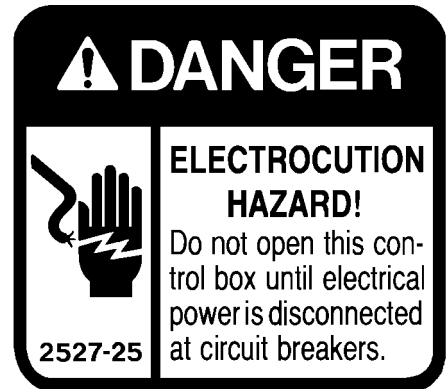
Wire the electrical equipment according to the wiring diagrams in this manual.

All field electrical wiring must be done by a qualified electrician, according to local and national codes.

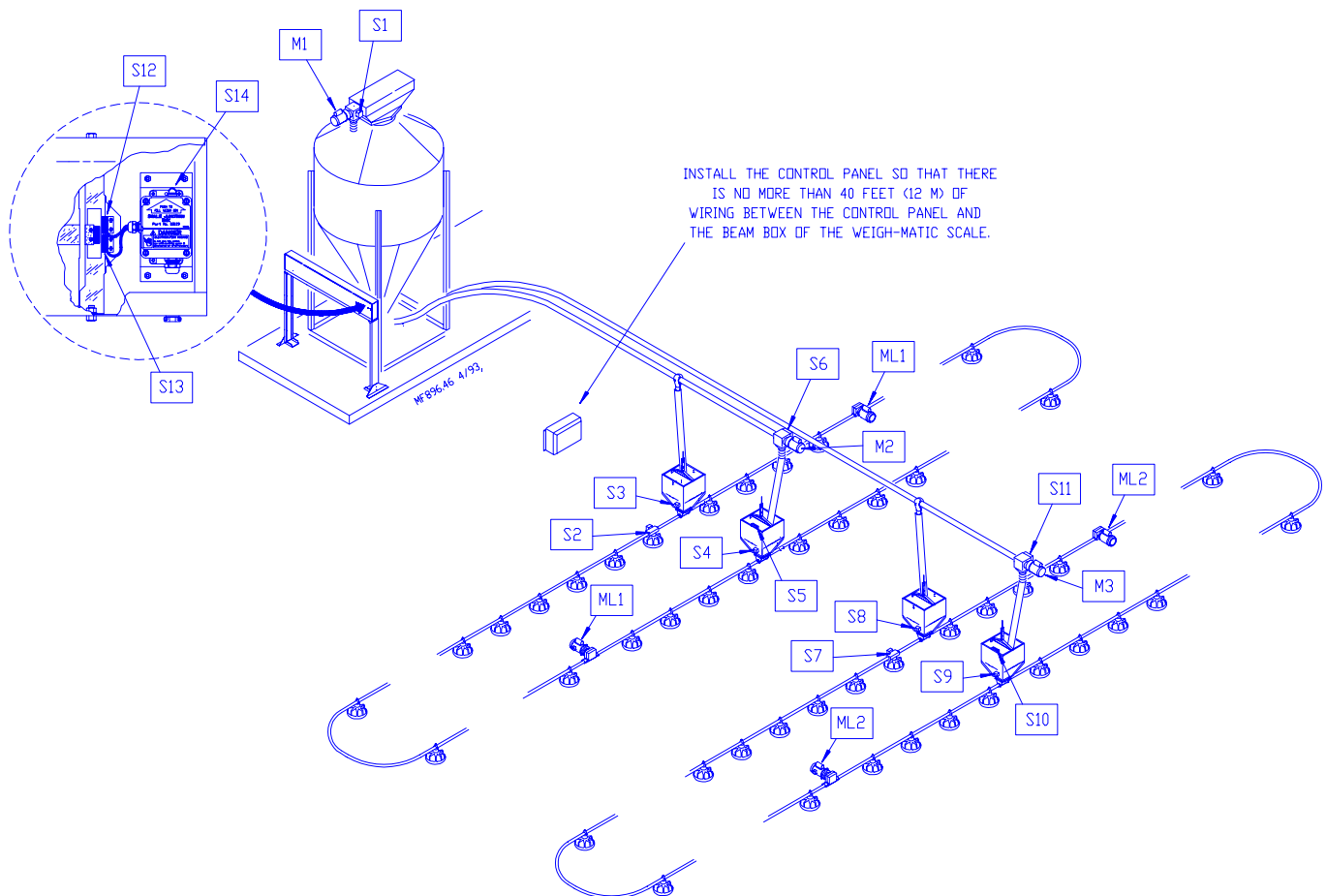
Do not operate the equipment without the covers and guards properly positioned.

Failure to do so may cause personal injury or damage the equipment.

Ground all electrical equipment.



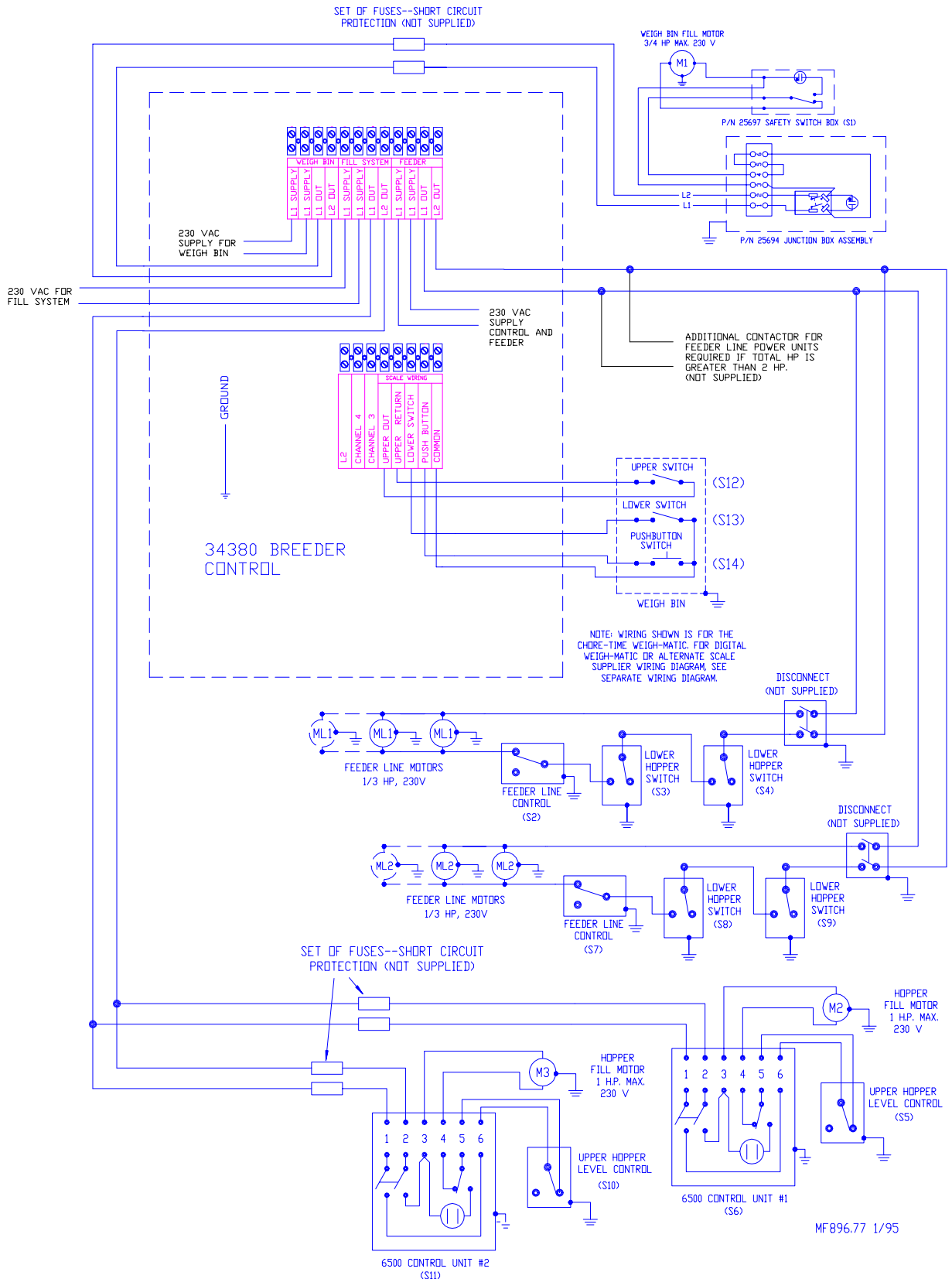
Note: Refer to this diagram as required to determine the location of Power Units, Switches, Control Units, etc. Each components is coded with a M1, S2, etc. (that's Motor #1, Switch #2).





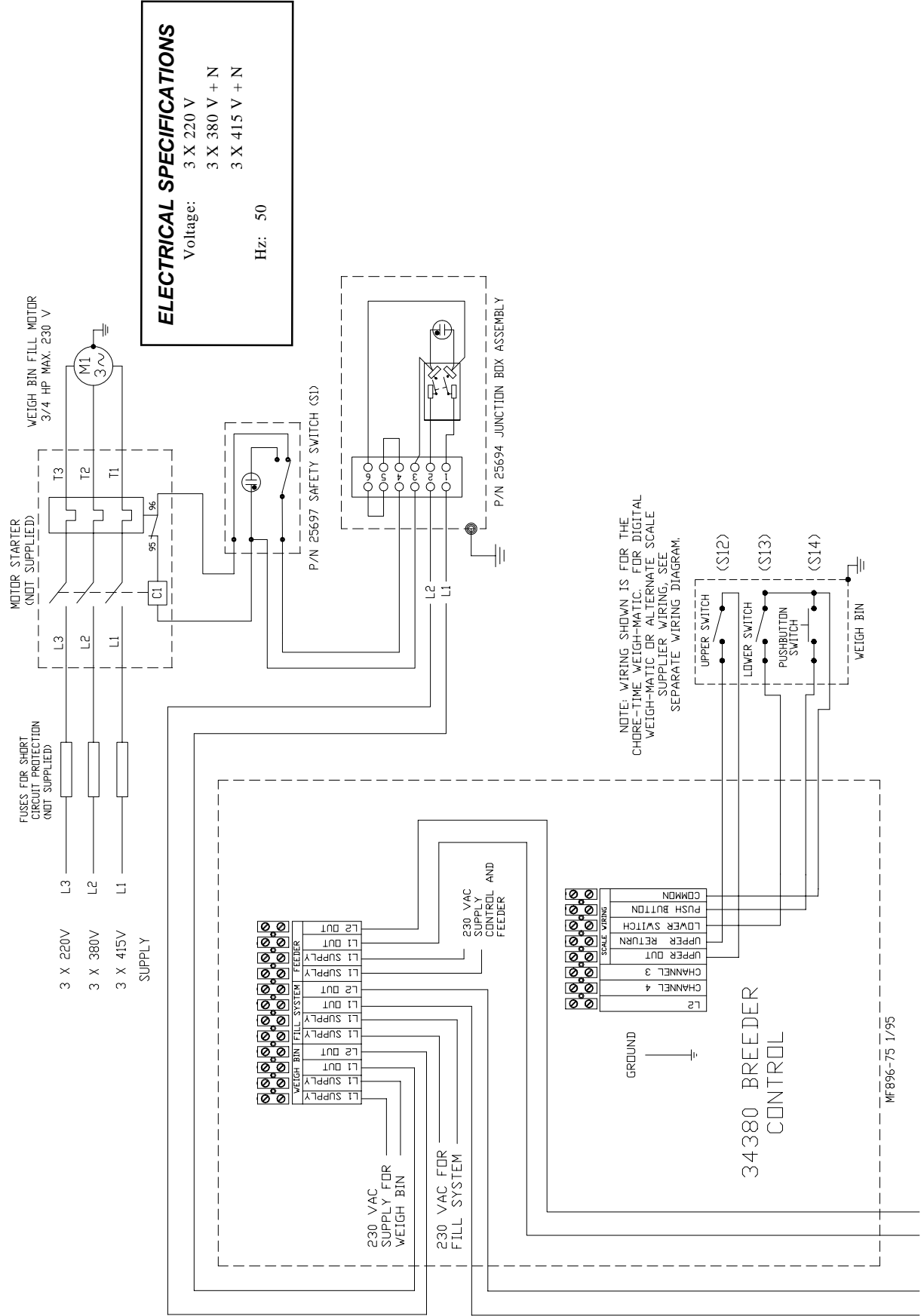
# ULTRAPAN Feeder System Wiring Diagram (Using Chore-Time WEIGH-MATIC Scales)

**ELECTRICAL SPECIFICATIONS**  
 Voltage: 230 - Hz: 50/60 - Phase : Single



# ULTRAPAN Feeder System Wiring Diagram

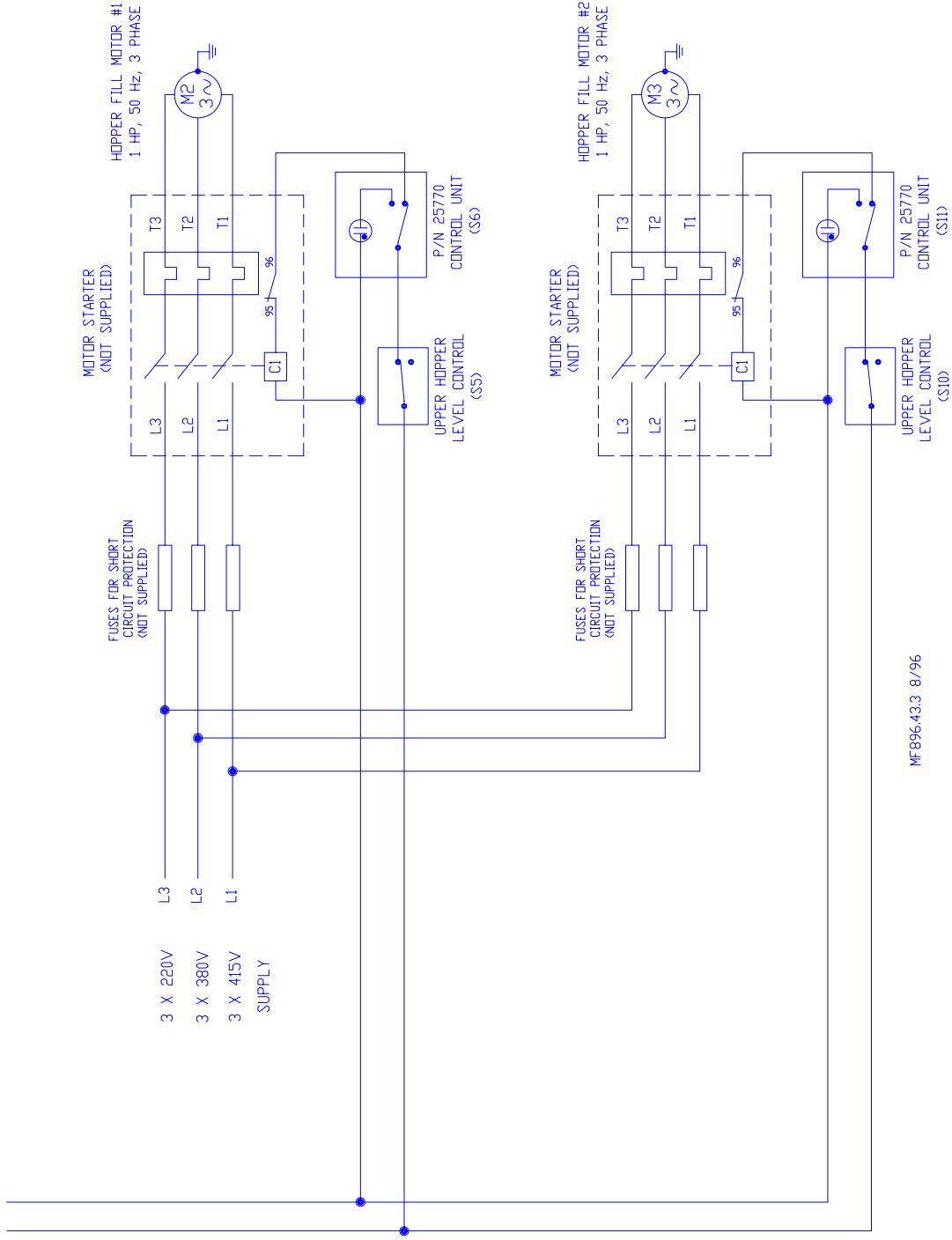
(Using Chore-Time Weigh-Matic Scales)



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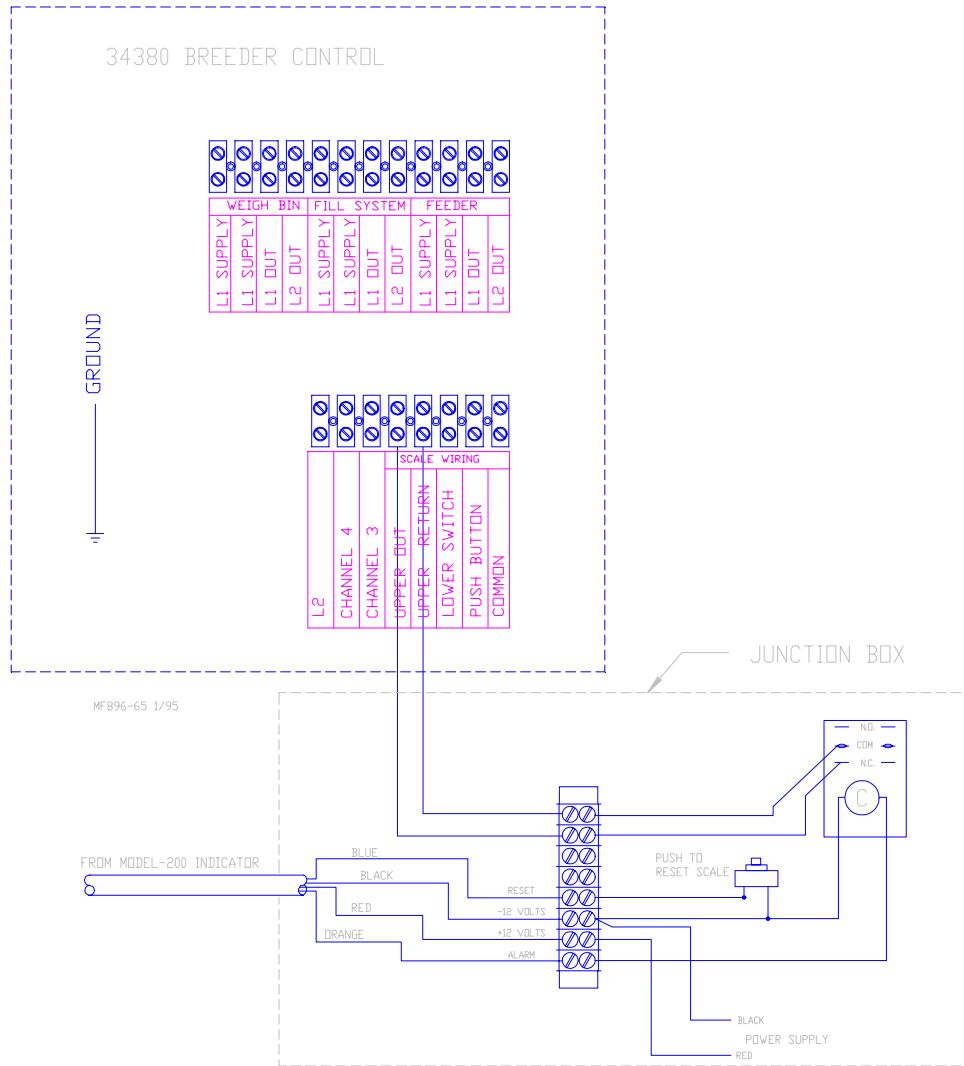


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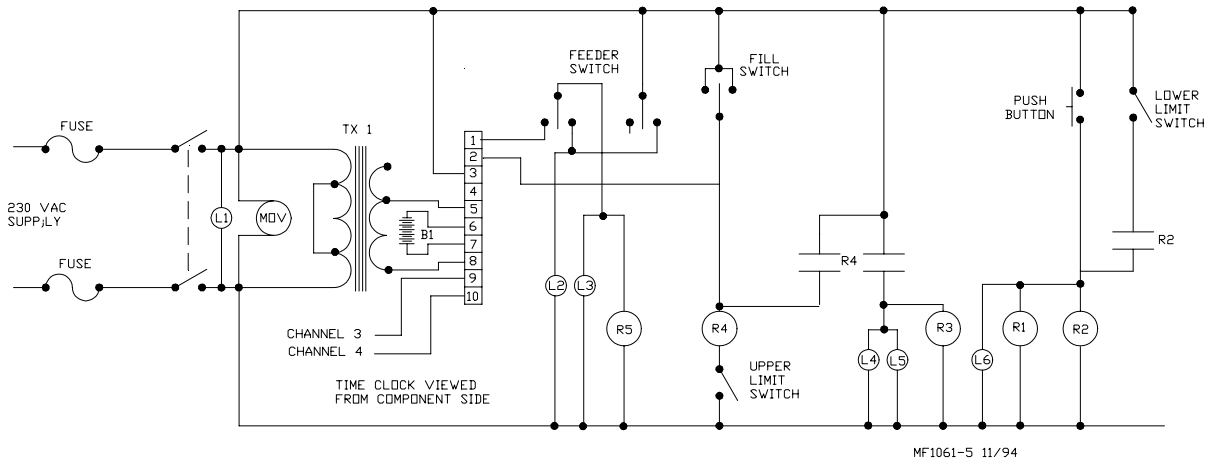




# Digital Weigh-Matic Scales / ULTRAPAN Feeder Control Wiring Diagram



## LOGIC DIAGRAM for 34380 CONTROL PANEL





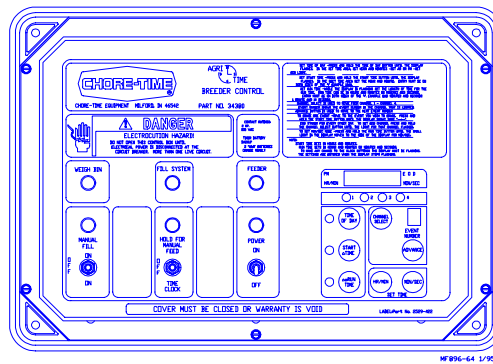
## 34380 Breeder Control

The 34380 Breeder Control must be mounted inside the house in a convenient location, out of reach of the birds.

The Breeder Control is used with the WEIGH-MATIC Weighing and Fill System and the ULTRAPAN Feeding System to accurately weigh and deliver a preset amount of feed per day for breeder birds.

The control utilizes an Agri-Timer time board with a permanent battery backup that keeps the clock on time in the event of a power outage. Even your existing program is stored in *hard memory*. The battery is accessible and may be replaced if necessary. Refer to the maintenance section on page 76.

Refer to Instruction MF1061 (shipped with the Control) for programming information and operation of the Control.



### ELECTRICAL SPECIFICATIONS for the 34380 Control Panel

—Contactor Outputs—  
230 VAC / 25 amps, 2 HP each

—Fuses—  
3 amp maximum (each)

## Balancing the Scales

All fill system wiring **MUST BE COMPLETED** before attempting to balance the scale.

Never balance the scales if any of the delivery or fill augers are empty. The Weigh Bin should have approximately 50 pounds (22.6 kg) of feed in it whenever the scales are balanced.

1. Turn switch "ON" at the Breeder Control.
2. Hold weight beam down and momentarily press switch button in beam box. This starts the fill system and it will bring feed into the weigh bin. Run delivery system long enough to bring 200 to 300 pounds (90.7 to 136 kg) of feed into the bin. Delivery capacity of the Model 90 Auger is approximately 100 pounds (45 kg) per minute. Run the fill system the appropriate length of time to achieve 200 to 300 pounds (90.7 to 136 kg) of feed in the weigh bin.
3. Release the Weighbeam and allow it to raise up, away from the lower proximity sensor. The fill system will stop.
4. Program the time clock, according to the MF1061 Instruction, to allow the incoming fill system to start (when the Weighbeam moves to the upper proximity sensor).
5. Raise the Weighbeam so that it moves to the upper proximity sensor. The delivery system that carries feed from the weigh bin to the building will start.



6. Run all but about 50 pounds (22.6 kg) of feed from the weigh bin. Some feed **MUST** remain in the boot. **THIS WILL BE THE ZERO POINT FOR BALANCING THE SCALE.**
7. Turn switch "OFF" at the control before making balancing adjustments.
8. Move poise on Weighbeam to "0" against the stop pin.
9. Slide back Balance Assembly along the Weighbeam until the end of the Weighbeam is centered midway between the two sensors. Lock the back Balance Assembly to the Weighbeam.
  - . If finer adjustment is required, adjust the brass rod on the Back Balance until the Weighbeam is centered between the two sensors.
10. Check the accuracy and balance by setting the system for a small quantity of feed (20 pounds or 9 kg, for example). Cycle the fill system and make the following checks:
  - Check Weighbeam so that it does not over-travel or float when moving from an unbalanced position to the balance point.
  - Check the quantity of feed delivered by cycling and collecting feed from the weigh bin. Number of pounds or kilograms delivered should be the amount at which the scale was set.

## Operation of the Scale

1. Make sure the time clock on the Breeder Control is set to the present time.
2. Pull tabs to program the starting time and length of the feeding period.
3. Set the poise on the Weighbeam for the desired quantity of feed.
4. Momentarily press switch button on the beam box until the FLEX-AUGER system bringing feed into the weigh bin starts. The FLEX-AUGER system will transfer the desired quantity of feed into the weigh bin; then it will shut off automatically.
5. Set poise to zero **AFTER THE WEIGHBEAM REACHES THE BALANCE POINT AND THE FLEX-AUGER SYSTEM STOPS.**
6. Feeder lines are controlled by one of the time clock channels. They will start running when the time clock signals that feeding period should begin. They will continue to run as long as feed is available or to the end of the programmed feeding time.

**NOTE:** Adequate time should be programmed on the time clock so that all of the measured feed is consumed during each feeding period. Monitor the feed consumption. If the measured amount of feed has not been dispensed from the weigh bin and/or the feed in the feeder line hoppers has not fed down to where the lower hopper switches cut the line off, then increase the length of feeding time.

Lower Hopper Switches will shut off individual lines as they become empty as the measured amount of feed is dispensed.

7. The operator must manually set the scales to the amount required for next feeding and push the momentary switch to start filling the weigh bin for the next feeding.

## Operation of the Feeder

The ULTRAPAN Feeder is a circulating feeder, designed to supply all the feeder pans on the system simultaneously. The Auger Tubes are indexed to insure even distribution of the feed through out the system. The auger is driven by hardened sprockets on the power units spaced evenly around the system.

Channel 2 of the 34380 Breeder Control or the MANUAL FILL switch will fill the hoppers. Channel 1 of the Breeder Control operates the feeders. The feeders will operate until the control pan has been satisfied. The feeder lines are also controlled by the lower Hoppers Switch. This switch assures that the lines retain their charge. The fill system is controlled by the weigh bin. When the bin reaches "0" the system will stop filling the hoppers.

Refer to "Operation of the Scales" and "Optional Fill System Operation" for further details on running the scales/fill system.

## Start-Up Procedure

***Follow this procedure with new and refilled houses.***

**NOTE:** The following procedure is to be run on each loop individually. Therefore, disconnect power at each power unit on the loop not being started. Also, flip the appropriate Control Unit Toggle Switch to the OFF position.

1. Set the POWER switch to the ON position.

Push and hold the MANUAL FEED switch for manual operation. Allow the feeder to run long enough to clean all the foreign materials (i.e. sawdust, dirt) out of the auger tubes.

Release the switch to stop the feeder.

Repeat the above for both the other feeder loop.

2. Move feed into the weigh bin.

Open the weigh bin slide approximately 3 inches (75 mm).

3. Start the system by setting the POWER switch to the ON position.

Push the "MANUAL FILL" button on the Breeder Control, to start the fill system.

**NOTE:** Run the Fill System manually to allow feed to cover approximately 1/2 of the auger. Stop the Fill System periodically. This will allow the feed to be removed from the hopper and prevent over charging the feeder loop

Use the Control Unit Toggle Switch to turn the fill system on and off, as required, to prevent overloading the "unpolished" augers with feed.

**NOTE:** STOP THE FILL SYSTEM WHEN FEED RETURNS TO THE HOPPER(S).

4. Allow the feeder loop to run for approximately 5 minutes. This will polish the auger (remove oils, rust, etc.)
5. Turn off electrical power to the system.

6. Repeat the start-up procedure, above, on the second feeder loop.
7. If desired, the feed may be removed from the feeder loops.  
Turn off electrical power to the system.  
Remove the Control Feeder Pan.  
Turn on electrical power to the system. Run the feeder until all the feed has been run out of the tubes.  
Turn off electrical power to the system.  
Dump the feed out of each feeder pan.  
Remove feed from the building.  
Reinstall all necessary pans.
8. Fully open the bin slide.

## ULTRAPAN Management Guidelines

The ULTRAPAN Feeding System is designed for controlled distribution of feed to broiler breeder pullets and layers. The system utilizes indexed tubes for a uniform, constant, and fast feed delivery immediately to all the feed pans. The Model C2 Feed Pan Assembly is designed to provide optimum feed flow and to maintain a low level of feed to deter feed wastage. The C2 features a high cone feed pan, and a feed level tube with feed fins to provide improved feed conversions when compared to other types of feeding systems. The Model C2 Feed Pan Assembly has feed flood windows which allows the feed pan, when lowered to the floor, to be filled with a high level of feed for the brooding of day old through 12 day of age birds.

There is no substitute for good management of a poultry house. The following information and recommendations are to be used a guideline for the operation of the ULTRAPAN Feeding System with C2 Feeder Pans. As you become familiar with the system, this guideline will need to be modified to allow for individual poultry types, building types, and various climate conditions.

### Brooding

For brooding birds, the feeding system is lowered to the floor which allows the feed windows of the C2 Feed Pans to open. When the feed windows are open, the feeding system should be operated MANUALLY ONLY, a minimum of 2 times per day, from 1-5 days of age, and 3 to 4 times per day, from 6-12 days of bird age.

Although the C2 feeder is designed to brood birds, the most widely used method, is to provide feed trays (chick trays, feeder lids), usually one per 100 chicks, as an additional feed access area. These are filled manually, or by the use of feed spouts attached to the feeder line between the feed pans. Use caution with feed spouts so that a low level of feed is maintained on the feed trays, as it is desirable to attract the birds to the feeder pans. The number of feed trays are reduced beginning at approximately 5 days, and should be completely removed by 12 days, or as soon as the chicks have adjusted to eating from the C2 feeding system.

During the brooding time, or when the feed windows are open on the C2 feeder pans, make sure the feed pans always have an adequate amount of feed in them by activating the control pan. To accomplish this, you may have to remove the control pan and catch the feed between it and the last pan, empty the feed, and replace the control feed pan. This action, if needed, will help assure the feeding system has the proper amount of feed for the birds, and will attract the birds to the feeder.

An additional feature of the C2 feeding system is feed window locks. The feed windows can be locked open, which allows the feeder to be raised from the floor. This feature can be used 5-14 days to provide a high feed level and to reduce bird traffic in the feed pan. To use this feature, lift and rotate the grill assembly. At approximately 7-12 days, the feeder line should be raised to close the feed windows so the pans, just clear the floor. If the feed windows have been locked open, they should be unlocked and closed. At this period of time, the feed level will become low. The birds will learn to work the feed into the feed pans in a very short time. During this transition period, make sure the birds are activating the control pan to refill the system. The recommended feed level setting is #4. The feed level setting can be increased if necessary for some types of feed stuffs if a 3/4" (20 mm) depth of feed cannot be attained.

### **Grow-Out**

The feeder line should be raised weekly as the birds grow so the lip of the feed pan is level with the area where the birds neck meets the breast.

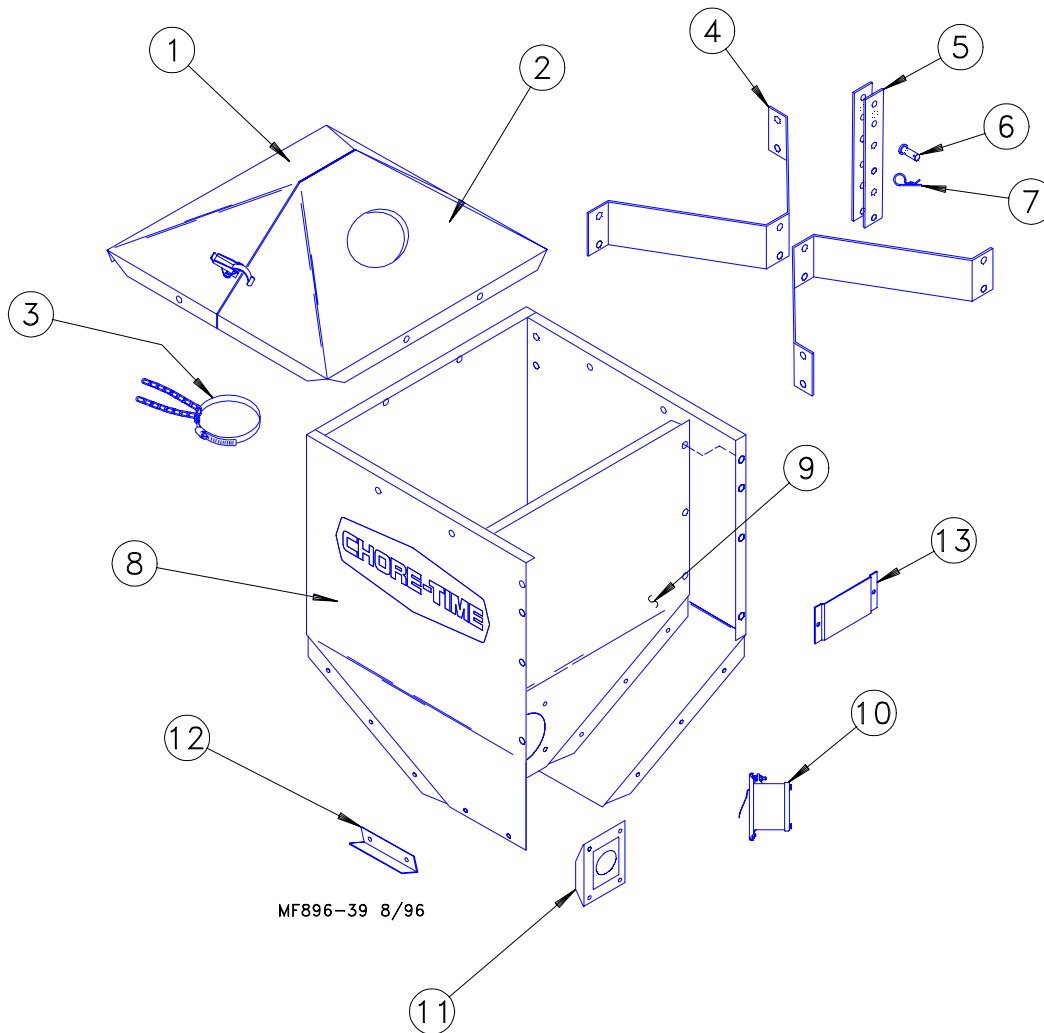
At 21 days, or when the restricted feeding program is initiated, set sufficient run time on the Breeder Control for the feeding system to dispense the entire feed ration.

This manual provides additional information regarding operation of the scale.

Chore-Time recommends you consult your poultry representative for additional information concerning bird types, climate conditions, building types, and management practices.

# PARTS LIST

## Hopper Components



Item	Description	Part No.
1*	Hopper Cover (w/o hole)	28212
2*	Hopper Cover (w/ hole)	28211
3	Tube Support Kit	14367
4	Hopper Hanger	28165
5	Adjustment Bracket	2706
6	Clevis Pin	2797-1
7	Hair Pin	2664
8	Hopper Side (w/o hole)	28164
9	Hopper Side (w/ hole)	28241
10**	Lower Hopper Switch	8798
11	Diaphragm Assembly	7900
12	Boot Hanger	28168
13	Support Plate	28267
--	Parts Package (contains necessary hdwr)	28167
--	Over Center Clamps	2536

### NOTES:

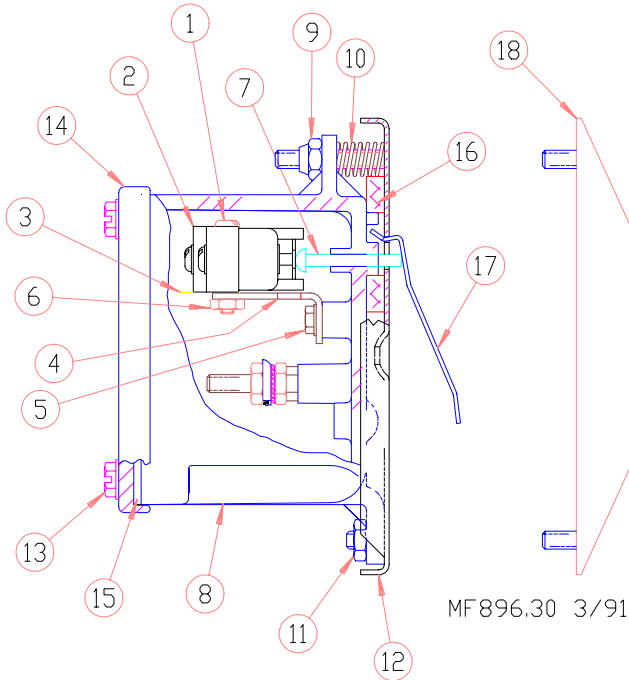
\*These components may be ordered as an assembly under Part No. 28210.

\*\*See [page 62](#) for individual components.

The 100# Hopper Assembly, including the Switch only, may be ordered under Part No. 28242.

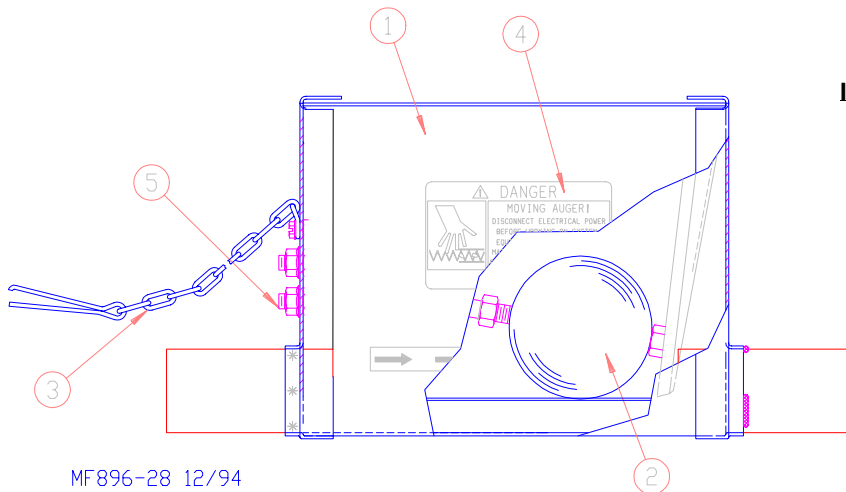
The 100# Hopper Assembly, including the Hopper Cover and Switch, may be ordered under Part No. 28245.

## 8798 Lower Hopper Switch Assembly



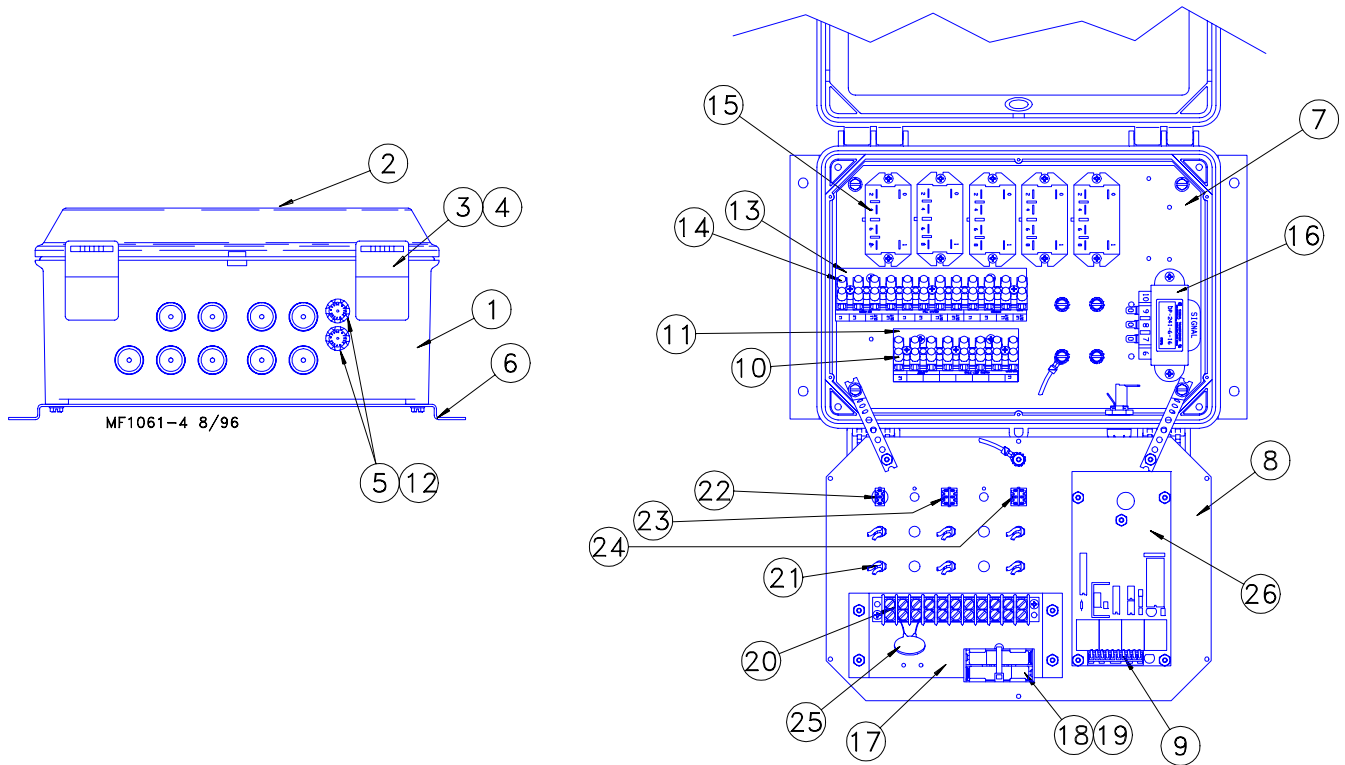
Item	Description	Part No.
1	6-32 x 7/8" Rd. Hd. M.S.	1921
2	SPDT Actuator Switch	7114
3	Switch Insulation	1907-5
4	Switch Bracket	7068
5	#6 x 3/8" Slot Wash. Hd. Screw	6782
6	6-32 Hex Nut	771
7	Pin	8757
8	Switch Box	7841
9	10-32 Hex Lock Nut	6963
10	Spring	6972
11	10-32 Hex Nut	4297
12	Mounting Plate	7908
13	#10 Twin Helix Screw	6980
14	Switch Box Cover	6776
15	Gasket	6777
16	Gasket	6968-1
17	Paddle	7896
18	Diaphragm Assembly	7900
--	Deflector	28281

## 34824 Boot Assembly

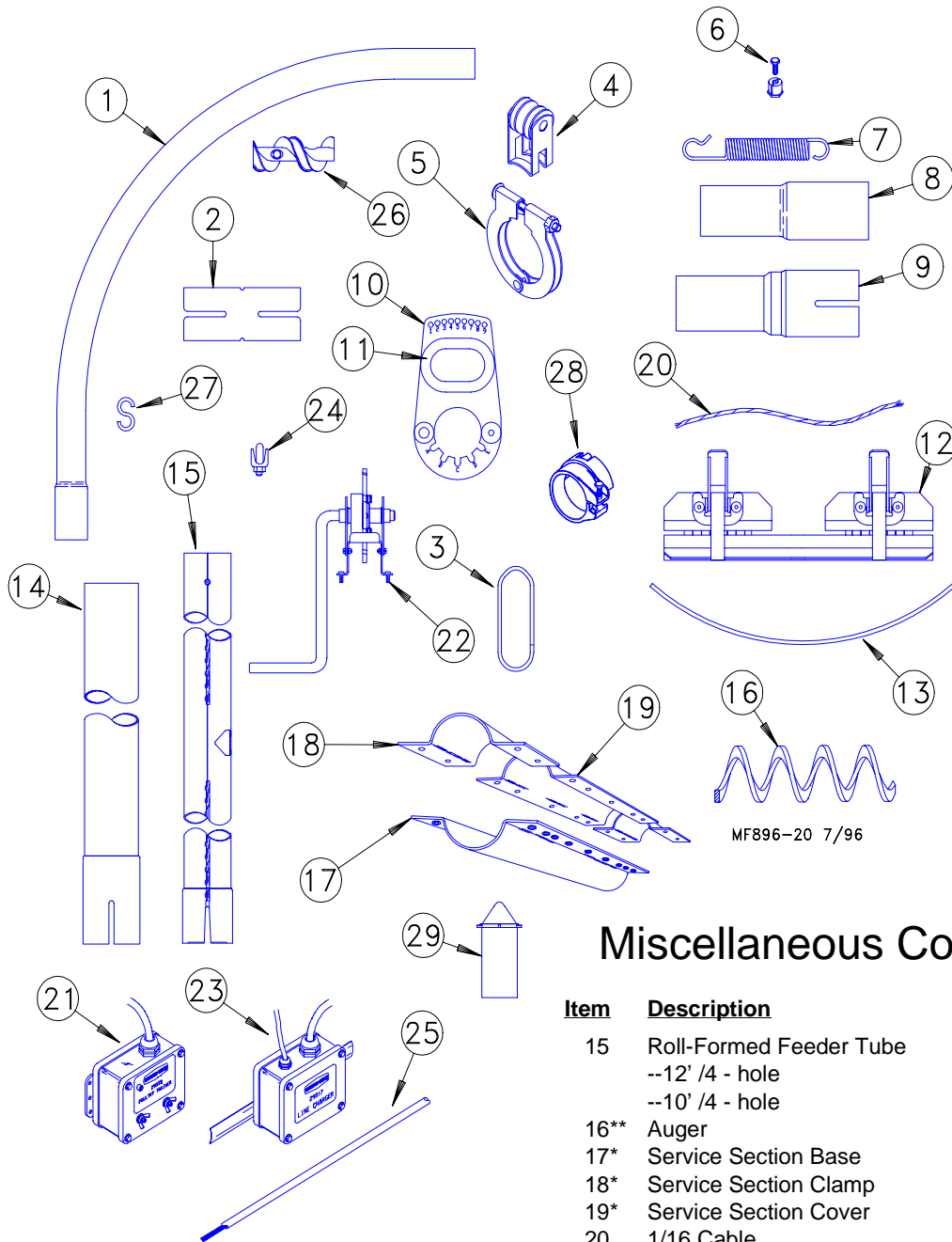


Item	Description	Part No.
1	Boot Weldment	34811
2	Agitator Assembly	34804
3	Latchpin Assembly	34803
4	Danger Decal	2527-9
5	5/16" U-Bolt	34823

# 34380 Breeder Control Panel



Item	Description	Part No	Item	Description	Part No
1	Control Box	30860-4	14	Terminal Strip	34925
2	Clear Cover	30859-1	15	P & B Relay (240 V)	28904
3	Control Box Latch Pivot	30863	16	Transformer	34571
4	Control Box Latch	30862	17	Mount Bracket	34562
5	Fuse Holder	24431	18	Battery Mount	34583
6	Control Box Mount Panel	34852	19	AAA Battery	34584
7	Back Mount Panel	34564	20	Terminal Block	7347
8	Front Panel	34565	21	Pilot Light	29708
9	Time Clock Connector	34457	22	Toggle Switch	34579
10	Terminal Strip	34925-8	23	Toggle Switch	34389
11	Terminal Mount Bracket	35094	24	Toggle Switch	34578
12	3 Amp Fuse	20472	25	MOV	14063-1
13	Terminal Mount Bracket	34563	26	Circuit Board	34384



## Miscellaneous Components

Item	Description	Part No.
1	90 Degree elbow	28125
2	Tube Coupling (1-3/4" diameter)	2123
	Tube Coupling (2" diameter)	29691
3	Hanger	4207
4	Insulator Bracket	24060
5	Tube Clamp	24063
	2" Tube Clamp	29520
6	3/32" Cable Clamp	1826
7	Spring	7551
8	Tube Adaptor	28107
9	Belled Adaptor Tube	29693
10+	Adjustable Hanger	14780
11+	Grommet	14899
12	Welding Fixture	25494
13	Anti-Roost Wire	28108
14	4' Extension Tube	28128

Item	Description	Part No.
15	Roll-Formed Feeder Tube --12' /4 - hole --10' /4 - hole	6854-7 6854-4
16**	Auger	28103-0
17*	Service Section Base	28153
18*	Service Section Clamp	28151
19*	Service Section Cover	28152
20	1/16 Cable	1922
21	Poultry Trainer	29333
22	Auger Driver	28126
23	Line Charger	29317
24	1/8" Cable Clamp	14898
25	Hi-Voltage Cable (330')	28994-330
	Hi-Voltage Cable (500')	28994-500
	Hi-Voltage Cable (165')	28994-165
26	Auger Connector	29055-2
27	S Hook	723
28	Model C2 Lock	34570

+ These components may be ordered as an assembly under Chore-Time P/N 7604.

\* These components may be ordered as an assembly under Chore-Time P/N 28127.

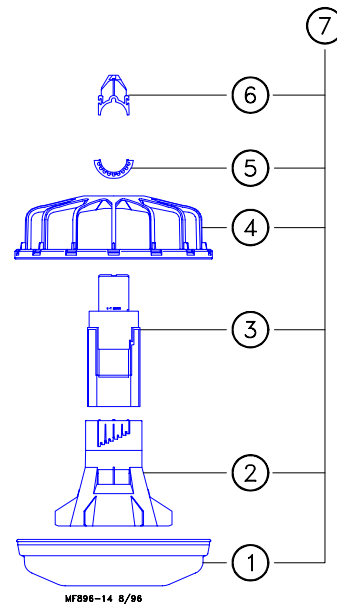
\*\*The Auger may be ordered in lengths from 100' to 330'. Include the specific length as a suffix to the part number (example: 28103-220 is a 220' roll of auger).



## ULTRAPAN C2 Feeder (2-Piece, Locking)

Item	Description	Part No.
1	Model C2 Feeder Pan	25281
2*	Adjustment Cone	29064
3*	2-Piece Support Cone	25283
4	Grill	25280
5	Support Insert (locking)	25053
6	Support Cap	25052
7	<b>2-Piece Model C2 Ass'y</b>	<b>28120</b>

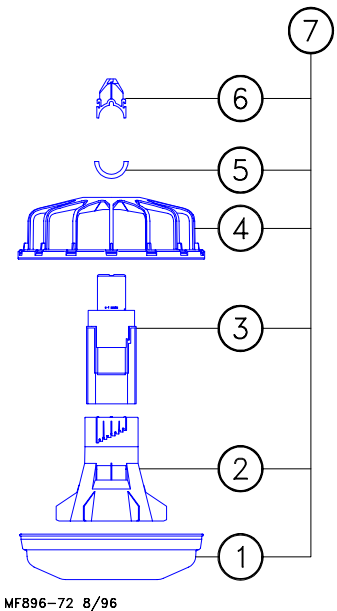
\*These items may be ordered as an assembly under Part No. 29514.



## ULTRAPAN C2 Feeder (2-Piece, Swinging)

Item	Description	Part No.
1	Model C2 Feeder Pan	25281
2*	Adjustment Cone	29064
3*	2-Piece Support Cone	25283
4	Grill	25280
5	Support Insert (Swinging)	28356
6	Support Cap	25052
7	<b>2-Piece Model C2 Ass'y</b>	<b>28115</b>

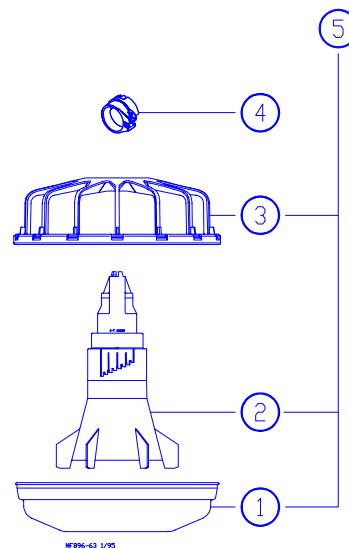
\*These items may be ordered as an assembly under Part No. 29514.



## ULTRAPAN C2 Feeder (1-Piece, Locking, Windowless)

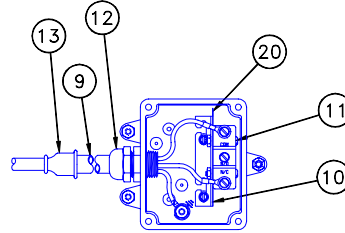
Item	Description	Part No.
1	Model C2 Feeder Pan	25281
2	1-Piece Support Cone	33885
3	Grill	25280
4*	Model C2 Lock	34570
5	<b>1-Piece Model C2 Ass'y</b>	<b>34569</b>

\*The Model C2 Lock must be ordered separately.

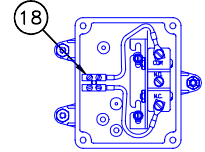


# Model C2 Intermediate Control (Single Phase & 3-Phase)

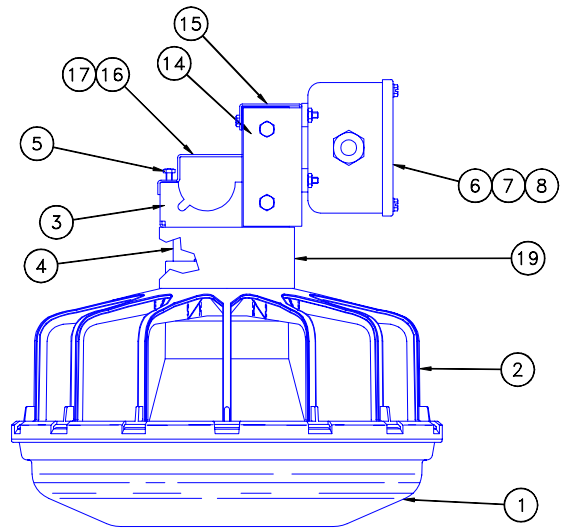
Item	Description	P/N 28117	P/N 28275
		1 Phase Part No.	3 Phase Part No.
1	Model C2 Feeder Pan	25281	25281
2	Feeder Grill	25280	25280
3	Tube Support	14754	14754
4	Support Cone Assembly	35729	35729
5	10-24 x 1-3/4 Hex Hd Bolt	4416-4	4416-4
6	Switch Box	34842	7841
7	Gasket	6777	6777
8	Switch Box Cover	6776	6776
9*	Vinyl Tubing	7814	----
10	Switch Bracket	7068	7068
11	Actuator Switch	7114	7114
12	Water Tight Connector	24685	----
13*	Reducing Seal	7815	----
14	Front Panel	25046	25046
15	Back Cover	25047	25047
16	Tube Retainer	14756	14756
17	Danger Decal	2527-9	2527-9
18	Terminal Block	----	34925-2
19	Sleeve	29349	29349
--	Spring (not shown)	6972	6972
--	Switch Paddle (not shown)	24848	24848
--	Pivot Bracket	25048	25048
--	Paddle Retainer	25045	25045
--	Mylar Assembly (not shown)	25318	25318



SINGLE PHASE SWITCH BOX



3 PHASE SWITCH BOX

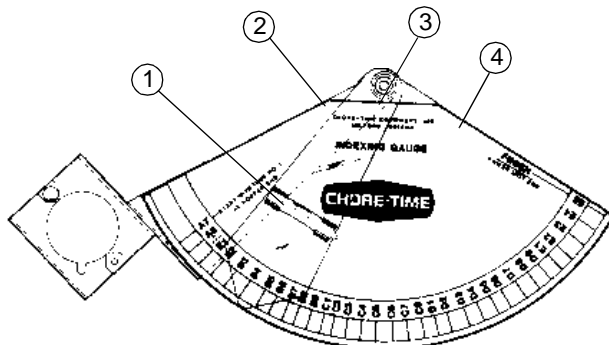


MF885-9 5/96

\*The components may be ordered as an assembly under Chore-Time part no. 4999-49.

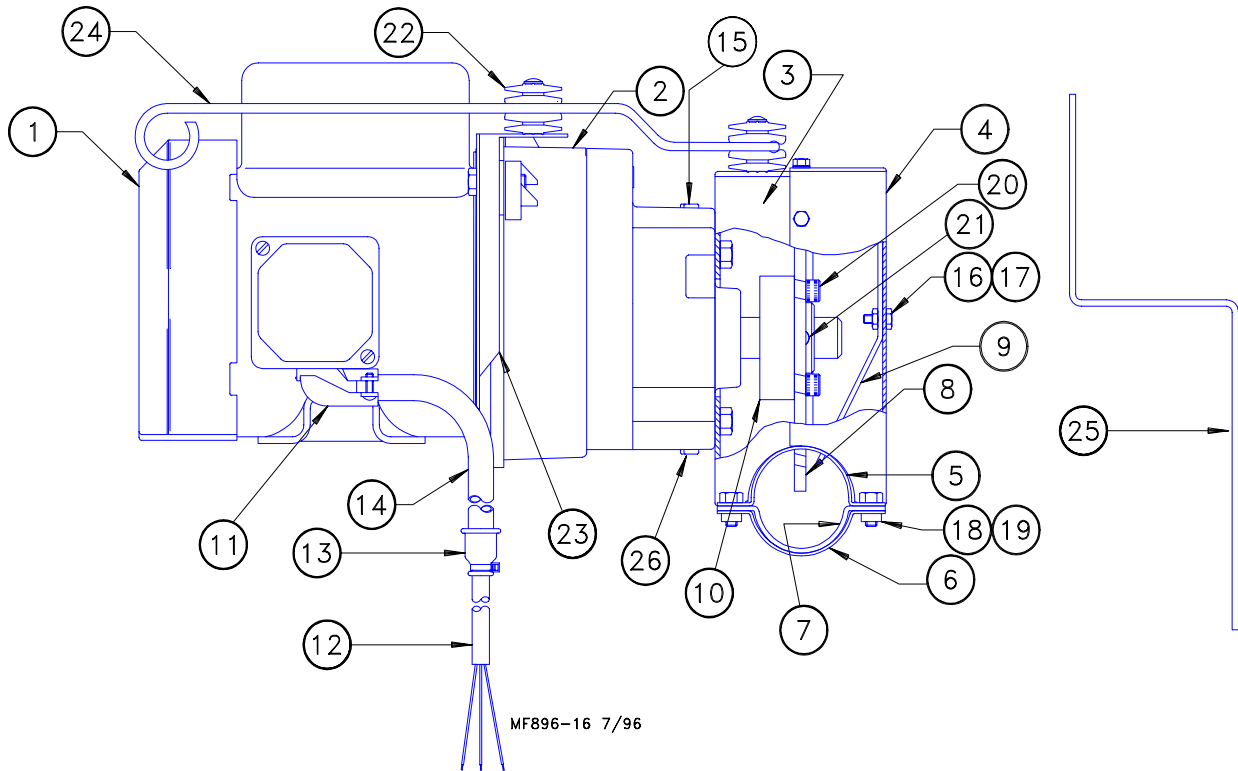
\*\*The Intermediate Control may be ordered without the Pan, Grill, Adjustment Cone, and Support Cone Assembly under Chore-Time part no. 25422.

## 14251 Indexing Gauge



Item	Description	Part No.
1	Level Glass	4853
2	Gauge Clamp Weldment	14523
3	Pointer Assembly	4852
4	Indexing Gauge Decal	2529-207

# Power Unit and Driver Assembly



Item	Description	220V	220/380V	220V	220/380V
		50Hz 1 Ø 95 R.P.M. P/N 28841	50Hz 3 Ø 95 R.P.M. P/N 28845	50Hz 1Ø 95 R.P.M. P/N 35387	50Hz 3 Ø 95 R.P.M. P/N 35388
		Part No.	Part No.	Part No.	Part No.
1	Motor	14750 (.4 HP)	28840 (1/3 HP)	5977 (1/2 HP)	28031 (1/2 HP)
2	Gearhead & Driver Assembly	28654	28654	35389	35389
	Gearhead Assembly	3261-14	3261-14	3261-8	3261-8
3	Drive Unit Base	28149	28149	28149	28149
4	Drive Unit Cover	8208	8208	8208	8208
5	End Connector	9634	9634	9634	9634
6	Base Connector Weldment	9636	9636	9636	9636
7	Wear Shoe	8210	8210	8210	8210
8	Drive Sprocket	8463	8463	8463	8463
9	Auger Brace	24674	24674	24674	24674
10	Drive Gear Hub	8213	8213	8213	8213
11	90 degree Connector	4228	-----	4228	----
12	Cord Assembly	27719	-----	27719	----
13	Reducing Seal	7815	-----	7815	----
14	Vinyl Tubing	7814	-----	7814	----
15	Pipe Plug	3523	3523	3523	3523
16	10-24 x 1/2" Hex Head Screw	4416-3	4416-3	4416-3	4416-3
17	10-24 Locknut	1560	1560	1560	1560
18	1/4-20 x 1/2" Hex Head Screw	1487	1487	1487	1487
19	1/4-20 Locknut	1269	1269	1269	1269
20	5/16-18 SHCS	6850-1	6850-1	6850-1	6850-1
21	Dowel Pin	8699	8699	8699	8699
22	Insulator	2976	2976	2976	2976
23	Anti-roost Bracket	28156	28156	28156	28156
24	Anti-roost Wire	28150	28150	28150	28150
25	Anti-roost Wire	29695	29695	29695	29695
26	Magnetic Pipe Plug	30160	30160	30160	30160
--	1/8" Cable Clamp	14898	14898	14898	14898

# WEIGH-MATIC® Model 90 Screener Parts List

## Part No. 25432

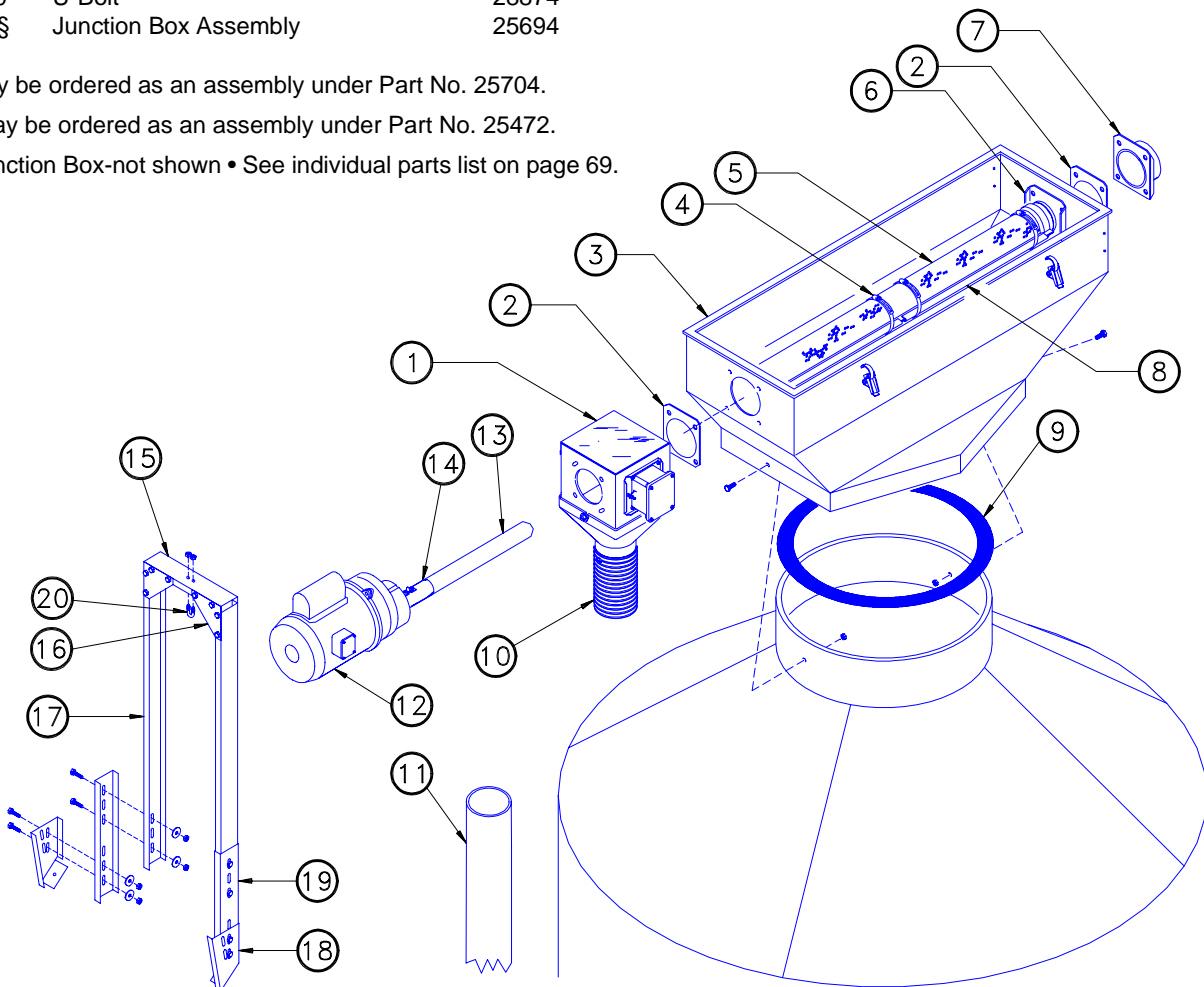
<b>Item</b>	<b>Description</b>	<b>Part No.</b>
1	Control Unit Head	25720
2	Seal	4873
3	Screener Body	25446
4	Clamp	6183
5	Screen	7436
6	Extruded Plate	22084
7	Anchor Tube	5069
8	Screen Retainer	24796
9	Lid Seal Gasket	5928
10	Flexible Drop Tube	25702
11	Drop Tube (not supplied w/Screener)	6381
12 <sup>1</sup>	Power Unit (not component of 25432)	3259-52
13*	Agitator	25674
14*	Driver Assembly	25705
15**	Top Channel	25469
16**	Corner Support	25470
17**	Support Channel	25468
18**	Foot (R.H.) Foot (L.H.)	25467-2 25467-1
19**	Leg Extension	35800
20**	U-Bolt	28874
--§	Junction Box Assembly	25694

The entire WEIGH-MATIC Model 90 Screener including:  
 -25432 Screener (components shown),  
 -4347 upper boot,  
 -9301 lower boot,  
 -6942-25 auger,  
 -6293 10' auger tubes,  
 -7357 90 degree elbows,  
 -6161 boot assembly,  
 -5790 Beam Box, and  
 -3259-52 power unit  
 may be ordered under Chore-time Part No. 25790.

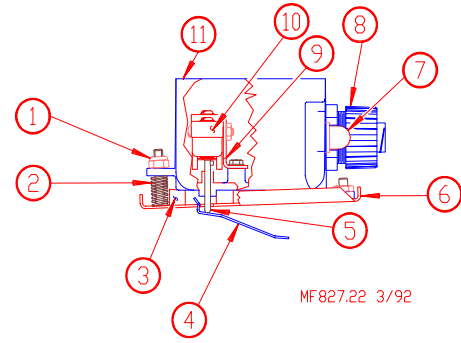
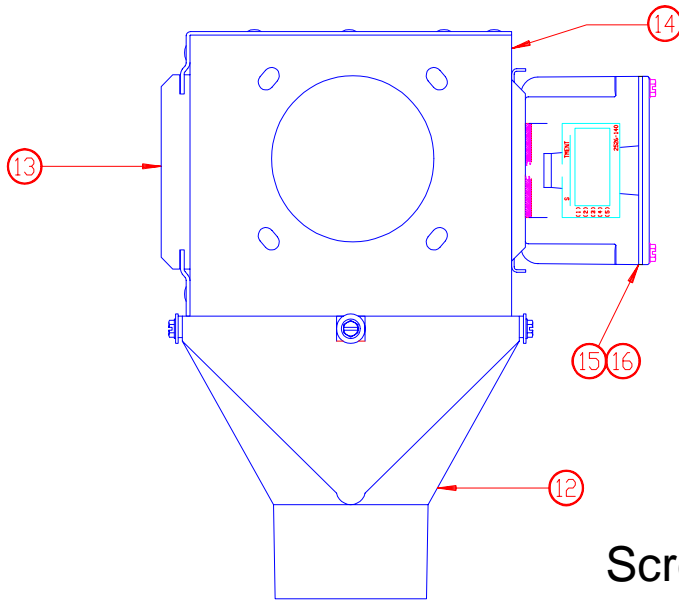
\*May be ordered as an assembly under Part No. 25704.

\*\*May be ordered as an assembly under Part No. 25472.

§Junction Box-not shown • See individual parts list on page 69.



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MF827.22 3/92

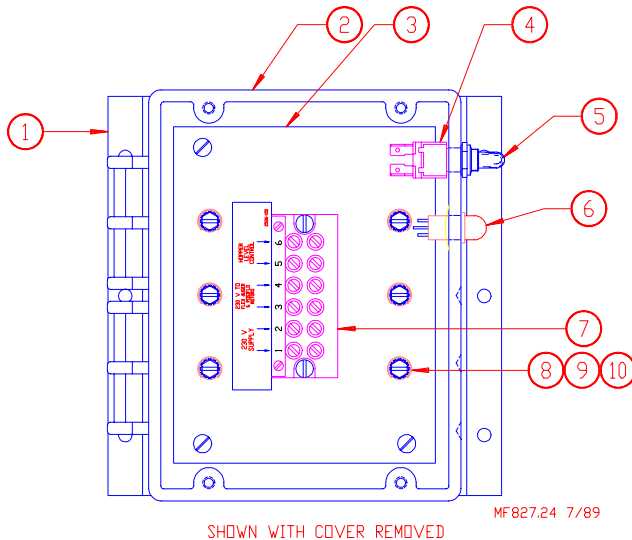
## Screener Control Unit

Item	Description	Part No.
1*	10-32 Locknut	6963
2*	Spring	6972
3*	Gasket	6968-1
4*	Paddle	7896
5*	Pin	6775
6*	Mounting Plate Assembly	7908
7*	Pilot Light Assembly	7044
8*	1/2" Liquid Tight Fitting	26980
9*	Switch Bracket	7068
10*	SPDT Actuator Switch	7114
11*	Switch Box	25696

Item	Description	Part No.
12	Drop	6091
13	Slide	5073
14	Body Assembly	24268
15	Gasket	6777
16	Switch Box Cover	6776
--	1/2" Flexible Conduit	26982-1
--	Diaphragm Assembly	7900

\*These items may be ordered as an assembly under part no. 25697.

The complete Control Unit (including Driver Assembly and Junction Box Assembly) may be ordered under part no. 25770.



SHOWN WITH COVER REMOVED

MF827.24 7/89

## Junction Box Assembly: 25694

Item	Description	Part No.
1	Junction Box Mount	25692
2	Junction Box (including cover)	25693
3	Mounting Panel	25691
4	Toggle Switch	7767
5	Toggle Switch Boot	13406
6	Pilot Light	7044
7	Terminal Block	8848
8	10-32 Ground Screw	4968
9	10 ext. Lockwasher	305
10	Cup Washer	5775

## Fill System Power Units • 60 Hz.

## Fill System Power Units • 50 Hz.

Key	Description	Part No.
1	Motor—1/2 HP / 230V., 1 Phs. 3/4 HP / 230V., 1 Phs. 1 HP / 230., 1 Phs. 1-1/2 HP / 230., 1 Phs.	5050 5051 6857 8782
2	90 Degree Connector	4228
3	Anti-Short Bushing	6304
4	3/8" Pipe Plug	2755
5	Magnetic Pipe Plug	30160
6	"S" Hook	4270
7	Pinion Assembly - for 1/2 HP RPM Motor - for 3/4 HP Motors - for 1 HP & 1-1/2 HP Motors	5046 5046 6104
8	Vent Plug	3523
9	5/16-18x5/8" Hx Hd M S	4412-1
10	Gearhead Assembly-425 RPM Gearhead Assembly-584 RPM	3261-10 3261-13

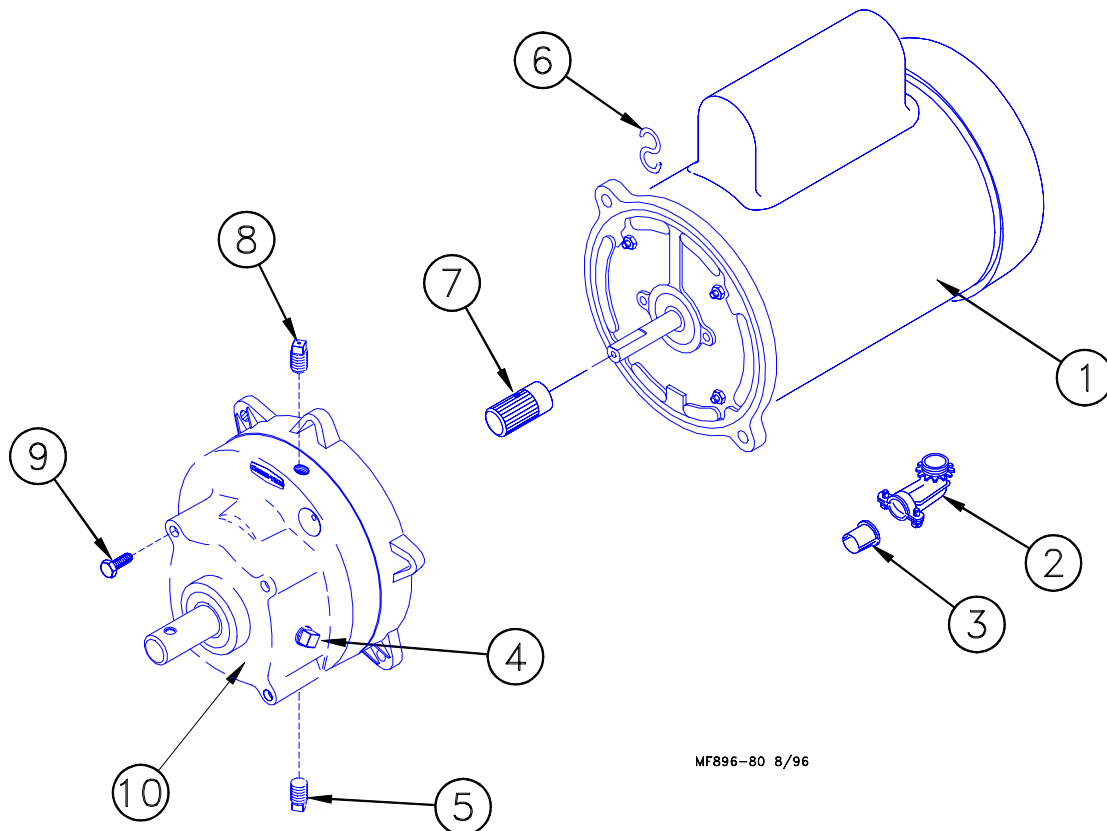
Key	Description	Part No.
1	Motor—1 HP, 3-Phs, 220- 380 V, 1 HP, Single Phs. 220 V,	28035 26157
2	90 Degree Connector	----
3	Anti-Short Bushing	----
4	Hookup Wire (16 AWG-orange)	----
5	Ground Wire (16 AWG-bare)	----
6	"S" Hook	4270
7	Pinion Assembly- for 1 HP Motors	6104
8	Vent Plug	3523
9	5/16-18x5/8" Hx Hd M S	4412-1
10	Gearhead Assembly-474 RPM	3261-13
11	3/8" Pipe Plug	2755
12	Magnetic Pipe Plug	30160

### Complete Power UnitsPart No.

1 HP, 474 RPM, 3Phs, 220-380 V. P.U.	3259-107
1 HP, 474 RPM, Single Phs, 220 V. P.U.	3259-108

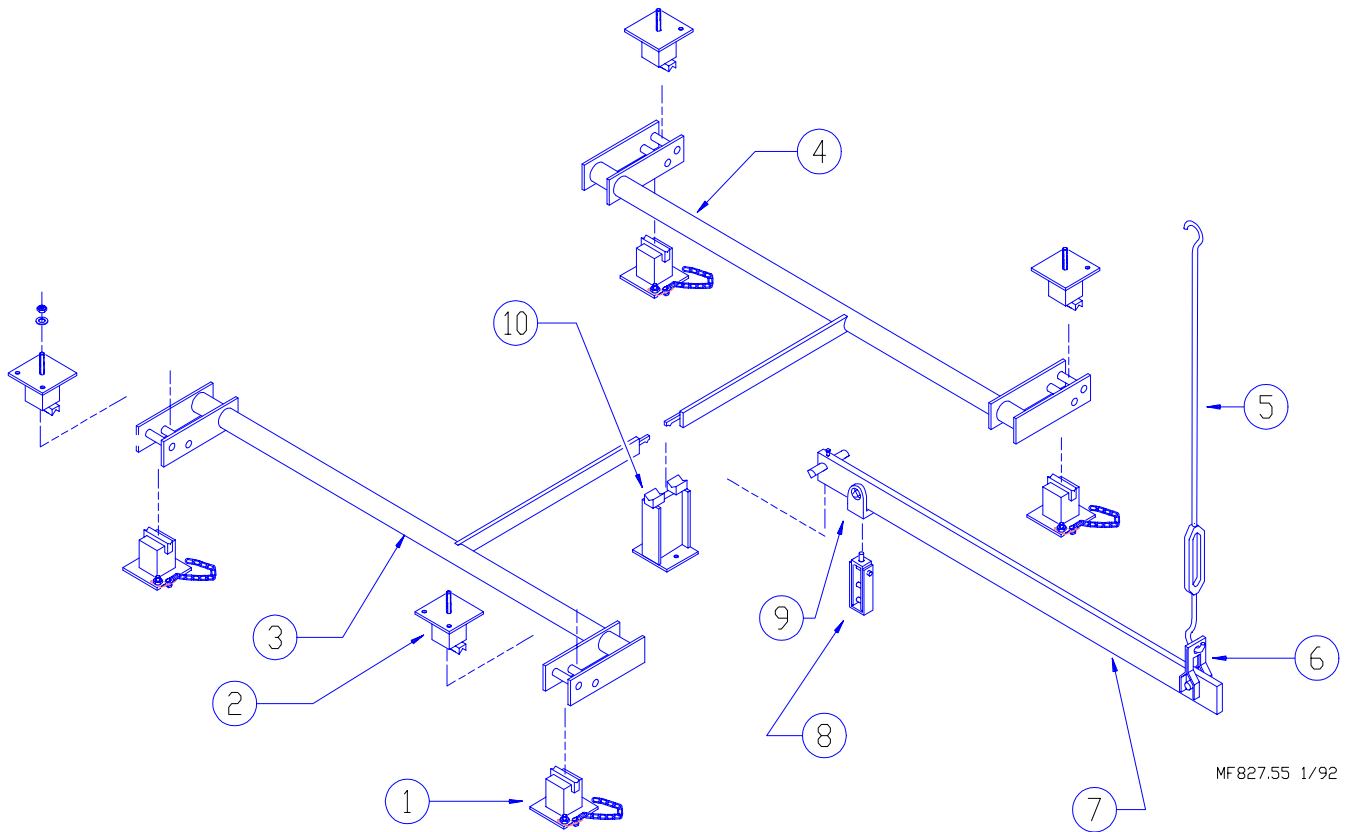
### Complete Power UnitsPart No.

1/2 HP, 425 RPM Power Unit	3259-77
3/4 HP, 425 RPM Power Unit	3259-78
1 HP, 425 RPM Power Unit	3259-79
3/4 HP, 584 RPM Power Unit	3259-122
1 HP, 584 RPM Power Unit	3259-123
1-1/2 HP, 584 RPM Power Unit	3259-124



MF896-80 8/96

# Weigh Scale Assembly



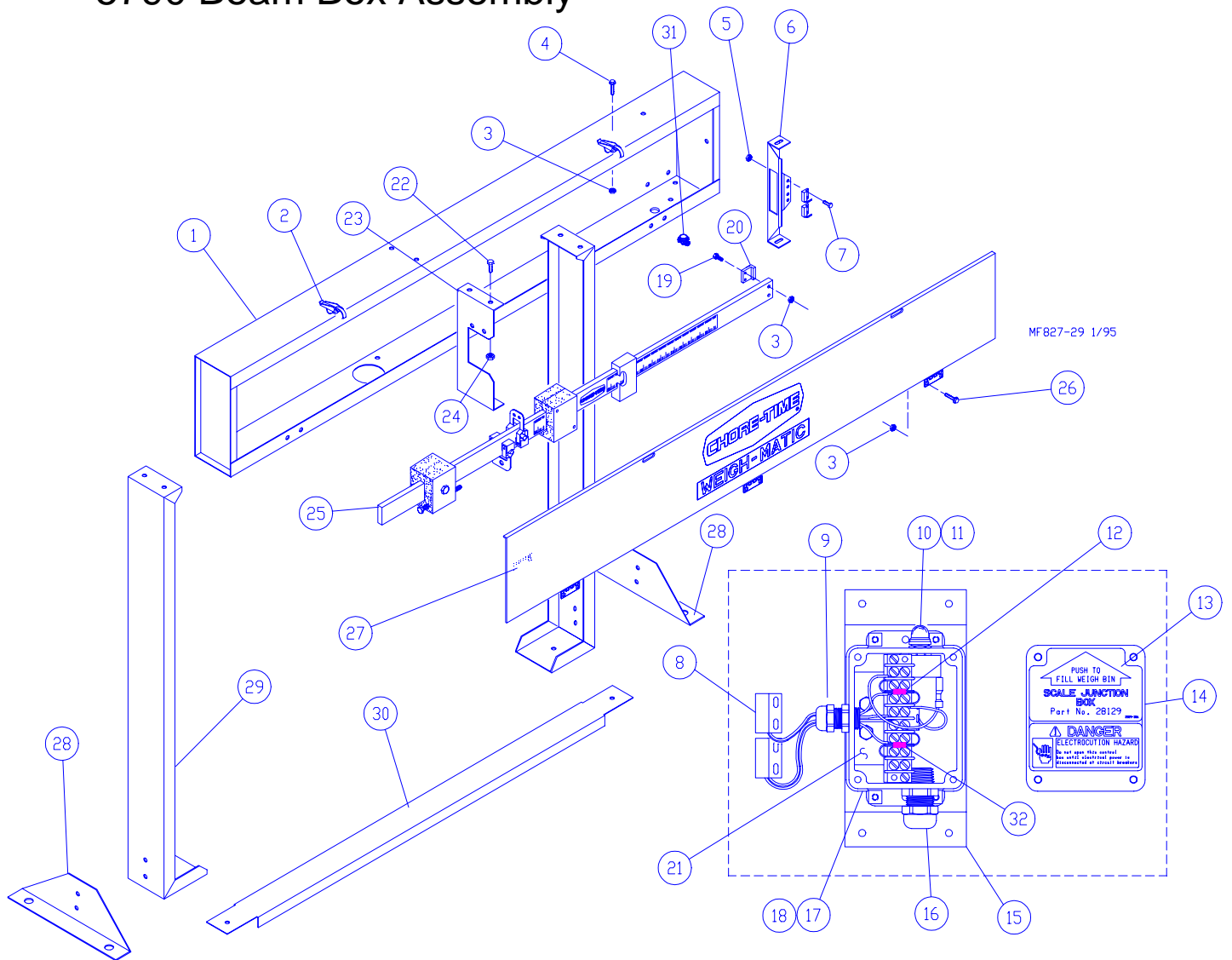
<b>Item</b>	<b>Description</b>	<b>Part No.</b>
1	Lower Main Stand	7A
2	Upper Main Stand Assembly	9A
3	Left Main Lever Assembly	1AL
4	Right Main Lever Assembly	1AR
5	Steelyard Rod	25
6	Trip Loop	15
7	Transverse Lever Assembly	10A
8	Shackle	19
9	Load Loop	18
10	Transverse Stand Assembly	21A

Complete 5,000 Lbs Bin Scale Assembly is Winslow Part No. CT1819.  
 Complete 8,000 Lbs Bin Scale Assembly is Winslow Part No. CT6514.

The complete Bin Scale Components must be ordered through:

**Winslow Scale Company**  
**25th and Haythorne, P.O. Box 1523**  
**Terre Haute, IN 47808**  
**Phone: 812/466-5265.**

# 5790 Beam Box Assembly



Item	Description	Part No.	Item	Description	Part No.
1	Case Weldment	5797	19	4-40 x 3/4" Rd. Hd. M.S.	4143-2
2	Over Center Clamp	2536	20	Magnetic Actuator	5789
3	10-24 P.M. Nut	135	21	Terminal Mount	28599
4	10-24 x 3/8" Rd. Hd. M.S.	1553	22	3/8-16x3/4 HHCS	2182
5	4-40 Hex Nut	3511	23	Pivot Bracket	5803
6	Trig Loop	7472	24	3/8-16 Hex Nut	1549
7	4-40 x 5/8" Rd. Hd. M.S.	3510	25	Weighbeam Assembly	See Note Below
8	Proximity Sensor	6689	26	10-24x3/8 Truss Screw	501
9	Liquid Tight Connector	13477	27	Cover Weldment	5799
10	Momentary Switch	5785	28	Leg Support	5924
11	Push Button Boot	20784	29	Leg Weldment	5793
12	Terminal Block	7270	30	Channel	7589
13	Terminal Box Decal	2529-326	31	Romex Connector	1317
14	Switch Box Cover	6776	32	Resistor, 390 ohm	1709-19
15	Switch Mount Bracket	28247			
16	Water Tight Connector	23779			
17	Terminal Mount Box	28597			
18	Gasket	6777			

Note: The applicable Weighbeam Assembly must be ordered through:

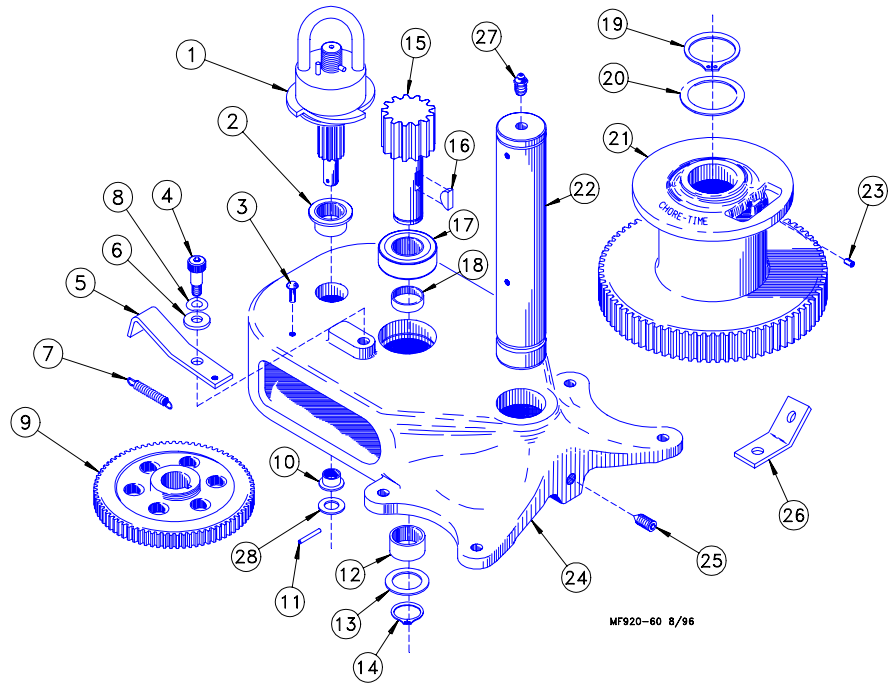
**Winslow Scale Company**  
**25th and Haythorne, P.O. Box 1523**  
**Terre Haute, IN 47808**  
**Phone: 812/466-5265.**





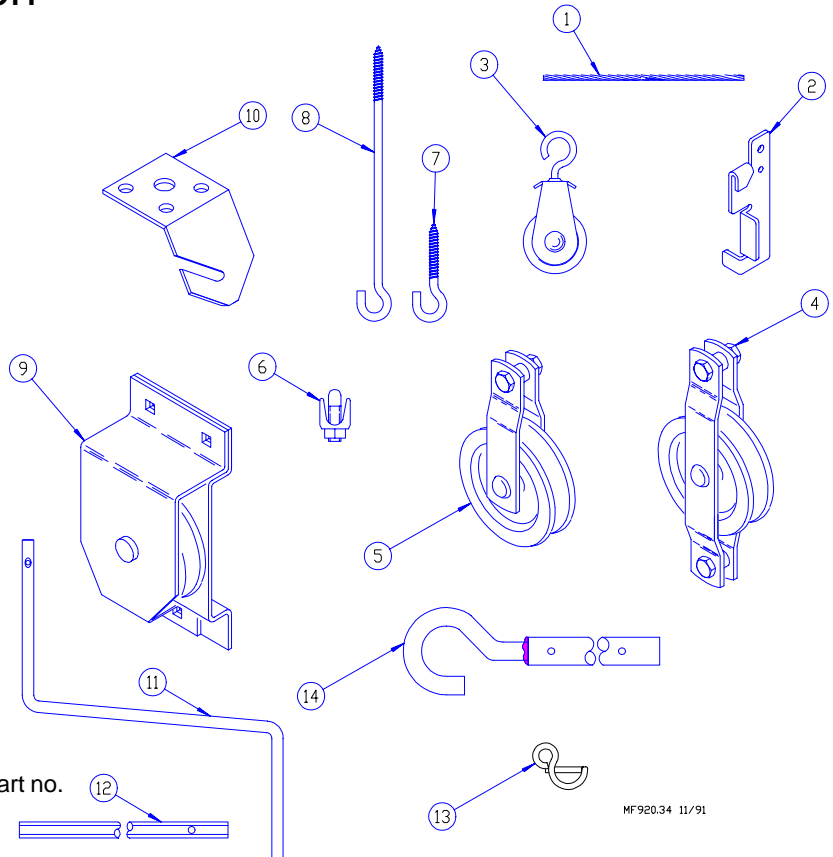
# 2883 Power Winch

Item	Description	Part No.
1	Input Shaft Assembly	14885
2	Flange Bushing	2967-2
3	Drive Stud	4128-1
4	Shoulder Bolt	4022-2
5	Pawl	6672
6	Spring Washer	4023
7	Spring	1543
8	5/16" Flat Washer	2255-44
9	Intermediate Gear	2890
10	Flange Bushing	3252
11	Spirol Pin	2960-3
12	Bronze Bearing	2967-4
13	Washer	2955-1
14	Retaining Ring	2958-1
15	Drive Pinion	2962
16	Woodruff Key	2959
17	1" Bearing	4937
18	Spacer	4936
19	Retaining Ring	3556
20	Washer	2955-2
21	Winch Drum	3723
22	Drum Shaft	3637
23	Setscrew	603
24	Winch Frame	3719
25	Setscrew	3727
26	Cable Hook	2985
27	Grease Zerk	24499
28	Washer	2499



## Miscellaneous Suspension Components

Item	Description	Part No.
1	3/32" Cable	4973
	3/16" Cable	1213
	1/8" Cable	27975
2	Cable Lock	14337
3	Pulley with Swivel	3004
4	Double eye Pulley	2501
5	Pulley	2500
6	3/16" Cable Clamp	732
	1/8" Cable Clamp	14898
7	Standard Screw Hook	1214
	ATF Screw Hook	2041
8	7" Screw Hook	28357
9	Pulley Assembly	28429
10	Suspension Bracket w/ 10-16x1" screws	28832
11*	Handle Shank	3148
12**	Drill Adapter Shaft	2886
13*	Winch Handle Pin	3761
14	Winch Drive Tube (4')	2884-1
	Winch Drive Tube (8')	2884-2
	Winch Drive Tube (24")	2884-4



\*Item 11 and Item 13 may be ordered as a kit under part no. 2885.

\*\*Item 12 and Item 13 may be ordered as a kit under part no. 2886.

# Floor Feeding Systems Weight Chart

for determining support requirements

USE THE CHART BELOW AS A REFERENCE GUIDE FOR  
DETERMINING SUPPORT LOAD REQUIREMENTS FOR YOUR SYSTEM

<b>ULTRAPAN COMPONENTS</b>	
<b>Tube, Auger, Feed, &amp; Pan</b>	5.0 lb./ft 7.5 kg./m
<b>Power Units</b>	35 lbs. (15.88 kg)
<b>100# Hoppers</b>	140 lbs. (63.50 kg.)

## Maintaining the ULTRAPAN Feeder

The ULTRAPAN Feeder requires minimum maintenance. However, a routine periodic inspection of the equipment will prevent unnecessary problems.

Maintenance should be done by a qualified technician.

**ALWAYS DISCONNECT POWER TO THE SYSTEM WHEN SERVICING OR MAINTAINING THE EQUIPMENT. FAILURE TO DISCONNECT POWER MAY CAUSE INJURY OR DEATH.**

1. Replace the Plastic Shipping Plug in the power unit gear head with the Vented Plug during installation of the Power Unit.
2. Check the oil level in the gear heads at installation and every 6 months. The Pipe Plug, on the side of the gear head, indicates proper oil level. Add SAE 40W oil when necessary.

The oil in the gearheads should be replaced every 12 months with new SAE 40W oil.

- A. Remove the bottom Pipe Plug to drain the oil. Discard used oil in accordance with local and national codes.
  - B. Wipe any debris off the magnet on the bottom Pipe Plug and reinstall. Remove the side Pipe Plug and (top) Vent Plug.
  - C. Set the power unit in the horizontal position.
  - D. 2-Stage Gearheads: Add approximately 9 oz. (266 ml) of SAE 40W oil through top hole. This should be just enough oil to reach the side Pipe Plug.  
  
3-Stage Gearheads (3261-9, 3261-12, 3261-14): Add approximately 13 oz. (384 ml) of SAE 40W oil through top hole. This should be just enough oil to reach the side Pipe Plug.
  - E. Install the side Pipe Plug and (top) Vent Plug.
3. Check equipment for loose hardware. Tighten if necessary.
  4. If the 24190 Control Unit Switch requires adjustment, use the following procedure:
    - A. Detach the pan. Set it on floor under the control unit while adjustment is being made.
    - B. Remove Top Cover from the Control Unit to expose the switch.
    - C. Start feeder.
    - D. Turn the switch adjusting screws on front of the Control Unit counterclockwise until the motor stops.
    - E. Turn both screws clockwise until the motor starts. Then turn each screw 1/2 additional turn clockwise.
    - F. Replace the top cover and the pan.
  5. Keep anti-roost cables tightly stretched. This increases the effectiveness of the electro-guard anti-roost system and keep the pans from being tilted when birds push against them.

6. Remove all feed from the feeder when there are no birds in the house and when the building is washed and disinfected.
7. If the system is not to be used for an extended period of time, remove all the feed from the feeder lines and feeder pans.

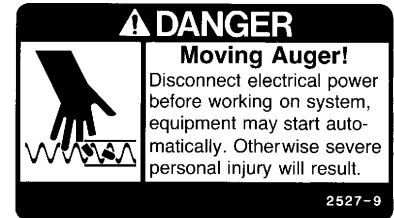
Disconnect power to the system to prevent accidentally starting the system .

8. If the system must be disassembled, extreme caution must be used to prevent injury from springing auger.

- A. Disconnect power to the entire system.

- B. Remove the cover at the service section.

- C. Wearing protective clothing and protective glasses, use bolt cutters to cut the auger at the service section.



CAUTION: Stand clear...the auger may spring back into the tubes.

- D. Remove system components in the opposite order they were installed, according to this manual.

9. Replacing the battering in the Agri-Timer:

- A. Disconnect electrical service at the breaker.

- B. Remove the (2) screws and the face of the timer.

- C. Replace the existing batteries with new batteries.

- D. Use existing wire ties to secure the new batteries in place.

- E. Reinstall the face of the timer and secure using (2) screws previously removed.

- F. Reconnect electrical service to the Breeder Control.

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**Made to work.  
Built to last.™**

### **Revisions to this Manual**

**Page No**

**Description of Change**

- Miscellaneous minor wiring diagram changes.
- Update Parts Listing to reflect new Relay in 34380 Control.
- Removed single hopper Indexing Chart.
- Removed references to 100' per minute systems.
- Miscellaneous minor changes throughout.

Contact your nearby Chore-Time distributor or representative for additional parts and information.

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