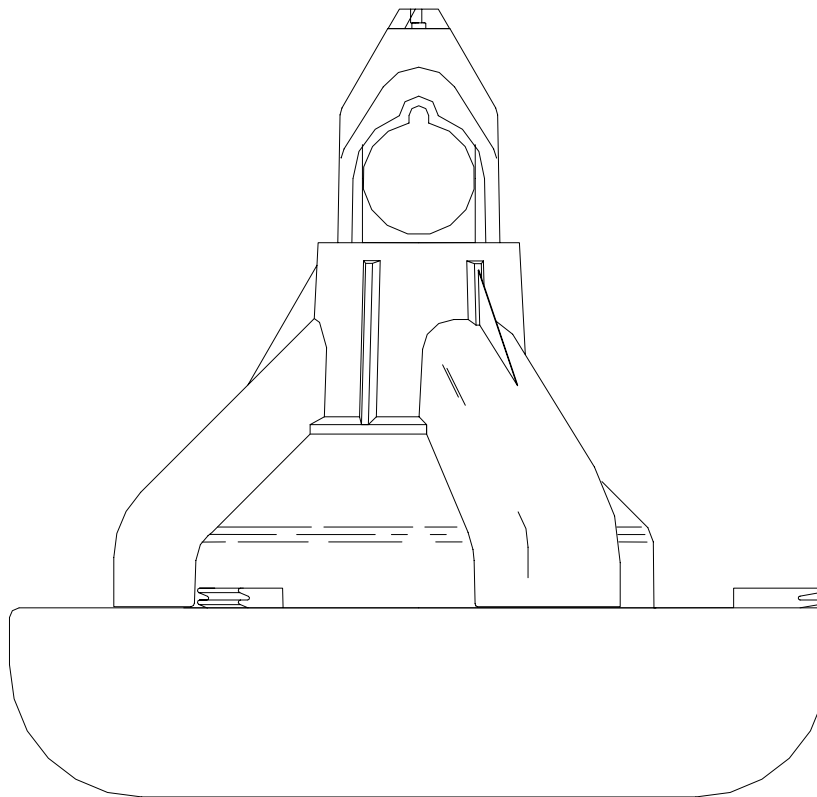




Poultry Production Systems

MODEL H2™ Feeding System

Installation and Operators Manual



Installation and Operators Manual

Installation and Operators Manual

Chore-Time Warranty

Chore-Time Poultry Production Systems, a division of CTB, Inc., (“Chore-Time”), warrants each new CHORE-TIME® product manufactured by it to be free from defects in material or workmanship for one-year from and after the date of initial installation by or for the original purchaser. If such a defect is found by 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. Labor costs associated with the replacement or repair of the product are not covered by the Manufacturer.

Additional extended warranties for the equipment and/or systems listed below are provided to the original purchaser as follows (for all other CHORE-TIME® products purchased, the one-year warranty period shall apply):

1. TURBO™ and RLX™ fans, less motors - 3 years
2. TURBO™ fan fiberglass housings, polyethylene cones, and cast aluminum blades - for the life of the product
3. TURBO™ fan motors and bearings - 2 years
4. TURBO™ fan components (including plastic shutters) - 3 years
5. Poultry feeder pans that becomes unusable within five years from the date of installation - Warranty prorated after three years usage
6. Rotating centerless augers, excluding applications involving high moisture feed stuffs (exceeding 18%), for ten years from the date of installation. Note: MULTIFLO® and applications involving high moisture feed stuffs are subject to a one-year warranty
7. Chore-Time manufactured roll-formed steel auger tubes for ten years from the date of installation
8. ULTRAFLO® Breeder Feeding System auger and feed trough are warranted for a period of five years from the date of original installation against repeated breakage of the auger or wear-through of the feed trough caused solely by the auger
9. ULTRAPAN® Feeding System augers are warranted for a period of five years from the date of installation againstlely by the auger

CONDITIONS AND LIMITATIONS

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

Chore-Time shall not be liable for any consequential or special damage which any purchaser may suffer or claim to suffer as a result of any defect in the product. "Consequential" or special damages" as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.

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

Chore-Time Distributors are not authorized to modify or extend the terms and conditions of this Warranty in any manner or to offer or grant any other warranties for Chore-Time products in addition to those terms expressly stated above.

An officer of CTB, Inc. must authorize any exceptions to this Warranty in writing. Chore-Time reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

Effective: **September 2004**

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E-mail: ctb@ctbinc.com • Internet: <http://www.ctbinc.com>

Thank You

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

***Chore-Time Poultry Feeder Pan Pro Rata Schedule**

Year from date of installation during which pan becomes unusable	Charge to be paid by the purchaser for replacement.
0 - 1 years	NO CHARGE
1 - 2 years	NO CHARGE
2 - 3 years	NO CHARGE
3 - 4 years	4/10 of then current list price
4 - 5 years	5/10 of then current list price

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About This Manual

The intent of this manual is to help you in two ways. One is to follow step-by-step in the order of assembly of your product. The other way is for easy reference if you have questions in a particular area.

Important: Read **ALL** instructions carefully before starting construction.

Important: Pay particular attention to all **SAFETY** information.

- *Metric measurements are shown in millimeters and in brackets, unless otherwise specified. “ ” equals inches and “ ’ ” equals feet in English measurements.*

Examples:

1" [25.4]

4' [1 219]

- Optional equipment contains necessary instructions for assembly or operation.
- Very small numbers near an illustration (*i.e.*, 1257-48) are identification of the graphic, not a part number.

Safety Information

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

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

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. This equipment is designed to be installed and operated as safely as possible...however, hazards do exist.

Understanding Signal Words

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



DANGER indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



CAUTION indicates a hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.

Safety Instructions

Follow Safety Instructions

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

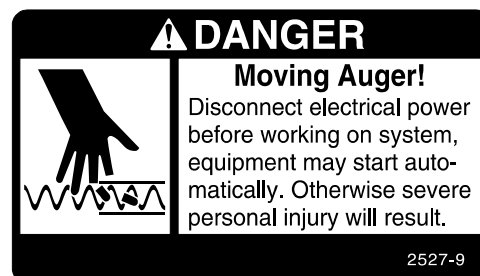
Keep safety signs in good condition. Replace missing or damaged safety signs.

Decal Descriptions

DANGER: Moving Auger

This decal is placed on the Panel Weldment.

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



DANGER: Electrical Hazard

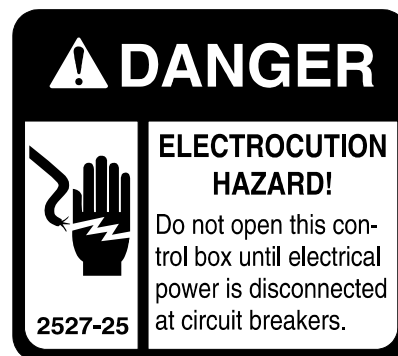
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

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

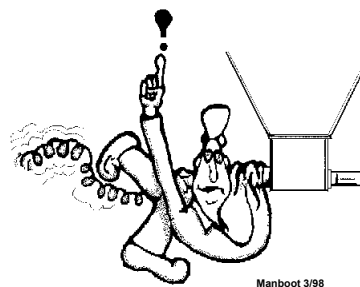
Ground all non-current carrying metal parts to guard against electrical shock.

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.



General

Information

The Chore-Time MODEL H2™ Feeding System has been designed to feed broilers from day old through grow-out, and turkeys from day old through 8 weeks.

The H2 Feeders with Feed Windows are specifically designed to fill the feeder pan with feed while the birds are very young. This insures the birds know where to get feed and have easy access to it.

Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury.

This manual is designed to provide comprehensive planning and installation information. The Table of Contents provides a convenient overview of the information in this manual.

MODEL H2™ Features

The Model H2 Feeder is available with Feed Chutes. This feature allows easy filling of the Feeder Pan when birds are very young.

Recommended usage: Broilers & Turkeys

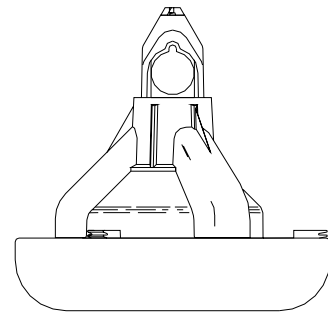


Figure 1. Model H2 with Feed Chutes

The Model H2 Feeder is available without feed windows for use at the grow-out end of a house.

Recommended usage: Broilers & Turkeys

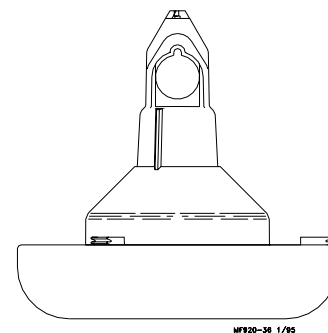


Figure 2. Model H2 without Feed Windows

The Model H2 Feeder is available with a Flood Collar. This feature allows easy flooding of the Feeder Pans when birds are very young.

Recommended usage: Broilers

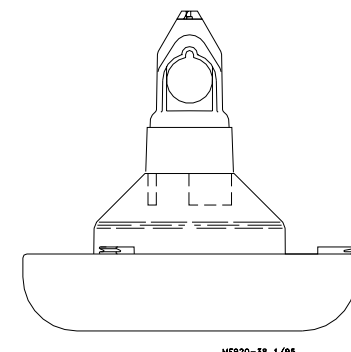


Figure 3. Model H2 with Flood Collar

The windows in the feeders may be closed to reduce the amount of feed into the feeder pan.

The H2 Feeder Pans have the ability to swing down to facilitate easy cleaning without needing to fully remove the feeder pans **see figure 4**.

Figure 5 shows the Pan Adjustment Tab numbers. Adjusting the H2 Feeder Pan to different settings changes the feed level in the pan. Chore-Time recommends starting out broilers at setting #2 and turkeys at setting #4.

If the feeder pans do require adjustment, gently pull the pan away from on to the struts to release. Reset the pan in the other two struts. Gently, pull the pan into the appropriate setting on the third strut.

Refer to the Section for additional operation recommendations.



Figure 4. Hanging Feeder Pans

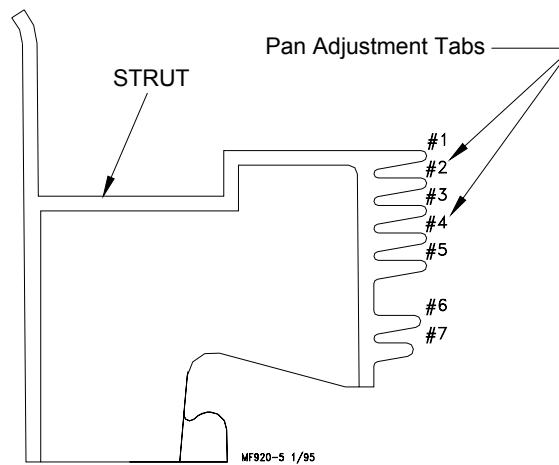


Figure 5. Pan Adjustment

Manufacturer's Recommendations: Birds per Pan

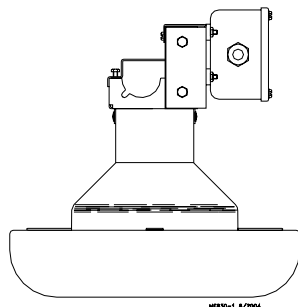
Type	Max weight and/or weeks of age	Feeders	Number of birds/pan
Broiler	4.5lbs/2kg.	Revolution 12, Models C2 Plus, C2Plus S, C, H2, H2 Plus	60 - 90
Broiler	7lbs/3.1kg	Revolution 8, C2 Plus, C2 Plus S, G Plus, G Plus S, C, H2, H2 Plus	55 - 75
Broiler	9lbs/4.0kg	Revolution 8, G Plus, G Plus S	45 - 65
Broiler Breeder Pullet – rearing	0 – 18 weeks	C2 Plus (Breeder), C2 Plus S (Breeder)	14 - 15
Broiler Breeder Pullet –rearing	0 – 18 weeks Hi-Yield	C2 Plus (Breeder), C2 Plus S (Breeder)	12-14
Broiler Breeder Male –rearing	0 -- 18 weeks	C2 Plus (Breeder), C2 Plus S (Breeder), G Plus (Breeder), G Plus s (Breeder)	11-13
Broiler Breeder Layer	17 + weeks	C2 Plus (Breeder), C2 Plus S (Breeder)	13 - 14
Broiler Breeder Layer	17 + weeks Hi-Yield	C2 Plus (Breeder), C2 Plus S (Breeder)	12 - 13
Broiler Breeder Male	17 + weeks	G Plus (Breeder), G Plus S (Breeder)	8-10
Commercial Layer Pullet – rearing	0 – 20 weeks	Revolution 12, C2Plus, H2, H2 Plus	40-60
Commercial Layer	18 + weeks	Revolution 12, C2 Plus, C, H2, H2 Plus	30 - 40
Turkey Poult	0 – 5 weeks	Revolution 8, H2 Plus, H2, G Plus, G Plus S	60 - 65
Turkey Poult	0 – 10 weeks	Revolution 8, G Plus, H2 Plus, H2	40 - 50
Turkey Female	5 + weeks	ATF, ATF Plus	60
Turkey Male	5 + weeks	ATF Plus	40 - 50
Ducks	0 – 3 weeks	G Plus, G Plus S	60 - 70
Ducks	4 – 8 weeks	G Plus, G Plus S	50 - 60

***Notice:** Please be advised that the maximum number of birds that may be successfully produced per feed pan may vary based upon such factors as climate, housing type or style, bird breeds, genetic factors of the birds at issue, grower management practices, etc. All other environmental and management circumstances, such as proper bird density per house, access to adequate nutrients in feed, access to adequate water supply, proper ventilation, adequate health care for the birds, and other similar factors, must meet industry standards and recommendations, if any, of applicable bird breeder companies.

*** NOTICE:** The above Manufacturer's recommendations do not constitute a product warranty and are in no way to be considered as a guarantee of performance for poultry production. In addition, the above information in no way alters or revises the terms and conditions of any applicable Chore-Time manufacturer's warranty.

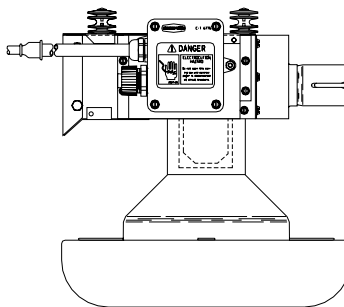
Glossary of Terms

Mid-Line control:



A feeder, equipped with a switch, (located near the center of the feeder line) used to control the feeding system when partial house brooding.

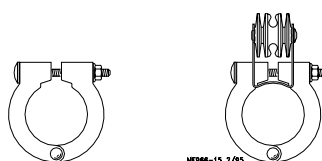
End control:



A feeder, equipped with a switch, (located at the power unit) used to control the feeding system.

Clamp:

A two-piece, riveted strap used to secure auger tubes together.

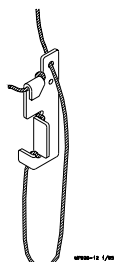


Anti-Roost Bracket:

An insulator and bracket assembly mounted on every fourth or fifth clamp to support shocker wire.

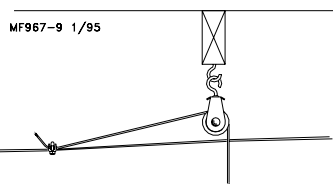
Adjustment Leveler:

A cable locking device used to conveniently adjust the feeder to a level position.



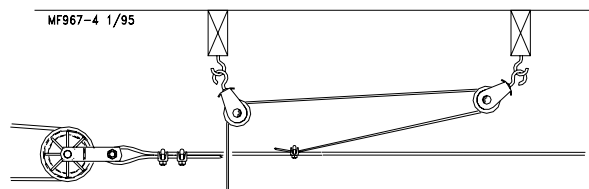
Drop Line:

A section of cable fastened to the main cable, routed through a pulley, down to the feeder line.



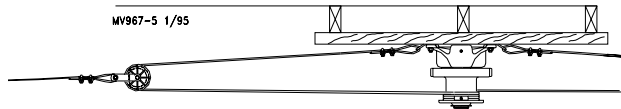
Throw-back:

A cable/pulley arrangement that allows cable to be routed to a desired location.



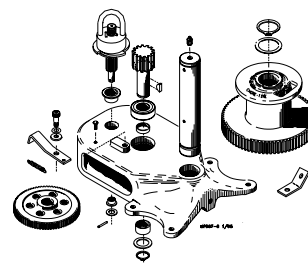
Double-back:

A cable/pulley arrangement that reduces the load on the Power Winch.



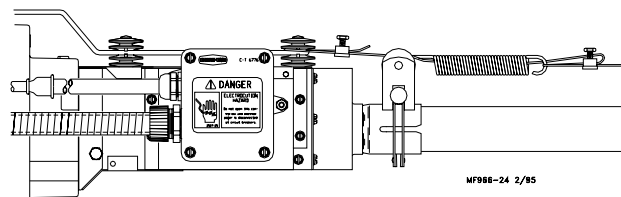
Power Lift:

Red, cast iron winch used to raise and lower the feeder line(s). Operated by a hand crank or electric drill. Referred to as Power Winch.



Electro-Guard:

A high voltage, low current shocking device used to keep birds from setting on the feeder line.



Planning the Floor Feeding System

1. Select the House Layout.

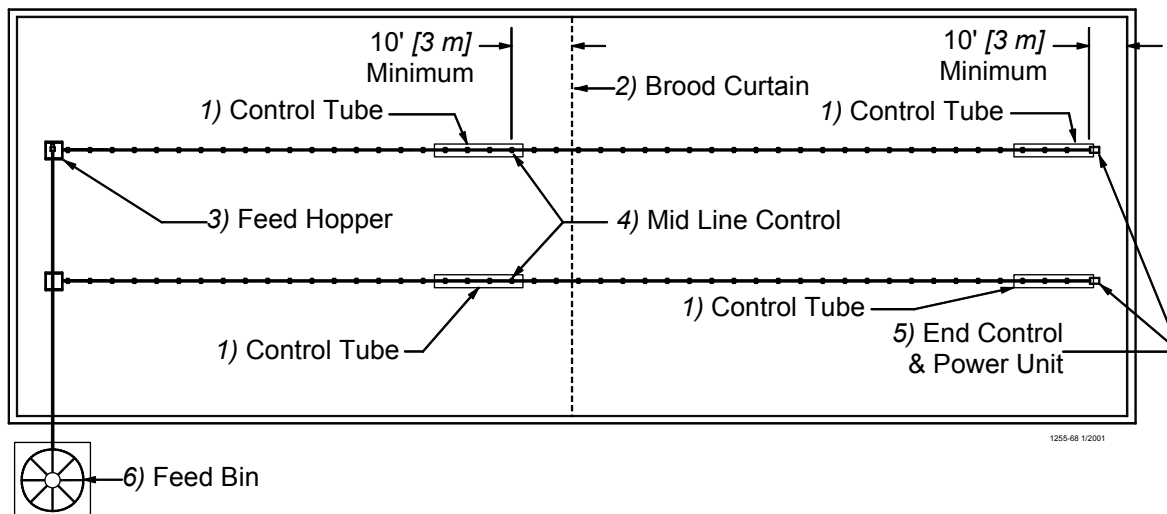


Figure 6. Component location diagram for systems up to 400 feet [122 m]. (Top View).

- A. Systems with line lengths over 400' [122 m] should be split in the center, as shown in **Figure 7**. This will reduce auger running time and eliminate the need for Mid-Line Controls for partial house brooding.

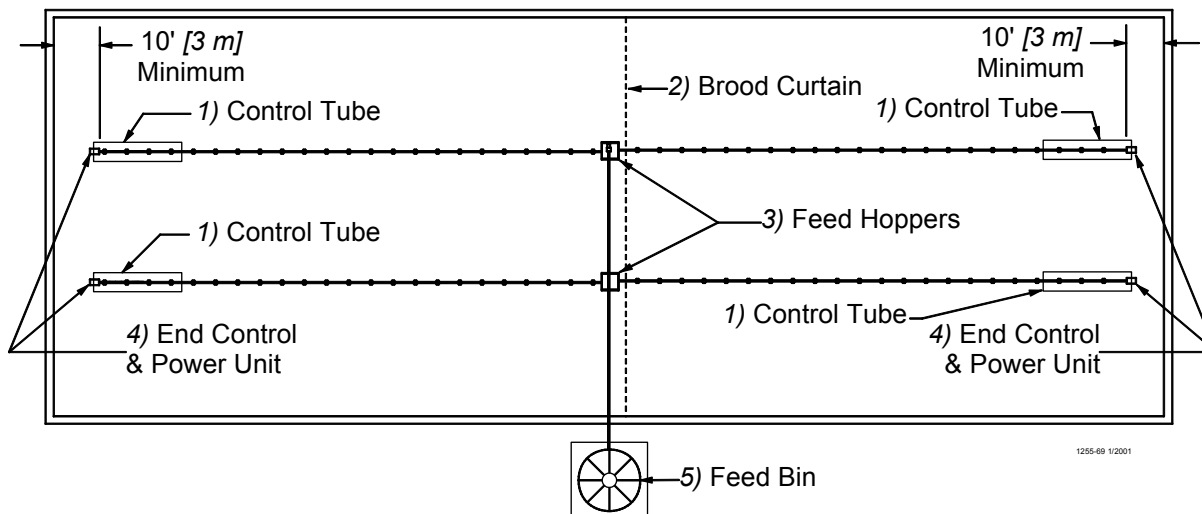


Figure 7. Component location diagram for systems over 400 feet [122 m]. (Top View).

2. Determine the Feed Bin location.
3. Determine the Brood Curtain location.
4. Determine the location for the End Control Pans. **The Feeder Control Pans should be at least 10' [3 m] from the Wall or Brood Curtain.**
5. Determine the distance to the Feeder Line from the Side Wall.
6. Determine the distance from the Feed Hoppers to the End Wall for a Straight Line Feeding System.

General Installation Information

Please read the installation instructions in this manual prior to beginning the installation. This manual provides the necessary information on the installation, operation, and maintenance of the Chore-Time feeding equipment you have purchased.

The suspension, hopper assembly, feeder line installation, and anti-roost installation is the same for each system, except where noted otherwise. Please pay particularly close attention to insure proper assembly and installation of the equipment.

Each of the feeders may be used on broilers from 1 day old through the grow-out. Each feeder has adjustability features built-in, allowing the operator to manage the feeding system effectively and efficiently.

Suspension systems are based on ceiling heights of 14 feet (4.26 m) with suspension drop points every 8 feet (2.4 m). **DO NOT EXCEED 10 FEET (3 M) BETWEEN SUSPENSION DROPS.** Refer to the suspension section in this manual for installation details.

The Agri-Time Meal-Time Control is used to control the Model H2 Feeders. The optional Agri-Time Time Clock Control may be used in certain installations where the Meal-Time feature is not required.

The Feeder Control Units should be at least 10 feet (3 m) from the wall or partition. See diagrams on page 11.

The Model H2 Control Units use a 348 R.P.M. Gearhead, delivering approximately 17 pounds per minute or 7.7 kg per minute. This rating is based on feed with a density of 40 pounds per cubic foot or 640 kg per cubic meter.

Single phase 60 Hz and single and three phase 50 Hz Power Units are available for the Model H2 Feeders.

Systems up to 300' (91 m) require 1/3 H.P. Power Units. Systems over 300' (91 m) require 1/2 H.P. Power Units.

General Management Recommendations that apply to Model H2 Feeder systems are covered on page 7.

This section provides you with valuable information concerning feeder installation, operation, etc. It is important that you read this information and understand how the feeder was designed to operate. Then, *you may custom operate* the system to fit *your* individual needs.

Laying out the Suspension System

1. Select the Suspension type.
 - A. For systems up to 350' [107 m]

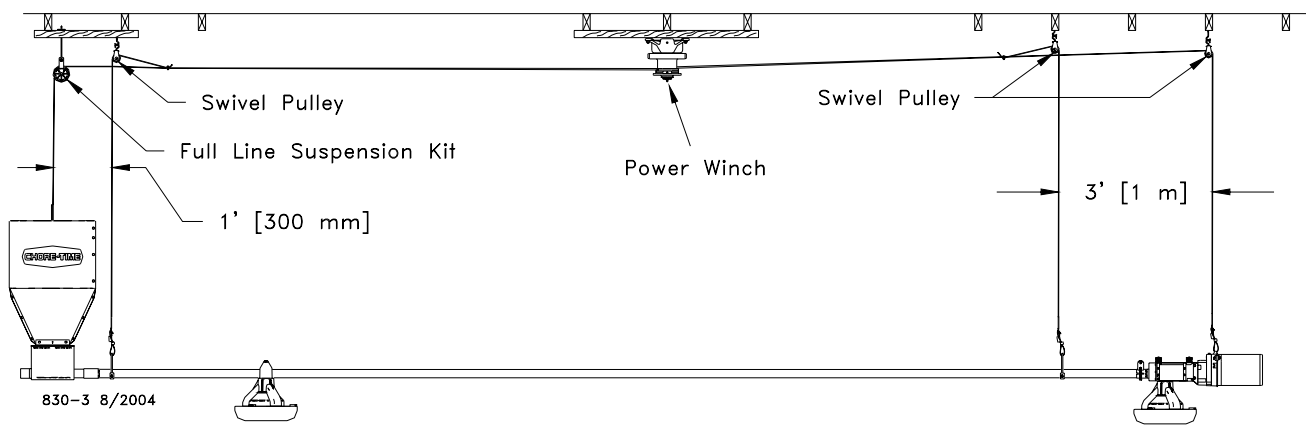


Figure 8. Suspension for systems up to 350' [107 m]

B. For systems over 350' [107 m]

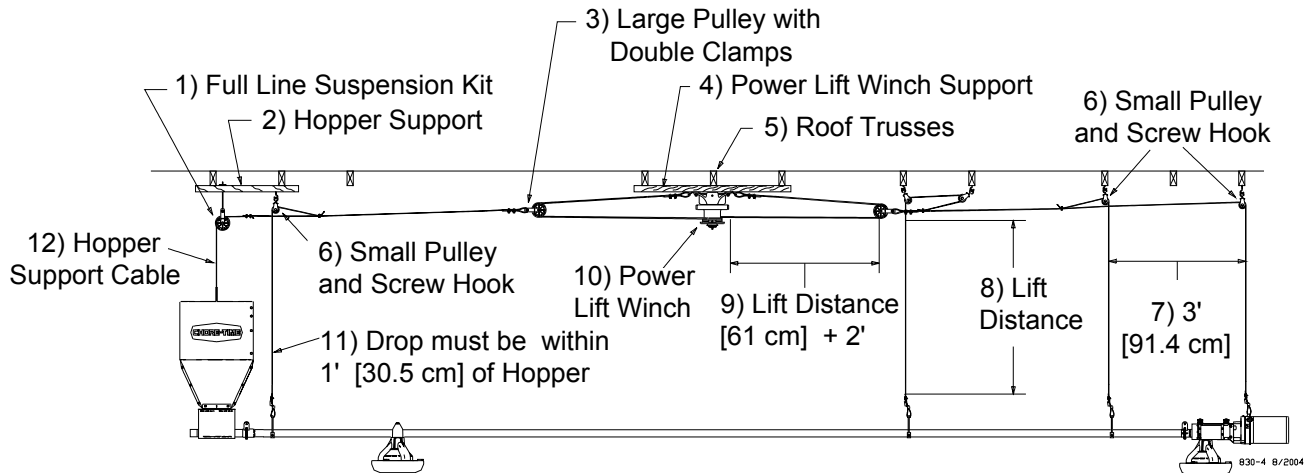


Figure 9. Suspension for systems over 350' [107 m]

2. Locate the Power Lift Winch. The Power Lift Winch requires a support that will span, in a wood frame house at least 3 rafters, and in a steel frame house at least 2 rafters.
3. Locate the Power Unit and Feed Hopper. Special support is required at each Power Unit and Feed Hopper location.
4. Determine the Drop Location and length. Suspension systems are based on ceiling heights of 14' [4.3 m] with suspension drop points every 8' [2.4 m]. DO NOT EXCEED 10' [3 m] BETWEEN SUSPENSION DROPS.
5. Determine the location for Screw Hooks. Mark a straight line or use cable to locate Screw Hooks. Use the offset of Screw Hooks where necessary.

Suspension System

Power Lift Winch Installation

1. Bolt the Power Winch, fully assembled, to the Power Lift Winch Support, either a 2" x 8" [50x200 mm] board that will span at least 3 rafters or a 3/8" [9.5 mm] thick steel plate welded to two pieces angle iron that are each long enough to span at least 2 rafters, using 5/16-18 hardware supplied in the Hardware Package. The brake mechanism will extend toward one side.

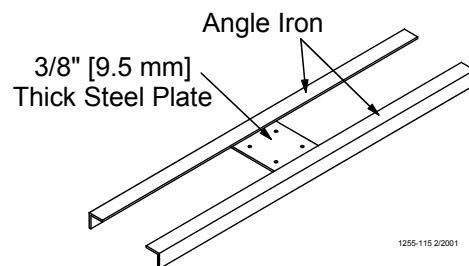


Figure 10. Optional Power Lift Winch support detail

Install a Cable Hook, supplied in Hardware Package, between the mounting bolt and Power Winch frame, as shown in **Figure 11**.

2. Attach the Power Lift Winch Support (with the Power Winch secured) to the ceiling at the center of the feeder line. See **Figure 12**. The Power Lift Winch Support must be parallel to the feeder line and must span at least 3 rafters in a wood frame house and 2 rafters in a steel frame house.

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

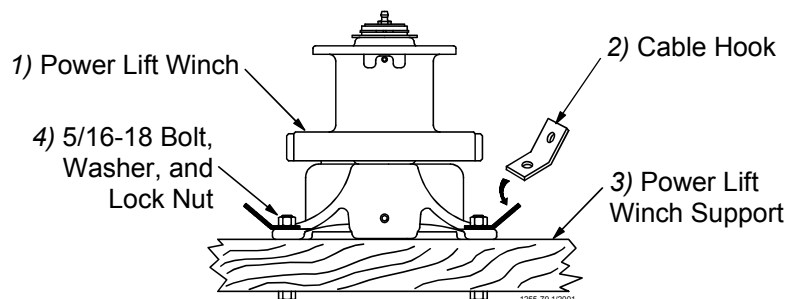


Figure 11. Assembling the Power Winch to the Rafters

with where the main cable is to be installed.

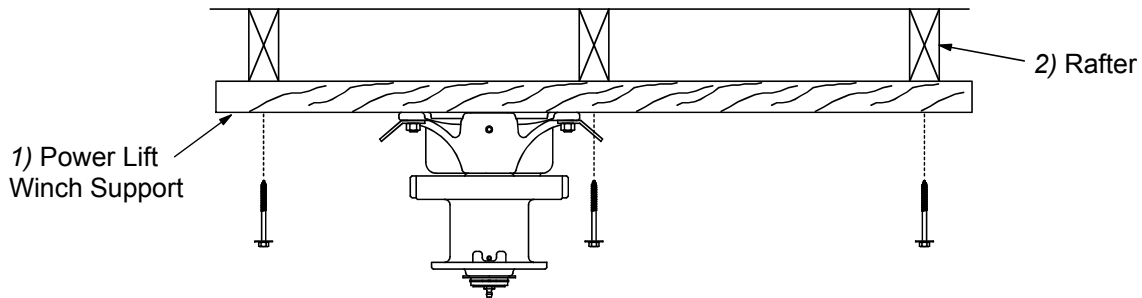


Figure 12. Mounting the Power Lift Winch and Support to the Rafters

Installing the Main Winch Cable

The Suspension Systems are based on ceiling heights of 14' [4.3 m] with Suspension Drop points every 8' [2.4 m]. DO NOT EXCEED 10' [3 m] BETWEEN SUSPENSION DROPS. Refer to suspension section in this manual for installation details.

Adequate overhead structure must be provided to support the weight of the feeders, hoppers, power units, etc. The type of installation required depends on the feeder line length.

IMPORTANT: Special support is required at each Hopper location.

•Power Unit Locations: **The Feeder Line must be supported within 3' [0.9 m] of the Power Unit.** This is in addition to the required Power Unit suspension. If the Control Unit or Hopper does not come out directly under a truss, fasten a pulley to a 2" x 8" [50 x 200 mm] board or steel angle that will span 2 trusses and is capable of supporting 300 lbs [136 kg] for the Hopper and 75 lbs [34 kg] for the Control Unit.

•Feed Hopper Locations: **The Feeder Line must be supported within 1' [30 cm] of the Feed Hopper.** This is in addition to the required Feeder Hopper suspension. After determining the type of suspension system required, decide 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 Line is to be installed.

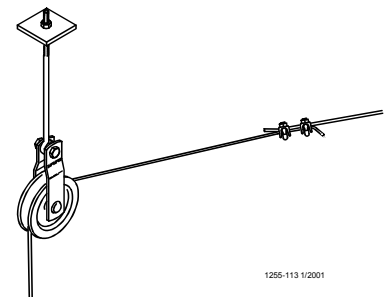


Figure 13. Full Line Suspension

3. Extend the 3/16" [5 mm] Main Winch Cable the full length of the feeder line. Attach the cable temporarily to the ceiling with nails, staples, or some type of fasteners. **Figure 14.** shows a double back arrangement for feed lines over 350' [107 m].

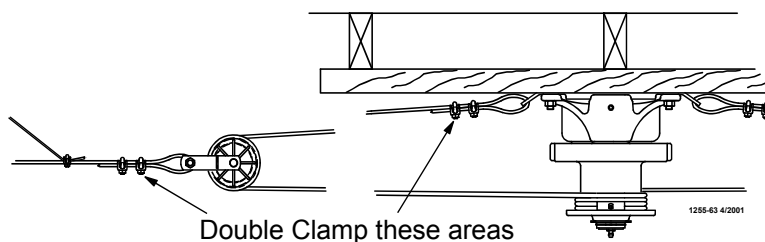


Figure 14. Double back arrangement for feed lines over 350' [107 m]

4. Route 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 15**.

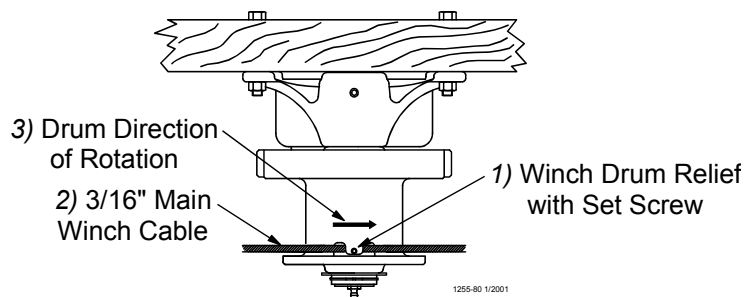


Figure 15. Attaching the Cable to the Power Winch

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 16**.

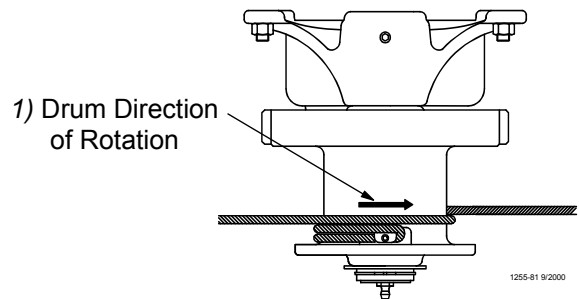


Figure 16. Power Winch Drum Rotation

Screw Hook Installation

The recommended distance between the drops for the Model H2 is 8' [2.4 m] on center. Do not exceed 10' [3 m] spacing on drop lines.

If the distance raised is greater than the distance between the drop spacings, offset the hooks 3" [7.6 cm] to each side of the line to prevent the cable clamps from catching the pulleys. See **Figure 17**.

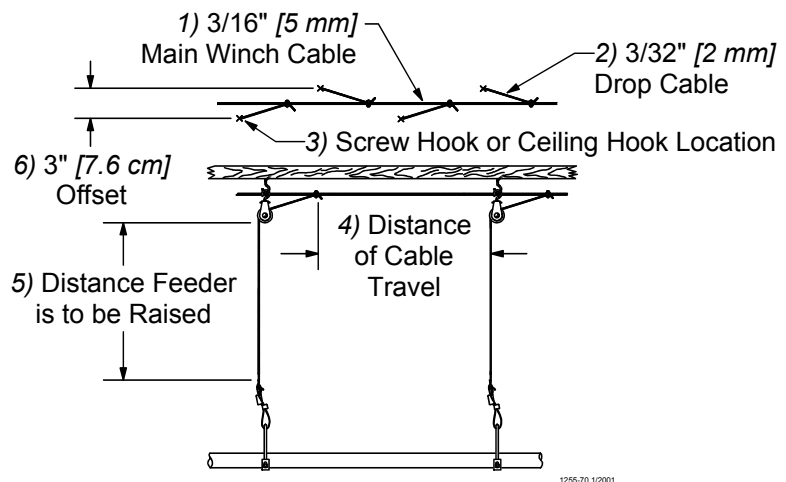


Figure 17. Drop Line Off Set Detail

Screw the hook into the truss the full length of the threads to prevent bending.

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 18**.

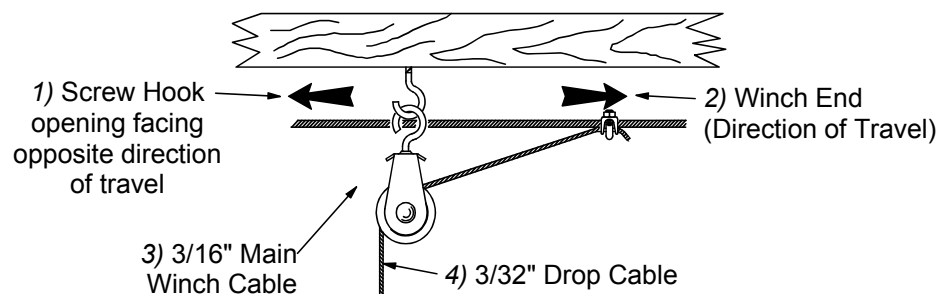


Figure 18. Screw Hook Installation

Ceiling Hook Installation

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

Steel Truss Installations

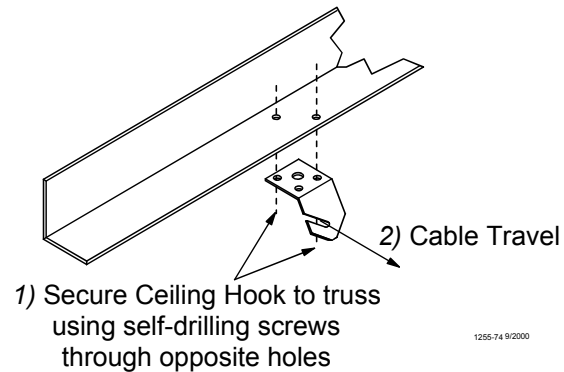


Figure 19. Steel Truss Ceiling Bracket Installation

Steel Truss Welded Installations

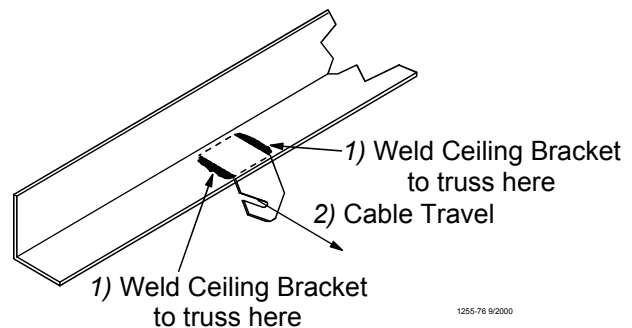


Figure 20. Welded Steel Truss Ceiling Bracket

Wood Truss Installations

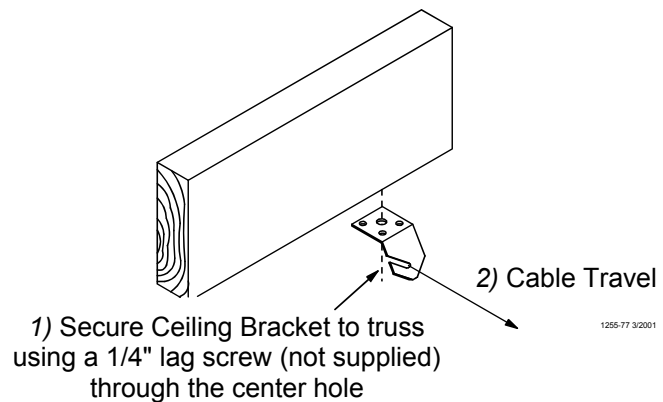


Figure 21. Wood Truss Ceiling Bracket Installation

6. After securing the Ceiling Hook to the truss, slide the hook of a Swivel Pulley into the slot, as shown in **Figure 22**.

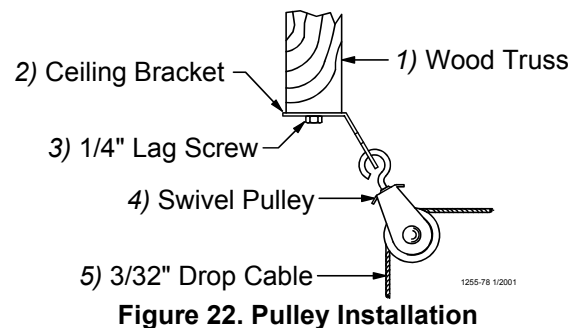


Figure 22. Pulley Installation

Drop Installation

Refer to **Figure 17. on page 15.**

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 18.** or **Figure 22.**
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. **Figure 23.** shows a "throwback" cable arrangement.

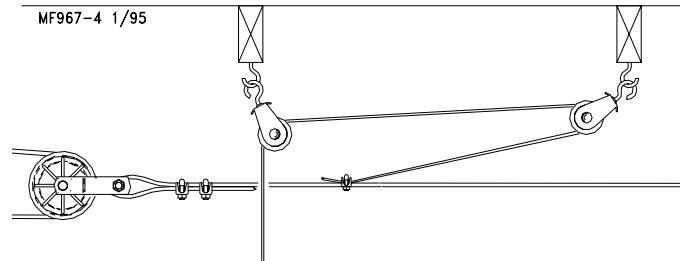


Figure 23. "Throwback" cable

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.

Hopper Assembly Procedure

200# Hopper

Loosely, assemble the 200# Hopper Side Panels, as shown in **Figure 24**, using 1/4-20 bolts and 1/4-20 hex nuts (supplied in Hardware Package). The Hopper should be assembled so that the "CHORE-TIME" decals are on opposite sides of the hopper.

Secure the Boot Hangers to the bottom of the hopper, using 1/4-20 hardware.

Install the Hanger Bracket Assembly *perpendicular* to the feeder line, using 1/4-20 hardware supplied. The Hopper Panel with Switch Hole should be directly over the feeder line.

Secure Adjustment Brackets to Hanger, using 5/16-18 bolt and lock nut, supplied.

With the Hopper assembled, less the cover, tighten the hardware.

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 25** shows the suspension components assembled. The pin should be located in the center hole of the Hanger.

Install the Hopper Switch, as shown in **Figure 24**.

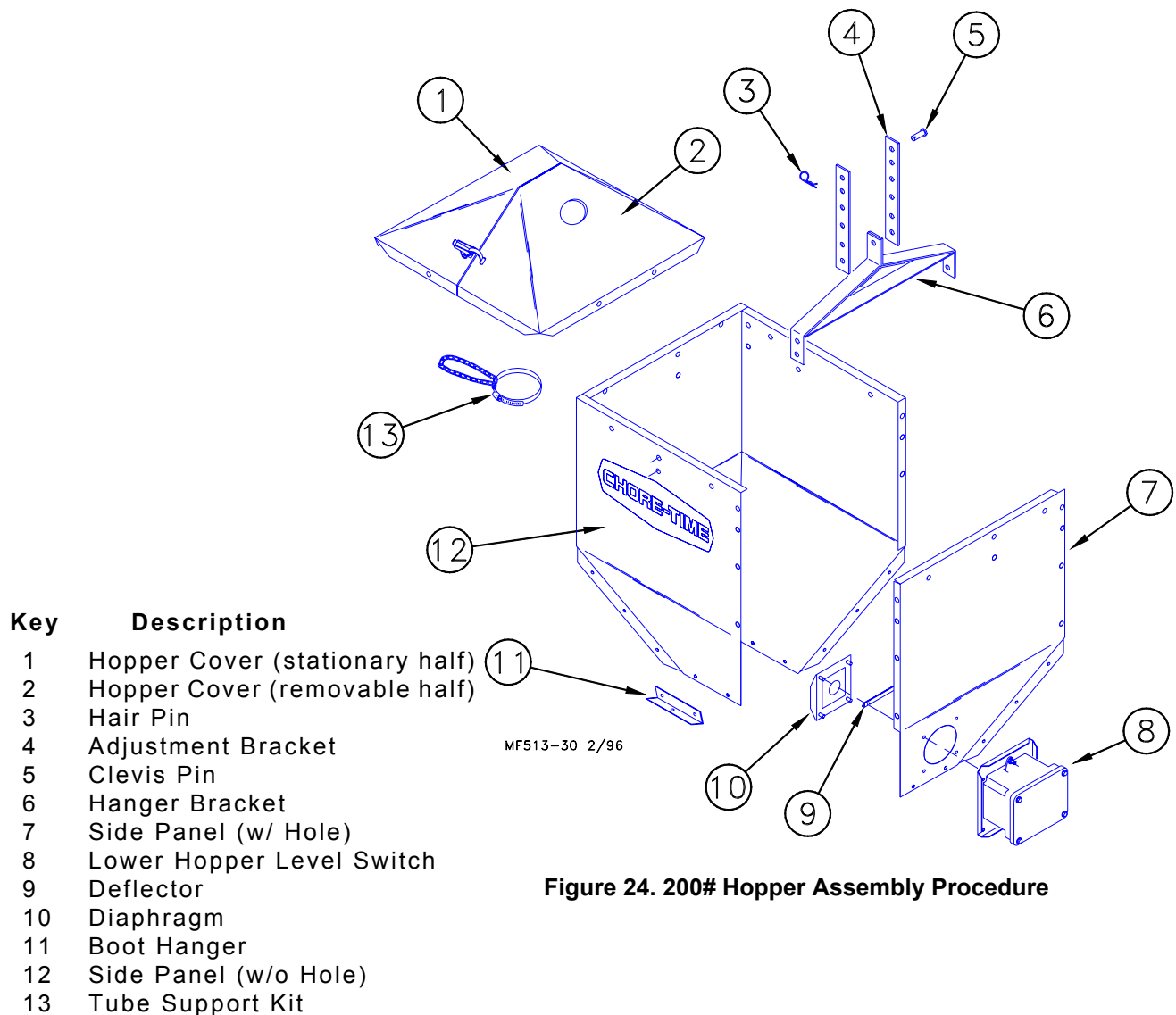


Figure 24. 200# Hopper Assembly Procedure

Key	Description
1	Clevis Pin and Hair Pin
2	Cable Assembly
3	Adjustment Bracket
4	Hanger Bracket

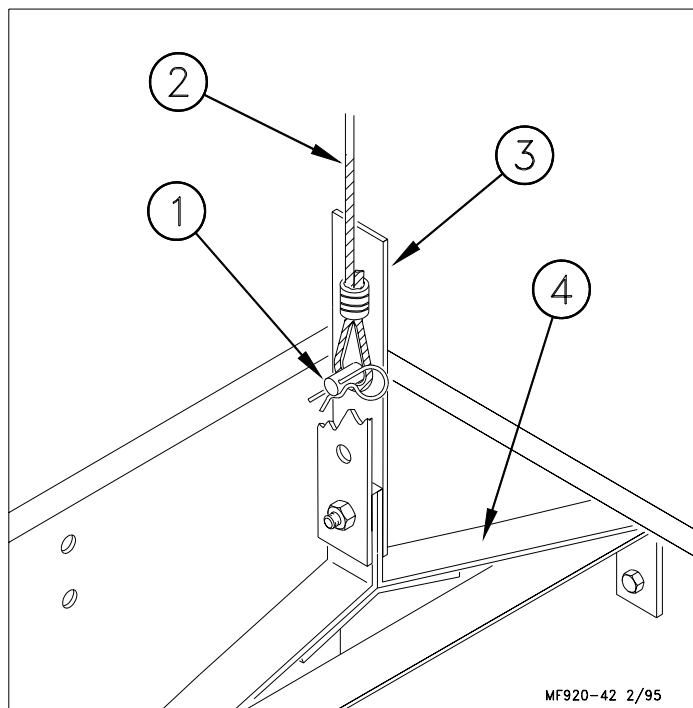


Figure 25. 200# Hopper Suspension components.

Figure 26 shows the assembled hopper with suspension components installed.

Suspend the hopper, as shown in **(Figure 8)** by routing the cable around the Full Line Suspension Pulley and fastened to the main cable, using (2) cable clamps.

To install the boot on the hopper, slide the boot onto the hangers built into the bottom of the hopper. Use cotter pins, supplied, to secure the boot to the hopper.

The Hopper Cover, shown in **Figure 24**, is optional and must be ordered separately, if desired.

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

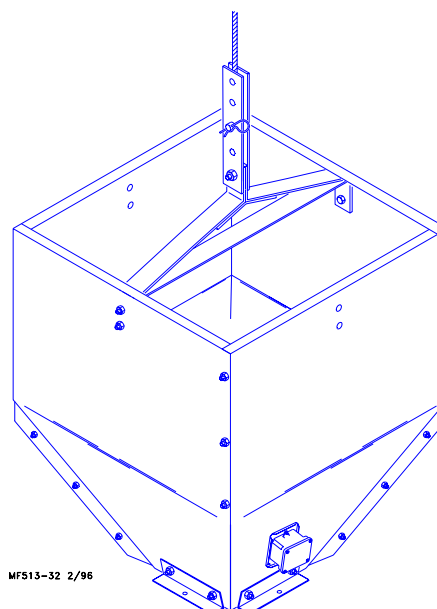


Figure 26. Assembled 200# Hopper w/o Cover.

100# Hopper

Loosely, assemble the 100# Hopper Side Panels, as shown in **Figure 27**, using 1/4-20 bolts and 1/4-20 hex nuts (supplied in Hardware Package).

Assemble the Hopper Hangers, as shown in **Figure 27**.

Secure Adjustment Brackets to Hanger, using the 5/16-18 bolt and nut, supplied.

Locate the (2) Hopper Hangers (assembled) in the Side Panel corners, as shown, and secure using 1/4-20 hardware supplied.

With the Hopper assembled, less the cover, tighten the hardware.

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 28** shows the suspension components assembled. The pin should be located in the center hole of the Hanger.

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 latch in place.

Install the Tube Support Kit, as shown in inset (Drop Tube supplied with the fill system).

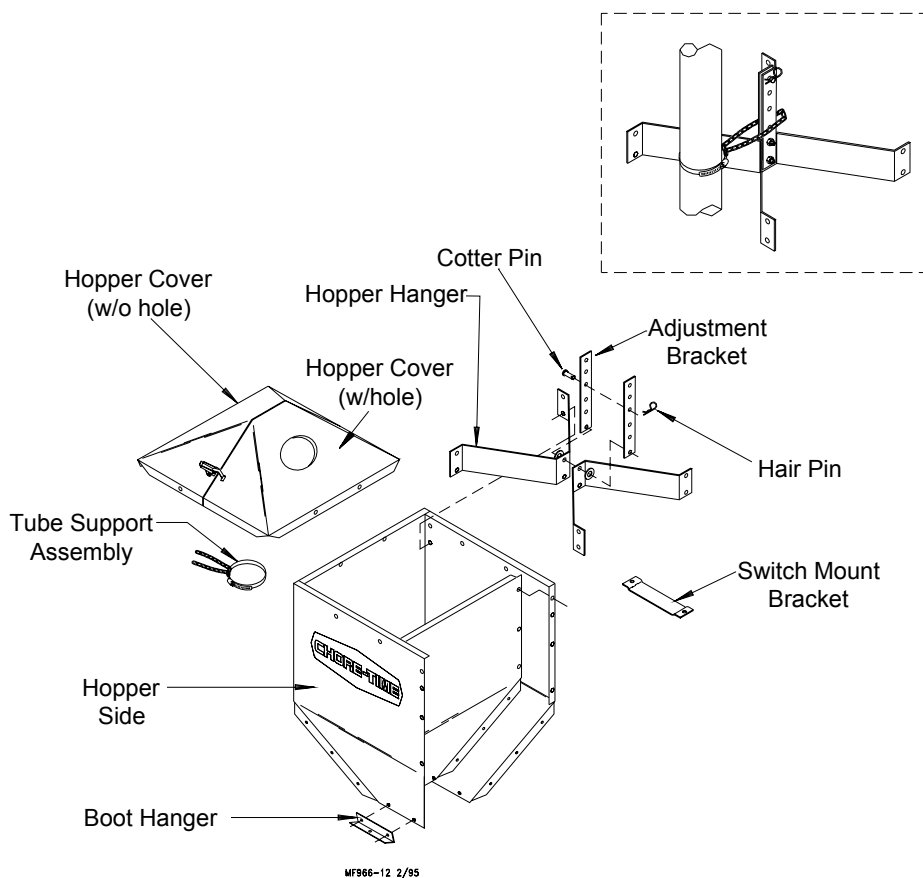


Figure 27. 100# Hopper Assembly Procedure

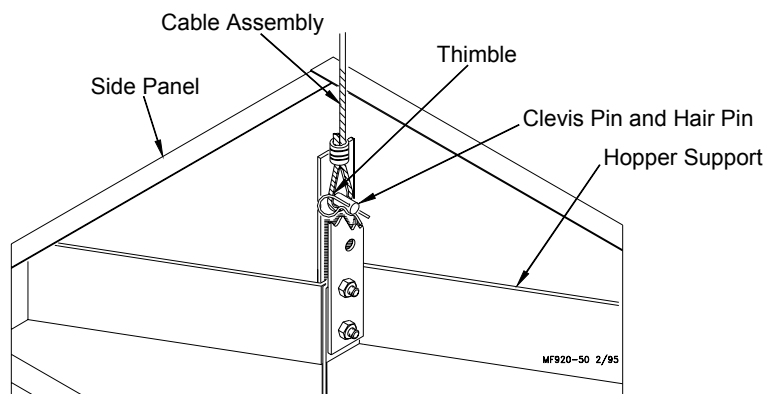


Figure 28. 100# Hopper Suspension Components

Suspend the hopper, as shown in **Figure 13. on page 14** by routing the cable around the Full Line Suspension Pulley and fastened to the main cable, using (2) cable clamps.

To install the boot on the hopper, slide the boot onto the hangers built into the bottom of the hopper. Use cotter pins, supplied, to secure the boot to the hopper.

Secure the Hanger Bracket in the Hopper, using 1/4-20 hardware supplied. Use the holes in the Hanger Bracket as a template for drilling .312 dia. (8 mm) holes in the Side Panels. The Hanger Bracket should be located so that when the Hopper Level Control Switch is installed, it is located near the center of the hopper body.

The Hopper Cover, shown in **Figure 27**, is optional and must be ordered separately, if desired.

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

Feeder Line Assembly & Suspension

Feeder Pan Assembly Procedure

1. Broilers: Position the lip of the feeder pan in the #2 tab of two struts, see **figure 29**.

Turkeys: Position the lip of the feeder pan in the #4 tab of two struts, see **figure 29**.

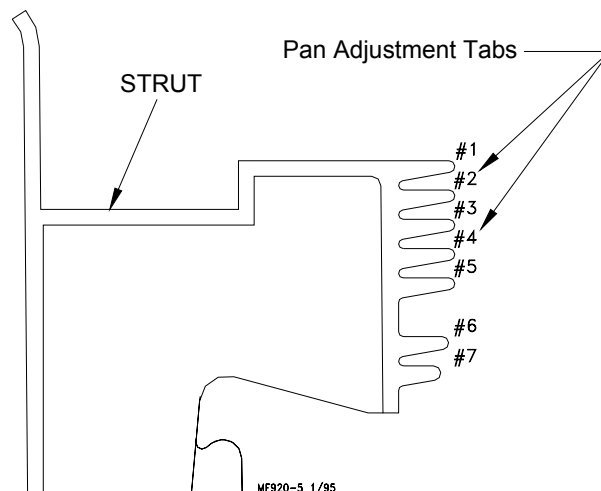


Figure 29. Adjustment Settings

2. Pull the pan, as shown in **Figure 30**, so that the lip of the pan will be in the proper setting on the third strut.

Note: If Chutes or Collars are to be used, they must be installed at this time.

3. The H2 with Flood Collar is for feeding birds started with paper under the feeder pans

To install, slide the Flood Collar over the tip of the feeder. the legs of the Flood Collar fit inside the cut-outs in the feeder cone.

Feed Chutes are used to fill the pans setting on the litter.

To install, slide the Feed Chute over the top of the feeder. The Fingers of the Feed Chute must be pointed down, toward the feeder pan.

Figure 1 - 3 on page 7 show the three different Versions of the Model H2 Feeder.

4. Build all the required Feeder Assemblies for the house.

The Feeder Assemblies will be installed on the auger tubes in the feeder Line Installation section.



Figure 30. Setting Third Strut

Feeder Pan and Tube Assembly Process

1. Slide one Feeder Pan Assembly per hole onto the auger tubes.

IMPORTANT: Install all the feeders on the tubes in the same orientation.

The single strut of each feeder should be on the same side of the auger tube throughout the system. Additionally, **if Chutes or Collars are to be used with the Model H2 Feeders, they must be installed at this time.** Feed Chutes and Flood Colors must be installed as specified on page 22.

2. Rotate the auger tubes so that the seam is down, this holds the Pan Assemblies in place on the tubes, **see figure 31.**

- 1) With seam of the feeder tube up, slide the pan assembly on the feeder tube. Position one (1) feeder pan over each hole on the feeder tube.
- 2) Rotate the feeder tube after the feeder pan assemblies are in place. This will lock the feeder pan assemblies in place.

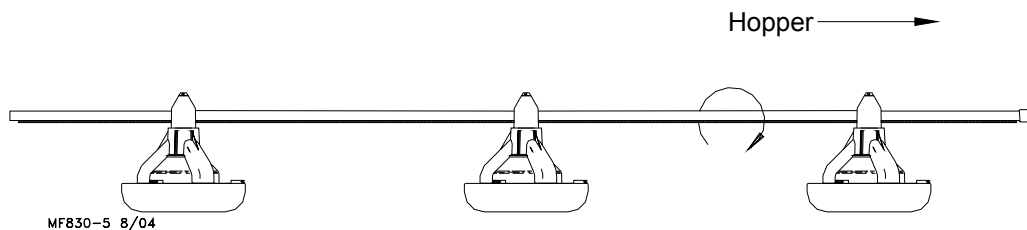


Figure 31. Assemble Feeders on Tubes

Assemble and Suspend the Feeder Line

1. The auger tubes and feeders may be laid out end to end in approximately the final location of the line. **The expanded end of each tube should be toward the Hopper end of the line, see figure 32.**
2. Connect the individual feeder tubes together by inserting the straight end of one tube as far as possible into the belled end of the next tube.

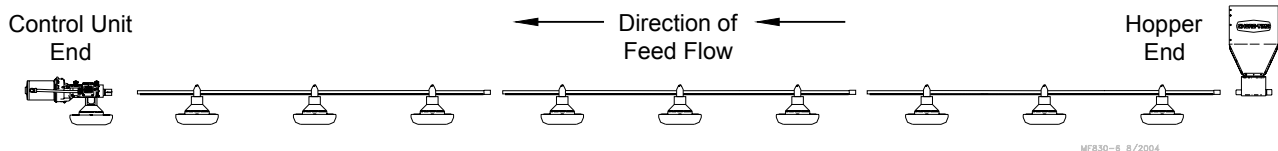


Figure 32. Assemble Feeders on Tubes

3. To achieve total feed drop out all along the system, the Chore-Time logo should be centered at the crown of the tubes and all the Hangers should be installed as shown in **Figure 33.**

If desired, the tubes may be indexed, allowing only partial feed drop out of the tubes closest to the hopper. Refer to page 36 for tube indexing instructions.

4. Place a Tube Clamp Assembly or Clamp/Anti-Roost Bracket at each joint. **Figure 34** shows the standard Clamp and Clamp/Anti-Roost Bracket.

Systems using 9' or 10' tubes require a Clamp/Anti-Roost Bracket at every **fifth** joint.

Systems using 12' tubes require a Clamp/Anti-Roost Bracket at every

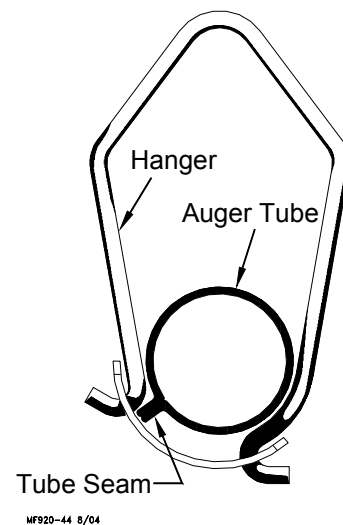


Figure 33. Hanger Installation

fourth joint. All other joint in the system use the standard Tube Clamp Assembly.

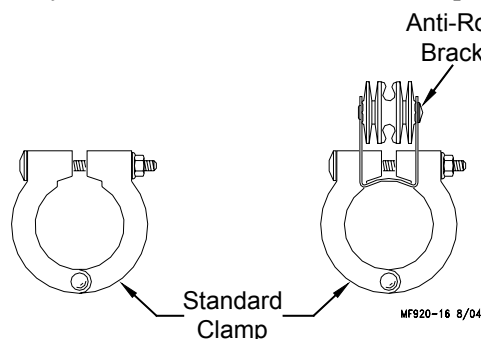


Figure 34. Tube Clamps

Continue down the entire length of the feeder line so that every joint is secured with a standard Clamp or Clamp/Anti-Roost Bracket. **Figure 35** shows the proper clamp location on the tube joint. Do not tighten the clamp at this time.

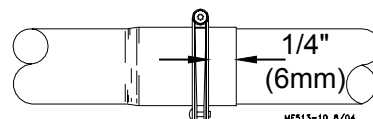


Figure 35. Clamp Installation

5. Install the Hangers on the feeder tube at 8' (2.4 m) spacings determined by the suspension drop lines. **Figure 36** shows the proper installation of the Hanger Assembly. Make sure the outlet drop hole is downward when the Hangers are installed, otherwise feed will not be allowed to drop into the feeder pan.

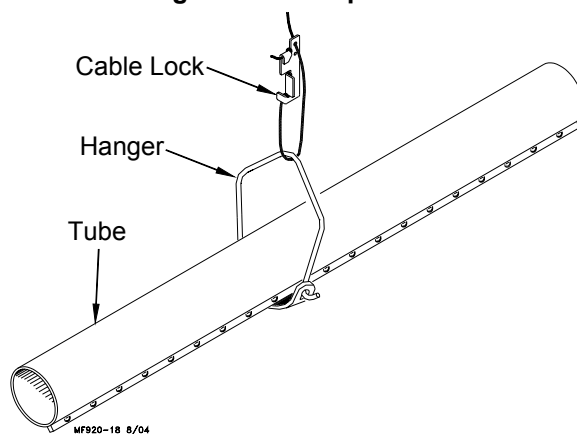


Figure 36. Hanger Installation

6. Install Adjustment Leveler within 6" (152 mm) of feeder line. **Figure 37** shows the proper cable routing around the Adjustment Leveler.
7. Following the installation of all drops, check drop cables before raising feeder line. Cable must be tracking properly on all pulleys before raising the feeder line.
8. Raise the feeder line to a convenient working height.
9. With the feeder line suspended, measure from the floor or ceiling to the auger tubes to level the system.
10. Before tightening each clamp;
 - make sure each tube is level (not sagging, sloping, etc.).
 - make sure straight end of each tube is fully inserted in belled end of next tube.
 - the Chore-Time logo is on crown of tube.
 - make sure the clamps are located, as shown in **Figure 35**.

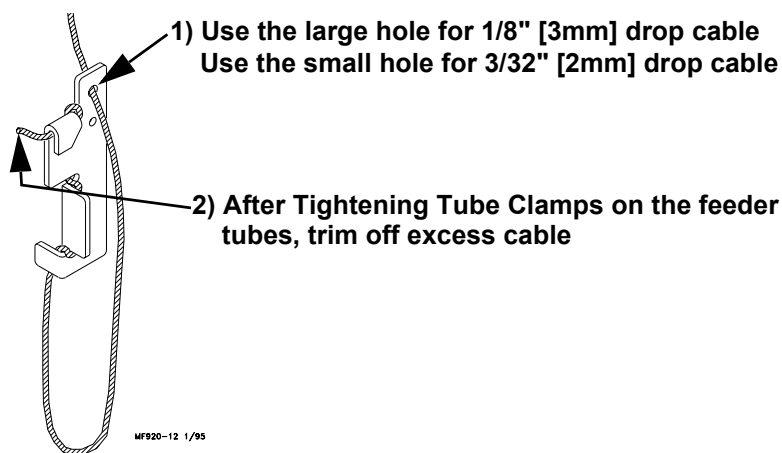


Figure 37. Cable Lock Threading

Finally, tighten the Tube Clamps on the feeder tubes. Clamp the joints securely, but do not crush the tubes.

Installing the End Control, Boot Assembly, and Auger

The End Control Unit must be at least 10 feet [3 m] from the end of the building to allow birds access around the end of the feeder line.

1. Assemble the End Control Unit to the Feeder Line Control Tube using a clamp/anti-roost bracket. See **Figure 38**. **DO NOT INSTALL THE POWER UNIT AT THIS TIME.**

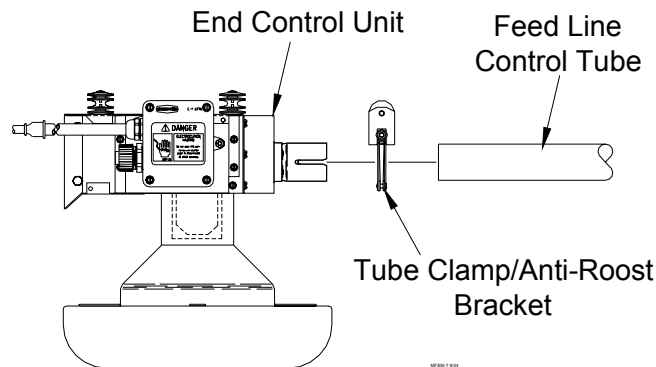


Figure 38. Connecting End Control Unit to the Feed Line

2. Install the Feeder Boot by sliding the straight end of the Feeder Boot into the belled end of the Feeder Tube. Install a clamp/anti-roost bracket on the bell and tighten. The Feeder Boot must be level with the open top of the Feeder Boot flat. See **Figure 39**. **DO NOT INSTALL THE ANCHOR BEARING AND BEARING RETAINER AT THIS TIME.**

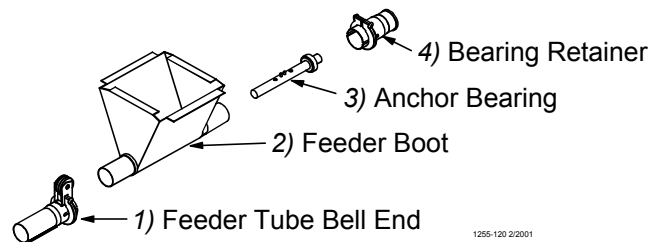
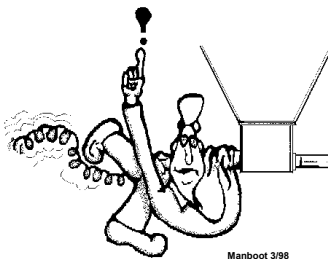


Figure 39. Installing the Feeder Boot

Auger Installation

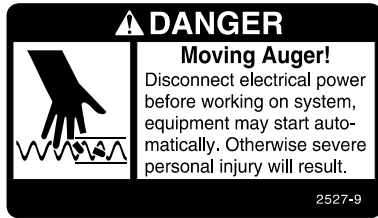
Note: Use extreme caution when working with the auger. The auger is under tension and may spring causing personal injury. Wear protective clothing, gloves, and safety glasses when working with the auger.



**BE CAREFUL 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 Brazing section of this manual.



1. Use extreme caution when pushing the auger into the auger tubes. Keep your hand away from the end of the auger tube to avoid injury.
With the auger coiled about 6 feet [*1.8 m*] from the end of the boot, uncoil the auger from the outside and feed the auger through the boot into the tubes.
Push the auger into the tube in short strokes.
Uncoil and handle the auger carefully to avoid damaging or kinking the auger.
2. If more than one coil is required for each feeder line, the auger ends will have to be brazed together. Refer to the Brazing the Auger section in this manual.
3. Install the Anchor Bracket to the Power Unit/Gearhead, as shown in **Figure 40**, with the included 5/16-18 Bolts.

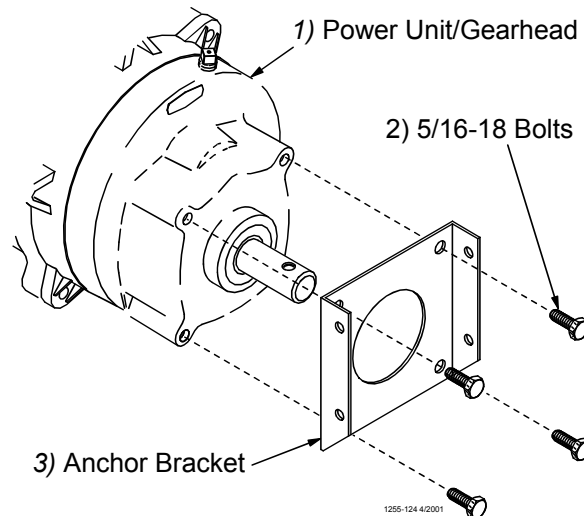


Figure 40. Assemble the Anchor Bracket to the Power Unit/

4. Slide the Drive Tube and flat washer over the output shaft on the Power Unit, as shown in **Figure 41**.
5. Continue installing auger until the auger reaches the Control Unit end of the feeder line.
6. Turn the Drive Tube Weldment into the auger, then attach to the output shaft of the Power Unit, as shown in **Figure 41**. Use the Driver Block to secure the auger to the Output Shaft.

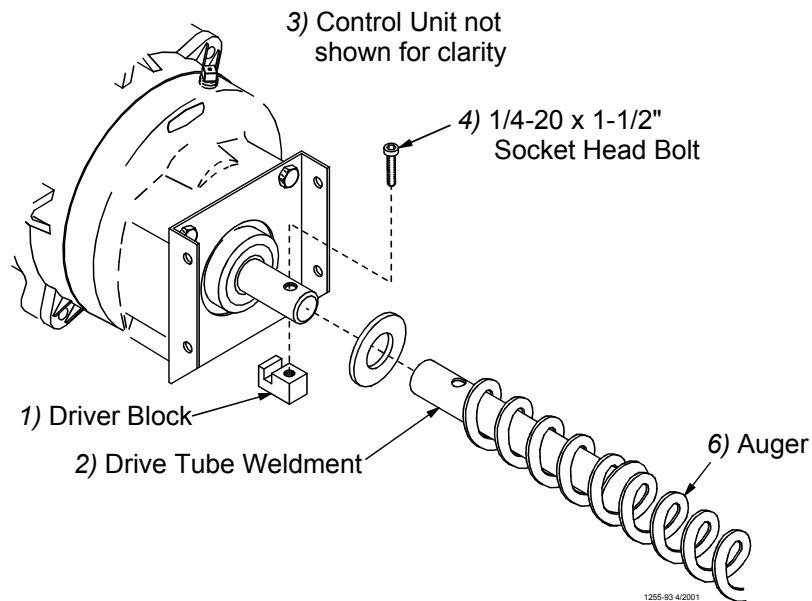


Figure 41. Auger Driver Components

7. Attach the Anchor Plate and Gearhead Assembly to the Control Unit Body using the included 1/4" Lock Washers and 1/4-20 x 1/2" Bolts. See **Figure 42**.

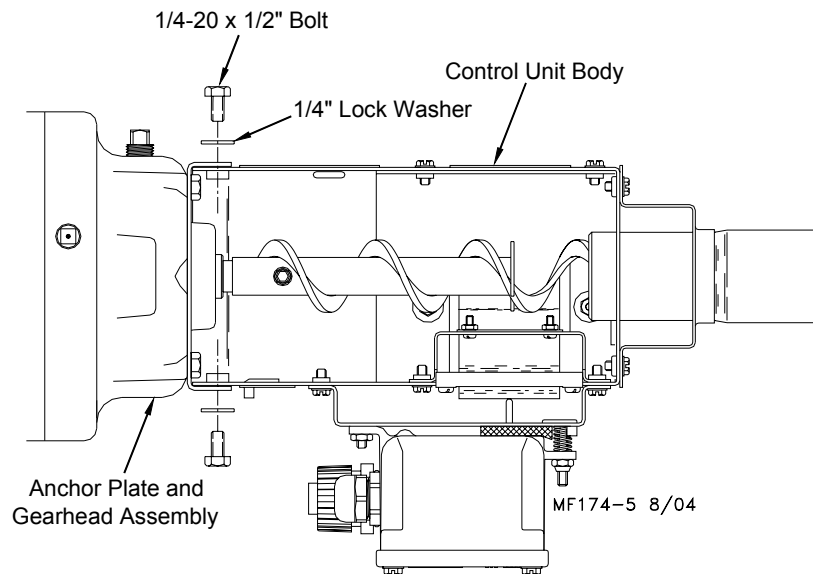


Figure 42. Attaching the Anchor Plate and Gearhead Assembly to the Control Unit Body

8. Install the Metal Water Tight Connector (item 1) in the Feed Line Motor (item 2). Cut the Flex Conduit (item 3) to length. Slide the wires from the end control through the Flex Conduit (item 3). Install the Flex Conduit (item 3) in the connectors. Connect the wires to the Feed Line Motor (item 2).

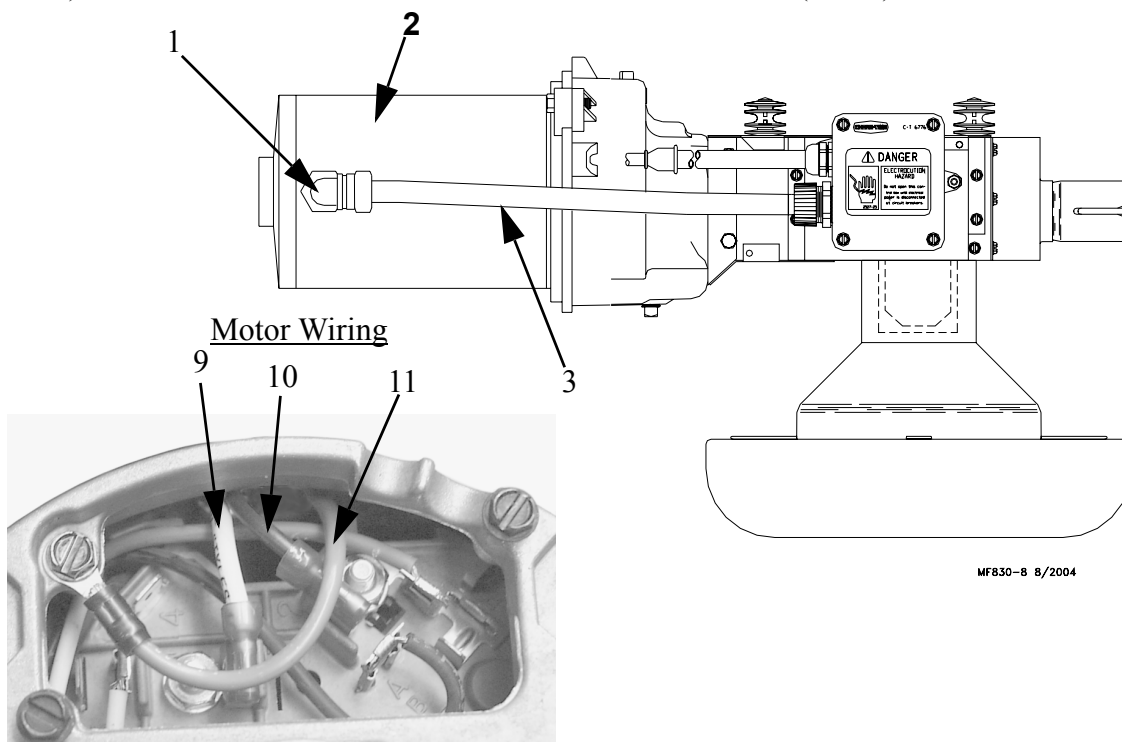


Figure 43. Wiring the Motor

9. Attach all covers and wire according to the wiring section of this manual.
10. Pull the auger at the boot end until it begins stretching. Then let it relax. In the *relaxed* position, mark the auger at the end of the boot. See Figure 44.

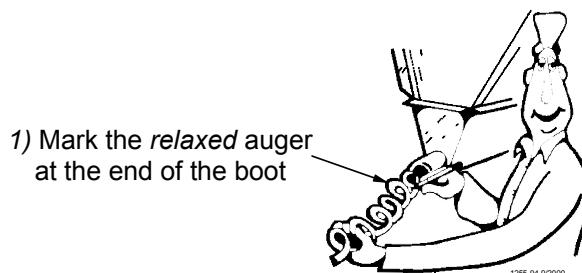


Figure 44. Measure the Auger from the relaxed position

11. Auger stretch:
The auger needs to be stretched 7" [180 mm] per 100' [30 m]. Example: A 300' [90 m] feeder line requires 21" [500 mm] of stretch.
Beginning at the *relaxed* position, measure the required amount of stretch. Mark the auger at that point. Grip the auger 8" [200 mm] ahead of this mark with locking pliers. Allow the auger to pull back into the boot so that the pliers rest against the end of the boot. See Figure 45.

Use a hacksaw or bolt cutters to cut the auger at the stretched auger mark.

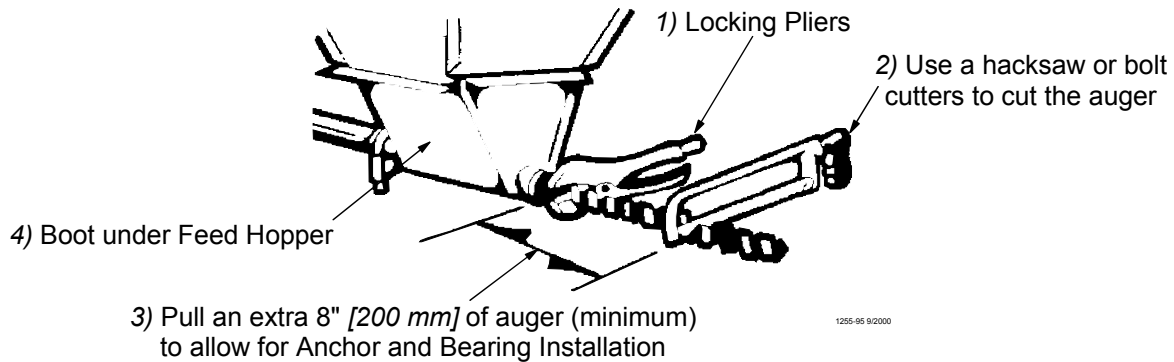


Figure 45. Cut the Auger with required stretch

12. Insert the Anchor Assembly into the auger until it touches the washer at the back of the anchor. Tighten the setscrews in the center of the anchor until they touch the auger, then tighten a maximum of 1/2 turn. See **Figure 46. DO NOT OVERTIGHTEN THE SET SCREWS.**

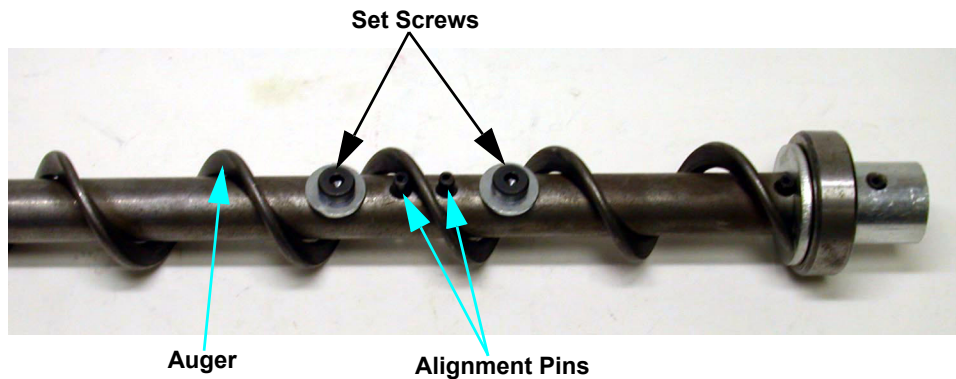
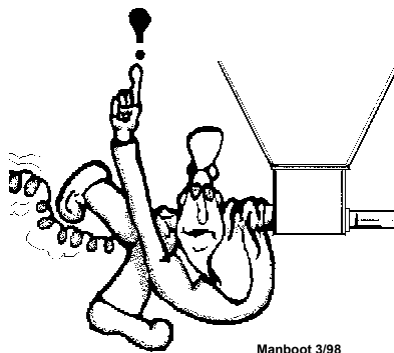


Figure 46. Auger and Anchor Bearing Connection

13. **Carefully** remove the locking pliers while holding onto the Anchor and Bearing Assembly and auger securely.
Slowly ease the auger back into the tube. Use caution. If the auger is allowed to spring back, the bearing race may crack.
 Install the Bearing Retainer and fasten with a tube clamp. Keep the Bearing Retainer flush with the end of the anchor for safety.

14. Place the cannonball in the boot.



Manboot 3/98

Auger Brazing

The auger should be brazed if it is necessary to splice or lengthen it. A bronze, flux coated rod is recommended.

The ends of the auger should butt against each other, **DO NOT THREAD INSIDE EACH OTHER**. See **Figure 47**. The joint should be well filled with no sharp edges or rough corners to wear against the tube. To align the auger for brazing, lay it in angle or channel iron and clamp it firmly in place. Use low heat. Allow the joint to air cool; rapid cooling will cause the auger to become brittle.

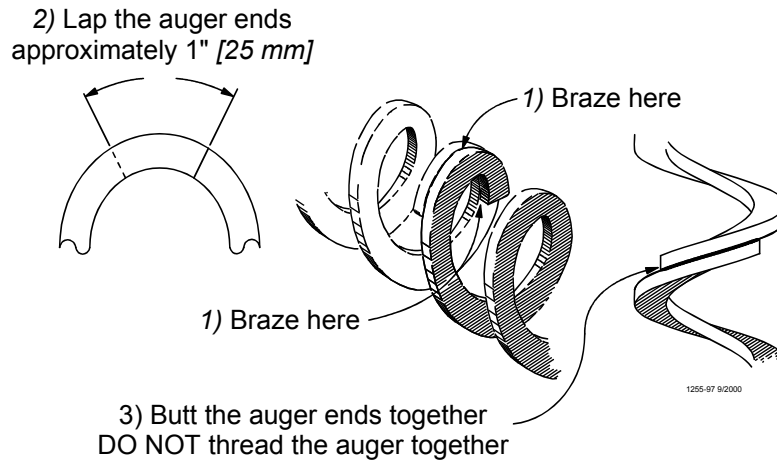


Figure 47. Auger Brazing

Anti-Roost Installation

1. Unroll the bulk anti-roost cable. Note: If the cable is unrolled as shown in **Figure 48**, taking 5 loops of the coil with one hand, then changing hands to remove 5 loops as it is unrolled, it will lie flat during installation.

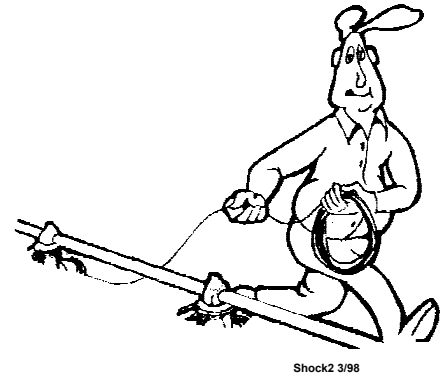


Figure 48. Unrolling the Cable

2. Start at the hopper end of the line and form a loop around the anti-roost bracket. For best results, make a double loop around the anti-roost insulator in the center groove of the insulator and fasten with a 1/16" cable clamp as shown in **Figure 49**.
3. Insert the cable in the insulator on the top of each Grill Support between the hopper and the next anti-roost bracket.

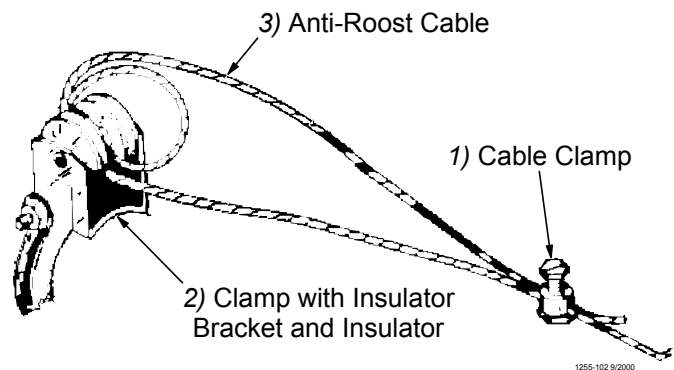


Figure 49. Anti-Roost Cable at the Hopper

4. Attach a spring in the center groove at the second anti-roost bracket and cut the cable at this point. See **Figure 50**.
5. Thread the ends of the cable through the end of the spring. Pull the cable tight so that there is 3/4" to 1" [20 to 25 mm] of stretch in the spring. Clamp the cable to form a loop and cut off any excess. See **Figure 50**.
6. Attach the cable to the insulator. For best results, make a double loop around the anti-roost insulator in the center groove of the insulator and fasten with a 1/16" cable clamp as shown in **Figure 50**.

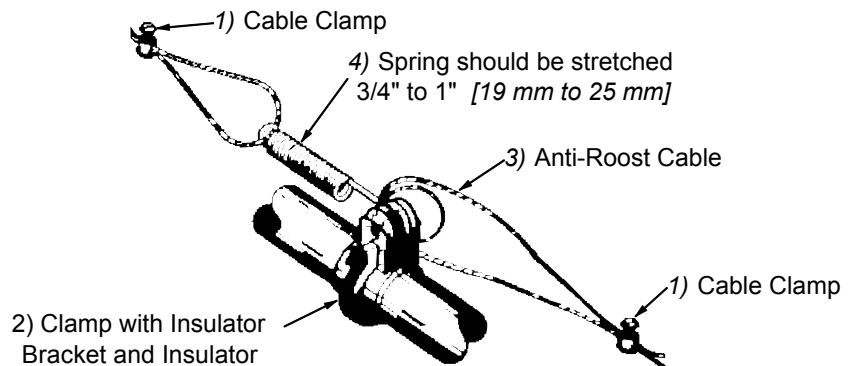


Figure 50. Anti-Roost Cable Intermediate Connection

7. Run the cable to the next insulator, 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.
8. Repeat this installation until the anti-roost cable is installed along the entire feeder line.
9. At the control unit, after clamping the cable to the spring, cut the cable about 8" to 10" [200 to 250 mm] longer than necessary. Feed the end of the cable through the center of the spring, around the first insulator on the control unit, and clamp the cable using the cable clamp supplied with the control unit. See **Figure 51**.
10. Install the wire form on the control unit insulators. Be sure the guard snaps into the retainers molded into the insulators. See **Figure 51**.

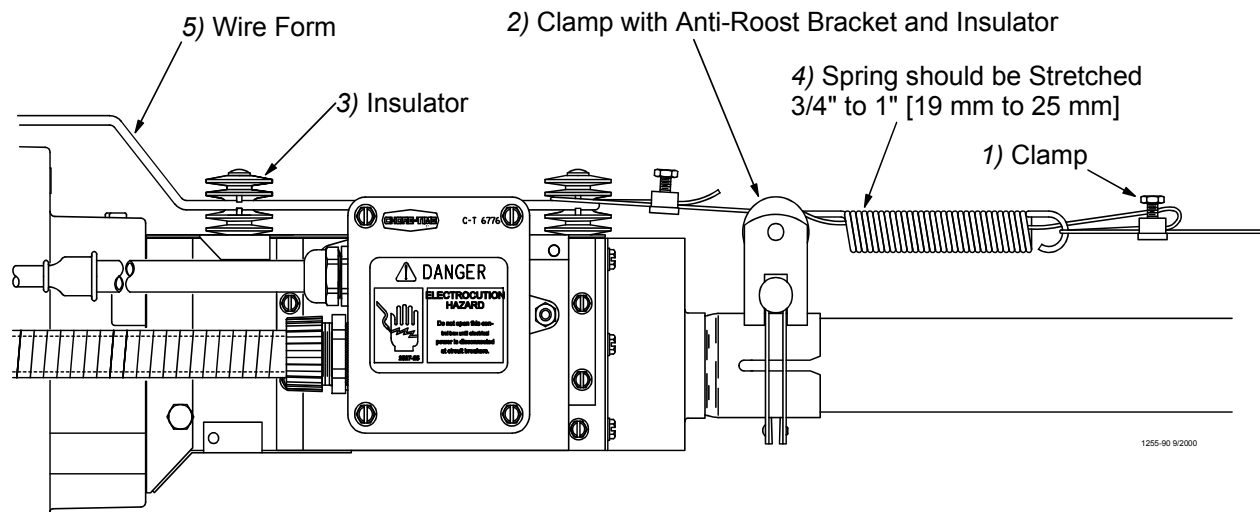


Figure 51. Anti-Roost Installation at the Control Unit

11. Install the Poultry Trainer or Line Charger, as shown in **Figure 52 or 53**.
 The Poultry Trainer is used to power all Anti-Roost lines in a house. See **Figure 52**.
 The Line Charger is used to power individual Anti-Roost lines in a house. See **Figure 53**.
 Route the charger wire from the Poultry Trainer or Line Charger to the Anti-Roost system. Secure the Charger Wire to the Anti-Roost cable, using a cable clamp.

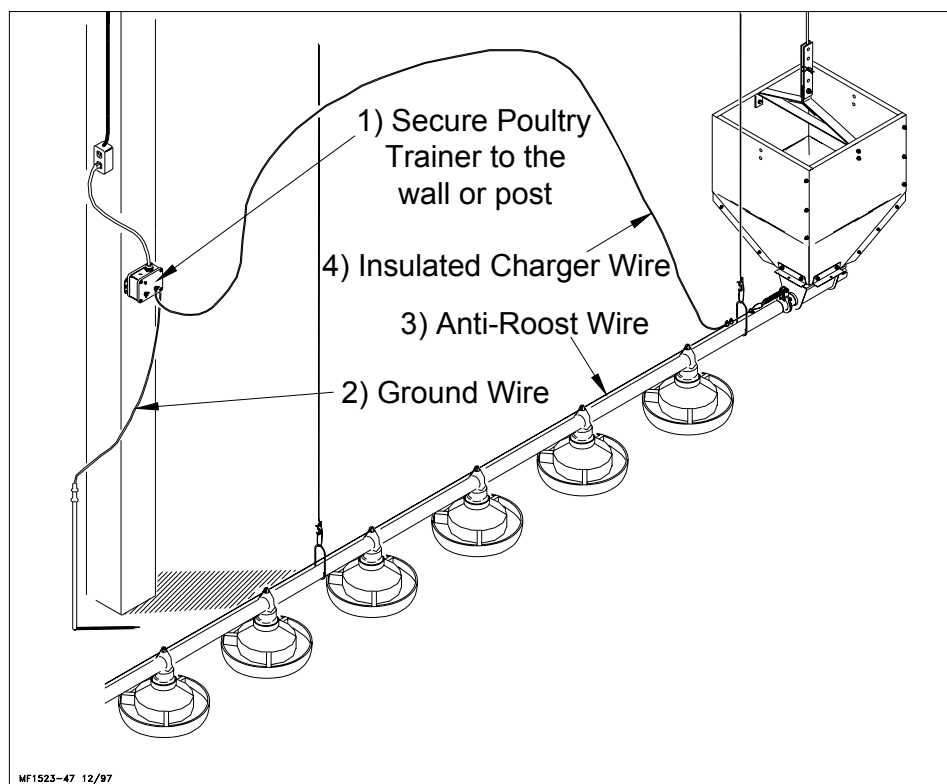


Figure 52. Poultry Trainer Installation

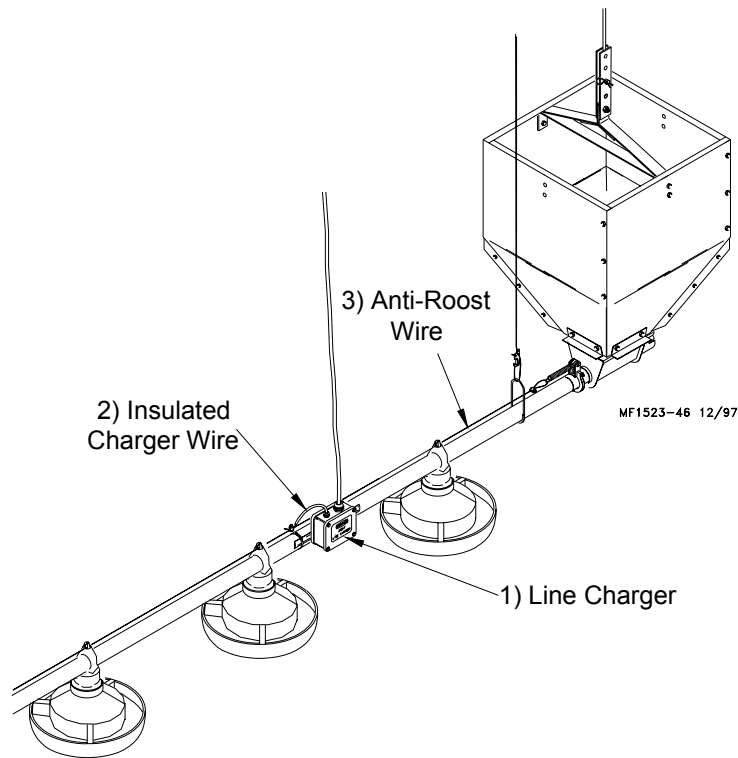


Figure 53. Line Charger Installation

12. The **anti-roost system** *must* be on a **separate electrical circuit**, allowing the system to be disconnected by a **switch near the door**.
Remember, the anti-roost system should be **grounded through the poultry trainer**.

Mid-Line Control

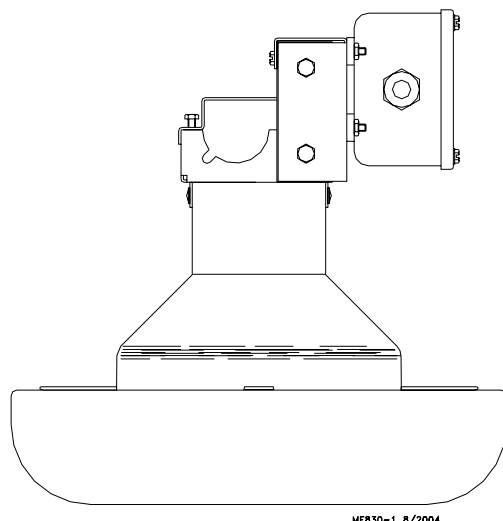


Figure 54. Model H2 Mid-Line Control

1. Wire the Mid-Line Control as shown in the wiring diagram section of this manual. The Mid-Line Control makes it possible to operate the feeding system when birds are confined away from the End Control Unit. Chore-Time recommends placing the Mid-Line Control Feeder at least 2 pans away from the curtain or partition. See **Figure 44**.
2. **New Feeder Lines:** Leave one feeder pan assembly off the feeder control tube at the point where the Mid-Line Control needs to be placed. The feeder line can be assembled and suspended before attaching the Mid-Line Control; or the Mid-Line Control may be attached to the feeder tube when the other pans are installed. **Existing Feeder Lines:** Cut the Grill Support and remove the feeder pan at the location where the Mid-Line Control will be installed.

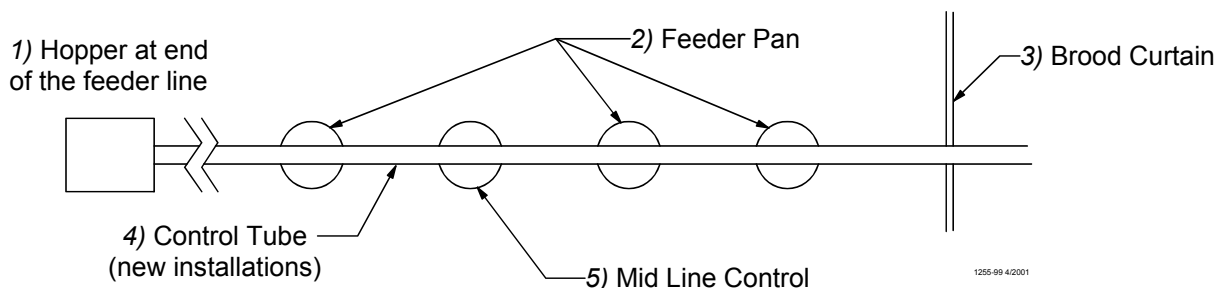


Figure 55. Mid-Line Control Location Diagram

3. **New Feeder Lines:** Go to step 3.
Existing Feeder Lines: Enlarge the outlet hole to approximately 1" [2.5 cm] diameter for the Mid-Line Control, plus enlarge (2) outlet holes in front (to the hopper end) of the Mid-Line Control. Use unibit to enlarge hole size. Be sure there are no burrs inside the tube to catch the auger.

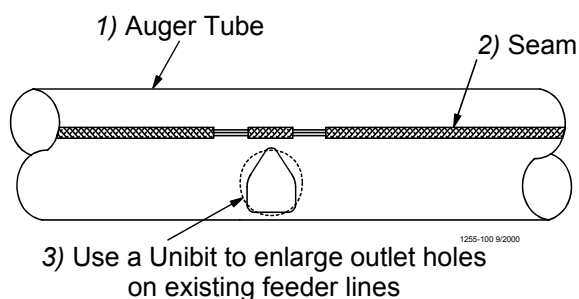


Figure 45. Enlarging Outlet Holes

4. Install the Mid-Line 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 slightly 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 previously removed.

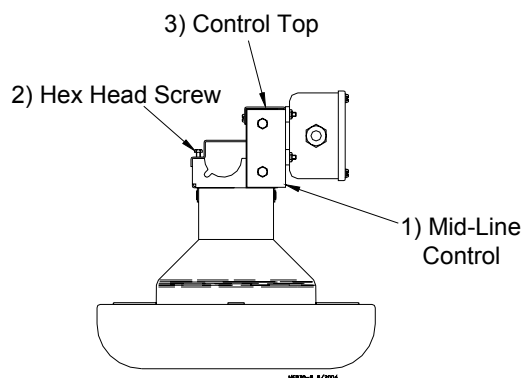


Figure 56. Mid-Line Control Installation

5. Install a toggle switch, out of reach of the birds, to disconnect power to the Mid-Line Control. This allows the Mid-Line Control to serve as standard feeder when not used as a control feeder.
6. Wire the Mid-Line Control as shown in the wiring diagram section of this manual.

Meal-Time Feeding Guidelines

The birds are fed meals and are allowed to clean up the feed between meals. This stimulates appetite, reduces protein excretion, and, when combined with good poultry management, can yield a heavier bird with improved feed conversion.

Chore-Time Programmed Meal-Time Feeding does not limit or restrict feed. Only the numbers and lengths of feedings per days are regulated - not the amount of feed.

Based on working experience, Chore-Time has set down the following guidelines. Chore-Time emphasizes that these are GUIDELINES. Individual situations will require monitoring and judgment to determine best performance on the Chore-Time Programmed Meal-Time Feeding system.

1. Start birds with pans on the floor. Empty the Control Unit pan several times a day so the feeder will run. The sound of the feeder will alert the birds and they will use the pans more quickly.
2. Model H2 Feeder: Set the Feed Windows in open or brood position to begin feeder operation
3. Adjust the feeder height weekly. At 3 weeks, the feeder should be high enough so that birds will not stand with one foot on pan lip but still will be able to reach feed.
4. At three weeks, begin the Meal-Time Feeding Program. The following is an example of a Meal-Time program.

Birds should be fed 4 meals per day - at 7 A.M./ at 1 P.M./ at 7 P.M. / and at 1 A.M.

Try to be present during the feedings. Use the "Running Time" chart on this page as a guide for determining length of running cycles.

5. After the Chore-Time Programmed Meal-Time Feeding is begun, determine whether running times need to be adjusted. Remember: ONLY LENGTHEN OR SHORTEN RUNNING TIMES. DO NOT DEVIATE FROM 4 FEEDINGS PER DAY.

The biggest cause of operator concern is usually when birds are without feed. If you are managing this concept for best results, the birds will be without feed. This maybe for as long as 2 hours depending on energy content of the feed.

6. Adjust running time weekly. The adjustment should be made on the same day each week. It may be convenient to adjust the feeder height at the same time.
7. At the end of the grow-out cycle, allow the birds to clean up feed in the pans. This will further reduce feed waste and reflect in good final results.

Following Chore-Time Programmed Meal-Time Feeding improves results and minimizes labor, energy usage, and wear on equipment while reducing feed cost per pound of gain and improved feed conversion.

Length of Feeder Line

Age of Birds in weeks	Lines to 140 FT (43 M)	150 FT (46M) to 270 FT (82 M)	280 FT (85M) to 390 FT (119 M)	400 FT (122 M) to 490 FT (149 M)	500 FT (152 M) to 590 FT (168 M)
3 TO 4	15 MIN.	30 MIN.	45 MIN.	1 HOUR	1 HOUR & 15 MIN.
4 TO 5	30 MIN.	45 MIN.	1 HOUR	1 HOUR & 15 MIN.	1 HOUR & 30 MIN.
5 TO 6	45 MIN.	1 HOUR	1 HOUR & 15 MIN.	1 HOUR & 30 MIN.	1 HOUR & 45 MIN.
6 TO 7	1 HOUR	1 HOUR & 15 MIN.	1 HOUR & 30 MIN.	1 HOUR & 45 MIN.	2 HOURS
7 TO 8	1 HOUR & 15 MIN.	1 HOUR & 30 MIN.	1 HOUR & 45 MIN.	2 HOURS	2 HOURS & 14 MIN.

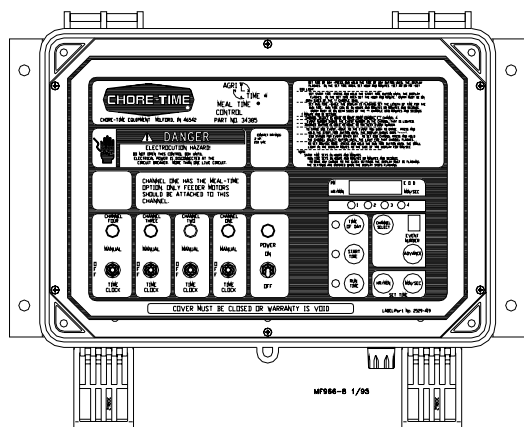
1. Determine age of Birds.
2. Determine the length of the feeder lines.
3. Using determined information from steps 1 and 2, find guidelines for running times **Per Meal**, in hours and minutes.

Controlling the Feeders (optional equipment)

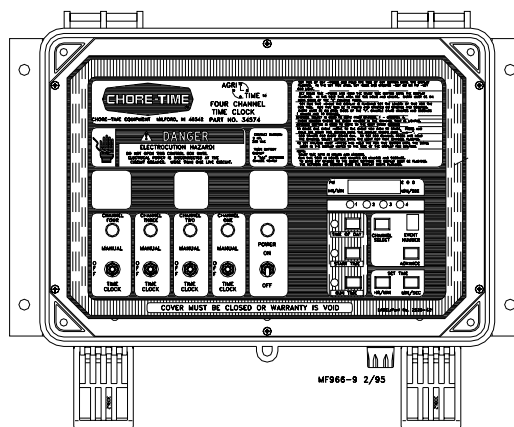
The Model H2 Feeding Systems may be controlled by the 34385 Control Panel **or** the 34574 Time Clock Control.

Both controls use the Agri-Time™ Time Clock. Refer to the instructions shipped with each control for information on installation, wiring, programming, and operating the controls.

4-Channel Meal-Time Control



4-Channel Time Clock Control



General Management & Start-Up

This section provides you with valuable information concerning feeder operation and management. It is important that you read this information and understand how the feeding system was designed to operate. Once you become familiar with the system, you may *custom operate* it to fit your individual needs.

Initial Start-up of the Feeding System

The Feeding System should be operated prior to birds being housed to make sure the installation is correct, the switches function properly, and to fill the feeder lines with feed.

There are two typical layouts for the feeding system that was determined prior to the installation. Normally if the building is 400' [122 m] or over, a center house hopper set-up is used. See **Figure 57**. For buildings under 400' [122 m], the hopper is placed at one end and the control pan/power unit at the other end. See **Figure 58**.

It is common practice to use partial house brooding during the early days of broiler production. For buildings that have the feeder split in the center (center hopper set-up), normally only the feeders that are in the brood area are used during brood time. For buildings that have the hopper at one end, brooding can be done on the motor end or an optional mid line control pan(s) can be placed on the feeder line.

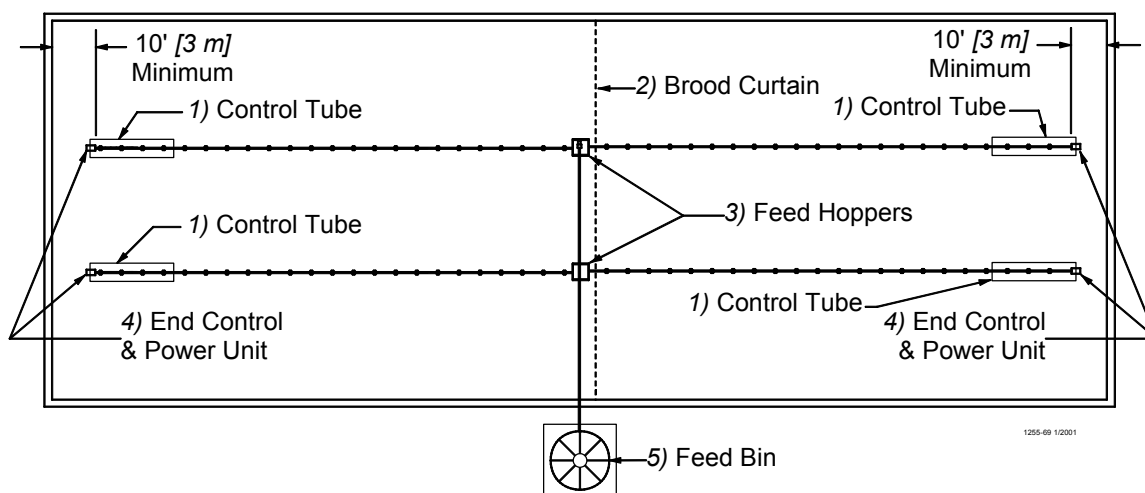


Figure 57. Component location diagram for systems over 400 feet [122 m]. (Top View).

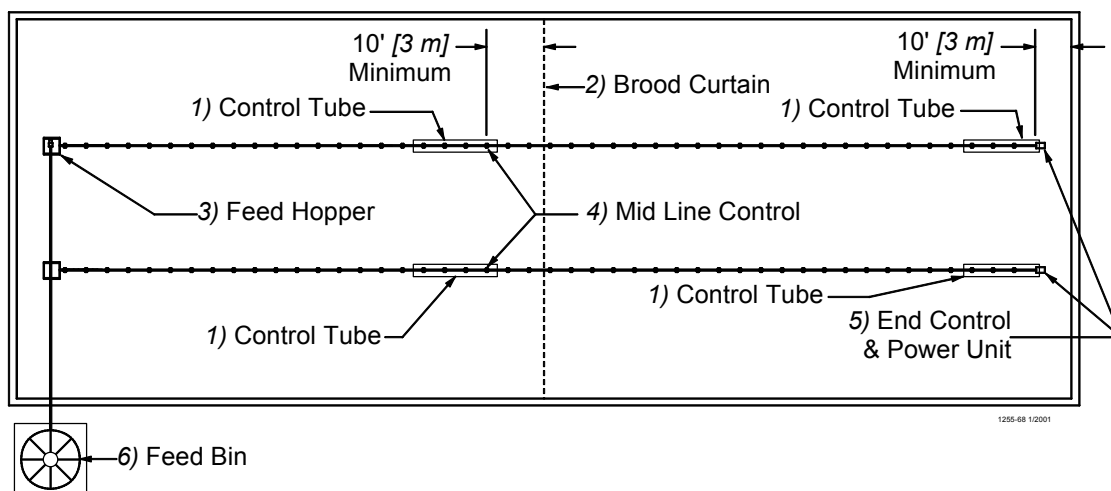


Figure 58. Component location diagram for systems up to 400 feet [122 m]. (Top View).

The feeder tubes and auger are supplied from the factory with a protective oil coating that will cause the system to deliver feed at a reduced rate. The oil coating will also create a larger load on the power unit (motor) until the system has been initially purged with feed, and becomes broken in.

To operate

1. Lower feeder lines so the feed pans are resting on the floor and the feed flood windows are completely open. Although the major weight of the feeder lines will be on the floor, do not remove all the weight from the suspension system and allow the cables to become slack.

2. Apply power to the feeder lines to check the operation. Allow to operate empty for 1-2 minutes.

NOTE: For feeder lines that have mid line controls, the recommended bypass switch(s) are wired into the system for selection of partial or full house control. Select the switch so the mid line control is functional. As the feeder operates, the feed will stop at the mid line control pan.

3. With the shut-off slide on the feed bin boot closed, energize the Flex-Auger® fill system. After operation of approximately 1-2 minutes, open the boot slide 1/2 way to allow feed to be conveyed to the feeders.
4. Once feed begins to be dispensed into the feed hopper(s), manually shut-off the fill system.
5. Apply power again to the feeder lines. Operate the fill system manually to dispense approximately 50 lb. [23 kg] increments of feed into the feed hopper(s). Allow the feed hopper to become empty for 30 seconds between each increment to reduce load on the feeder motor. Continue this procedure until feed has been dispensed to all the feeder pans. When the feed reaches the control pan, the feeder line will be shut-off.
6. Once the feeder lines have been initially filled with feed, manually dispensing feed in 50 lb. [23 kg] increments will no longer be necessary. The shut-off slide on the Flex-Auger® fill system may be completely opened. Refer to the Flex-Auger fill system Operator's Manual for information when multiple feed bins are used.

End Control and Mid Line Control Pans

At installation time, the end control pan of the feeder was placed to be 10 feet [3 m] from the end of the building to allow the birds access around the end of the feeder line. It is important the feed setting of the end control pan be the same as the rest of the feeder pans so the birds activate the feeder.

The Mid Line Control is placed on the feeder line when partial house brooding is desired. It is important the mid line control be installed at least 2 feeder pans away from the curtain or partition so the birds will activate the feeder line. The feed setting for the mid line control should be the same as the rest of the feeder pans on the feeder line. A toggle switch or disconnect is used to bypass the power to the mid line control. This allows the mid line control to serve as a standard feeder after brooding. The feeder can be changed from full house operation to partial house brooding with the activation of the switch.

Electro-guard Operation

Electro-guard cables should be tight to prevent sagging onto the feeder and shorting out. Tight cables also help keep pans in line on the tube.

The feeding equipment must be grounded through the power unit wiring or a separate ground wire for the electro-guard to work properly.

Electro-guard chargers should be operated on a separate circuit so the anti-roost system can be disconnected using a switch at the door when someone enters the pen. Birds are less likely to become wild and flighty if the electro-guard can be disconnected when people are in the house.

Feeder Management

These recommendations are guidelines to aid producers in developing a feeding program. Many factors such as feed content, type of bird, etc. may dictate change from these recommendations.

If the system accidentally runs out of feed and birds are without feed for some time, care must be taken when the pans are refilled.

- Feed hoppers can be filled prior to starting the feeder lines to give the fill system a head start.
- When feeders are turned on, it may be necessary to walk up and down the lines to scatter large groups of birds as they rush to the feeders.
- It may be desirable to raise the feeder line so birds cannot reach it, fill all the pans, then carefully lower the line.

When birds are removed, all the remaining feed in the hoppers and the feeder pans must be removed. If possible, allow the birds to clean up feed prior to their removal.

After birds are through the brood stage, the lip of the pan should be at the approximate height the birds neck enters the breast.

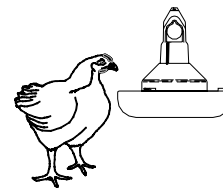


Figure 59. Feeder Pan Assembly Height Adjustment

Feeders with Flood Collars:

When preparing the house for baby chicks, place paper under the feeder lines that are in the brood end of the house. The feed windows should be open to allow the feeder to flood. The feed that overflows the pan onto the paper will direct the birds to the feeder. Place additional feed trays in the brood end to the house.

During the first five days the feeder is to be operated once a day. Brood young birds on the feeder with the pans resting on the floor.

Broilers: At 8 to 12 days, close the Feed Chutes.

Turkeys: At 10 to 14 days, close the Feed Chutes.

Set the Struts in the #2 Setting for poultry or #4 setting for turkeys.

Feeders with Feed Chutes

When preparing the house for poults or chicks, set the chutes in the brood position. Place additional feed trays in the brood end of the house.

During the first five days the feeder is to be operated twice or three times a day. Brood young birds on the feeder with the pans resting on the floor.

Broilers: At 8 to 12 days, close the Feed Chutes.

Turkeys: At 10 to 14 days, close the Feed Chutes.

Set the Struts in the #2 setting for poultry or the #4 setting for turkeys.

Feeders without Feed Windows

Set the Struts in the #2 setting for poultry or the #4 setting for turkeys.

The feeder should be raised just enough to clear the litter. As birds grow, raise the feeder accordingly. Normally, the lip of the pan should be at the height that the birds breast enter the neck, **see figure 59**. Keeping the pans up at the proper height prevents the birds from raking the feed excessively.

At 3 weeks of age, begin meal feeding the birds if desired. Follow the chart in this instruction manual to set up time clock. Adjust the daily run times through-out the life of the birds on a **weekly** basis. Additional adjustments may be required to suit the feed and the birds. Refer to “**Meal-Time Feeding Guidelines**” on **page 36**.

Because of variation in feed texture, fat content, type of birds and other variables, the operator must learn what works best for the situation by experience. A combination of proper pan height, feeder pan adjustment, and time clock operation, will result in optimum feeder performance.

Maintenance

Floor Feeding System Maintenance

The Model H2 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.

Gear Head Maintenance

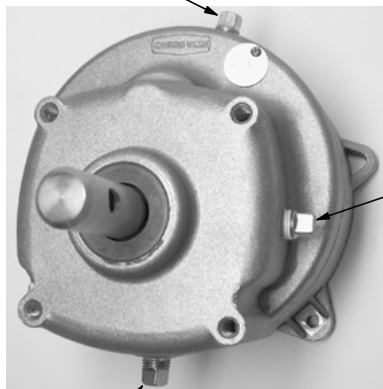
Refer to **Figure 60**.

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.

1)Vent/Oil Fill Plug



2)Oil Drain Plug

Check the oil level in the gear head at installation

Check the oil level every 6 months

3)Check the oil level at the side plug
If oil is needed use SAE 40W oil

Oil capacity for the 2 stage gear head is 9 oz [266 ml]

Oil capacity for the 3 stage gear head is 13 oz [384 ml]

The oil should be changed every 12 months

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Figure 60. Gearhead Maintenance

Check equipment for loose hardware after the first flock and then every 6 months--including the Anchor Block. Tighten if necessary.

Mechanical Switch Adjustment procedure for Control Units

- A. Turn the adjustment nut counter-clockwise until the switch clicks.
- B. Turn the adjustment nut clockwise until the switch clicks.
- C. Turn the adjustment nut counter-clockwise 3/4 turn.

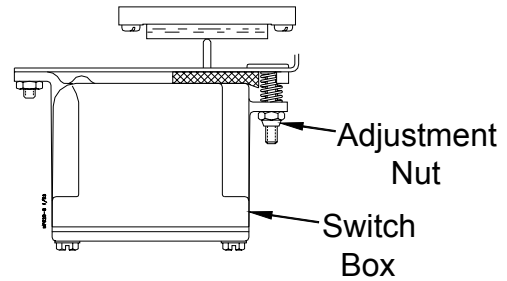


Figure 61. Switch Adjustment

Feeder Line

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.

Remove all feed from the feeder when there are no birds in the house and when the building is washed and disinfected.

Turn the feeders off prior to removing the birds from the house. This will allow them to clean the feed out of the pans.

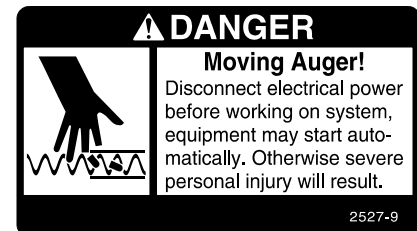
If the system is not to be used for an extended period of time, remove all the feed from the feeder lines and feeder pans.

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

If the system must be disassembled, extreme caution must be used to prevent injury from springing auger. Refer to **Figure 62**.

1. Disconnect power to the entire system.
2. Loosen the Tube Clamp on the bearing at the hopper end of the system. Remove the Tube Clamp and Bearing Retainer.
3. Pull the Anchor and Bearing Assembly and approximately 18" [45 cm] of auger out of the boot.

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



4. Place a clamp or locking plier securely on the auger to prevent it from springing back into the auger boot.
5. Loosen the setscrew in the bearing assembly shaft and remove the Anchor and Bearing Assembly from the auger.

To reinstall the Anchor and Bearing Assembly:

1. Insert the Anchor Assembly into the auger, guide the tip of the auger between the two roll pins in the center of the anchor. Continue to guide the auger until the tip of the auger hits the flat washer. Tighten the setscrews in the center of the anchor until they touch the See **Figure 62**.

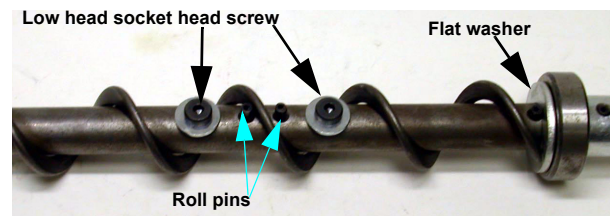


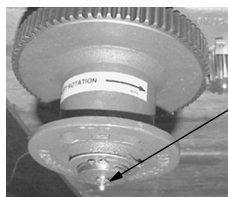
Figure 62. Auger and Anchor Bearing

2. **Carefully** remove the locking pliers while holding onto the Anchor and Bearing Assembly and auger securely. **Slowly** ease the auger back into the tube. Use caution. If the auger is allowed to spring back, the bearing race may crack. Install the Bearing Retainer and fasten with a tube clamp. Keep the Bearing Retainer flush with the end of the anchor for safety.

Power Lift Winch Maintenance

Refer to **Figure 63**.

Grease the winch every 6 months with 1 to 2 shots of common industrial or automotive grease.
DO NOT OVER GREASE THE WINCH.



1) Grease the Power Lift Winch every 6 months with 1 to 2 shots of common industrial or automotive grease
DO NOT OVER GREASE THE POWER LIFT WINCH

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Figure 63. Maintenance to the Power Lift Winch

Agri-Timer

Replacing the batteries in the Agri-Timer

- A. Disconnect electrical service at the breaker.
- B. Remove the (6) screws and the face of the control.
- C. Cut the wire ties to allow for battery removal.
- D. Replace the existing batteries with new "AAA" batteries.
- E. Replace wire ties to secure the new batteries in place.
- F. Reinstall the face of the timer and secure using (2) screws previously removed.
- G. Reconnect electrical service to the Agri-Time Control.

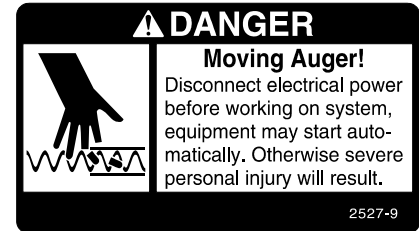
Remove any feed build-up in the Safety Switch Boxes in the Control Units.

It may be necessary to periodically retighten the shocker cable. Be sure to disconnect power to the shocker before servicing the equipment.

Trouble Shooting the Floor Feeding System

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

Service and maintenance work should be done by a qualified technician only.



Problem	Possible Cause	Corrective Action
None of the feeder lines will operate	No power supplied to equipment	Replace burned fuses or reset circuit breaker Make sure voltage required is supplied
	Time Clock or relay defective	Replace Time Clock or relay
	Time Clock improperly programmed	Refer to Programming the Time Clock section and reprogram the Time Clock
Feeder line will not operate	Power unit cord not plugged in sufficiently to make contact	Check motor cord plug at control unit and control unit plug at outlet for connection
	Motor cord wires are broken at plug or where cord enters motor	Check cord for continuity Replace if defective
	Power Units thermal overload tripped	Push motor overload reset button to reset
	Control unit switch defective or out of adjustment	Adjust switch according to the Switch Adjustment Procedure in the maintenance section
Motor overloads frequently	Oil on new auger loads motor excessively when feed is carried for first time	Polish auger by running 50 lb (20 kg) increments of feed out to pans
	Inadequate power reaching motors	Check line voltage at the motors Check starting current draw at motors Wiring of adequate size is essential to feeder operation
	Object caught in the auger; motor runs, stalls, then auger spins in reverse	Check hopper boot, control unit and pan outlet holes for foreign objects Remove obstruction
Auger runs erratically	Frozen or cracked bearing at boot anchor	Replace bearing Slowly ease auger back into tube Be careful not to damage the bearing when reinserting the auger
	Insufficient stretch in auger	Shorten the auger
	Obstruction in the auger	Remove obstruction
Auger tube or boot wears out rapidly (Noisy feeder operation)	Auger is bent or kinked	Repair or replace damaged auger
	End of auger is riding up on anchor weldment	Auger must not be positioned over weld on anchor Check for bent or damaged auger
Oil leaking out of seals on power unit	Gearhead vent plug not installed	Replace plastic shipping plug with vent plug
	Defective gear head seal	Replace seal
Not enough feed supplied to the feeder pans	Insufficient time programmed on the time clock	Add more operating time to feeding period
	Feeder line control unit switch out of adjustment	Adjust switch according to the Switch Adjustment Procedure in the maintenance section

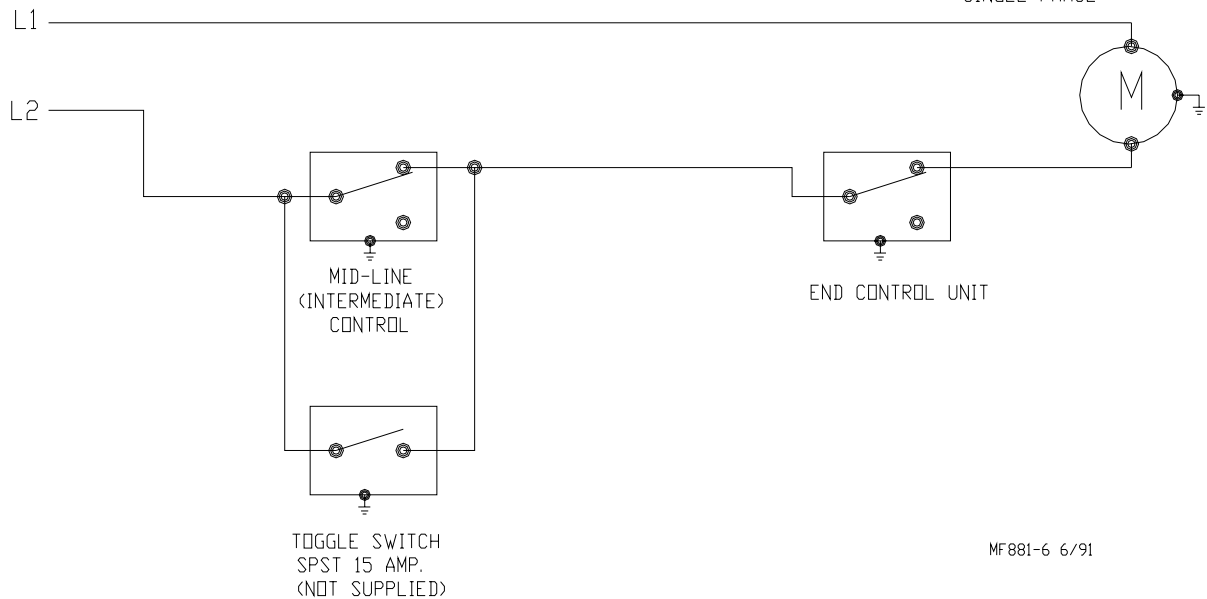
Wiring

End & Mid-Line Control Wiring Diagrams: Single Phase(ø)

FROM DISCONNECT OR
CONTROL DISCONNECT
220/230 VOLTS 50/60 HZ.

SINGLE PHASE WIRING DIAGRAM

FEEDER LINE MOTOR
220/230 VOLTS 50/60 HZ.
SINGLE PHASE



SINGLE PHASE WIRING DIAGRAM: W/MOTOR STARTER

SINGLE PHASE

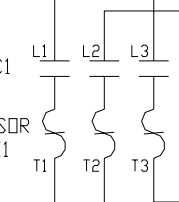
FROM DISCONNECT OR
CONTROL DISCONNECT
220/230 VOLTS 50/60 HZ.

TO ADDITIONAL
FEEDER LINES

SET OF FUSES
SHORT CIRCUIT
PROTECTION
(NOT SUPPLIED)

CONTACTOR
C1

CURRENT SENSOR
(AVAILABLE) K1



MID-LINE
(INTERMEDIATE)
CONTROL

CONTROL BYPASS SWITCH
(NOT SUPPLIED)

END CONTROL

K1

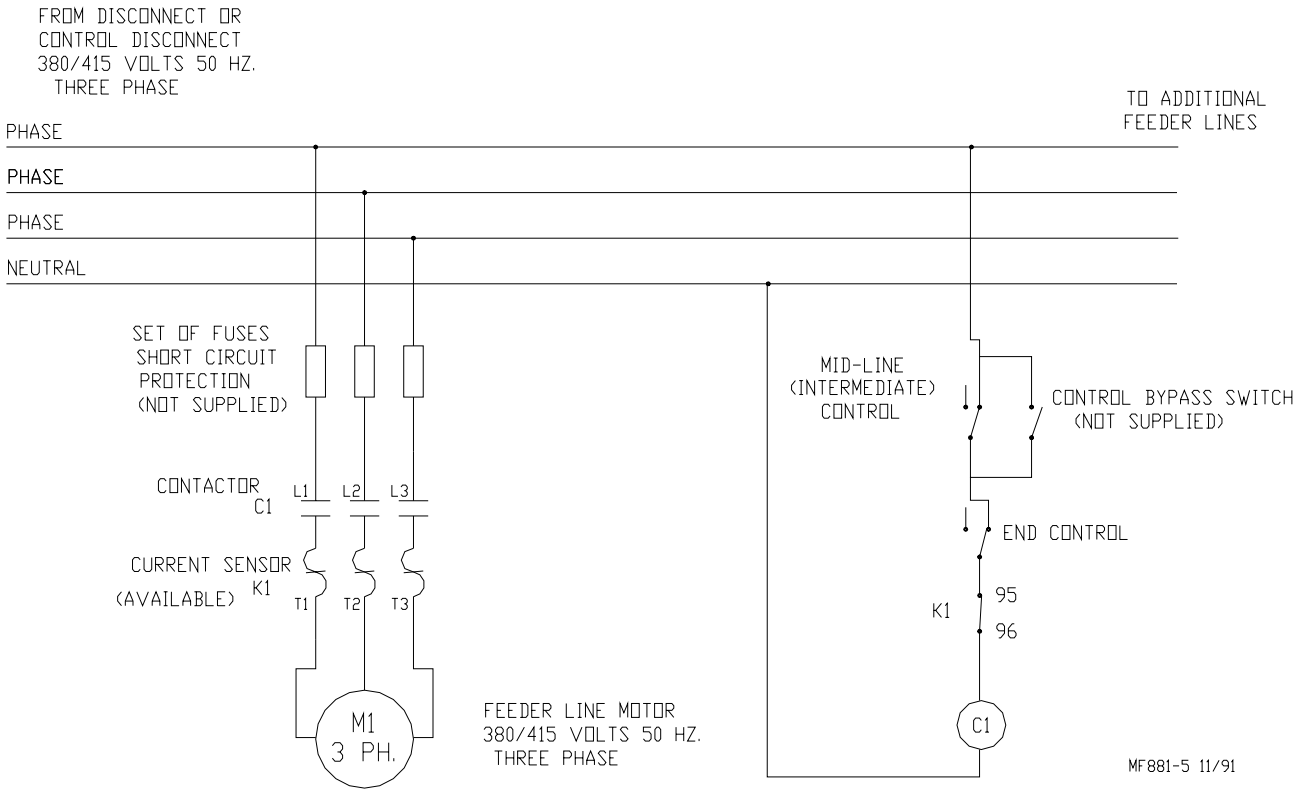
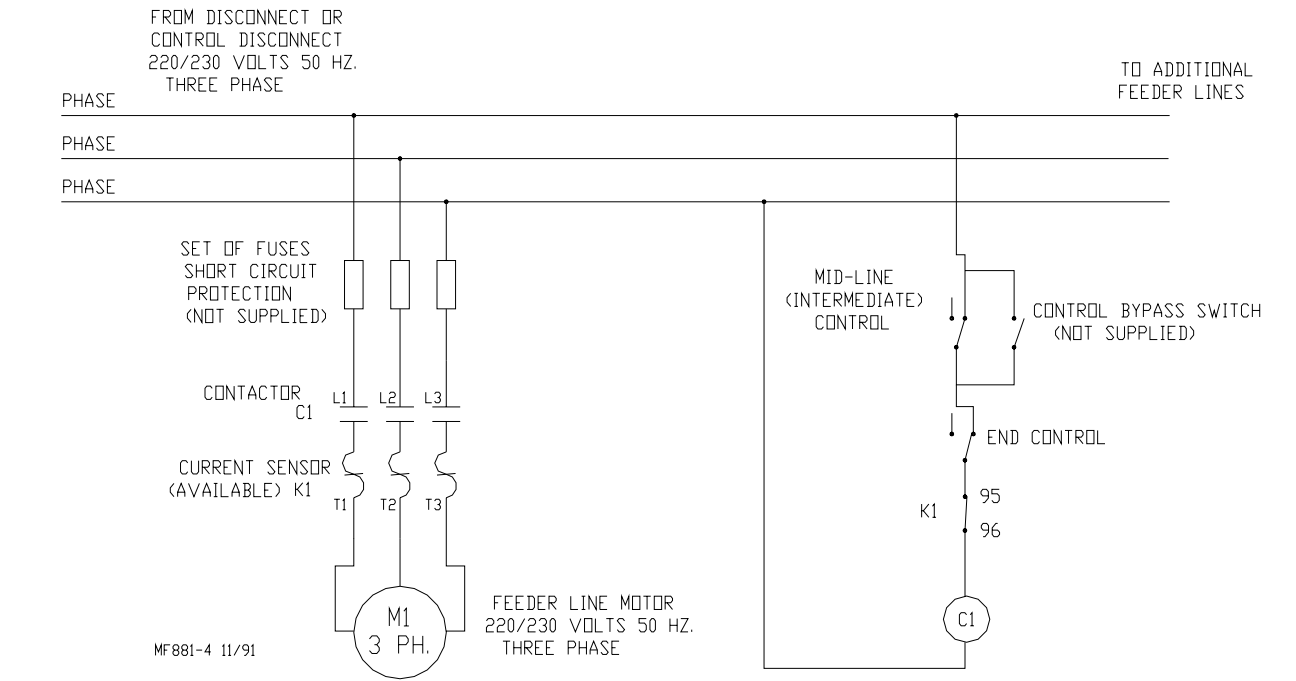
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End & Mid-Line Control Wiring Diagrams: Three Phase(ø)

THREE PHASE WIRING DIAGRAM: 220/230 V



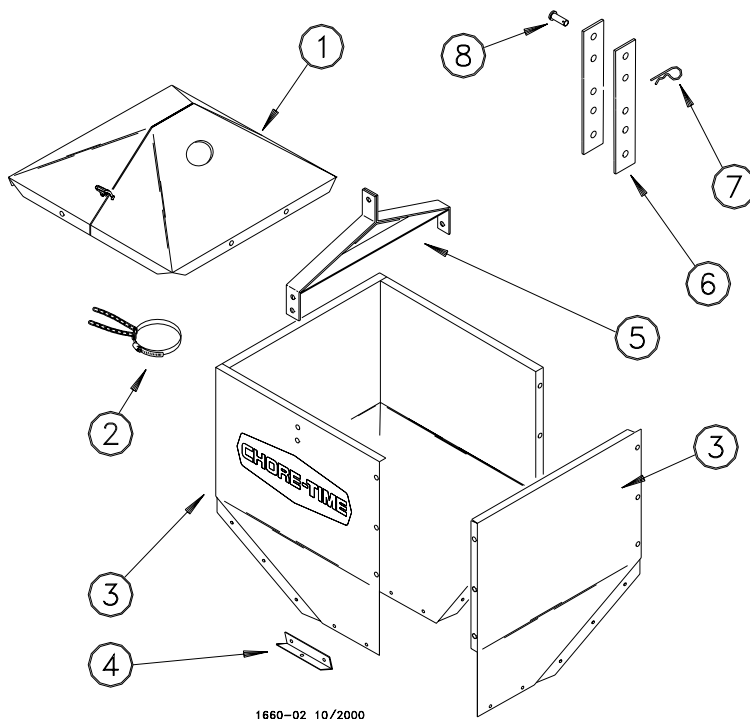
Parts Listing

200# Hopper Components

Item	Description	Part No.
1*	Hopper Cover Kit (optional)	28206
	Cover Half (Removable)	28208
	Cover Half (Stationary)	28207
2	Tube Support Assembly	14367
	Clamp	13948
	Chain	2128-0
3	Hopper Side (4 req'd)	2680
4	Boot Hanger	2671
5	Hanger Bracket Assembly	2681
6	Adjustment Bracket 2 (req'd)	2706
7	Hair Pin	2664
8	Clevis Pin, 5/16 x 1"	2797-1

The 200# Hopper Assembly (w/o cover) may be ordered under Part No. 7941.

*Hopper Cover not included, must be ordered separately.



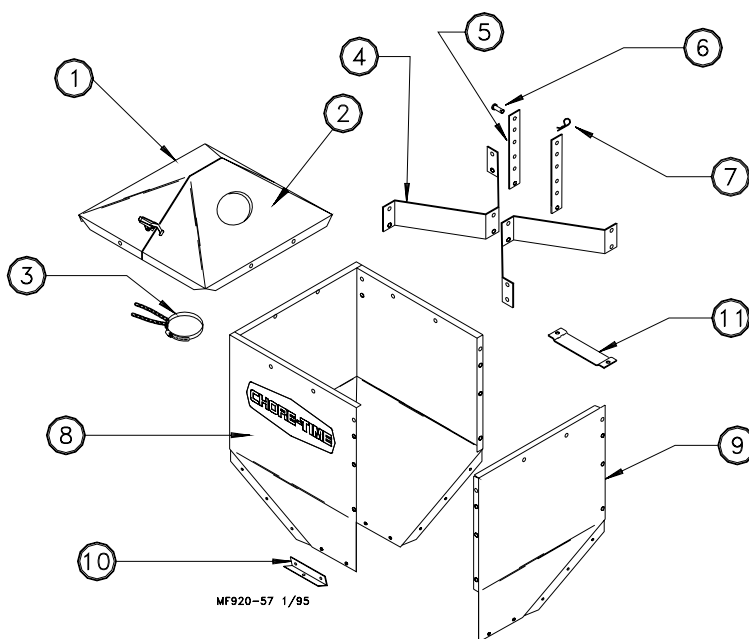
100# Hopper Components

Item	Description	Part No.
1*	Hopper Cover (w/o hole)	28211
2*	Hopper Cover (w/hole)	28212
3	Tube Support Assembly	14367
4	Hopper Hanger	28165
5	Adjustment Bracket	2706
6	Cotter Pin	2797-1
7	Hair Pin	2664
8	Hopper Side (w/o hole)	28164
9	Hopper Side (w/hole)	24241
10	Boot Hanger	28168
11	H.L.C. Mounting Bracket	28267

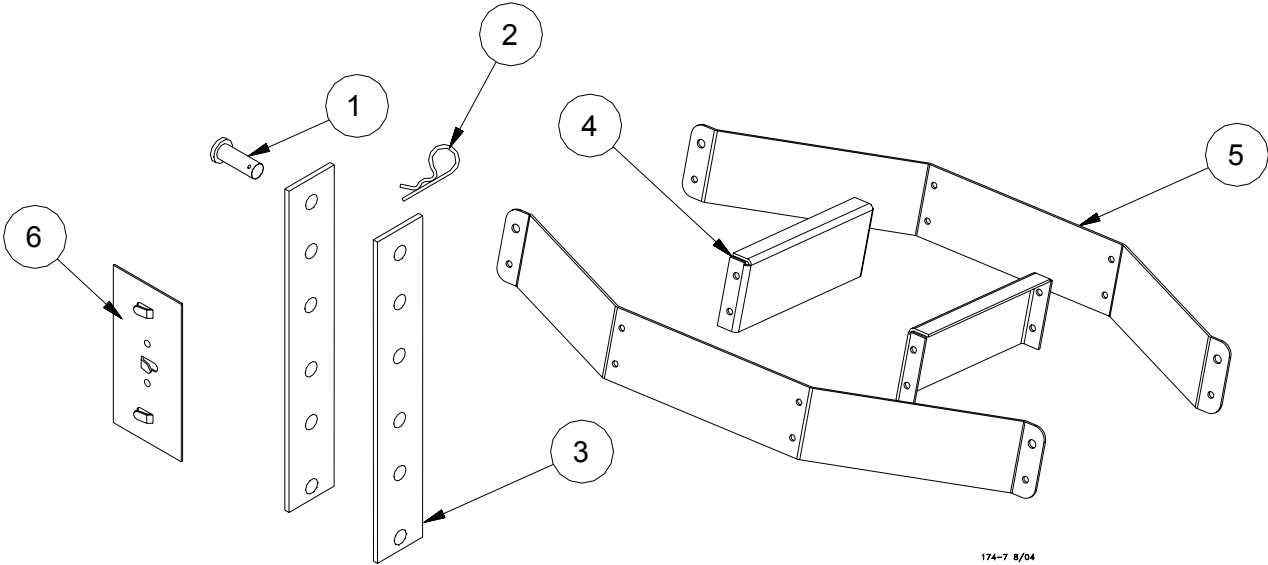
*These components may be ordered as an assembly under Part No. 28210.

The 100# Hopper Assembly may be ordered under Part No. 28220.

The 100# Hopper Assembly, including the Cover, may be ordered under Part No. 28240

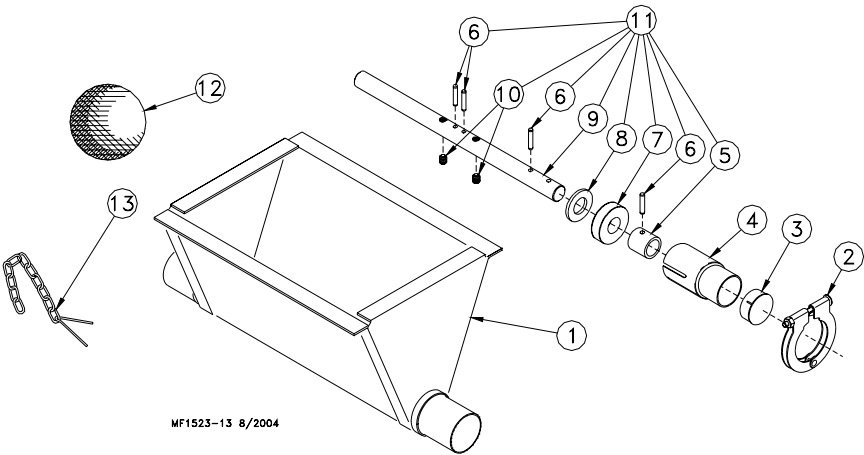


Hopper Mount Bracket (Optional)
Part Number 49358 - Hopper Suspension Kit



Item	Description	Part No. Single Boot Kit	Part No. Twin Boot Kit
1	Clevis Pin, 5/16" x 1"	2797-1	2797-1
2	Adjustment Bracket	2706	2706
3	Hair Pin	2664	2664
4	Suspension Brace	48680	48680
5	Suspension Angle	48679	48679
6	Cable Guide	34573	34573

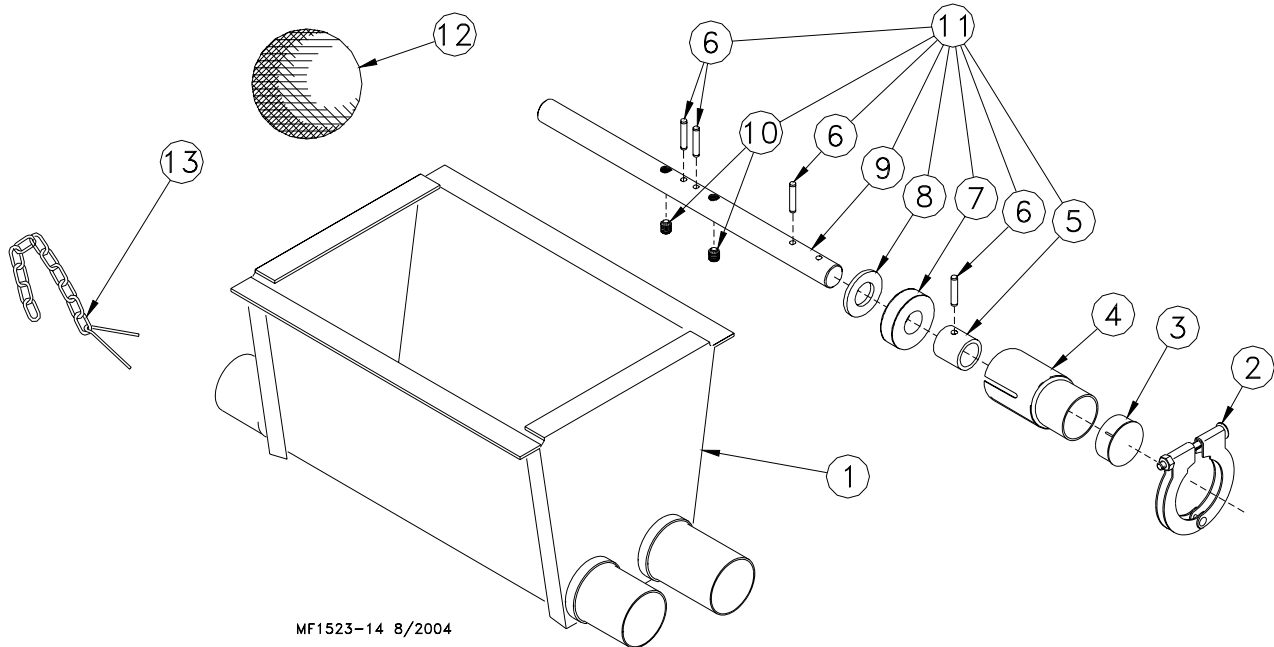
Single Boot Components Part No. 6822



Item	Description	Part No.
1	Boot Weldment	3760
2	Tube Clamp	24063
3	Cap	29373
4	Outlet Tube	4556
5	Sleeve	5648
6	3/16 x 1" Pin	2960-1
7	Bearing	2689
8	Washer	2955-14

Item	Description	Part No.
9	Anchor	38540
10	Setscrew	47867
11	Anchor and Bearing Ass'y	39372
12	Cannonball	3531
13	Latch Pin Ass'y	2683
--	Danger Decal	2527-9

Twin Boot Components Part No. 6824

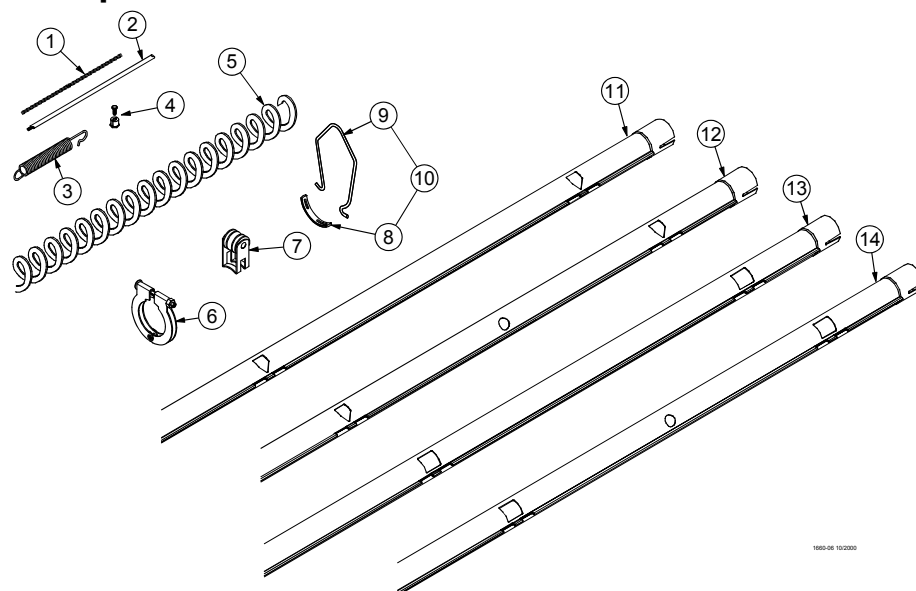


Item	Description	Part No.
1	Boot Weldment	3932
2	Tube Clamp	24063
3	Cap	29373
4	Outlet Tube	4556
5	Sleeve	5648
6	3/16 x 1" Pin	2960-1
7	Bearing	2689
8	Washer	2955-14
9	Anchor	38540

Item	Description	Part No.
10	Setscrew	47867
11	Anchor and Bearing Ass'y	39372
12	Cannonball	3531
13	Latch Pin Ass'y	2683
--*	Jumper Wire Kit	5960
--	Danger Decal	2527-9

*The Jumper Wire Kit includes an insulated piece of High-Voltage Wire (part no. 28994) and (2) cable clamps.

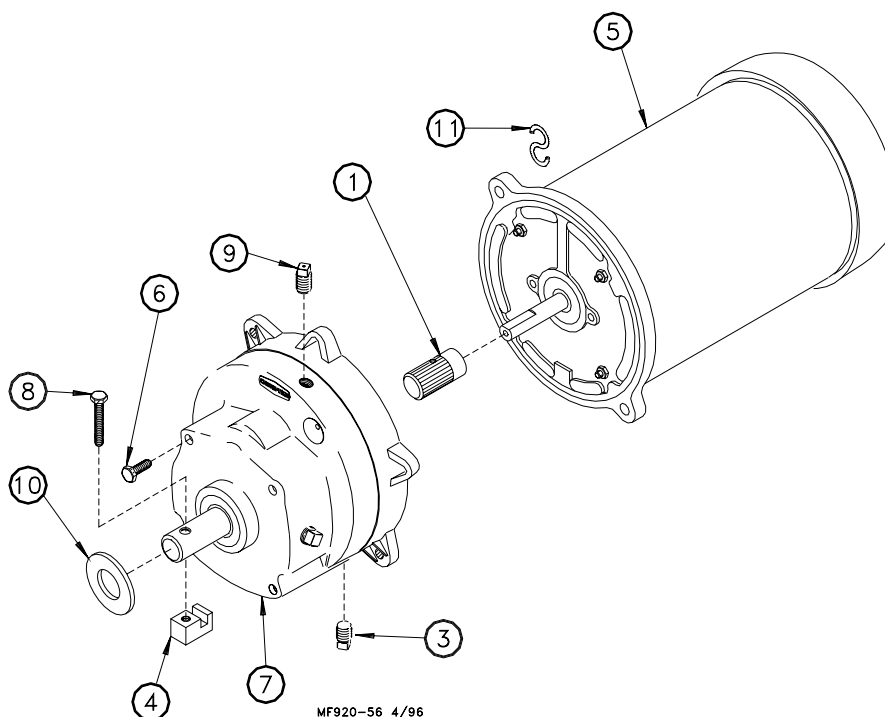
Feeder Line Components



Item	Description	Part No.
1	1/16" Cable	1922
2	Charger Wire (165') Charger Wire (330')	28994-165 28994-330
3	Spring	7551
4	1/16" Cable Clamp	1826
5*	Auger	6820-0
6	Tube Clamp	24063
7	Anti-Roost Bracket	24060
8	Hanger Bracket	7297
9	Hanger Strap	7298
10	Hanger Kit	7299
11	Standard Feeder Tube-1 3/4" Roll Form - 9', 4 Hole Tube - 10', 3 Hole Tube - 10', 4 Hole Tube - 12', 3 Hole Tube - 12', 4 Hole Tube - 12', 5 Hole Tube	6854-1 6854-5 6854-4 6854-8 6854-7 6854-6
12	Standard Feeder Tube-1 3/4" with Chick Holes (EZ. Holes) - 9', 4 Hole, 4 EZ. Holes - 10', 4 Hole, 4 EZ. Holes - 12', 4 Hole, 4 EZ. Holes - 12', 5 Hole, 5 EZ. Holes - 10', 3 Hole, 3 EZ. Holes - 9', 4 Hole, 2 EZ. Holes - 10', 4 Hole, 2 EZ. Holes - 12', 4 Hole, 2 EZ. Holes	6854-15 6854-16 6854-17 6854-18 6854-19 6854-20 6854-21 6854-22
13	Control Feeder Tube-1 3/4" Roll Form - 9', 4 Hole Tube - 10', 4 Hole Tube - 10', 3 Hole Tube - 12', 3 Hole Tube - 12', 4 Hole Tube - 12', 5 Hole Tube	43006-1 43006-4 43006-5 43006-8 43006-7 43006-6
14	Control Feeder Tube-1 3/4" with Chick Holes (EZ. Holes) - 9', 4 Hole, 4 EZ. Holes - 10', 4 Hole, 4 EZ. Holes - 12', 4 Hole, 4 EZ. Holes - 12', 5 Hole, 5 EZ. Holes	43006-15 43006-16 43006-17 43006-18

*Round up to the nearest 10'. Auger lengths from 50' to 500'. Example: 6820-200 would be a 200' roll of 6820 Auger.

Power Unit Assemblies



Item	Description	3259-8 Part No.	3259-25 Part No.	3259-84 Part No.	3259-85 Part No.	3259-98 Part No.	3259-100 Part No.	3259-128 Part No.
1	Pinion Assembly	5046	5046	5046	5046	5046	5046	5046
2	----	----	----	----	----	----	----	----
3	Pipe Plug (magnetic)	30160	30160	30160	30160	30160	30160	30160
4	Driver Block	4642	4642	4642	4642	4642	4642	4642
5	Motor	4229	5703	4229	5703	5977	28031	24624
6	5/16-18x5/8 Hex HD Screw	4412-1	4412-1	4412-1	4412-1	4412-1	4412-1	4412-1
7	Gearhead	3261-5	3261-5	3261-5	3261-5	3261-11	3261-11	3261-5
8	1/4-20x1-1/2 Socket Hd Screw	5083-8	5083-8	5083-8	5083-8	5083-8	5083-8	5083-8
9	Vent Plug	3516	3516	3516	3516	3516	3516	3516
10	Flat Washer	1484	1484	1484	1484	1484	1484	1484
11	"S" Hook	2805	2805	2805	2805	2805	2805	2805
--	Cord Assembly	4685	8299	----	----	28028	----	----
--	Connector (Romex)	1317	1317	----	----	----	----	----
--	Connector (90 Degree)	----	----	----	----	4228	----	----

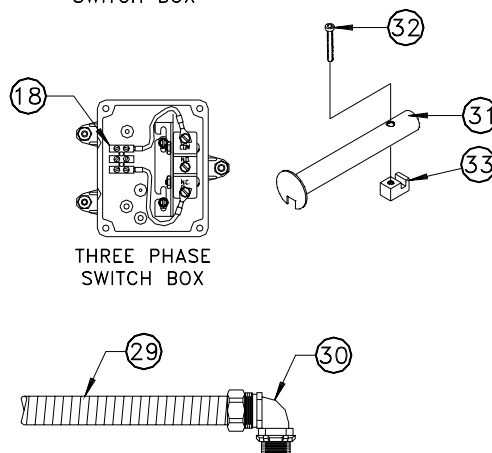
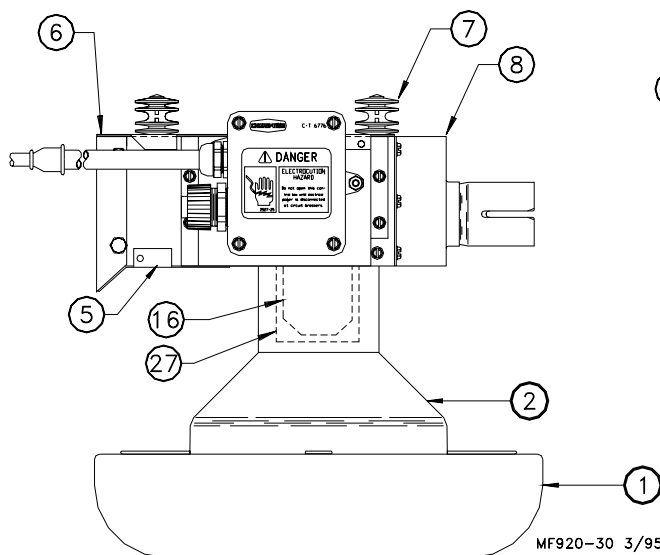
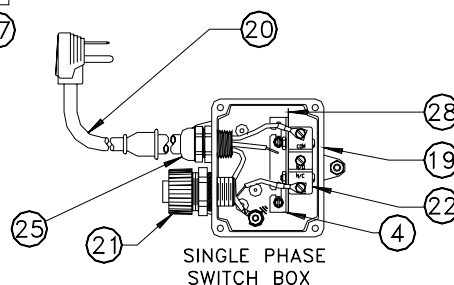
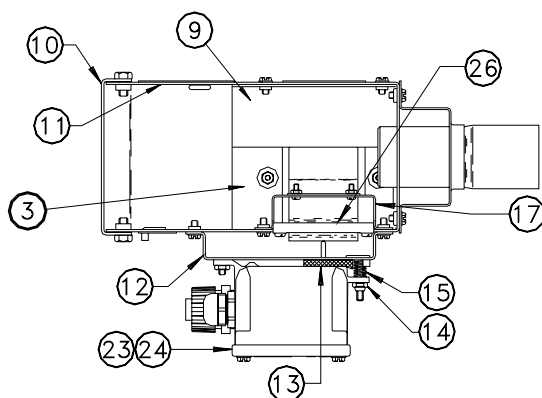
Power Unit Assembly Part Numbers:

Part No.	HP	RPM	Phase	Hz	Voltage	Usages
3259-8	1/3 HP	348 RPM	Single Phase	60 Hz	230	Use with 1878-8 Control Unit ONLY
3259-25	1/2 HP	348 RPM	Single Phase	60 Hz	230	Use with 1878-8 Control Unit ONLY
3259-84	1/3 HP	348 RPM	Single Phase	60 Hz	230	Use with all Control Units except 1878 Control Units
3259-85	1/2 HP	348 RPM	Single Phase	60 Hz	230	Use with all Control Units except 1878 Control Units
3259-98	1/2 HP	348 RPM	Single Phase	50 Hz	230	Use with all Control Units
3259-100	1/2 HP	348 RPM	Three Phase	50 Hz	220/380	Use with all Control Units
3259-128	1/2 HP	348 RPM	Three Phase	60 Hz	230	Use with all Control Units

Model H2 End Control-Single Phase: 24397**Model H2 End Control-Three Phase: 27762**

Item	Description	1 Phase	3 Phase
		Part No.	Part No.
1	Pan	24901	24901
2	Cone Ass'y	34481	34481
3	Switch Bracket	46122	46122
4	Switch Bracket	40749	40749
5	Bottom Cover	14432	14432
6	Control Ass'y Cover	24682	24682
7	Insulator	2976	2976
8	Support Bracket	24683	24683
9	Deflector Panel	41363	41363
10	Anchor	4188	4188
11	Control Body	14434	14434
12	Switch Box Mount	25084	25084
13	Gasket	6968-1	6968-1
14	10-32 Lock Nut	6963	6963
15	Spring	6972	6972
16	Paddle	24848	----
17	Stop Panel	25443	25443
18	Terminal Strip	----	34925-3

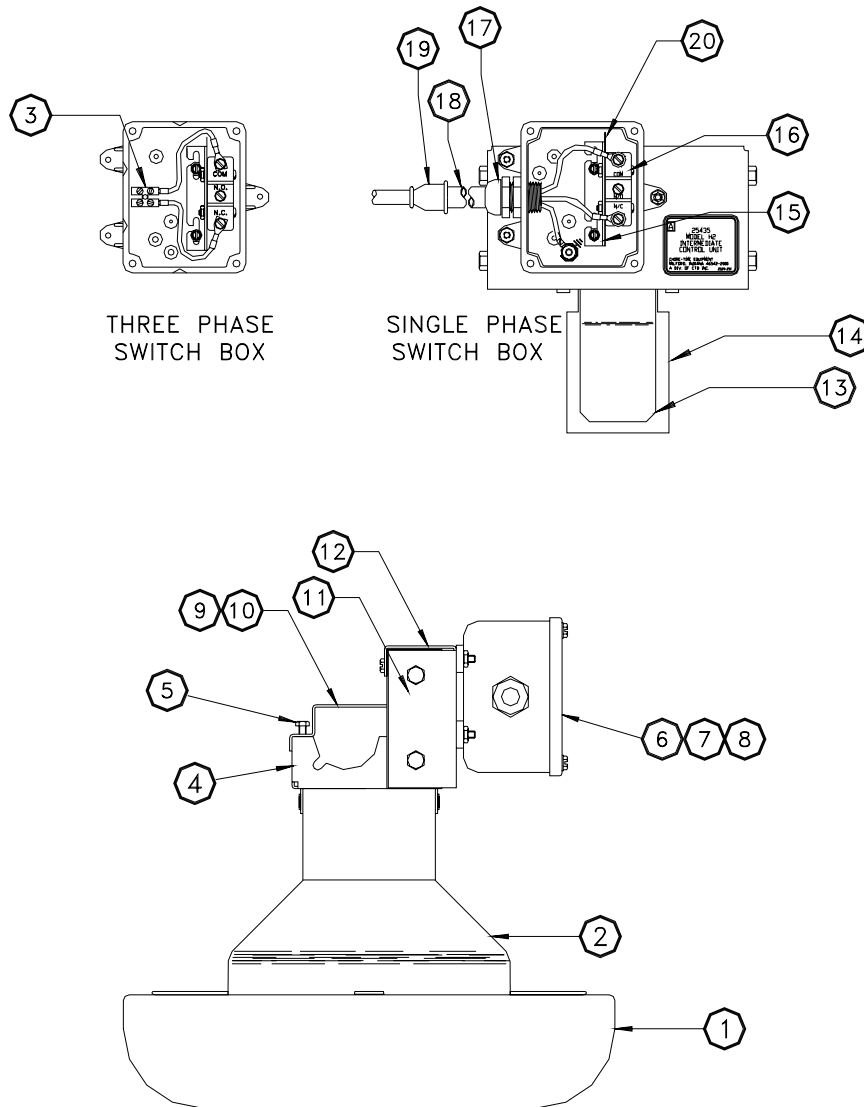
Item	Description	1 Phase	2 Phase
		Part No.	Part No.
19	Switch Box	24702	7841
20	Control Cord Ass'y	25495	----
21	1/2" Watertight Connector	26980	----
	Reducing Seal	7815	----
22	Actuator Switch	46091	46091
23	Gasket	6777	6777
24	Switch Box Cover	6776	6776
25	1/2" Watertight Connector	24685	----
26	Paddle Retainer	25045	25045
27	Mylar Ass'y	25318	25318
28	Switch Insulation	1907-5	1907-5
29	14" Flexible Conduit	26982-1	----
30	90 Degree Connector	23810	23810
31	Drive Tube Weldment	44794	44794
32	1/4-20 x 1.75 Socket Head	5083-8	5083-8
33	Drive Block	4342	4642
--	Anti-Roost Guard	2798	2798
--	Switch Actuation Pin	6775	6775
--	Danger Decal	2527-9	2527-9



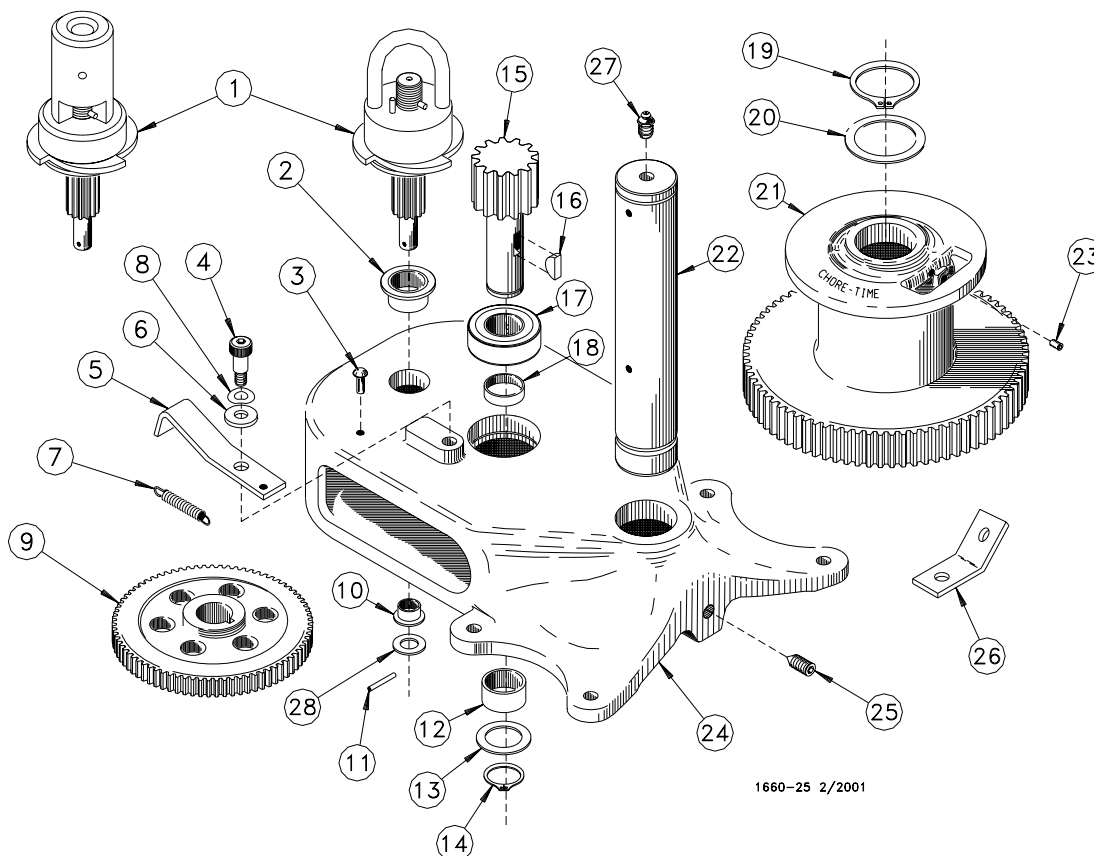
Model H2 Mid-Line Control-Single Phase: 25435**Model H2 Mid-Line Control-3 Phase: 27760**

Item	Description	1 Phase	3 Phase
		Part No.	Part No.
1	Pan	24901	24901
2	Cone Ass'y	34481	34481
3	Terminal Block	----	34925-2
4	Tube Insert	41364	41364
5	10-24 x 1-3/4" Hex Hd Bolt	4416-4	4416-4
6	Switch Box	34842	34842
7	Gasket	6777	6777
8	Switch Box Cover	6776	6776
9	Danger Decal	2527-9	2527-9
10	Tube Retainer	14756	14756
11	Front Panel	25046	25046
12	Back Cover	25047	25047
13	Switch Paddle	24848	24848
14	Mylar Assembly	25318	25318

Item	Description	1 Phase	3 Phase
		Part No.	Part No.
15	Switch Bracket	46122	46122
16	Actuator Switch	46091	46091
17	Water Tight Connector	24685	----
18	Vinyl Tubing	7814	----
19	Reducing Seal	7815	7815
20	Switch Insulation	1907-5	1907-5
--	Gasket	6968-1	6968-1
--	Switch Actuation Pin	8757	8757
--	Pivot Bracket	25048	25048
--	Paddle Retainer	25045	25045



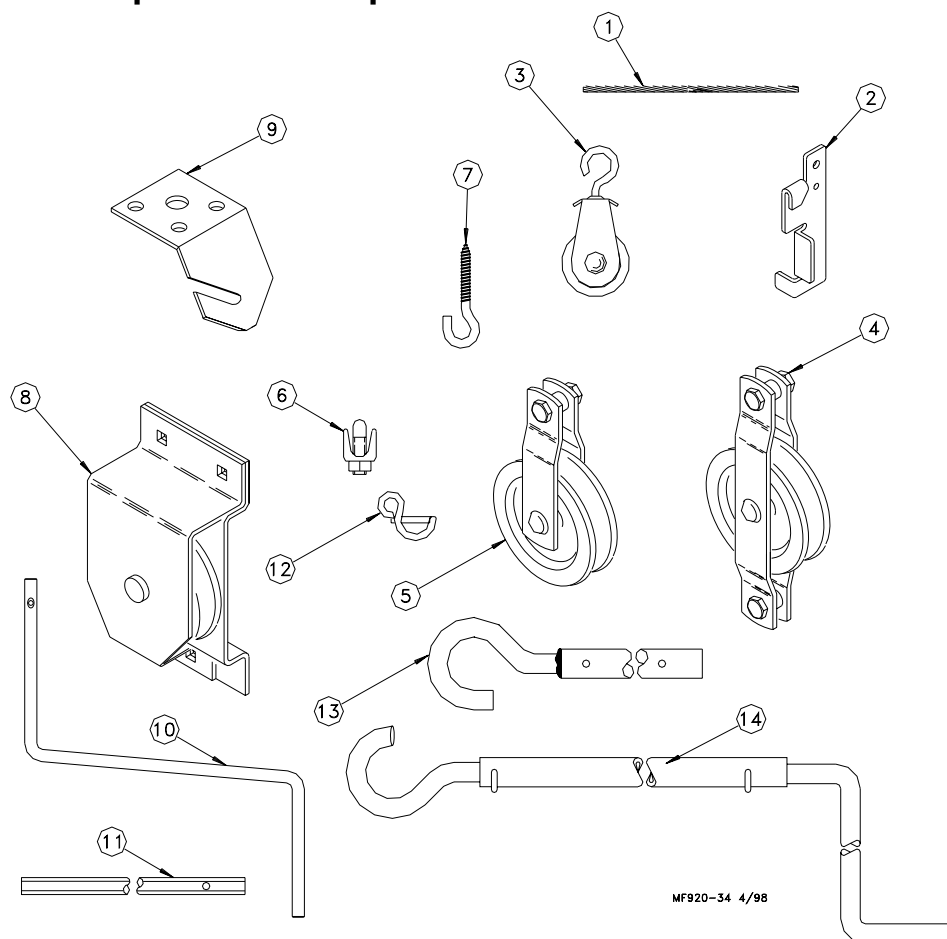
2883 Power Winch



Item	Description	Part No.
1	Input Shaft Assembly Manual Electric	42665 42666
2	Flange Bushing	2967-2
3	Drive Stud	4128-1
4	Shoulder Bolt	4022-2
5	Pawl	6672
6	5/16" Flat Washer	2255-44
7	Spring	1543
8	Spring Washer	4023
9	Intermediate Gear	2890
10	Flange Bushing	3252
11	Spirol Pin	2960-3
12	Bushing	2967-4
13	Washer	2955-1
14	Retaining Ring	2958-1

Item	Description	Part No.
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



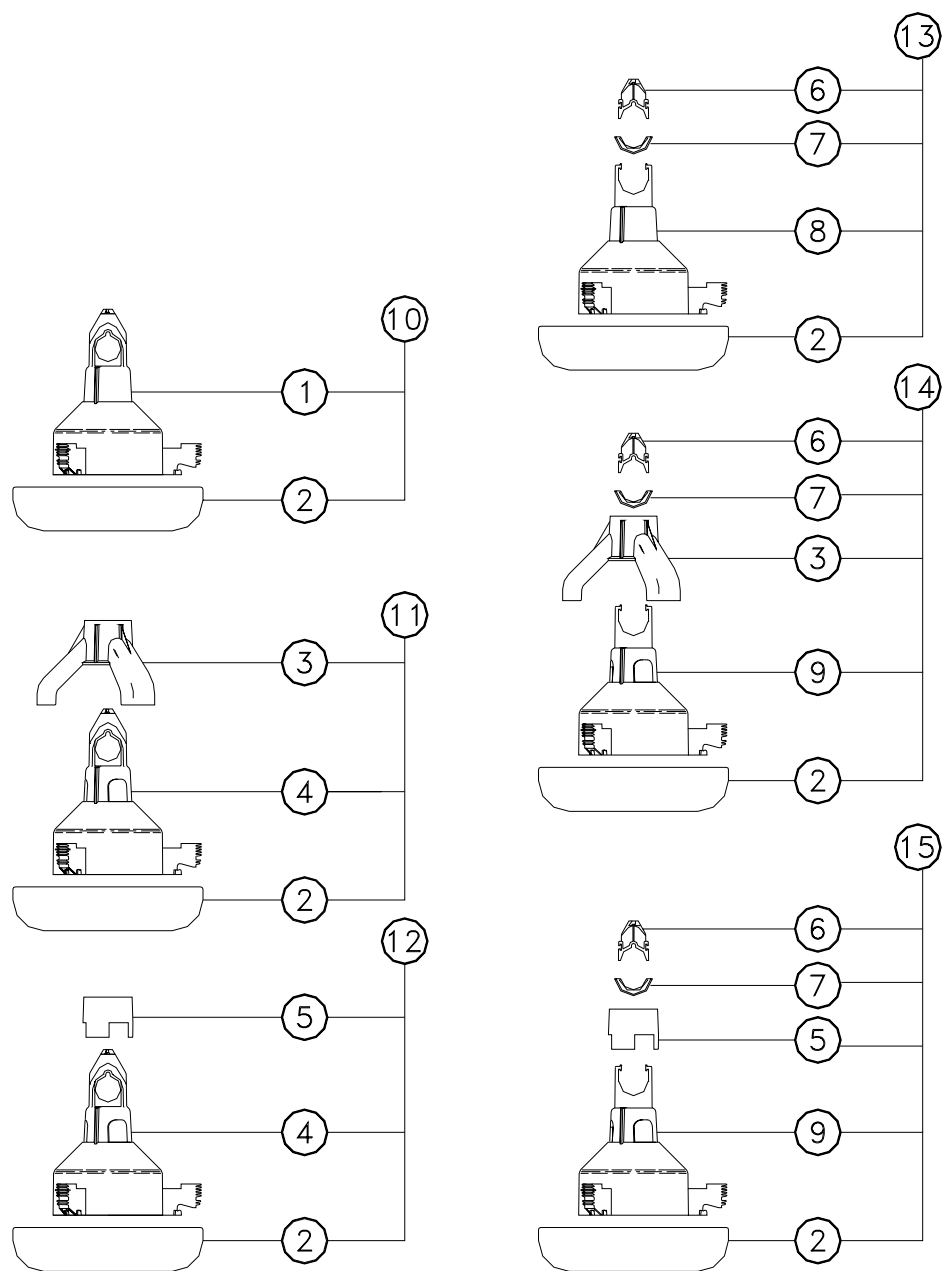
MF920-34 4/98

Item	Description	Part No.
1	3/32" Cable	4973
	3/16" Cable	1213
	1/8" Cable	27975
2	Cable lock	14337
3	Small pulley	3004
4	Double Eye pulley	2501
5	Large pulley	2500
6	3/16" Cable clamp	732
	1/8" Cable clamp	14898
7	Standard Screw Hook	1214
	Large screw hook	2014
8	Pulley assembly	28429
9	Ceiling hook	28550
10	Handle shank	3148
11	Drill adapter shaft	3151
12	Winch handle pin	3761
13	Winch drive tube (4')	2884-1
	Winch drive tube (8')	2884-2
14	Telescoping drive Handle	47638

Item 10 and Item 12 may be ordered as a kit under part no. 2885.

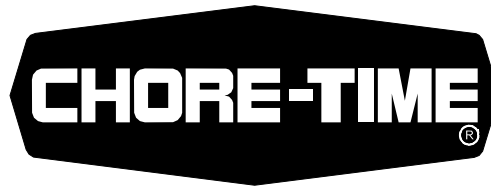
Item 11 and Item 12 may be ordered as a kit under part no. 2886.

MODEL H2 Feeder Assemblies



MF920-26 1/95

Item	Description	Part No.
1	Model H2 Cone (w/o Feed Windows)	24900-5
2	Model H2 Feeder Pan	24901
3	Feed Chute	25320-1
4	Model H2 Cone (w/Feed Windows)	24900-6
5	Flood Collar	25360
6	Support Cap	25052
7	Support Insert (swinging)	28356
8	Model H2 Cone (Slide Top, w/o Windows)	24900-3
9	Model H2 Cone (Slide Top, w/Windows)	24900-4
10	Model H2 1-Piece Feeder (w/o Windows)	27110
11	Model H2 1-Piece Feeder (w/Feeder Chute)	27115
12	Model H2 1-Piece Feeder (w/Flood Collar)	27120
13	Model H2 2-Piece Feeder (w/o Windows)	28112
14	Model H2 2-Piece Feeder (w/Feed Chute)	28113
15	Model H2 2-Piece Feeder (w/Flood Collar)	28114



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