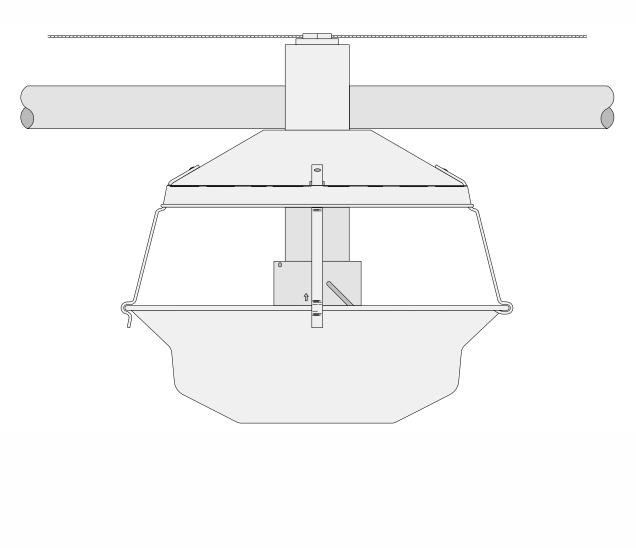




# Poultry Production Systems

Adult Turkey Feeder, MODEL ATF<sup>TM</sup> Installation and Operators Manual



Installation and Operators Manual

April 2005 MF232P

# **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 EXPRESSLEY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTIBILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR OUALITY 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: April 2005

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### 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

# **Contents**

Topic Page
Chore-Time Warranty2CONDITIONS AND LIMITATIONS3
About This Manual6
Safety Information
Safety Instructions7Follow Safety Instructions7Decal Descriptions7
General.7Support Information7Model ATF Recommendations & Guidelines8Manufacturer's Recommendations: Birds per Pan9
Glossary of Terms
Planning the Floor Feeding System
Suspension System12Screw Hook Installation14Ceiling Hook Installation14Power Winch Installation16Drop Installation16
Hopper Assembly Procedure
Assembly
Feeder Assembly.18MODEL ATFTM Feeding System18Adult Turkey Feeder Assembly19Feeder Tube Assembly20
Feeder Line Assembly and Suspension.20Feeder Line Installation20Control Unit Installation23Auger Installation25Auger Brazing27Winch Adjustable Feed Level Tubes (optional equipment)28Operation28Installation of the Winch Adjustable Feed Level Tube System28Intermediate Control (optional equipment)30Intermediate Control Operation31Anti-Roost Installation32
Maintaining the MODEL ATF™ Feeding System       35         Floor Feeding System Maintenance       35         Gear Head Maintenance       35         Switch Adjustment procedure for the Control Units       36         SENSOR PLUS™ Sensor Switch Adjustment for Control Units       36
For less time — turn Time Delay Adjusting Screw counter-clockwise (Light blinks fast)36Feeder Line36Power Lift Winch Maintenance37

# **Contents - continued**

Topic	Page
Trouble Shooting the MODEL ATF <sup>TM</sup> Feeding System	
Wiring Diagrams	
End & Intermediate Control Wiring Diagrams: Single Phase(Ø)	39
Single Phase(Ø) Wiring Diagram	39
Single Phase(Ø) Wiring Diagram w/Motor Starter	39
End & Intermediate Control Wiring Diagrams: Three Phase(Ø)	
Three Phase(Ø) Wiring Diagram: 220/230 V	40
Three Phase(Ø) Wiring Diagram: 380/415 V	40
Sensor Plus™ Internal Wiring	
Sensor Plus™ Control Wiring Diagram	
Sensor Plus™ Three Phase(Ø) Wiring	
Intermediate Control Internal Wiring	
Parts Listing	44
150# Hopper Components	
Hopper Mount Bracket (Optional)	
Single Boot Components Part No. 6821	
Twin Boot Components Part No. 8460	
Feeder Line Components	47
Power Unit Components	48
Power Unit Assembly Part Numbers	
Sensor Plus™ End Control Part No. 42343	
MODEL ATF™ Control Unit Components Part No. 49040	50
Drop Tube Assembly Part No. 28072	
Intermediate Control Part No. 6039	52
Feed Level Tube Winch Kit Part No. 46218	
2883 Power Winch	54
Miscellaneous Suspension Components	
MODEL ATF™ Pan Assemblies	
Optional Parts	

# **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.

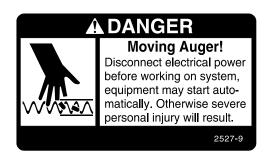
Keep safety signs in good condition. Replace missing or damaged safety signs.

# **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.

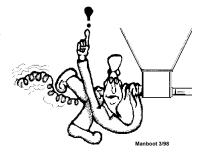
Ground all non-current carrying metal parts to guard against electrical shock.

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

# ELECTROCUTION HAZARD! Do not open this control box until electrical power is disconnected at circuit breakers.

### **CAUTION:**

Use caution when working with the Auger—springing Auger may cause personal injury.



# **General**

# **Support Information**

The Chore-Time Adult Turkey Feeding System, MODEL ATF<sup>TM</sup>, has been designed to feed poultry. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury.

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 ATF Recommendations & Guidelines**

The Chore-Time Adult Turkey Feeder is recommended for birds 5 to 6 weeks old and over. See "Manufacturer's Recommendations: Birds per Pan" on page 9 for feeder space recommendations.

Adult Tom Turkeys: 40 to 50 birds per pan.

Hen Turkeys: 60 birds per pan.

- Operate the equipment, if possible, before birds are housed to check installation, switch operation and to fill the feeder lines with feed.
- The oil coating on new auger will cause the auger to deliver feed at a slower rate. To reduce the load on the motor while the equipment is being broken in, auger 50 pound (20 kg) increments of feed out to the pans. Allow the system to run for approximately 30 seconds, then add another 50 pounds (20 kg) of feed. Repeat this procedure until feed has been supplied to all the pans. Do not feed grit with the Adult Turkey Feeder.
- Birds avoid dark or cold areas. Do not locate a Control Unit or Intermediate Control in such an area. Also, do not locate the Control Unit close to the end of the building. Allow a minimum of 10 feet (3 m) between the Control Unit and the building wall. If these problems are anticipated, they can be corrected during installation. Otherwise, artificial lighting can partially correct the problem.
- During the break-in period, check the feed level in the pans. Normally, 1" to 1-1/2" (25 to 38 mm) of feed in the pan controls feed waste. When birds are housed, monitor the feed leave in the pans and adjust as needed. Note: When birds are debeaked, a deeper feed level is required. Adjust the feed level by raising or lowering the Feed Level Ring.
- The height of the feeder line can be adjusted easily and it should be raised periodically as birds grow. Keep the lip of the pan approximately at the point where the bird's neck joins the breast so the birds must reach slightly. For the average 20 pound (9.1 kg) turkey, this will put the lip of the pan about 16 to 18 inches (405 to 455 mm) above the floor. Keeping the pans high results in less feed waste, less litter in pans and easier bird movement.

# Manufacturer's Recommendations: Birds per Pan

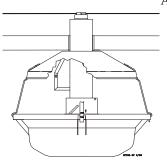
Type	Max weight and/or weeks of age	Feeders	Number of birds/pan
Broiler	4.5lbs/2kg.	Revolution 12, Models C2 Plus, C2Plus S, C, H2, H2 Plus	60 - 90
Broiler	7lbs/3.1kg	Revolution 8, C2 Plus, C2 Plus S, G Plus, G Plus S, C, H2, H2 Plus	55 - 75
Broiler	9lbs/4.0kg	Revolution 8, G Plus, G Plus S	45 – 65
Broiler 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

<sup>\*</sup>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.

<sup>\*</sup> 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.

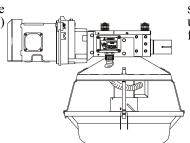
# **Glossary of Terms**

### **Intermediate 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.

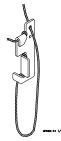




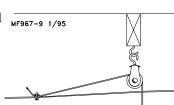
### **Anti-Roost Bracket:**

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

### **Adjustment Leveler:**



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



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

to the feeder line.

### Throw-back:

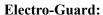
A cable/pulley arrangement that allows cable to be routed to a desired location.

### **Double-back:**

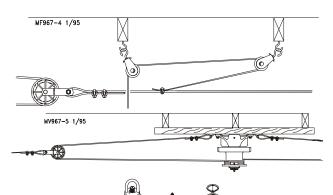
A cable/pulley arrangement that reduces the load on the Power Winch.

### **Power Lift:**

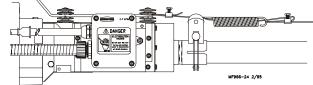
Red, cast iron winch used to raise and lower the feeder line(s). Operated by a hand crank or electric drill. Referred to as Power Winch.



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.

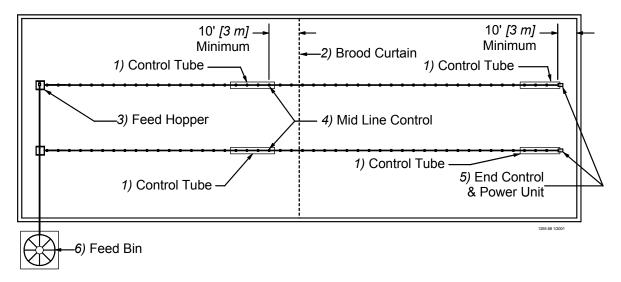


Figure 1.Component location diagram for systems up to 400 feet [122 m]. (Top View).

A. Systems with line lengths over 400' [122 m] should be split in the center, as shown in **Figure 2.** This will reduce auger running time and eliminate the need for Mid-Line Controls for partial house brooding.

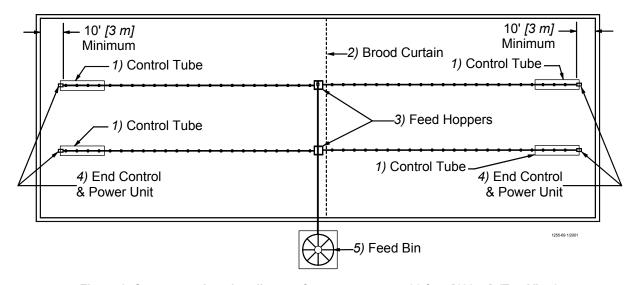


Figure 2. Component location diagram for systems over 400 feet [122 m]. (Top View).

- 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.

# **Suspension System**

The feeder line suspension system is a vital part of your feeding system. Proper planning and installation is necessary to insure proper operation of the system. Use the chart below as a reference guide for determining support load requirements for your system.

Component	Weigh in pounds (kg)
Tube, Auger, Feeders, & Feed	7 lbs./ft (10.5 kg./m)
Power Unit & Control Unit Assembly	50 lbs. (22.6 kg)
150 lb. Feed Hopper & Feed	180 lbs. (81.6 kg)
Power Winch	40 lbs. (18.1 kg)

The type of installation required depends on feeder line length. **Figure 3** shows the suspension system for feeder line lengths to 350' (107 m). **Figure 4** shows the suspension system for feeder lines over 350' (107 m).

IMPORTANT: Notice that the feeder line MUST BE SUPPORTED WITHIN 3 FEET (1 M) OF THE MOTOR ON THE CONTROL UNIT. When Steel Hoppers with center suspension are installed the feeder line MUST BE SUPPORTED WITHIN 1 FOOT (300MM) OF THE HOPPER. If the Control Unit does not come out directly under a truss, fasten a pulley to a 2x8 (50x200 mm) board or other fixture that will span 2 trusses supporting the Control Unit. See "Hopper Assembly Procedure" on page 17. for special plastic 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 is to be installed.

The recommended distance between the drops 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" (75 mm) to each side of the line to prevent the cable clamps from catching the pulleys, **see figure 5.** 

For installations using wood trusses, standard screw hook or the optional Ceiling Hook may be used to hold the pulley assemblies.

For installations using steel trusses, the Ceiling Hooks are available to hold the pulley assemblies.

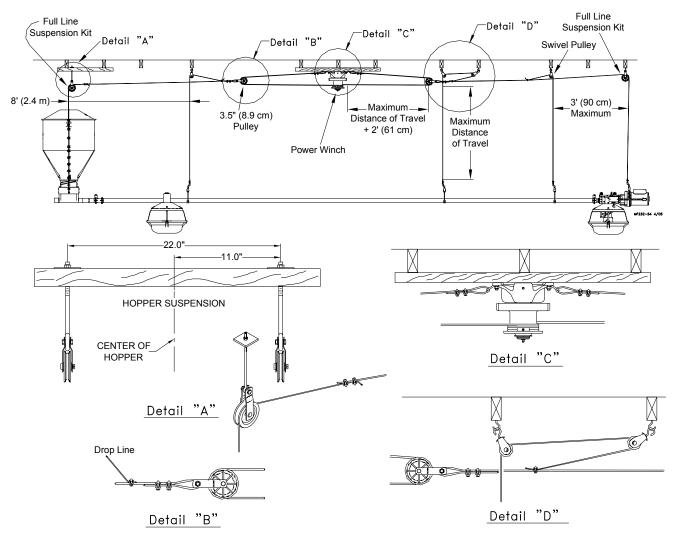


Figure 3. For Systems over 350' (107 m)

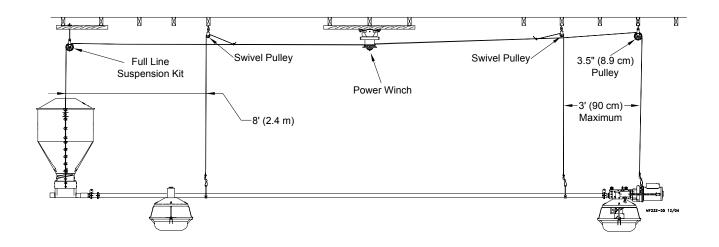


Figure 4. For Systems up to 350' (107 m)

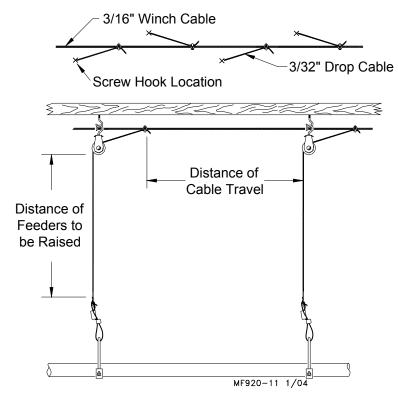


Figure 5. Suspension System with Offsets

### **Screw Hook Installation**

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 6.

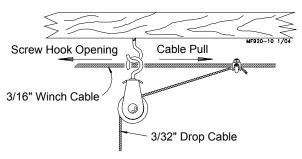


Figure 6. Screw Hook Installation

# **Ceiling Hook Installation**

The ceiling hook may be used in a variety of installations. Depending on your individual situation, install the ceiling hooks as shown in **Figures 7-10**.

After securing the ceiling hook to the truss, slide the hook of a Swivel Pulley into the slot, as shown in Figure 11.

### **Steel Truss Installations**

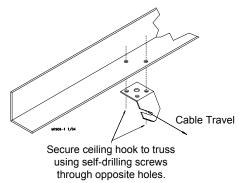
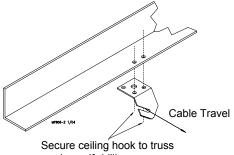


Figure 7. Wide Steel Truss Installations

### **Steel Truss Welded Installations**

### **Wood Truss Installations**



using self-drilling screws through side-by-side holes.

Figure 8. Narrow Steel Truss Installations

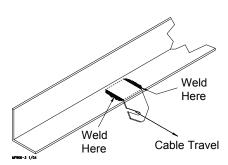


Figure 9. Welded Steel Truss Ceiling Bracket

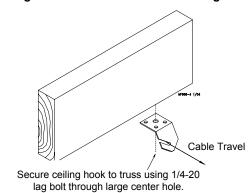
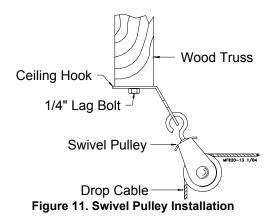


Figure 10. Wood Truss Ceiling Bracket Installation



MF232P 15

### **Power Winch Installation**

- 1. Bolt the Power Winch, fully assembled, to a 2 x 8" (50 x 200 mm) board or other fixture that will span at least 3 rafters. The brake mechanism will protrude on one side. For feeder lines over 350 feet (106 m), install a 2985 Cable Hook between the mounting bolt and Power Winch frame, as shown in **Figure 12.**
- 2. Attach the 2 x 8" (50 x 200 mm) board, with the Power Winch secured, to the ceiling at the center of the feeder line. The 2 x 8" (50 x 200 mm) or other fixture must be parallel to the line and must span at least 3 rafters or other fixture.
  - 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
- 3. Extend the 3/16" (5 mm) cable the full length of the feeder line. Attach the cable temporarily to the ceiling with nails, staples, or some type of fastener.

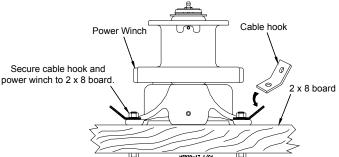


Figure 12. Power Winch Installation

- 4. Wrap the cable through the winch drum relief located near the bottom of the drum. Tighten the set screw to anchor the cable to the drum, see figure 13.
- 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 13.

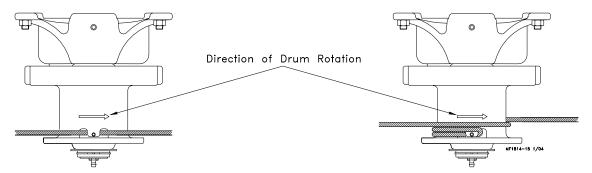


Figure 13. Cable Installation & Wrap

# **Drop Installation**

- 1. Attach a 3004 Pulley to each hook.
- 2. Thread the end of the 3/32" cable through the pulley toward the winch. Clamp this end to the 3/16" winch cable about 6" (150 mm) from the pulley, using a 3/16" cable clamp, see figure 6.
- 3. Cut the cable long enough to allow for installation to the feeder line and to the Adjustment Leveler. Sufficient cable is included to provide "throwbacks" on drops located beneath and near the winch. See Figure 3 (on page 13), Detail D shows a "throwback" cable arrangement.
- 4. Begin installing suspension drops at the winch and proceed to the ends of the feeder line. Keep the main cable tight between drops. It may be necessary to hang a weight on the end of the main cable to maintain tension.

TUBE SUPPORT

-1/4-20 X 1-1/2" BOLT

BRACE

HOPPER HALE

#14 X 5/8" SCREWS

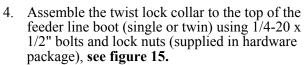
# **Hopper Assembly Procedure**

The 150 lb. Hopper Assembly is <u>NOT designed for single-point suspension</u>. The upper cross brace is designed for supporting the drop tube <u>ONLY</u>. This Hopper Assembly is to have <u>Two-point</u> suspension as stated.

**Assembly** 

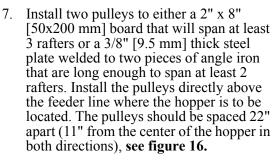
- 1. Assemble the 1/4-20 x 1-1/2" bolt to the brace with two 1/4-20 nuts. One nut should be assembled under the brace with the other on top. This bolt is to provide a place for the tube support assembly chain to be hooked, see figure 14.
- 2. Assemble the 150 lb. hopper halves and brace as shown in **Figure 14**, using #14 x 5/8" screws (supplied in hardware package).
- 3. Assemble suspension angles and suspension braces around feeder line boot (single or twin), using 1/4-20 x 1/2" Hex bolts and nuts (supplied in hardware package), see figure 15.

Note: The larger holes on the ends of the suspension angles need to be on the upper side of the assembly.



5. Assemble the adjustment brackets to the suspension angles with 5/16-18 x 3/4" bolts and nuts (supplied in hardware package).

6. Two cable assemblies (cable with a sleeve clamp and a 5/32 thimble) are supplied with the suspension kit to support the hopper. Attach the cable assemblies to the adjustment brackets using the top holes of the adjustment brackets, see figure 15.



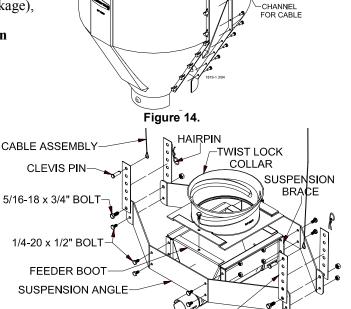
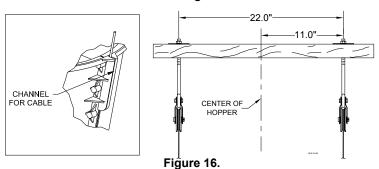


Figure 15.

1819-2 3/04



ADJUSTMENT BRACKETS

# Suspend the Hopper

- Attach the boot to the feeder line.
- 2. Route the two cable assemblies up and around the pulleys.
- 3. Level the boot with the feed line and clamp the cables to the main cable using 1 cable clamp per cable assembly.
- 4. Place the hopper on top of the twist lock collar and rotate the hopper 90 degrees into position.

Make sure the cables lay in the channels on the sides of the hopper for support.

# **Feeder Assembly**

# MODEL ATF™ Feeding System

1. Attach one Swing Down Pan Support and three regular Pan Supports to the Pan Shield using rivets supplied. Always attach the Swing Down Pan Support at the sam location on all pan shields. It will be necessary to support the Pan Shield while installing the rivets. Use a hammer to drive rivets as shown in **Figure 17.** 

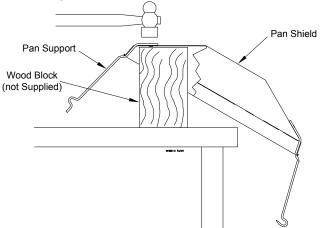
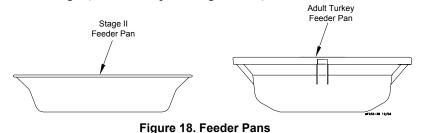


Figure 17. Pan Shield Assembly

2. Determine which Feeder Pan (Adult Turkey or Stage II) is to be installed, **see figure 18.** Refer to appropriate assembly section.

The basic assembly and installation of the Stage II Feeder is the same as the Adult Turkey Feeder. The two primary differences being; 1) the feeder pan design, and 2) installation of the Feed Level Tube.



# Stage II Feeder Assembly

Assemble the Feed level Tube & Ring with the arrow pointing **DOWN**, when the Stage II Pan is used, **see figure 19.** 

The Feed Level Ring Should be positioned in the second hole from the top fro Stage II Feeder Pans. Note the direction of the arrow.

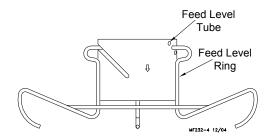


Figure 19. Stage II Feed Level Ring

### **Adult Turkey Feeder Assembly**

- Assemble the Feed Level Tube and Feed Level Ring as shown in **Figure 20**.
- Note the direction of the arrow on the side of the Feed Level Tube.
- Position the Feed Level Ring in the third hole from the bottom for the Plastic Adult Turkey Feeder Pan
- Position the Feed Level Ring in the fourth hole from the top for the steel Adult Turkey Feeder Pan, see figure 20.
- 3. If the Feed Level Tubes are to be winch adjustable, install the Cable Assemblies at this point. If the Feed Level Tubes are not to be winchable proceed to step 4.

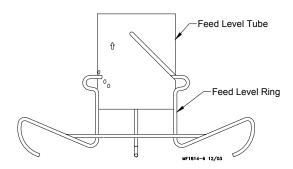


Figure 20. Adult Turkey Feeder Feed Level Ring

Before installing the cable assemblies a 90 degree bend needs to be put in the cable to keep all the feed level tube assemblies at a uniform height. To do this take a pair of needle nose pliers and grab the cable behind the cable stop. Now bend the cable over the pliers back onto itself, see figure 21.





Figure 21. Cable

Install two cables at each feed level tube, as shown in **Figure 22.** The cable stop should be located on the inside of the Feed Level Tube and pulled up tight against the inside.

# NOTE: After the feeder operates, re-adjustment of the Feed Level Tubes may be desired to achieve the desired feed level.

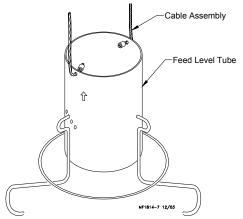


Figure 22. Cable Installation

4. Place the Feed Level Tube Assembly in the Feeder Pan.

- 5. Insert the Drop Tube into the Feed Level Tube Assembly, **see figure 23.** Install the pan shield supports in the slots in the drop tube.
- 6. With the bottom of the pan up, hook the swing down pan support. Then rotate the pan down to hook the remaining pan supports over the lip of the pan.

Do not bend the Pan Supports during assembly.



Figure 24. Swing Down Pan Support

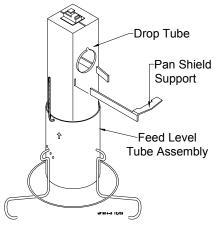


Figure 23. Drop Tube Installation

# Feeder Tube Assembly

- 1. Slide one Pan Assembly onto the Feeder Tube for each outlet hole. Lift the Drop Tube through the Pan Shield so the Feeder Tube can slide through the holes in the sides of the Droop Tube. Install the Pan Assemblies so all the Swing Down Supports are on the same side to the feeder line.
- 2. Rotate the feeder tube so the tab at the outlet hole will pass throughout the notch in the Drop Tube. Rotate the tube 180 degrees to lock the pans in place, see figure 25. Make sure outlet holes are down.
- 3. Position the tubes with pans attached end to end in the approximate location where they will be suspended. The belled ends of the tubes must point towards the hopper.

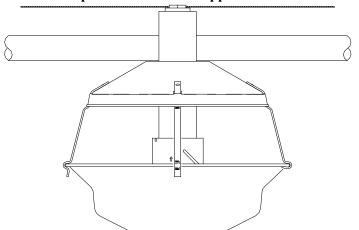


Figure 25. Install Feeders on Tubes

# **Feeder Line Assembly and Suspension**

### **Feeder Line Installation**

- 1. The tubes should be laying end to end in approximately the final location of the line. The expanded end of each tube should be toward the Hopper end to the line, see figure 26.
- 2. Connect the individual feeder tubes together by inserting the straight end of the tube as far as possible into the belled end of the next tube.

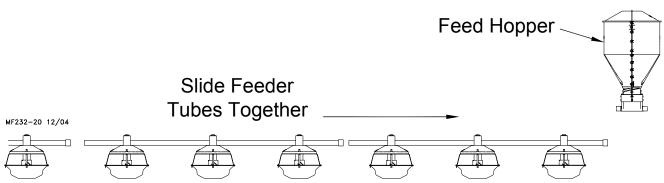


Figure 26. Feeder Line Assembly Procedure

- 3. Place a Tube Clamp Assembly or Clamp/Anti-Roost Bracket at each joint. **Figure 27** shows the standard clamp and Clamp/Anti-Roost Bracket.
  - Make sure each tube fits as far as possible into the belled end of the next tube. the outlet holes <u>must point</u> <u>down</u>. Install tube clamps as shown in Figure 28.
- 4. Begin at the hopper end of the line. Use a tube clamp with an anti-roost bracket to attach the hopper to the first tube. Use a tube clamp (w/o insulator) at the next joint between the first and second feeder tubes. Continue down the line clamping the tubes together. Use a tube clamp with anti-roost bracket at the end of the line. This should give a tube clamp with anti-roost bracket at each end of the line and at 20 foot (6 m) intervals along the length of the line.
- 5. If the optional Intermediate Control Unit is used, install it at the desired location. See "Intermediate Control Installation" on page 30.

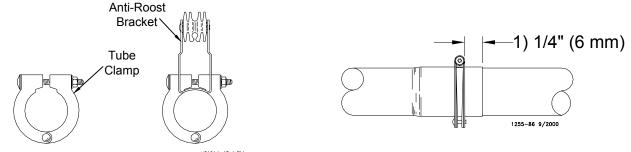


Figure 27. Tube Clamp and Anti-Roost Bracket

Figure 28. Tube Joint Connection

- 6. Install the Hangers on the tubes on 8' (2.4 m) spacings determined by the suspension drop lines. **Figure 29** shows the proper installation of the Hanger Assembly. Make sure the outlet drop hole is down when the hangers are installed, otherwise feed will not be allowed to drop into the feeder pan.
- 7. Install the Adjustment Leveler within 6" (152 mm) of feeder line hanger. **Figure 29** shows the proper cable routing around the Adjustment Leveler.
- 8. Following installation of all drops, check drop cables before raising feeder line. Cable must be on all pulleys before raising the feeder line.
- 9. Raise the feeder line to a convenient working height.
- 10. After the feeder line has been suspended, level the system to the bird walking surface.
- 11. Before tightening each clamp;
- make sure each tube is level (not sagging, sloping, etc.)
- make sure the straight end to the tube is fully inserted in the belled end of the next tube.
- make sure clamp is located, as shown in **Figure 28.**Finally, tighten the Tube Clamps on the feeder tubes. Clamp the joints securely, **but do not crush the tubes**.

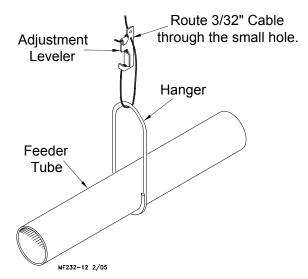


Figure 29. Adjustment Leveler and Hanger Installation.

### **Control Unit Installation**

The assembly instructions are very similar for the 49040 Control Assembly and the 42343 Control Assembly. The primary differences between the controls are in the electrical components and protection devices.

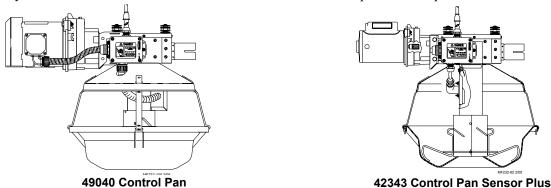


Figure 30. Control Units

- 1. Remove the four 5/16-18 x 5/8" bolts from the parts package and use them to bolt the Anchor Plate to the Power Unit. Install the Anchor Plate with the angled end pointing down, **see figure 31.**
- 2. Bolt the Control Unit Body Assembly to the Power Unit, using hardware supplied, see figure 31.

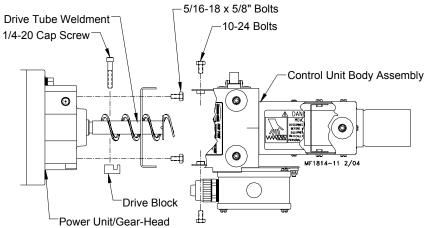


Figure 31. Control Unit Installation

- 3. Rivet the Pan Supports on the Control Unit Shield. See Figure 17 (on page 18) for instructions on riveting.
- 4. The Feed Level Switch is factory adjusted. To check adjustment before assembling depress the switch paddle and listen for the switch to "click". If the switch needs adjustment, REFER TO MAINTENANCE SECTION.

- 5. Insert the Drop Tube and Switch Assembly through the Pan Shield from the bottom, **see figure 32.** The hole in the Pan Shield should be located on the same side of the Drop Tube as the Switch Cord and directly under the white box on the body assembly. Bolt the Drop Tube to the Body Assembly. The switch on the Drop Tube should be mounted opposite the Power Unit.
- Single Phase: Install the 90 degree connector, flexible conduit, electrical wire, and conduit connector as shown in Figure 33.
   Three Phase: Refer to applicable electrical star

Three Phase: Refer to applicable electrical standards for connecting Power unit to Control unit.

Components are not supplied by Chore-Time.

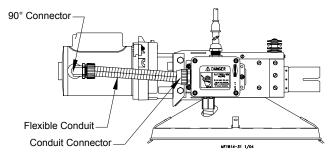


Figure 33. Conduit Installation

- 7. Insert the flex cable that is attached to the control switch through the hole in the control unit pan shield and attach the Romex connector to the handy box, see figure 34.
- 8. DISCONNECT ELECTRICAL PWER PRIOR TO WIRING THE CONTROL UNIT. Single Phase Control Unit may be wired as shown, See "Single Phase(Ø) Wiring Diagram" on page 39. Three Phase Control Unit must be wired as shown, See "Three Phase(Ø) Wiring Diagram: 220/230 V." on page 40.
- 9. Mount the control unit on the end of the feeder line and secure with a tube clamp. **See Figure 31 (on page 23)**. The distance between the control unit pan and the last pan should be 5' (1.5 m) or less.

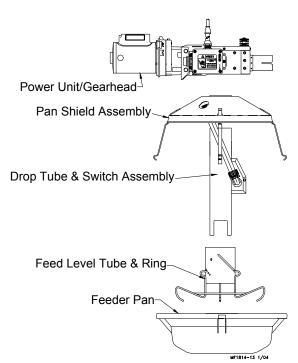


Figure 32. Drop Tube and Switch Assembly

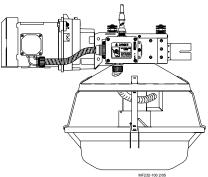
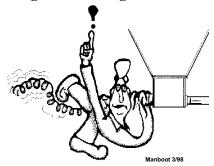


Figure 34. Switch Installation

### **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!

Be careful not to drop the rolled auger when handling to avoid kinking the auger. Inspect the auger carefully as it is installed. Small kinks may be straightened but 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. Remove the Anchor & Bearing Assembly from the boot under the Hopper.
- 2. 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' (1.8 m) from the end of the boot, 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.
- 3. 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.
- 4. Continue installing auger until the auger reaches the Control Unit end of the feeder line.
- 5. Slide the Drive Tube and flat washer over the output shaft on the Power unit, see figure 35.
- 6. Attach the auger to the output shaft of the Power Unit. Use the Drive Block to secure the auger to the Output shaft.

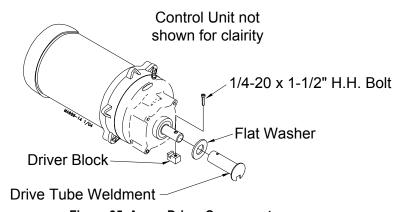


Figure 35. Auger Driver Components

- 7. 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 36.**
- 8. 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

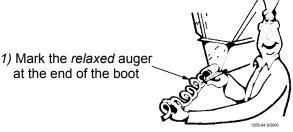


Figure 36. Marking the Relaxed Auger

locking pliers. Allow the auger to pull back into the boot so the pliers rest against the end of the boot,

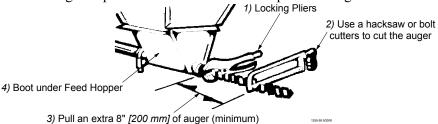


Figure 37. Cut the Auger with required stretch

to allow for Anchor and Bearing Installation

9. Insert the Anchor Assembly into the auger, guide the tip of the auger between the two roll pins and continue to insert the auger until it touches the washer at the back of the anchor. Tighten the two screws in the center of the anchor.

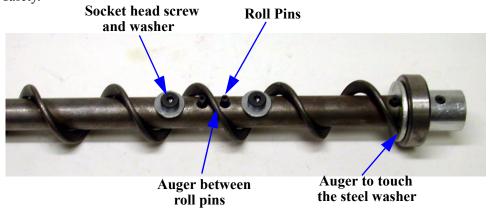


10. **Carefully** remove the locking pliers while holding onto the Anchor and Bearing Assembly and auger securely.

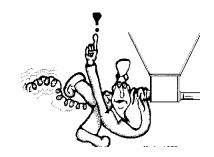
Slowly ease the auger back into the tube. Use caution.

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.



# BE CAREFUL WHEN WORKING WITH THE AUGER!



# **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, **NOT THREAD INSIDE EACH OTHER**. **See Figure 38.** The joint should be well filled with no sharp edges or tough corners to ware 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.

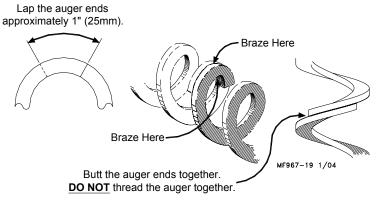


Figure 38. Auger Brazing

### Winch Adjustable Feed Level Tubes (optional equipment)

Chore-Time's Adult Turkey Feeder can be equipped to provide winch adjustable feed level tubes. New systems can be ordered with this feature. Existing systems can be (easily) upgraded to include feed level tube winching components.

The Feed Level Tubes are adjusted using a winch and cable. The maximum line length for each winch is 200' (61 m). The winch should be located in the middle of the line of feeders it is to adjust, see figure 39.

### Operation

The Feed Level Tubes ate winched up to flood the pans with feed to allow maximum access to the feed for young turkeys. As the birds grow the Feed Level Tubes can be lowered to reduce the feed level For systems using the 4194 Feed Level Tubes (winchable), the Feed Level Ring will need to be adjusted manually.

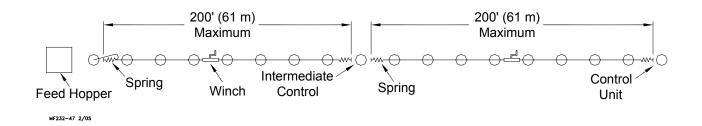


Figure 39. Installation of the Winch Adjustable Feed Level Tube System

### Installation of the Winch Adjustable Feed Level Tube System

1. Use two U-bolts provided to fasten the winch to the feeder line tube, **see figure 40.** The winch should be placed in the center of the line of Feed Level Tubes it will adjust, as shown in **Figure 39.** 

THE LINE LENGTH MUCT NOT EXCEED 200 FEET (61 M).

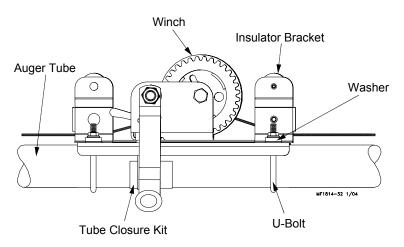


Figure 40. Winch Installation

2. Anchor spring to clamp on each side of the winch, see figure 41. Attach the Tube Clamp/Spring assemblies to the feeder line tube at a maximum distance of 100 feet (30 m) from the winch, see figure 39.

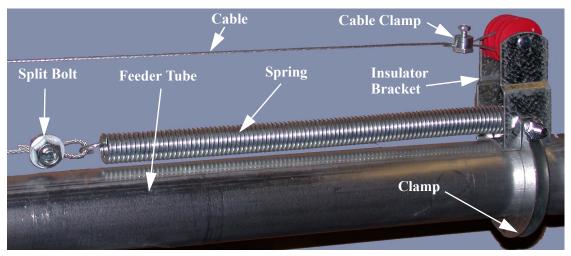
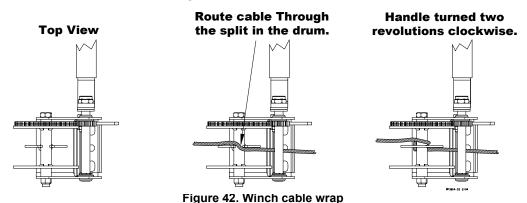
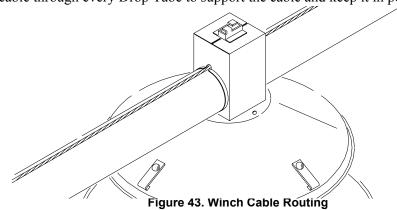


Figure 41. Spring and Insulator Bracket Installation

3. Lay the cable through the split in the winch drum. Turn the winch handle clockwise two revolutions to wind some cable onto the winch drum, see figure 42.



4. Thread the cable through every Drop Tube to support the cable and keep it in position, see figure 43.



- 5. Loop the cable around the end of the spring and secure with a split bolt cable clamp, see figure 41.
- 6. There is not enough room between the feed hopper and the first feeder pan to attach and stretch the spring. Install the spring in between the first and second pan after the hopper. Then route the cable back to the first pan and attach to the feed tube cable assemblies, see figure 44.

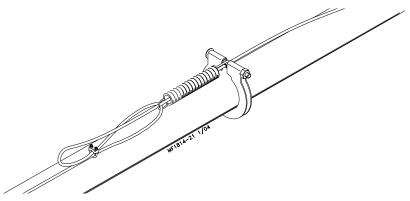


Figure 44. Hopper End Spring Installation

- 7. Install two cable assemblies at each feed level tube (if the cable assemblies have not yet been installed). The cable stop should be on the inside of the feed level tube and pulled up tight against the inside, See Figure 21 (on page 19) and See Figure 22 (on page 19).
- 8. Thread the cable assemblies through the holes on each side of the pan shield from the underside. Then clamp to the master cable with a cable clamp, see figure 45.

Note: Before clamping the cable assemblies to the cable, make sure:

- A. The springs at each end of the cable are stretched approximately 14" (355.6 mm).
- B. The feed level tubes are raised as high as possible.
- C. The stop on the cable assemblies are pulled up against the inside of the feed level tube.

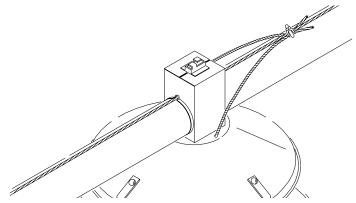


Figure 45. Cable Assembly Installation

# **Intermediate Control (optional equipment)**

The Intermediate Control makes it possible to operate the feeding system when birds are confined away from the End Control Unit. Chore-Time recommends placing the Intermediate Control Feeder at least 2 pans away from the curtain or partition, **see figure 46.** 

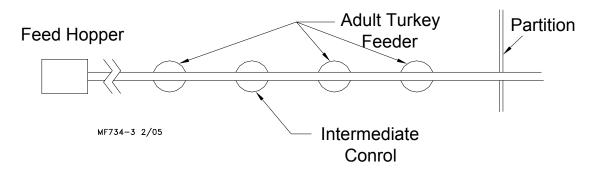


Figure 46. Intermediate Control Installation

1. Determine which feeder tube and outlet hole will be used for the Intermediate Control. Slide an Intermediate

Control into place on the tube.

Make sure the Intermediate Control is installed so the switch is directly under the incoming supply of feed, see figure 47.

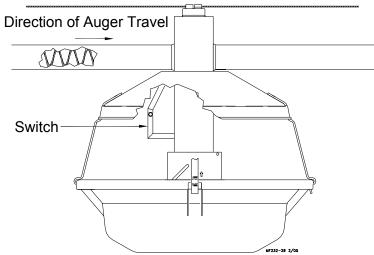


Figure 47. Orientation of the Intermediate Control Switch

- 2. Install the Feed Ring and Feed Level Tube similar to the standard feeders. The Intermediate Control serves as the Drop Tube Assembly.
  - If the feeders are to have the winchable Feed Level Tubes install the necessary cables now. See "Winch Adjustable Feed Level Tubes (optional equipment)" on page 28.
- 3. Install the Feeder Pan, Pan Shield and other miscellaneous components similar to the standard feeders.
- 4. The Feed Level Switch is factory adjusted. To check adjustment before assembling depress the switch paddle and listen for the switch to "click". If the switch needs adjustment See "Maintaining the MODEL ATF<sup>TM</sup> Feeding System" on page 35.
- 5. Install a toggle switch out of the birds reach to disconnect power to the Intermediate Control. This allows the Intermediate Control to serve as a standard feeder when not used as a control feeder.
- 6. Wire the Intermediate Control as shown in the wiring diagram section of this manual.

### **Intermediate Control Operation**

Chore-Time recommends having a toggle switch wired into the system to allow the feeder line to be changed from full house brooding to partial house brooding.

Maintain a lower feed level in the Intermediate Control than in the rest of the feeders. This will cause the Intermediate Control Pan to operate more often, thereby starting the feeder line before the other pans become empty.

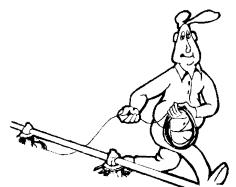
Do not hinder the bird movement around the Intermediate Control Pan. Locate the curtain or partition several pans away from the Intermediate Control pan.

Provide adequate lighting so the birds will not shy away from the Intermediate Control area.

### **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 and then changing hands to remove 5 loops as it is unrolled the cable will lie flat during installation.



- 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 3/32" cable clamp as shown in **Figure 49.**
- Insert the cable in the insulator on the top of each Grill Support between the hopper and the next anti-roost bracket.

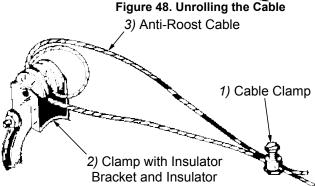


Figure 49. Anti-Roost Cable at the Hopper

- 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 there is 3/4" to 1" (20 to 25 mm) of stretch in the spring. Clamp the cable to from 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.**

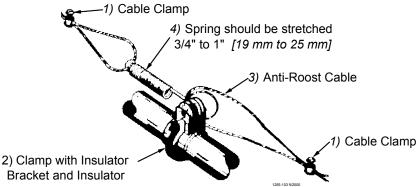


Figure 50. Anti-Roost Cable at the Hopper

- 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 feeder line.
- 9. At the control unit, after clamping the cable to the spring, cut the cable 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 from on the control unit insulators. Be sure the guard snaps into the retainers molded into the insulators, see figure 51.

11. Install the Poultry Trainer or Line Charger, as shown in Figure

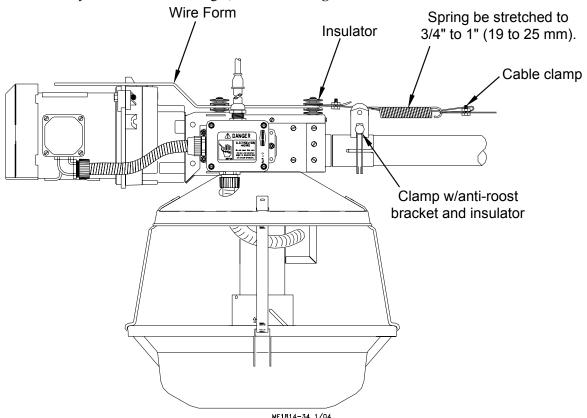


Figure 51. Anti-Roost Installation at the Control Unit

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.

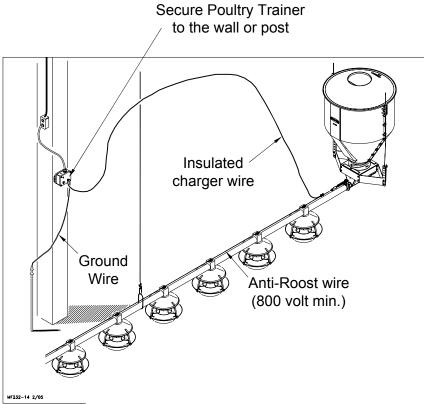


Figure 52. Poultry Trainer Installation

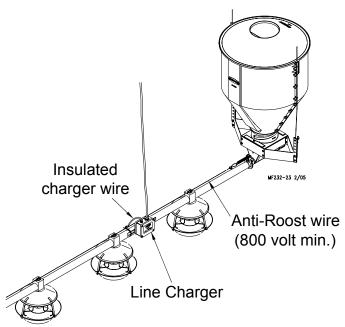


Figure 53. Line Charger Installation

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.

# Maintaining the MODEL ATF™ Feeding System

### Floor Feeding System Maintenance

The MODEL ATF<sup>TM</sup> 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.

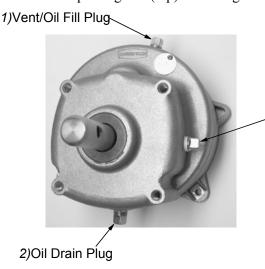
### **Gear Head Maintenance**

Refer to **Figure 54.** 

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.



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

Figure 54. Gearhead Maintenance

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

### **Switch Adjustment procedure for the 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.

# SENSOR PLUS™ Sensor Switch Adjustment for Control Units

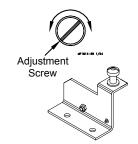


Figure 55. Switch Adjustment

The SENSOR PLUS<sup>TM</sup> Pan Half Round Sensor Switch is adjusted at the factory to a sensitivity of 25" [6 mm] from the face of the sensor and a time delay of 15 seconds with the range selector in the "0" position. The time delay adjustment is 0 seconds to 5 minutes.

To adjust the Time Delay (see figure 56.):

# For less time — turn Time Delay Adjusting Screw counter-clockwise (Light blinks fast)

• For more time — turn Time Delay Adjusting Screw clockwise (Light blinks slow)

### **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.

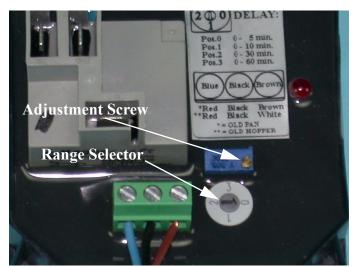


Figure 56. Adjusting Sensor Plus Proximity Switch

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.

- 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.

# DANGER Moving Auger! Disconnect electrical power before working on system, equipment may start automatically. Otherwise severe personal injury will result.

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

- 4. Place a clamp or locking pliers 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 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 57**.
- DO NOT OVERTIGHTEN THE SET SCREWS.
- 3. 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.

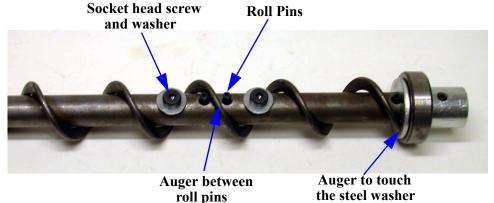


Figure 57. Auger and anchor Bearing Connection

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 58.

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

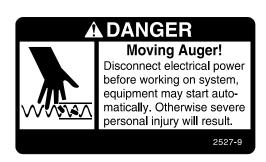
1660-24 6/2001

Figure 58. Maintenance to the Power Lift Winch

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 MODEL ATF™ 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.

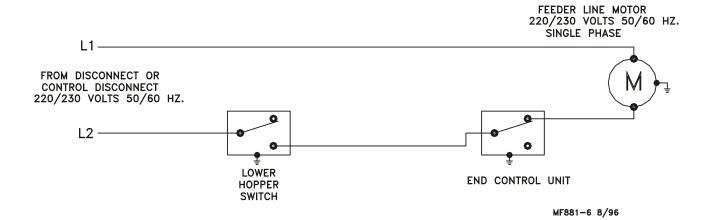
Problem	Possible Cause	Corrective Action
None of the feeder lines will operate.	No power supplied to equipment.	Replace burned fuses or reset circuit breaker.
		Make sure voltage required is supplied.
	Time clock or relay defective.	Replace time clock or relay.
	Time clock improperly programmed.	Refer 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. 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 outlets. Remove obstruction.
Auger runs erratically.	Frozen or cracked bearing at boot anchor.	Replace bearing. Slowly ease auger back into tube. Be careful no to damage the bearing when reinserting the auger.
	Insufficient stretch in auger.	Shorten the auger.
	Obstruction in auger.	Remove obstruction.
Auger tube or boot	Auger is bent or kinked	Repair or replace damaged auger.
wears out rapidly (Noisy feeder operation)	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	Insufficient time programmed on the time clock.	Add more operating time to feeding period.
pans.	Feeder line control unit switch out of adjustment.	Adjust switch according to the switch Adjustment procedure in the maintenance section.

39

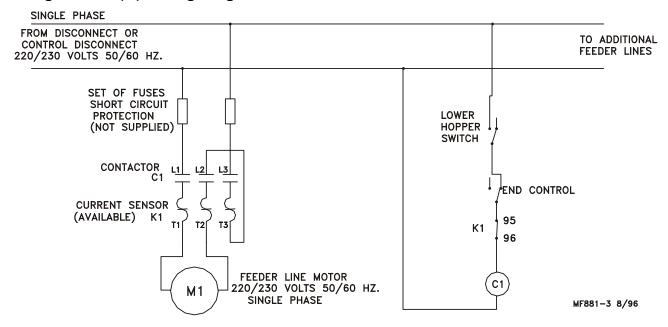
### **Wiring Diagrams**

#### End & Intermediate Control Wiring Diagrams: Single Phase(Ø)

#### Single Phase(Ø) Wiring Diagram

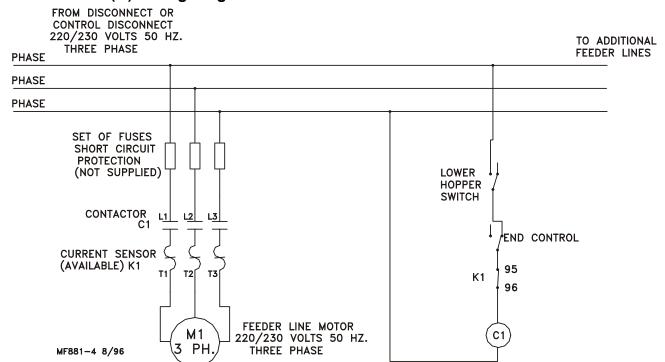


#### Single Phase(Ø) Wiring Diagram w/Motor Starter



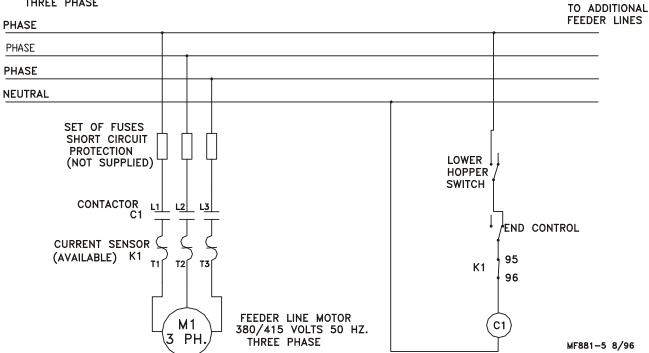
#### End & Intermediate Control Wiring Diagrams: Three Phase(Ø)

#### Three Phase(Ø) Wiring Diagram: 220/230 V.

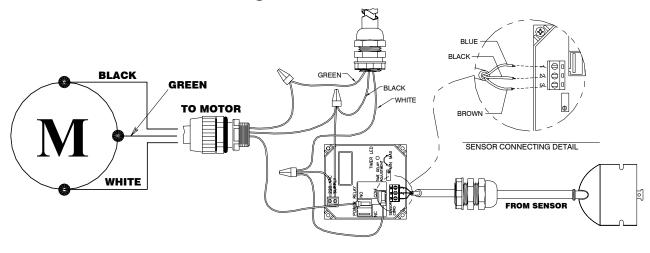


#### Three Phase(Ø) Wiring Diagram: 380/415 V.

FROM DISCONNECT OR CONTROL DISCONNECT 380/415 VOLTS 50 HZ. THREE PHASE

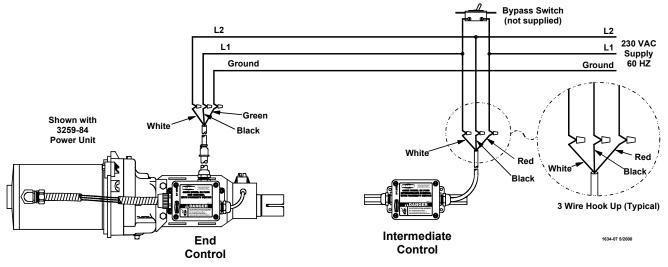


## Sensor Plus™ Internal Wiring

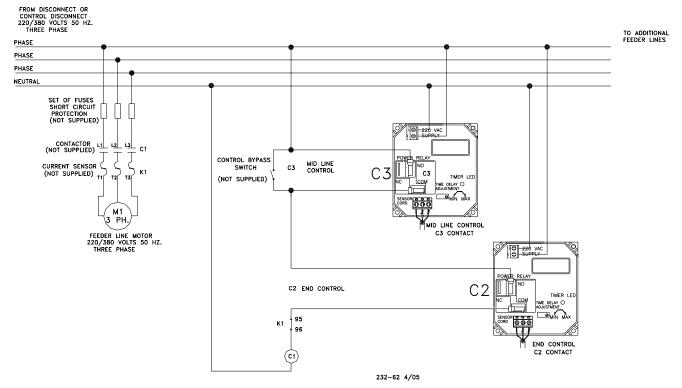


WIRING DIAGRAM

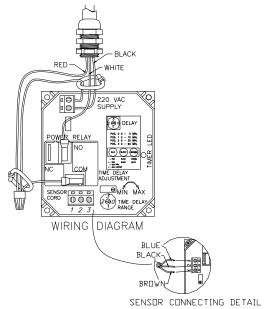
# Sensor Plus™ Control Wiring Diagram



#### Sensor Plus™ Three Phase(Ø) Wiring



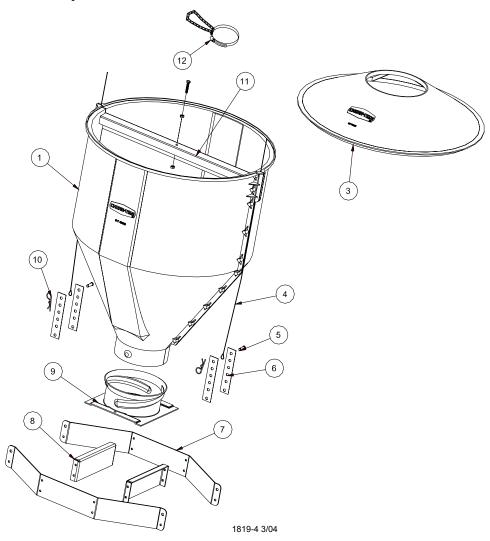
#### **Intermediate Control Internal Wiring**



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# **Parts Listing**

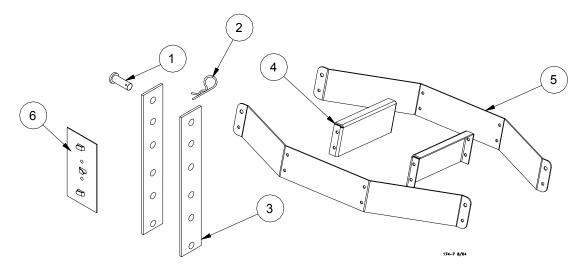
## **150# Hopper Components**



		Without	With
		Cover	Cover
Key	Description	48926	49267
1	Hopper Half	49028	49028
2			
3	Cover		48675
4	Cable Assembly	2809-3	2809-3
5	Clevis Pin	2797-1	2797-1
6	Adjustment Bracket	2706	2706
7	Suspension Angle	48679	48679
8	Suspension Brace	48680	48680
9	Twist Lock Collar	49041	49041
10	Hairpin	2664	2664
11	Brace	49029	49029
12	Tube Support Assembly	14367	14367

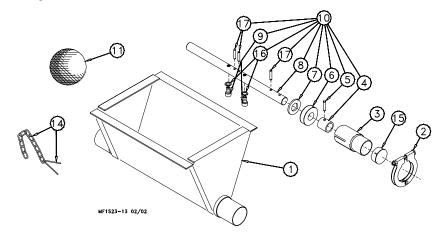
### **Hopper Mount Bracket (Optional)**

## Part No. 49358 Hopper Suspension Kit



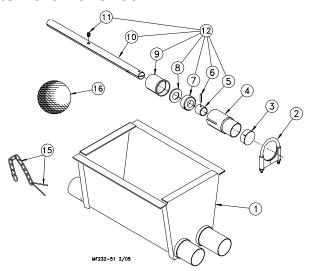
Item	Description	Part No. Single Boot Kit	Part No. Twin Boot Kit
1	Clevis Pin, 5/16" x 1"	2797-1	2797-1
2	Adjustment Bracket	2706	2706
3	Hair Pin	2664	2664
4	Suspension Brace	48680	48680
5	Suspension Angle	48679	48679
6	Cable Guide	34573	34573

## Single Boot Components Part No. 6821



Item	Description	Part No.	Item	Description	Part No.
1	Boot Weldment	4224	10	Anchor and Bearing Ass'y	39372
2	Tube Clamp	24062	11	Cannonball	3531
3	Outlet Tube	4556	12		
4	Sleeve	5648	13		
5	3/16 x 1" Pin	2960-1	14	Latch Pin Ass'y	2683
6	Bearing	2689	15	Cap	29373
7	Washer	2955-14	16	Flat Washer	2955-58
8	Anchor	38540	17	Roll Pins	2960-1
9	5/16-18 x 7/8 Low head cap screw	47867		Danger Decal	2527-9

# Twin Boot Components Part No. 8460

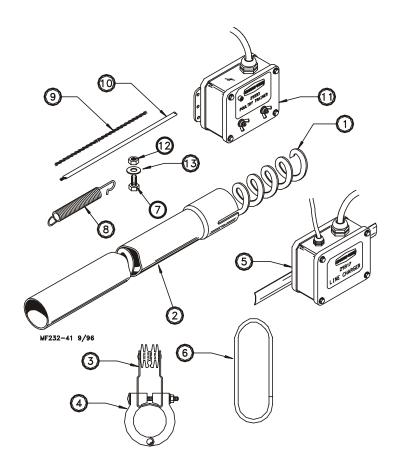


Item	Description	Part No.	Item	Description	Part No.
1	Boot Weldment	8461	10	Anchor	29526
2	Tube Clamp	29520	11	Set Screw	1174
3	Cap	29523	12	Anchor and Bearing Ass'y	29530
4	Stub Tube	4163	13		
5	Sleeve	5648	14		
6	3/16 x 1" Pin	2960-1	15	Latch Pin Ass'y	2683
7	Bearing	29433	16	Cannonball	3531
8	Washer	2955-14		Danger Decal	2527-9
9	Bearing Retainer	29441			

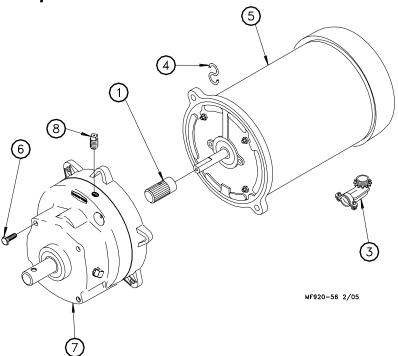
### **Feeder Line Components**

Item	Description	Part No.
1*	Auger	6820-0
2	ATF Auger Tube (1-Hole Tube)	6684
	ATF Auger Tube (2-Hole Tube)	6685
	ATF Auger Tube (3-Hole Tube)	6686
3	Anti-Roost Bracket	29516
4	Clamp	29520
5	Line Charger	29317
6	Hanger	4207
7	Split Bolt	6342
8	Spring	7551
9	3/32" Cable	4973
10	Charger Wire (165 ft.)	28994-165
	Charger Wire (330 ft.)	28994-330
11	Poultry Trainer	29333
12	3/8" Hex Nut	1549
13	3/8" Flat Washer	4976

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



## **Power Unit Components**

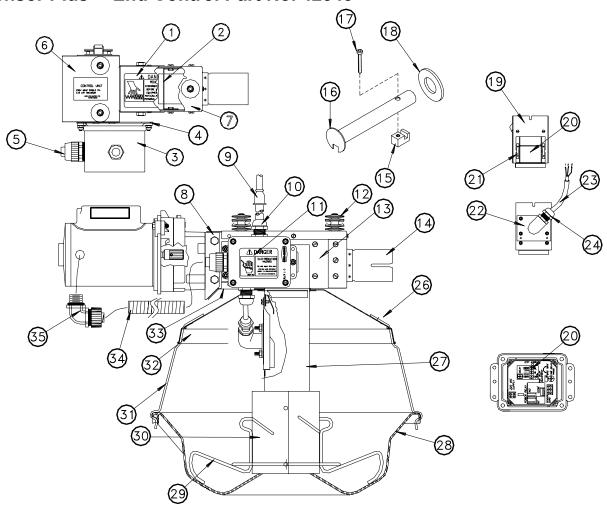


		3259-34	3259-39	3259-98	3259-100
Item	Description	Part No.	Part No.	Part No.	Part No.
1	Pinion Assembly	5046	5046	5046	5046
2	Cord Assembly			28028	
3	Connector (90 Degree)	4228	4228	4228	
4	"S" Hook	2805	2805	2805	2805
5	Motor	4229	5703	5977	28031
6	5/16-18 x 5/8 Hex Hd Screw	4412-1	4412-1	4412-1	4412-1
7	Gearhead	3261-5	3261-5	3261-11	3261-11
8	Pipe Plug	3516	3516	3516	3516

## **Power Unit Assembly Part Numbers**

Part Number	HP	RPM	Phase	Hz	Voltage	Usages
3259-34	1/3 HP	348 RPM	Single Phase	60 Hz	230	Use with both Control Units
3259-39	1/2 HP	348 RPM	Single Phase	60 Hz	230	Use with both Control Units
3259-98	1/2 HP	348 RPM	Single Phase	50 Hz	230	Use with both Control Units
3259-100	1/2 HP	348 RPM	Three Phase	50 Hz	220/380	Use with both Control Units

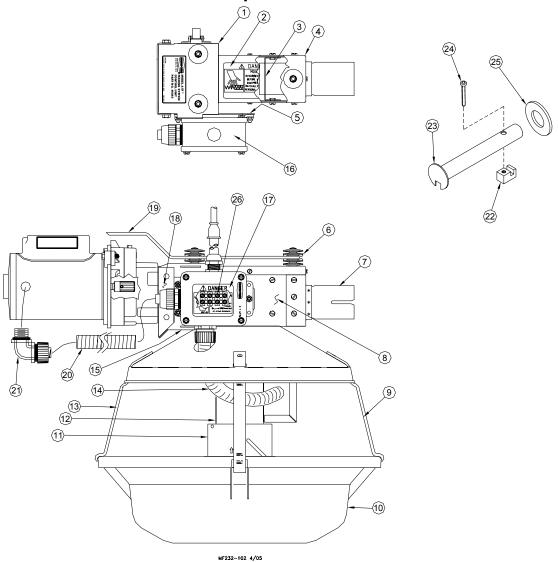
### Sensor Plus™ End Control Part No. 42343



Item	Description	Part No.	Item	Description	Part No.
1	Danger Decal	2527-9	*21	Sensor retainer	46728
2	Tube support	27891	*22	Plastic adapter plate	43819
3	Junction box	42627-8	*23	Black tubing	14454-10
4	Switch mount bracket	43815	*24	1/2" Liquid tight connector	23779
5	1/2" conduit connector	26980	25		
6	Top cover	27941	26	Drive rivet	4200
7	Top body cover	27942	27	Drop tube weldment	4180
8	Anchor plate	4188	28	Feeder pan plastic	29000
9	Cord assembly	4999-100	29	Feed level ring	29320
10	1/2" connector	24685	30	Feed level tube	4194
11	Decal	2529-734		Feed level tube	4341
12	Insulator	2976	31	Pan support	4199
13	Control body	27889		Pan support swing down	24274
14	Stub tube weldment	27900	32	Pan shield	4191
15	Drive block	4642	33	Bottom cover	27893
16	Drive tube weldment	47584	34	1/2" liquid tight connector	26982-1
17	Skth screw	5083-8	35	90 Deg, 1/2" connector	23810
18	Flat washer	1484			
*19	Adapter Plate	43813			
*20	Sensor Plus Level Switch	48579			

<sup>\*</sup> These Items may be ordered as a kit Part No. 43711

# MODEL ATF™ Control Unit Components Part No. 49040

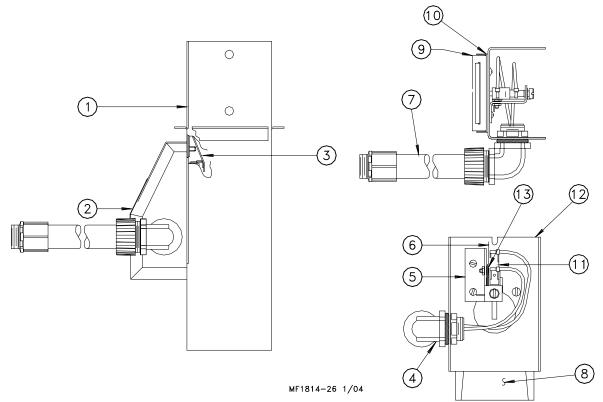


Item	Description	Part No.	Item	Description	Part No.
1	Cover, Insulator Assembly	49043	12	Drop Tube Assembly	28072
**2	Danger Decal	2527-9	13	Pan Support	4199
**3	Tube Support	27891	*14	Conduit Assembly	27866
**4	Body Cover	27942	15	Bottom Cover	49044
5	Mount Plate	43815	16	Junction Box	36344-5
**6	Insulator	2976	17	Danger Decal	2527-35
**7	Stub Tube Weldment	27900	18	Anchor Plate	4188
**8	Control Body	49042	19	Anti-Roost Guard	2798
9	Swing Down Pan Support	24274	20	1/2" Flex Conduit	26982-1
10	Turkey Plastic Feeder Pan	29000	21	90°, 1/2" Connector	23810
	Turkey Steel Feeder Pan	4193	22	Drive Block	4642
11	Feed Level Tube Assembly	4341	23	Tube Weldment	47584
	Feed Level Tube Assembly	4194	24	SKTH CP 255-20x1.50 Screw	5083-8
			25	Washer	1484
	_		26	Terminal Strip	34925-4

<sup>\*</sup>See "Drop Tube Assembly Part No. 28072" on page 51.

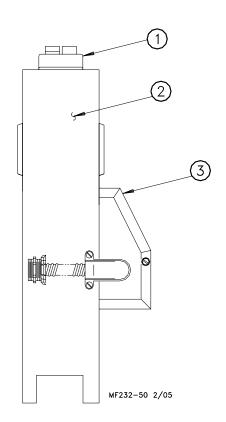
<sup>\*\*</sup>These components may be ordered as an assembly Part No. 49045

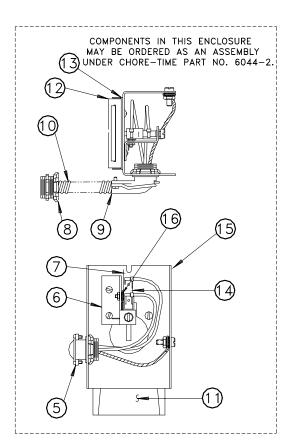
# **Drop Tube Assembly Part No. 28072**



Item	Description	Part No.
1	Control Drop Tube Weldment	4180
2	Cover	6053
3	Guard Assembly	4892
4	90 Degree Connector	24726
5	Switch Bracket Assembly	6054
6	Barrier	6036
7	Conduit Assembly	27866
8	Paddle	4890
9	Diaphragm Assembly	4889
10	Spacer Plate	4921
11	Snap Action Switch	46324
12	Housing	6048
13	Torsion Spring	5820

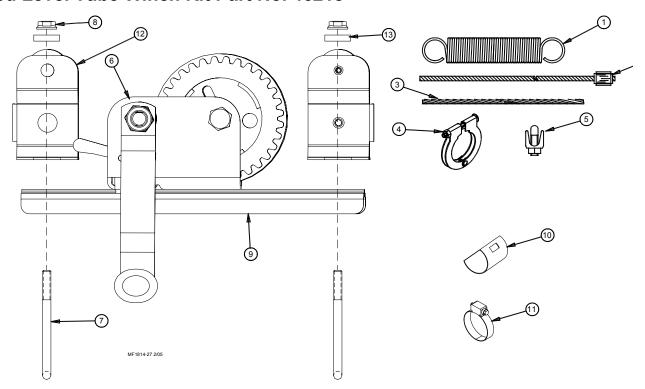
#### **Intermediate Control Part No. 6039**





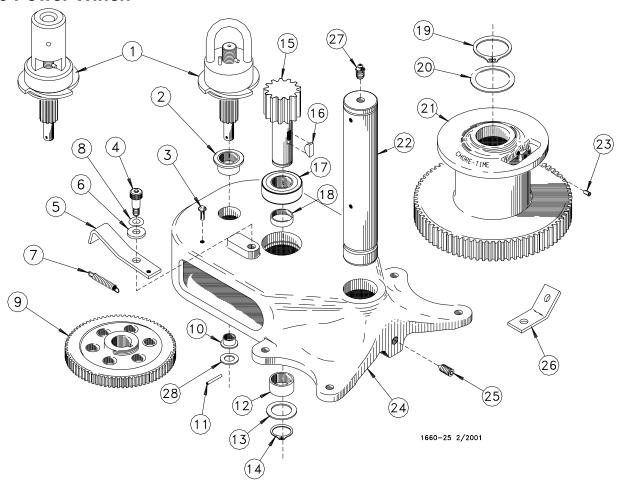
Item	Description	Part No.
1	Insulator	5754
2	Drop Tube Weldment	6446
3	Cover	6053
4		
5	90 Degree Connector	4228
6	Switch Bracket Assembly	6045
7	Barrier	6936
8	3/8" Flex Connector	6042
9	Anti-Short Bushing	6304
10	Flex Cable	20140-5
11	Paddle	4890
12	Diaphragm Assembly	4889
13	Spacer Plate	4921
14	Snap Action Switch	46324
15	Housing	6048
16	Torsion Spring	5820
	Guard Assembly	6771

#### Feed Level Tube Winch Kit Part No. 46218



Item	Description	Part No.
1	Spring .62 x 11"	24302
2	Cable Assembly	14278
3	3/32" 7 x 19 Golf. Cable	28394
4	2" Tube Clamp	29520
5	1/8" Cable Clamp	14898
6	Feed Level Tube Winch	43391
7	1/4" x 20 U Bolt	7975
8	1/4" x 20 Flange Nut	46298
9	Winch Base Assembly	48933
*10	Tube Closure	9126
*11	Adjustment Clamp	3527
12	Insulator Bracket	49230
13	Washer	5933

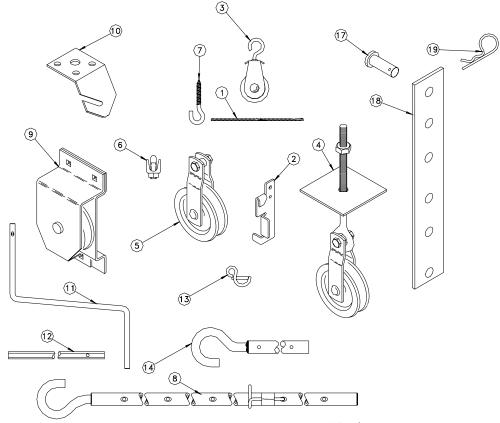
#### 2883 Power Winch



Item	Description	Part No.
1	Input Shaft Assembly	
	Manual	42665
	Electric	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**

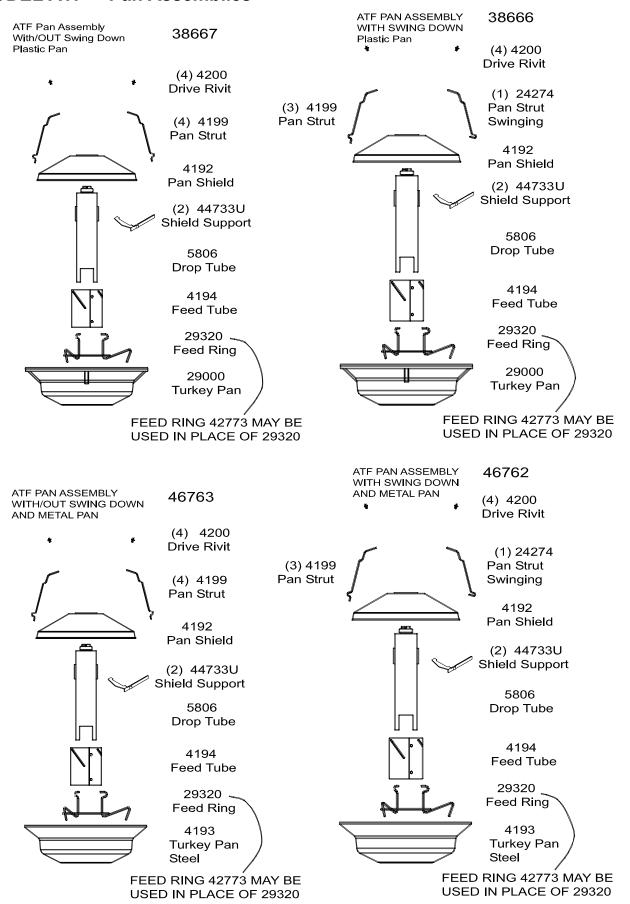


MF1814	-28	1/05

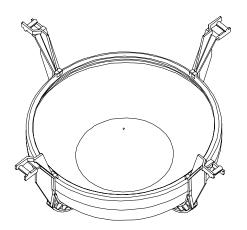
Item	Description	Part No.
1	3/16" Cable	1213
2	Cable Lock	14337
3	Pulley with Swivel	3004
4	Heavy Duty Pulley Assembly	2014
5	Oulley	2500
6	3/16" Cable Clamp	732
7	Screw Hook	2041
8	Extendable Drive Tube	47637
9	Pulley Assembly	28429
10	Ceiling Hook	28550
11	Handle Shank	3148
12	Drill Adapter Shaft	2886
13	Winch Handle Pin	3761
14	Winch Drive Tube (4')	2884-1
	Winch Drive Tube (8')	2884-2
	Winch Drive Tube (2')	2884-4
15		
16		
17	Clevis Pin, 5/16" x 1"	2797-1
18	Adjustable Bracket	2706
19	Hair Pin	2664
	Full Line Suspension Kit	7948

Item 11 and 13 may be ordered as a kit under Part No. 2885 Item 12 and 13 may be ordered as a kit under Part No. 2886 Item 11, 13 and 8 may be ordered a a kit under Part No. 47683

#### MODEL ATF™ Pan Assemblies



#### **Optional Parts**

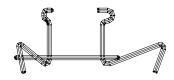


THE H2 PLUS PAN ADAPTER IS MADE UP OF TWO PARTS PLUS H2 PAN

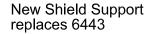
PART NO. 41474 INCLUDES 41100-1 & -2
TOP HALF PART NO. 41100-1
BOTTOM HALF PART NO. 41100-2
H2 PLUS PAN PART NO. 24901
PART NO. 41475 INCLUDES 41100-1 & -2
PLUS 24901 PAN

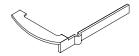
FEED RING PART NO. 42773

APPLICATION: THIS PRODUCT WILL BE USED WHERE THE DAY OLD TURKEYS WILL BE STARTED ON THE ADULT TURKEY FEEDER FOR THE FIRST 5 WEEKS. THEN THE PAN ASSEMBLY WILL BE REMOVED AN THE ADULT PAN INSTALLED.



Use 42773 Feed level ring with the H2 Plus Adapter





(2) 44733U Shield Support



# Made to work. SM Built to last.

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

CTB Inc.

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