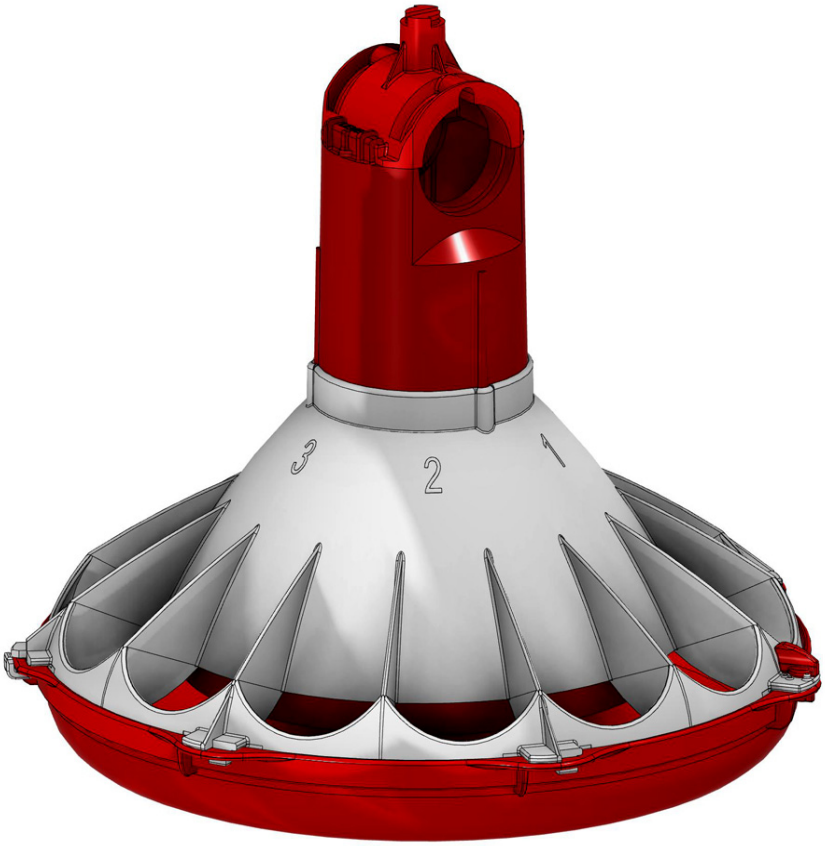
CHORE-TIME®

KONAVI® Feeding System

Installation and Operators Manual



For additional parts and information, contact your nearest Chore-Time distributor or representative.
Find your nearest distributor at: www.choretime.com/contacts

Installation and Operators Manual

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August 2020 **MF2464C**

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Chore-Time Limited Warranty

Chore-Time Group, a division of CTB, Inc. ("Chore-Time") warrants the new CHORE-TIME KONAVI® products manufactured by Chore-Time to be free from defects in material or workmanship under normal usage and conditions, for One (1) year from the date of installation by the original purchaser ("Warranty"). Chore-Time provides for an extension of the aforementioned Warranty period ("Extended Warranty Period") with respect to certain Product parts ("Component Part") as set forth in the table below. If such a defect is determined by Chore-Time to exist within the applicable period, Chore-Time will, at its option, (a) repair the Product or Component Part free of charge, F.O.B. the factory of manufacture or (b) replace the Product or Component Part free of charge, F.O.B. the factory of manufacture. This Warranty is not transferable, and applies only to the original purchaser of the Product.

Component Part	Extended Warranty Period
RXL Fan (except motors and bearings)	Three (3) Years
TURBO® Fan (except motors and bearings)	Three (3) Years
TURBO® Fan fiberglass housing, polyethylene cone, and cast aluminum blade.	Lifetime of Product
TURBO® fan motor and bearings.	Two (2) Years
Chore-Time® Poultry Feeder Pan	Three (3) Years
Chore-Time® Rotating Centerless Augers (except where used in applications involving high moisture feed stuffs exceeding 17%)	Ten (10) Years
Chore-Time Steel Auger Tubes	Ten (10) Years
ULTRAFLO® Breeder Feeding System auger and feed trough.	Five (5) Years
ULTRAPAN® Feeding System augers.	Five (5) Years

CONDITIONS AND LIMITATIONS

THIS WARRANTY CONSTITUTES CHORE-TIME'S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES. CHORE-TIME shall not be liable for any direct, indirect, incidental, consequential or special damages 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. *Some jurisdictions prohibit limitations on implied warranties and/or the exclusion or limitation of such damages, so these limitations and exclusions may not apply to you. This warranty gives the original purchaser specific legal rights. You may also have other rights based upon your specific jurisdiction.*

Compliance with federal, state and local rules which apply to the location, installation and use of the Product are the responsibility of the original purchaser, and CHORE-TIME shall not be liable for any damages which may result from non-compliance with such rules.

The following circumstances shall render this Warranty void:

- Modifications made to the Product not specifically delineated in the Product manual.
- Product not installed and/or operated in accordance with the instructions published by the CHORE-TIME.
- All components of the Product are not original equipment supplied by CHORE-TIME.
- Product was not purchased from and/or installed by a CHORE-TIME authorized distributor or certified representative.
- Product experienced malfunction or failure resulting from misuse, abuse, mismanagement, negligence, alteration, accident, or lack of proper maintenance, or from lightning strikes, electrical power surges or interruption of electricity.
- Product experienced corrosion, material deterioration and/or equipment malfunction caused by or consistent with the application of chemicals, minerals, sediments or other foreign elements.
- Product was used for any purpose other than for the care of poultry and livestock.

The Warranty and Extended Warranty may only be modified in writing by an officer of CHORE-TIME. CHORE-TIME shall have no obligation or responsibility for any representations or warranties made by or on behalf of any distributor, dealer, agent or certified representative.

Effective: **April, 2014**

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.

Note: The original, authoritative version of this manual is the English version produced by CTB, Inc. or any of its subsidiaries or divisions, (hereafter collectively referred to as "CTB"). Subsequent changes to any manual made by any third party have not been reviewed nor authenticated by CTB. Such changes may include, but are not limited to, translation into languages other than English, and additions to or deletions from the original content. CTB disclaims responsibility for any and all damages, injuries, warranty claims and/or any other claims associated with such changes, inasmuch as such changes result in content that is different from the authoritative CTB-published English version of the manual. For current product installation and operation information, please contact the customer service and/or technical service departments of the appropriate CTB subsidiary or division. Should you observe any questionable content in any manual, please notify CTB immediately in writing to: CTB Legal Department, P.O. Box 2000, Milford, IN 46542-2000 USA.

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.

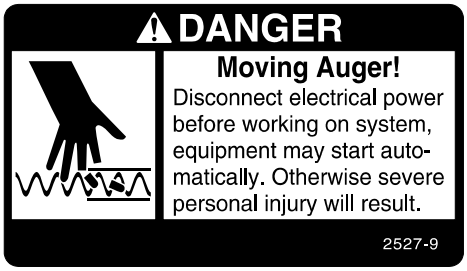
Keep safety signs in good condition. Replace missing or damaged safety signs.

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

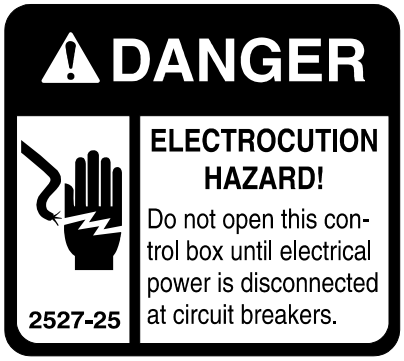
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

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

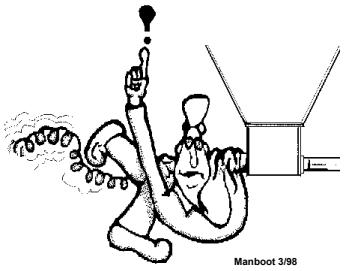
Ground all non-current carrying metal parts to guard against electrical shock.

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

Support Information

The Chore-Time KONAVI® Feeding System's have been designed to feed poultry feed types. 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.

General Installation Information

Important! Please read all 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 KONAVI® Control Units

- 348 RPM Gearhead Delivering 17 lbs *[7.7 kg]* per minute if density of 40 lbs per cubic foot *[640 kg per cubic meter]*.

Power Units Available:

- 60Hz 1PH
- 50Hz 1PH
- 60Hz 3PH

Power Units Required:

- Systems up to 300' *[91 m]* Require 1/3 HP Power Units Over 300' *[91 m]* require 1/2 HP.

Manufacturer's Recommendations: Birds per Pan

Type	Max weight and/or weeks of age	Feeders	Number of birds/pan
Broiler	4.5 lbs/2 kg.	Revolution 12, Models C2 PLUS, Liberty, C2 PLUS S, C, KONAVI®, H2™, H2™ PLUS	60 - 90
Broiler	6 lbs/2.7 kg	Revolution 8 & 12, C2 PLUS, C2 PLUS S, G PLUS, G PLUS S, C, Liberty, KONAVI®, H2, H2 PLUS	55 - 80
Broiler	7 lbs/3.1 kg	KONAVI®, Revolution 8 & 12, C2 PLUS, C2 PLUS S, G PLUS, G PLUS S, C, Liberty, H2, H2 PLUS	55 - 75
Broiler	9 lbs/4.0 kg	Revolution 8, G PLUS, G PLUS S Liberty	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	Revolution 8, G PLUS (Breeder), G PLUS S (Breeder)	8-10
Commercial Layer Pullet – rearing	0 – 20 weeks	Revolution 12, C2 PLUS, H2, H2 PLUS	40-60
Commercial Layer	18 + weeks	Revolution 12, C2 PLUS, C, H2, H2 PLUS	30 - 40
Turkey Poult	0 – 7 weeks	KONAVI®, Revolution 8, H2 PLUS, H2, Liberty, G PLUS, G PLUS S	60 - 65
Turkey Hens	0 – 12 weeks	Revolution 8, G PLUS, H2 PLUS, Liberty, H2	40 - 50
Turkey Female	5 + weeks	ATF, ATF PLUS	60
Turkey Male	5 + weeks	ATF, 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

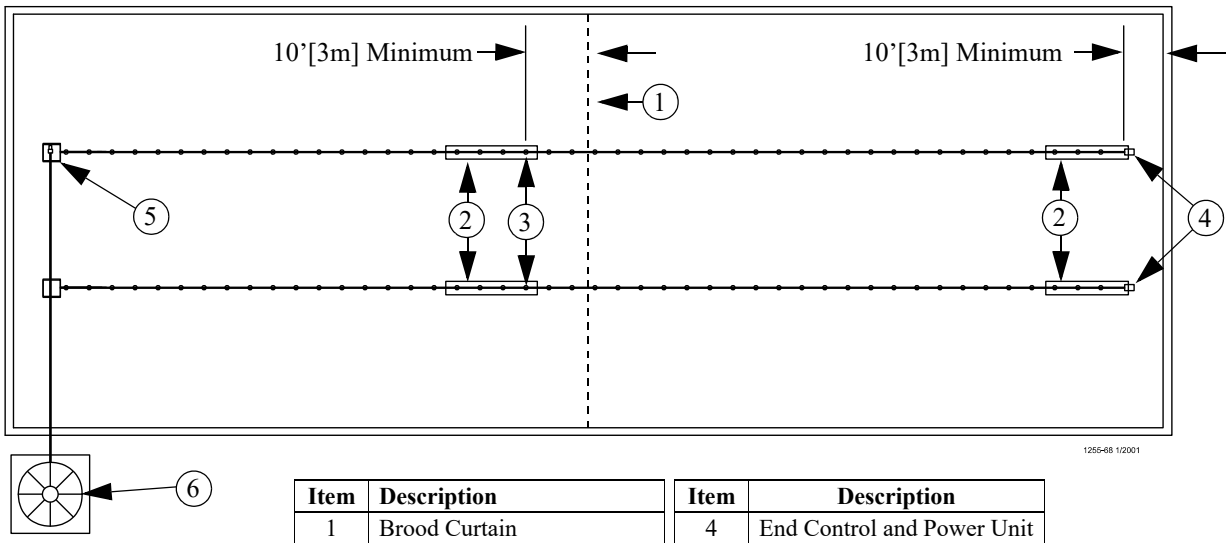
***Notice:** Please be advised that the maximum number of birds that may be successfully produced per feed pan may vary based upon such factors as climate, housing type or style, bird breeds, genetic factors of the birds at issue, grower management practices, etc. All other environmental and management 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.

Suspension System

Planning the Suspension System

Optional Mid Line Controls may be used for partial house brooding. **(See Figure 1.)**

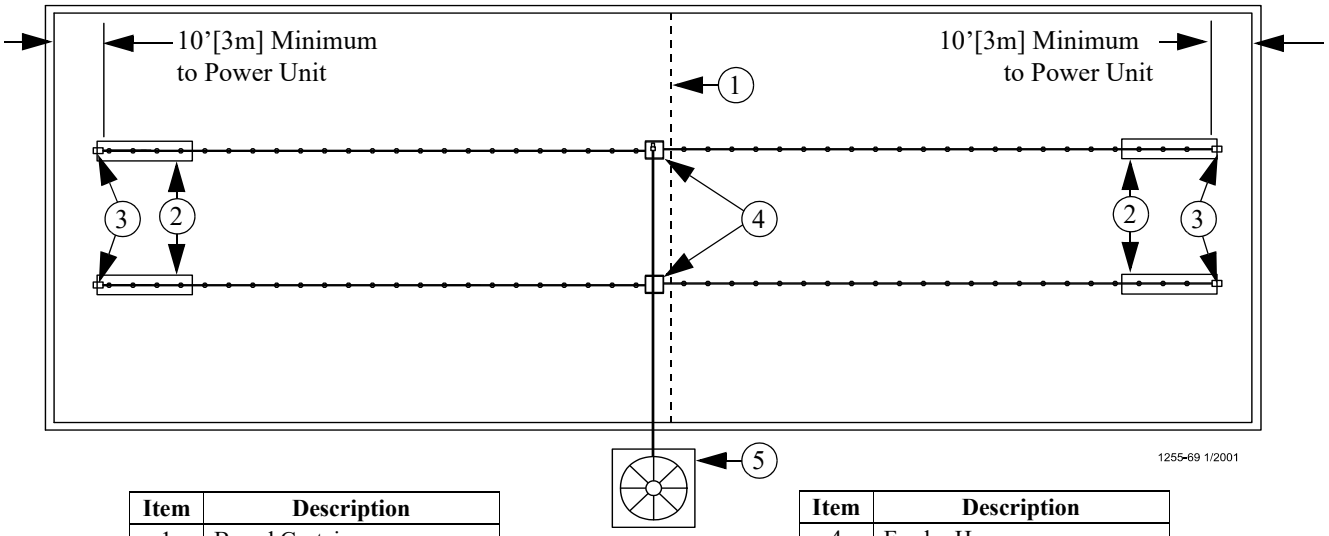


Item	Description
1	Brood Curtain
2	Control Tube
3	Mid Line Control

Item	Description
4	End Control and Power Unit
5	Feeder Hopper
6	Feed Bin

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

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.



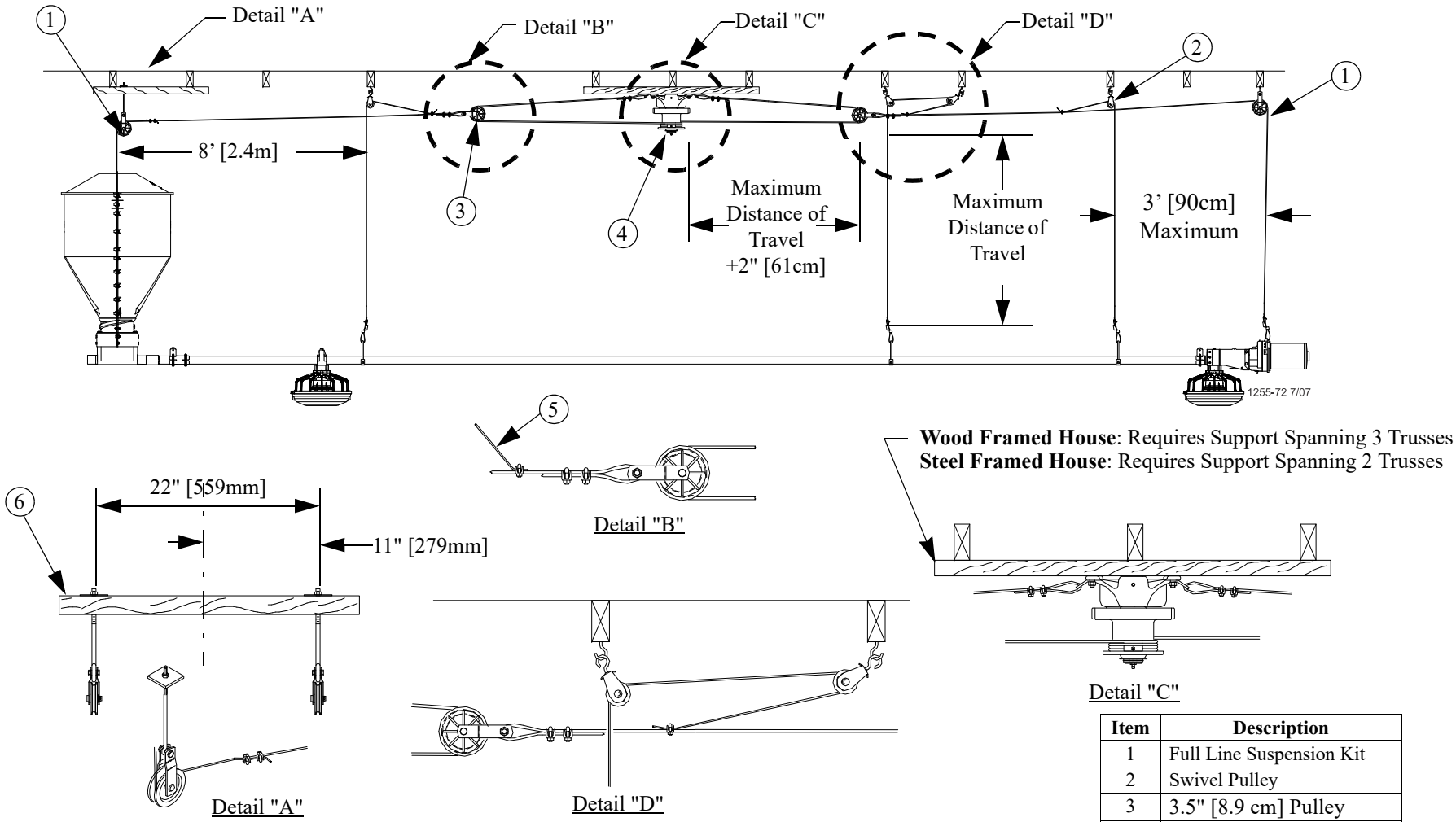
Item	Description
1	Brood Curtain
2	Control Tube
3	End Control and Power Unit

Item	Description
4	Feeder Hopper
5	Feed Bin

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

Laying out the Suspension System

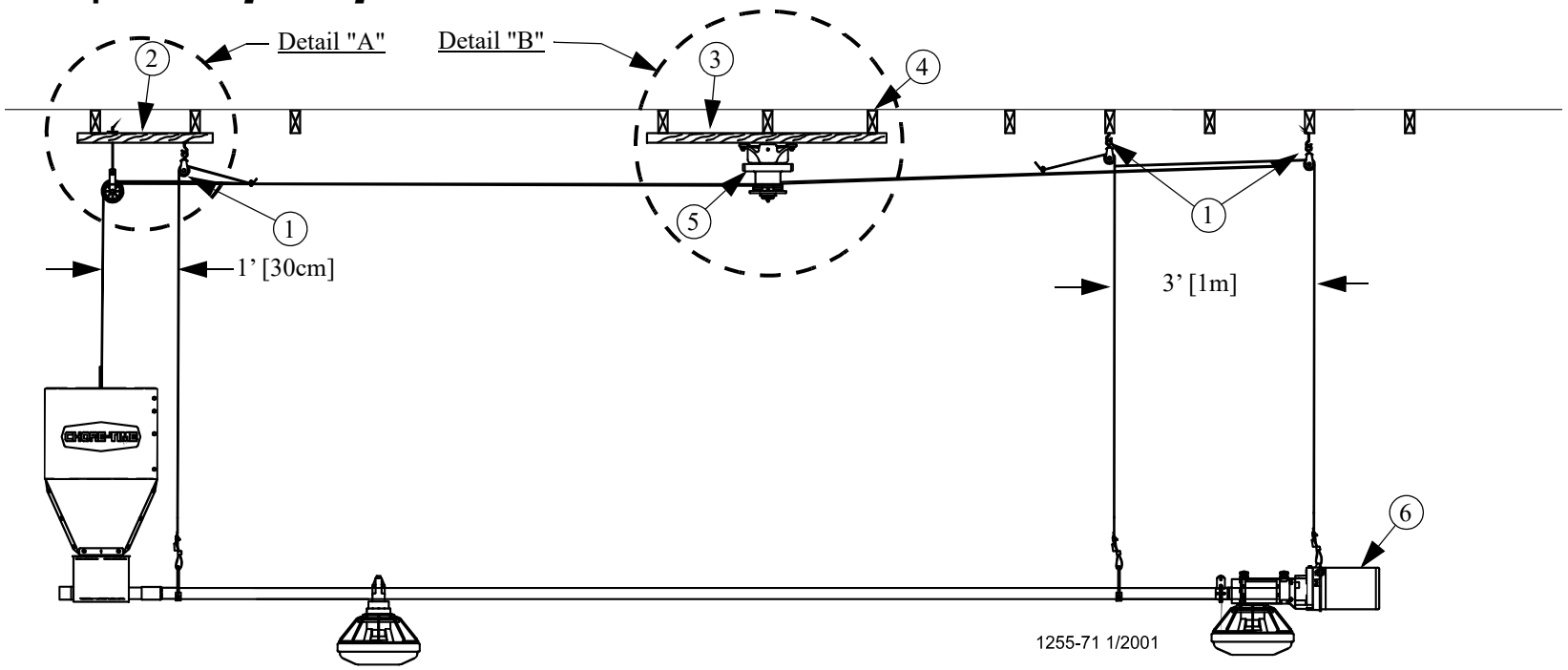
Systems over 350' *[107 m]*



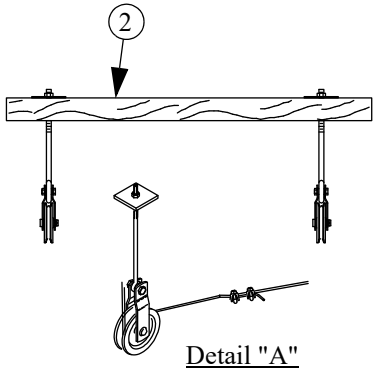
Item	Description
1	Full Line Suspension Kit
2	Swivel Pulley
3	3.5" [8.9 cm] Pulley
4	Power Winch
5	Drop Line
6	Hopper Support

Figure 3. Suspension for systems over 350' *[107 m]*

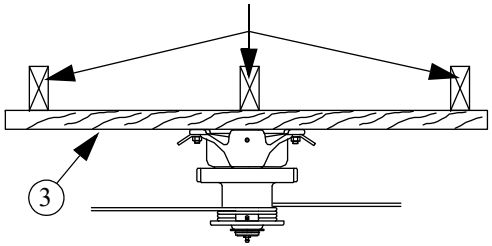
Systems up to 350' *[107 m]*



Wood Framed House: Requires Support Spanning 3 Trusses
Steel Framed House: Requires Support Spanning 2 Trusses



Detail "A"



Detail "B"

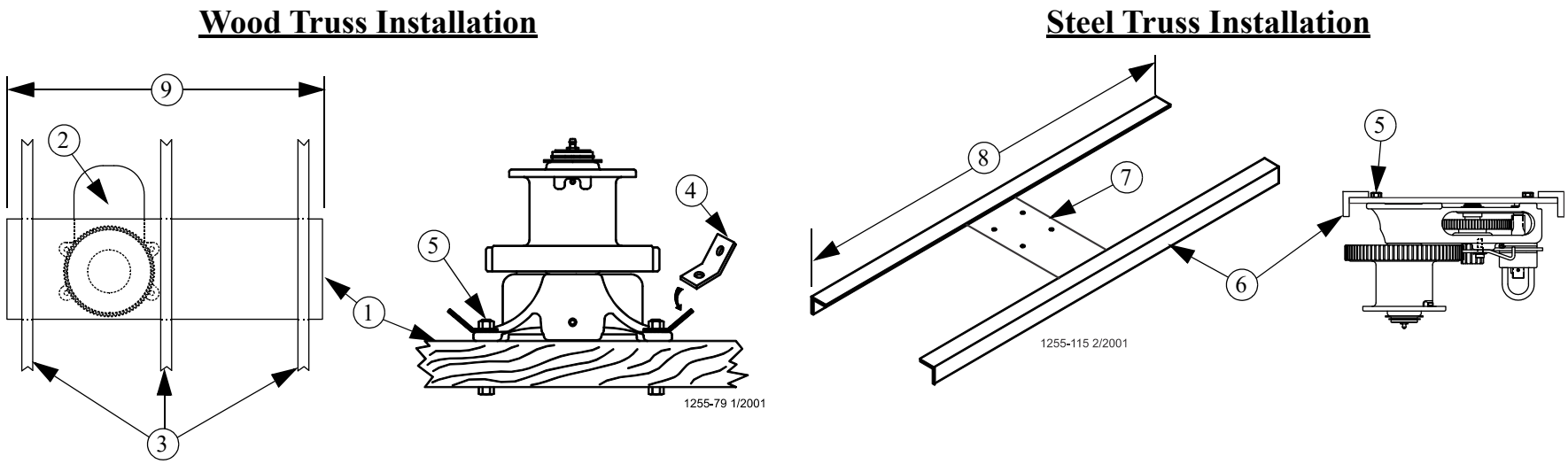
Item	Description
1	Swivel Pulley
2	Hopper Support
3	Winch Support
4	Roof Truss
5	Winch
6	Power Unit

Figure 4. Suspension for systems up to 350' *[107 m]*

Installing the Suspension System

Power Lift Winch Installation

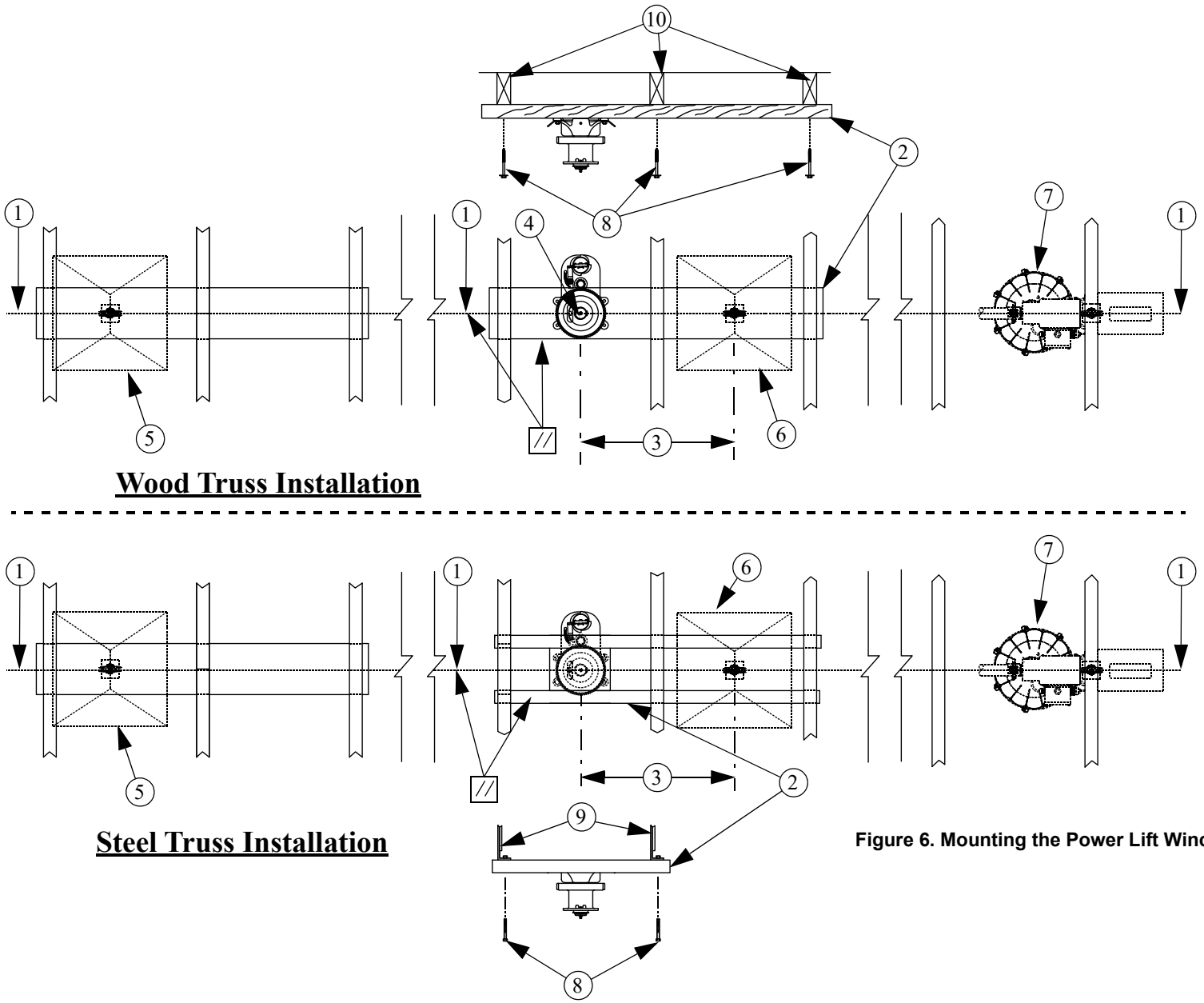
Power Lift Winch Support (Steel or Wood)



Item	Description
1	Power Lift Winch Support: 2" x 8" [50 x 200 mm] board spanning **at least 3 trusses**.
2	Power Lift Winch
3	Truss
4	Cable Hook: Install as shown.
5	5/16-18 Bolt, Washer, and Locknut (In parts package)
6	Angle Iron: Long enough to **span 2 Trusses**.
7	3/8" [9.5mm] Thick Steel Mounting Plate
8	Long enough to span 2 Trusses
9	Long enough to span 3 Trusses

Figure 5.Power Lift Winch Support

Attaching Winch Support to Trusses



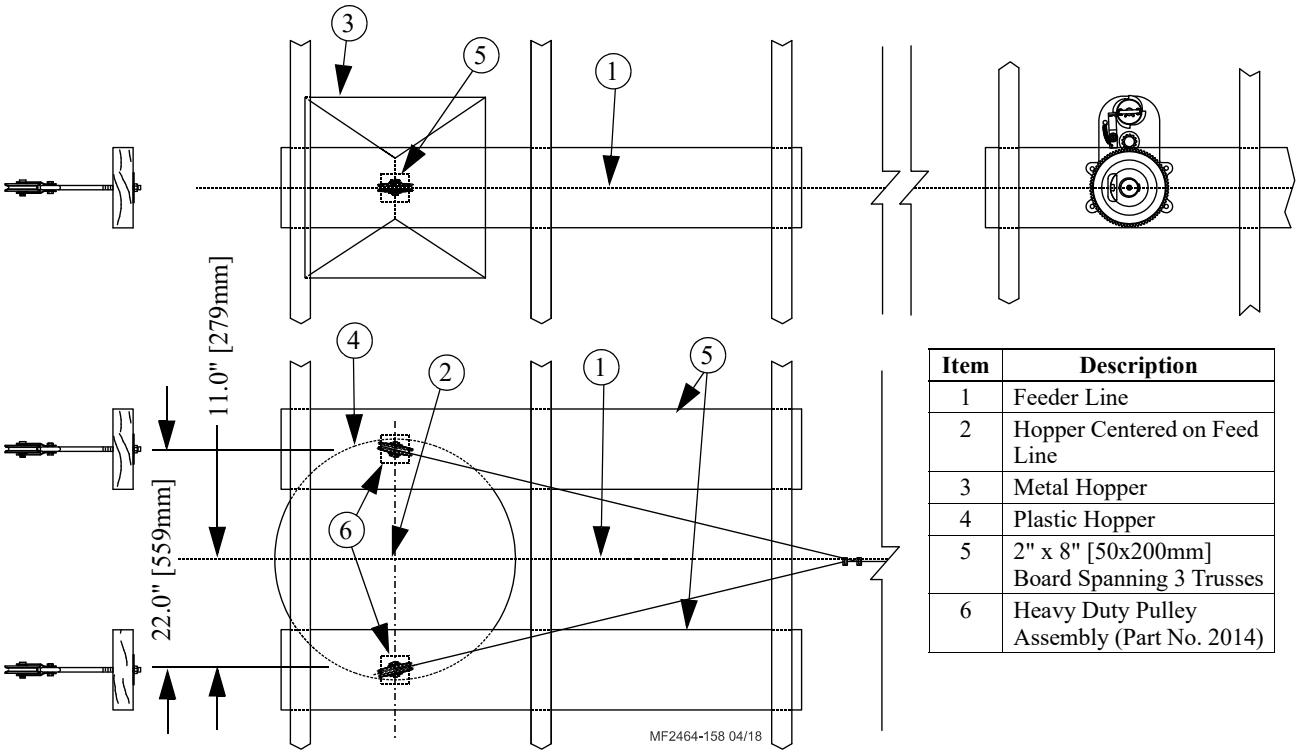
Item	Description
1	Feeder Line
2	Winch & Winch Support
3	Winch Centered on Feeder line unless Feed Hopper is centered.
4	Winch Centered directly over Feeder Line
5	Hopper (End of Feed line option)
6	Hopper (Center of Feed line option)
7	End Control
8	Lag Bolts
9	Steel Truss
10	Wood Truss

Figure 6. Mounting the Power Lift Winch and Support to Trusses

Cable Installation

Important! Special Support Required at Hopper Location if the Hopper is not directly under a Truss.

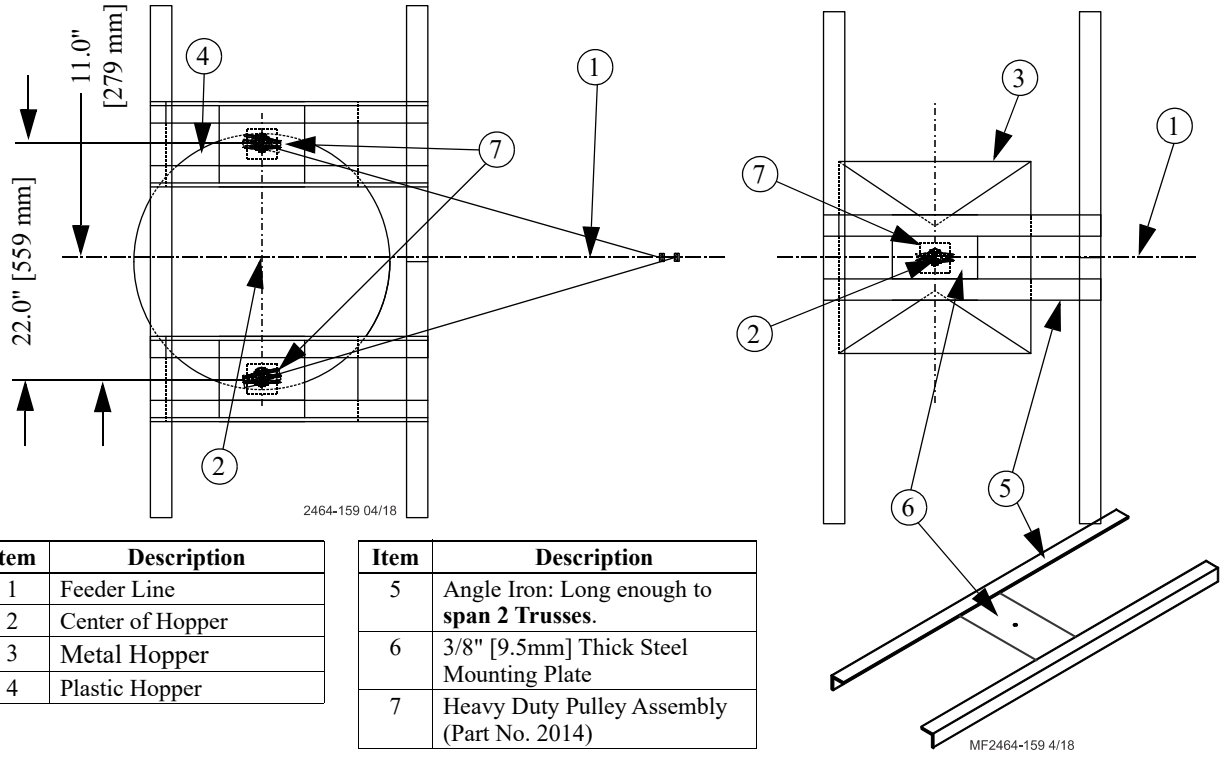
Special Support at Hopper Locations (Wood Construction)



Item	Description
1	Feeder Line
2	Hopper Centered on Feed Line
3	Metal Hopper
4	Plastic Hopper
5	2" x 8" [50x200mm] Board Spanning 3 Trusses
6	Heavy Duty Pulley Assembly (Part No. 2014)

Figure 7.Cable Installations at Hopper Locations (Wood Construction)

Special Support at Hopper Location (Steel Truss)

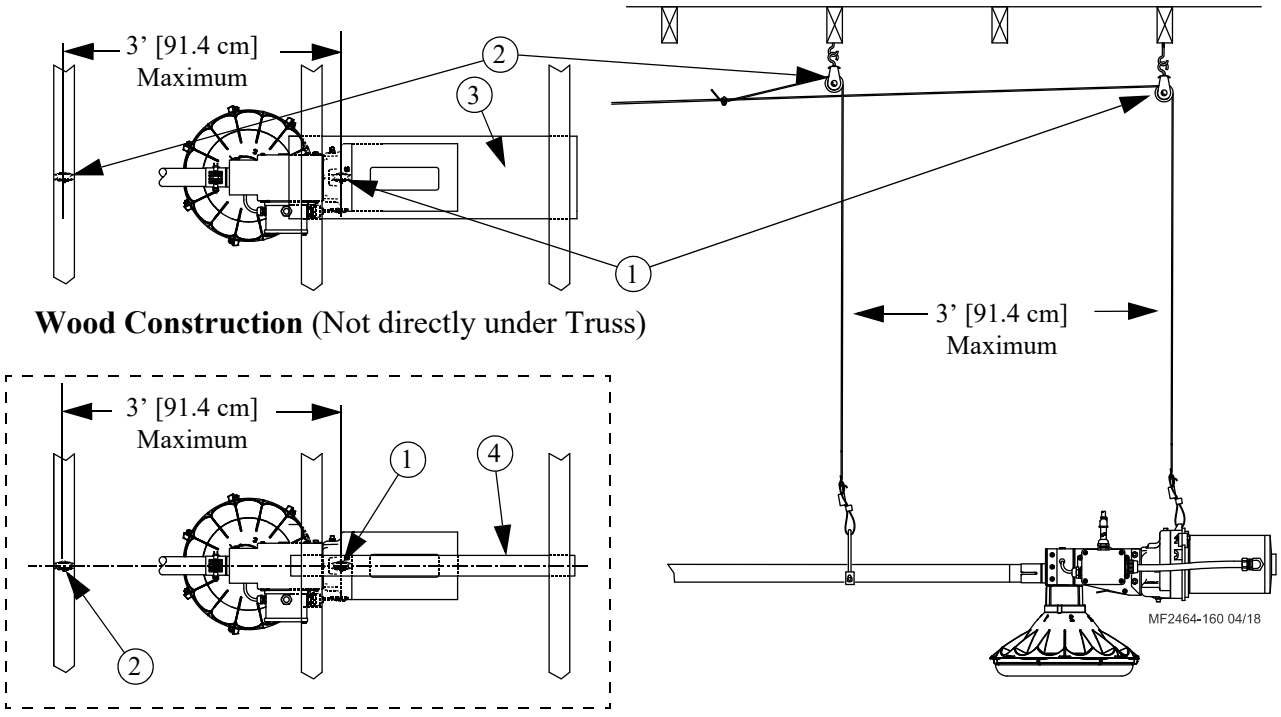


Item	Description
1	Feeder Line
2	Center of Hopper
3	Metal Hopper
4	Plastic Hopper

Item	Description
5	Angle Iron: Long enough to **span 2 Trusses**.
6	3/8" [9.5mm] Thick Steel Mounting Plate
7	Heavy Duty Pulley Assembly (Part No. 2014)

Figure 8.Special Support at Hopper Location (Steel)

Support at Power Unit Location



Wood Construction (Not directly under Truss)

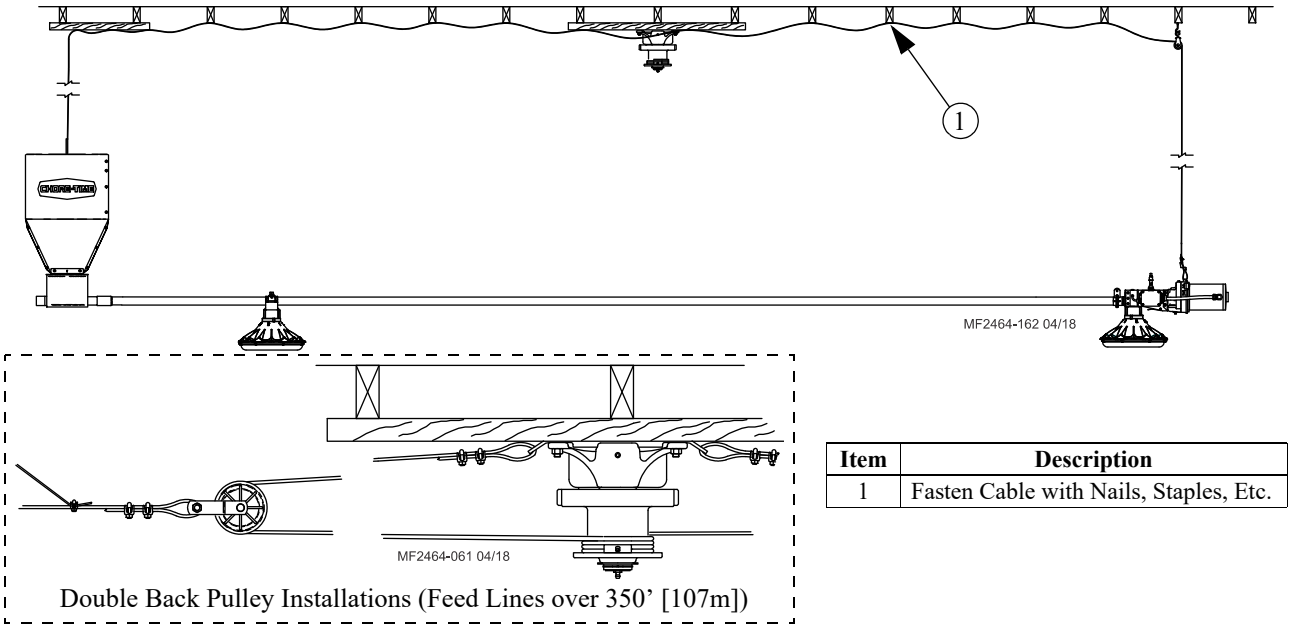
Steel Construction (Not directly under Truss)

Item	Description
1	Power Unit Drop Pulley
2	1st Feed Line Drop Pulley
3	2" x 8" [50x200mm] Board long enough to Span 2 Trusses and support 75 lbs. [34kg]
4	Angle Iron: Long enough to **span 2 Trusses** and Support 75 lbs. [34kg]

Figure 9.Support at Power Unit

Attaching the Main Winch Cable (Temporarily)

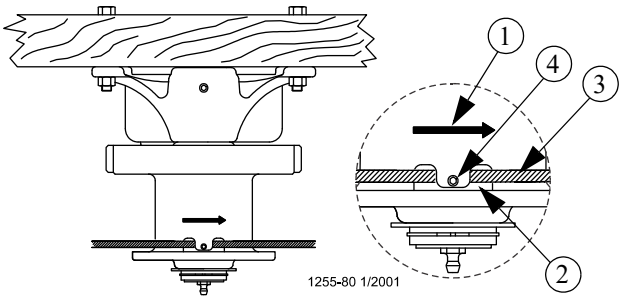
Plan for a Double-Back Pulley arrangement if over 350’ [107m] **(See Figure 10.)**



Item	Description
1	Fasten Cable with Nails, Staples, Etc.

Figure 10.Temporarily Attaching Main Winch Cable to Ceiling

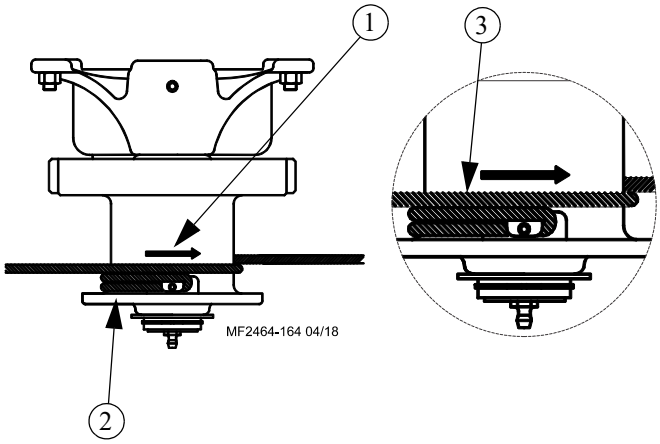
Cable Routing at Winch



Item	Description
1	Direction of Rotation (Clockwise)
2	Winch Drum Relief with Setscrew
3	Route 3/16" Main Winch Cable through Winch Drum Relief
4	Tighten Set Screw to Anchor Cable

Figure 11.Winch Cable Routing

Wrapping Cable on Winch Drum

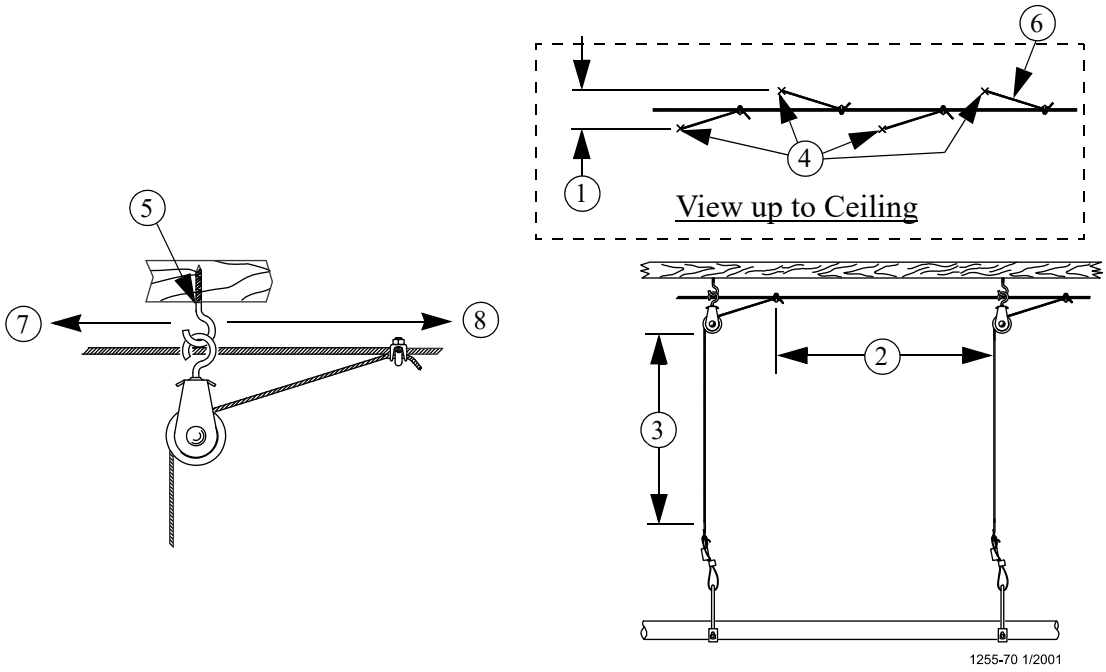


Item	Description
1	Rotate Winch Drum one full rotation Clockwise
2	Guide Cable against Flange
3	Cable must not overlap. Each Wrap tight to the next.

Figure 12.Wrapping Cable on Winch Drum

Screw Hook Installation

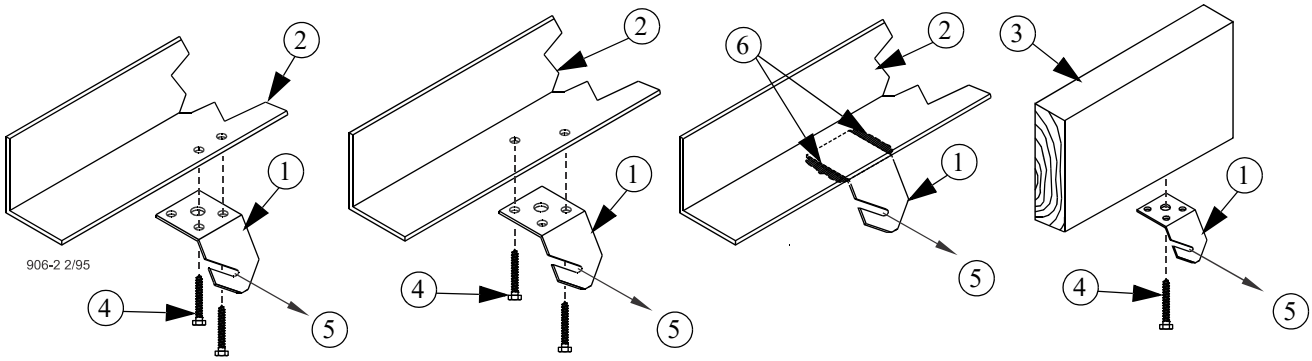
If distance raised **(3)** is greater than **(2)** then stagger Screw hooks **(4) as shown**.



Item	Description	Part No.
1	3" [7.6 cm] Offset	
2	Distance of Cable Travel (Recommended 8' [2.4m] on center). **Do Not** exceed 10' [3m].	
3	Distance Feeder is to be raised	
4	Screw Hook **(Stagger as shown if (3) is greater than (2)**	
5	Screw in Screw Hook full length of threads.	2041
6	3/32 [2mm] Drop Cable	
7	Screw Hook Opening facing opposite direction of travel.	
8	Winch End (Direction of Travel).	

Figure 13.Screw Hook Installation

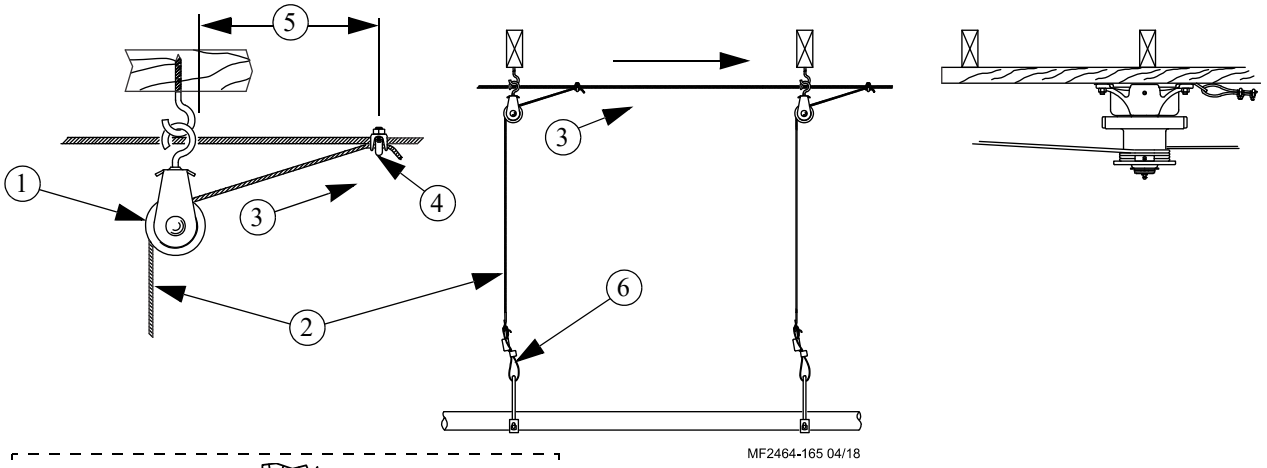
Ceiling Hook Installation

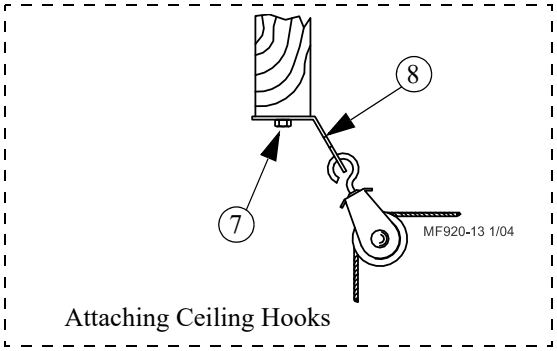


Item	Description	Part No.
1	Ceiling Hook	28550
2	Steel Truss	--
3	Wood Truss	
4	1/4-20 Lag Screw	--
5	Cable Travel Direction	--
6	Weld	--

Figure 14.Ceiling Hook Installation

Drop Installation



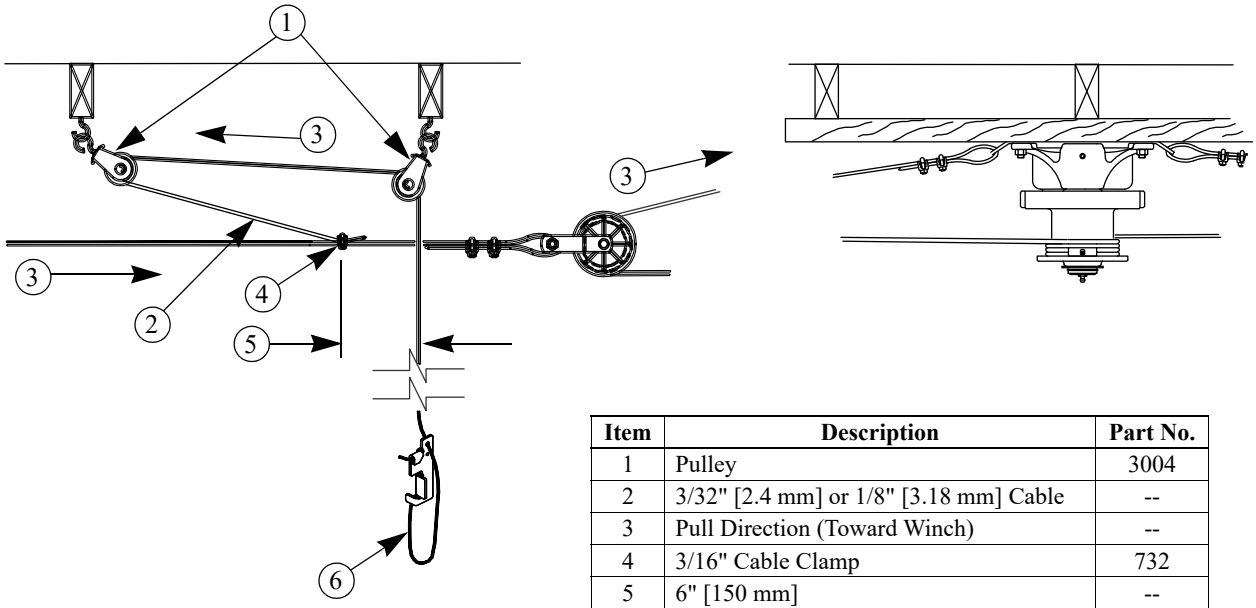


Item	Description	Part No.
1	Pulley	3004
2	3/32" [2.4 mm] or 1/8" [3.18 mm] Cable	--
3	Pull Direction (Toward Winch)	--
4	3/16" Cable Clamp	732
5	6" [150 mm]	--
6	Cable Lock (Adjustment Leveler) See **Figure 28. on page 24**.	14337
7	1/4-20 Lag bolt	--
8	Ceiling Hook	28550

Figure 15.Standard Drop arrangement

Throwback Cable Arrangement

Cable included for Throwback pulleys beneath or near Winch **(See Figure 16.)**



Item	Description	Part No.
1	Pulley	3004
2	3/32" [2.4 mm] or 1/8" [3.18 mm] Cable	--
3	Pull Direction (Toward Winch)	--
4	3/16" Cable Clamp	732
5	6" [150 mm]	--
6	Cable Lock (Adjustment Leveler) See **Figure 28. on page 24**.	14337

Figure 16.Drop Installation Throwback arrangement

Hopper Suspension

See Chore-Time Manual MF1819 for Hopper Assembly and installation procedure.

Assembling Feeder

1. Insert the Quarter Turn Key **(55818)** into the Key-hole of the Chick Excluder **(55821)**.
   Note: Only one leg of the Chick Excluder has the Key-hole.
2. Push on the Quarter Turn Key until it snaps into place.

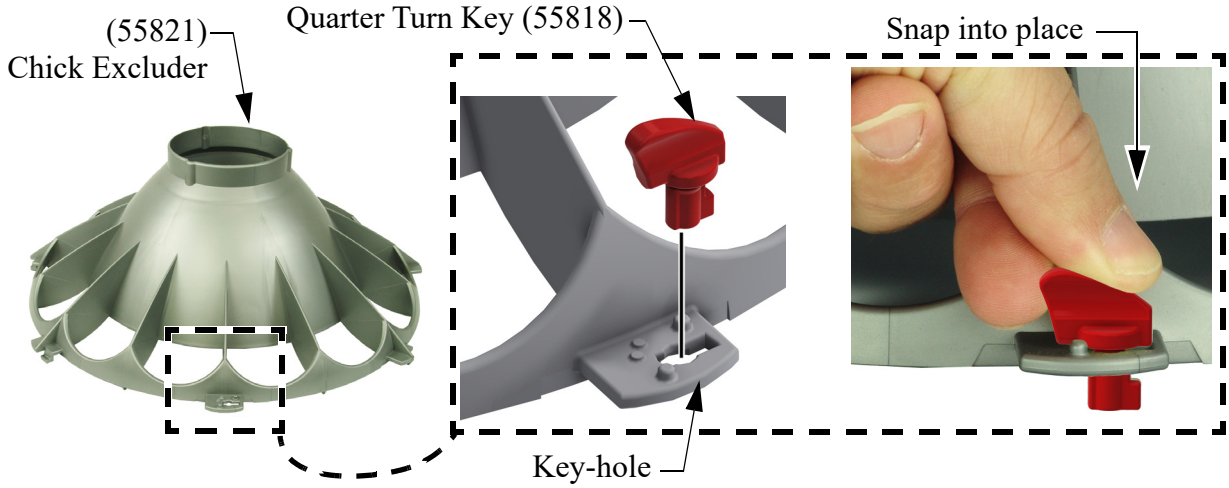


Figure 17.Installing Quarter Turn Key

3. Line up and slide the Cone Skirt **(55816)** over the Feed Cone **(55822 or 55823 w/feed shutoff)**.
4. Line up the Feed Cone Quarter Turn Key with the Key-hole **(See Figure)** in the Feed Pan. Insert the Hook into the Feed Pan and rotate down as **shown**.

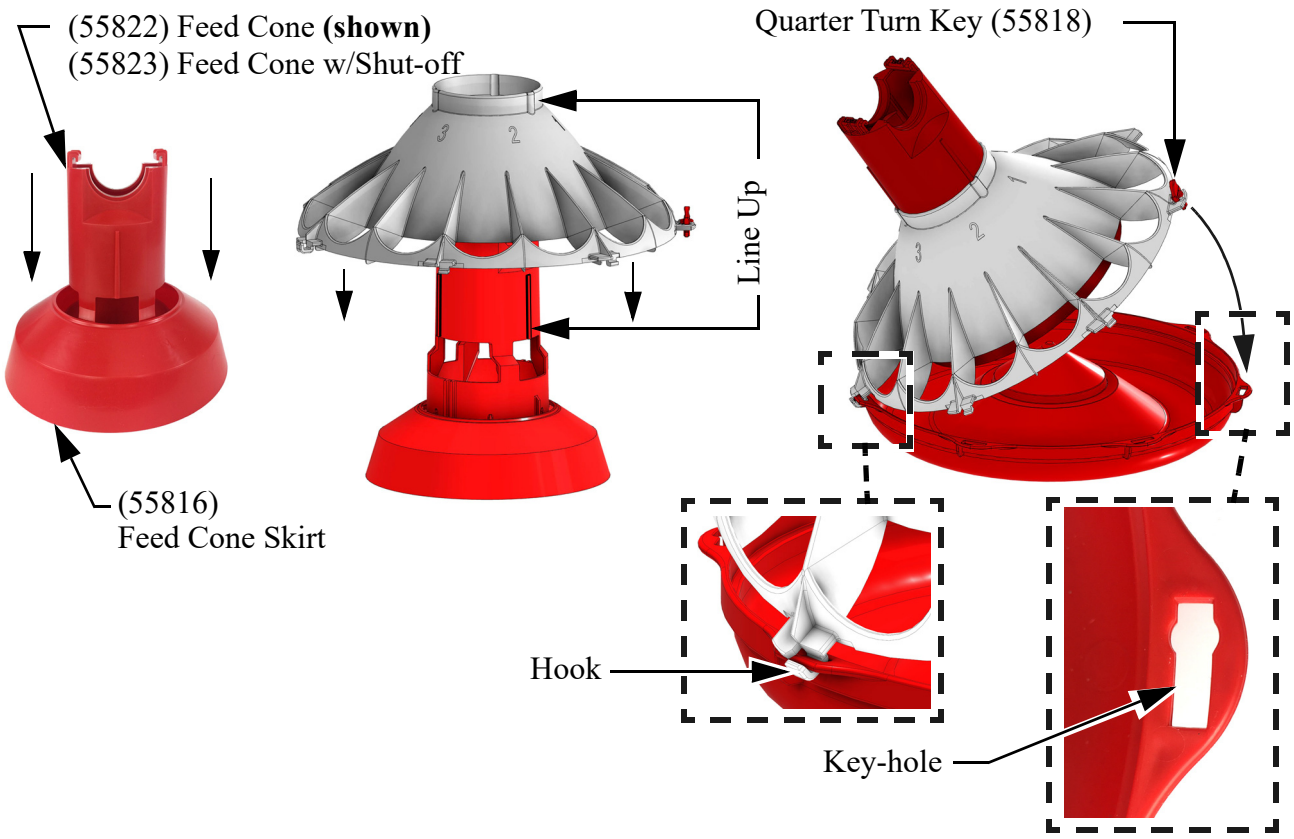


Figure 18.Installing the Feed Skirt and Cone

5. Push down and Rotate the Chick Excluder until it snaps in place and turn the Quarter turn Key Clockwise 90°.

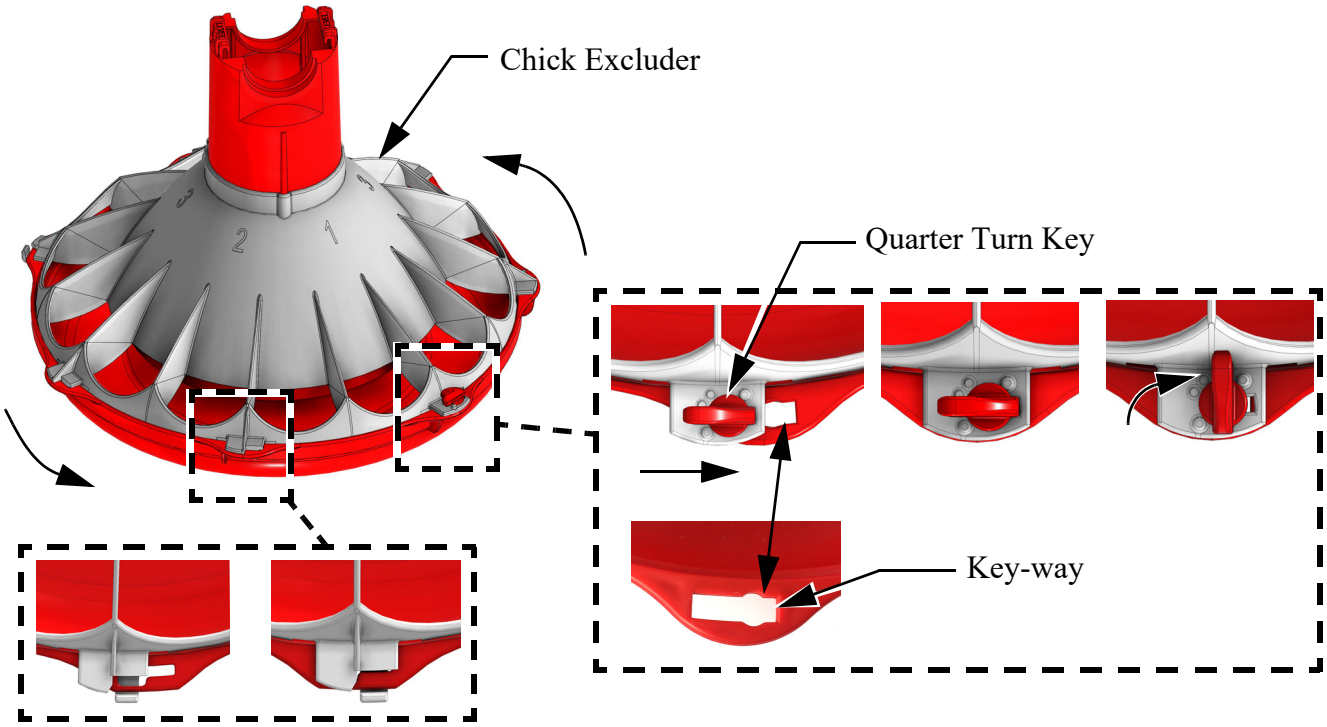


Figure 19.Rotating Excluder to position and lock in place with Quarter Turn Key

Note: Cap can be installed and Feeder can be slid onto Pipe, or Feeder can be installed onto Tube at any location.

Installing Feeder on Feed Tube

Feeders With Slide Shutoff

1. Locate the hole in the Auger Tube and position a Slide Shutoff **(55817)** as shown with the Crimp in the Feed Tube engaged in the Slot of the Slide Shutoff.
2. Hold the Slide Shutoff in place and lift the assembled Feeder into place as shown.
3. Install a Feed Cone Cap as shown in **Figure 21.**

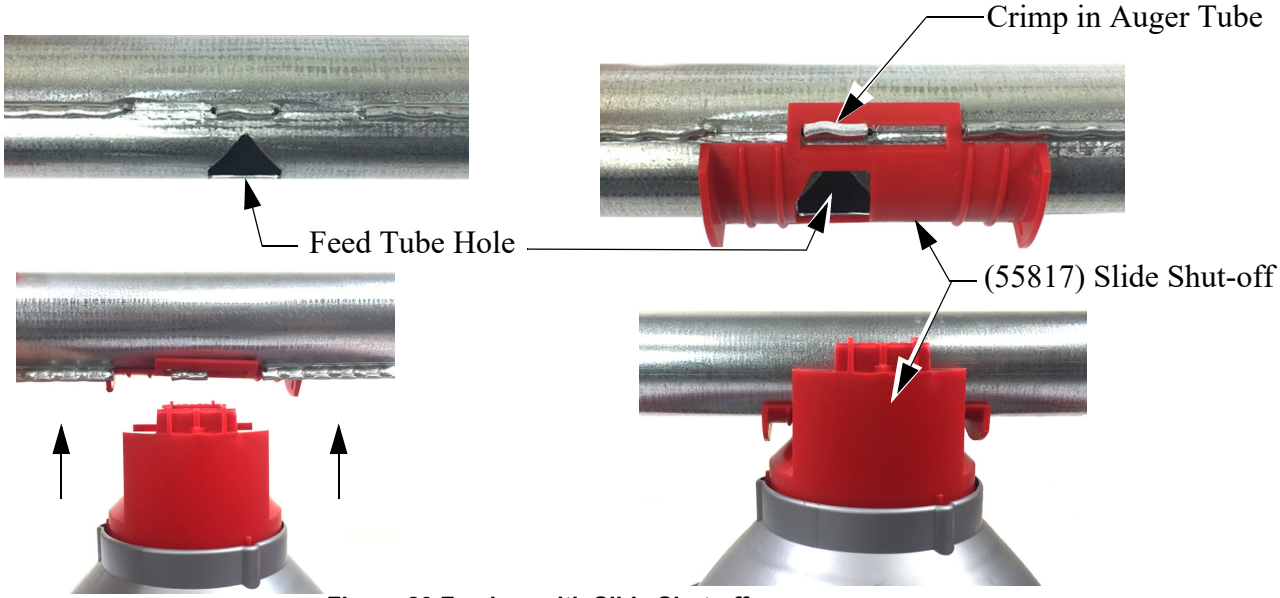


Figure 20.Feeders with Slide Shut-off

Installing Cone Cap (All Feeders)

1. Line up the Feeder with the hole in the Feeder Tube.
2. Set a Cone Cap **(55820)** on the Auger Tube, and with the Tabs of the Cone Cap captured by the Cone, Slide it past the Locking Tabs so it locks into place **as shown**.

Note: The Cone Cap is made to slide on one direction. The open end of the grooves face towards the Cone.

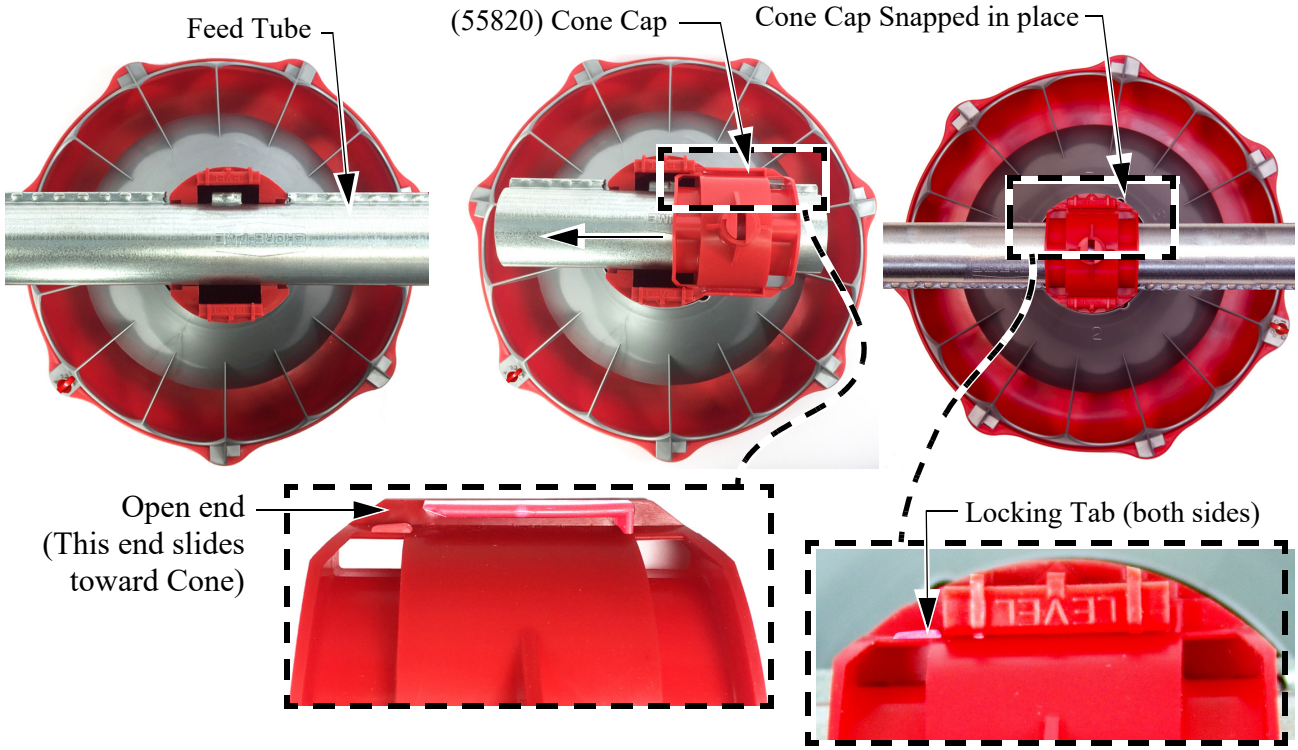


Figure 21.Cone Cap

Feeder Line Assembly and Suspension

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.
   When sliding the feeders on the tubes, make sure the Quarter Turn Keys or Key-hole are on the same side of the tube.
2. Rotate the auger tubes so that the seam is down, this holds the Pan Assemblies in place on the tubes. **See "Installing Feeder on Feed Tube" on page 20**.

With the Hem of the Feeder Tube up, slide the Feeder Pan Assembly onto the Feeder Tube. Position one (1) Feeder Pan Assembly over each hole on the Feeder Tube.

Rotate the Feeder Tube after the Feeder Pan Assemblies are in place. This will lock the Feeder Pan Assemblies in place.

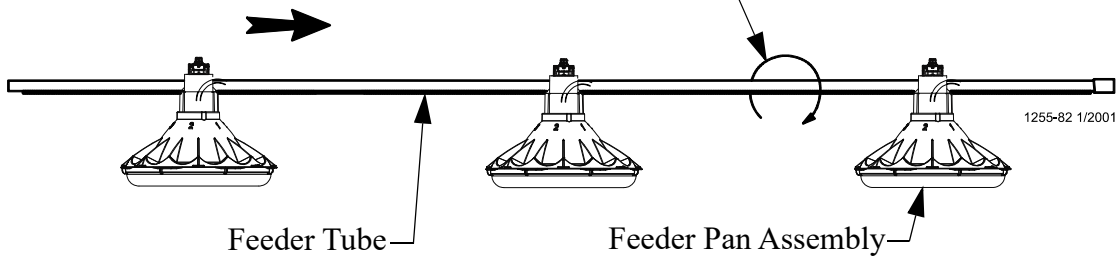


Figure 22. Assemble Feeders on tubes

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 belled end of each tube should be toward the Hopper end of the line. (See Figure 23.)**
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. **The last Feeder Tube before the End Control Pan or Mid Line Control pan needs to be a Control Tube.**

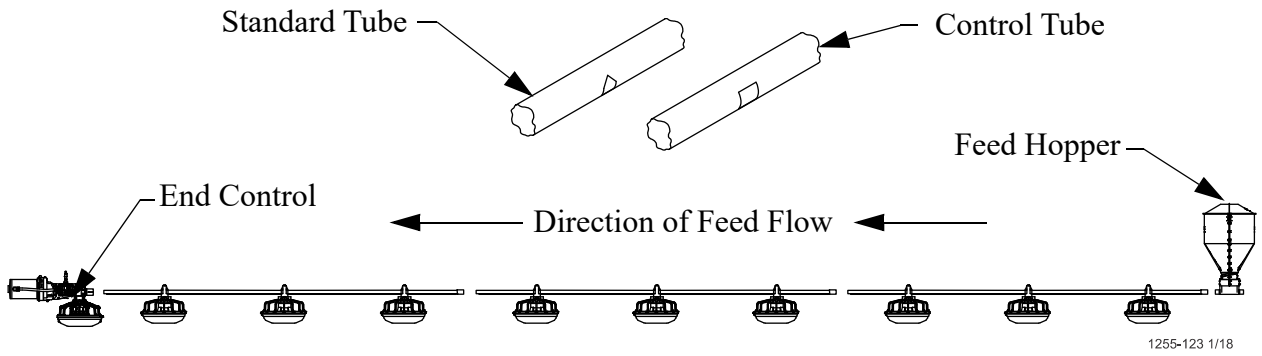


Figure 23. Hanger Installation

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 24.**

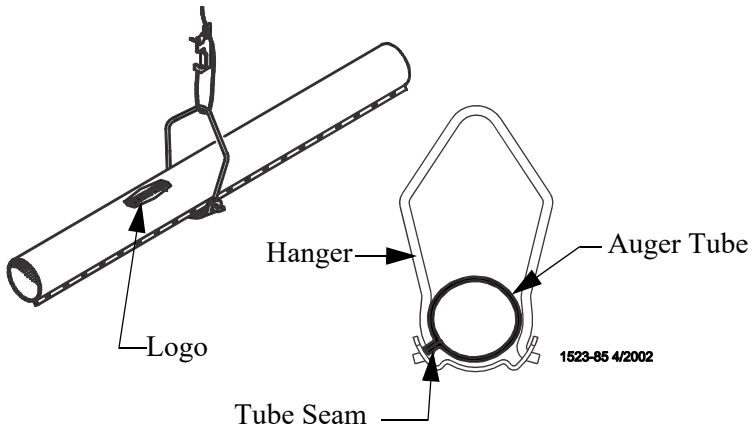


Figure 24.Hanger Installation

4. Place a Tube Clamp Assembly or Clamp/Anti-Roost Bracket at each joint. **(See Figure 25.)** 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 **fourth** joint.
   All other joints in the system use the standard Tube Clamp Assembly.

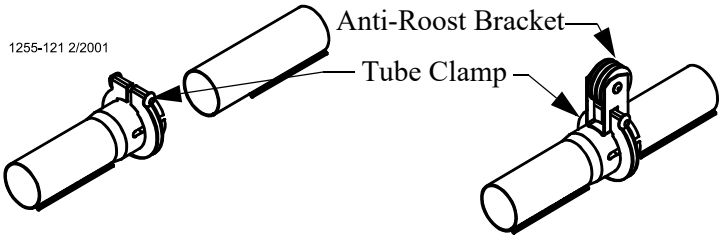


Figure 25.Tube Clamp and Tube Clamp with Anti-Roost Bracket

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 26.** shows the proper clamp location on the tube joint. *Do not tighten the clamp at this time*.

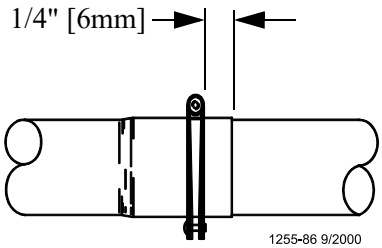


Figure 26.Clamp Installation

5. Install the Hangers on the feed line tube at the 8' *[2.4 m]* spacings determined by the suspension drop lines. **(See Figure 27.)** 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.

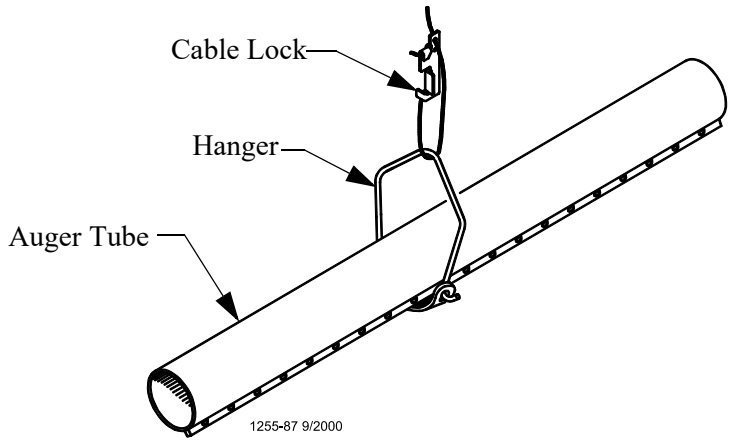


Figure 27.Hanger Installation

6. Install Adjustment Leveler within 6" *[152 mm]* of feeder line. **(See Figure 28.)** 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.
    - if providing total drop out, tubes should be rotated so that the Chore-Time Logo is on crown of tube.
    - make sure the clamps are located, as shown in **Figure 26.**

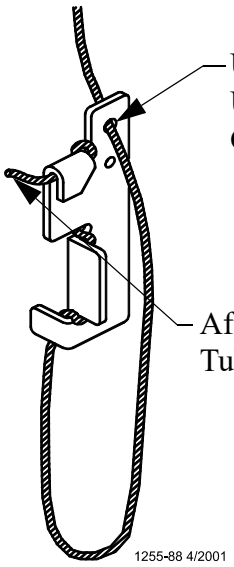


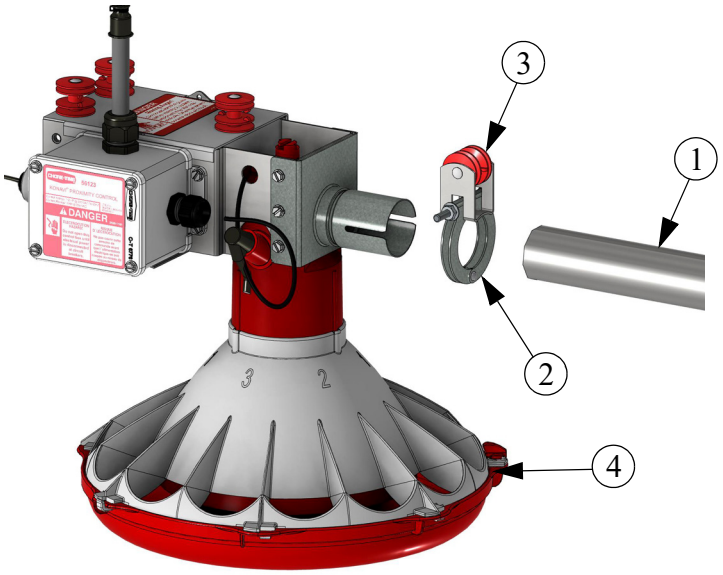
Figure 28.Cable Lock Threading

Finally, tighten the Tube Clamps on the feeder tubes. Clamp the joints securely, but do not crush the tubes. Re-adjust all Adjustment Levelers as needed and trim off excess cable as shown in **Figure 28.**

Installing the End Control and Boot Assembly

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 29. DO NOT INSTALL THE POWER UNIT AT THIS TIME.**



Item	Description	Part No.
1	Control Tube	--
2	Tube Clamp	14979
3	Anti-Roost Bracket	24060
4	End Control Unit	--

Figure 29.Connecting End Control Unit to the Feed Line Tube

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 30.)**
3. **DO NOT INSTALL THE ANCHOR BEARING AND BEARING RETAINER AT THIS TIME**.

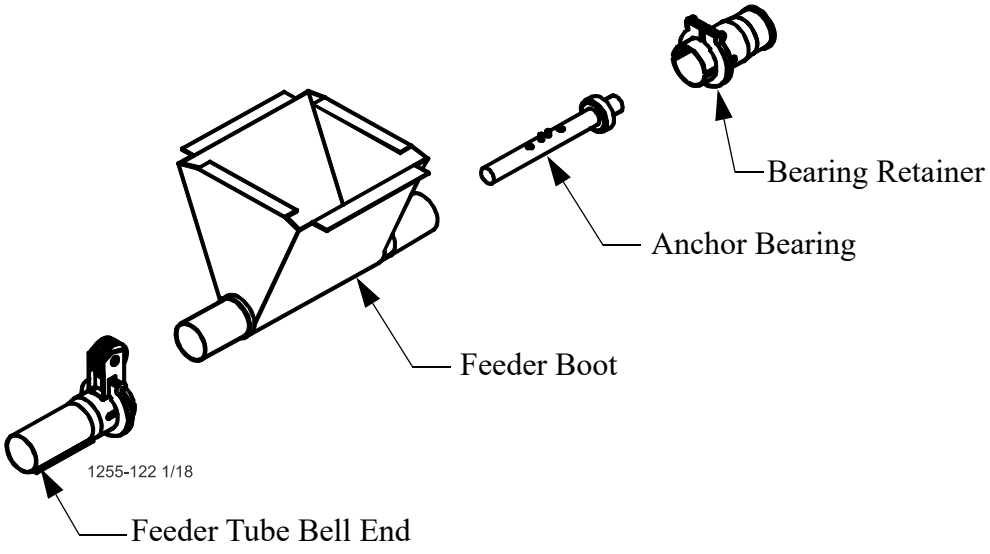
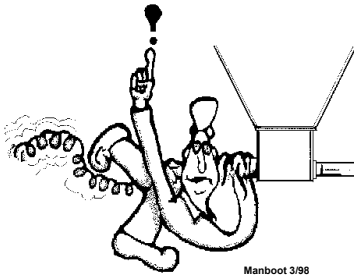


Figure 30.Installing the Feeder Boot

Auger/End Control Installation

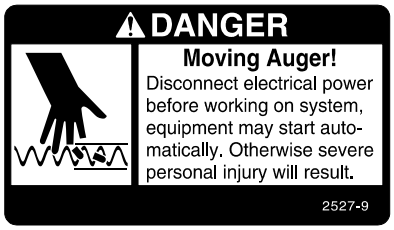
Note: Use extreme caution when working with the auger. The auger is under tension and may spring causing personal injury. Wear protective clothing, gloves, and safety glasses when working with the auger.



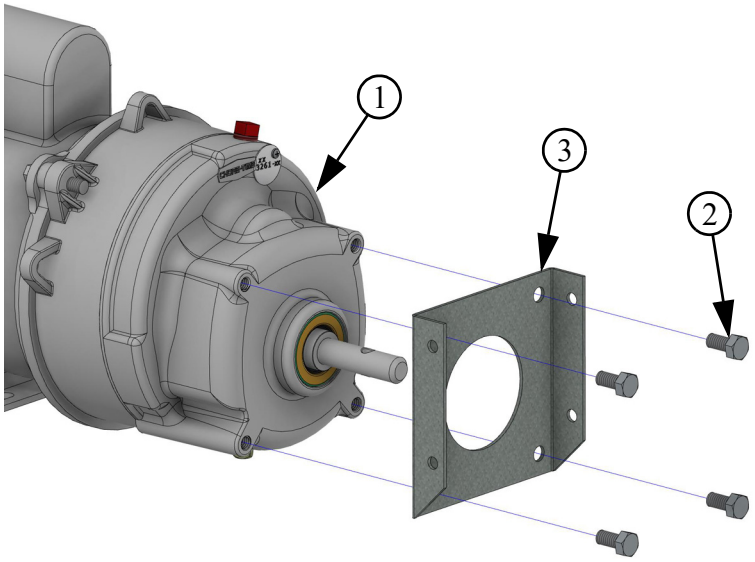
BE CAREFUL WHEN WORKING WITH THE AUGER!

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.



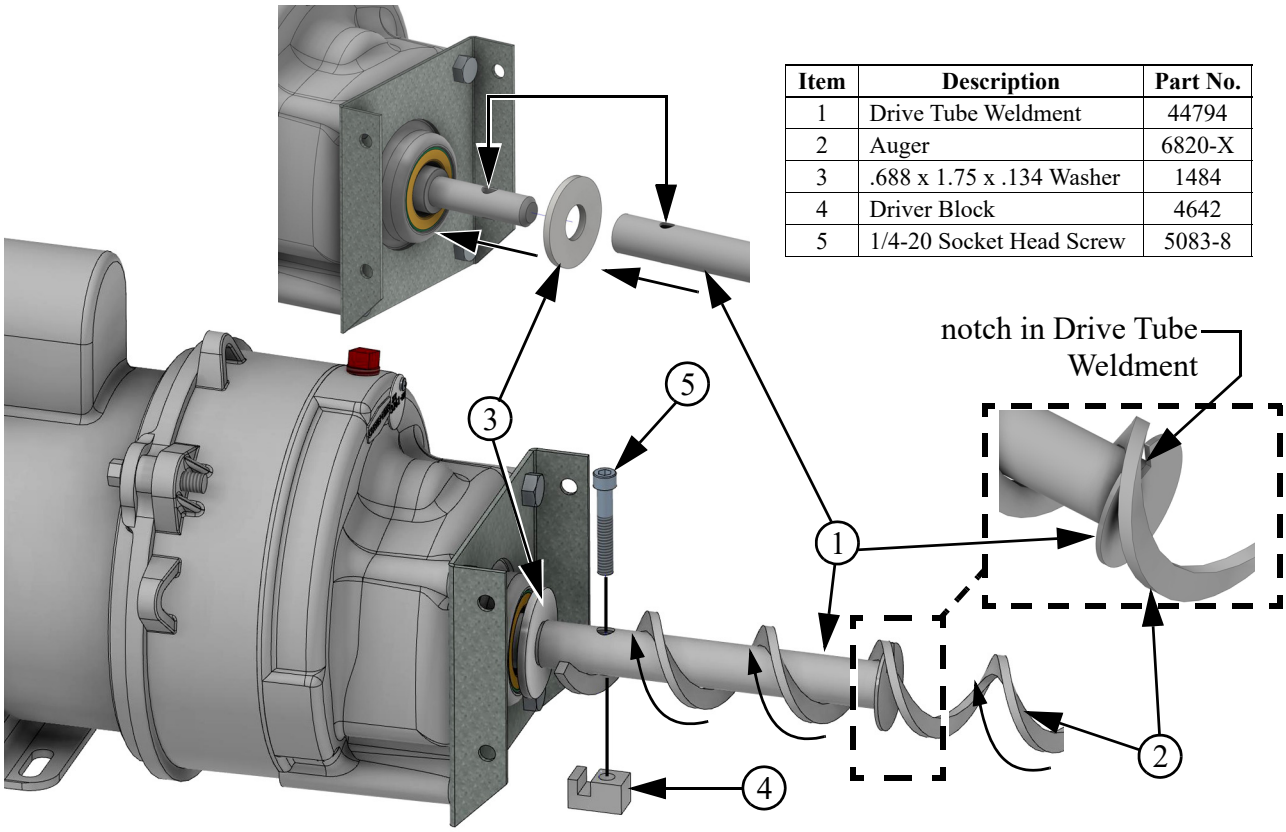
1. Use extreme caution when pushing the auger into the Auger Tubes. Keep your hand away form the end of the auger tube to avoid injury.
   With the auger coiled about 6 feet *[1.8 m]* from the end of the boot, uncoil the auger from the outside and feed the auger through the boot into the tubes.
   Push the auger into the tube in short strokes.
   Uncoil and handle the auger carefully to avoid damaging or kinking the auger.
2. If more that 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 Plate to the Power Unit/Gearhead, as shown in **Figure 31.**



Item	Description	Part No.
1	Power Unit	--
2	5/16-18 x .63 Bolt	1412-1
3	Anchor Plate	4188

Figure 31.Assemble the Anchor Plate to the Power Unit/Gearhead

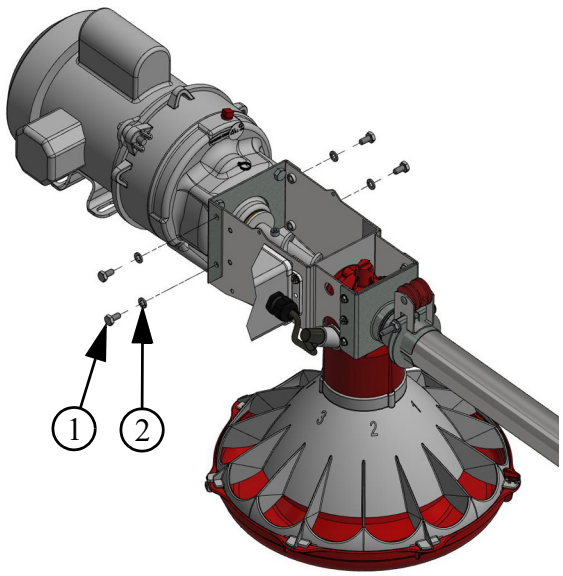
4. Slide the Drive Tube and flat washer over the output shaft on the Power Unit, as shown in **Figure 32.**
5. Continue installing auger until the auger reaches the Control Unit end of the feeder line.
6. Turn the Drive Tube Weldment into the auger, then attach to the output shaft of the Power Unit, as shown in **Figure 32.** Use the Driver Block to secure the auger to the Output Shaft.



Item	Description	Part No.
1	Drive Tube Weldment	44794
2	Auger	6820-X
3	.688 x 1.75 x .134 Washer	1484
4	Driver Block	4642
5	1/4-20 Socket Head Screw	5083-8

Figure 32.Auger Driver Components

7. Attach the Anchor Plate and Gearhead Assembly to the Control Unit Body using the included hardware shown in **Figure 33.**

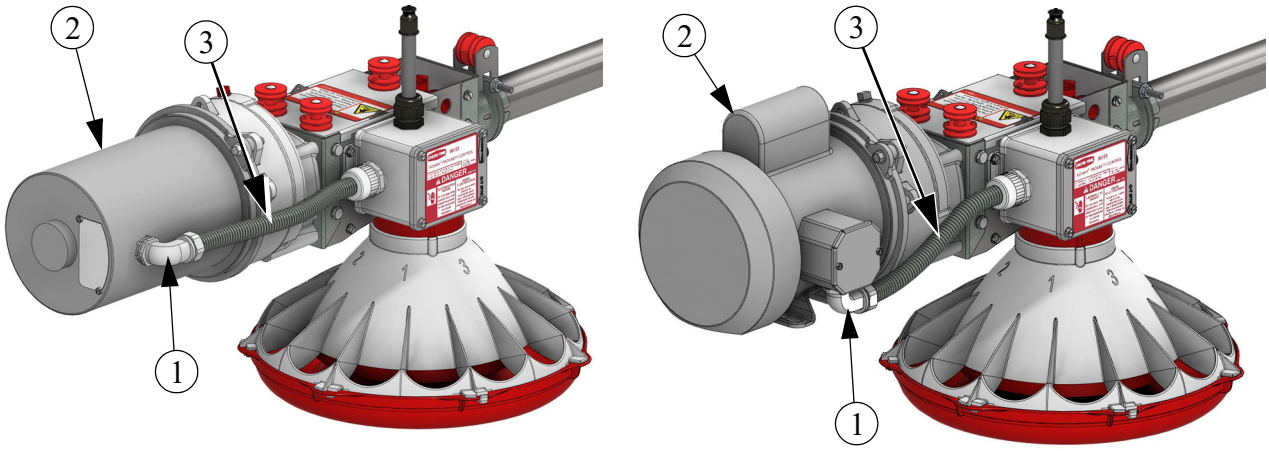


Item	Description	Part No.
1	1/4-20 x .50 Bolt	1487
2	.259 x .489 x .062 Lock Washer	1667

Figure 33. Attaching the Anchor Plate and Gearhead Assembly to the Control Unit Body

8. Install the Metal Water Tight Connector **(Item 1)** in the Power Unit **(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.

9. See **"Power Unit Wiring" on page 39** for wiring for various Power Units**.**



Motor without Conduit Box Motor with Conduit Box

Item	Description	Part No.
1	Water Tight Connector	23810
2	Power Unit	--
3	Flex Conduit	
*Items 1 & 3 in		

Figure 34.Installing Water Tight, Cutting and Installing Conduit

10. Attach all covers and wire according to the wiring section of this manual.
11. 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 35.)**

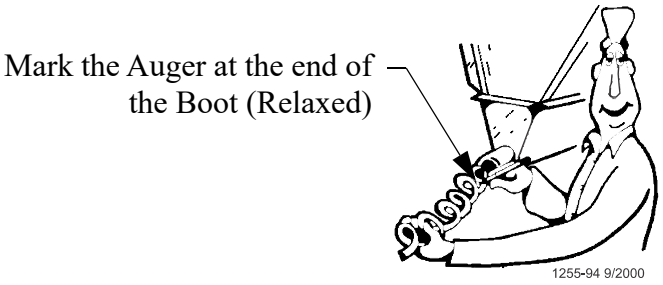


Figure 35.Measure the Auger from the relaxed position

12. 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 35.)**

13. 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 36.**

DO NOT OVERTIGHTEN THE SET SCREWS.

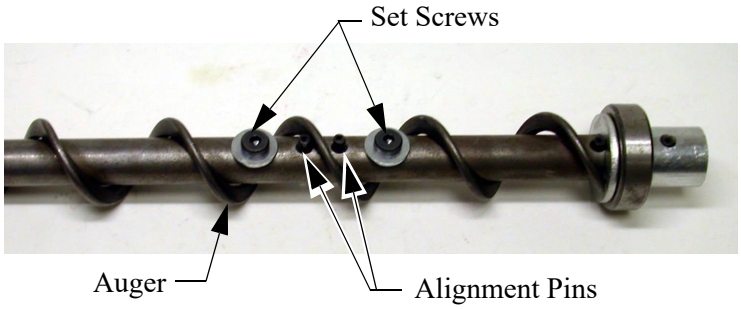
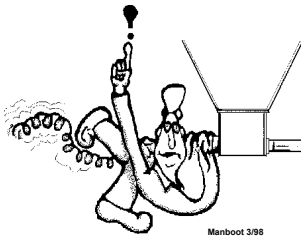


Figure 36. Auger and Anchor Bearing Connection

14. **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.
15. Place the cannonball in the boot.



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, DO NOT THREAD INSIDE EACH OTHER. 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.

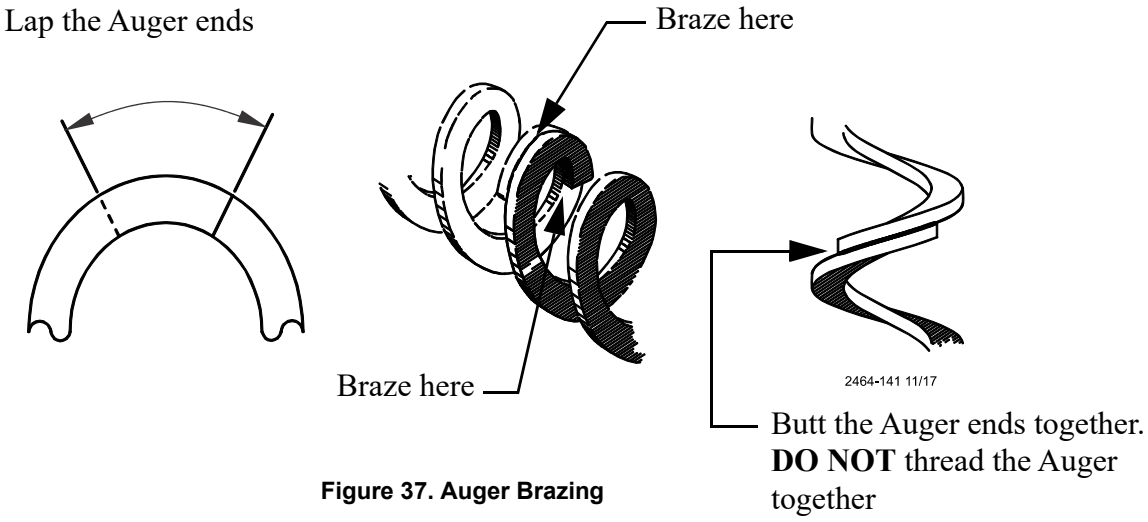
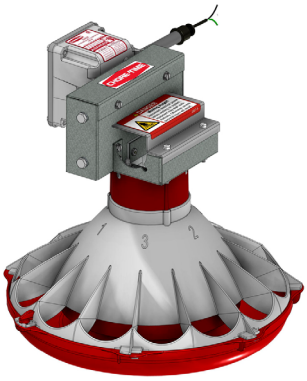


Figure 37. Auger Brazing

Mid-Line Control

Mid-Line Control Units are available for the KONAVI® Feeder. The Mid-Line Controls are shown in **Figure 38.**



56130 KONAVI® MID LINE Control with Mechanical Switch

56129 KONAVI® Mid Line Control with Proximity Sensor

Figure 38.Mid-Line Controls

Location/Planning

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 39.)**

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 Support Cone and remove the feeder pan at the location where the Mid-Line Control will be installed.

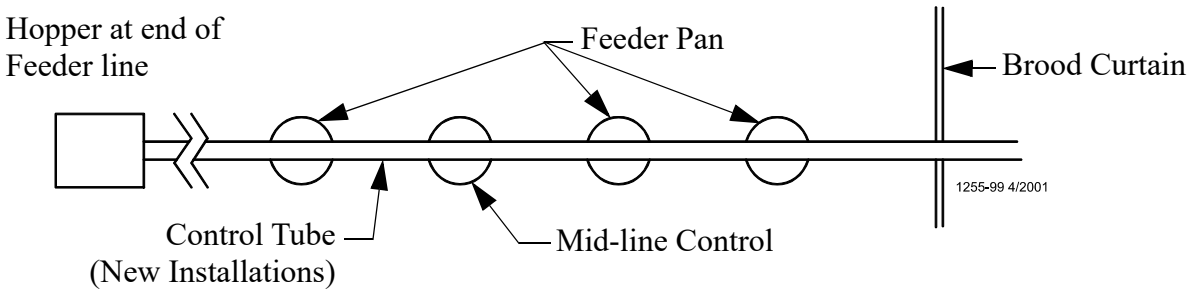


Figure 39.Mid-Line Control Location Diagram

Installation

Feeder Tube Outlet Holes

New Feeder Lines: Skip to next section.

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.

Note: Be sure there are no burrs inside the tube to catch the auger.

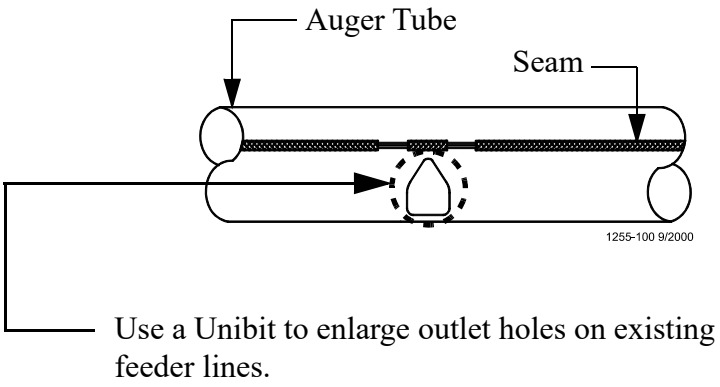


Figure 40.Enlarging Outlet Holes

Attaching the Mid-Line Control

Mid-Line Control with Mechanical Switch

1.Remove the two hex head screws on the control top.

2.Lift off the control top.

3.Cradle the feeder tube in the control housing. The feeder tube may have to be turned slightly to allow the pan to hang straight.

4.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.

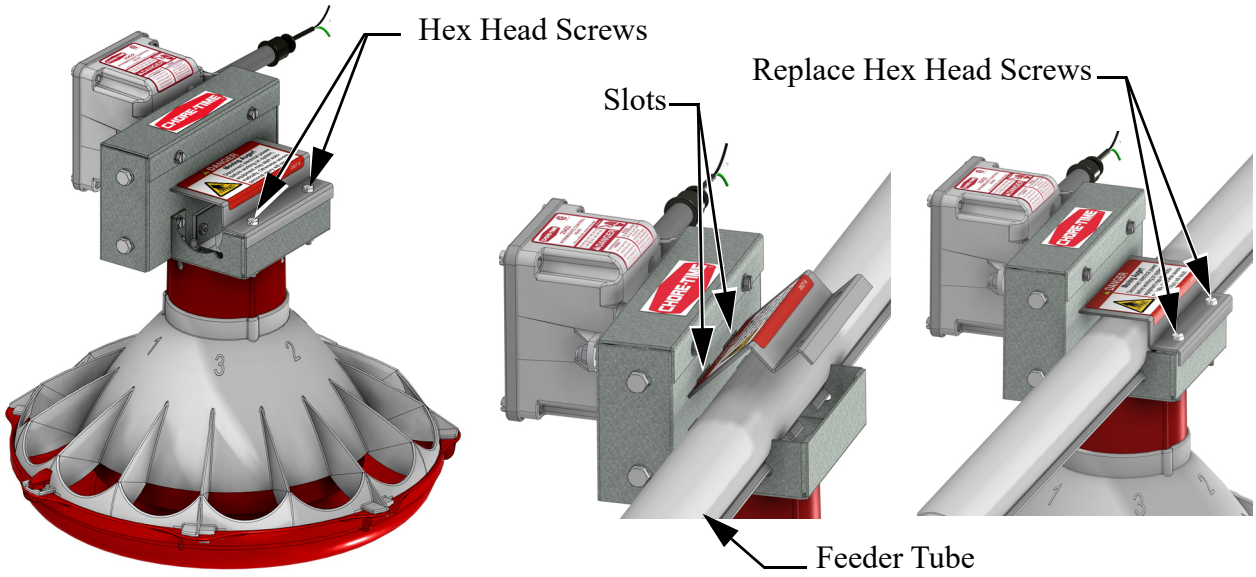


Figure 41.Mid-Line Control Installation

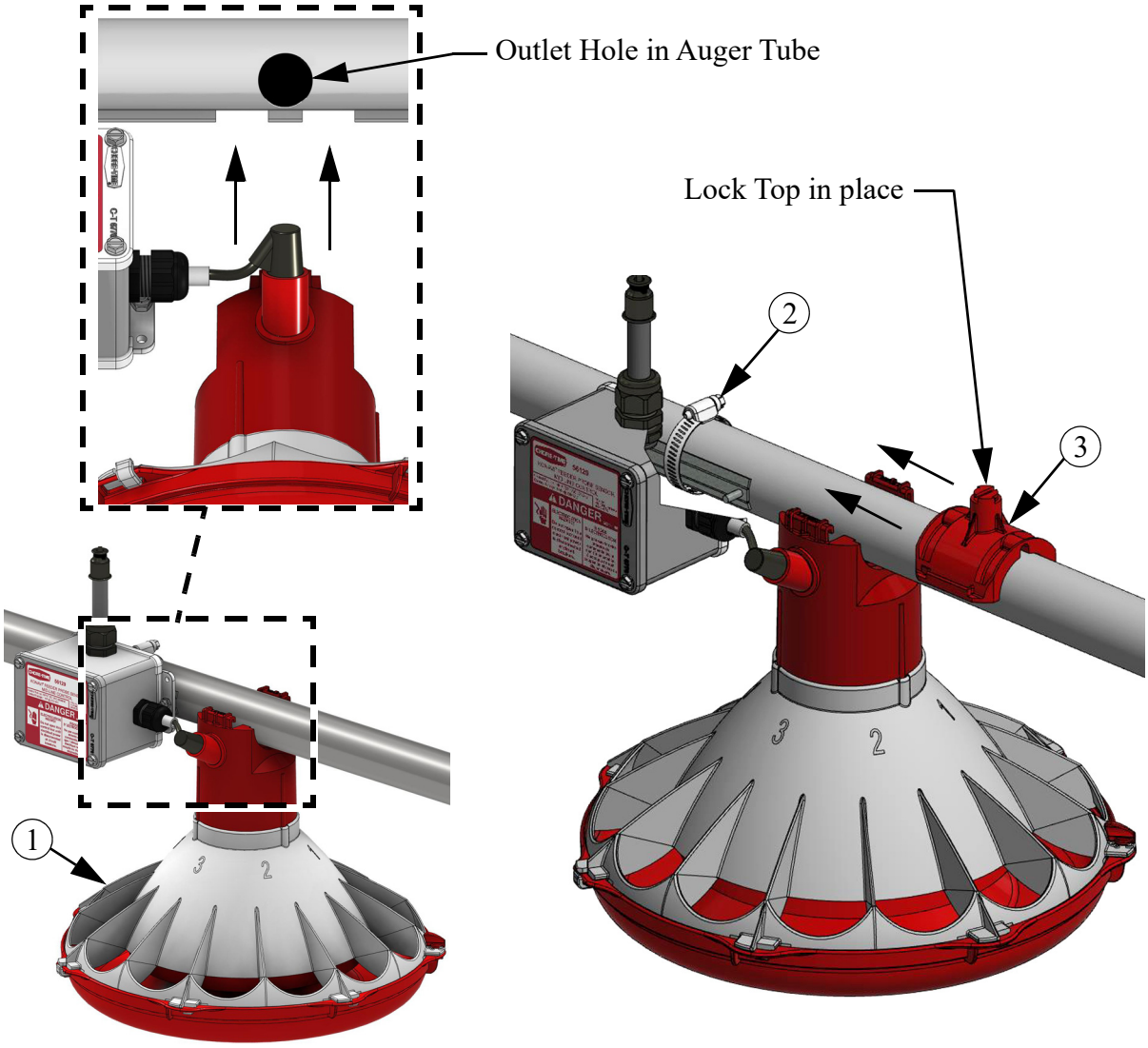
Mid-Line Control with Proximity Sensor Control

1.Assemble the Mid-Line Control to the Feeder Tube **as shown** in **Figure 42.**

2.Attach the Switch Box Assembly to the Feeder Tube with a **(3527)** Hose Clamp **as shown**.

3.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.

4.Wire the Mid-Line Control as shown in the wiring diagram section of this manual.



Item	Description	Part No.
1	Midline Control	56129
2	Tube Clamp	3527
3	Konavi Two Piece Top	55820

Figure 42. Installing the Mid-Line Control with Proximity Sensor

Anti-Roost Assembly

1. Unroll the bulk anti-roost cable. Note: If the cable is unrolled as shown in **Figure 43.**, 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.

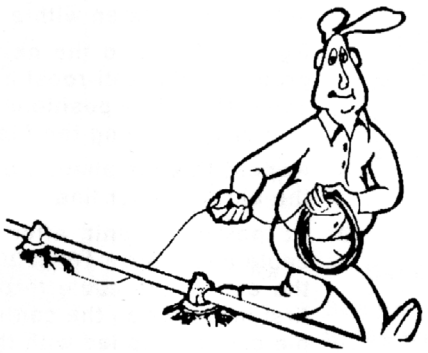


Figure 43. Unrolling Cable

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 44.**
3. Insert the cable in the insulator on the top of each Grill Support between the hopper and the next anti-roost bracket.

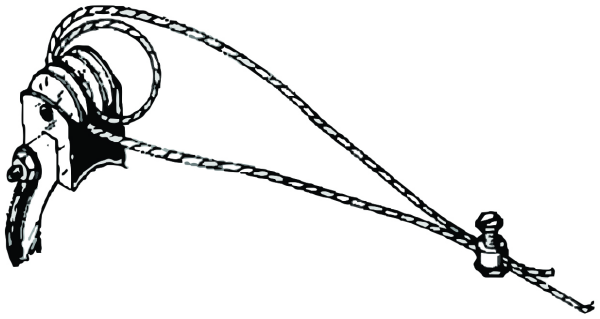


Figure 44.Anti-Roost Cable at the Hopper

4. Attach a spring in the center groove at the second anti-roost bracket and cut the cable at this point. **(See Figure 45).**
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 45).**
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 45.**
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.

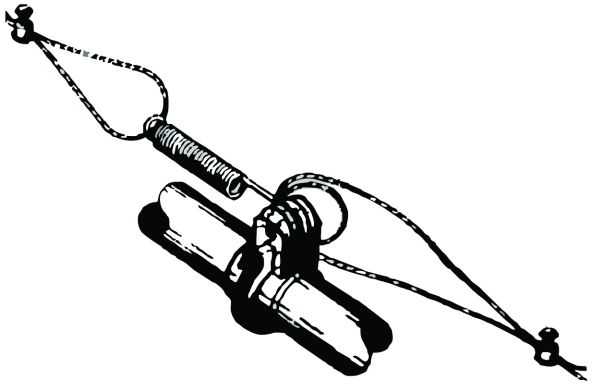


Figure 45.Anti-Roost Cable Mid-Line Connection

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 46).** Install the wire form on the control unit insulators. Be sure the guard snaps into the retainers molded into the insulators. **(See Figure 46).**

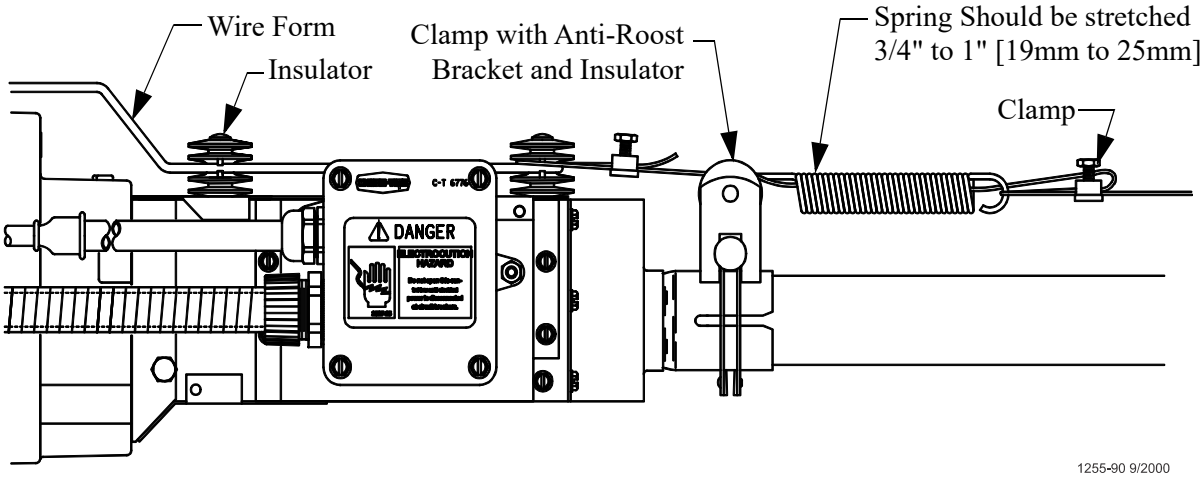


Figure 46.Anti-Roost Installation at the Control Unit

10. Install the Poultry Trainer or Line Charger, as shown in **Figure 47.** The Poultry Trainer is used to power all Anti-Roost lines in a house.
    - The Line Charger is used to power individual Anti-Roost lines in a house. **(See Figure 47).**
    - 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.
11. 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.**

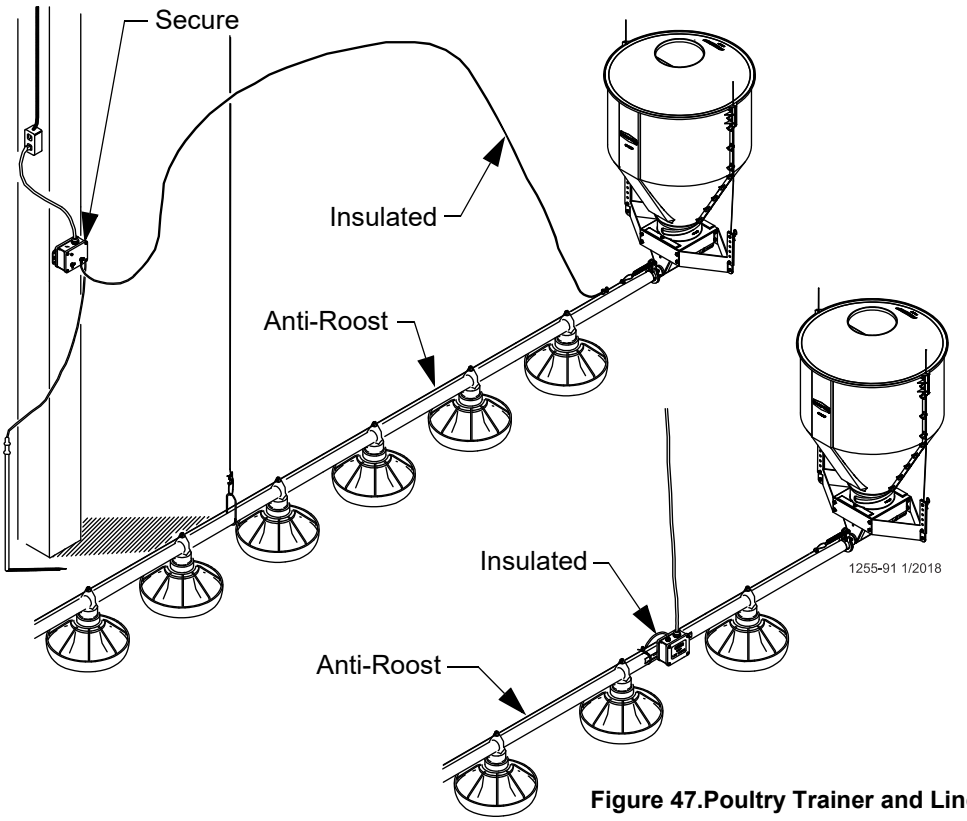
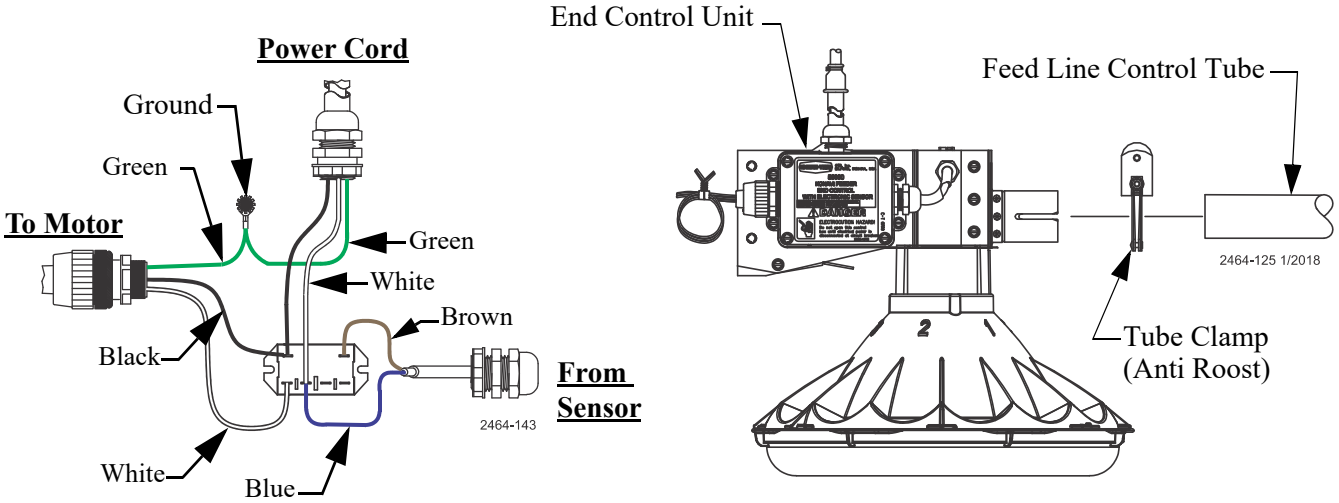


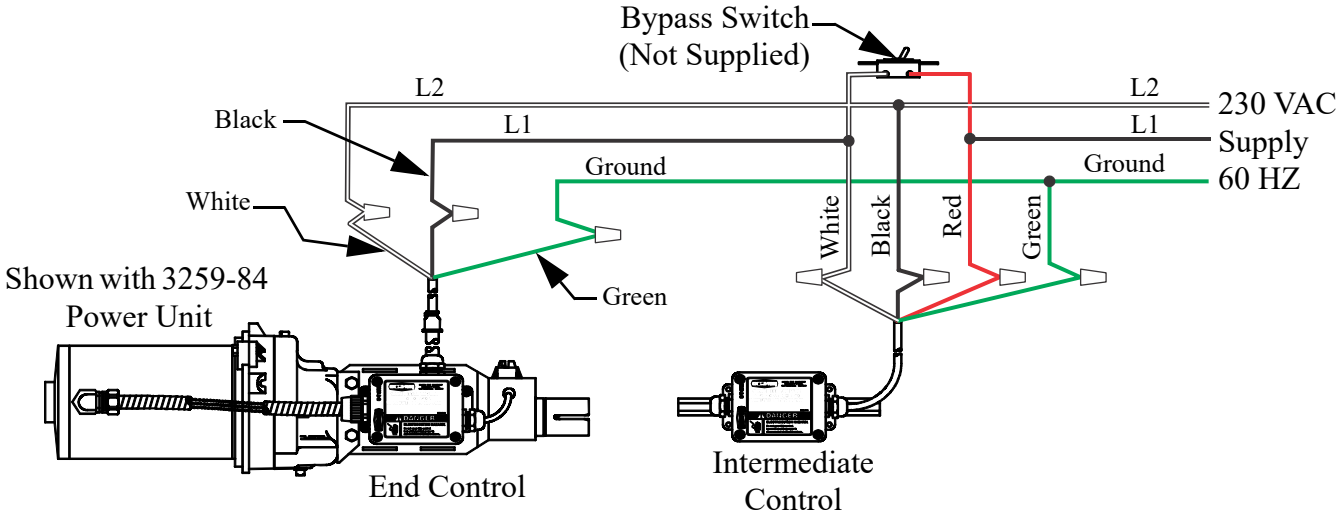
Figure 47.Poultry Trainer and Line Charger

Wiring

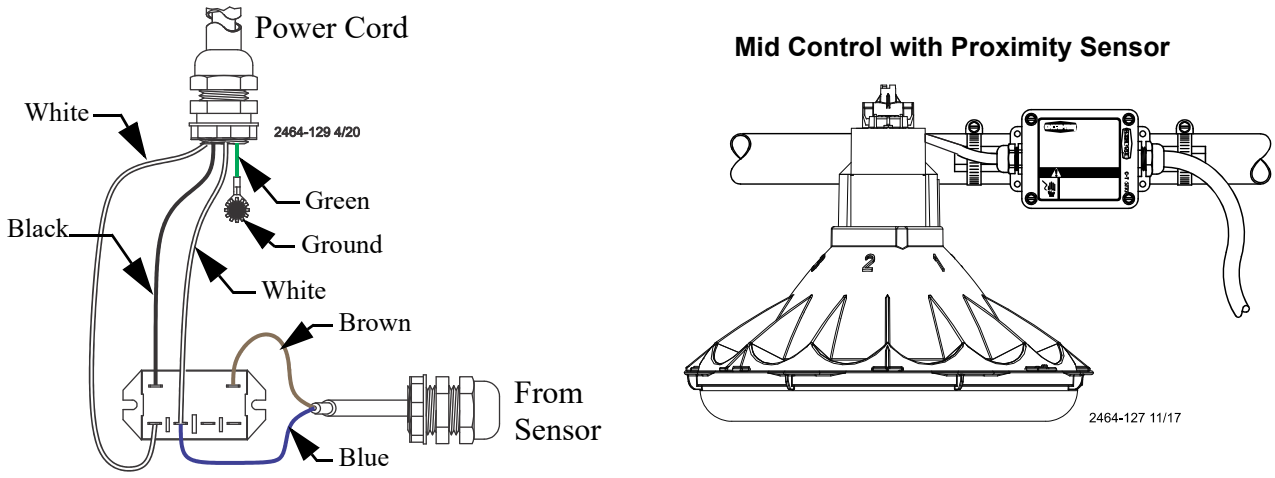
End Control with Proximity Switch Internal Wiring



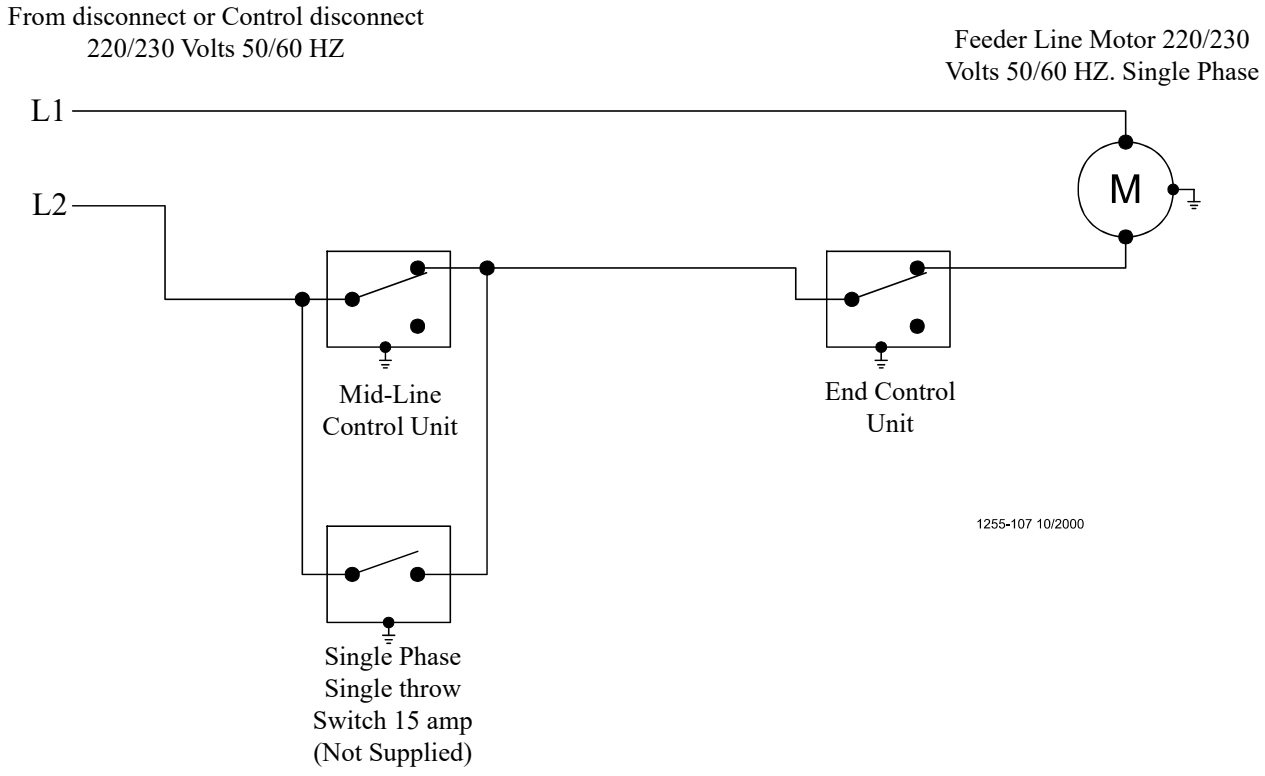
Proximity Sensor Wiring Diagram



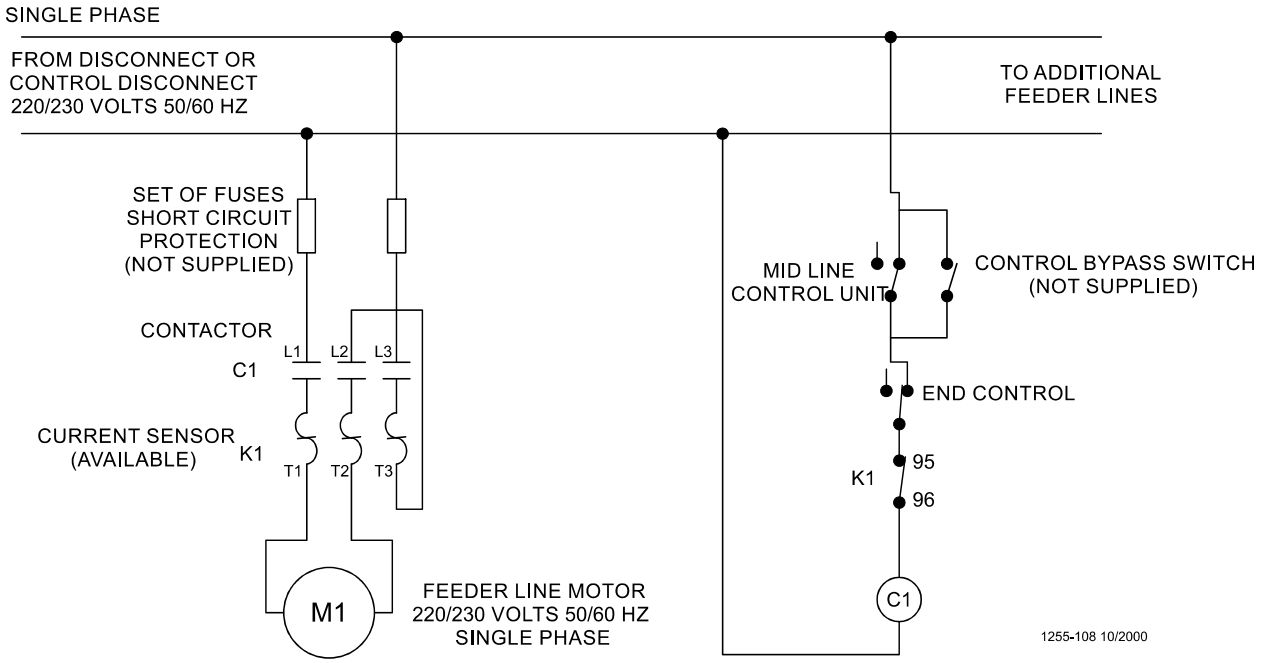
Mid-Line Control with Proximity Sensor Internal Wiring



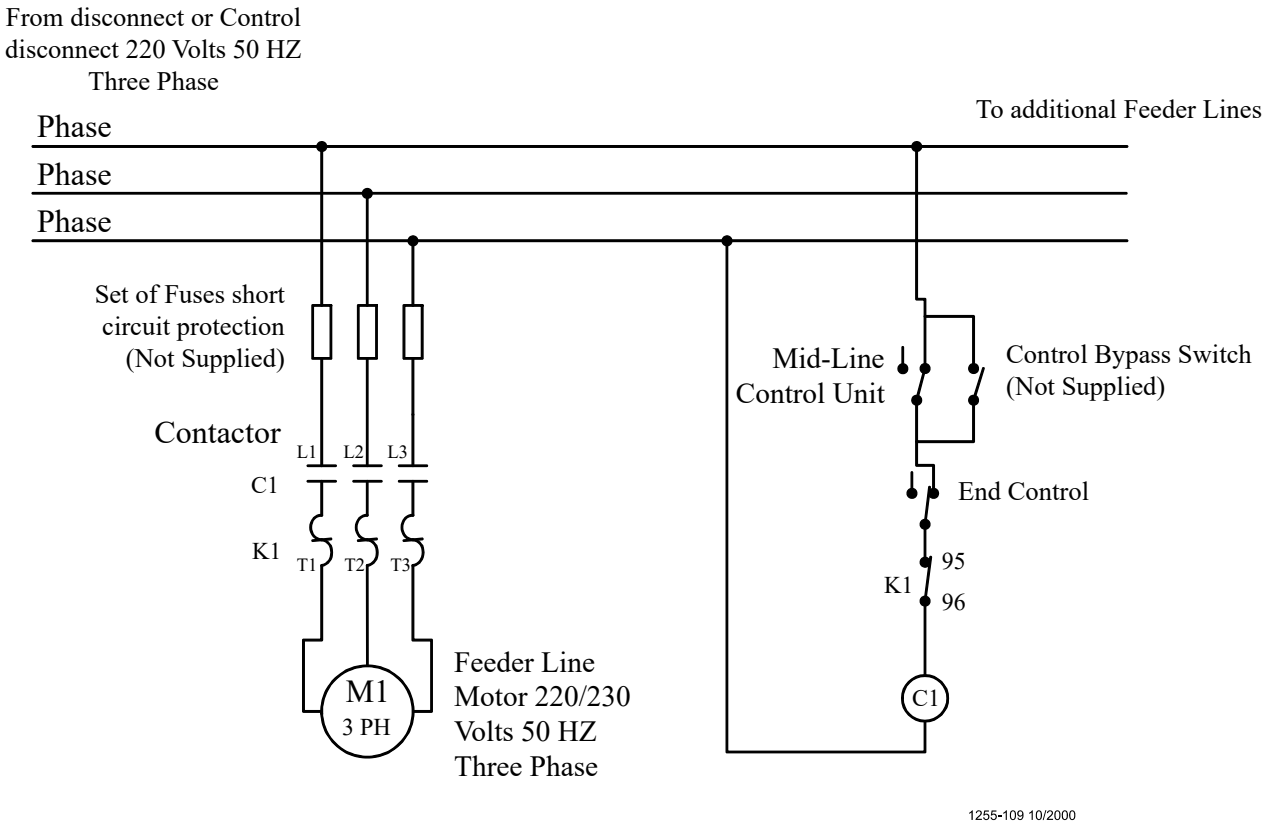
Mechanical Switch Single Phase Wiring Diagram



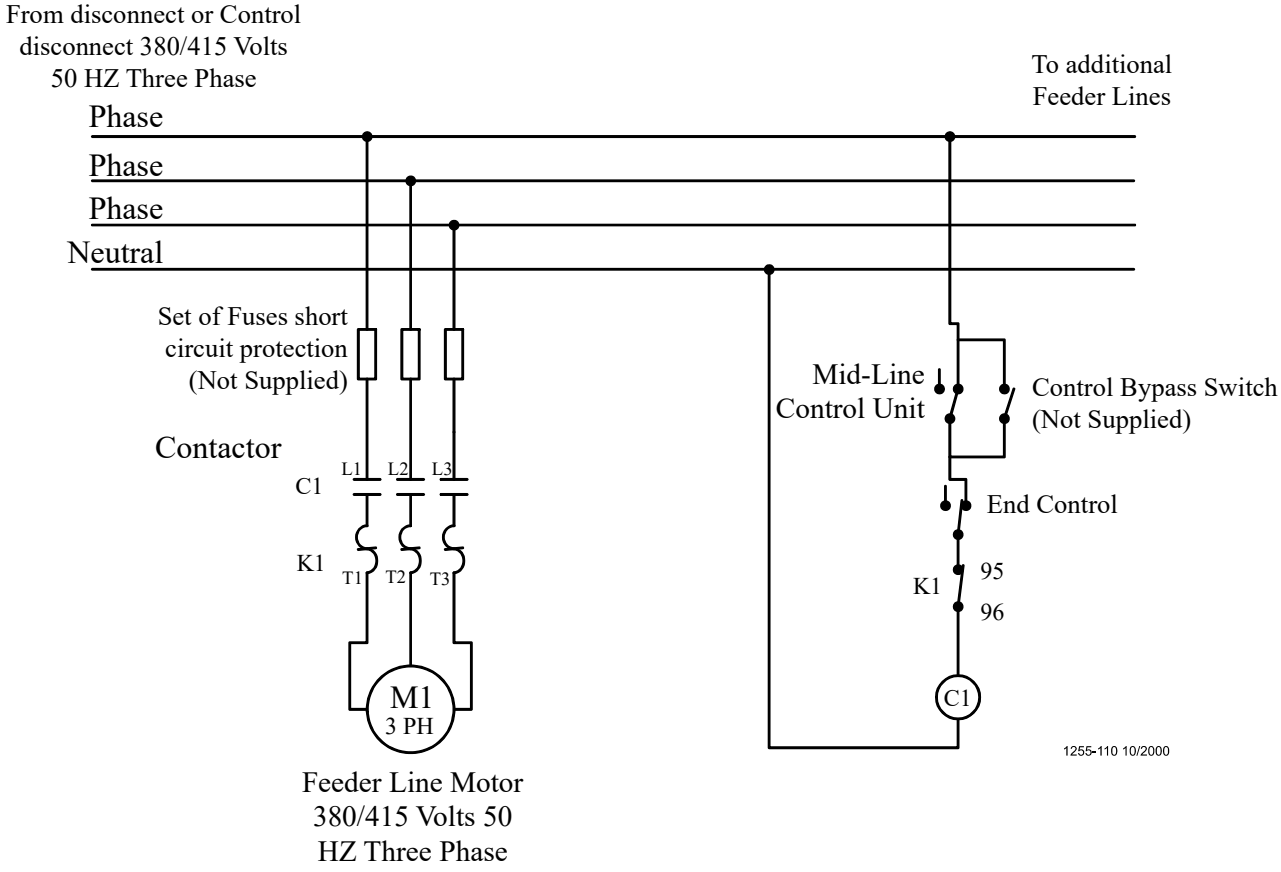
Mechanical Switch Single Phase Wiring Diagram with Motor Starter



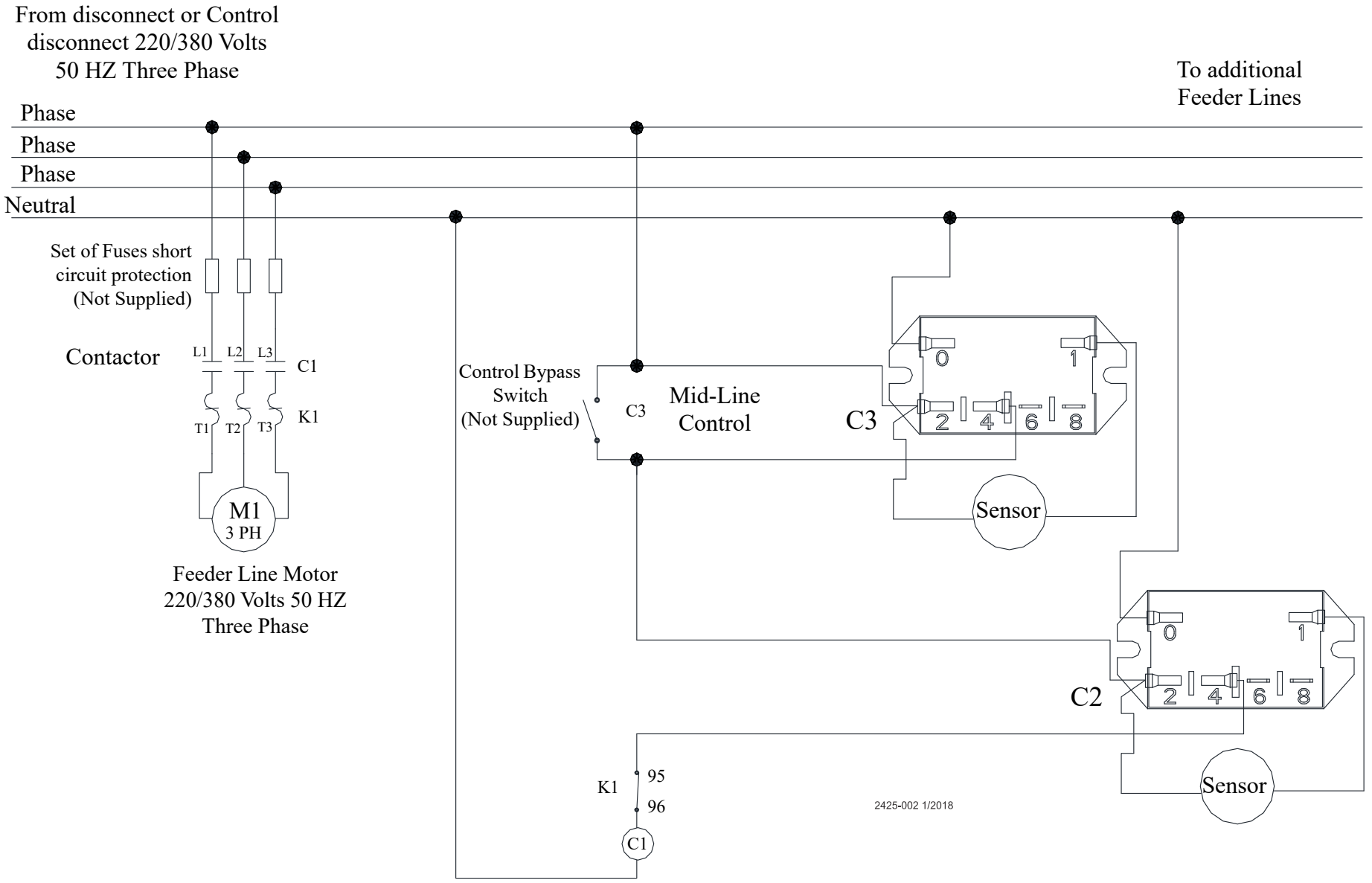
Mechanical Switch Three Phase Wiring Diagram: 220 V.



Mechanical Switch Three Phase Wiring Diagram: 380/415 V.

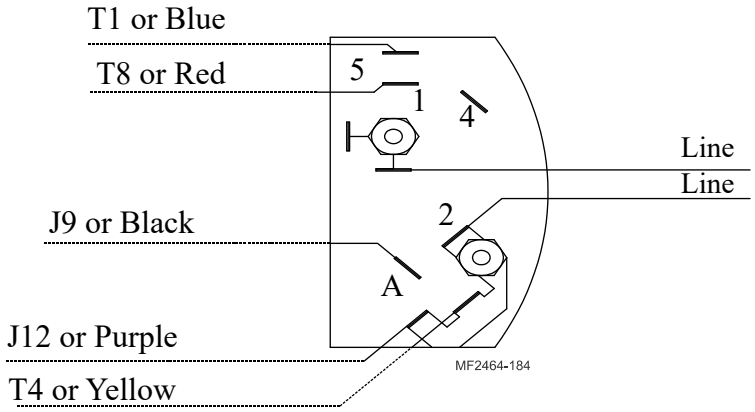


Electronic Sensor Three Phase Wiring

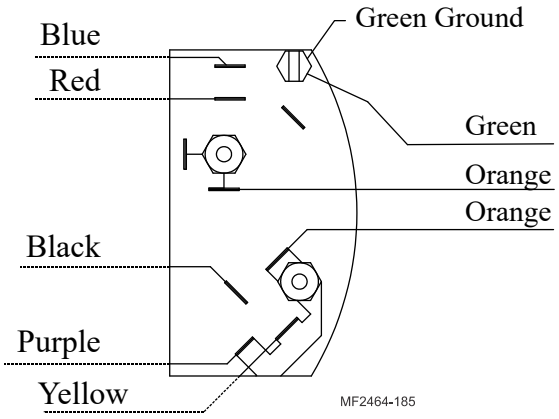


Power Unit Wiring

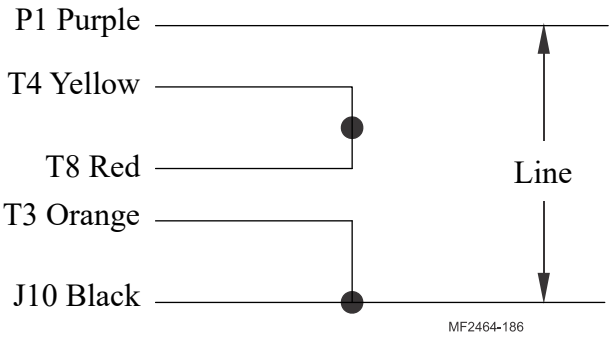
3259-84 Power Unit (4229 Motor) Wiring



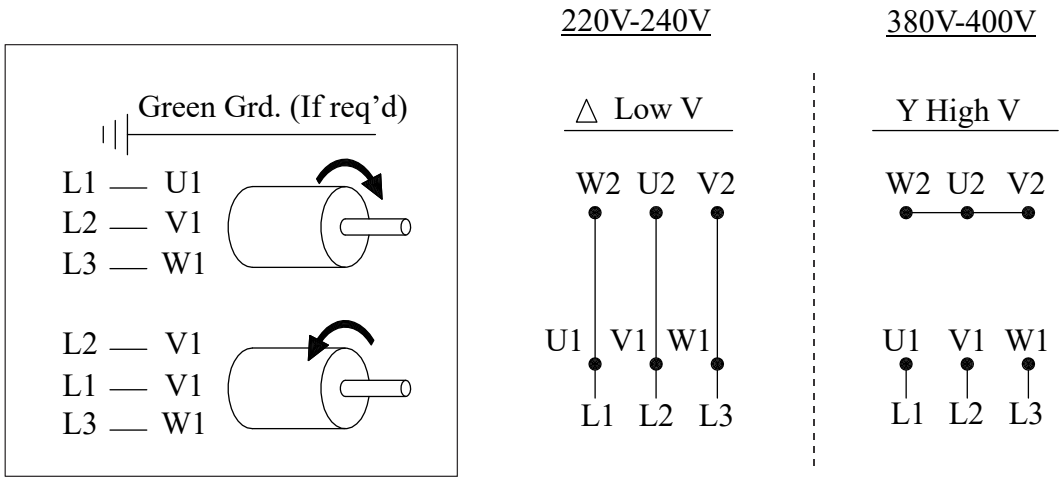
3259-85 Power Unit (5703 Motor) Wiring



3259-98 Power Unit (5977 Motor) Wiring



3259-100 Power Unit (28031 Motor) Wiring



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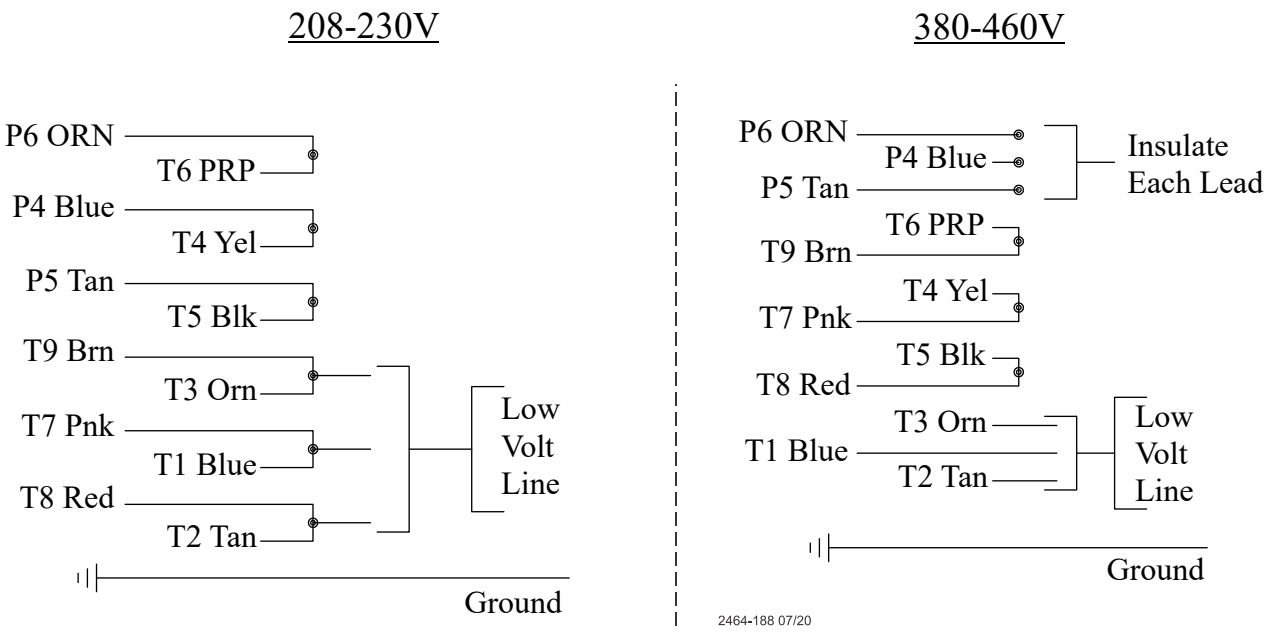
3259-128 Power Unit (24624 Motor) Wiring



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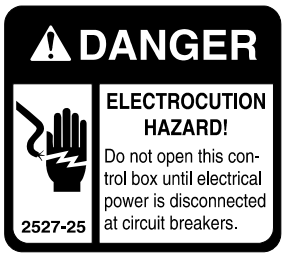
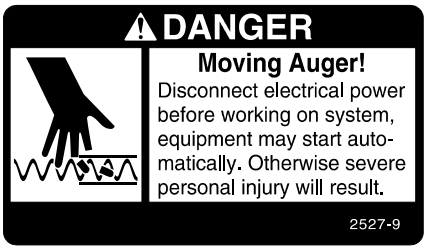
Troubleshooting

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

Maintenance

Floor Feeding System Maintenance

The KONAVI® Feeders require 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

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

1. Remove the bottom Pipe Plug to drain the oil. Discard used oil in accordance with local and national codes.
2. Wipe any debris off the magnet on the bottom Pipe Plug and reinstall. Remove the side Pipe Plug and (top) Vent Plug.
3. Set the power unit in the horizontal position.
4. **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.Install the side Pipe Plug and (top) Vent Plug.

Check the oil level in Gearhead at installation.

Check the oil level every 6 months.

Check the oil level at the side plug
if oil is needed use SAE 40W.

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

Oil capacity for the 3 stage gearhead is 13 oz [384 ml].
The oil should be changed every 12 months.

Figure 48.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

Refer to **(See Figure 49.)**

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.

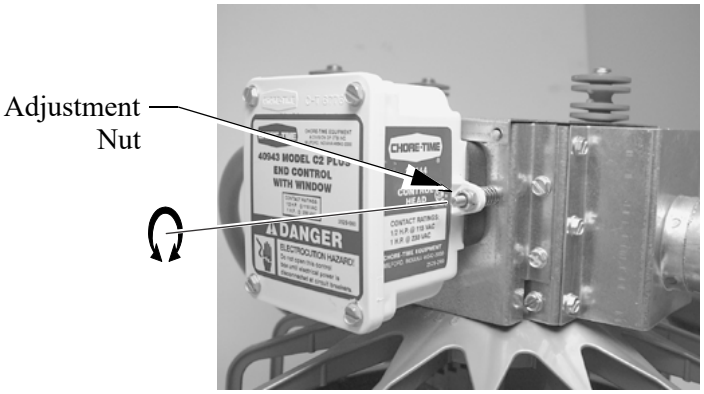


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Figure 49.Switch Adjustment

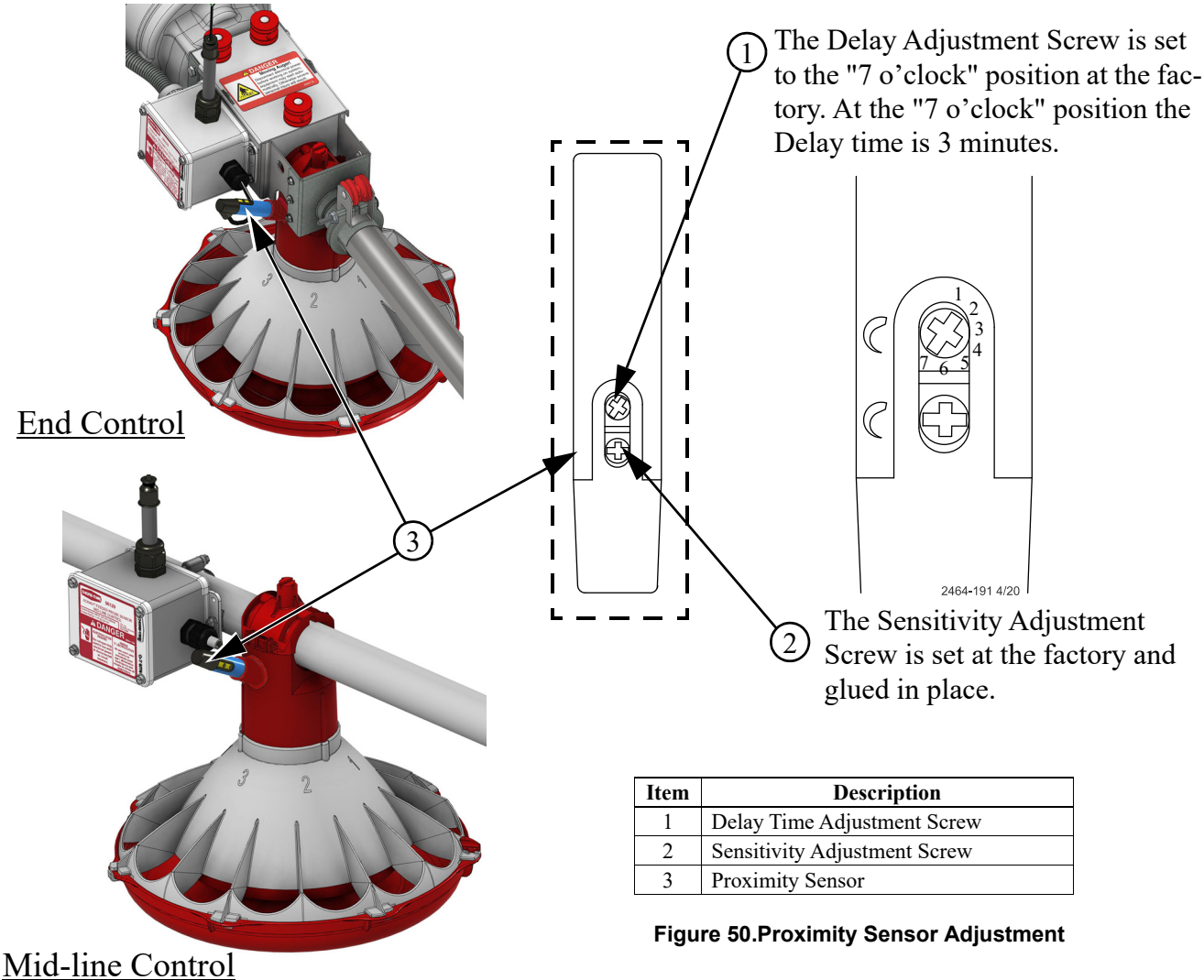
Proximity Sensor Adjustment

Sensitivity Timer: The Feeder Comes with the Sensitivity Timer adjustment Screw factory set and Glued in position. (Do not Adjust).

Time Delay: The Delay Time is Factory Set to 3 Minutes. **See Figure 50.**

To adjust the Time Delay:

•For less time — turn Time Delay Selector counter-clockwise.
•For more time — turn Time Delay Selector clockwise.



Item	Description
1	Delay Time Adjustment Screw
2	Sensitivity Adjustment Screw
3	Proximity Sensor

Figure 50.Proximity Sensor 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.

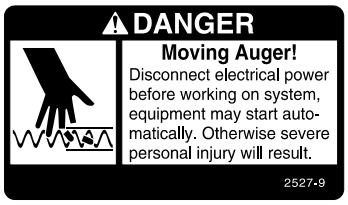
Remove all feed from the feeder when there are no birds in the house and when the building is washed and disinfected.

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.

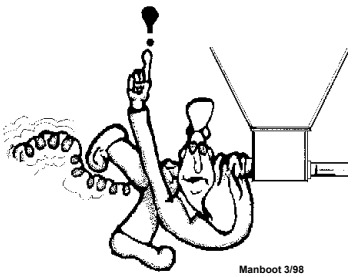
If the system must be disassembled, extreme caution must be used to prevent injury from springing auger. Refer to **Figure 51.**



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.

BE CAREFUL WHEN WORKING WITH AUGER!



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 **(See Figure 51.)**

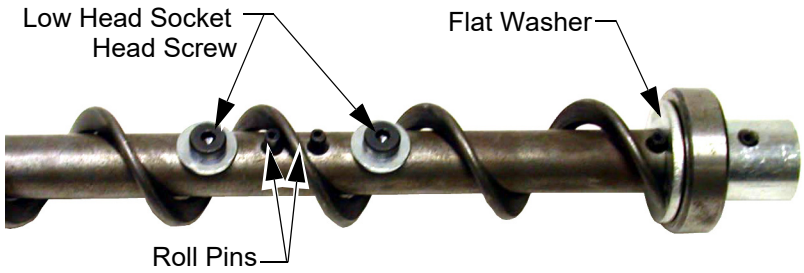


Figure 51.Auger and Anchor Bearing Connection

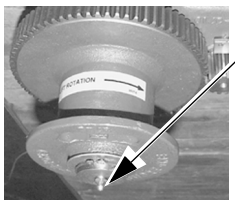
2. **Carefully** remove the locking pliers while holding onto the Anchor and Bearing Assembly and auger securely. **Slowly** ease the auger back into the tube. Use caution. If the auger is allowed to spring back, the bearing race may crack.
   Install the Bearing Retainer and fasten with a tube clamp.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

Power Lift Winch Maintenance

Refer to **Figure 52.**

Grease the winch every 6 months with 1 to 2 shots of common industrial or automotive grease.

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



Grease the Power Lift Winch every 6 months with 1 to 2 shots of common industrial or automotive grease. **DO NOT OVER GREASE!**

Figure 52.Maintenance to the Power Lift Winch

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

Management

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 53.)** 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 53.)**

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.

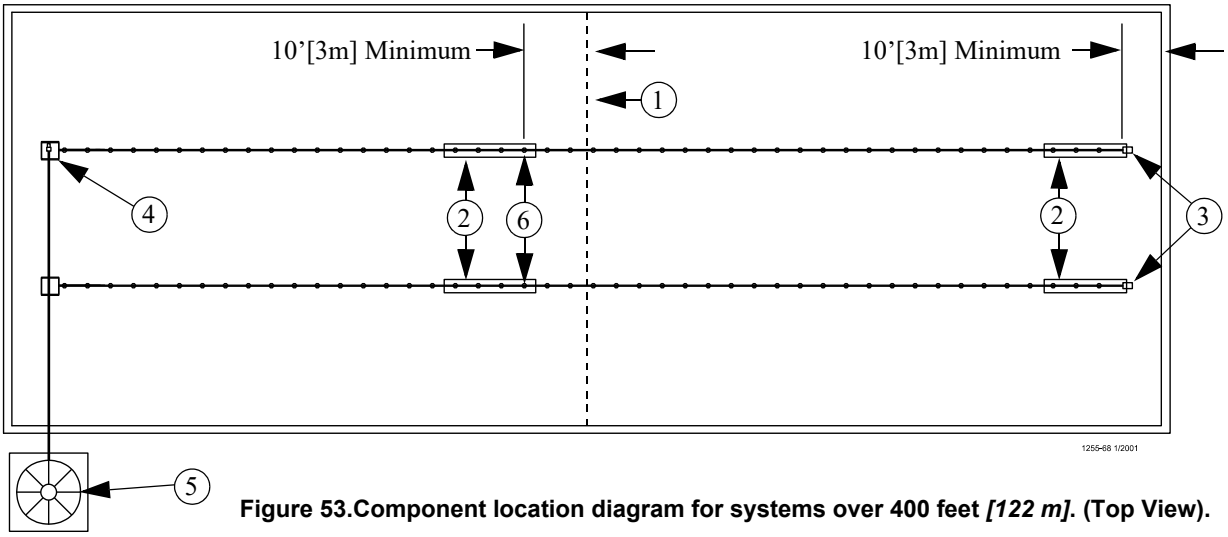
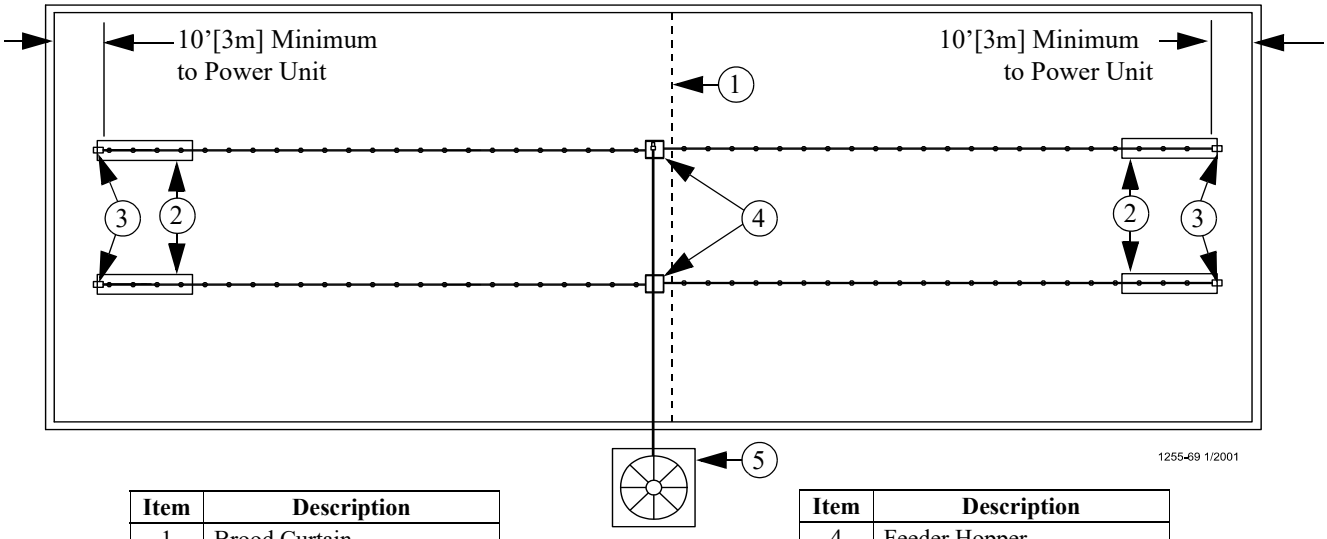


Figure 53.Component location diagram for systems over 400 feet *[122 m]*. (Top View).



Item	Description
1	Brood Curtain
2	Control Tube
3	End Control and Power Unit

Item	Description
4	Feeder Hopper
5	Feed Bin
6	Midline Control

Figure 53.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.

General Operation of the KONAVI® Feeders

These recommendations are the guideline to aid producers with the use of the feeding system. With experience a feeding program will be developed to enhance the feeding systems performance. Several factors such as feed content, type of birds, climate, lighting programs, and etc. may dictate change from these recommendations.

The KONAVI® feeders have a feed flood windows which allows the feeder pan, when lowered to the floor, to be filled with feed for the brooding of young birds. Start young birds with the feeder line lowered 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.

When using KONAVI® feeders it is advisable but not necessary to provide supplemental feed to young birds during the first few days. The Pan height is shallow enough for birds to get feed from day 1. Non-supplemental feeding requires additional feeding space and planning when choosing house layout. This is especially true when partial house brooding is used (refer to **"Initial Start-up of the Feeding System" on page 45**). Supplemental feeders such as the CHORE-TIME® E-Z START™ Chick Feeder, provide extra feeding space and access to the feed.

With the feeders lowered to the floor and the feed flood windows open, the operation of the feeder will allow a high level of feed to be placed into the feed pans making it easy for the birds to find feed, adapt to the feeder, and begin to eat.

Do not operate the feeding system on automatic (full demand feed) when the feed windows are open. Chore-Time recommends opening the feed windows for the first 3 to 5 days (max). The feeders will need to be operated at least 2 times a day for the first 5 days, and thereafter, 3 times a day or more as needed, while the windows are open. If it is not possible to operate the feeder manually 1-3 times a day during the brood time (windows open), then a time clock should be utilized to limit the number of times and length of time the feeder can operate. Failure to do one of the above will create the possibility of an excessive high feed level in the feed pans and the birds to waste feed.

DO NOT OPERATE THE FEEDING SYSTEM ON AUTOMATIC (FULL FEED) WHEN THE FEED WINDOWS ARE OPEN.

As the birds grow and become acclimated to the feeder pans, the feeder will need to be raised to the grow-out position. Before raising the feeder, it is recommended to allow the birds to eat the feed level down below the feed flood windows. This will ease the process of the feed flood windows closing properly.

Use the suspension system to raise the feeder(s) line. As the feeder is raised the feed flood windows will close. Continue raising the feeder lines until the feed pans just begin to clear the floor or litter.

IMPORTANT: When raising the feeder to the grow-out position, make sure the feed pans are to the point of just clearing the floor.

This will insure the feed will properly flow out into the feeder pan. When the feeder is raised to just clear the litter, there may a few places where the litter is lower and the pans seem too high. Do not be concerned as the birds will level the litter and at this young bird age, there will be sufficient feeder space.

Feeder Pan Setting

The feeders should be set on the #2 position for most applications. The adjustment settings are easy to understand and change. Setting numbers are embossed on both sides of the grill so they may be easily seen from either side of the feeder line. **(See Figure 54.)** Feed texture and consistency, type of bird, or other variables may make it necessary to change to another feed setting position. The combination of proper pan height, feeder setting, and feeder operation will result in optimum feeder performance. **(See Figure 55.)** The operator will learn what performs best for his/her situation with experience.

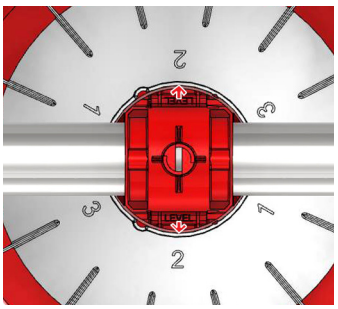


Figure 54.Feeder Pan Setting

End Control Pans

At installation time, the end control was placed to 10 feet *[3 m]* from the end of the building to allow the birds access around the end of the feeder line.

The End Control Pan should be set to the #1 position. This ensures that the Feed will be consumed in the Control Pan, calling for feed to the rest of the Feed Line.

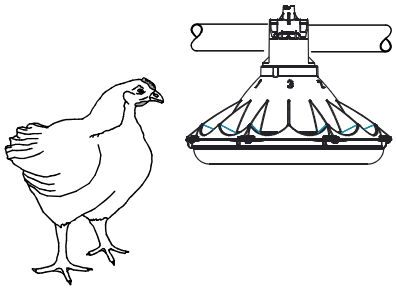


Figure 55.Feeder Pan height adjustment

Mid Line Control Pan

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.

Controlling the Feeders (optional equipment)

A time clock control is used with the feeding system to reduce excessive feeder operation time and limit feed wastage. The basic use of a time clock control is to allow periods of time during the day for the birds to reduce the feed level in the feeder pans and to limit the possibility of the birds creating a high feed level and wasting feed. This is not to be confused with lighting programs that have become very common place. If lighting or intermittent lighting programs are to be used, the use of the time clock control will be limited to just the light period. **Caution should be used to not restrict the feed from the birds during the light period.** Experience with the feeding system will determine how the time clock control is used.

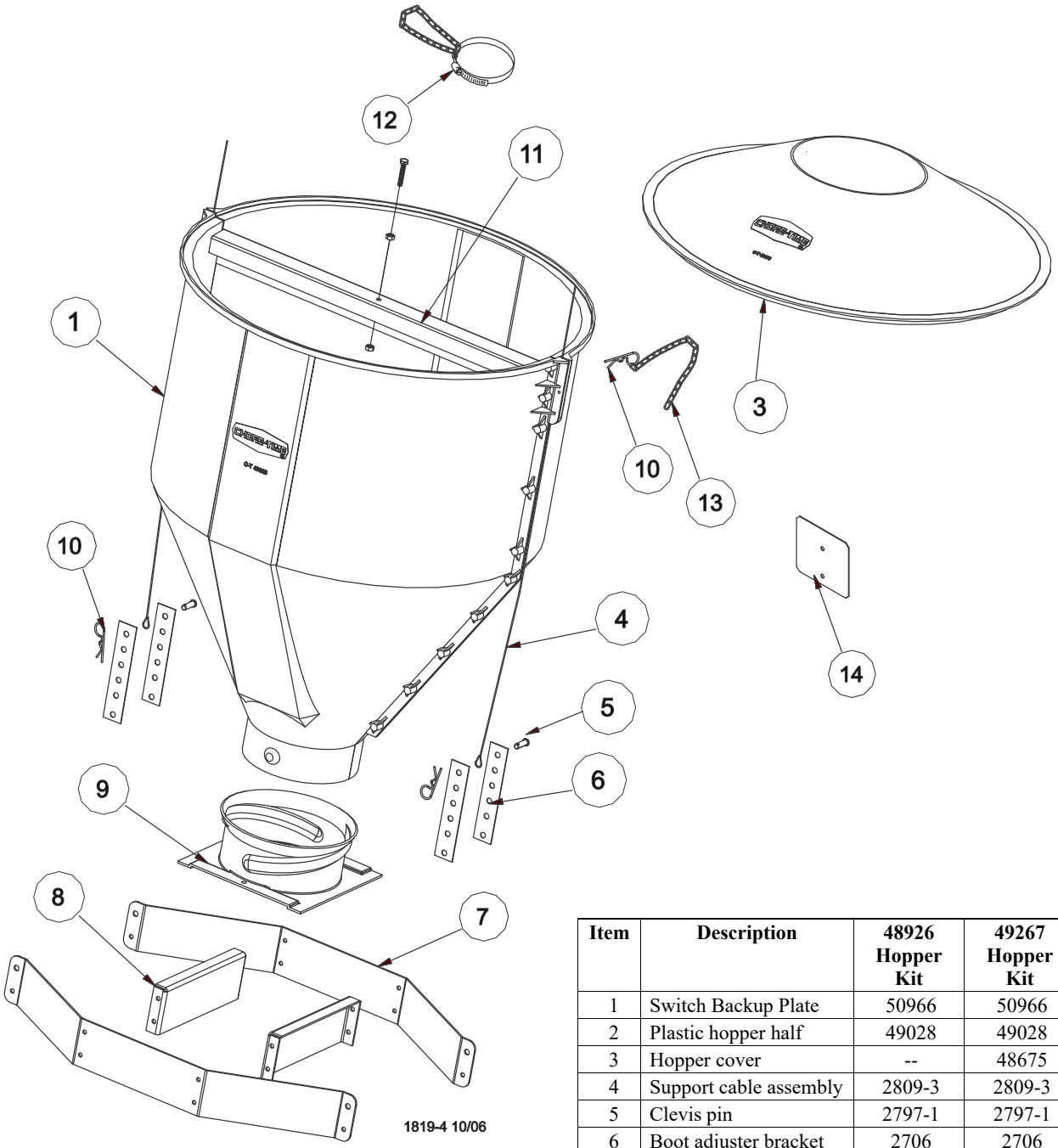
The KONAVI® Feeding Systems may be controlled by the #34385 Control Panel or the #34574 Time Clock Control. Refer to the instructions supplied with each control for information.

Electro-guard Operation

The electro-guard chargers should be operated on a separate electrical circuit so the anti-roost system can be shut off using a switch next to the entrance door when someone enters the building. Birds are less likely to become wild and flighty if the anti-roost is off when people are in the building.

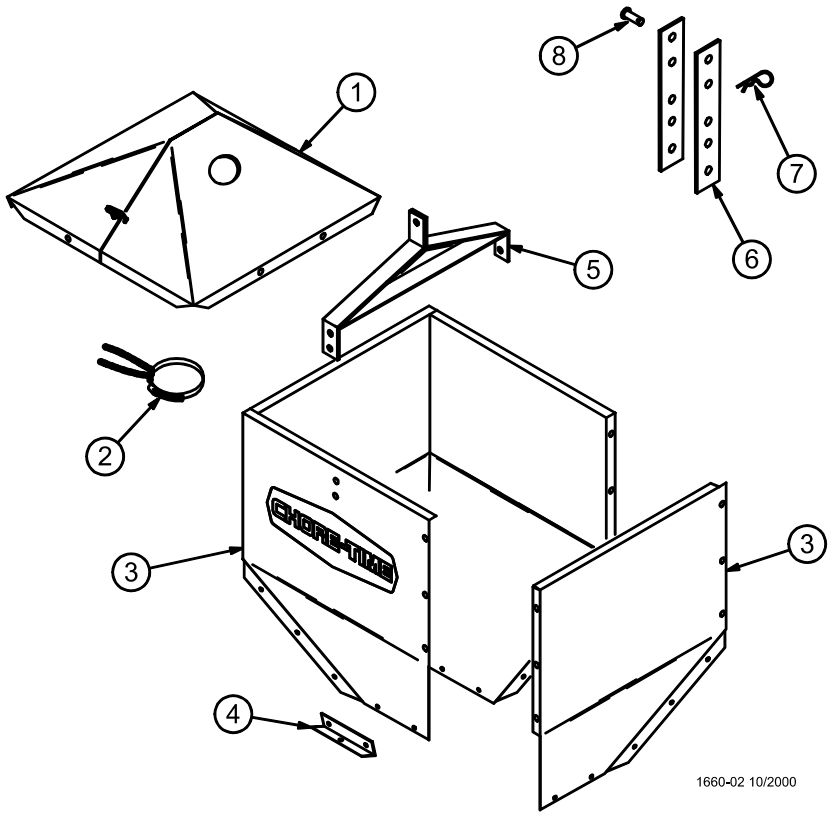
Parts List

150# Plastic Hopper



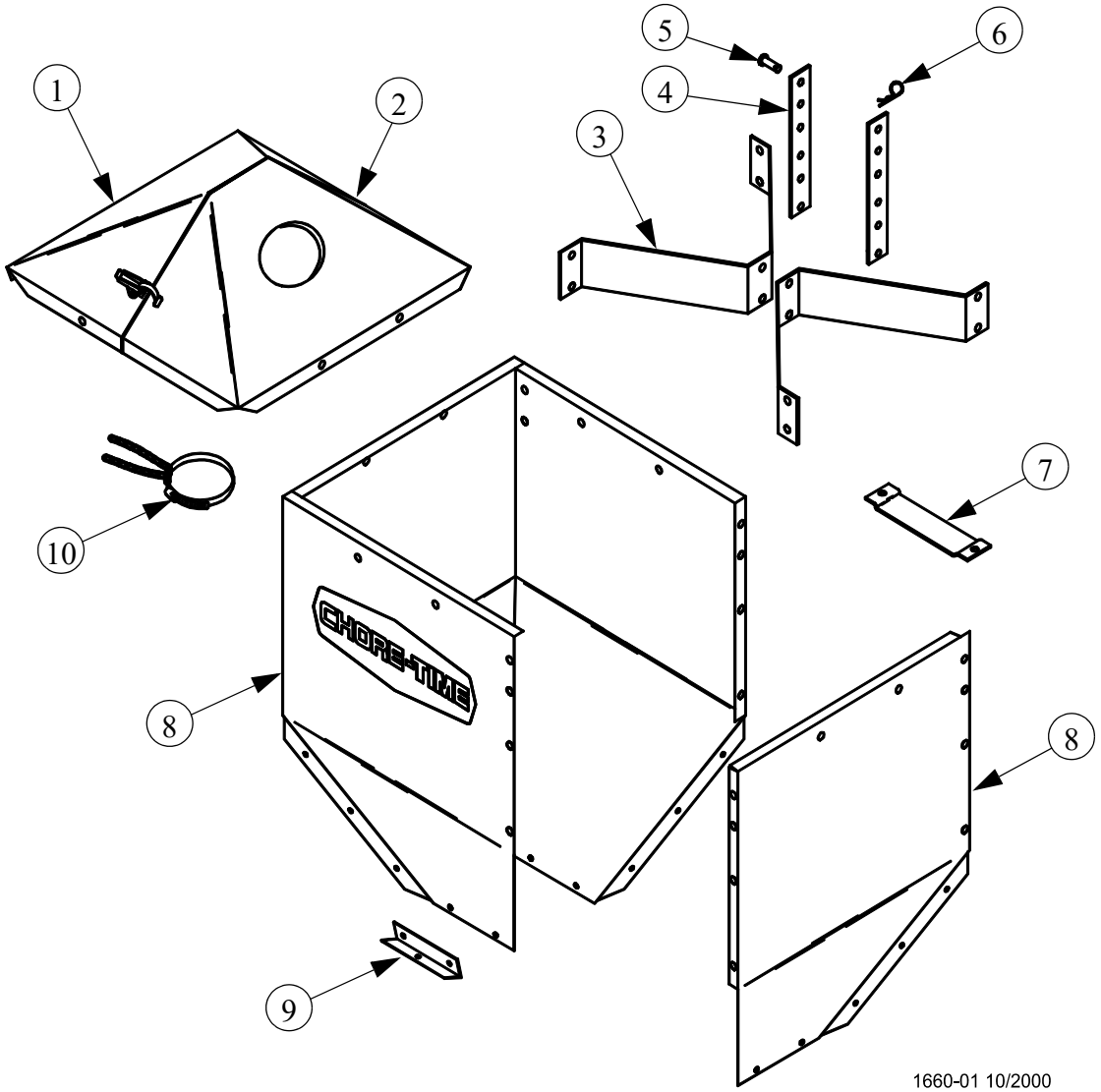
Item	Description	48926 Hopper Kit	49267 Hopper Kit
1	Switch Backup Plate	50966	50966
2	Plastic hopper half	49028	49028
3	Hopper cover	--	48675
4	Support cable assembly	2809-3	2809-3
5	Clevis pin	2797-1	2797-1
6	Boot adjuster bracket	2706	2706
7	Suspension angles	48679	48679
8	Suspension brace	48680	48680
9	Twist lock collar	49041	49041
10	Hair pin	2664	2664
11	Cross brace	49029	49029
12	Drop tube support	14367	14367
13*	Chain	2128	2128
14	Switch Backup Plate	50966	50966
*Item must be ordered in either 100 ft or 250 ft quantities, 2128-100 is 100 ft and 2128-250 is 250 ft.			

200# Hopper Components



		7941 Hopper Assembly	28358 Hopper Ass'y with cover
Item	**Description**	**Part No.**	
1	Hopper Cover	--	28206
2	Tube Support Assembly	14367	14367
3	Hopper Side	2680	2680
4	Boot Hanger	2671	2671
5	Hanger Bracket Assembly	2681	2681
6	Adjustment Bracket	2706	2706
7	Hair Pin	2664	2664
8	Clevis Pin, 5/16 x 1"	2797-1	2797-1

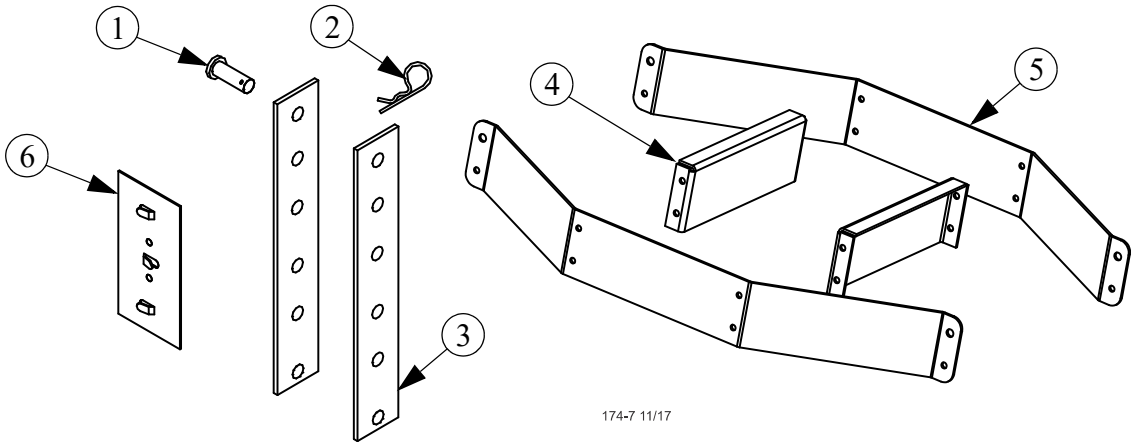
100 # Hopper Components



		28210 100 lb. Hopper Cover Ass'y.	28220 100 lb. Hopper Assembly (No Cover)	28240** 100 lb. Hopper & Cover Assembly
Key	**Description**	**Part No.**		
1	Hopper Cover (w/o hole)	28211	--	
2	Hopper Cover (w/ hole)	28212	--	
3	Hopper Hanger	--	28165	
4*	Adjustment Bracket	--	2706	
5*	Clevis Pin, 5/16" x 1"	--	2797-1	
6*	Hair Pin	--	2664	
7	H.L.C Mounting Bracket	--	28267	
8	Hopper Side (w/ hole)	--	28164	
9*	Boot Hanger	--	28168	
10*	Tube Support Assembly	--	14367	
--	100 lb. Hopper Cover Ass'y.	--	--	28210
--	100 lb. Hopper Ass'y	--	--	28220
*Included in parts package (part number 28167)				

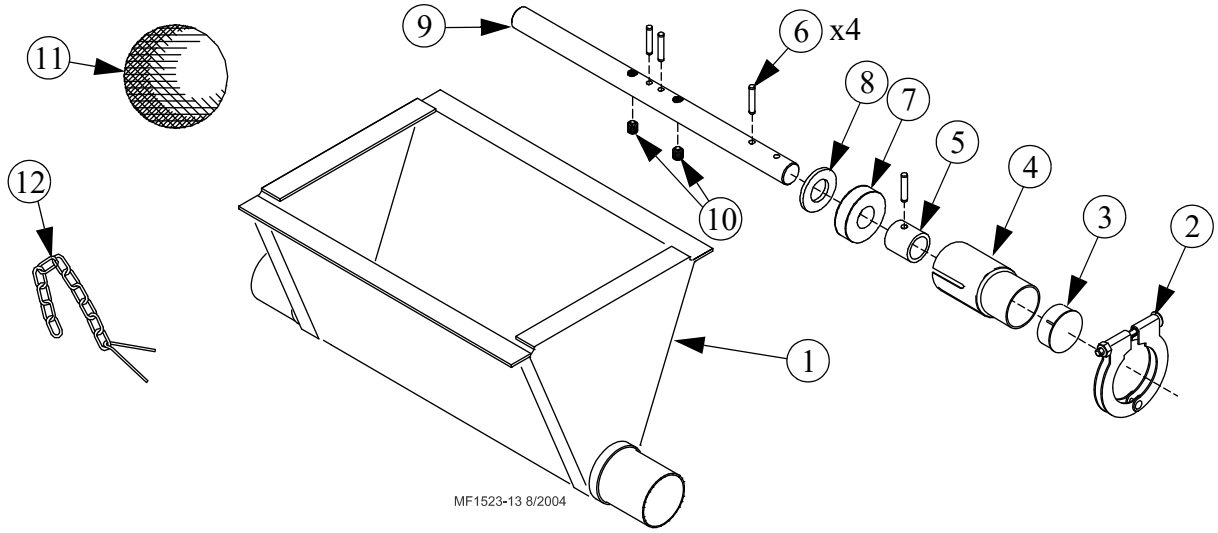
Hopper Mount Bracket

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

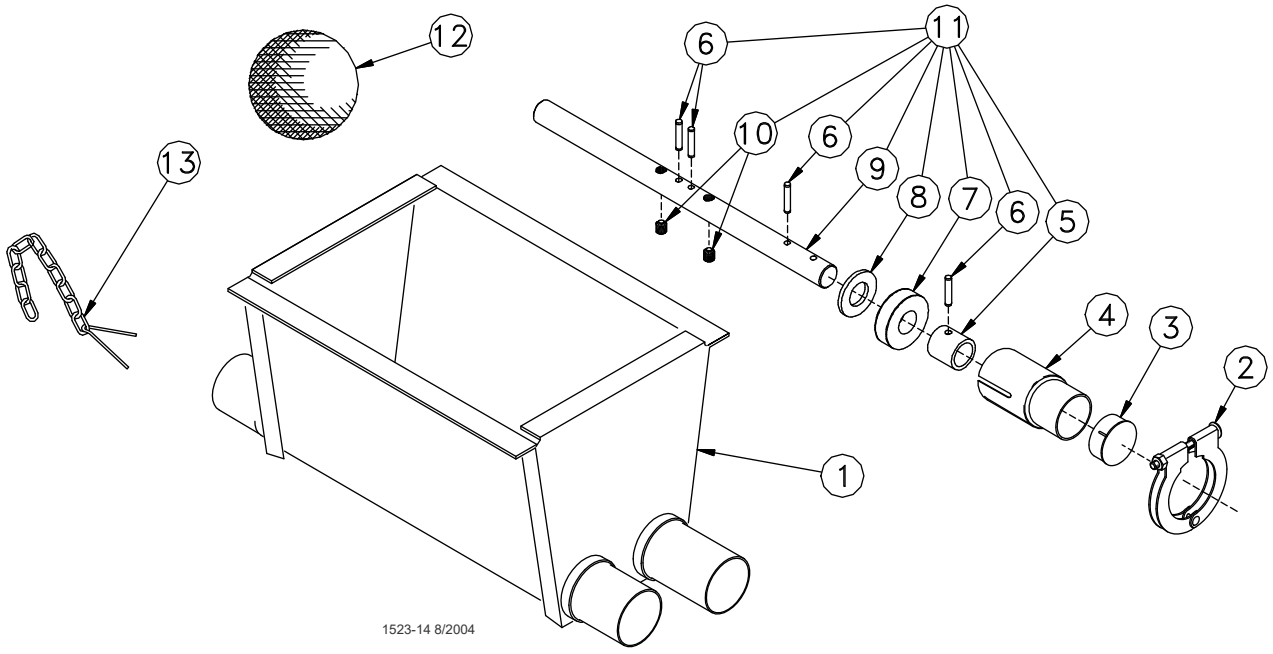


Item	Description	Part No.
1	Boot Weldment	3760
2	Tube Clamp	24063
3	Cap	29373
4	Outlet Tube	4556
5*	Sleeve	5648
6*	3/16 x 1" Pin	2960-1
7*	Bearing	2689
8*	Washer	2955-14

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

*These parts included in p/n 39372 Anchor and Bearing Assembly

Twin Boot Components Part No. 6824

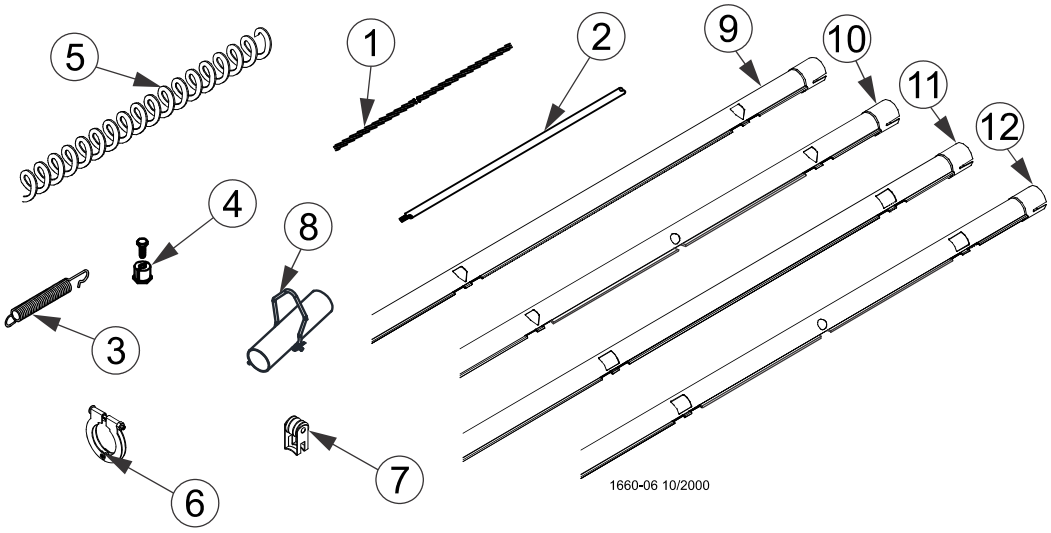


Item	Description	Part No.
1	Boot Weldment	3760
2	Tube Clamp	24063
3	Cap	29373
4	Outlet Tube	4556
5	Sleeve	5648
6	3/16 x 1" Pin	2960-1
7	Bearing	2689
8	Washer	2955-14

Item	Description	Part No.
9	Anchor	38540
10	5/16-18x7/8” Sock Hd Screw	47867
11	Anchor and Bearing Ass’y	39372
12	Cannonball	3531
13	Latch Pin Assembly	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



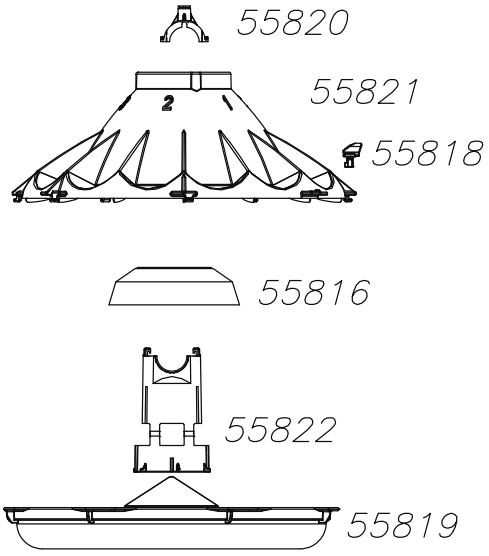
Item	Description	Part No.
1	1/16" Cable	1922
2	Charger Wire (165') Charger Wire (330')	28994-165 28994-330
3	Spring	7551
4	1/16" Cable Clamp	1826
5*	Auger	6820-0
6	Tube Clamp	24063
7	Anti-Roost Bracket	24060
8	Hanger KIT	51763
9	Standard Feeder Tube-1 3/4" Roll Form 9', 4 Hole Tube 10', 3 Hole Tube 10', 4 Hole Tube 10’, 6 Hole Tube 10’, 5 Hole Tube 12', 3 Hole Tube 12', 4 Hole Tube 12', 5 Hole Tube	 6854-1 6854-5 6854-4 6854-23 6854-24 6854-8 6854-7 6854-6
10	Standard Feeder Tube-1 3/4" with Chick Holes (EZ. Holes) 9’, 4 Hole, 2 EZ Holes 9’, 4 Hole, 4 EZ Holes 10’, 4 Hole, 2 EZ Holes 10’, 3 Hole, 3 EZ Holes 10’, 4 Hole, 4 EZ Holes 12’, 4 Hole, 4 EZ Holes 12’, 5 Hole, 5 EZ Holes 12’, 4 Hole, 2 EZ Holes 12’, 5 Hole, 2 EZ Holes	 55997-6 55997-1 55997-7 55997-5 55997-2 55997-3 55997-4 55997-8 55997-9
11	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
12	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.

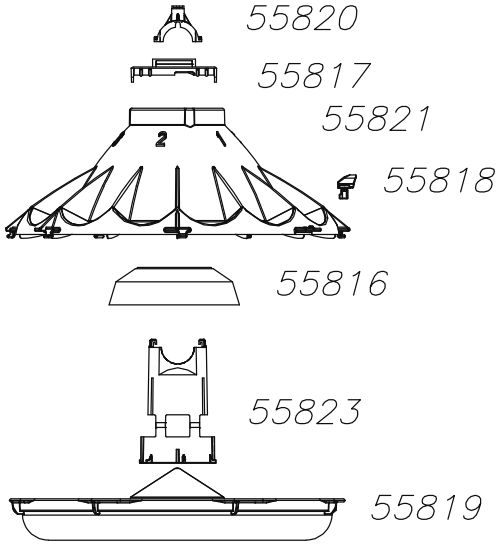
KONAVI® Pan Assembly

All KONAVI® Pan Assemblies come with a Two Piece Top.

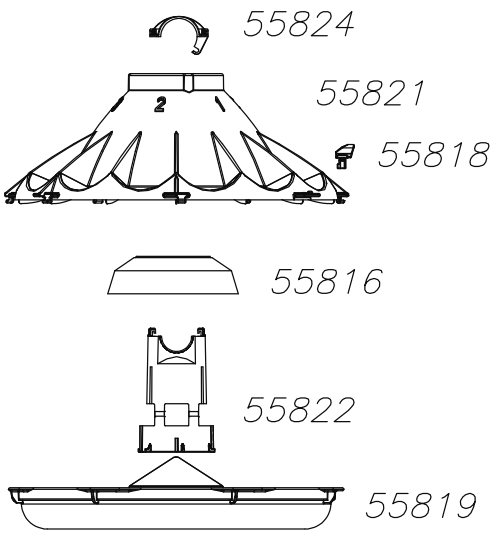
KONAVI® Broiler Pan
Part No. 55825



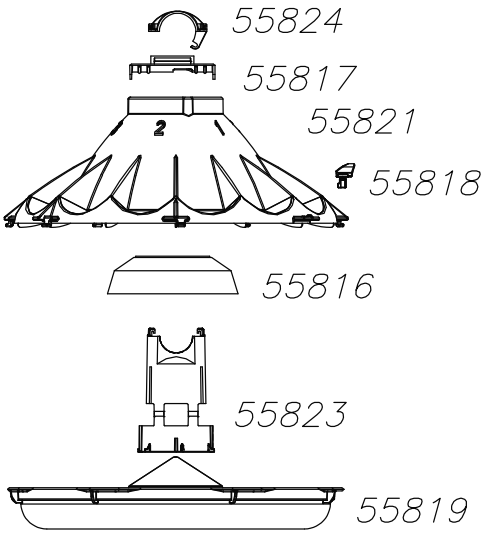
KONAVI® Broiler Pan With Slide Shutoff
Part No. 55826



KONAVI® Colony Pan
Part No. 55827

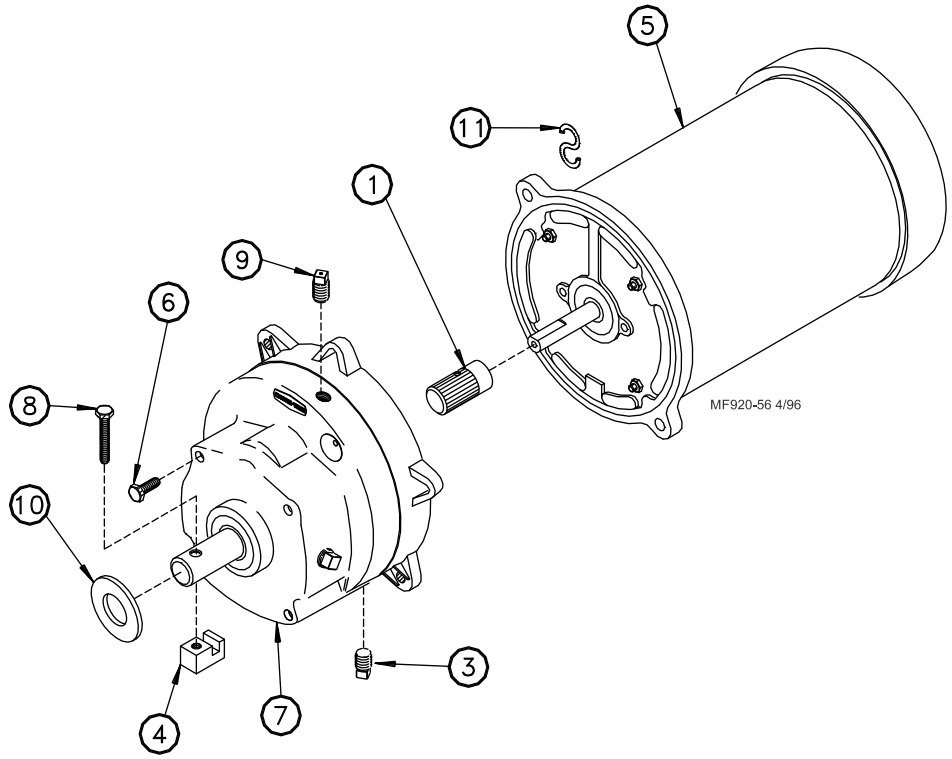


KONAVI® Colony Pan With Slide Shut-off
Part No. 55828



2464-146 1/2018

Power Unit Assemblies

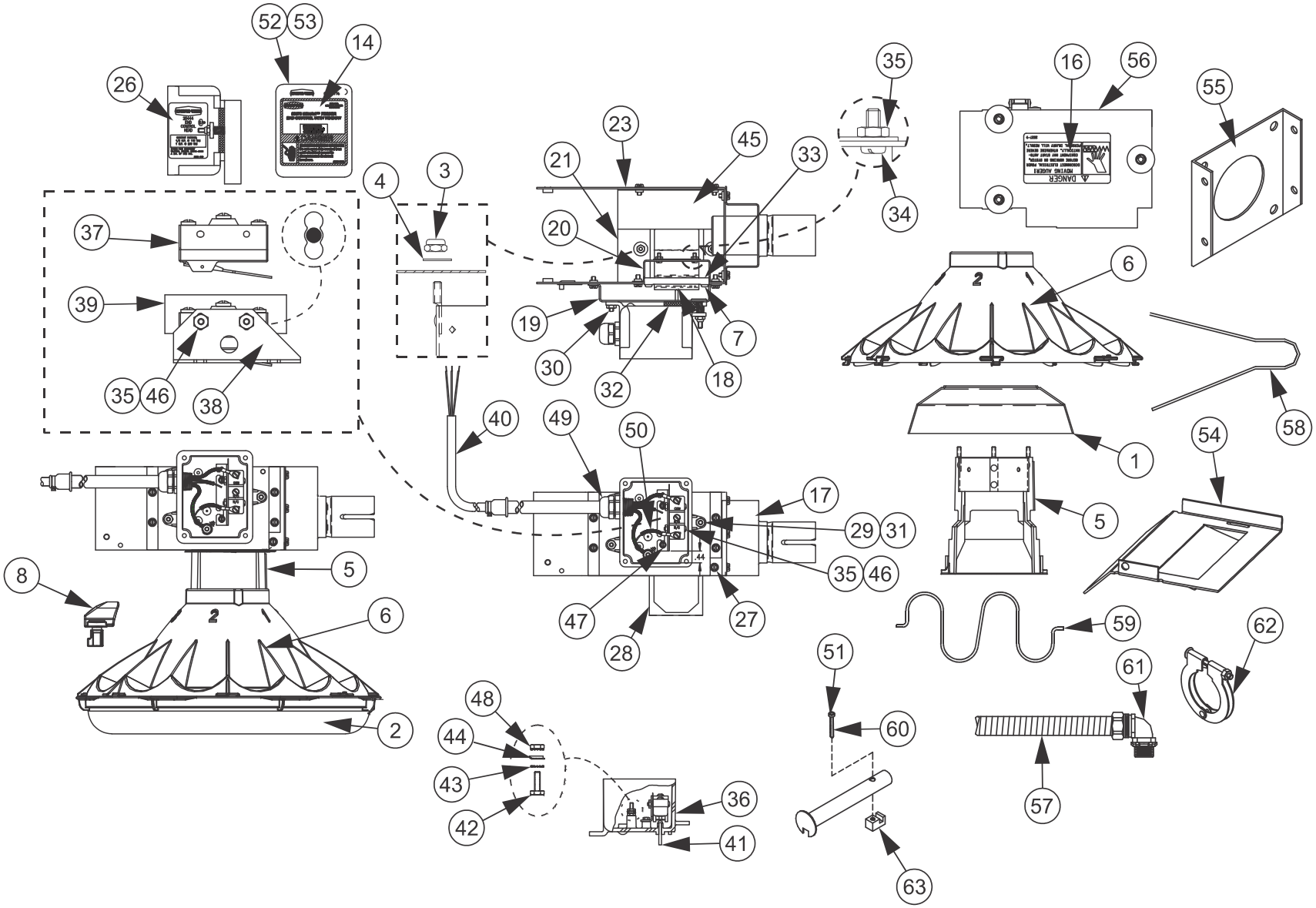


Item	Description	3259-84 Part No.	3259-85 Part No.	3259-98 Part No.	3259-100 Part No.	3259-128 Part No.
1	Pinion Assembly	5046	5046	5046	5046	5046
2	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -
3	Pipe Plug (magnetic)	30160	30160	30160	30160	30160
4	Driver Block	4642	4642	4642	4642	4642
5	Motor	4229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

Power Unit Assembly Part Numbers

Part No.	HP	RPM	Phase	Hz	Voltage	Usages
3259-84	1/3 HP	348 RPM	Single Phase	60 Hz	230	
3259-85	1/2 HP	348 RPM	Single Phase	60 Hz	230	
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

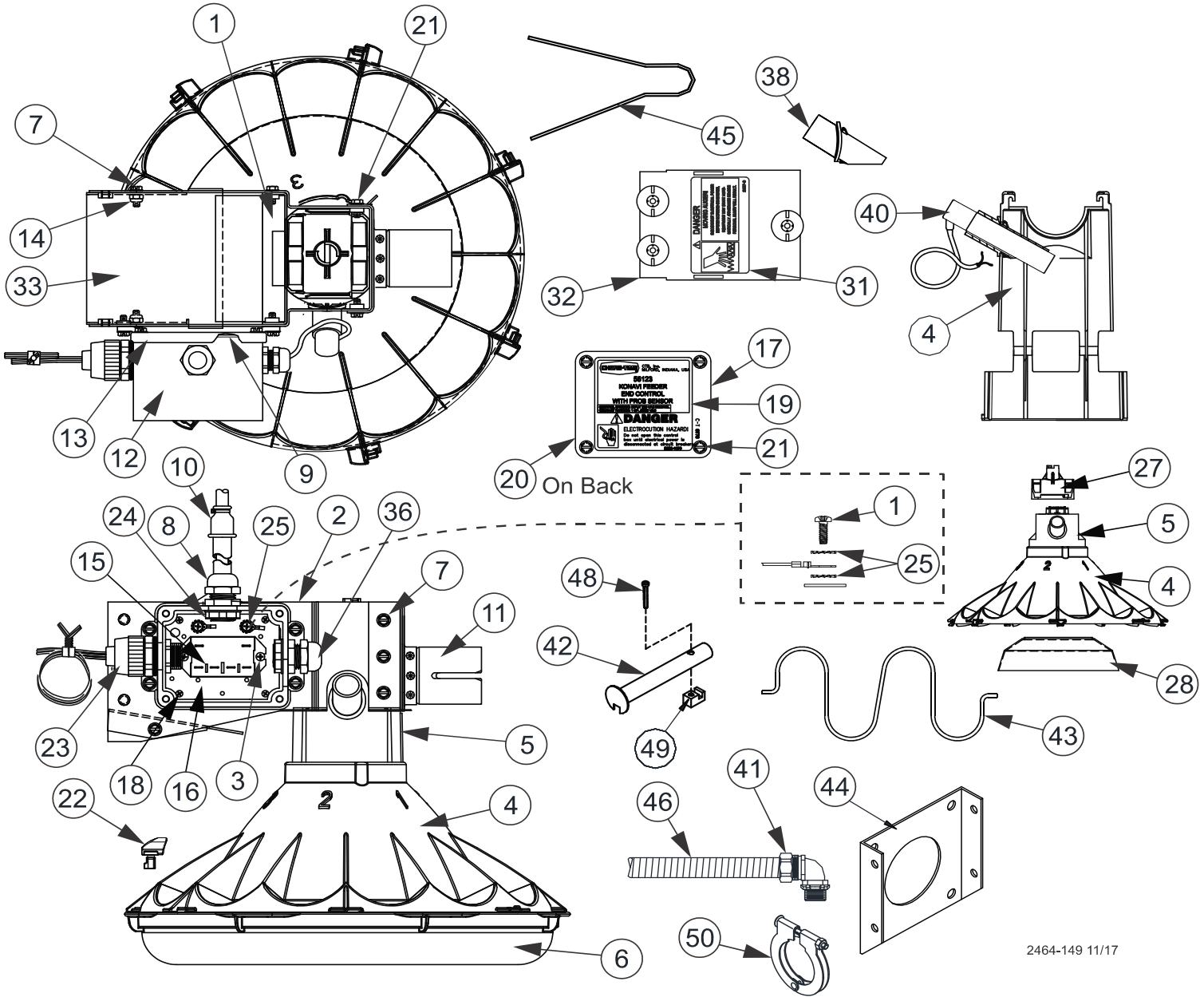
KONAVI® Mechanical End Control 56070



Item	Part No.	Description
1	55816	Feed Cone Skirt
2	55819	KONAVI® Feeder Pan
3	34019	10-24 Lock Nut
4	6723	Flat Washer
5	56078	Machined Inner Cone
6	55821	Chick Excluder
7	34660	6-32 Phil. Pan Hd. Screw
8	55818	Quarter Turn Screw
14	2529-1180	End Control Decal
16	2527-9	Danger Decal
17	24683	Support Bracket
18	56076	Paddle
19	25084	Switch Box Mount
20	25433	Stop Panel
21	40749	Switch Bracket
23	14434	Control Body
26	2529-249	Control Decal
27	4416-7	10-24 x .375 Hx. WH. Screw
28	25318	Mylar Assembly
29	6963	10-32 Lock Nut
30	4297	10-32 Hx. Nut
31	6972	Spring
32	6968-1	Gasket
33	25045	Paddle Retainer
34	4402-3	6-32 Screw
35	771	6-32 Nut
36	24702	Switch Box
37	46091	Actuator Switch

Item	Part No.	Description
38	46122	Switch Bracket
39	1907-5	Switch Insulation
40	25495	Control Cord Assembly
41	8757	1/8 Round Head Rivet
42	7007	10-32 Stud
43	305	Lock Washer
44	5775	Cup Washer
45	41363	Panel Deflector
46	1921	6-32 Screw
47	46011	6 x 3/8 Screw
48	40851	10-32 Keps Nut
49	24685	1/2 Water Tight Connector
50	25499W	Wire Assembly
51	44794	Drive Tube Weldment
52	6777	Switch Box Gasket
53	6776	Switch Box Cover
54	14432	Bottom Cover
55	4188	Anchor Plate
56	24682	Control Assembly Cover
57	26982-1	14" Flexible Conduit
58	2798	Anti-Roost Guard
59	48511	Spring Lock
60	5083-8	Socket Head Screw
61*	23810	90° 1/2" Liquid Tight Connector
62*	24062	Tube Clamp
63*	4642	Drive Block
*These parts included in 40809 Parts Package		

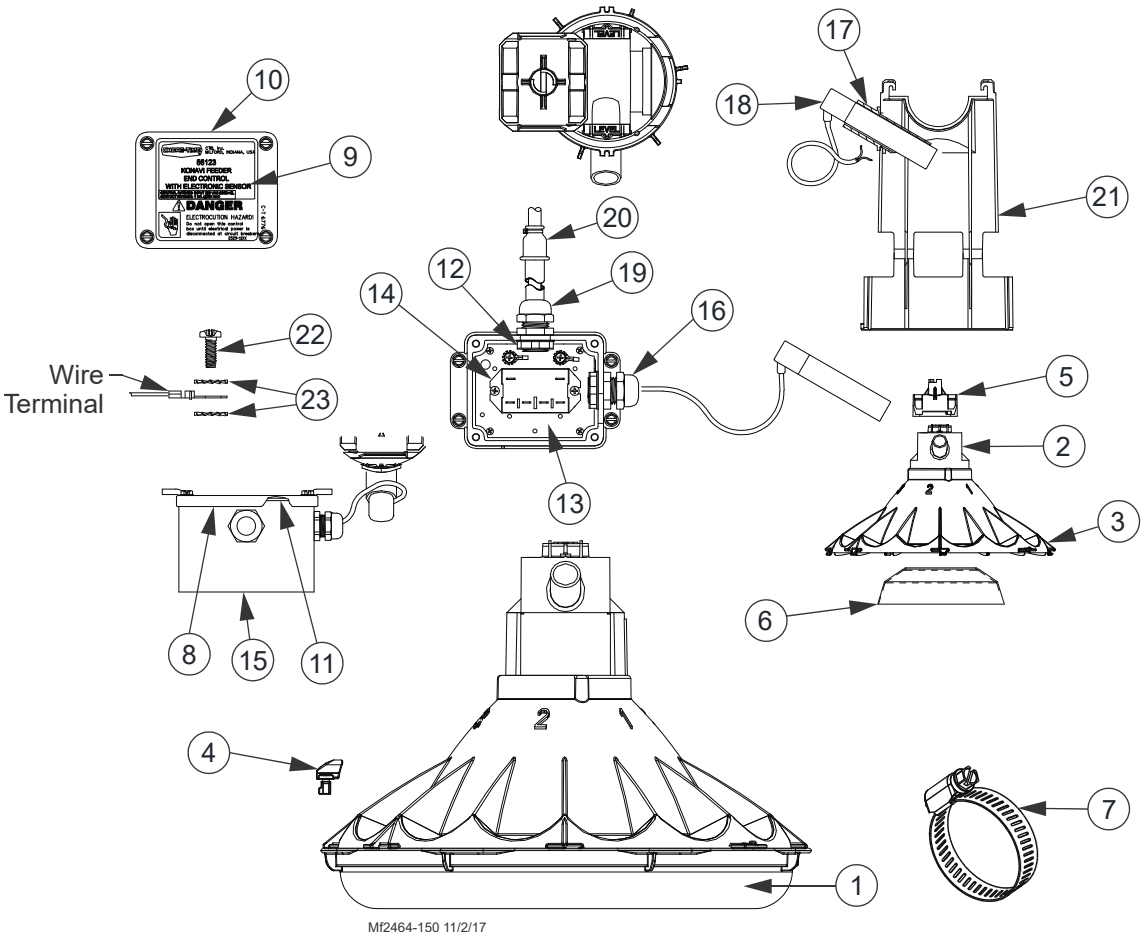
KONAVI® Proximity Sensor End Control 56123



Item	Part No.	Description
1	48081	Bracket Support
2	56126	Control Body Sensor
3	34660	6-32 x .375 SFTP Screw
4	55821	Chick Excluder
5	56125	Machined Support Cone
6	55819	KONAVI® Feeder Pan
7	4416-7	10-24 Hex Screw
8	24685	Water Tight Connector
9	6777	Switch Box Gasket
10	4999-116	Cord Assembly
11	56083	Tube Weldment
12	42627-12	General Purpose Box
13	6956	Box Mounting Cover
14	34019	10-24 Nylon Hx Lock Nut
15	28904	Relay
16	52316-2	Control Panel Relay Mount
17	6776	Terminal Box Cover
18	35493	4-24 x /375 Phil PH Screw
19	2529-1181	End Control Decal
20	2526-377	Date of Manufacture Decal
21	28075	#10 x .5 Screw
22	55818	Quarter Turn Screw
23	26980	Liquid Tight Fitting

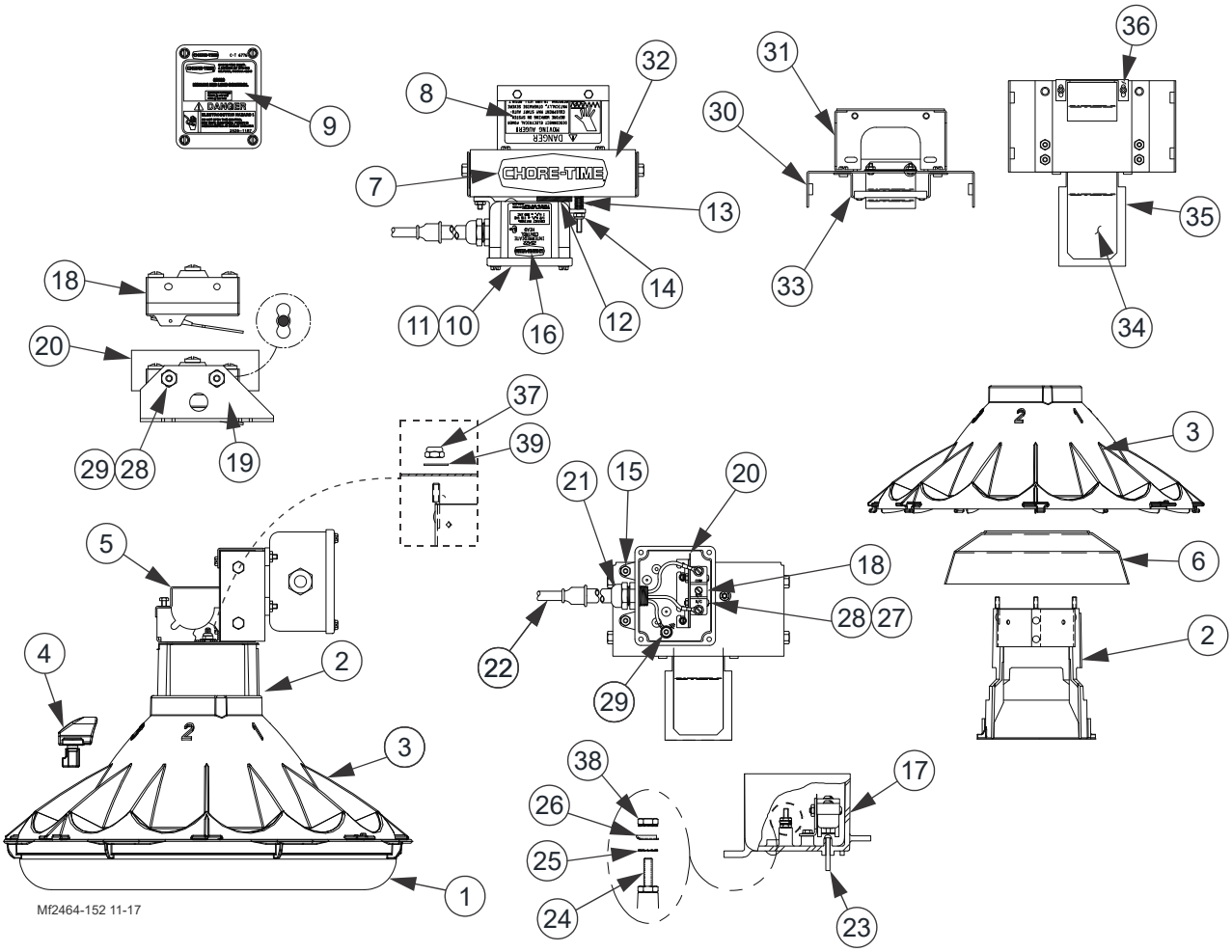
Item	Part No.	Description
24	43662	.50 Conduit Lock Nut
25	305	#10 Ext. Lock Washer
26	23779	Liquid Tight Connector
27	55820	KONAVI® Two Piece Top
28	55816	Feed Cone Skirt
31	2527-9	Danger Decal
32	48491	Top Cover w/Insulators
33	48086	End Control Bottom Cover
38	56084	Sensor Switch Holder
40	56275	Proximity Sensor
41*	3357	.50 Conduit Lock Nut
42	44794	Drive Tube Weldment
43	48511	Spring Lock
44	4188	Anchor Plate
45	2798	Anti-Roost Guard
46	26981	Flex Conduit
47*	23810	90° Water Tight Connector
48	5083-8	Socket Head Screw
49	4642	Drive Block
50*	24062	1.75" Tube Clamp
*These parts included in 43233 Parts Package		

KONAVI® 56129 Proximity Sensor Mid Line Control



Item	Part No.	Description
1	55819	KONAVI® Feeder Pan
2	56078	KONAVI® Support Cone Assembly
3	55821	KONAVI® Chick Excluder
4	55818	KONAVI® Quarter Turn Screw
5	55820	KONAVI® Two Piece Top
6	55816	KONAVI® Feeder Skirt
7	3527	1.875 Hose Clamp
8	6956	Terminal Cover
9	2529-1187	Control Decal
10	6776	Terminal Box Cover
11	6777	Switch Box Gasket
12	43662	.50 Conduit Lock Nut
13	52316-2	Control Panel Relay Mount
14	28904	Relay
15	42627-12	General Purpose Box
16	13477	Small Water Tight
17	56084	Switch Holder
18	56275	Proximity Sensor
19	24685	1/2" Watertight Connector
20	23779	Liquid Tight Connector
21	55822	KONAVI® Feed Cone
22	34660	6-32 x 3/8 Phil. Pan. Hd. Screw
23	305	Ext. Lock Washer

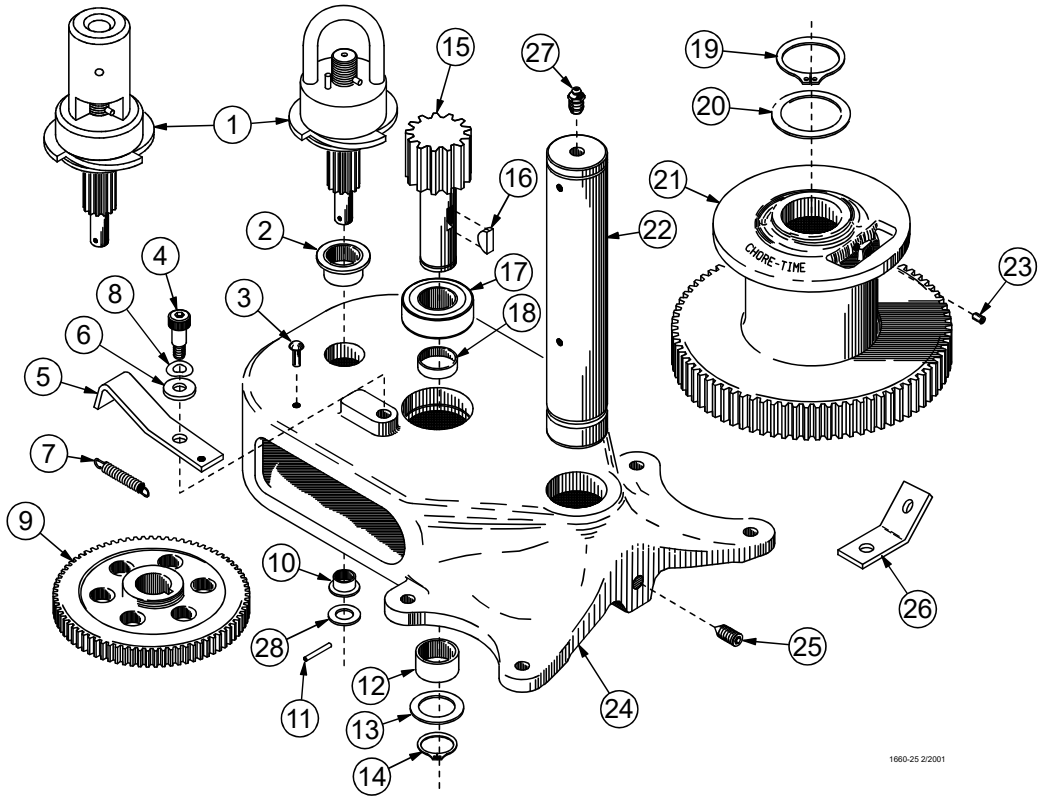
KONAVI® MECHANICAL MID LINE CONTROL 56130



Item	Part No.	Description
1	55819	KONAVI® Feeder Pan
2	56078	KONAVI® Support Cone Assembly
3	55821	KONAVI® Chick Excluder
4	55818	KONAVI® Quarter Turn Screw
5	14756	Retainer Tube
6	55816	KONAVI® Feeder Skirt
7	2525-2	CT Decal
8	2527-9	Danger Decal
9	2529-1187	Control Decal
10	6776	Switch Box Cover
11	6777	Switch Box Gasket
12	6968-1	Gasket
13	6972	Spring
14	6963	10-32 Lock Nut
15	4297	10-32 Hex Nut
16	2529-248	Control Decal
17	34842	Switch Box
18	46091	Actuator Switch
19	46122	Switch Bracket
20	1907-5	Switch Insulation
21	34685	1/2" Water Tight Connector

Item	Part No.	Description
22	4999-49	Cord Assembly
23	8757	1/8 x 1 Rivet
24	7007	10-32 Stud
25	305	Lock Washer
26	5775	Cup Washer
27	1921	6-32 x .875 Screw
28	771	6-32 Nut
29	46011	6-20 x .375 Screw
30	25046	Front Panel
31	41364	Tube Support
32	25047	Back Cover
33	25048	Switch Box Mount
34	56076	KONAVI® Paddle
35	25318	Mylar Assembly
36	25045	Paddle Retainer
37	34019	10-24 Lock Nut
38	40851	10-32 KEPSNut
39	6723	#10 Flat Washer

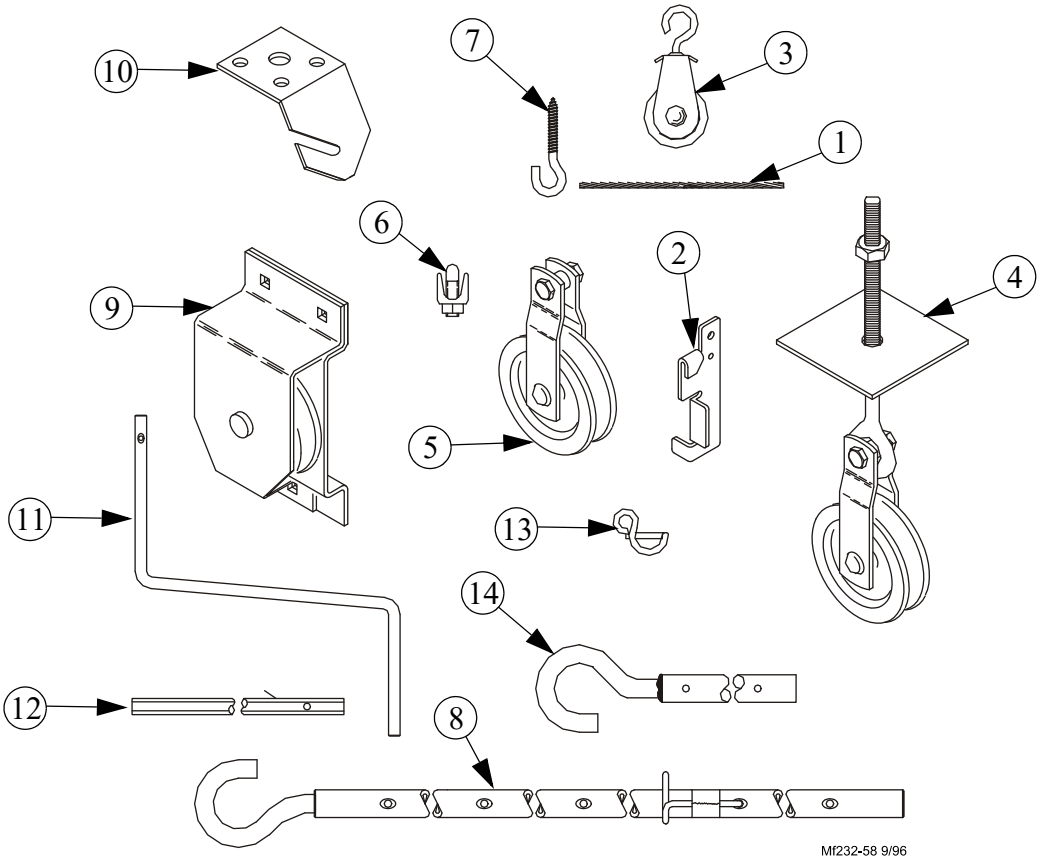
2883 Power Winch



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	Spiral 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



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	Pulley	2500
6	3/16" Cable Clamp	732
7	ATF 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
--	Full Line Suspension Kit	7948

Item 11 and Item 13 may be ordered as a kit under Part No. 2885.

Item 12 and Item 13 may be ordered as a kit under Part No. 2886

Item 11, 13 and 8 may be ordered as a kit under Part No. 47638.

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

MADE TO WORK.

BUILT TO LAST.®

Revisions to this Manual

Page No.	Description of Change	ECO
	Various Updates	34683

For additional parts and information, contact your nearest Chore-Time distributor or representative.
Find your nearest distributor at: www.choretime.com/contacts

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Milford, Indiana 46542-2000 USA
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Email: choretime@choretime.com
Internet: www.choretime.com