CHORE-TIME®

Installation Manual

for

ULTRAFLO® Breeder Feeder Feeding System

March 1995

MF827G86

WARRANTY INFORMATION

Chore-Time equipment warrants each new product manufactured by it to be free from defects in material or workmanship for one year from the date of initial installation by the original purchaser. If such a defect is found by Chore-Time to exist within the one year period, Chore-Time will, at its option, (a)repair or replace such product free of charge, F.O.B. the factory of manufacture, or (b) refund to the original purchaser the original purchase price, in lieu of such repair or replacement.

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

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

Conditions and limitations:

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

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

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

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

*See separate "WARRANTY ADDITION" as to these products

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

Support Information

The Chore-Time ULTRAFLO Breeder Feeder System is designed to feed breeder hens and pullets. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury and/or death.

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

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

Please include the names and address of your Chore-Time Distributor and installer.

CE

(CE-mark serial number)

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

Distributor's Name _____

Distributor's Address _____

Distributor's Phone _____ **Date of Purchase** _____

Installer's Name _____

Installer's Address _____

Installer's Phone _____ **Date of Installation** _____

System Specifications _____

Feed Delivery System Supplying _____

Tools needed to install your system include:

1. Regular Screwdriver
2. Allen Wrenches (Hex Key)
3. Box-End Wrenches
4. Drive Ratchet and Sockets
5. Locking Pliers
6. File (metal)
7. Abrasive Cut-off Saw (for steel systems only)
8. Oxy-Acetylene Torch and Brazing Rod
9. 1.5" Hole Saw
10. Screw-Hook Driver
11. Bolt Cutters or Hack Saw
12. Wire Cutters
13. Wire Strippers
14. Adequate Size and Quantity of Electrical Wire
15. Electrical Drill and Drill Bits
16. Another person to help!!

Table of Contents

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

SAFETY INFORMATION

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

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

Safety–Alert Symbol

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

Signal Words

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

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

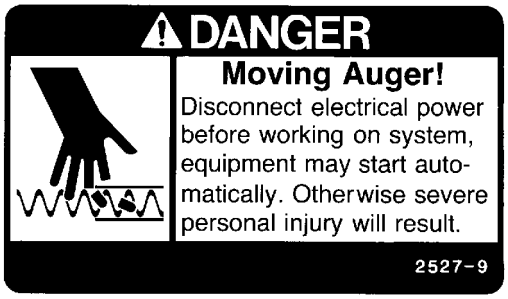
WARNING.....identifies hazards or unsafe practices which COULD result in severe personal injury or death.

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

DANGER—MOVING AUGER

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

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



DANGER—ELECTRICAL HAZARD

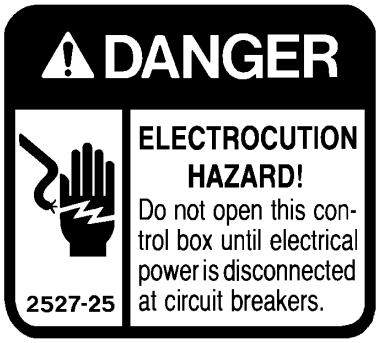
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

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

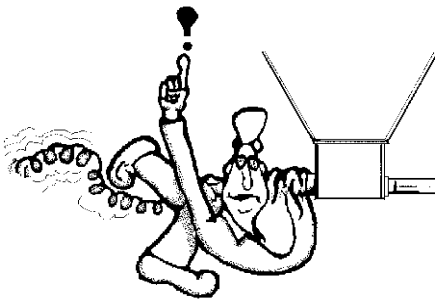
Ground all non-current carrying metal parts to guard against electrical shock.

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



SAFETY INFORMATION

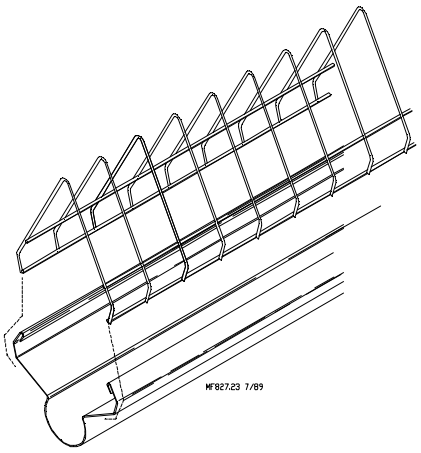
CAUTION



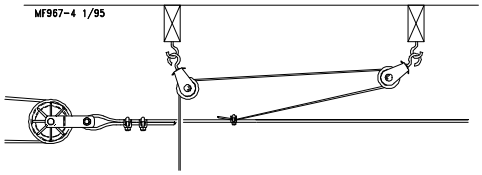
Use caution when working with the
Auger--springing auger may cause personal injury.

Glossary of Terms

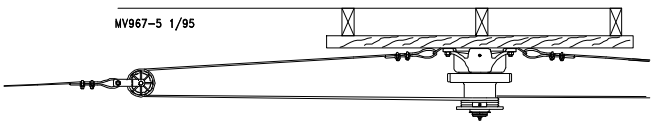
Trough & Grill . .. . .The ULTRAFLO is a trough feeder that uses an open auger to carry feed around the loop. The Grill is required to provide a uniform eating environment and also helps to prevent the trough from spreading.



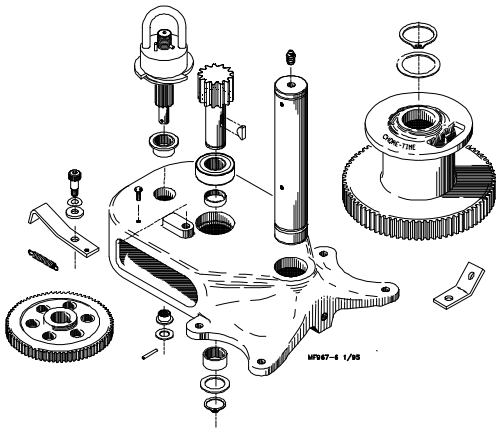
Throw-back:.. . .. . A cable/pulley arrangement that allows cable to be routed to a desired location.



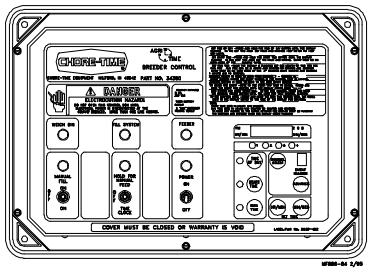
Double-back: . . .. .A cable/pulley arrangement that reduces the load on the Power Winch.



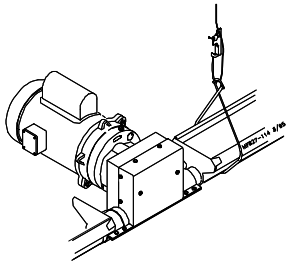
Power Lift: . .. . Red, cast iron winch used to raise and lower the feeder line(s). Operated by a hand crank or electric drill. Referred to as Power Winch.



Breeder Control . .. . The ULTRAFLO is controlled using the 34380 Breeder Control. The Breeder Control may be programmed to preset start times, run times, fill system start times, etc.



Power Unit & Driver Ass'y: . The Power Unit and Driver Assembly drive the auger delivery feed around the feeder loop.



Introduction

Chore-Time has designed the ULTRAFLO Breeder Feeder to feed breeder hens faster and with less stress than conventional feeders.

Feed is delivered to the hopper(s) by a Chore-Time FLEX-AUGER System. Feed is drawn out of the hoppers by the ULTRAFLO Breeder Feeder Auger. Chore-Time does not recommend feeding pellets with the ULTRAFLO Breeder Feeder.

The system is designed to feed 4-6 birds per foot (25 birds per meter) of trough. The feeder will deliver feed at a rate of 100 feet (30 m) per minute. The Breeder Feeder Auger will hold approximately 1/2 pound of feed per foot (.75 kg of feed per meter).

The auger serves as a stirring devise as it delivers feed around the loop.

The ULTRAFLO Breeder Feeder Control uses 4-Channel Breeder Control. The fill system and feeder line is controlled by separate channels. The length of run time will be set when the system is first operated. The length of run time is adjustable and may be set and changed at the Breeder Control.

Early in the rearing period the amount of feed to be fed each day may only fill part of the trough. Later in the rearing period the amount of feed to be fed may fill the trough once, but not fill all of the trough during the second serving.

Planning the System

Carefully planning the system prior to beginning the installation will save time and effort.

Adequate overhead structure must be provided to support the weight of the feeder, hoppers, power units, etc. Refer to the chart on page 83 for individual component weights.

Figure 1, on page 8, shows a house with (2) ULTRAFLO Breeder Feeder Loops. The purpose of the first loop is to show the recommended placement of the power units, hoppers, and weigh bin.

FOR HOUSES UP TO 350’ (106 M), two power units are recommended. These power units should be evenly spaced opposite each other. For a 350’ (106 m) house the power units should be placed in positions "3" and "8" below. Notice that the power units are located one trough section from the hoppers.

FOR HOUSES FROM 351’ TO 450’ (106 TO137 M), three power units are recommended. To determine the proper placement of the three power units, add the total length of the system, including 5’ (1.5 m) for each 90 degree elbow, and divide by 3. This will give an approximate number of feet between power units, round up or down to the nearest suspension drop line. These power units should be staggered (two on one side of the loop, one on the other side). The power units should be place in positions "3", "10", and "6" below. The power unit in position "3" should be located one trough section away from the hopper.

For houses from 451’ to 600’ (137 to 182 m) four power units are recommended. These power units should also be spaced evenly around the system. To determine the proper placement of the power units, add the total length of the system, including 5’ (1.5 m) for each 90 degree elbow, and divide by 4. This will give an approximate distance between power units, round up or down to the nearest suspension drop line. The power units should be evenly spaced directly across from each other in the system. The power units should be placed in positions "2", "10", "5", and "6" below.

Length of the feeder line.	Power Unit position
Up to 350 feet (106 m)	“3” and “8”
351 to 450 feet (106 to 137 m)	“3”, “10”, and “6”
451 to 600 feet (137 to 182 m)	“2”, “10”, “5”, and “6”

The second loop provides some dimensional specifications.

Notice that the suspension drop lines are spaced 8’ (2.4 m) or 10’ (3 m) apart all through the system. Be sure to properly suspend the elbows.

The ULTRAFLO Breeder Feeder loop is 5’ (1.5 m) wide (minimum). Additional width may be achieved by adding a straight section of tube between elbows.

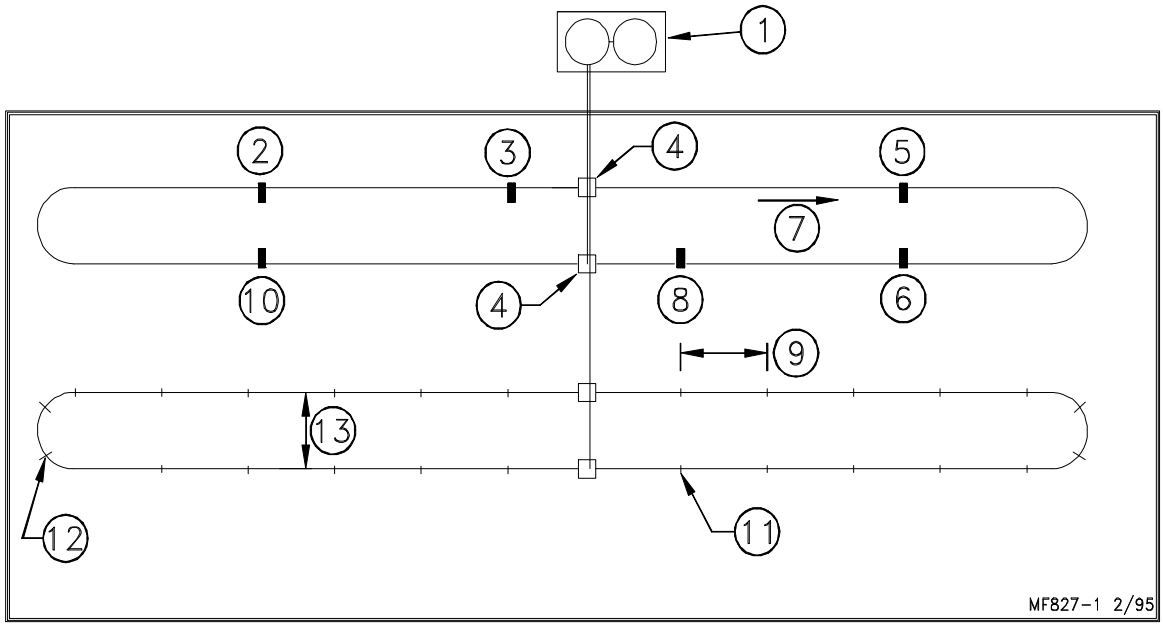
DO NOT place power units within 50 feet (15.2 m) of elbows.

Figure 2, on page 9, shows a similar house except only ONE hopper is supplying each ULTRAFLO Breeder Feeder Loop.

DO NOT INSTALL THIS SYSTEM LAYOUT IN HOUSES THAT EXCEED 250’ (76 M).

Power Unit locations are different for single hopper systems. Notice the Power Units are located in the center of the house.

Standard system layout for ULTRAFLO Breeder Feeder using (2) Hoppers per loop.

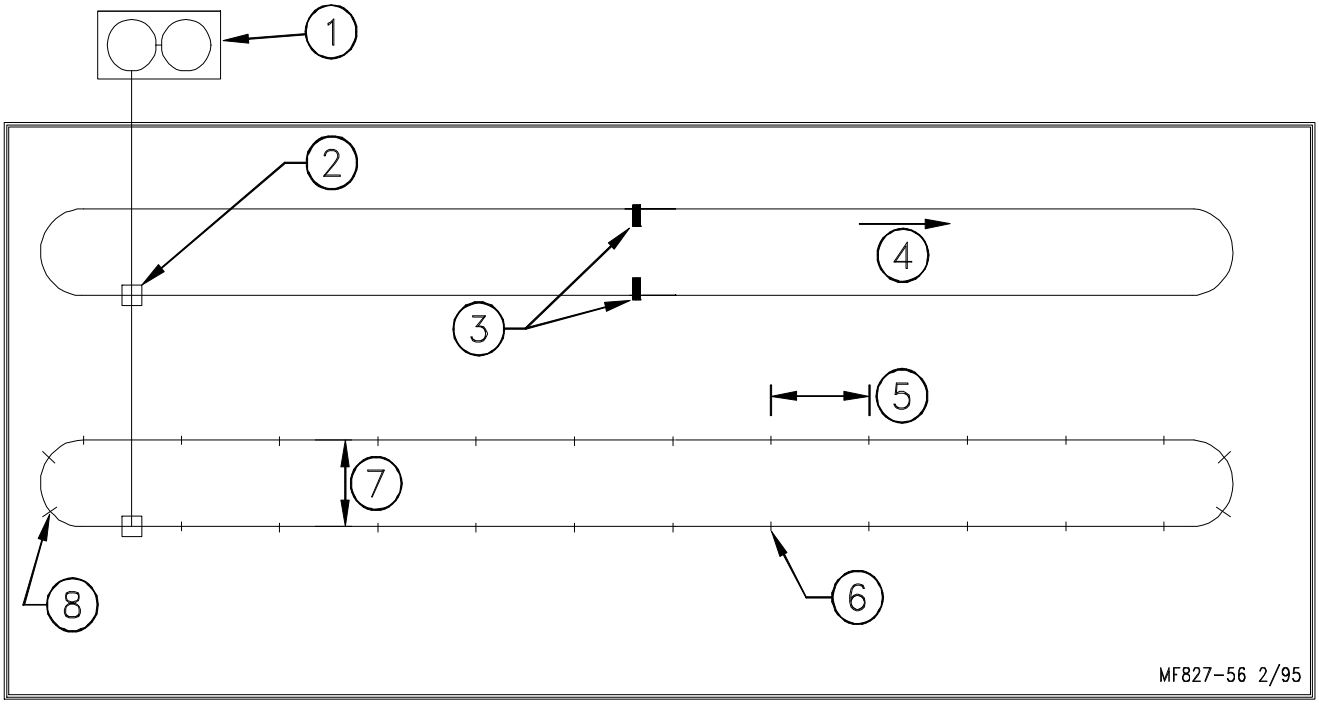


Key	Description	Key	Description	Key	Description
1	Weigh Bin and Scales	6	Power Unit	10	Power Unit
2	Power Unit	7	Auger Travel	11	Suspension Drop Line
3	Power Unit	8	Power Unit	12	Provide adequate support to prevent elbow sagging.
4	Feed Hopper	9	8’ (2.4 m) centers recommended. 10’ (3 m) centers max.	13	5’ (1.5 m)
5	Power Unit				

Figure 1. System Layout Diagram for systems using (2) Hoppers per loop. (Top View).

Standard system layout for ULTRAFLO Breeder Feeder using (1) Hopper per loop.

- Note: House length not to exceed 250' (76 m). -



Key	Description
1	Weigh Bin and Scales
2	Feed Hopper
3	Power Unit
4	Auger Travel
5	10' (3 m) centers
6	Suspension Drop Line
7	5' (1.5 m)
8	Provide adequate support to prevent the elbows from sagging.

Figure 2. System Layout Diagram for systems using (1) Hopper per loop. (Top View).

Hopper Assembly Procedure

Refer to Figure 3 for proper assembly of the 100# Hopper.

Loosely, assemble the 100# Hopper Side Panels, as shown in Figure 3, using 1/4-20 bolts and 1/4-20 hex nuts (supplied in Hardware Package). Notice the flanges on the side panels fit outside the hopper body.

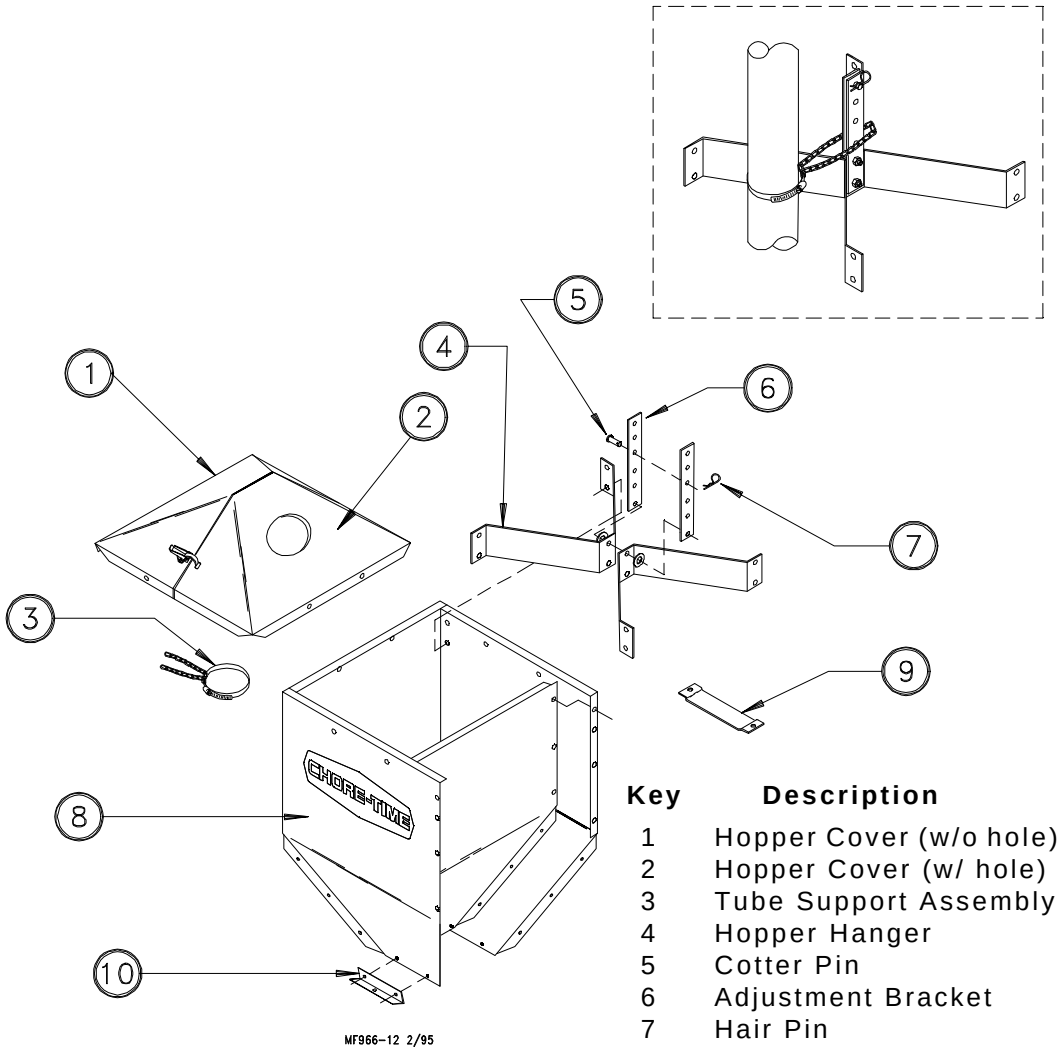
Assemble the Hopper Hangers. Place the two Hopper Hangers in the Side Panel corners, as shown in Figure 3, and secure using 1/4-20 hardware supplied.

Secure the Adjustment Brackets to the Hopper Hangers, using one 5/16-18x3/4" bolt, washer, and locknut and one 1/4-20x1/2" bolt, washer, and hex nut (supplied in Hardware Package).

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

A Cable Assembly (including 20 feet or 6 m of cable, a Sleeve Clamp, and a 5/32” Thimble) is supplied to suspend the hopper. The pin should be located in the center hole of the Hanger.

If the optional Hopper Cover is to be used, fasten the half of the cover with the tube opening on the top of the hopper, using 1/4-20 hardware supplied. The other half of the cover will latch in place. Install the Tube Support Kit, as shown in inset (Drop Tube supplied with the fill system).



Key	Description
1	Hopper Cover (w/o hole)
2	Hopper Cover (w/ hole)
3	Tube Support Assembly
4	Hopper Hanger
5	Cotter Pin
6	Adjustment Bracket
7	Hair Pin
8	Hopper Side
9	Switch Mount Bracket
10	Boot Hanger

Figure 3. 100# Hopper Assembly

Suspension System Installation

The feeder line suspension is a vital part of your feeding system. Take time to thoroughly plan the system to insure proper operation. Figure 4 provides an overview of the suspension required for systems 250 feet (76 m) or more. Figure 5, on page 13, provides an overview of the suspension system for installations 250' (76 m) or less, using (1) hopper. Enlarged, detail drawings show critical suspension information.

Specific installation instructions for miscellaneous suspension components are provided in this manual.

STRAIGHT LINE SUSPENSION SYSTEMS UP TO 350 FEET (106 M): A separate winch and suspension system is required to raise (and lower) each side of the ULTRAFLO Feeder. Double-backs are not required.

> NOTE: Double-backs are not required on **straight line lengths** from 250 feet (76 m) to 350 feet (106 m). All other systems require double-back(s), as shown.

STRAIGHT LINE SUSPENSION SYSTEMS OVER 350 FEET (106 M): A separate winch and suspension system is required to raise (and lower) each side of the ULTRAFLO Feeder. Double-backs are required at each winch, as shown in Figure 4 and Detail A. Two cable clamps are required to connect the main cable to the Double Back Pulley.

LOOP SUSPENSION SYSTEMS UP TO 250 FEET (76 M): A single winch and suspension system is required to raise (and lower) the entire ULTRAFLO Feeder. Double-backs are required at the winch, as shown in Figure 5 and Detail A. Two cable clamps are required to connect the main cable to the Double Back Pulley. Special Pulley Assemblies are required to route the cable, as shown in Detail E.

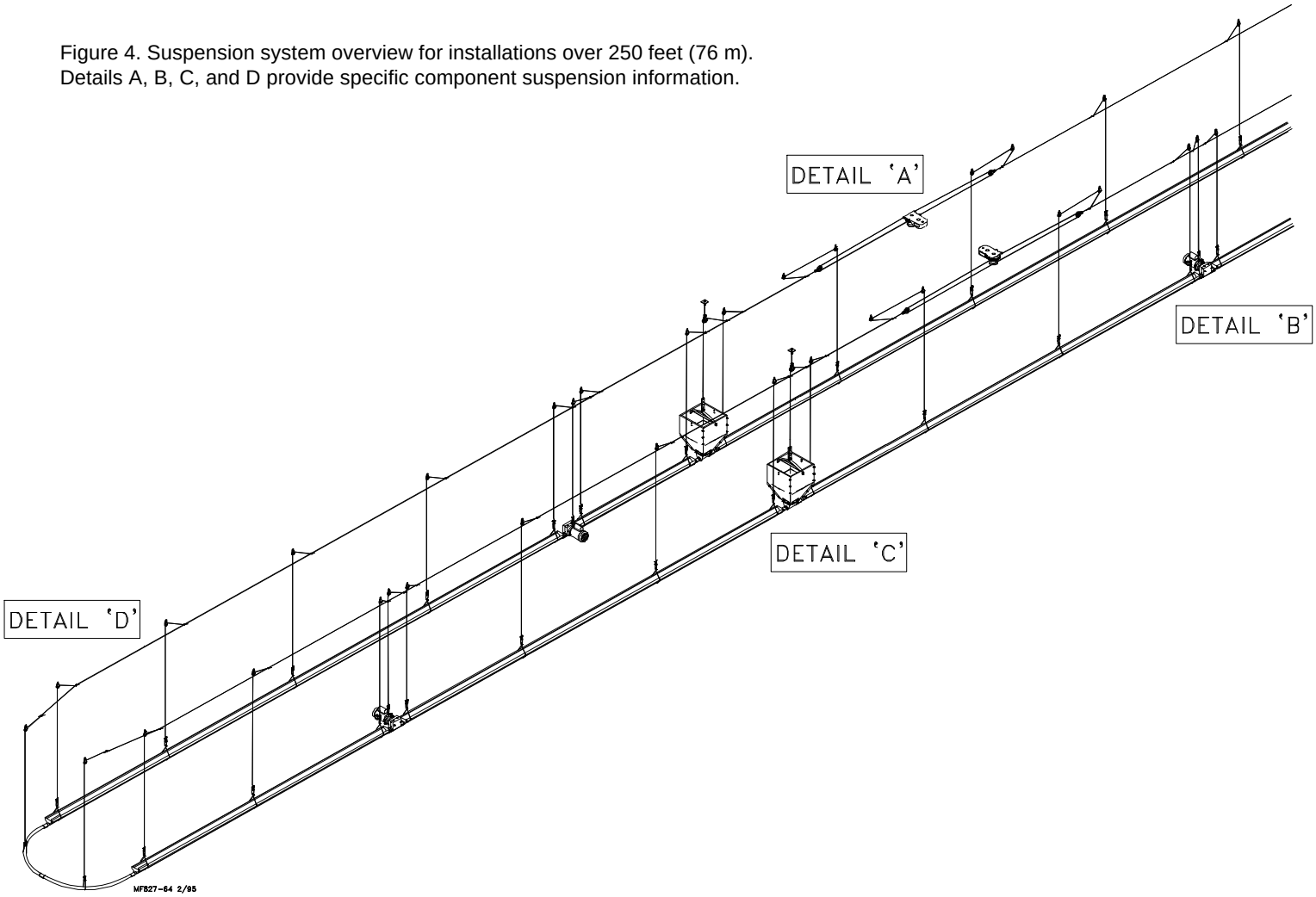
IMPORTANT: A suspension drop line must be provided on each side and directly above each power unit, gearhead, and feed hopper. See Details B & C.

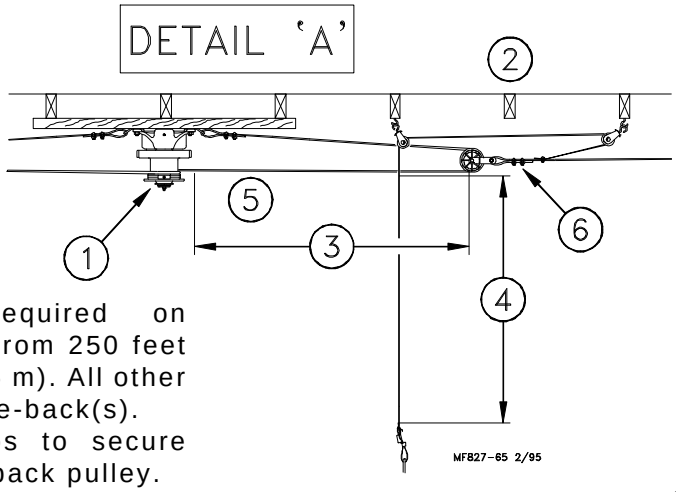
Determine where the feeder line is to be installed. Mark a straight line on the ceiling or rafters the full length of the feeder line. Use a string, chalk line, or the winch cable, temporarily attached with staples, to mark the line. Center the line directly over where the feeder is to be installed.

Two cable clamps are required to connect the main cable to the Double Back Pulley.

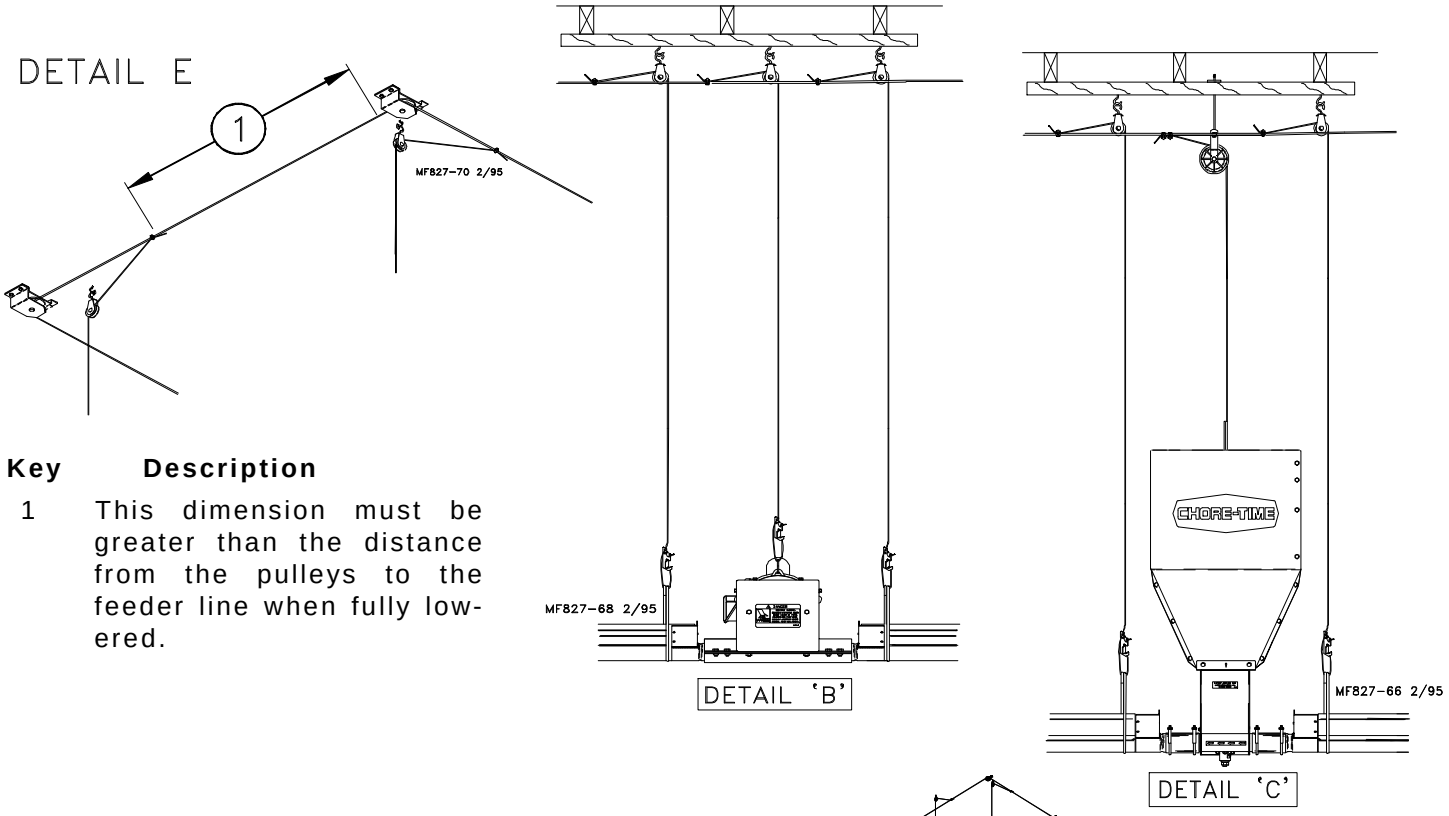
One cable clamp is required to connect each drop line to the main cable.

Figure 4. Suspension system overview for installations over 250 feet (76 m). Details A, B, C, and D provide specific component suspension information.





Key	Description
1	Power Winch
2	Throw Back
3	"X" + 2' (61 cm)
4	Distance feeder to be raised ("X")
5	Double-back not required on straight line systems from 250 feet (76 m) to 350 feet (106 m). All other systems require double-back(s).
6	Use (2) cable clamps to secure main cable to double-back pulley.



Key	Description
1	This dimension must be greater than the distance from the pulleys to the feeder line when fully lowered.

Key	Description
1	Provide additional support for the center of the elbows.

Figure 5. Suspension system overview for installations up to 250 feet (76 m).
Details A, B, C, and E provide specific component suspension information.

Power Winch Installation

1. Bolt the Power Winch, fully assembled, to a 2x8 (50x200 mm) board 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 6.

   For loop suspension systems, install a 2985 Cable Hook between the mounting bolt and Power Winch frame, as shown in Figure 6.

Key	Description
1	Power Winch
2	Cable Hook
3	2”x8” (50x200 mm) board that spans (3) three rafters.
4	5/16-18X2-1/2” Bolt, washer, and lock nut.

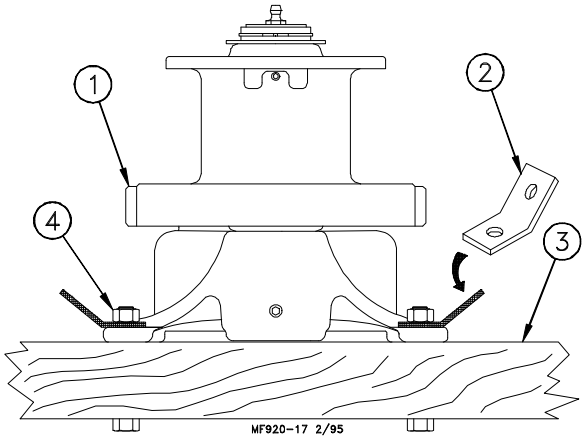


Figure 6. Winch Mounting Diagram (End View)

2. Attach the 2”x8” (50x200 mm) board, with the Power Winch secured, to the ceiling at the center of the feeder line. The 2”x8” (50x200 mm) must be parallel to the line and must span at least 3 rafters. Lag bolts are required, not supplied.

   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.

4. Route the cable through the winch drum relief located near the bottom of the drum. Tighten the set screw to anchor the cable to the drum. See Figure 7.

Key	Description
1	Winch Drum Relief with Set Screw
2	3/16” Winch Cable
3	Drum Rotation

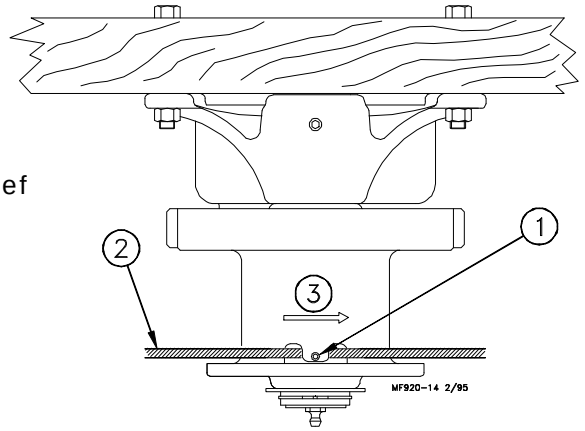


Figure 7. Winch Cable Installation (End View)

5. Turn the winch drum one full revolution. Guide the cable against the flange at the bottom of the winch drum. The cable must not wrap over itself on the drum, but should be wrapped as close as possible to each previous wrap. See Figure 8.

Key	Description
1	Drum Rotation

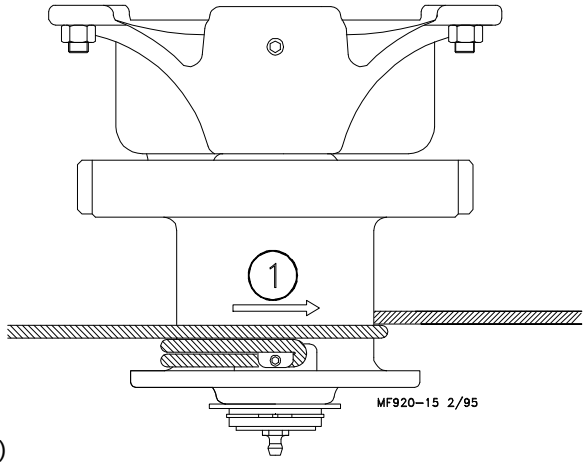
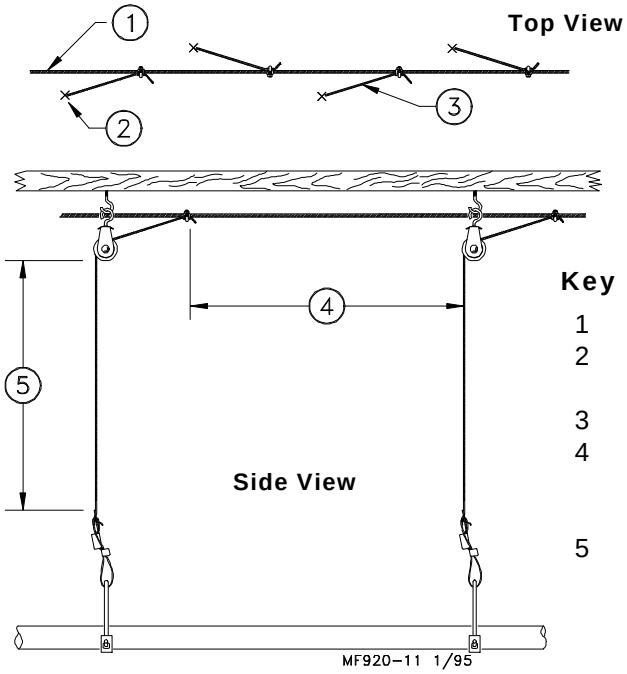


Figure 8. Cable Wrapping (End View)

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 inches (75 mm) to each side of the line to prevent the cable clamps from catching the pulleys. See Figure 9.



Key	Description
1	3/16” Cable
2	Screw Hook or Ceiling Hook Location
3	3/32” Drop Cable
4	Offset the drop lines if this distance = less than item 5.
5	Distance Feeder is to be Raised

Figure 9. Drop Line Offset Detail

Screw Hook/Ceiling Hook Installation

Screw Hooks or Ceiling Hooks may be used to suspend the feeder line. Refer to the appropriate instruction, below. Screw Hook installation is shown in Figure 10. Ceiling Hooks installation is shown in Figures 11 through 16.

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 10.

Key	Description
1	Screw Hook opening facing opposite direction of travel.
2	Direction of cable pull when raising feeder line.
3	3/16” Winch Cable
4	3/32” Drop Cable

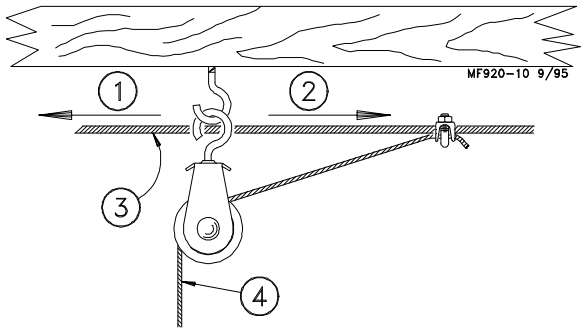


Figure 10. Screw Hook Installation (Side View)

The ceiling hook may be used in a variety of installations. Depending on your individual situation, install the Ceiling Hooks as shown in Figure 11 - 14.

After securing the Ceiling Hook to the truss, slide the hook of a Swivel Pulley into the slot, as shown in Figure 15.

Narrow Steel Truss Installations

Key	Description
1	Secure Ceiling Hook to truss using self-drilling screws through side-by-side holes.
2	Cable travel

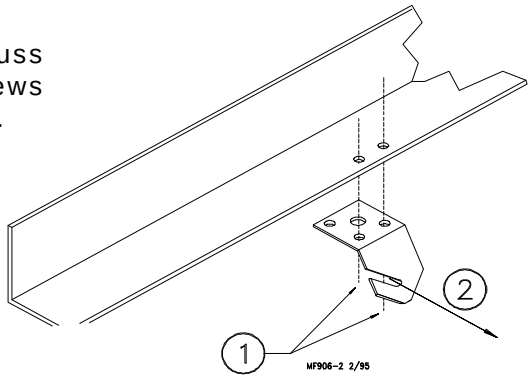


Figure 11. Ceiling Hook Installation

Steel Truss Welded Installations

Key	Description
1	Weld Ceiling Bracket to truss here.
2	Cable travel.

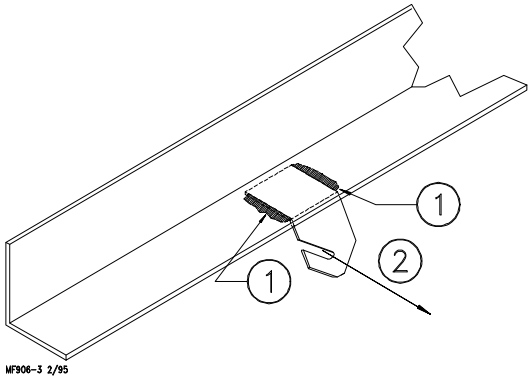


Figure 12. Ceiling Hook Installation

Wide Steel Truss Installations

Key	Description
1	Secure Bracket to truss using self-drilling screws through opposite holes.
2	Cable travel.

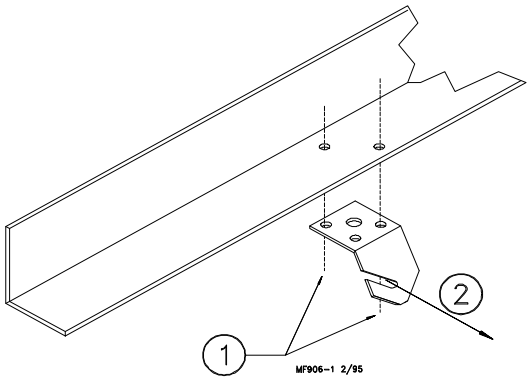


Figure 13. Ceiling Hook Installation

Wood Truss Installations

Key	Description
1	Secure Ceiling Bracket to truss using 1/4” lag screw through center hole.
2	Cable travel.

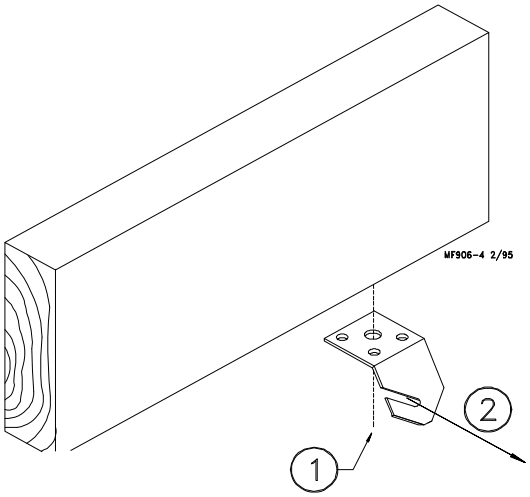


Figure 14. Ceiling Hook Installation

Key	Description
1	Wood Truss
2	Ceiling Bracket
3	1/4” Lag Screw
4	Swivel Pulley
5	3/32” Drop Cable

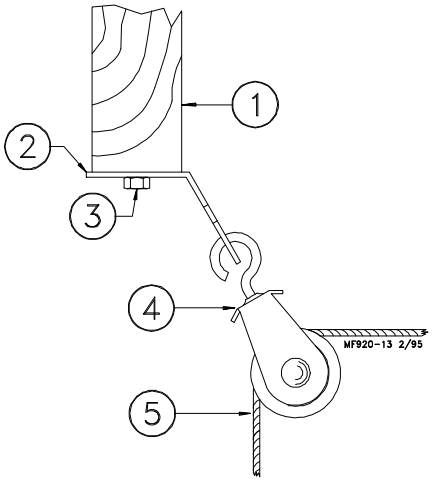


Figure 15. Pulley Installation (End View)

Suspension Drop Line Installation

1. Attach a 3004 Pulley to each hook.
2. Thread the end of the 3/32” or 1/8” cable through the pulley toward the winch. Clamp this end to the 3/16” winch cable about 6” (150 mm) from the pulley, using a 3/16 inch cable clamp. See Figure 10.
3. Allow enough drop cable to reach the eye of the Hanger and thread back through Adjustment Leveler.

   Sufficient cable is included to provide "throwbacks" on drops located beneath and near the winch. Detail A on Figure 4 (page 12) shows a "throwback" cable arrangement.
4. **Begin installing suspension drops at the winch and proceed toward the elbows.**

   Keep the main cable tight between drops. Hang a weight on the end of the main cable to maintain tension.
5. Figure 16 shows proper suspension points for the elbows (feeder components shown for reference only).

   Adequate support must be provided at the elbows to prevent sagging.

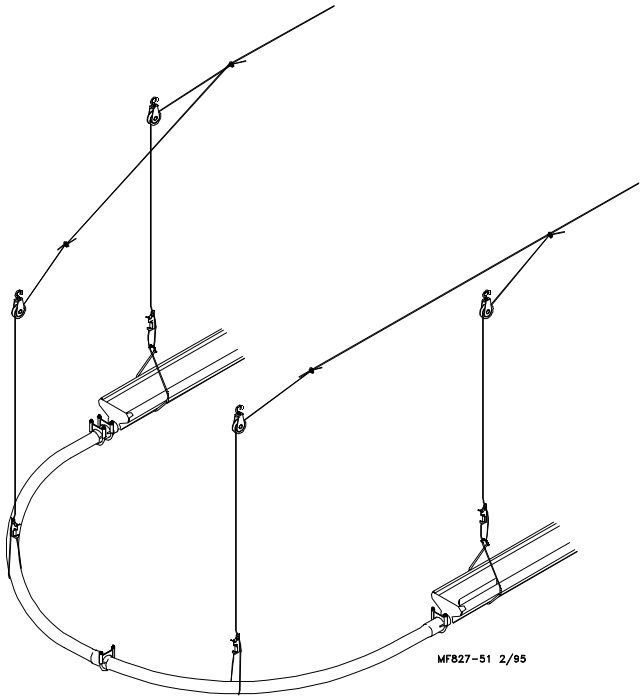


Figure 16. Supporting the Elbows

6. Three drop cables are required at each Power Unit and Hopper location.

   Power Unit Locations: Three drop lines are required at each Power Unit location. Install the drop lines as specified in Figure 17. The Trough must be supported within approximately 1 foot (30 cm) of each Power Unit.

   Feed Hopper Locations: Three drop lines are required at each Feed Hopper location. Install the drop lines as specified in Figure 17. The Trough must be supported within approximately 1 foot (30 cm) of each Feed Hopper. Be sure to install the Full Line Suspension Kit, as shown in Figures 4 (Detail C) and 17.

   IMPORTANT: Be sure to off-set the three pulleys at each Power Unit and Hopper location so that the cable clamps will not interfere with pulleys.

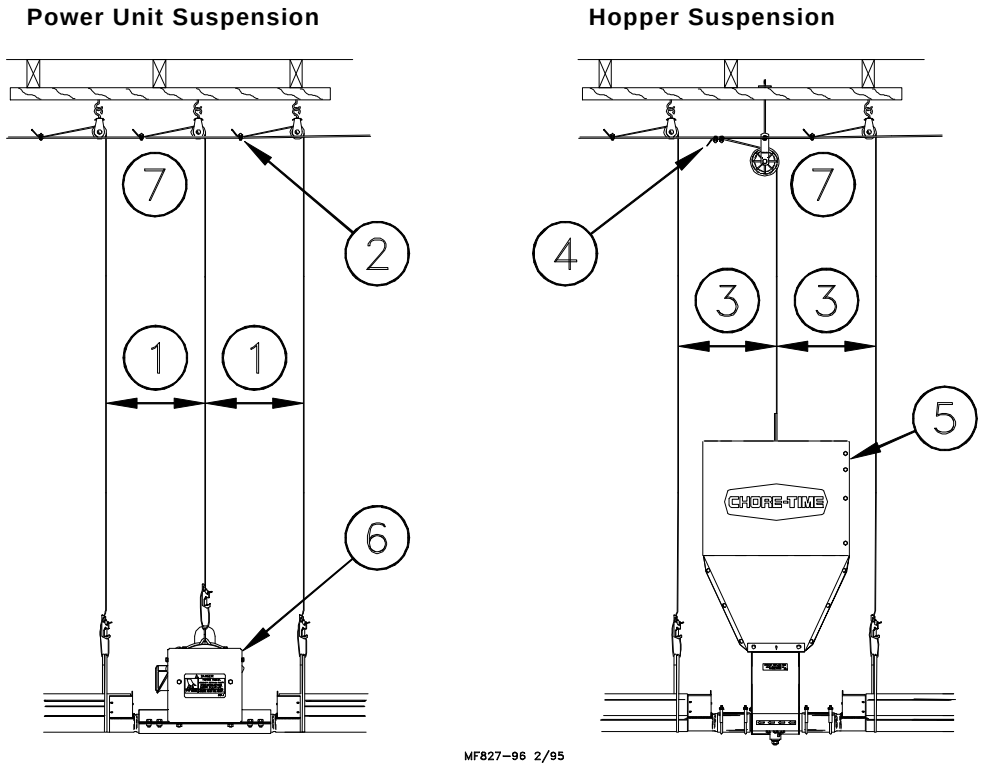
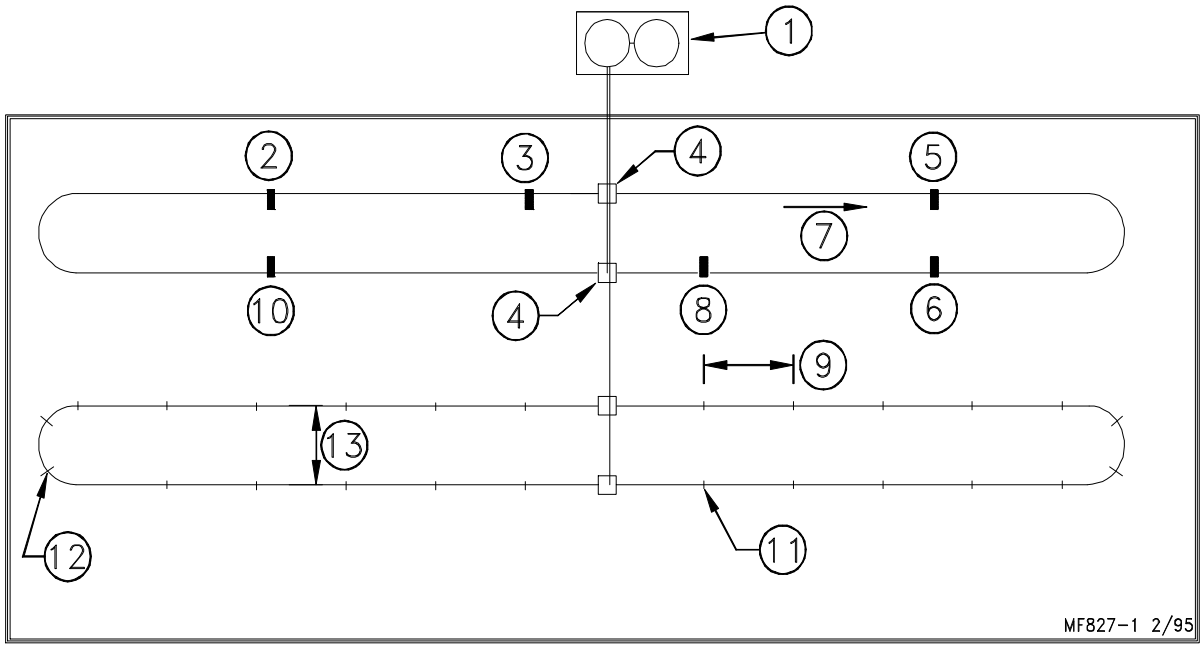


Figure 17. Proper Suspension Points at Power Units.

Key	Description
1	1 Foot (30 cm)
2	1 Cable Clamp
3	3 Feet (1 m)
4	2 Cable Clamps
5	Feed Hopper
6	Power Unit
7	Be sure to offset the Screw Hooks approximately 3” (75 mm) so that the cable clamps do not interfere with the pulleys.

ULTRAFLO Breeder Feeder Installation



Key	Description	Key	Description
1	Weigh Bin and Scales.	8	Power Unit
2	Power Unit	9	10’ (3 m) centers
3	Power Unit	10	Power Unit
4	Feed Hopper	11	Suspension Drop Line
5	Power Unit	12	Provide adequate support to prevent the elbows.
6	Power Unit		
7	Auger Travel	13	5’ (1.5 m)

Figure 18 is provided as a reference diagram. Refer to this diagram as needed during the installation of the ULTRAFLO Breeder Feeder. (Top View)

Trough and Components Installation

These instructions will provide guidelines for the installation, beginning at either hopper location and proceeding in the direction of auger travel.

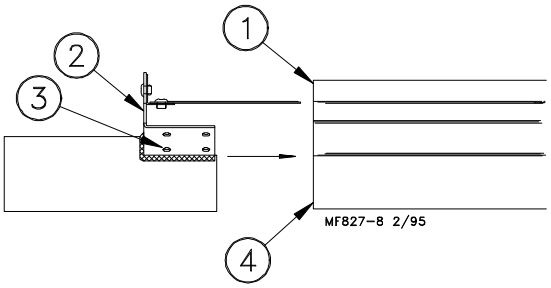
Figure 18 shows hopper locations and direction of auger travel.

1. Determine the location of the Intake Cup(s). Do not install the hoppers on the Intake Cup at this time.
2. Lay the trough sections out in the approximate position where they will be suspended, with the belled end toward the Intake Cup(s) on the outgoing side.
3. Measure and mark the trough so that when it is installed, the joint with the next trough will be located directly below a suspension drop line.

   Cut the belled end off the first section of trough on the outgoing side of the Intake Cup as marked. The trough must be cut squarely.

Slide an End Cap over the end of the trough, as shown in Figure 19. Use the holes in the End Cap Flanges as a drilling guides to drill (4) 1/4 inch (6.3 mm) holes in each side of the trough.

Secure the End Cap to the Trough using 10-24 bolt and lock nut supplied.



Key	Description
1	Squarely cut the belled end at the mark.
2	End Cap
3	Secure the End Cap to the Trough using 10-24 hardware.
4	ULTRAFLO Trough w/bell removed.

Figure 19. End Cap Installation (Side View)

4. Slide a Hanger on the trough, as shown in Figure 20. Do not suspend the system at this time.

Key	Description
1	Hanger
2	Trough

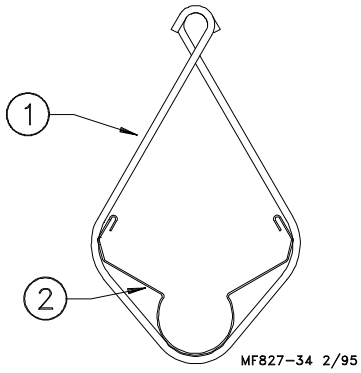


Figure 20. Hanger Installation (Side View)

If the Hangers are to be installed later, gently open the Hangers enough to fit over the trough. See Figure 21. Incorrectly opening hangers will deform hangers

Key	Description
1	Incorrect--DO NOT DEFORM HANGERS.
2	Correct--GENTLY, spread the Hanger to allow for trough installation.

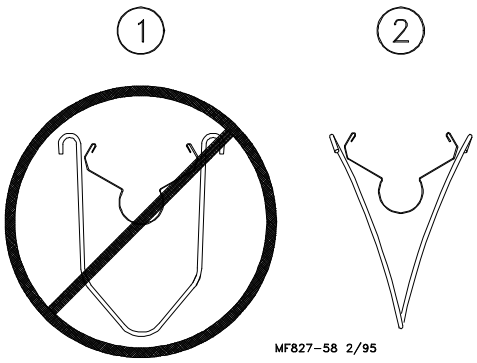
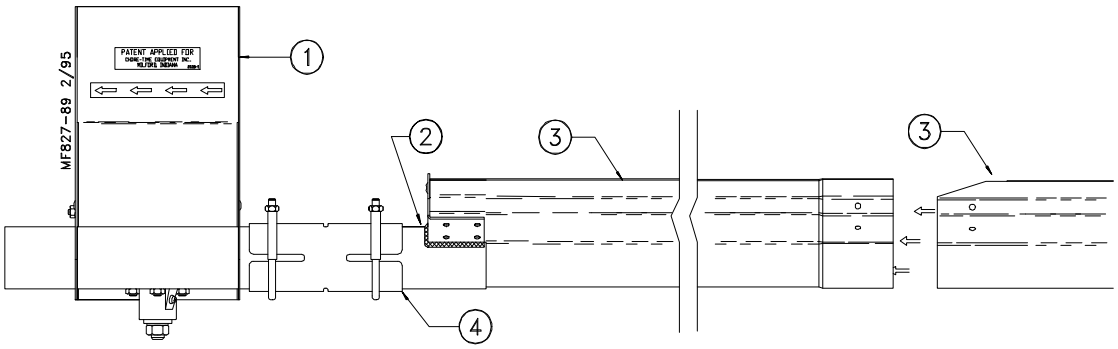


Figure 21. Hanger Installation (End View)

5. Fasten the trough and End Cap to the Intake Cup using a Coupler and U-bolt clamps, as shown in Figure 22.



Key	Description
1	Intake Cup
2	End Cap
3	Trough
4	Tube Clamp Sleeve

Figure 22. Component Assembly Diagram (Side View)

6. Install a Hanger at the next trough joint. Slide the straight end of the trough into the belled end of another section of trough , as shown in Figure 23.
7. The trough sections are factory punched for (4) 10-24 bolts and locking nuts. See Figure 23.

   IMPORTANT: Make sure trough is properly butted at each joint, prior to tightening hardware. To insure proper trough assembly, set the trough sections on a flat surface when tightening hardware.

Key	Description
1	Slide the trough sections together.
2	Set the joined trough sections together on a flat surface and secure in (4) places using hardware supplied.
3	Install the (4) 10-24 bolts and locking nuts.

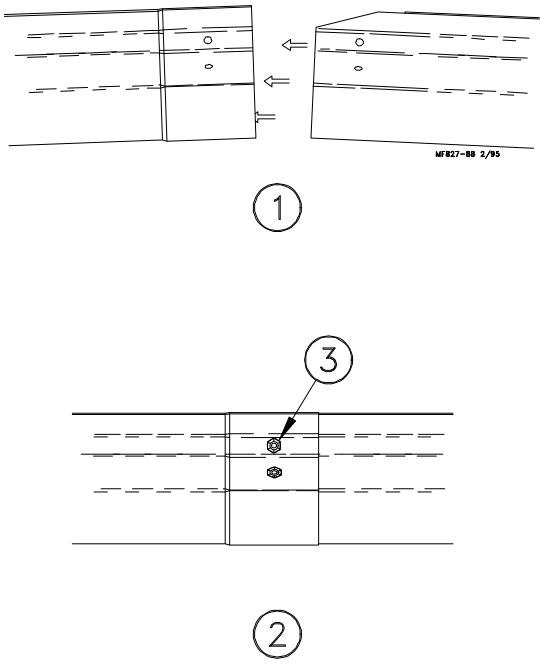


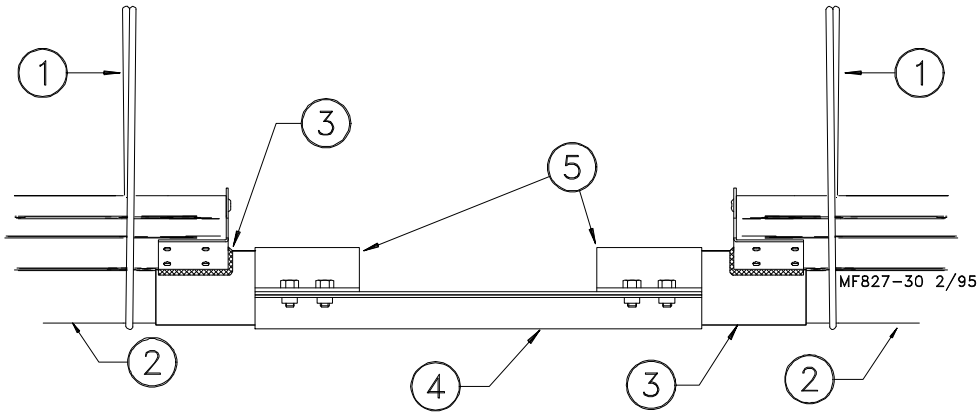
Figure 23. Trough Connection Diagram (Side View)

8. Continue installing Trough Sections and Hangers until the first power unit location is reached.
9. The power units must be located directly under a suspension drop.

   The Power Unit, Driver Assembly, and Base Connector are shipped assembled. Disassemble the Base Connector from the Power Unit and Driver Assembly by removing the four 1/4-20 locknuts. See Figure 30, on page 28.

   Install the End Caps and Hangers on the Trough ends, similar to steps 3 & 4. *Two* *H*angers should be used at each Power Unit (one on each side). See Figure 24.

   Slide the End Caps into the End Connector Clamps on the Base Connector Weldment. See Figure 24. Make sure the Base Connector Weldment is aligned prior to tightening the clamps.



Key	Description
1	Hanger
2	Trough
3	End Cap
4	Base Connector Weldment
5	End Connector Clamp

Figure 24. Power Unit Location Installation (Side View)

10. Continue installing Trough Sections and Hangers until the first elbow is reached.

    It may be necessary to cut a section of trough to achieve the desired elbow location.
11. Install an End Cap on the last section of trough.

Chore-Time offers (2) styles of Clean-Outs for use on ULTRAFLO Breeder Feeders. The standard Clean-Out is installed as specified in item 12, below.

Refer to the Clean-Out Assembly Kit parts listing on page 78 for proper installation of the **optional** style Clean-Out. The (optional style) Clean-Out should be installed directly on the incoming side of each hopper.

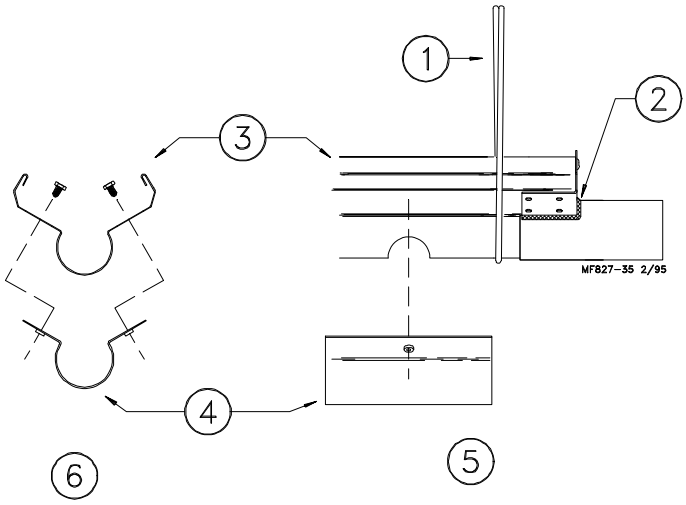
12. Install a Clean-Out prior to each set of elbows. See Figure 25.

    The Clean-Out should be installed on the in-coming side of the elbows. This allows the feed to be removed from the trough without running it through the elbows.

Use a 1-1/2" (40 mm) hole saw to drill a hole in the bottom of the trough, 6" (150 mm) from the End Cap.

Install a Clean-Out Cover over the hole and secure in place using 10-24 hardware supplied in the Clean-Out Cover Kit. See Figure 25.

Additional Clean-Out Kits may be ordered, separately, if necessary.



Key	Description
1	Hanger
2	End Cap
3	Trough
4	Clean-Out Cover
5	Side View
6	End View (Hanger & End Cap not shown for clarity)

Figure 25. Clean-Out Cover Installation (Side View & End View as noted)

13. Install a Hanger on the incoming end of the elbow. See Figure 26.
14. Insert the tube section of the End Cap into the belled end of a 90 degree elbow, as shown in Figure 26. Use a U-bolt style clamp to secure this joint...however, do not fully tighten clamp until the elbows are fully installed and leveled.
15. Loosely fasten another 90 degree elbow to the first by sliding the belled end over the straight end of the existing elbow. See Figure 26.
16. Cut the belled end off the next section of trough. It may be necessary to cut additional length off this section of trough (for joint alignment purposes).
17. Install an End Cap on the cut end of the trough.
18. Fasten the End Cap and trough to the second 90 degree elbow, using a coupler and (2) U-bolt style clamps to secure this joint. However, do not fully tighten clamps until the elbows are fully installed and leveled.
19. Install a Hanger on the outgoing end of the trough, as shown in Figure 26.
20. Install the remainder of the trough, power unit(s), hangers, and clean-out(s) similar to the first.

    Do not install the elbows on one end of the loop (to allow for auger installation).

Key	Description
1	Belled Elbow
2	Coupler

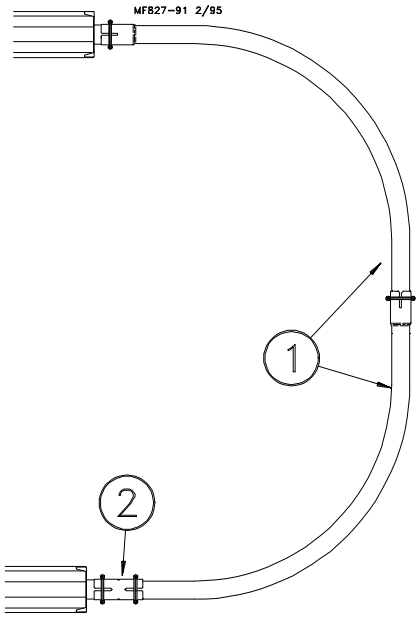


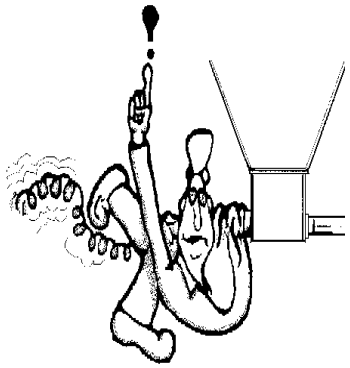
Figure 26. Elbow Installation (Top View)

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.

CAUTION

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



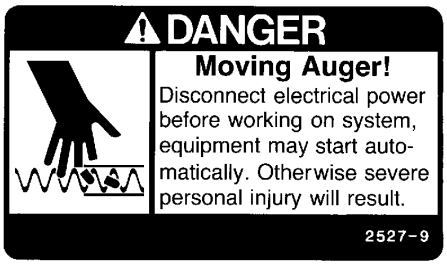
To avoid kinking the auger, be careful not to drop or drag the rolled auger when handling. Inspect the auger carefully as it is installed. Small kinks may be straightened. Large kinks must be cut out and the auger connected or brazed back together.

1. Prepare for the Auger Installation.

   Install two elbows, turned out 180 degrees, this will give a convenient entrance for the ULTRAFLO Breeder Feeder Augers.

   The sprockets inside the Intake Cups DO NOT need to be removed.

   The Power Units must be removed to allow the auger to be installed. DO NOT USE THE MOTORS TO PULL THE AUGER INTO THE TROUGH. SERIOUS INJURY MAY OCCUR.



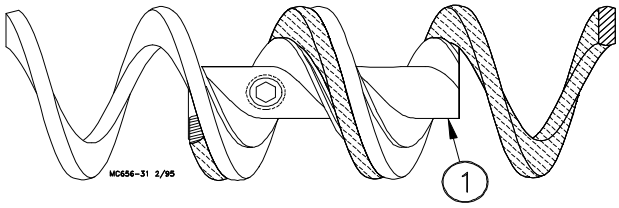
2. Begin feeding one end of auger into the trough through one elbow until it reaches the far end. Use a 1" X 2" board (25 X 50 mm) or something similar to push the auger through the trough. DO NOT ATTEMPT TO DRAG THE AUGER BY HAND OR PERSONAL INJURY WILL OCCUR.
3. Feed the second auger in the other elbow until it reaches the first auger.

   When using two or more coils of auger, be sure to feed the auger into the trough the same for both coils. This will insure a tight match of the auger flightings when connected or brazed. Chore-Time paints the leading end of each coil of auger. The painted end of each auger should match up with the unpainted end of another auger.
4. Cut off any damaged portion of the auger, leaving a good representative end of auger.
5. Connect (or braze) the augers together at the far end of the house. Chore-Time recommends using an Auger Connector to connect the auger ends.

   Note: The Auger Connector is designed to fasten the ends of ULTRAFLO Auger together without welding. It is not to be used with FLEX-AUGER auger.

   An alternate auger connection method, brazing, may be used in place of Auger Connectors. See the Auger Brazing instructions on pages 27 - 28.
6. Screw the Auger Connector into one end of the auger. Remember: If there is any noticeable layover in auger flighting, match the ends of the auger so they lay flat against each other.
7. Untwist the end of the other auger 1-1/2 turns so that when it is threaded onto the Auger Connector it will return to it's relaxed position. The auger ends must be overlapped--NOT butted, when threaded into the track of the Auger Connector.
8. The end of each auger should be even with one end of the Auger Connector (center the Auger Connector in the joint), as shown in Figure 27.
9. Tighten each set screw until it touches the auger, then tighten an additional 3/4 turn **MAXIMUM**.

   BE CAREFUL NOT TO OVER TIGHTEN THE SETSCREWS AND DEFORM THE AUGER. OVER TIGHTENING THE SETSCREWS MAY CAUSE THE AUGER TO JAM UP IN THE POWER UNITS.



Key	Description
1	Thread the Auger Connector into the ends of the auger.

Figure 27. Auger Connector Installation (Side View)

10. File both ends of the auger so they are the same diameter as the rest of the auger.
11. Cut any excessive auger off the coils, leaving a good representative end of auger. Allow enough auger to reinstall the disassembled elbows. Reassemble the elbows with the auger seam in the trough for easy access.
12. Pull the auger a few times to allow it to relax to its free length.
13. Determine the amount of stretch required.

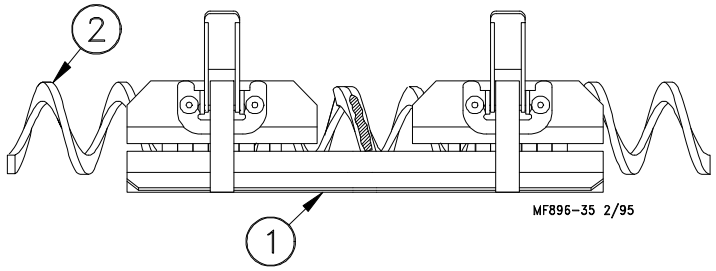
    Stretch the Breeder Feeder Auger 6" per 100’ (150 mm per 30 m) of ACTUAL auger length.

    For example: If the system has an ACTUAL length of 300’ (91.4 m) of auger, the required auger stretch is 18" (460 mm).
14. Repeat steps 5 through 10 above.

Auger Brazing

The methods for brazing FLEX-AUGER augers and ULTRAFLO augers are DIFFERENT. Follow these instructions to obtain a strong joint.

Loosely, install the auger ends in the Brazing Clamp, as shown in Figure 28.



Key	Description
1	Brazing Clamp
2	Auger

Figure 28. Brace the Auger for Brazing. (Side View)

Screw the auger together about 120 degrees and clamp in the Welding Fixture. See Figure 29.

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

The braze should extend from 1/8" to 1/4" (3 to 6 mm) from the end of each auger. DO NOT BRAZE ALL THE WAY TO THE END. See Figure 29. This allows the auger to flex in either direction as it travels around the elbows without becoming weakened.

Key	Description
1	1/3 Turn
2	1/8” to 1/4” (3 to 6 mm)
3	Weld

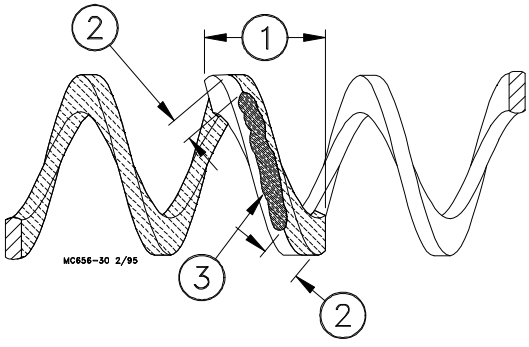


Figure 29. Brazing the Auger (Side View)

Things to remember when brazing the auger . . .

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

Power Unit Installation

1. Secure the Power Unit and Driver Assembly to the Base Connector, using 1/4-20 locknut, previously removed. See Figure 30.

   Notice: Each Power Unit location requires (3) suspension drop lines to support the Power Unit and prevent sagging. If the Power Unit Litter Shields are not going to be used, support the motor as shown in Figure 30. Installations using Power Unit Litter Shield, continue to step #2.

Key	Description
1	"S" Hook
2	Hanger

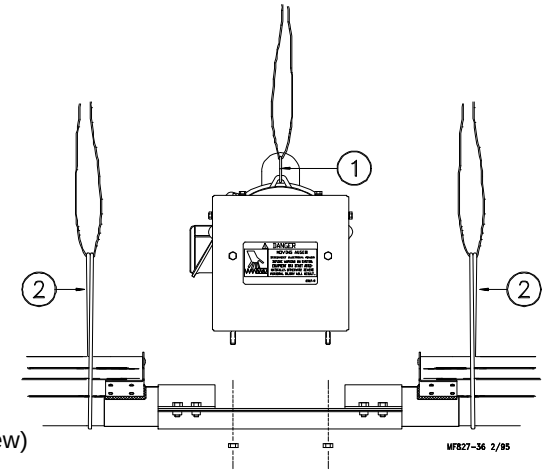


Figure 30. Power Unit Installation (Front View)

The Power Unit Litter Shield is a metal covering that helps prevent buildup on the Power Unit/Driver Assemblies. The Litter Shield also discourages roosting on the Power Units.

1. Remove the screw, shown in Figure 31, from each side of the Driver Assembly.

   DO NOT DISCARD THESE SCREWS.

Key	Description
1	Remove screw from each side of Drive Unit. Do not discard screw.

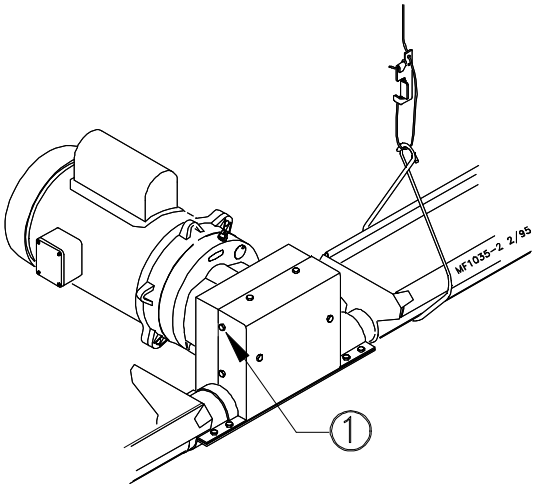


Figure 31. Litter Shield Installation

2. Using the 10-24 screws provided, *loosely* fasten a Motor Support to each Shield Side. See Figure 32. Note: The Motor Supports include weld nuts.

   Install the tabs so that they face opposite directions when secured to the Shield Sides.

Key	Description
1	10-24x5/8” Screws
2	Shield Side
3	Motor Support

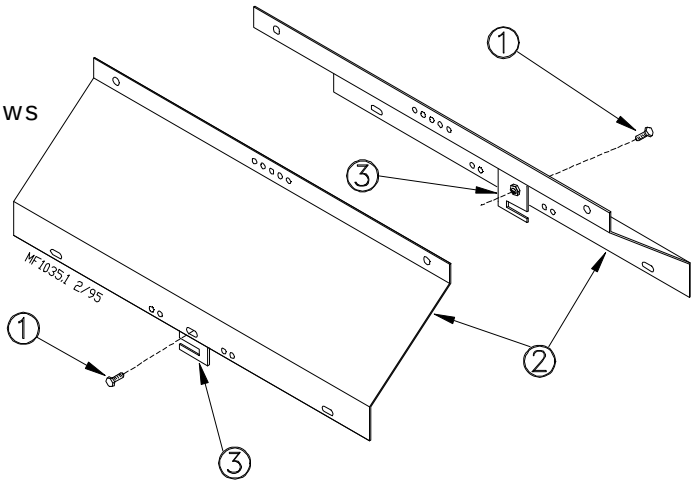


Figure 32. Litter Shield Installation

3. Assemble the Shield Sides on the Power Unit. The Motor Supports slip into the ears on the gearhead.
4. Secure the Litter Shield to the Driver Assembly using the screws removed in Step 2. See Figure 33.

   Fasten the Shield Sides together along the top flange using the hardware supplied.
5. Tighten the screws securing the Motor Supports.
6. Install the power unit suspension components as shown in Figure 33.

Key	Description
1	Secure the Shield Sides together using 1/4-20 hardware supplied.
2	Slide the Motor Supports into the *ears* on the gearhead.
3	Secure the Shield Sides to the Driver Assembly.
4	Support the Power Unit and Driver Assembly as shown.

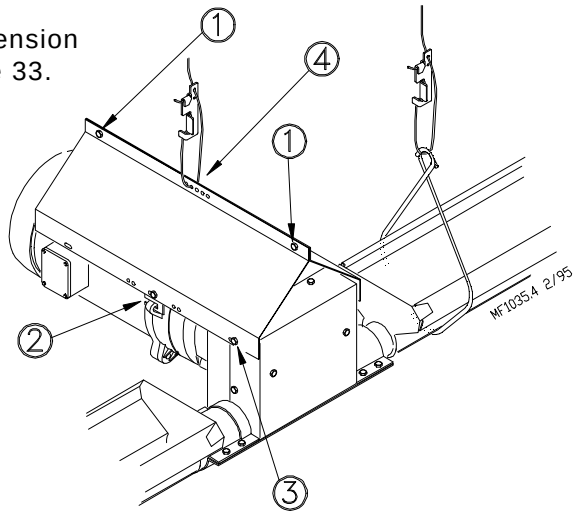


Figure 33. Litter Shield Installation

Grill Installation (Standard and Hi-Contour)

The ULTRAFLO Breeder Feeder offers the choice of (3) Grill styles, the standard Grill, standard Grill (w/horizontal runner wire), & the Hi-Contour Grill. Refer to Figure 34 or 35 for applicable Grill installation diagram. Additionally, a variety of spacings are available for each grill style.

The grills for the ULTRAFLO Breeder Feeder are shipped in 10’ (3 m) sections to easily match the feeder trough which is also shipped in 10’ (3 m) sections. The grill seams should be located at the feeder trough seams.

The grills are formed to fit snugly against the trough when properly installed.

To install the grills, position one side of the grill over the lip of the trough. Then pull the other side of the Grill over the lip of the trough.

Begin installing the Grills at one end of the feeder line, it will be necessary to cut some of the Grills to match cut sections of trough.

Install Grill End Caps on the ends of the grills at the Power Units, Intake Cups, and Elbows. Use pliers to crimp Grill End Caps to grill wire. See Figure 36.

Standard Grill ONLY: Cut a 6" (150 mm) section of grill and install over the existing grill where the auger enters and exits the Power Units, Intake Cups, etc. This will reduce the wire spacing, making it impossible for the birds to eat near the auger entry point. See inset in Figure 34.

Standard Grill Installations

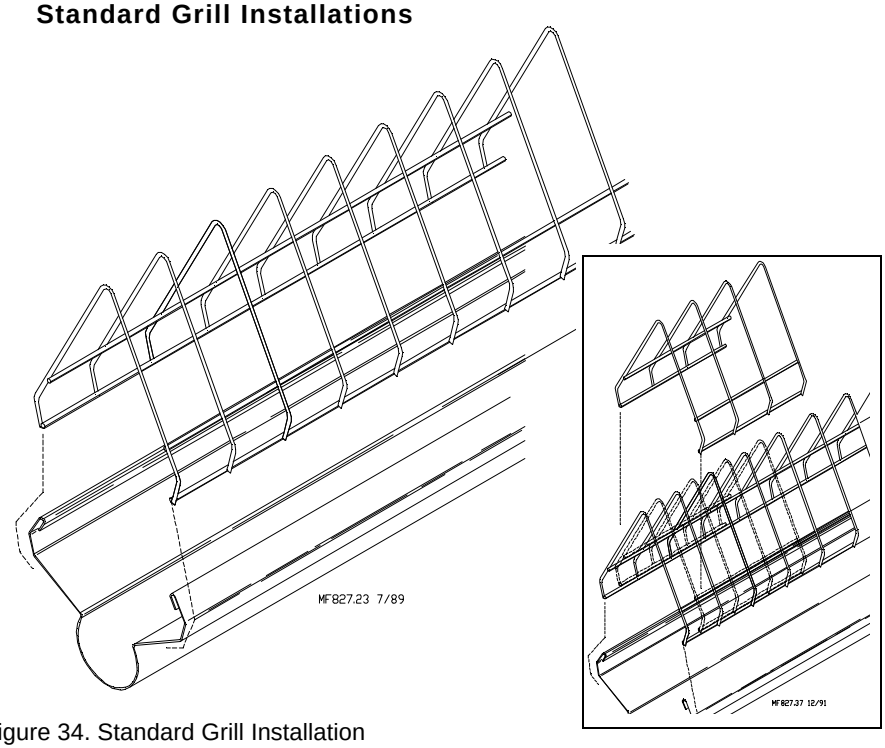


Figure 34. Standard Grill Installation

Hi-Contour Grill Installations

Hi-Contour Grill ONLY: Retainer Wires are required on Hi-Contour Grills only. See Figure 37.

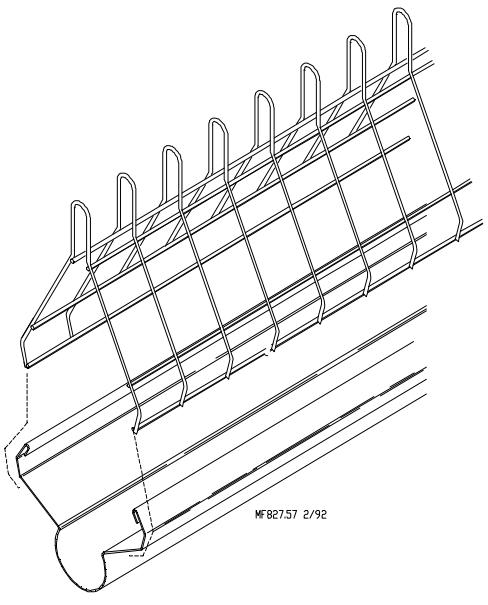


Figure 35. Hi-Contour Grill Installation

Key	Description
1	End Cap
2	Trough
3	Crimp End Caps to secure to Grill Wires.
4	Grill (all grill styles)
5	Retainer Wire

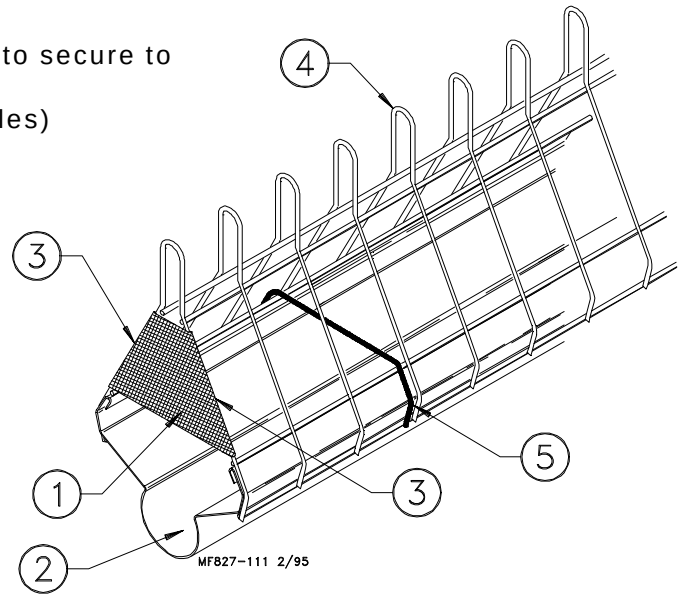


Figure 36. End Cap Installation

The Retainer Wires are used with Hi-Contour Grill to provide additional strength to the trough.

A Retainer Wire should be installed 30" (762 mm) in from each trough joint.

Install the Retainer Wire, as shown in Figure 37, over the horizontal wire resting on the top lip of the trough. Gently, squeeze the trough to install the Retainer Wires.

DO NOT USE PLIERS TO PULL THE RETAINER WIRES OVER THE TROUGH. THE RETAINER WIRES MAY BECOME DAMAGED OR DISTORTED.

If the Retainer Wire does become deformed, use pliers to reshape as required.

Key	Description
1	Trough
2	Hi-Contour Grill
3	Retainer Wire

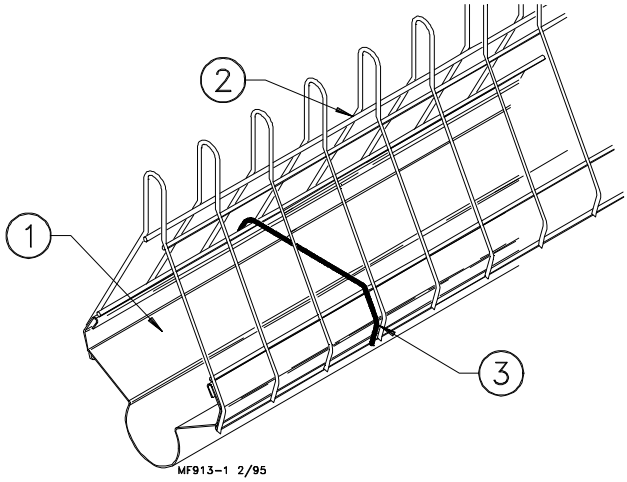


Figure 37. Hi-Contour Grill Installation

Hopper Installation

With the feeder line totally suspended, the hoppers are ready to be installed.

A Cable Assembly (included in Full Line Suspension Kit) is supplied to suspend the hopper. Figure 38 shows the suspension components assembled. The pin should be located in the center hole of the hanger.

Be sure to install the Thimble in cable loop to prevent cable fatigue at the Clevis Pin.

Key	Description
1	Hopper Support
2	Clevis Pin & Hair Pin
3	Cable Assembly
4	Hopper Side Panel
5	Thimble

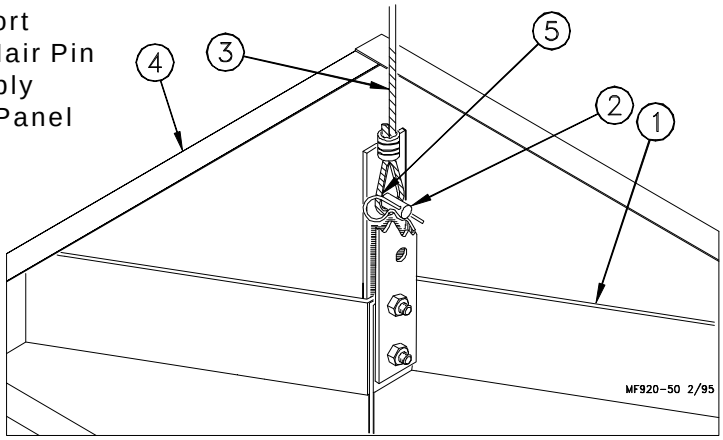


Figure 38. Suspending the Hopper(s)

Secure an Adapter Plate to the top of each Intake Cup, as shown in Figure 39, using hardware supplied.

Slide the Boot Hangers into the Adapter Plate and secure using hardware supplied.

Key	Description
1	Feed Hopper
2	Boot Hanger
3	Hopper Adapter Plate
4	Intake Cup Assembly

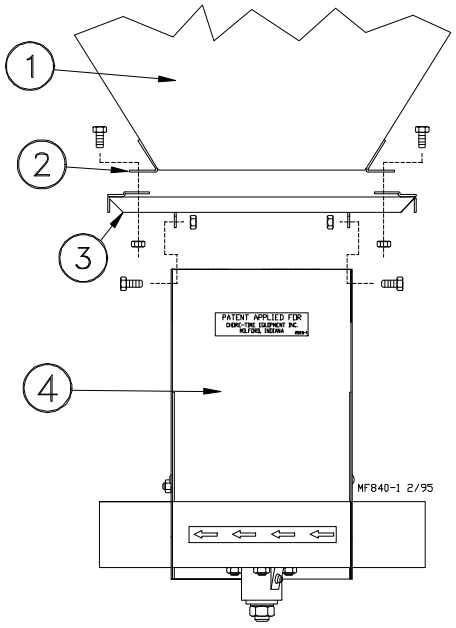


Figure 39. Securing Hopper to Intake Cup. (Side View)

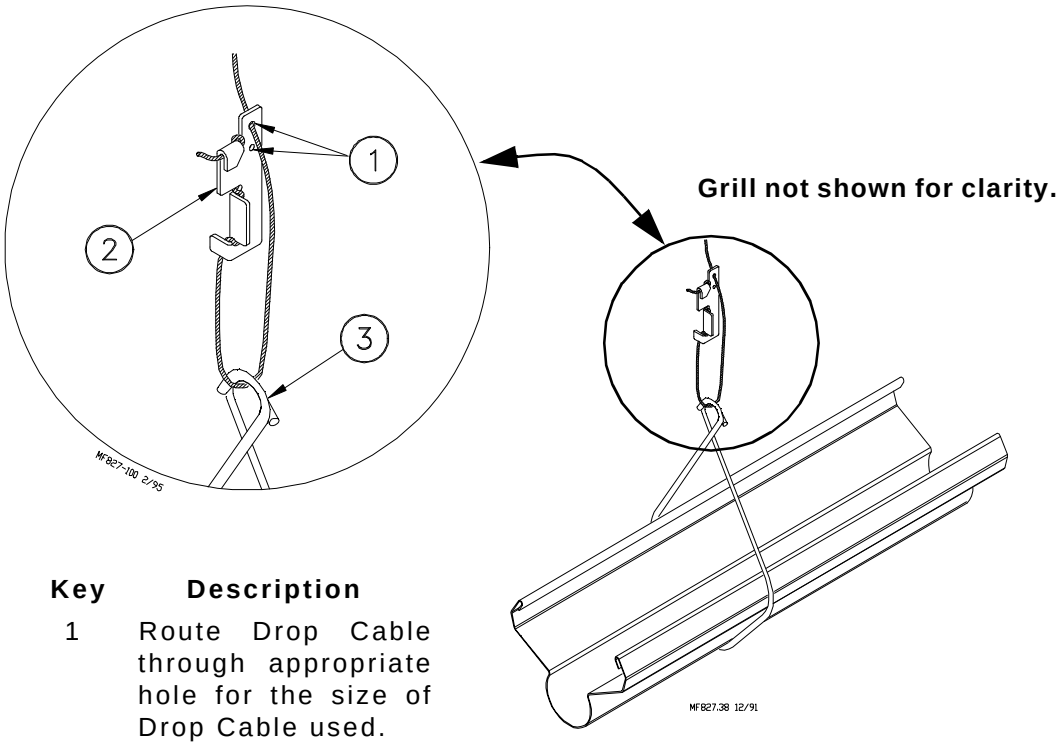
Suspending the System

Hangers should have been installed at the time of assembly. If a Hanger was not installed where it should have been, a Hanger may be gently pulled open to fit around the trough. BE CAREFUL NOT TO DISTORT THE SHAPE OF THE HANGER. See Figure 40.

Thread the drop cable through the appropriate hole in the Adjustment Leveler and through the eye of the hanger, as shown in Figure 40.

Figure 40 shows the proper cable routing around an Adjustment Lever.

Use the Adjustment Leveler to adjust the trough height at each Hanger. Measure from the slats or ceiling to accurately level the system.



Key	Description
1	Route Drop Cable through appropriate hole for the size of Drop Cable used.
2	Adjustment Leveler
3	Route Cable through the eye of Hanger.

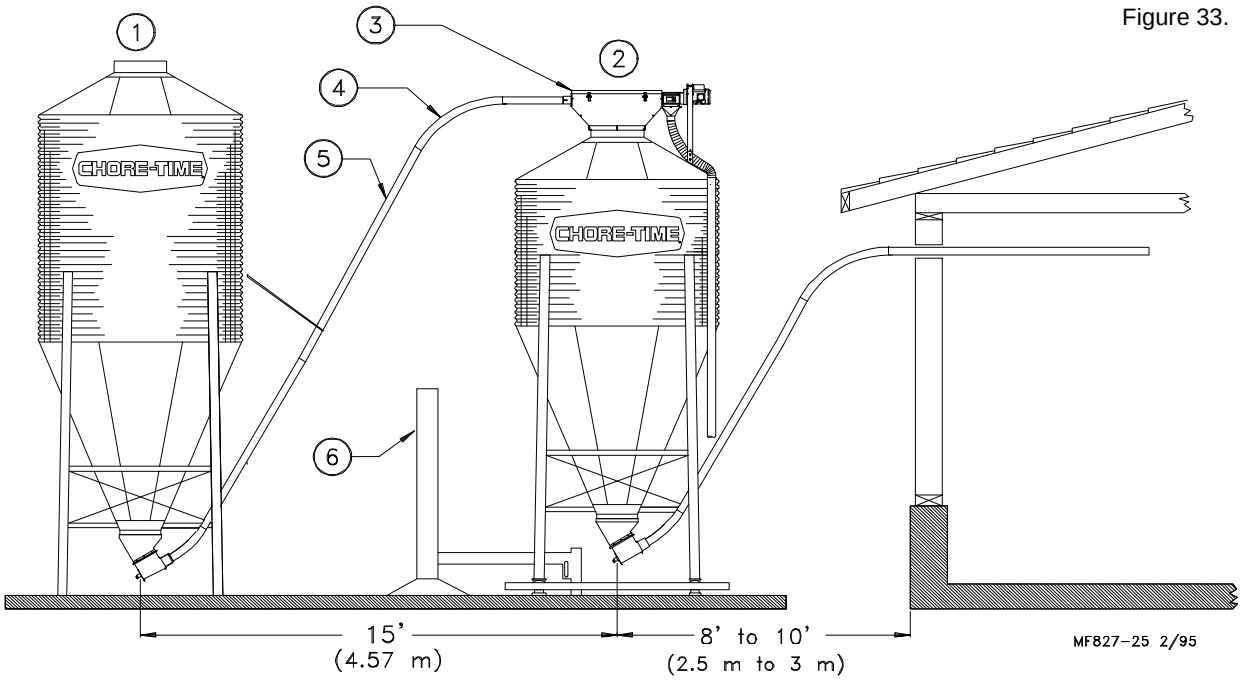
Figure 40. Adjustment Leveler Installation

Installing the Fill System

Install the Fill System according to the instructions shipped with the FLEX-AUGER Control Unit (MA1000 for Model 90, MA1032 for Model 108). Fasten the Drop Tubes to the Outlet Drops and Control Unit Funnel, using the self-tapping screws supplied. It will be necessary to cut holes in the Hopper Covers for the Drop tube to enter the hoppers.

Installation of the Weigh-Matic Scales

Figure 33.



TWO SCALES ARE AVAILABLE;

5,000 Pound (2,268 kg) Scale and 8,000 Pound (3,628 kg) Scale

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

Key	Description
1	Storage Bin
2	Weigh Bin
3	Weigh-Matic Screener
4	45 Degree Elbow
5	Straight Tube
6	Weigh-Matic Scale

Figure 41. Weigh-Matic Scales Installation (Side View)

Bin Location & Scale Preparation

The ULTRAFLO Feeder requires the use of a feed scale system. Chore-Time has (2) available: the (mechanical) Weigh-Matic, shown in Figure 41, and the Digital Weigh-Matic. Refer to the instruction manual shipped with the Digital Weigh-Matic for installation and operation of that type of scale. Instructions for the (mechanical) Weigh-Matic are included in this manual.

For ease of installation and most trouble-free operation, the Weigh Bin should be located directly in line with the FLEX-AUGER Delivery System. Some installations may require the storage bin to be set 90 degrees to the fill system. Both types of installation are acceptable, see Figure 42.

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

Refer to the Feed Bin Installation Manual for information on required concrete thickness, foundation requirments, slope maximums, etc. The surface of the concrete foundation must be level and smooth.

Key	Description
1	Fill system positioned 90 degrees to the feed bins.
2	Fill system in-line with the fill system.
3	Building

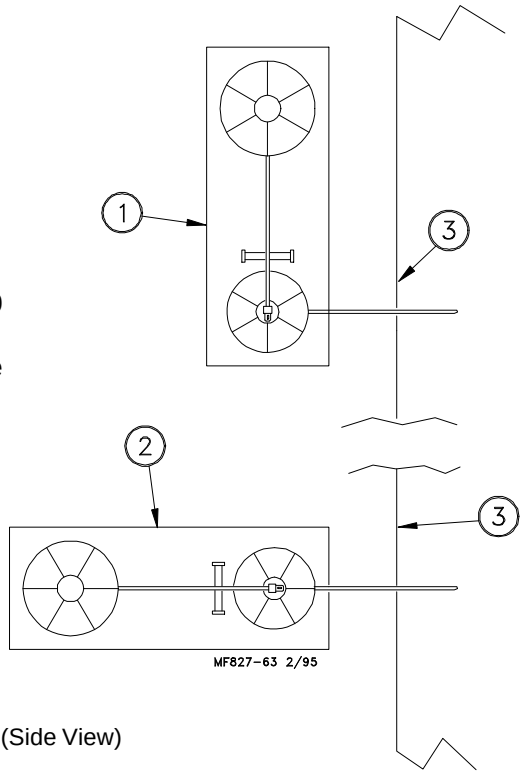


Figure 42. Weigh-Matic Scales Installation (Side View)

Figures 43 through 46 provide pad dimensions for 7’ (2.13 m) & 9’ (2.74 m) storage bins, using one pad or separate pads. Refer to the diagram that applies to your installation. The Storage Bin may be located in line with the Weigh Bin or off-set 90 degrees to one side or the other.

7’ (2.13 m) Storage Bin and Weigh Bin using (2) Pads

Key	Description
1	Building
2	7’ (2.13 m) Storage Bin
3	Building

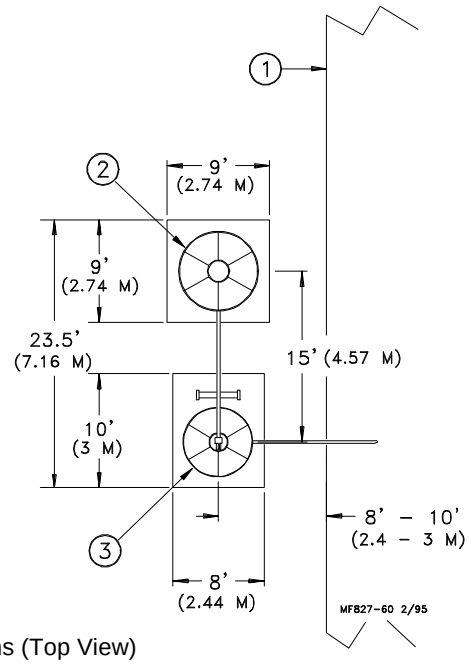


Figure 43. Bin-to-Bin and Bin-to-Building Dimensions (Top View)

7’ (2.13 m) Storage Bin and Weigh Bin using (1) Pad

Key	Description
1	Building
2	7’ (2.13 m) Storage Bin
3	Weigh Bin

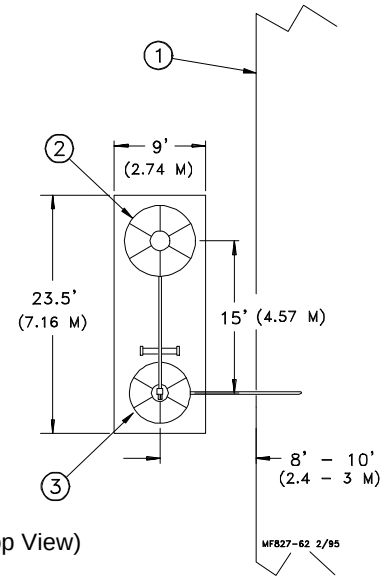


Figure 44. Bin-to-Bin and Bin-to-Building Dimensions (Top View)

11’ (3.35 m) Storage Bin and Weigh Bin using (2) Pad

Key	Description
1	Building
2	9’ (2.74 m) Storage Bin
3	Weigh Bin

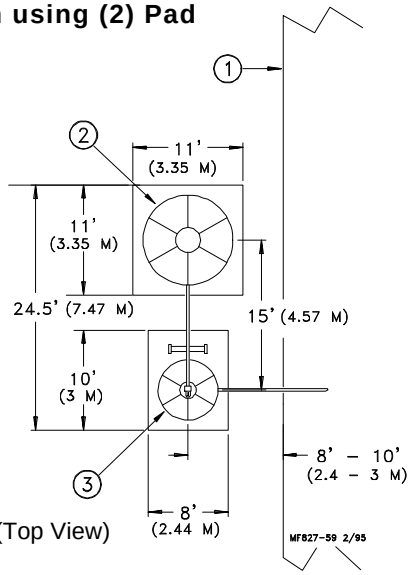


Figure 45. Bin-to-Bin and Bin-to-Building Dimensions (Top View)

11’ (3.35 m) Storage Bin and Weigh Bin using (1) Pad

Key	Description
1	Building
2	9’ (2.74) Storage Bin
3	Weigh Bin

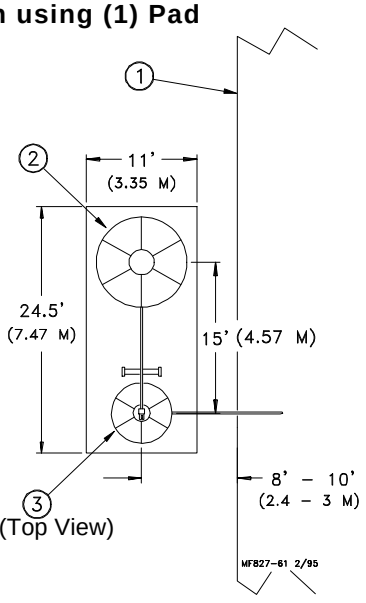


Figure 46. Bin-to-Bin and Bin-to-Building Dimensions (Top View)

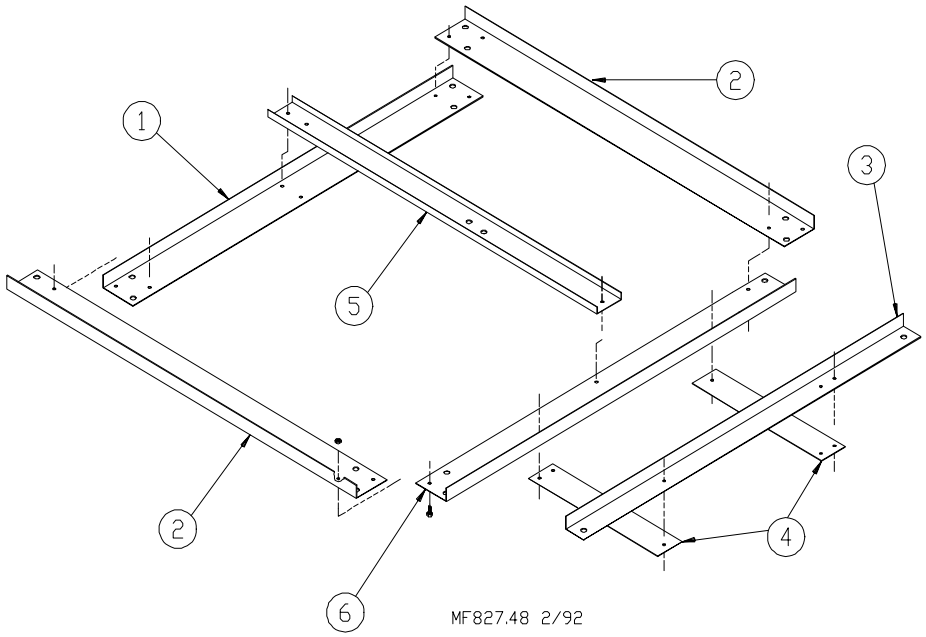
Use the 5978 Scale Template, as shown in Figure 47, or the Anchor Bolt Setting Diagram in Figure 48, to locate the correct position of the 16 anchor bolts for the scale system.

Note: Chore-Time strongly recommends using the Scale Template (Part No. 5978) to determine location of Anchor Holes for the Scales and Bin.

If the 5978 Scale Template Kit is used to locate the position of the anchor holes for the Weigh-Matic Scales and Bin, refer to the instructions below.

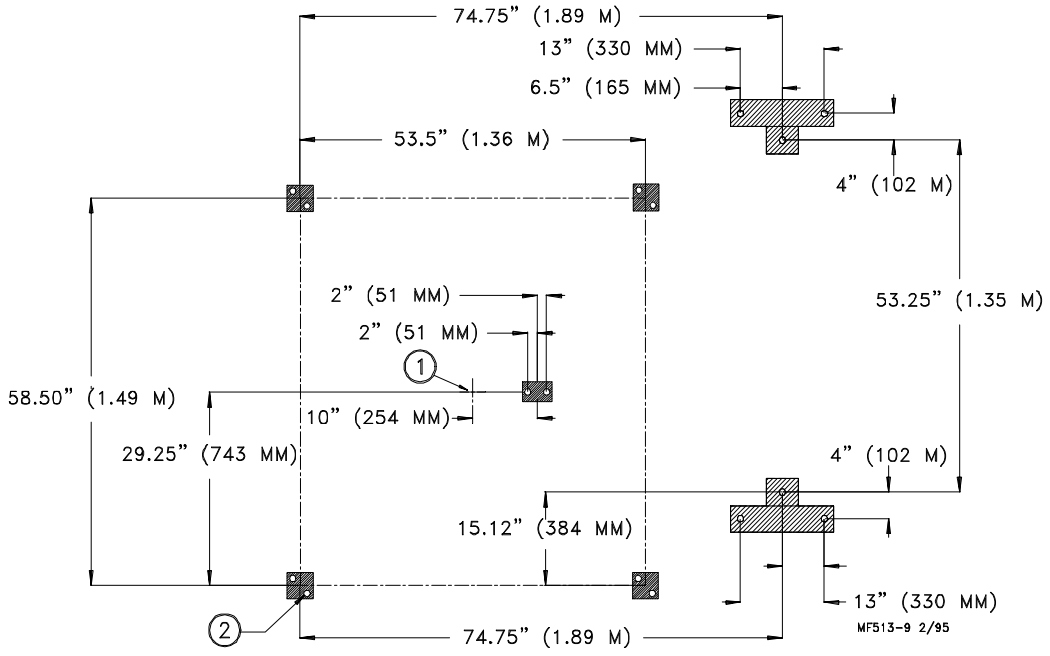
1. Loosely assemble the template as shown, using 5/16-18 hardware supplied.
2. Use a framing square to check all corners of the template. Make sure all corners of the template are square before tightening the nuts.
3. **Allow concrete to harden completely before anchor bolt holes are drilled.**

   Use a 1/2 inch (13 mm) carbide tipped masonry drill bit to drill the anchor holes. The holes must be at least 3 inches (75 mm) deep to install the anchor bolts.



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

Figure 47. Scale Template Assembly Diagram



Key	Description
1	Center of Bin
2	1/2" (13 mm) Diameter Anchor Bolts--16 Required

Figure 48. Anchor Bolt Setting Diagram (Top View)

1. Place the four Lower Main Stands and the Transverse Stand over the holes drilled in the foundation. See Figure 49 for approximate placement. Install the Anchor Bolts and Safety Chain Assemblies but do not tighten the anchors until the scale levers are in position.

Key	Description
1	Transfer Stand
2	Lower Main Stand

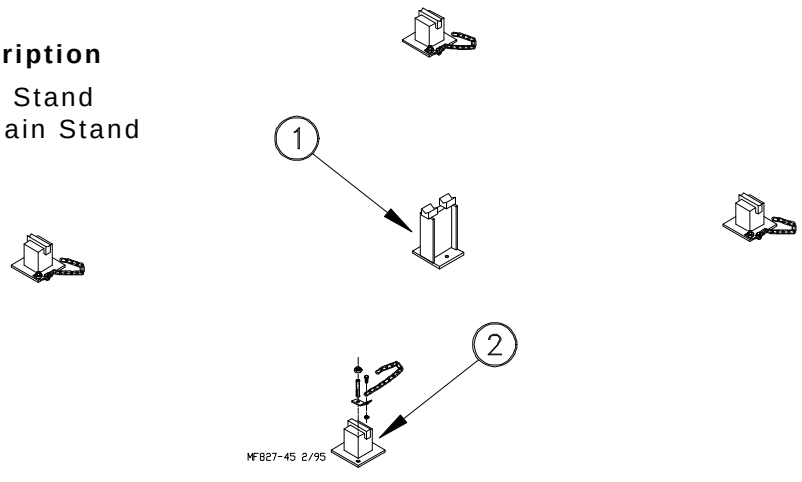


Figure 49. Scale Stand Locations

2. Check all Scale Pivots and Bearings, including those on the weigh beam. They must be CLEAN AND FREE OF PAINT OR DIRT!
3. Attach the Legs and Leg Supports to the Beam Box. Anchor the Beam Box in place on the bin pad. See Figure 50.

Key	Description
1	Beam Box
2	Leg Weldment
3	Leg Support

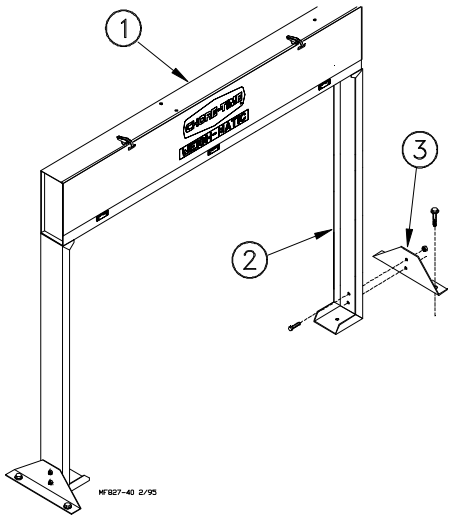


Figure 50. Attach Leg Supports to Scale Legs

4. Mount the 5789 Magnetic Actuator on the end of the weigh beam using the two 4-40 X 3/4" Rd. Hd. Screws provided. See Figure 51.

Key	Description
1	Magnetic Actuator
2	(2) 4-40 x 3/4” Rd. Hd. Screws
3	Note: Make sure the magnet on the arm and the switch Magnet are aligned.

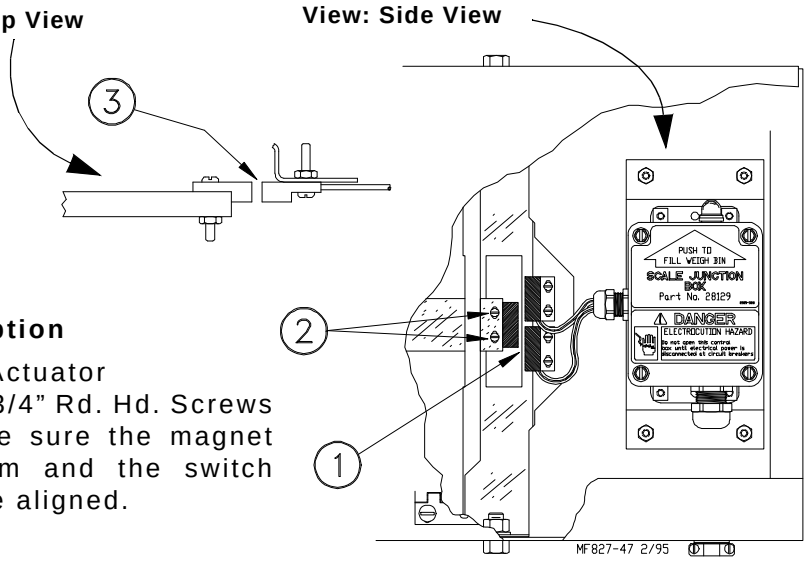
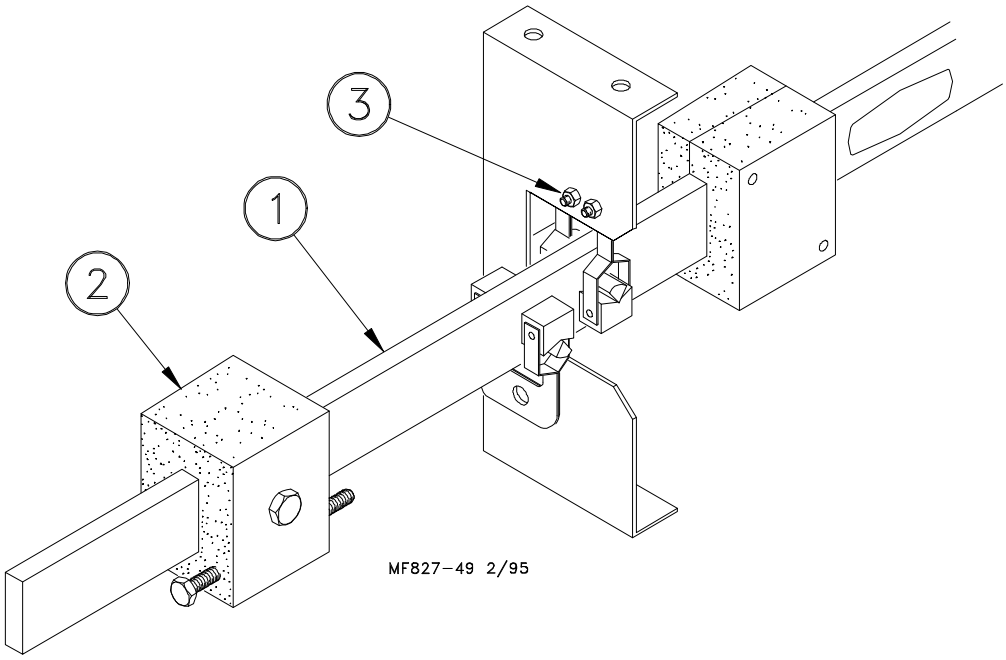


Figure 51. Align the Weigh-Beam in the Beam Box.

5. Install the Weigh Beam Assembly in the Beam Box. Attach the Beam Stand Assembly to the left side of the Pivot Bracket with two 1/4-20 X 5/8" Rd. Hd. Machine Screws and Hex Nuts. See Figure 52.

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

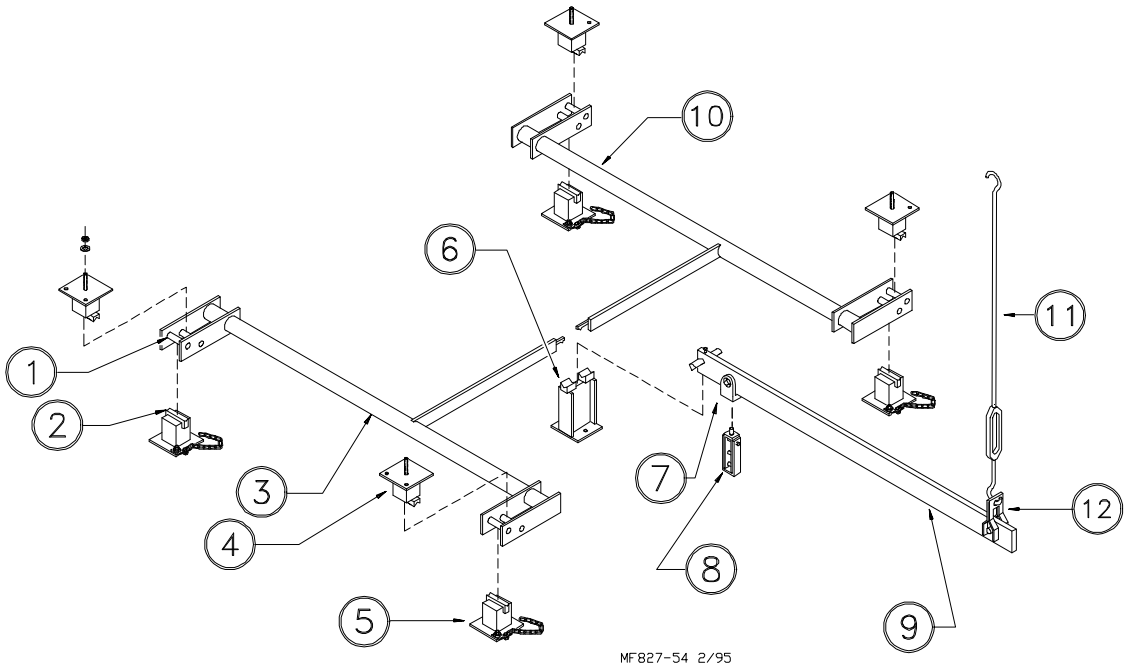


Key	Description
1	Weigh Beam Assembly
2	Back Balance: The Back Balance may be installed at this time or just before the scale is to be balanced.
3	1/4-20 Hardware

Figure 52. Weigh-Beam Installation

Note: CHECK THE WEIGH BEAM ASSEMBLY CAREFULLY FOLLOWING INSTALLATION. BEAM MUST PIVOT FREELY FOR PROPER OPERATION OF THE SCALE.

6. Adjust the (2) proximity sensors to give 1/8” (3.1 mm) clearance between them and the magnetic actuator on the weigh beam. The two proximity sensors should be positioned initially with 1/8" (3.1 mm) between them. These adjustments provide a starting point for balancing the scale and protect the switching components during scale assembly.
7. Attach the Shackle to the Transverse Lever. See Figure 53. Rest the Fulcrums on the Bearings.
8. Hook the Steelyard Rod to the Trip Loop of the Transverse Lever and connect the other end of the rod to the Loop Assembly on the weigh beam. Adjust the turnbuckle so that the Transverse Lever is level. See Figure 53.



Key	Description
1	Fulcrum
2	Bearing
3	Left Main Lever Assembly
4	Upper Main Stand Assembly
5	Lower Main Stand
6	Transverse Stand Assembly
7	Load Loop Shackle
8	Shackle
9	Transverse Lever Assembly
10	Right Main Lever Assembly
11	Steelyard Rod
12	Trip Loop

Figure 53. Scale Component Assembly Diagram

! IMPORTANT !

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

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

9. Install the Right and Left Main Levers with their Fulcrum Pivots on the Bearings of the Lower Main Stands. The Main Lever's Tip Pivots rest directly above each other in the Shackle. See Figure 54 & 55.
10. Install Upper Main Stands on the Load Pivots of the Main Levers. Place the Four Channel pieces over the Upper Main Stands as shown in Figure 566. Do Not Stand On The Channel!
11. Check all bearing points to be sure the bearings are centered with the Pivots. The Steelyard Rod must be plumb and the Transverse Lever must be level.

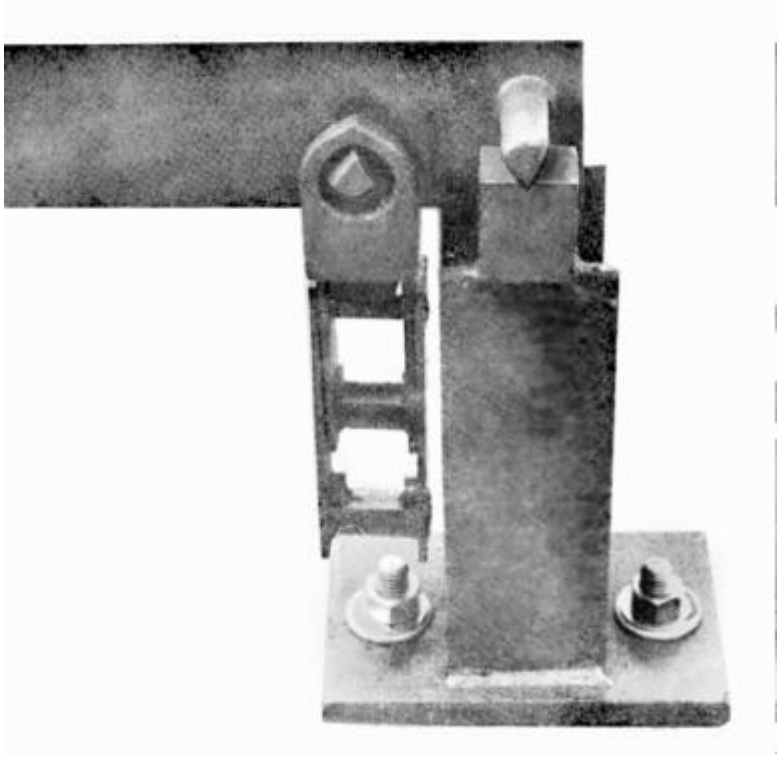


Figure 54. Transverse Lever Installation

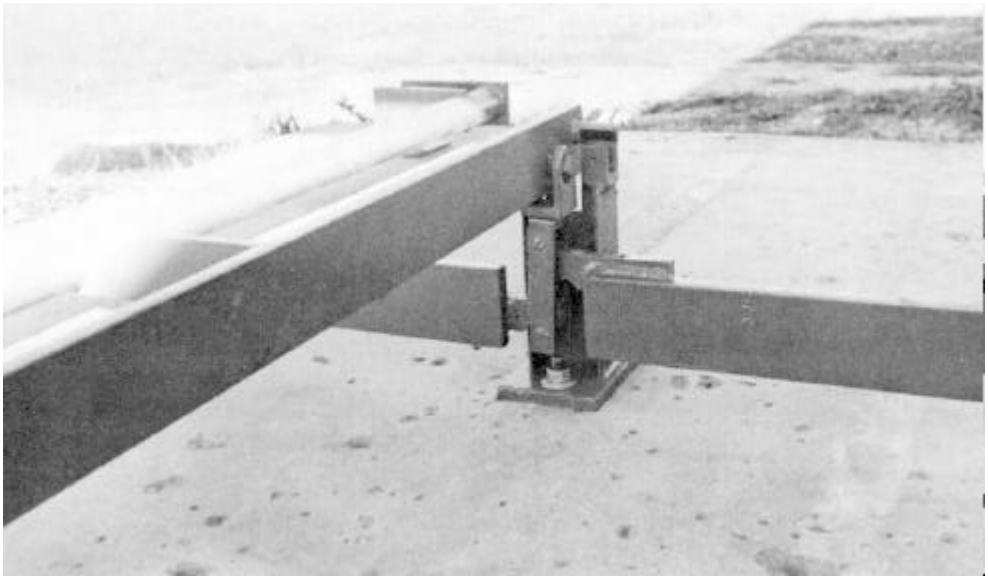


Figure 55. Transverse Lever Installation

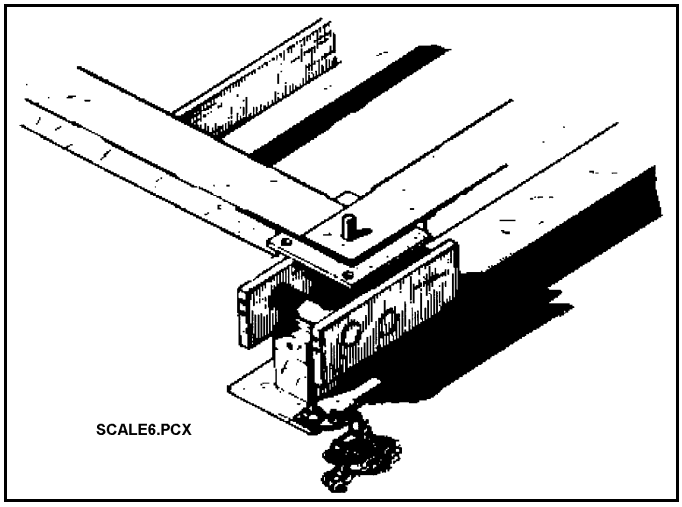


Figure 56. Scale Framing Installation

Feed Bin Installation

1. Assemble the 6 foot (1.8 m) diameter bin according to instructions packed with the bin. Follow the recommendations carefully.
2. Raise the bin onto the Main Stands of the Scale. Use the Leg Anchor Plate provided with the bin plus a 5/8" heavy washer at each leg to secure the bin to the Main Stands. Attach the Safety Chain to the Upper Main Stand at each leg. See Figure 57.

   NOTE: The Safety Chain should not be tight.

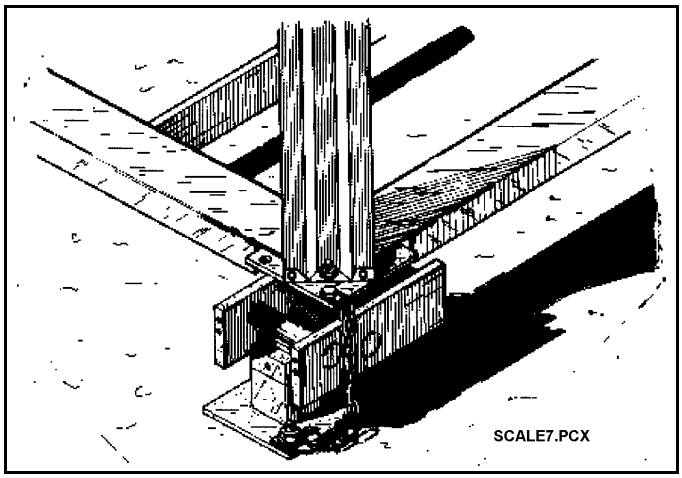


Figure 57. Setting Bin Legs on Scale Framing.

Installation of the FLEX-AUGER Fill System

Refer to the FLEX-AUGER Fill System manual for instructions on installing the fill system from the storage bin to the weigh bin.

1. Install a 30 degree FLEX-AUGER boot on the storage bin.
2. Mount the WEIGH-MATIC Screener on the Weigh Bin. Refer to the WEIGH-MATIC Screener installation section on page 44 - 45 of this instruction.
3. Install the auger tubes between the storage bin and weigh bin.

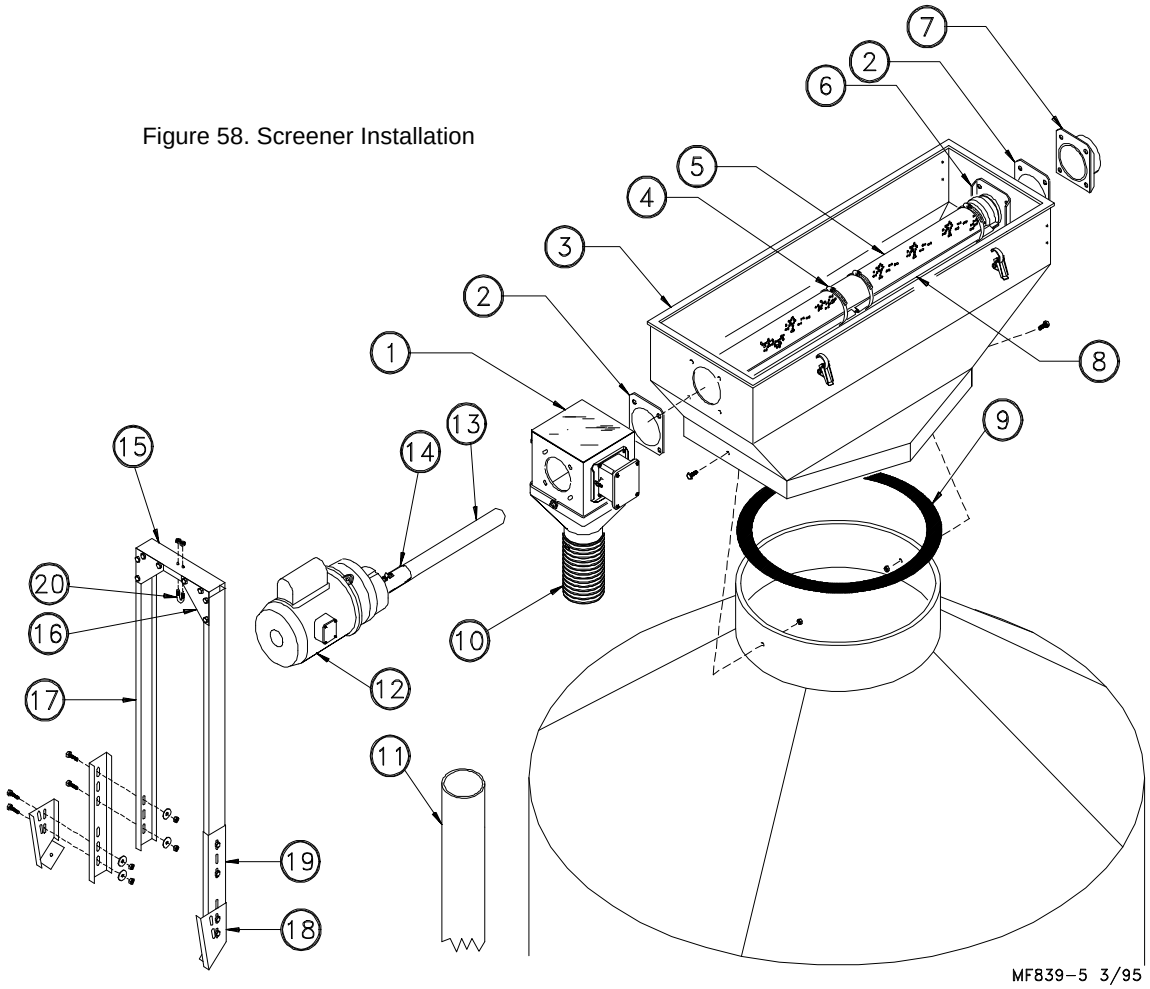
   See the Flex-auger Installation Manual packed with the FLEX-AUGER Control Unit for more detailed installation information.
4. Use chain or cable to support the Auger Tube.

WEIGH-MATIC® Model 90 Screener

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

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

Figure 58. Screener Installation



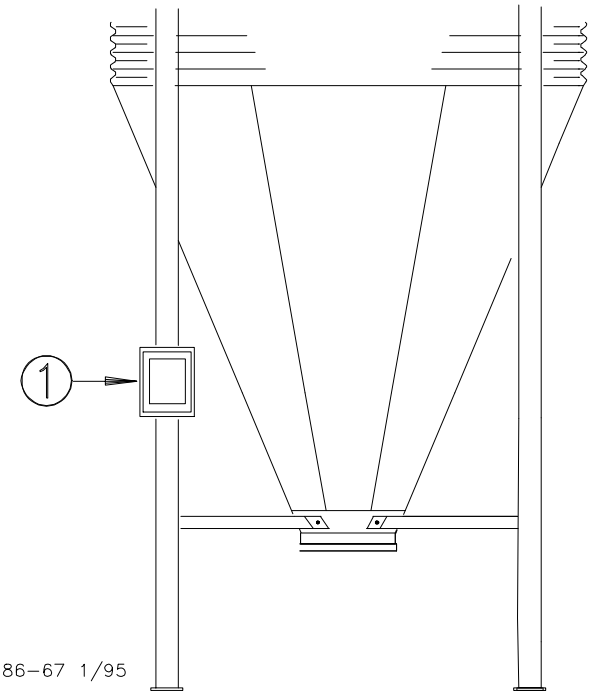
Item	Description	Part No.	Item	Description	Part No.
1	Control Unit Head	25720	10	Flexible Drop Tube	25702
2	Seal	4873	11	Drop Tube	6381
3	Screener Body	25446	12	Power Unit	3259-52
4	Adjustable Clamp	6183	13	Agitator	25674
5	Screen	7436	14	Driver Assembly	25705
6	EXTRUDED Plate	22084	15	Top Channel	25469
7	Anchor Tube	5069	16	Corner Support	25470
8	Screen Retainer	24796	17	Support Channel	25468
9	Lid Seal Gasket	5928	18	Foot Mount	25467
			19	Channel Support Extension	35800

Refer to Figure 58 during assembly process.

1. Install the Gasket on the top of the bin.
2. Carry the Screener Body to the top of the bin. The outlets of the bin should be in line with the direction the system will run. Use the holes

drilled in the screener collar as guides to fasten the screener to the top of the bin.

3. Install the Extruded Plates, Gaskets, Tube Anchor, and Control Unit Head, using the 5/16-18 hardware supplied.
4. The screens are shipped in halves and must be assembled. Use one Screen Retainer on each side of screens to secure the screen flanges together. Install four adjustable clamps to secure the screen halves together. Do not over-tighten clamps.
5. Fasten the Driver Assembly to the Power Unit Output Shaft and bolt to the Control Unit Head, using 5/16-18 hardware supplied. The Agitator will extend through the Control Unit Head and into the center of the Screener. Be sure to install the Drive Roll Pin through the Driver and Agitator to secure the blade in place.
6. Assemble the Motor Support Kit. The Motor Support will bolt to the top of the bin using self-drilling screws and gasket washers supplied.
7. Fasten the Flexible Drop Tube to the Drop under the Control Unit. Securely fasten a drop tube to run the foreign material into a container on the pad.



Key	Description
1	Junction Box

Figure 59. Junction Box Mounting (Side View)

8. Install the auger tubes and auger as specified in the FLEX-AUGER® Operators Manual.
9. Mount the Junction Box to the bin leg, using hardware supplied. See Figure 59.
10. Refer to the wiring diagrams in this manual for wiring instructions.
11. Set the Screener Cover on top of the Screener and secure it in place using the over-center clamps.

Controlling the Feeder

34380 Breeder Control Features

The ULTRAFLO Breeder Feeder is controlled by the 34380 Breeder Control.

The Breeder Control is designed to meet the feeding needs of poultry parent stock.

The Breeder Control has the capability of locking out the feeding system until the Weigh Bin has been satisfied with the preset amount of feed.

The Agri-Time™ Time Clock (within the Breeder Control) is used to schedule the feeding times and run times, as well as the fill system start times.

Figure 60 shows the individual components on the face of the Breeder Control.

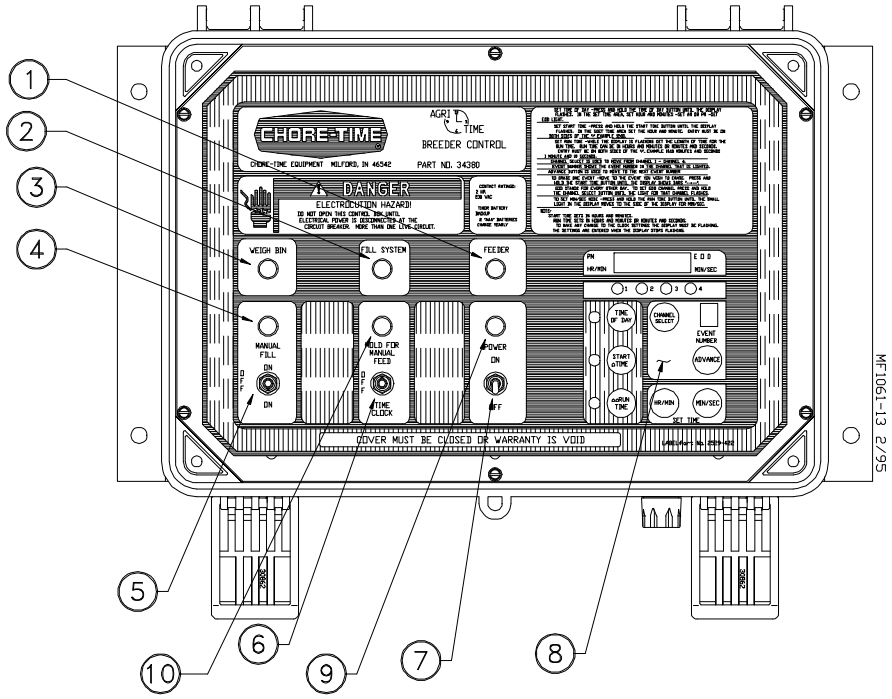


Figure 60. 34380 Breeder Control (front view)

Key	Description
1	Indicates feeder running.
2	Indicates fill system running.
3	Indicates weigh bin is filling.
4	Indicates the fill system is in the manual fill position.
5	Toggle switch used to set the fill system to ON, MANUAL ON, or OFF.
6	Toggle switch used to set the control to operate manually or automatic.
7	Toggle switch used to turn power ON and OFF to the Control.
8	Agri-Time™ Time Clock used to set fill system and feeding system start times. Also used to set feeding system run times.
9	Indicates control is switched to the ON position.
10	Indicates feeder is being operated in the MANUAL mode.

Time Clock Operation

The Agri-Time Time Clock has (4) programmable channels.

Each channel can have up to 8 events (feedings, waterings, etc.).

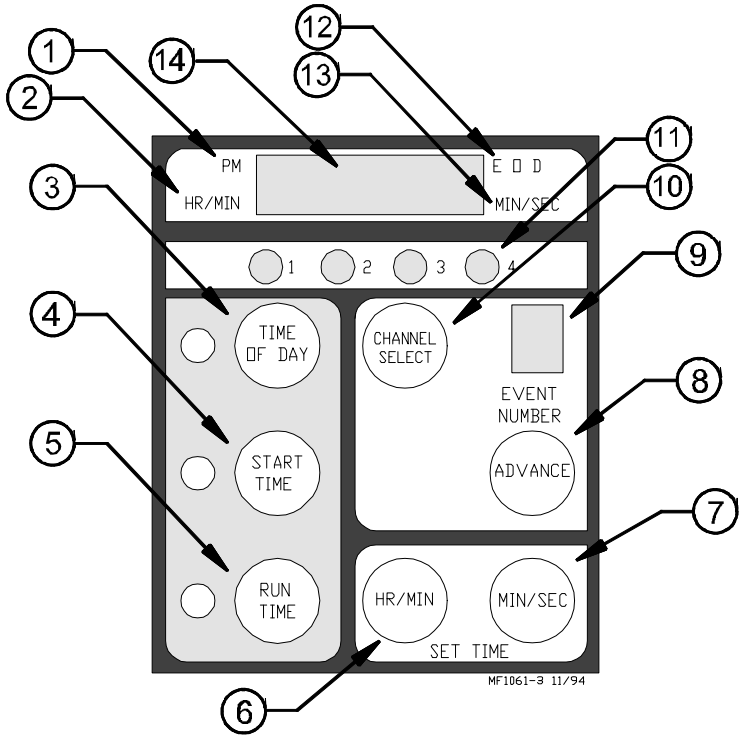
Each event will have a start time and run time programmed into the timer. The start times are programmed in hours/minutes. The run times are programmed in hours/minutes or minutes/seconds.

Any or all the channels can be set up as a skip channel.

Two “AAA” batteries are used as a backup for time of day if power is temporarily removed.

Program settings will be stored in “E” prom memory.

The Start Time, Run Time, and Channel Select buttons have dual functions.



Key	Description
1	P.M. Indicator
2	Hour/Minute Indicator
3	Used to set time of day, a.m./p.m., and skip mode.
4	Used to set start time and to erase individual operations.
5	Used to set length of run time. Also used to toggle between hours/minutes and minutes/seconds.
6	Used to set hours/minutes.
7	Used to set minutes/seconds
8	Used to advance to next event in channel.
9	Displays the event number being programmed.
10	Used to advance through the channels. Also used to set skip channel.
11	Indicates which channel(s) is active.
12	Indicates the day to be skipped.
13	Minutes/Seconds Indicator
14	Display Window

Figure 61. 4-Channel Time Clock Face (Front View)

Programming the 4-Channel Time Clock

Before beginning the time clock, fill in the desired starting times and running times. This will make programming the clock much easier.

IMPORTANT: A start time and a run time must be entered for each desired operation. If either are missing or incomplete, the operation will be ignored.

The display must be flashing in order to make any program changes.

When the display stops flashing, the new infomation will be added.

CHANNEL 1		CHANNEL 2		CHANNEL 3		CHANNEL 4	
START TIME	RUN TIME	START TIME	RUN TIME	START TIME	RUN TIME	START TIME	RUN TIME

To Reset the Time Clock:

The time clock must be reset upon initial installation.

With power off to the system, press and hold the START TIME button while turning the power on. This will erase any entries that were programmed in the factory or field. Release the START TIME button.

To Set the Time of Day:

Press and hold the TIME OF DAY button until the display begins to flash.

Use the HR/MIN key on the time clock. Be sure to set the clock to the appropriate a.m. or p.m.

NOTE: Entries must be on both sides of the colon (i.e. 01:20).

To Set Skip a Day Mode:

Press the HR/MIN button to advance the display until the indicator beside the SKIPS TODAY is illuminated. Set the clock to the appropriate a.m. or p.m. This will set the proper sequence for the every-other-day mode. **It does not**, however, set the every-other-day channel. The every-other-day channel will be set later in the programming.

To Set a Start Time:

Press and hold the START TIME button until the display starts flashing.

Enter the start time for the first channel using the buttons in the SET TIME area of the time clock. The start times will be set in hours and minutes. Be sure to set the appropriate a.m. or p.m. settings.

NOTE: Entries must be on both sides of the colon (i.e. 01:20).

To Enter a Run Time:

Use the buttons in the SET TIME area of the time clock. The run times may be set in minutes/seconds or hours/minutes.

NOTE: To set the run times in minutes/seconds, press and hold the RUN TIME button until the indicator beside MIN/SEC is illuminated.

NOTE: Entries must be on both sides of the colon (i.e. 01:20).

To Assign Every-Other-Day Mode to a Channel:

Press the CHANNEL SELECT button to advance to the channel you wish to be the skip channel.

Press and hold the CHANNEL SELECT button until the CHANNEL indicator starts to flash.

To remove every-other-day mode from a channel, press and hold the CHANNEL SELECT button until the indicator stops flashing.

To Move Through a Channel:

Press the ADVANCE button to move to the next event in a channel. The EVENT NUMBER display window changes as the ADVANCE button is pressed.

Follow the steps above to set the remainder of the channels and events.

To Erase a Single Event:

Press the CHANNEL SELECT button and the ADVANCE button to select the event you wish to remove.

Press and hold the START TIME button until the display shows bars. This will remove appropriate start time and run time.

To Erase All Start Times and Run Times:

Remove power to the Control Box.

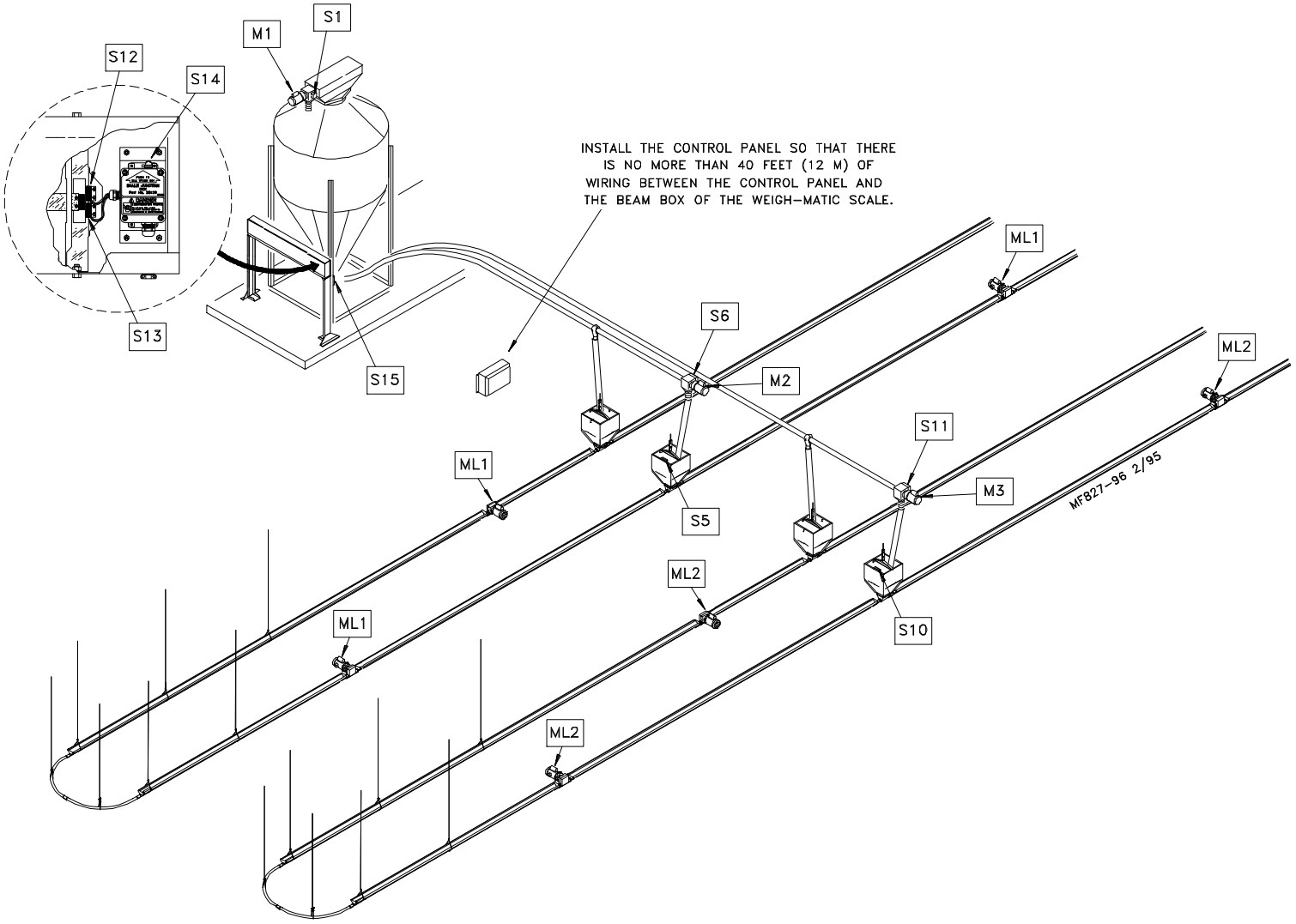
Press and hold the START TIME button (for approximately 5 seconds) while turning power on to the Control Box. This should remove all entries from the program. However, the time of day will not be erased.

To Review the Program:

Press and hold the START TIME button until the display begins to flash. Using the START TIME, RUN TIME, ADVANCE, and CHANNEL SELECT buttons you can view each of the programmed entries (events).

ULTRAFLO Breeder Feeder Component Location Diagram

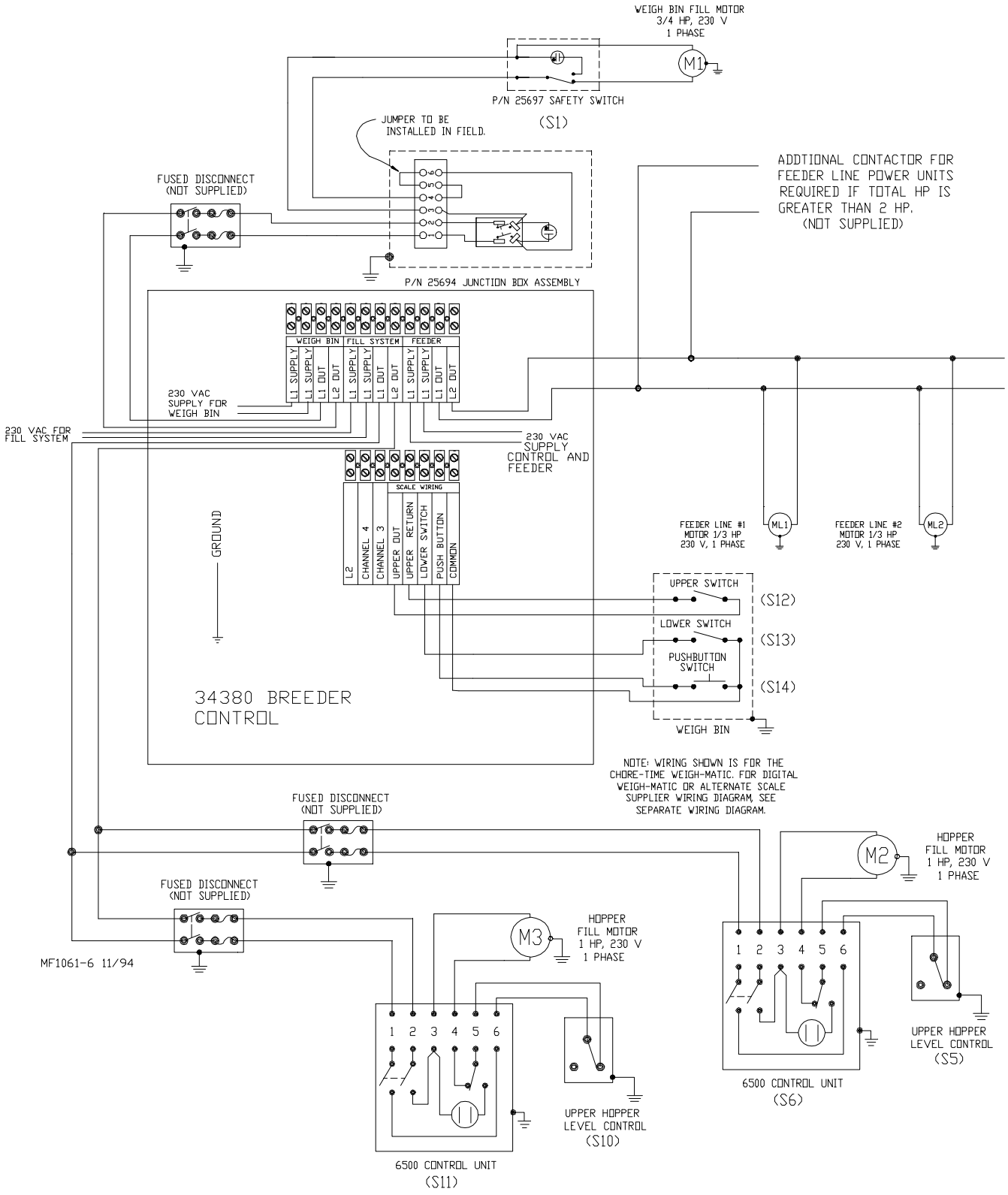
Wire the system according to the applicable wiring diagram. Refer to this Component Layout Diagram to determine the motor, switch, etc., locations.



34380 Breeder Control Wiring Diagram

for ULTRAFLO Breeder Feeder Installations w/o Motor Starters

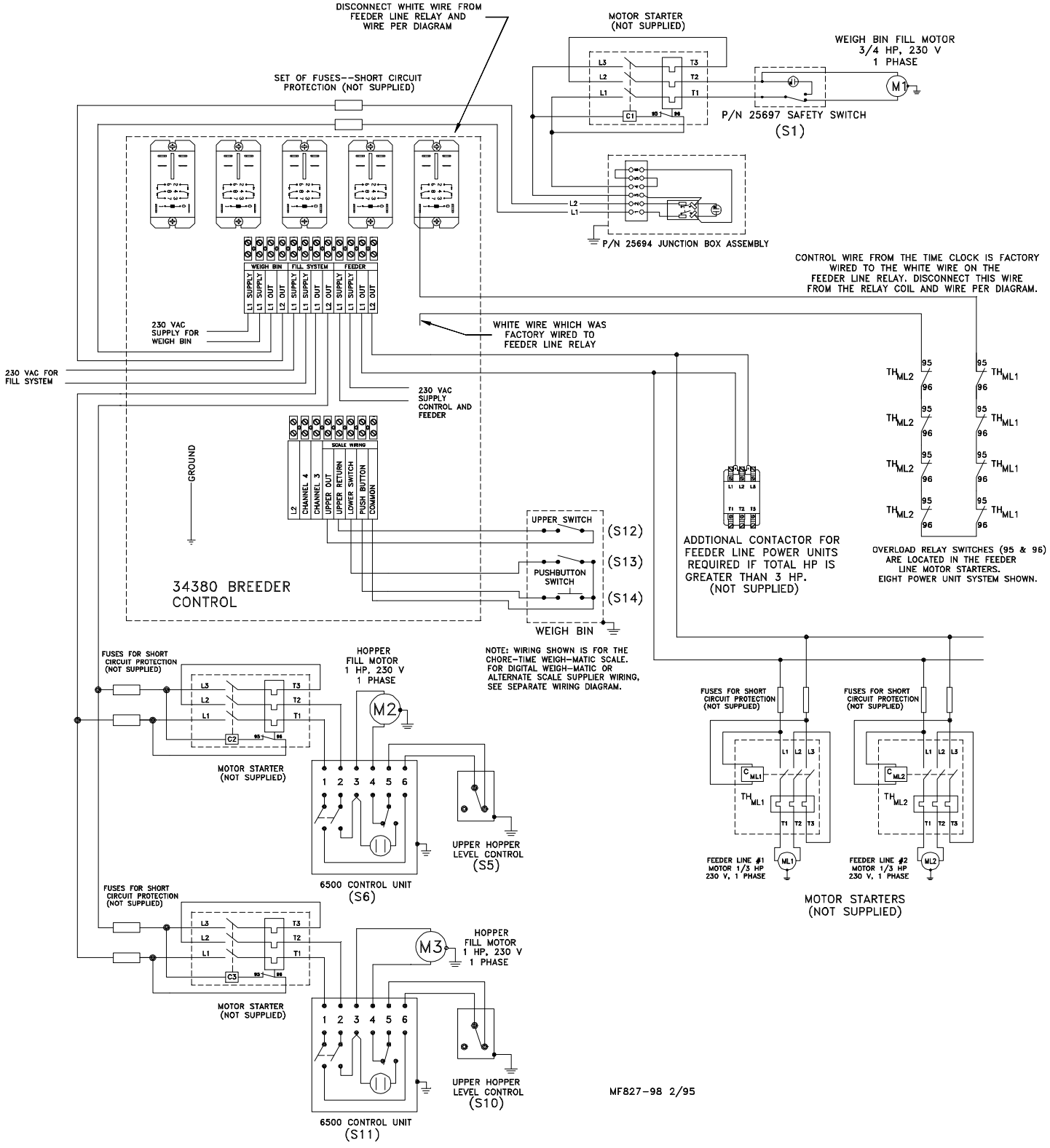
(230 V., 50/60 Hz., Single Phase)



34380 Breeder Control Wiring Diagram

for ULTRAFLO Breeder Feeder Installations w/ Motor Starters

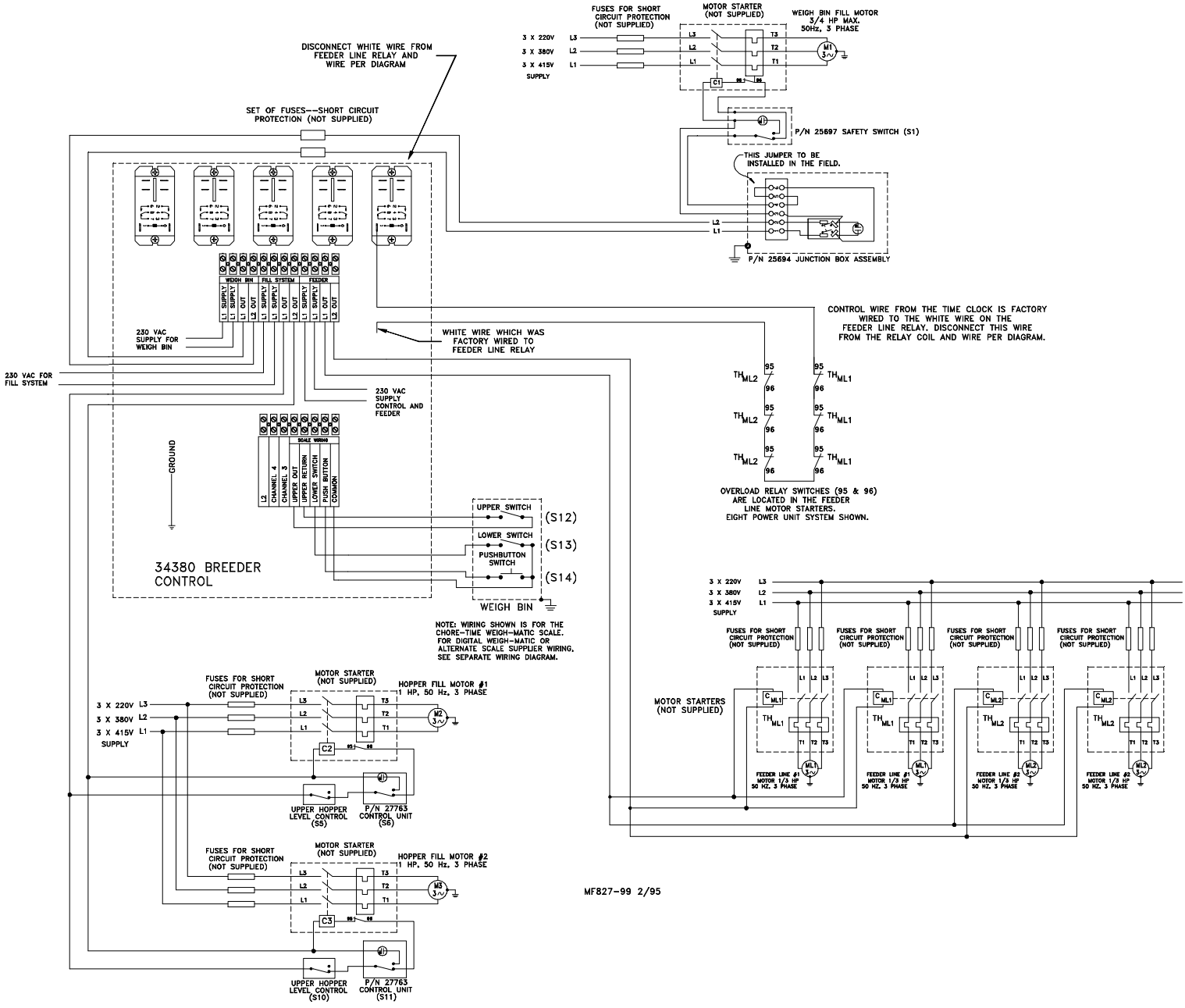
(230 V., 50/60 Hz., Single Phase)



34380 Breeder Control Wiring Diagram

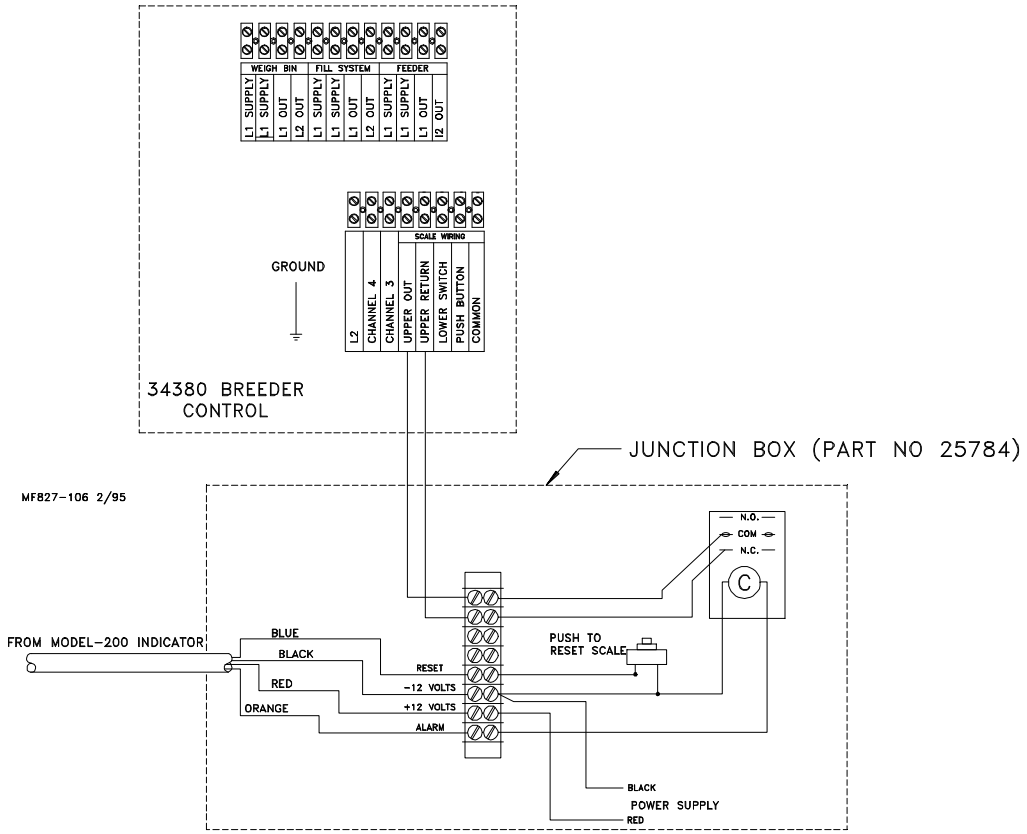
for ULTRAFLO Breeder Feeder Installations w/ Motor Starters

(220/380/415 V., 50 Hz., Three Phase)



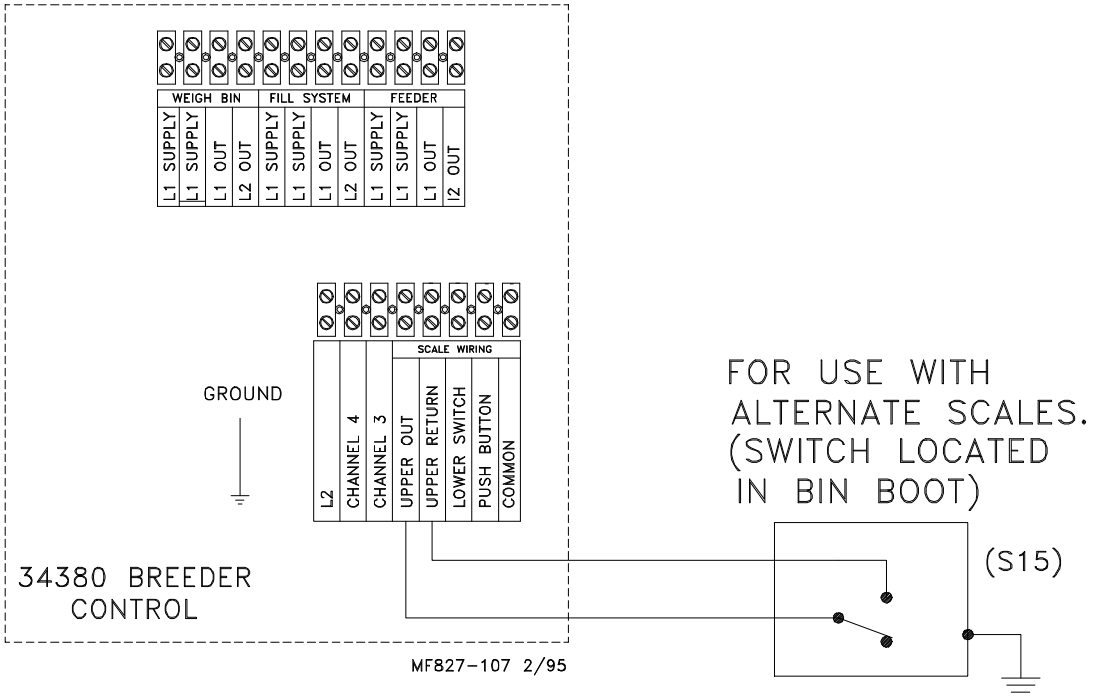
34380 Breeder Control Wiring Diagram

for installations using the Chore-Time Digital Weigh-Matic Scale



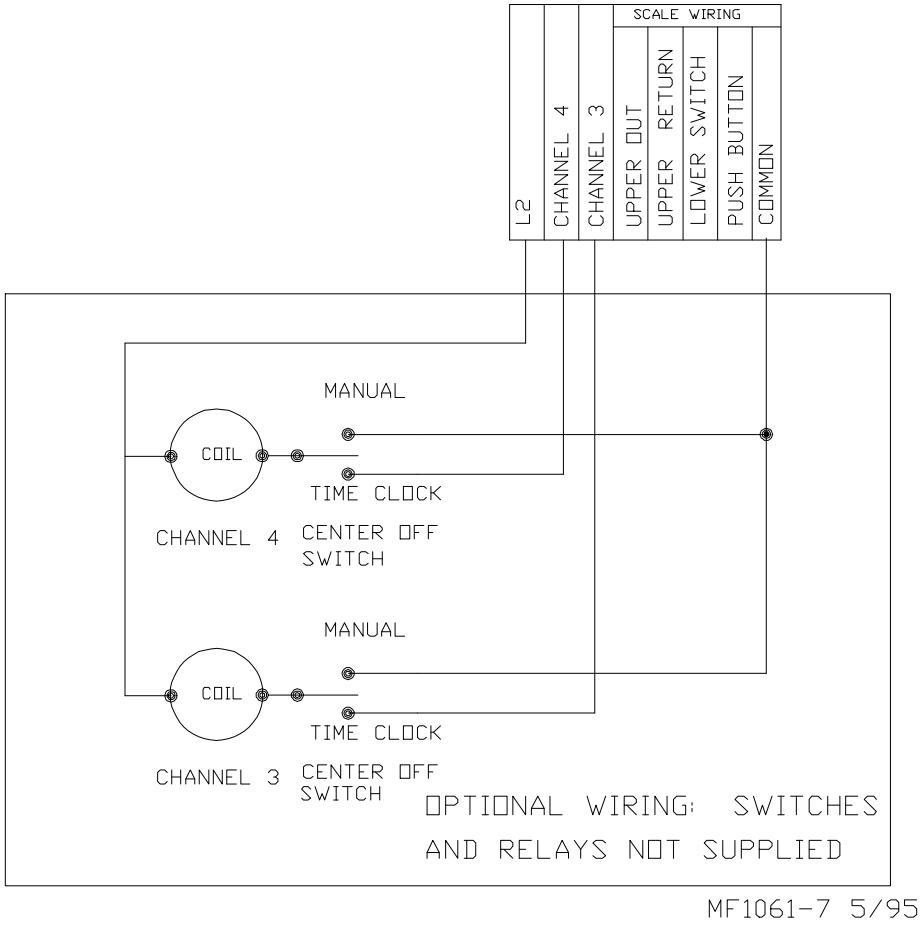
34380 Breeder Control Wiring Diagram

for installations using alternate scale systems

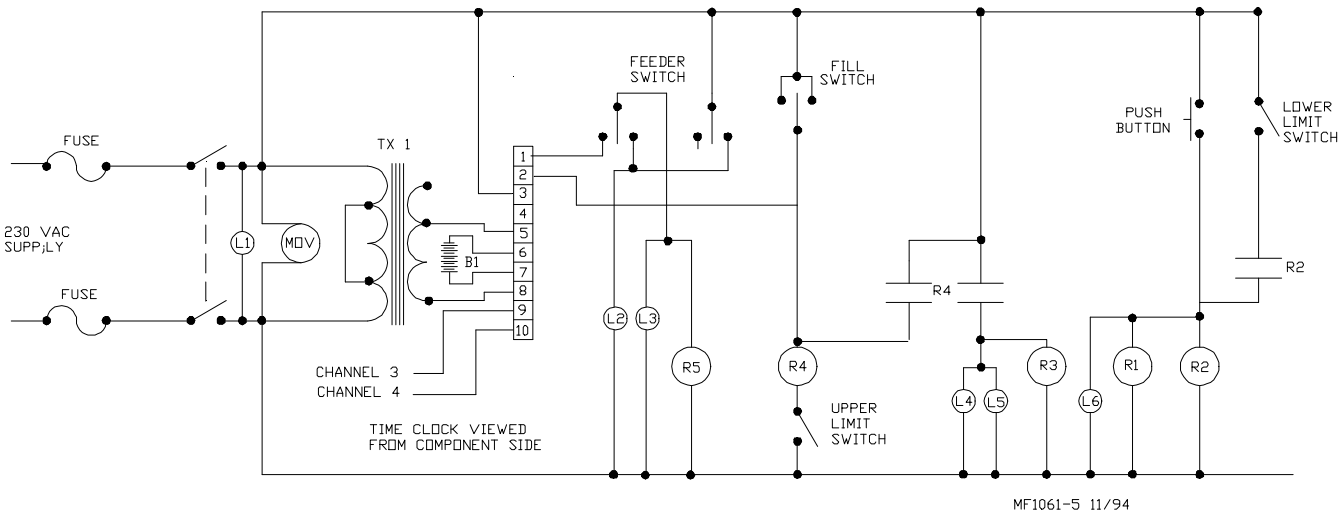


Additional Channel Wiring

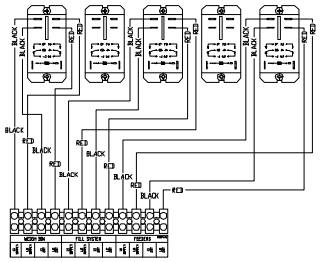
for 34380 Breeder Control

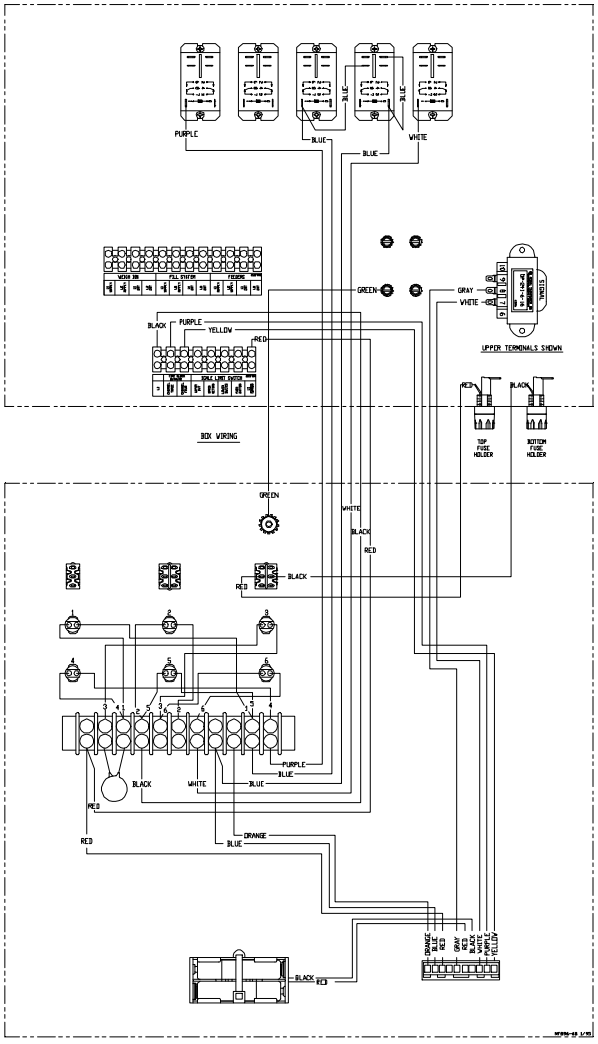


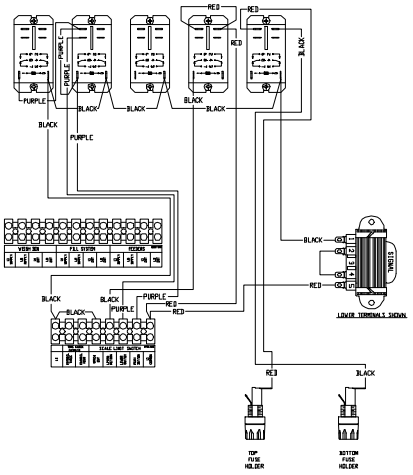
34380 Breeder Control Logic Wiring

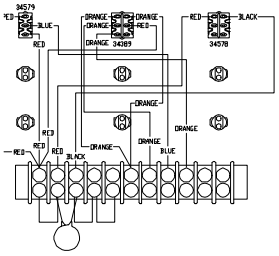


34380 Breeder Control Internal Wiring





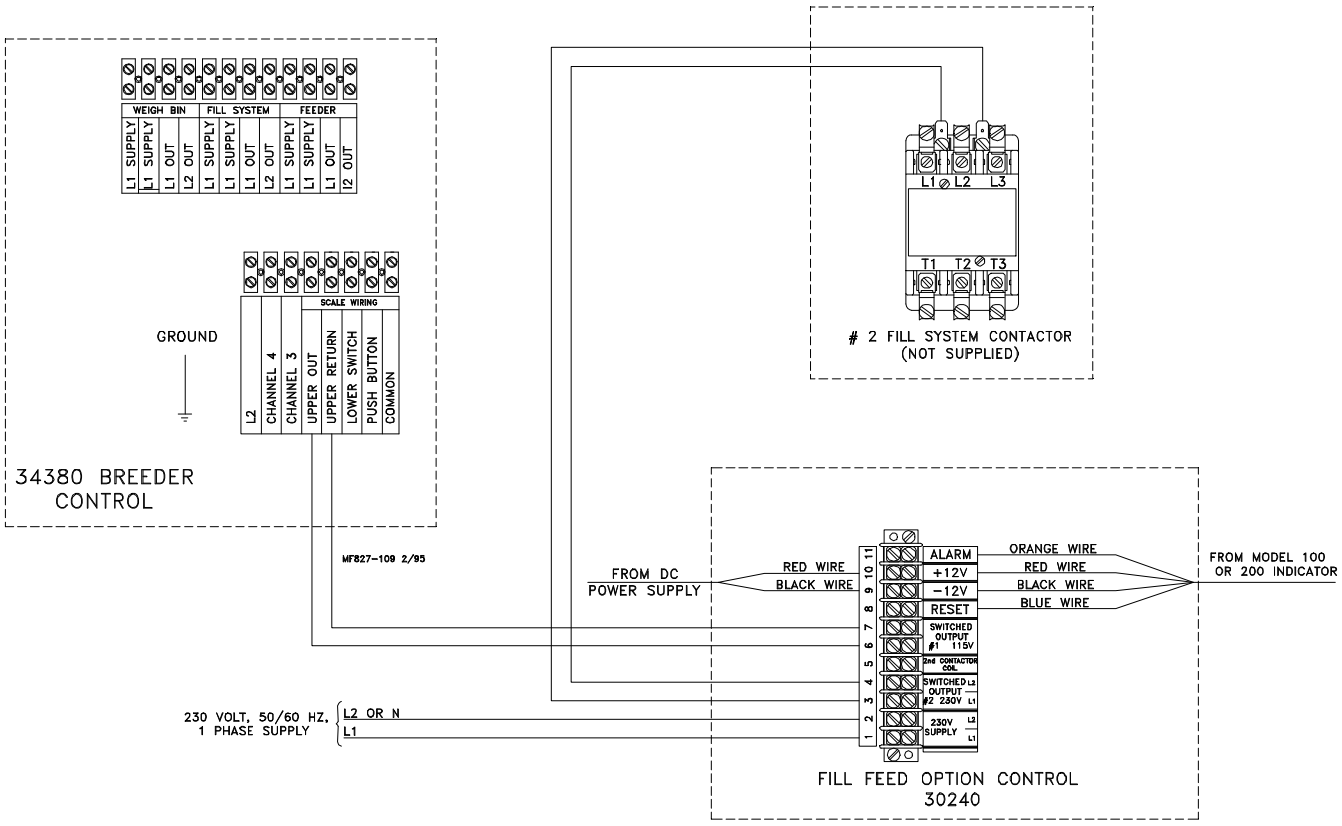




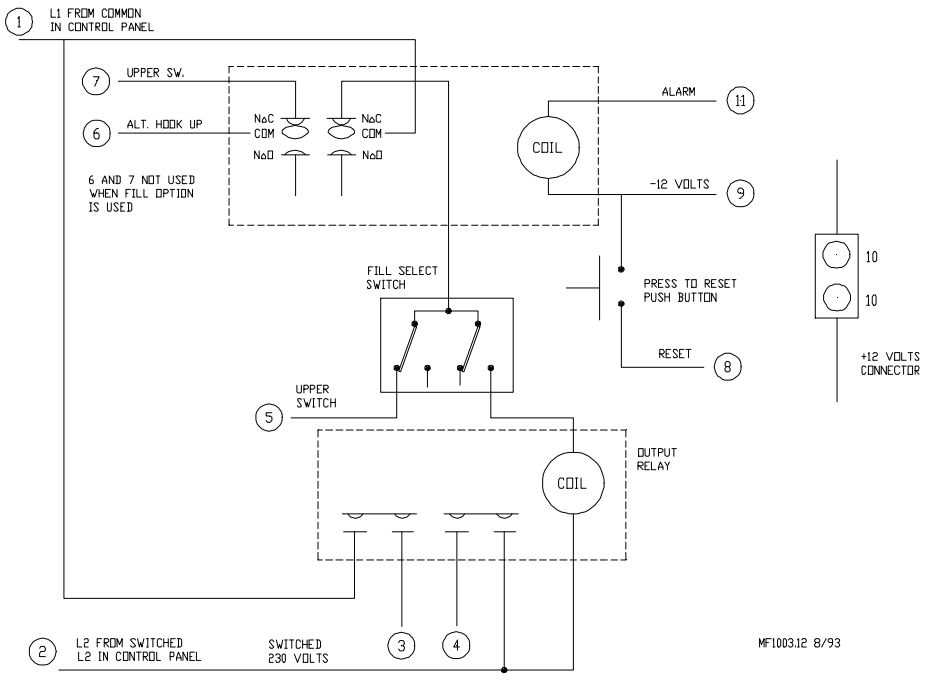
30240 Fill Option Breeder Control Wiring Diagram

for ULTRAFLO Breeder Feeder Installations w/o Motor Starters

(230 V. , 50/60 Hz., Single Phase)



30240 Fill Option Control Logic Wiring Diagram



Balancing the Scales

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

Never balance the scales if any of the delivery or fill augers are empty. The Weigh Bin should have approximately 50 pounds (23 kg) of feed in it whenever the scales are balanced.

1. Turn switch "ON" at the control panel
2. Hold weigh beam down and momentarily press switch button in beam box. This starts the fill system and it will bring feed into the weigh bin. Run delivery system long enough to bring 200 to 300 pounds (90 to 135 kg) of feed into the bin. Delivery capacity of the Model 90 Auger is approximately 100 pounds (45 kg) per minute. Run the fill system the correct length of time to achieve 200 to 300 pounds (90 to 135 kg) of feed in the weigh bin.
3. Release the weigh beam and allow it to raise up, away from the lower proximity sensor. The fill system will stop.
4. Raise the weigh beam so that it moves to the upper proximity sensor. The delivery system that carries feed from the weigh bin to the building will start.
5. Use the Manual Fill Switch to Run all but about 50 pounds (23 kg) of feed from the weigh bin. Some feed MUST remain in the boot. **THIS WILL BE THE ZERO POINT FOR BALANCING THE SCALE.**
6. Turn switch "OFF" at the control before making balancing adjustments.
7. Move poise on weigh beam to "O" against the stop pin.
8. Slide Back Balance Assembly along weighbeam until the end of the weigh beam is centered midway between the two sensors. Lock the back Balance Assembly to the weigh beam.
9. If finer adjustment is required, adjust the Brass Rod on the Back Balance until the weigh beam is centered between the two sensors.
10. Make sure Weigh Bar is centered in Beam Box. Check the accuracy and balance by setting the system for a small quantity of feed (20 pounds, for example). Cycle the fill system and make the following checks:

    •Check weigh beam so that it does not over-travel or float when moving from an unbalanced position to the balance point.

    •Check the quantity of feed delivered by cycling and collecting feed from the weigh bin. Number of pounds delivered should be the amount at which the scale was set.

NOTE: THE WEIGH BEAM IS AVAILABLE IN POUNDS OR KILOGRAMS.

• NOTICE •

If other scales are to be used (not C-T Weigh Matic) refer to manufacture's instruction manual for scales installation and operation.

Operation of the Scales

1. Set the 24 hour time clock on the control panel at the present time.
2. Pull tabs to program the starting time and length of the feeding period. NOTE: the time clock runs on a 24 hour cycle for daily feedings. For skip-a-day feeding, turn "POWER" switch "OFF" on non-feed day.

   The time clock is a double-dial time clock. The inner dial controls the fill system starting time. The outer dial controls the feeder running time.
3. Set the poise on the weigh beam for the desired quantity of feed.

4. Momentarily press switch button on the beam box until the FLEX-AUGER system bringing feed into the weigh bin starts. The FLEX-AUGER system will run the desired quantity of feed into the weigh bin; then it will shut off automatically.
5. Set poise to zero AFTER WEIGH BEAM REACHES BALANCE POINT AND FLEX-AUGER SYSTEM STOPS.
6. Feeder lines are time clock controlled by the outer dial. They will start running when the time clock signals that feeding period should begin. Continue to run to the end of the programmed feeding times.

NOTE: Adequate number of feed cycles should be programmed on the time clock so that all of the measured feed is consumed during each feeding period. Monitor the feed consumption. If the measured amount of feed has not been dispensed from the weigh bin and/or feed is present in the feeder line hoppers, increase the number of feed cycles or times.

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

Start-Up Procedure

Follow this procedure with new and refilled houses.

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

1. Turn off electrical power to the system.

   Check the feeder loop for foreign objects in the trough.

   Remove the Clean-Out Covers from the first loop
2. Turn on electrical power to the system.

   Set the Run Timer to allow the auger to make (2) complete revolutions around the feeder loop. Set the "FEEDINGS" switch to the "MANUAL" position.

   Allow the system to run empty for (2) complete revolutions. This will remove sawdust, etc., from the trough.
3. Turn off electrical power to the system.

   Install the Clean-Out Covers.
4. Turn on electrical power to the system.
5. Put feed in the weigh bin.

   Open the weigh bin slide approximately 3 inches (75 mm).
6. Set the Run Timer for 30-35 minutes.
7. Start the feeder loop by setting the "FEED" switch, on the Control Panel, in the "MANUAL" position.

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

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

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

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

8. Allow the feeder loop to run the remained of the time on the run timer. This will polish the auger (remove oils, rust, etc.)
9. Turn off electrical power to the system. Set the "FEED" switch in the "OFF" position.
10. Repeat the start-up procedure, above, on the second feeder loop.
11. If desired, the feed may be removed from the feeder loops.

    Turn off electrical power to the system.

Parts Lists

for

ULTRAFLO BREEDER FEEDER Feeding System

When ordering parts, Remember. . .

All parts should be ordered by PART NUMBER and DESCRIPTION as given in the Parts List.

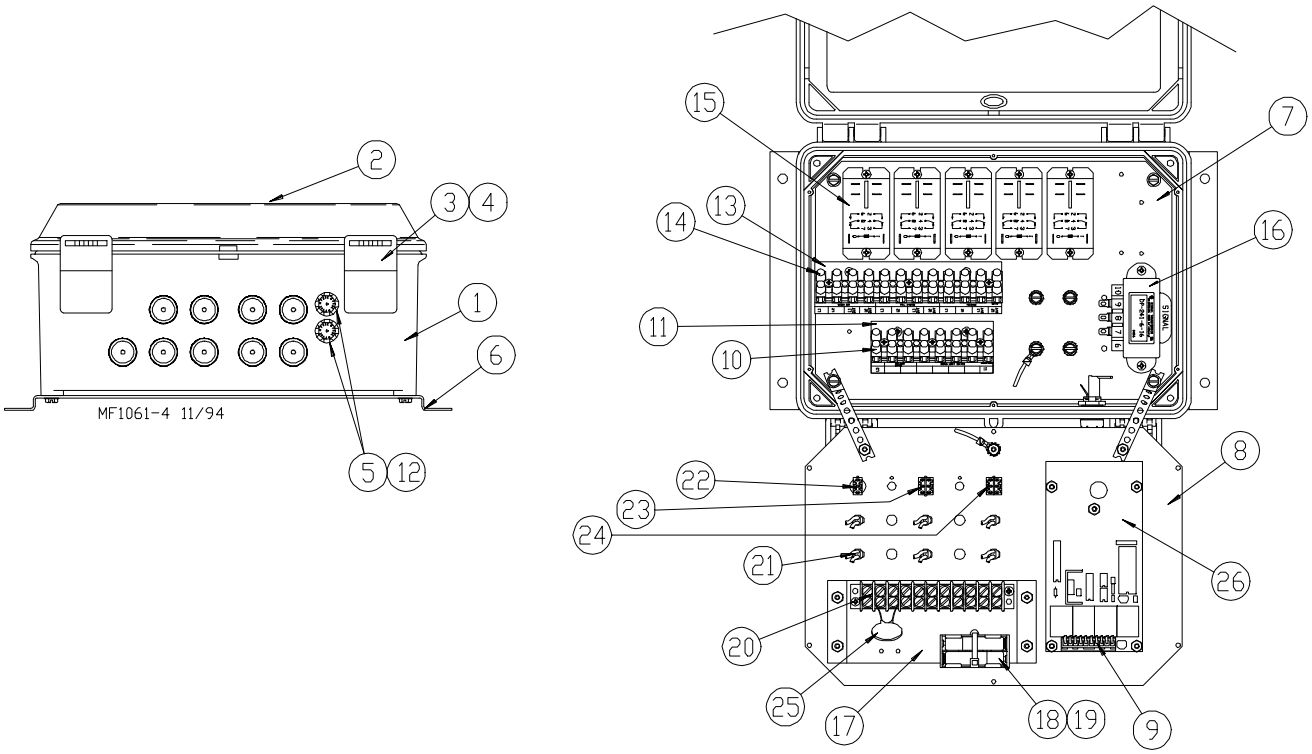
Parts are always billed when shipped. If a returned part is defective, and within warranty period, credit will be allowed against billing.

CHECK SHIPMENT FOR DAMAGES AND SHORTAGES.

All claims for damages or shortages resulting from shipment must be filed with the carrier.

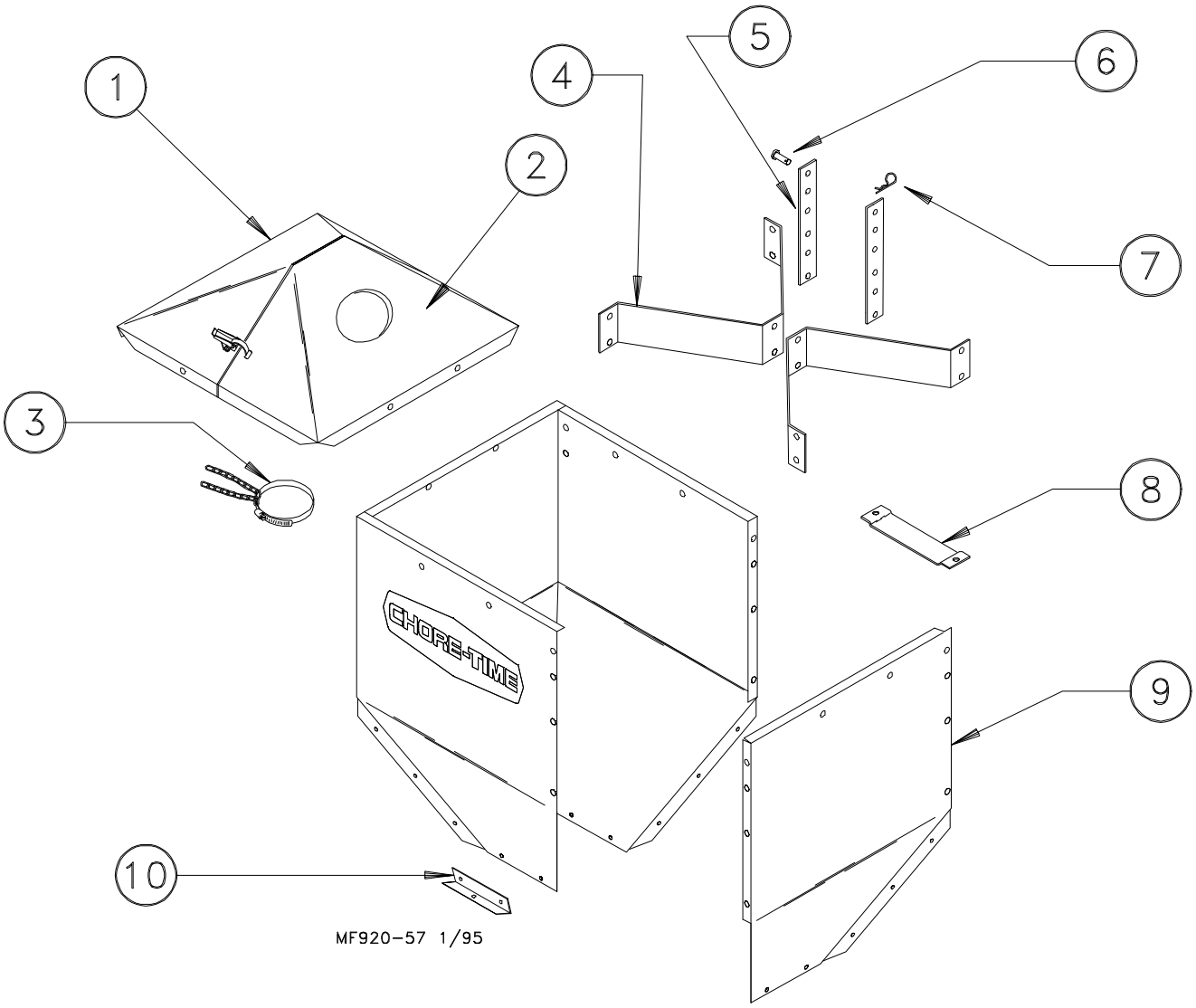
TOPIC PAGE

Breeder Control: Part No. 34380



Item	Description	Part No
1	Control Box	30860-4
2	Clear Cover	30859-1
3	Control Box Latch Pivot	30863
4	Control Box Latch	30862
5	Fuse Holder	24431
6	Control Box Mount Panel	34852
7	Back Mount Panel	34564
8	Front Panel	34565
9	Time Clock Connector	34457
10	Terminal Strip (8 poles)	34925-8
11	Terminal Mount Bracket	35094
12	3 Amp Fuse	20472
13	Terminal Mount Bracket	34563
14	Terminal Strip	34925
15	P & B Relay (240 V)	34733
16	Transformer	34571
17	Mount Bracket	34562
18	Battery Box Assembly	35095
19	AAA Battery	34584
20	Terminal Block	7347
21	Pilot Light	29708
22	Toggle Switch	34579
23	Toggle Switch	34389
24	Toggle Switch	34578
25	MOV	14063-1
26	Circuit Board	34384

100# Hopper Assembly

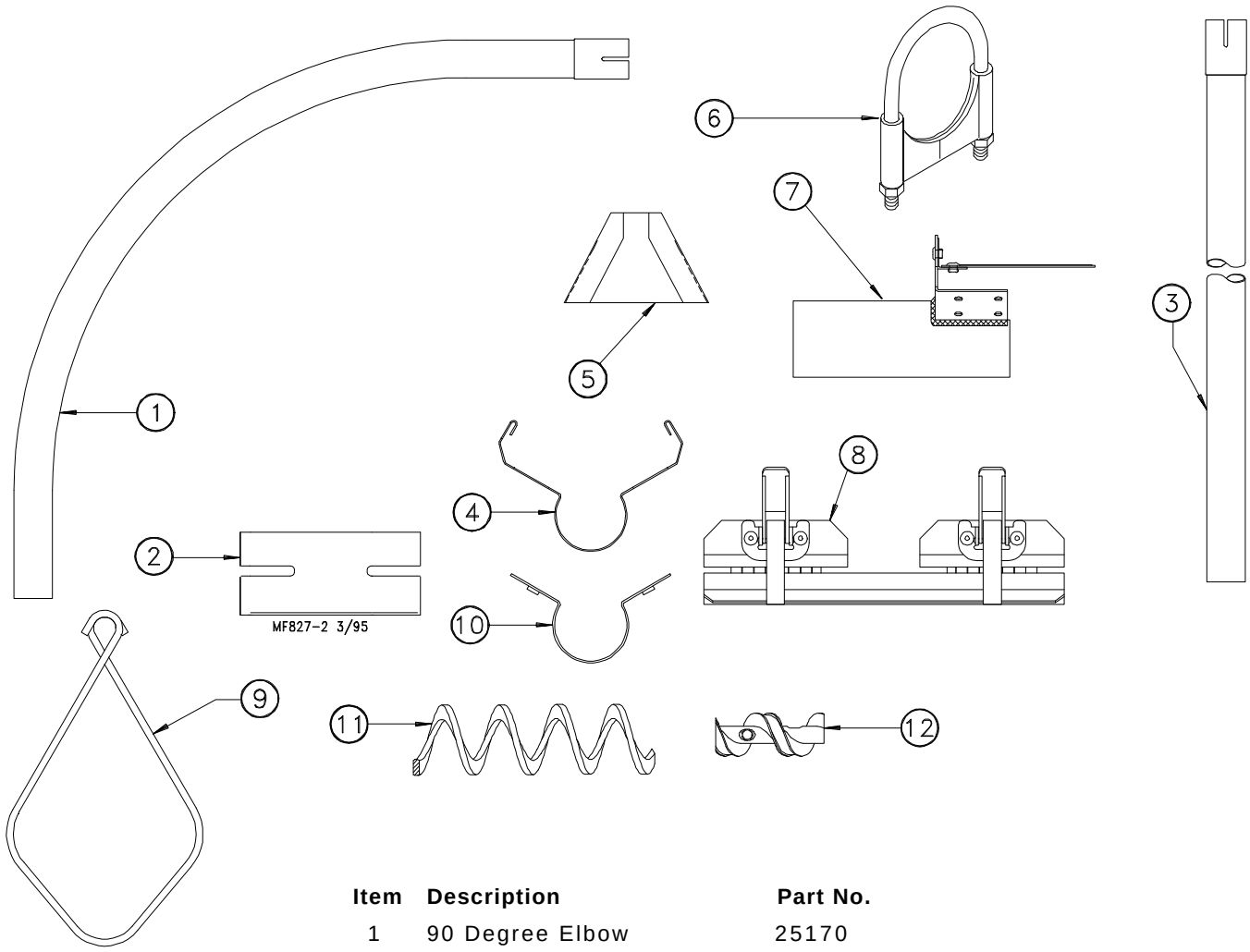


Key	Description	Part No.
1*	Hopper Cover (w/o hole)	28211
2*	Hopper Cover (w/ hole)	28212
3	Tube Support Assembly	14367
4	Hopper Hanger	28165
5	Adjustment Bracket	2706
6	Cotter Pin	2797-1
7	Hair Pin	2664
8	Support Plate	28267
9	Hopper Side	28164
10	Boot Hanger	28168

Note: The 100# Hopper (w/o Cover) may be ordered under Part No. 28220.

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

ULTRAFLO Breeder Feeder Line Components



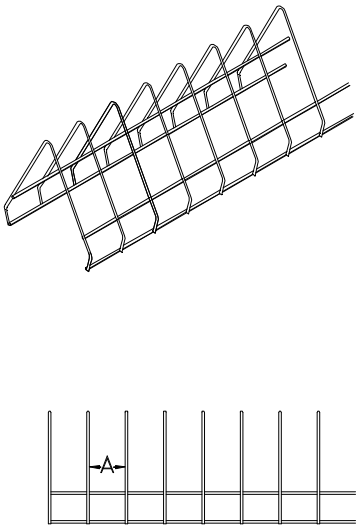
Item	Description	Part No.
1	90 Degree Elbow	25170
2***	Connector Tube	29691
3	5’ Belled Tube	35627
4	Trough -10’ (3 m)	14159-3
5	Grill End Cap	25464
6***	Tube Clamp	29775
7	End Cap	25169
8	Welding Fixture	25494
9	Trough Hanger	25010
10	Clean-Out	25502
11§	Auger	25058-0
12*	Auger Connector Ass’y	28091-2

*includes two connectors & (4) set screws.

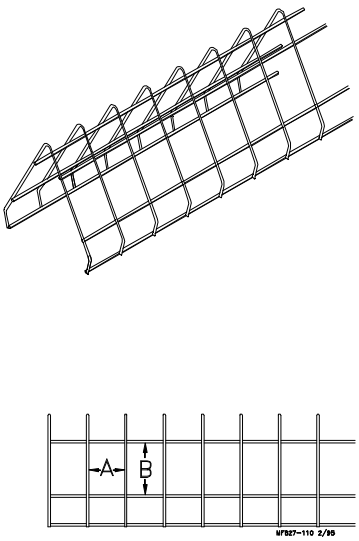
***(1) Connector Tube and (2) Tube Clamps
may be ordered as a kit under part no. 29802.

§Round up to nearest 10 foot interval.

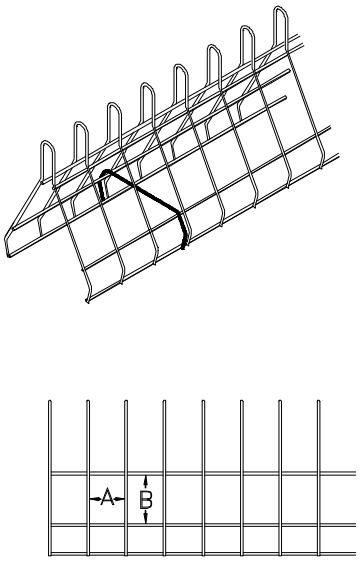
ULTRAFLO Breeder Feeder Grill Options



Grill Style: Standard



Grill Style: Cross



Grill Style: Hi-Contour

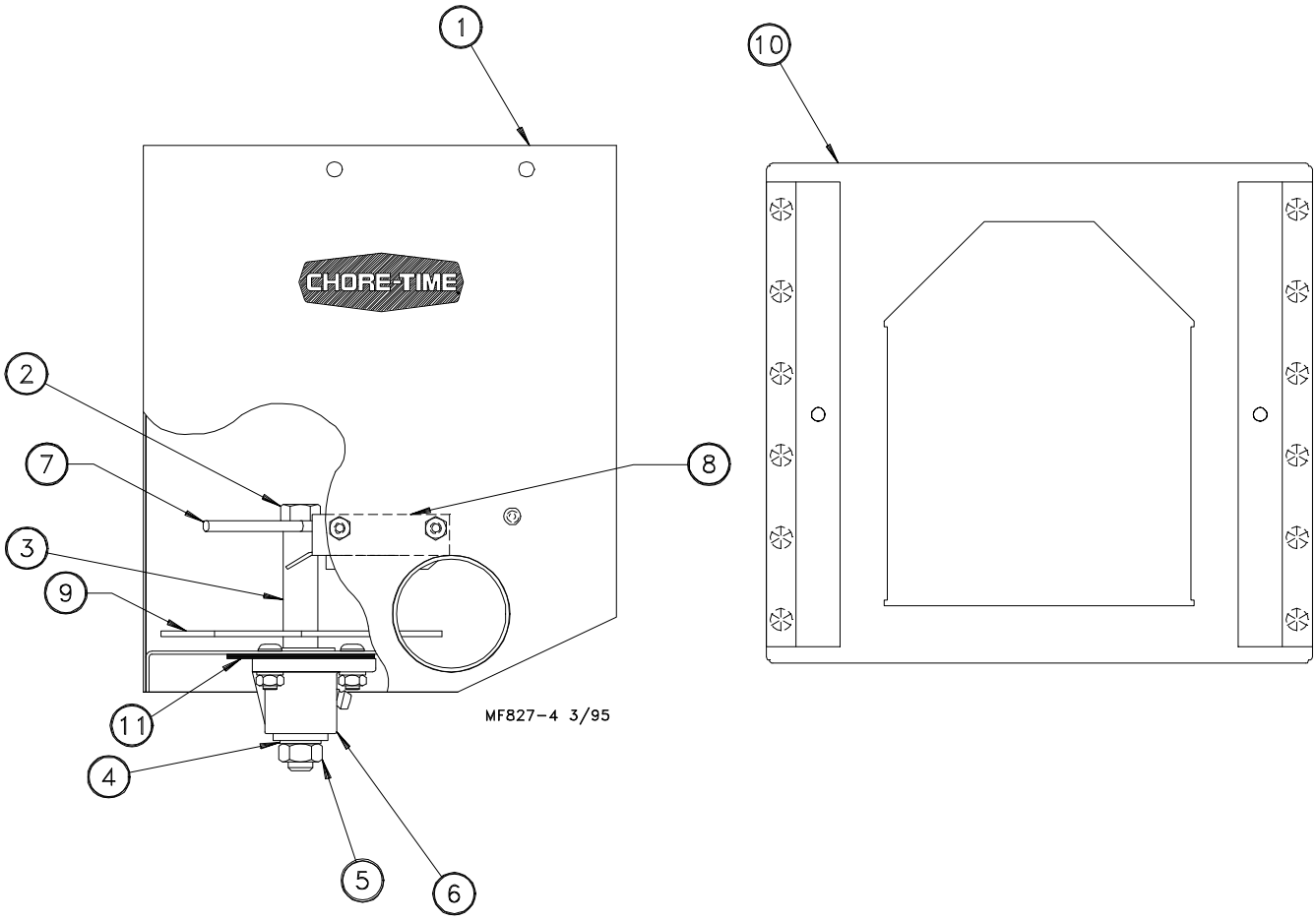
Part Number	Grill Style	Dimension "A"	Dimension "B"	Dimension "C"	Grill Retainer
24774-5	Standard	2.000" (50.80 mm)	N/A	4.50" (11.43 cm)	Not Required
24774-7	Standard	1.625" (41.28 mm)	N/A	4.50" (11.43 cm)	Not Required
24774-8	Standard	1.810" (46.00 mm)	N/A	4.50" (11.43 cm)	Not Required
24774-10	Standard	1.688" (42.86 mm)	N/A	4.50" (11.43 cm)	Not Required
24774-12	Standard	1.732" (44.00 mm)	N/A	4.50" (11.43 cm)	Not Required
28644-1	Cross (2)*	1.653" (41.99 mm)	2.77" (70.36 mm)	5.51" (14.00 cm)	Not Required
28664-2	Cross (2)*	1.810" (46.00 mm)	2.24" (56.90 mm)	4.50" (11.43 cm)	Not Required
28664-3	Cross (1)*	1.732" (44.00 mm)	3.13" (79.50 mm)	4.50" (11.43 cm)	Not Required
28664-4	Cross (2)*	1.688" (42.86 mm)	2.56" (65.02 mm)	4.50" (11.43 cm)	Not Required
28644-5	Cross (2)*	1.732" (44.00 mm)	2.50" (63.50 mm)	4.50" (11.43 cm)	Not Required
28644-6	Cross (2)*	1.750" (44.45 mm)	2.24" (56.90 mm)	4.50" (11.43 cm)	Not Required
28244	Hi-Contour	1.688" (42.86 mm)	3.00" (76.20 mm)	5.550" (14.10 cm)	27909
28249	Hi-Contour	1.625" (41.28 mm)	3.00" (76.20 mm)	5.550" (14.10 cm)	27909
28839	Hi-Contour	1.732" (44.00 mm)	3.00" (76.20 mm)	5.550" (14.10 cm)	27909
34945	Hi-Contour	1.688" (42.86 mm)	2.50" (63.50 mm)	6.500" (16.51 cm)	27909

*Denote number of cross wires.

Part No. 25167

ULTRAFLO Breeder Feeder Intake Cup

(Not for International use)

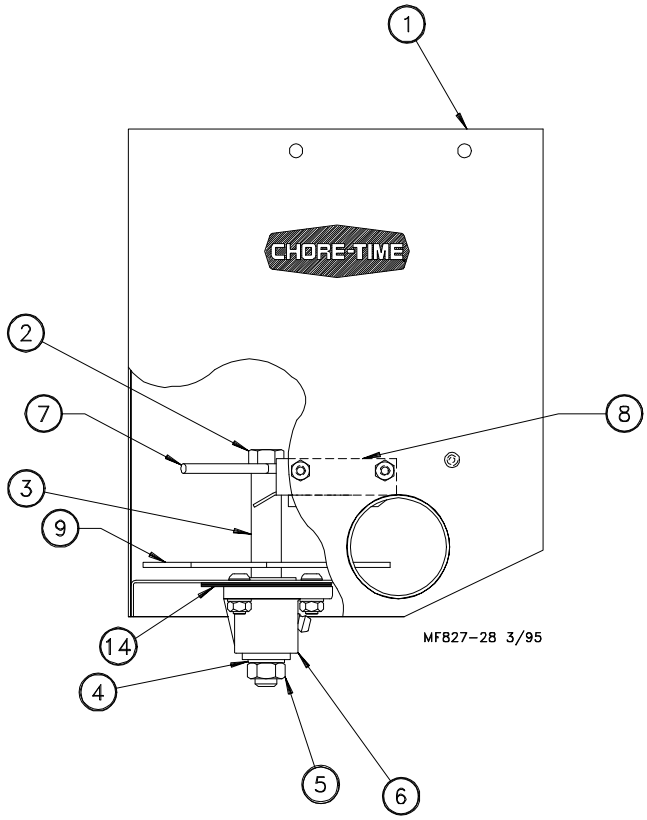


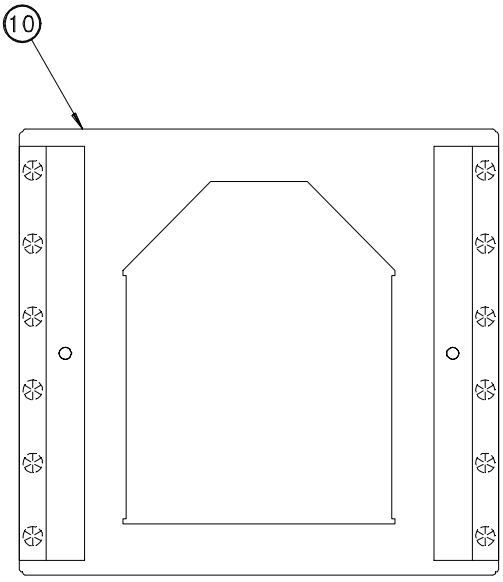
ITEM	DESCRIPTION	PART NO.
1	Intake Cup Weldment	25466
2	Clamping Bolt	24552
3	Spacer	24558
4	7/16" Flat Washer	2955-25
5	7/16" Locknut	2428
6	Bearing Assembly	14144
7	Actuator Rod	24571
8	Restrictor Plate	25338
9	Hopper Sprocket	25286
10	Hopper Adapter Weldment	25165
11	Bearing Spacer	28646

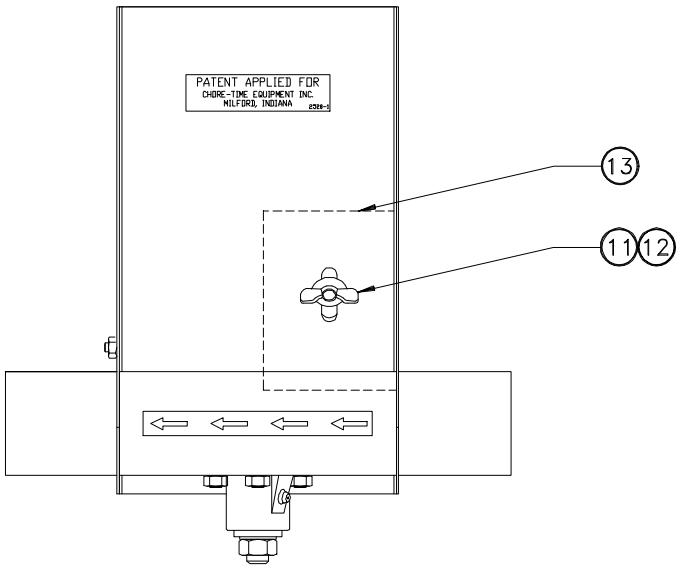
Part No. 27380

ULTRAFLO Breeder Feeder Intake Cup

(for International use only)

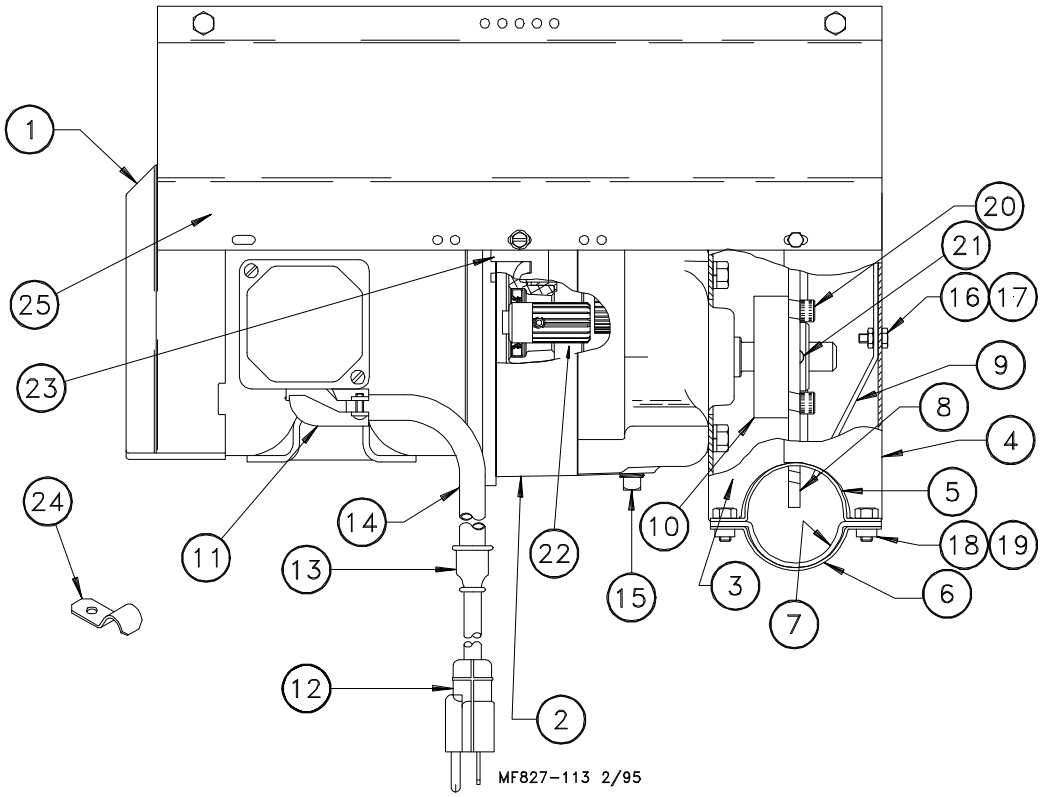






ITEM	DESCRIPTION	PART NO.
1	Intake Cup Weldment	27383
2	Clamping Bolt	24552
3	Spacer	24558
4	7/16" Flat Washer	2955-25
5	7/16" Locknut	2428
6	Bearing Assembly	14144
7	Actuator Rod	29518
8	Restrictor Plate	25338
9	Hopper Sprocket	25286
10	Hopper Adapter Weldment	25165
11	Wing Nut, 5/16-18	2146
12	Flat Washer	5933
13	Baffle	27382
14	Spacer	28646

Power Unit and Driver Assembly



Item	Description	25168 Part No.	28825 Part No.	28835 Part No.
1*	Motor	14733	28840	14750
2	Gearhead Assembly	3261-9	3261-12	3261-12
3	Drive Unit Base	25292	25292	25292
4	Drive Unit Cover	25291	25291	25291
5	End Connector	25296	25296	25296
6	Base Connector Weldment	8249	8249	8249
7	Wear Shoe	25290	25290	25290
8	Drive Sprocket	25279	25279	25279
9	Auger Brace	24674	24674	24674
10	Drive Gear Hub	8213	8213	8213
11	90 Degree Connector	4228	- - - -	4228
12	Motor Cord Assembly	27719	- - - -	27719
13	Reducing Seal	7815	- - - -	7815
14	Vinyl Tubing	7814	- - - -	7814
15	Magnetic Pipe Plug	30160	30160	30160
16	10-24x1/2" Hex Head Screw	4416-3	4416-3	4416-3
17	10-24 Locknut	1560	1560	1560
18	1/4-20x1/2" Hex Head Screw	1487	1487	1487
19	1/4-20 Locknut	1269	1269	1269
20	5/16-18 Socket Head Cap Screw	6850-1	6850-1	6850-1
21	Dowel Pin	8699	8699	8699
22	Pinion Assembly	3249	25836	25836
23	Motor Support	34266	34266	34266
24	Power Cable Bracket	34268	34268	34268
25	Motor Shield Side	34267	34267	34267

Power Unit and Driver Assembly Part Numbers:

Part Number	HP	RPM	Phase	Hz	Voltage
25168*	1/3	62	Single	60	220 V.
28825*	1/3	61	Three	50	220/380 V.
28835*	.4	61	Single	50	220 V.

WEIGH-MATIC® Model 90 Screener Parts List

Part No. 25432

Item	Description	Part No.
1	Control Unit Head	25720
2	Seal	4873
3	Cover Weldment Screener	25446
4	Clamp	6183
5	Screen	7436
6	Extruded Plate	22084
7	Anchor Tube	5069
8	Screen Retainer	24796
9	Sponge Tubing (6')	5928
10	Flexible Drop Tube	25702
11	Drop Tube (not supplied w/Screener)	6381
12§	Power Unit (not component of 25432)	3259-52
13*	Agitator	25674
14*	Driver Assembly	25705
15**	Top Channel	25469
16**	Corner Support	25470
17**	Support Channel	25468
18**	Foot Mount	25467
19**	Channel Support Extension	35800
20**	"U" Bolt	28874
--§	Junction Box Assembly	25694
--	Screener Cover	25701

The entire Weigh-Matic Model 90 Screener including:

-25432 Screener (components shown),

-4347 upper boot,

-9301 lower boot,

-6942-25 auger,

-6293 10' auger tubes,

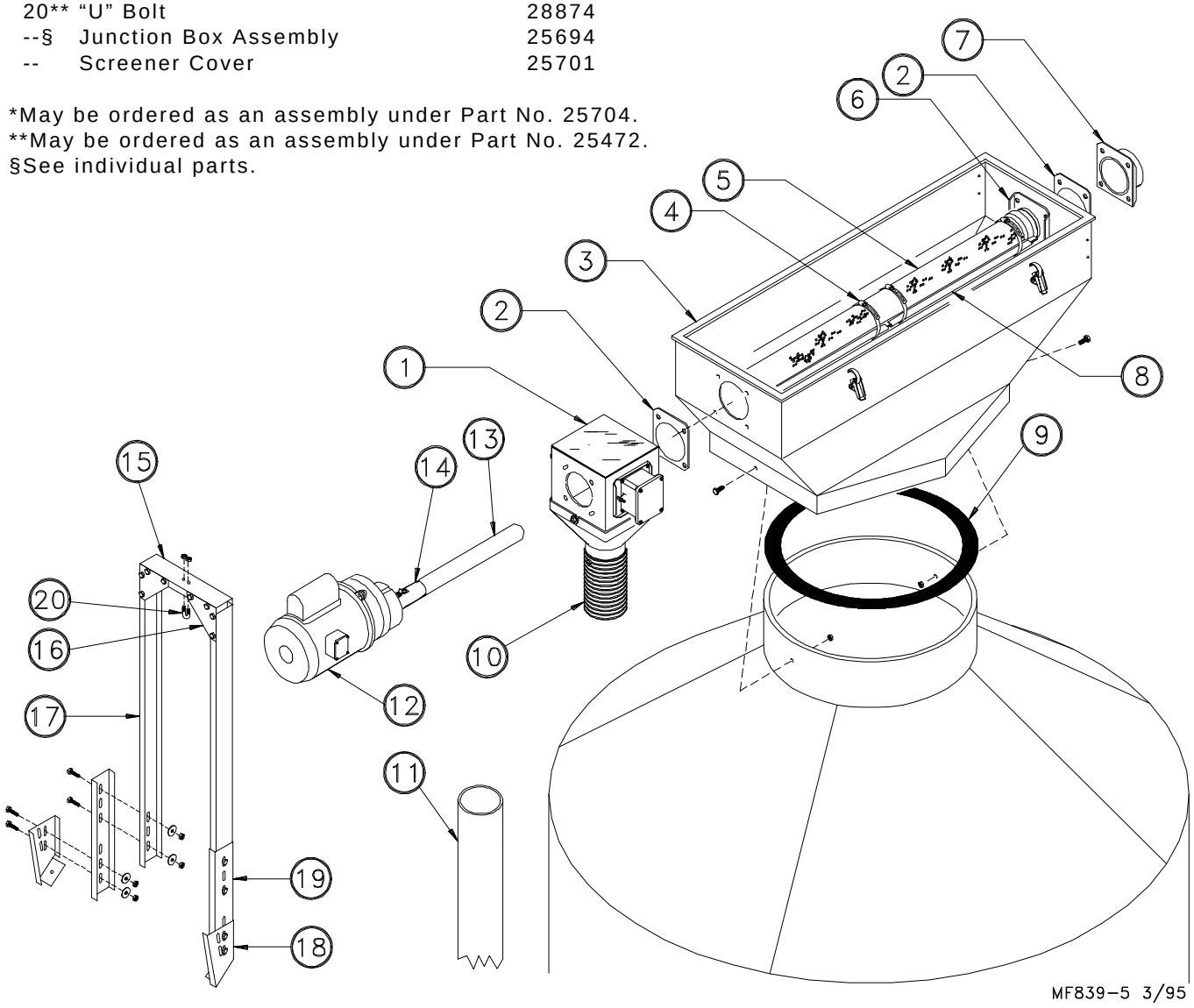
-7357 90 degree elbows,

-5790 Beam Box, and

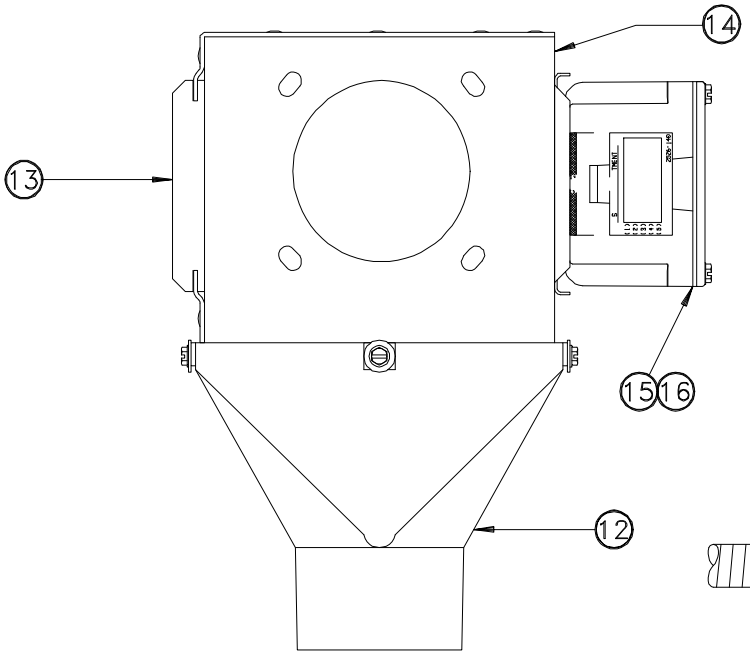
-3259-52 power unit

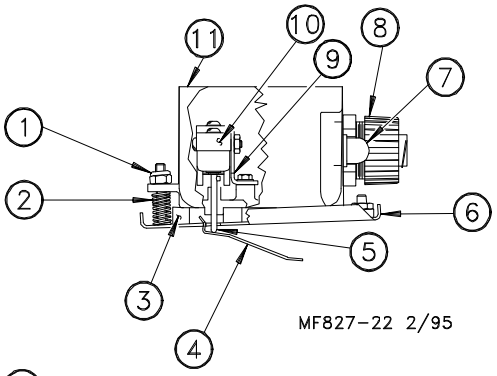
may be ordered under part no. 25790.

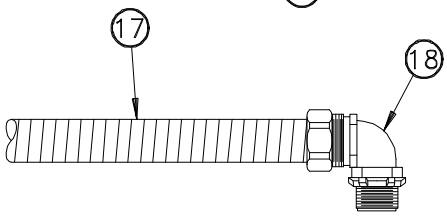
*May be ordered as an assembly under Part No. 25704.
**May be ordered as an assembly under Part No. 25472.
§See individual parts.



Screener Control Unit





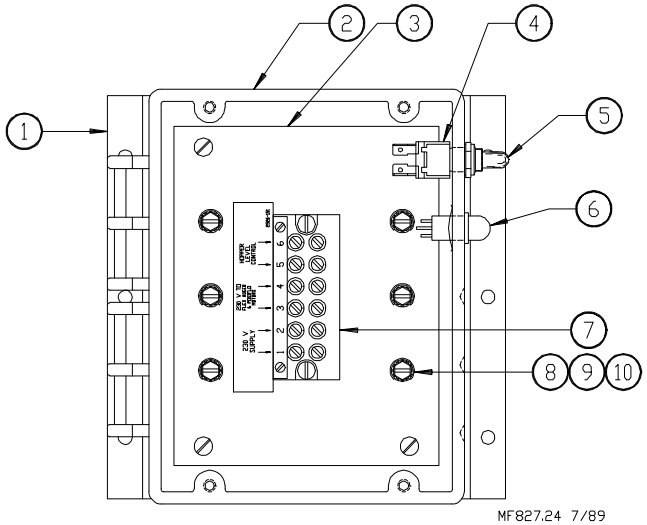


Item	Description	Part No.
1*	10-32 Locknut	6963
2*	Spring	6972
3*	Gasket	6968-1
4*	Paddle	7896
5*	Pin	6775
6*	Mounting Plate Assembly	7908
7*	Pilot Light Assembly	7044
8*	1/2" Liquid Tight Fitting	26980
9*	Switch Bracket	7068
10*	SPDT Actuator Switch	7114
11*	Switch Box	25696
12	Drop	6091
13	Slide	5073

Item	Description	Part No.
14	Body Assembly	24268
15	Gasket	6777
16	Switch Box Cover	6776
17	1/2" Flexible Conduit	26982-9
18	Watertight Connector	23810
--	Diaphragm Assembly	7900

*These items may be ordered as an assembly under part-number 25697.

The complete Control Unit (including Driver Assembly and Junction Box Assembly) may be ordered under part no. 25720.



Junction Box Assembly: 25694

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

Screener Power Unit • 60 Hz.

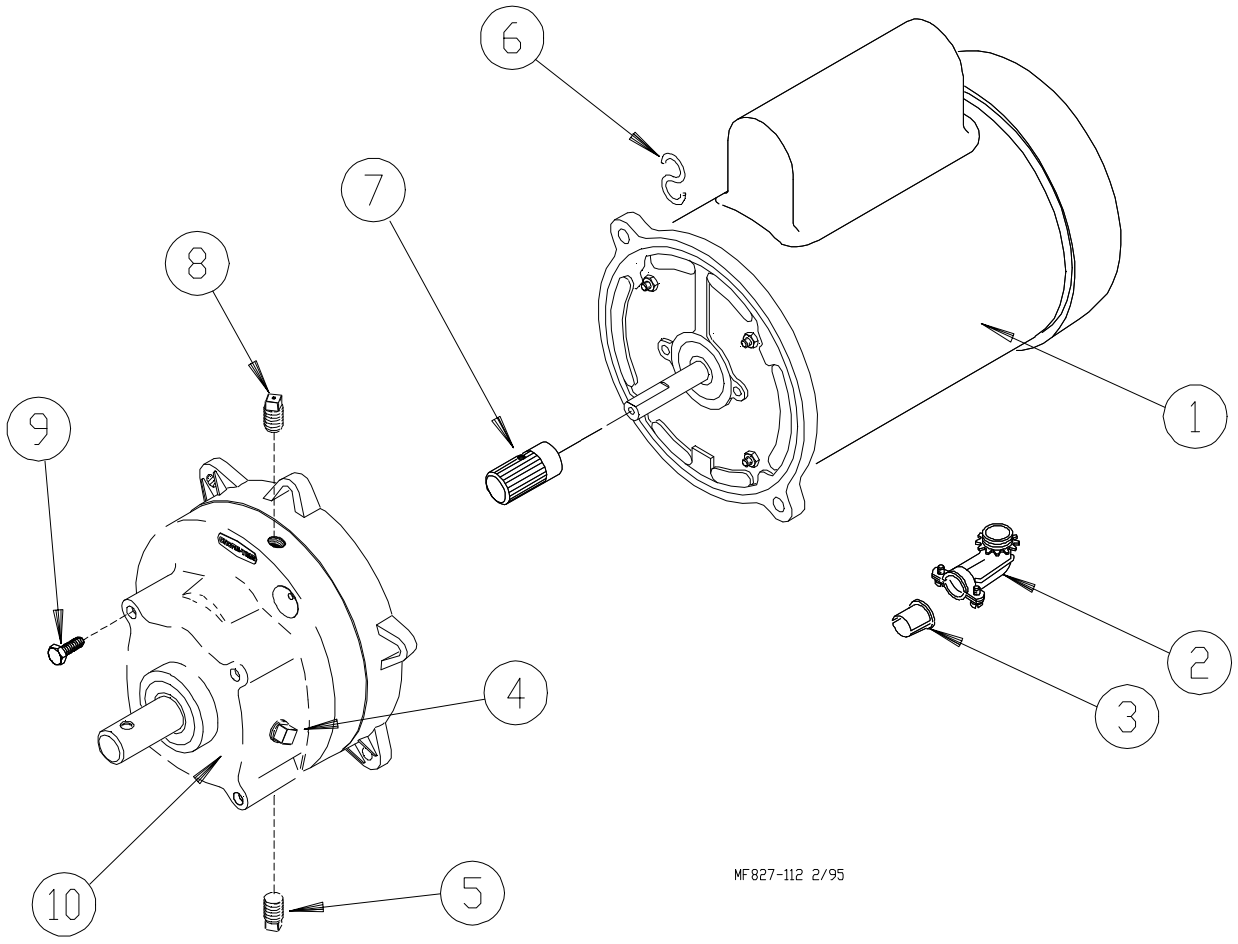
Key	Description	Part No.
1	Motor--3/4 HP, 230V.	5051
2	90 Degree Connector	4228
3	Anti-Short Bushing	6304
4	Pipe Plug	2755
5	Magnetic Pipe Plug	30160
6	"S" Hook	4270
7	Pinion Assembly	5046
8	Vent Plug	3523
9	5/16-18x5/8" Hx Hd M S	4412-1
10	Gearhead Assembly-348 RPM	3261-7

Complete Power Units	Part No.
3/4 HP, 348 RPM Power Unit	3259-52

Screener Power Unit • 50 Hz.

Key	Description	Part No.
1	Motor--3/4 HP, 220/380 V, 3 Phs.	28034
	Motor--3/4 HP, 220/380 V, 1 Phs.	6305
2	90 Degree Connector	- - - -
3	Anti-Short Bushing	6304
4	Pipe Plug	2755
5	Magnetic Pipe Plug	30160
6	"S" Hook	4270
7	Pinion Assembly	5046
8	Vent Plug	3523
9	5/16-18x5/8" Hx Hd M S	4412-1
10	Gearhead Assembly-425 RPM	3261-10

Complete Power Units	Part No.
3/4 HP, 348 RPM, 3 Phs Power Unit	3259-104
3/4 HP, 348 RPM, 1 Phs Power Unit	3259-88



Fill System Power Units • 60 Hz.

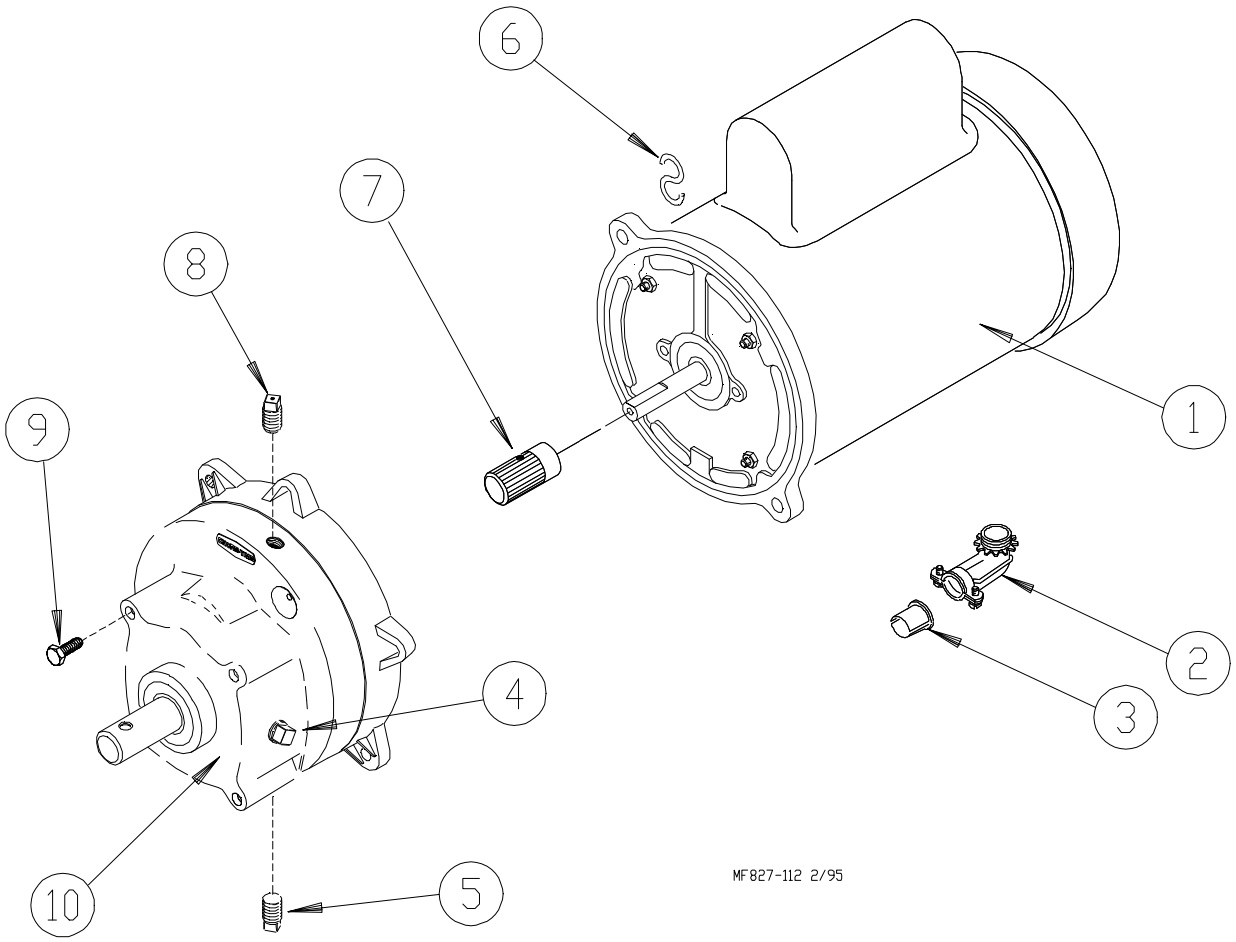
Key	Description	Part No.
1	Motor--1/2 HP / 230V.	5050
	3/4 HP / 230V.	5051
	1 HP / 220V.	6857
2	90 Degree Connector	4228
3	Anti-Short Bushing	6304
4	Pipe Plug	2755
5	Magnetic Pipe Plug	30160
6	"S" Hook	4270
7	Pinion Assembly	
	- for 1/2 & 3/4 HP RPM Motors	5046
	- for 1 HP Motors	6104
8	Vent Plug	3523
9	5/16-18x5/8" Hx Hd M S	4412-1
10	Gearhead Assembly-425 RPM	3261-10

Complete Power Units	Part No.
1 HP, 425 RPM Power Unit	3259-79
1/2 HP, 425 RPM Power Unit	3259-77
3/4 HP, 425 RPM Power Unit	3259-78

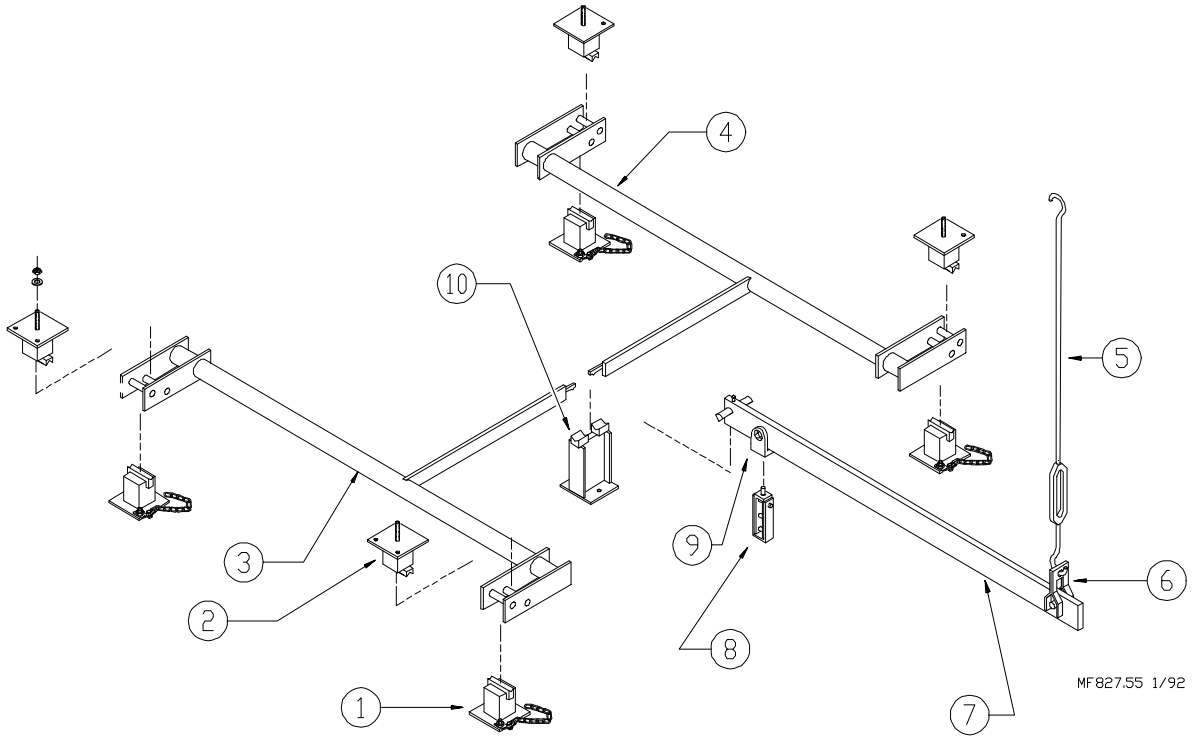
Fill System Power Units • 50 Hz.

Key	Description	Part No.
1	Motor--1 HP, 3-Phs, 220- 380 V,	28035
	Motor--1 HP, Single Phs. 220 V,	26157
2	90 Degree Connector	4288
3	Anti-Short Bushing	6304
4	Pipe Plug	2755
5	Magnetic Pipe Plug	30160
6	"S" Hook	4270
7	Pinion Assembly- for 1 HP Motors	6104
8	Vent Plug	3523
9	5/16-18x5/8" Hx Hd M S	4412-1
10	Gearhead Assembly-474 RPM	3261-13

Complete Power Units	Part No.
1 HP, 474 RPM, 3-Phs, 220-380 V.P.U.	3259-107
1 HP, 474 RPM, Single Phs, 220 V. P.U.	3259-108



Weigh Scale Assembly



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

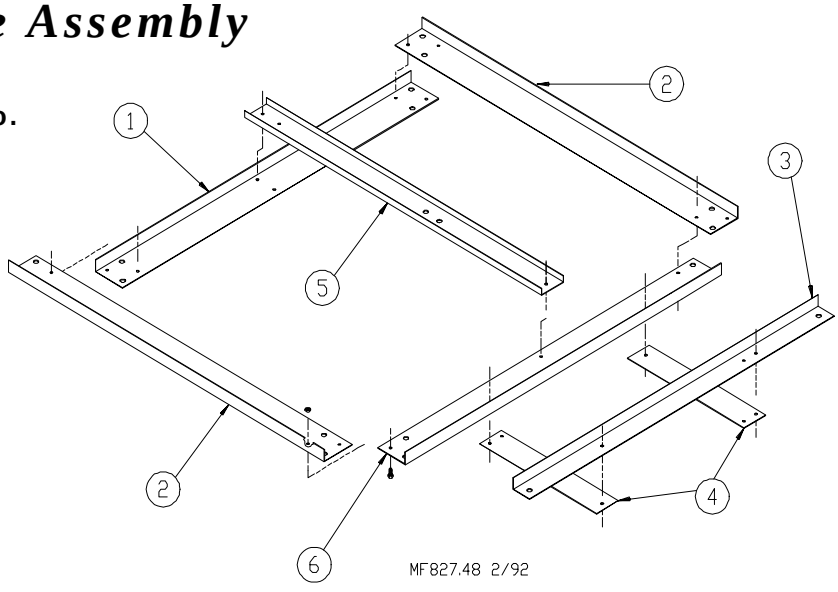
Complete 5,000 Lbs Bin Scale Assembly is Winslow Part No. CT1819.

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

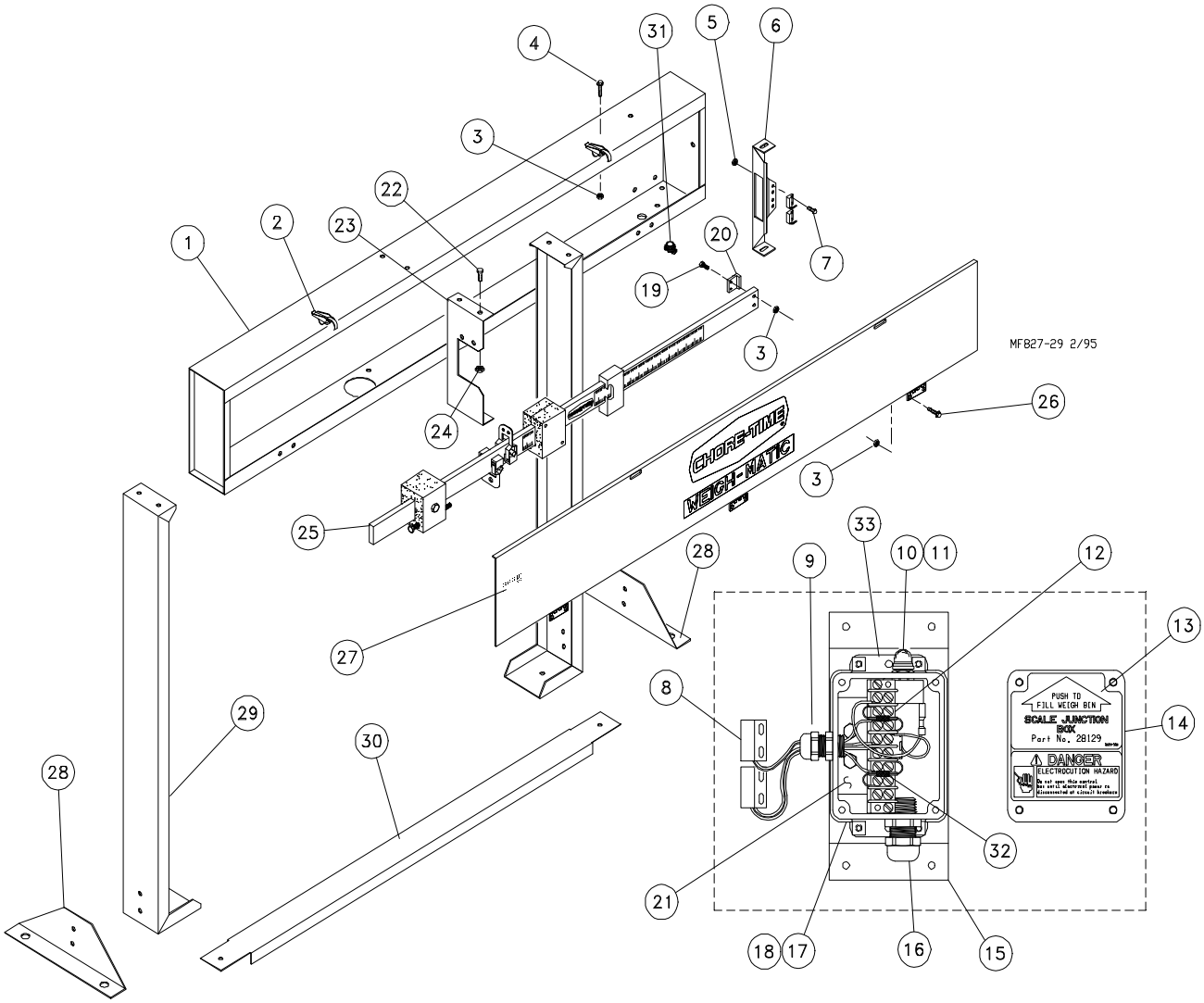
The complete Bin Scale Components must be ordered through **Winslow Scale Company, 25th and Haythorne, P.O. Box 1523, Terre Haute, IN 47808. Phone: 812/466-5265.**

Scale Template Assembly

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



5790 Beam Box Assembly

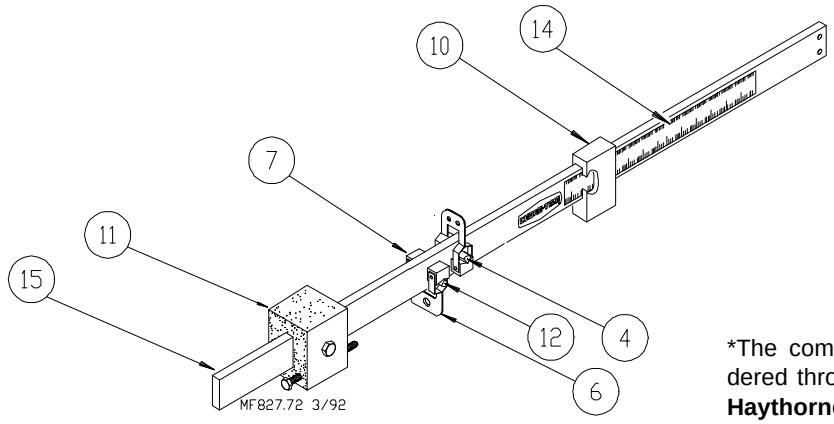


Item	Description	Part No.
1	Case Weldment	5797
2	Over Center Clamp	2536
3	10-24 P.M. Nut	135
4	10-24 x 3/8" Rd. Hd. M.S.	1553
5	4-40 Hex Nut	3511
6	Trig Loop	7472
7	4-40 x 5/8" Rd. Hd. M.S.	3510
8	Proximity Sensor	6689
9	Liquid Tight Connector	13477
10	Momentary Switch	5785
11	Push Button Boot	20784
12	Terminal Strip	7270
13	Terminal Box Decal	2529-326
14	Switch Box Cover	6776
15	Switch Mount Bracket	28247
16	Water Tight Connector	23779
17	Terminal Mount Box	28597
18	Gasket	6777

Item	Description	Part No.
19	4-40 x 3/4" Rd. Hd. M.S.	4143-2
20	Magnetic Connector	5789
21	Terminal Mount	28599
22	3/8-16x3/4 HHCS	2182
23	Pivot Bracket	5803
24	3/8-16 Hex Nut	1549
25	Weighbeam Assembly	See Note Below
26	10-24x3/8 Truss Screw	501
27	Cover Weldment	5799
28	Leg Support	5924
29	Leg Weldment	5793
30	Channel	7589
31	Romex Connector	1317
32	Resistor	1709-19
33	Cover	6956

Note: The applicable Weighbeam Assembly must be ordered through: **Winslow Scale Company, 25th and Haythorne, P.O. Box 1523, Terre Haute, IN 47808. Phone: 812/466-5265.**

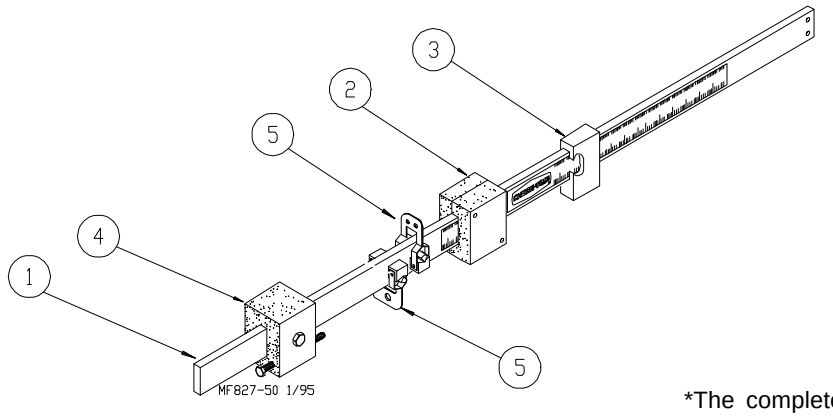
9447 Weigh Beam Assembly: 5,000 lbs.*



Description	Part No.
Bearing	7
Pivot	4
Loop Assembly	6
Back Balance Assembly	11
Pivot	12
Poise	10
Weighbeam	15
Face Plate	14

*The complete Weigh Beam Assembly must be ordered through: **Winslow Scale Company, 25th and Haythorne, P.O. Box 1523, Terre Haute, IN 47808. Phone: 812/466-5265.**

6514 Weigh Beam Assembly: 8,000 lbs.*



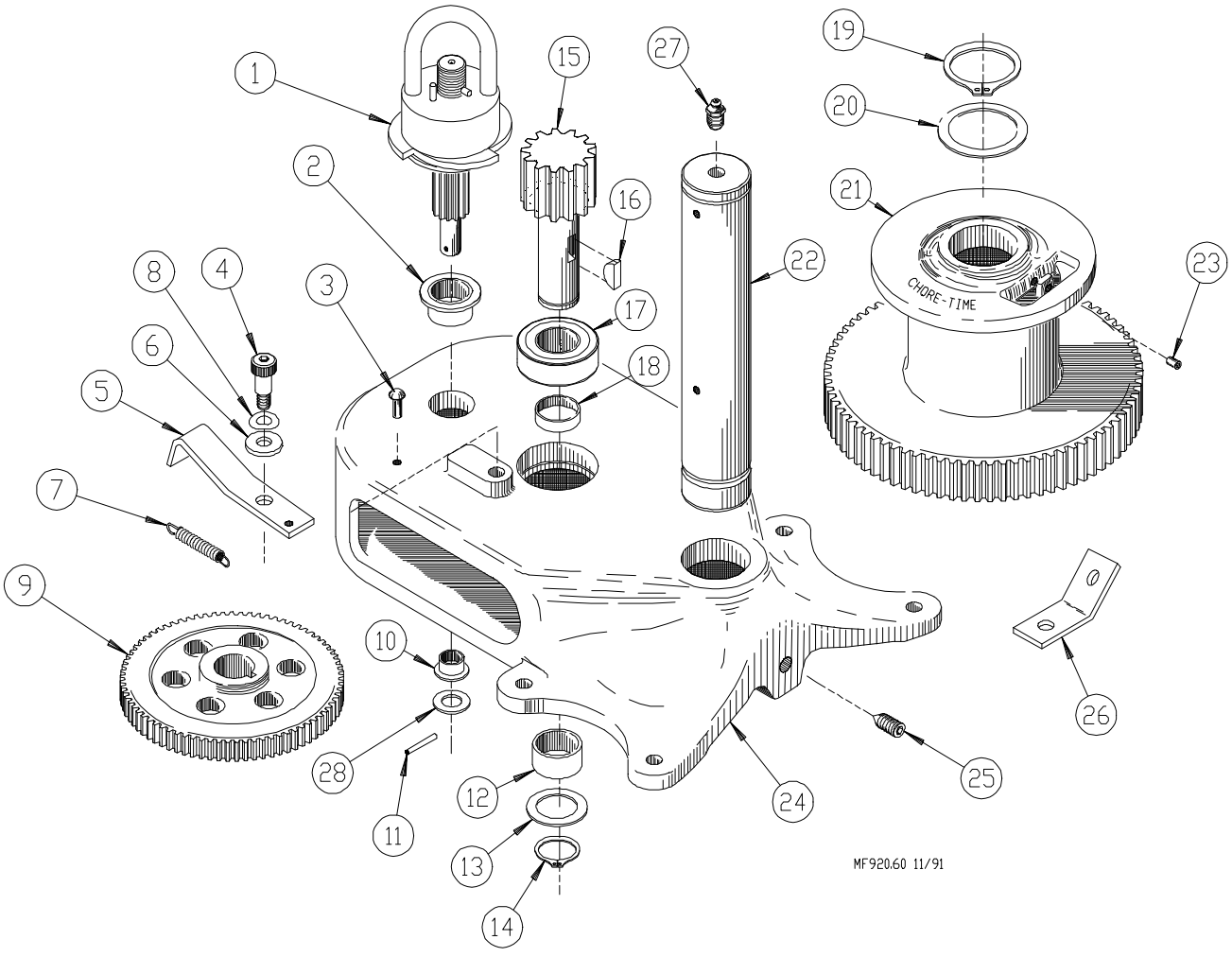
Description	Part No.
Weighbeam	1
Main Poise	2
Aux. Poise	3
Back Balance Assembly	4
Loop Assembly	5

*The complete Weigh Beam Assembly must be ordered through: **Winslow Scale Company, 25th and Haythorne, P.O. Box 1523, Terre Haute, IN 47808. Phone: 812/466-5265.**

Power Winch

Part No. 2883

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



Miscellaneous Suspension Components

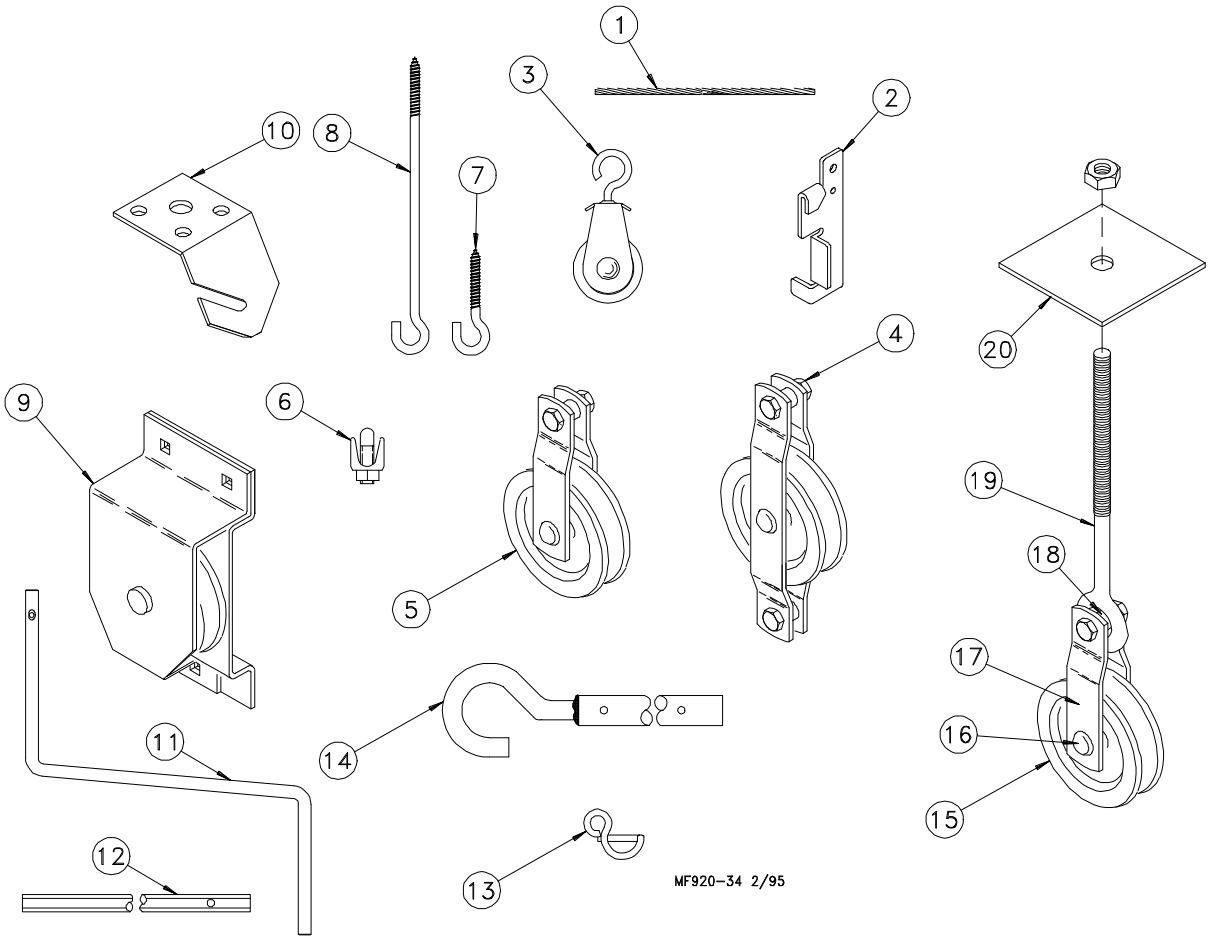
Item	Description	Part No.
1	3/32" Cable (7x7)	4973
	3/16 Cable (7x7)	1213
	1/8" Cable (7x7)	27975
2	Cable Lock	14337
3	Pulley with Swivel	3004
4	Double Eye Pulley	2501
5	Pulley	2500
6	3/16" Cable Clamp	732
	1/8" Cable Clamp	14898
7	Standard Screw Hook	1214
	ATF Screw Hook	2041
8	7" Screw Hook	28357
9	Pulley Assembly	28429
10	Ceiling Bracket	28550
11	Handle Shank	3148
12	Drill Adapter Shaft	3151

Item	Description	Part No.
13	Winch Handle Pin	3761
14	Winch Drive Tube (4')	2884-1
	Winch Drive Tube (8')	2884-2
15	Pulley	2503
16	Clevis Pin	2498-1
‘ 17	Side Bracket	2522
18	Spacer	2524
19	Eye Bolt	6362
20	Foot	1586

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

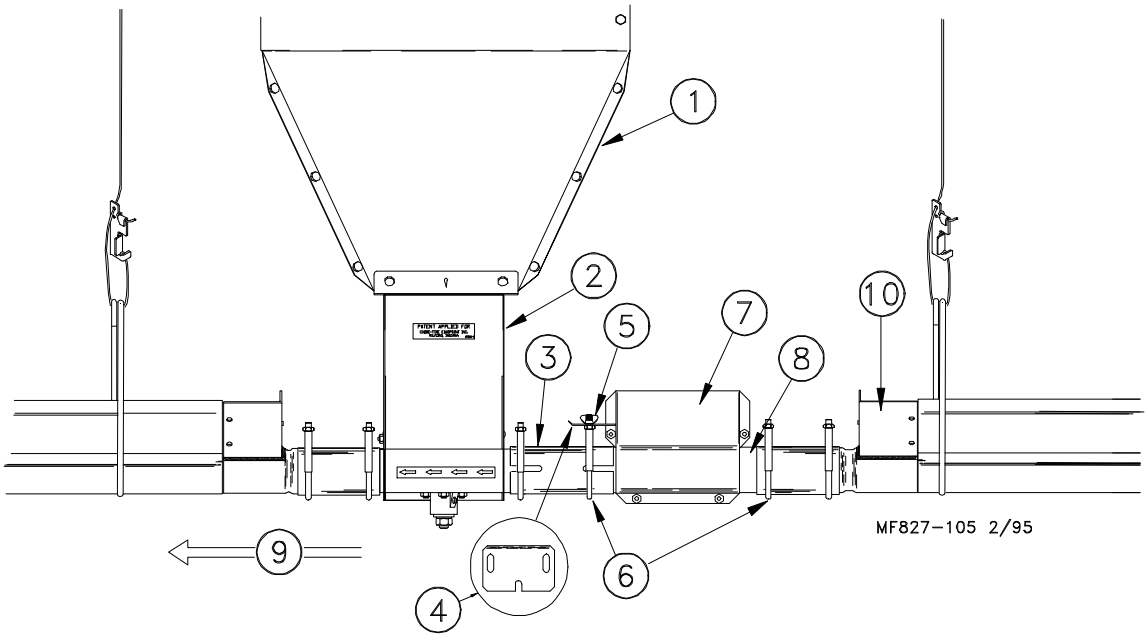
Item 12 and Item 13 may be ordered as a kit under part no. 2886.

The Full Line Suspension Kit including items 15 through 20 and a 2809-2 Cable Assembly may be ordered under part no. 7948.



Clean-Out Assembly Kit

Part No. 35802



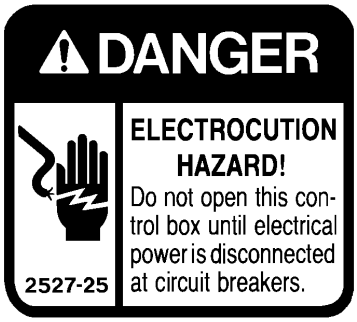
Item	Description	Part No.
1	Feed Hopper	- - - -*
2	Intake Cup	- - - -*
3	Connector Tube	29691
4	Clean-Out Lock	35865
5	5/16-18 Wing Nut	2146
6	Tube Clamp	29775
7	Clean-Out Assembly	35810
8	Auger Tube	25337
9	Direction of Auger Travel	- - - -
10	End Cap	- - - -*

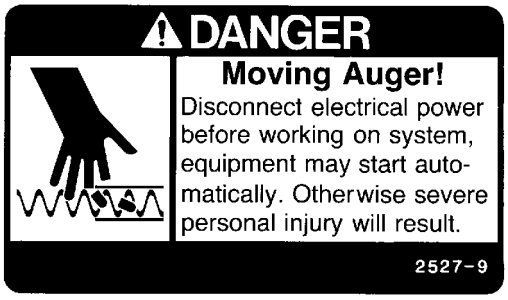
*These components shown for assembly purposes only. See individual parts list.

Trouble Shooting

Always disconnect electrical 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 #1: One loop not running, motors overloaded.

1. Auger stops because the feed level is too high (motors overloading).
   A. Check to make sure that the auger running time is set correctly. The auger running time should be set for only 10 seconds more than the amount of time required for the auger to travel from one hopper to the next.
   B. Lower the feed level by lowering the adjustable feed baffle on the bottom of the Intake Cup.
2. Check for foreign objects in the trough. Follow this procedure:
   A. Reset the motors (push the overload button) and operate the feeder. If the feeder runs fine, the overload was caused by either high feed levels or a foreign object in the trough. (see item B, below).
   B. If the feeder fails to operate, check the auger for foreign objects or water. The most likely place or object to jam is in the elbows or at a power unit. Foreign objects in the auger will cause the auger to become wedged and may be under pressure.

      Using an Auger Puller or pliers, check both elbows and both power units.

      CAUTION: Do not handle the auger by hand. Springing auger can cause severe personal injury.
   C. Remove the object from the auger. If object is found at the power unit, check to make sure the auger was not damaged or distorted. Replace damaged section of auger.
   D. If an object is not found, check other power units and elbows. It may be necessary to remove the power unit(s) from the trough and check to see if they operate properly. Replace if necessary.
   E. If water is found in the trough, it may be necessary to help get the auger moving before the power units will take over.
   F. Check screens in screeners for holes if source of foreign objects cannot be found.

Problem #2: One loop frequently overloads. When motors are reset, feeder runs fine for several minutes (days) before stopping. No foreign objects can be found.

1. Empty the feeder by opening the clean outs. Perhaps the problem is caused by a small object which will fall out with the feed.
2. Check the empty auger for a piece of metal wrapped around a flighting. Often these objects cannot be seen unless the auger is empty. Remove the foreign object.

   CAUTION: Do not handle the auger by hand. Springing auger can cause severe personal injury.
3. Check the auger for stretched flightings or kinks. It may be necessary to remove auger from trough. Remove the damaged section(s) of auger and rejoin the auger. If one foot (300 mm) of auger or less is removed it may not be necessary to add a section of auger to replace damaged section.

Problem #3: Auger comes out of trough.

1. Damaged trough-repair or replace trough.
   A. Often closing the grill further and installing the grill will close trough which has been spread open.
   B. Close trough by installing trough retaining wire part no. 27909.
2. Missing grills-replace as needed.

Problem #4: One or more loops without feed.

1. Check drop tubes for plugging.
2. Check Intake Cups. Remove any foreign material, if present.
3. Check fill system control.
4. Check hoppers for bridging. If bridging is a problem, lower drop tubes.

Problem #5: Fill system motor overloads.

1. Check for objects in auger.
2. Remove auger, check for damage.

Problem #6: Screener

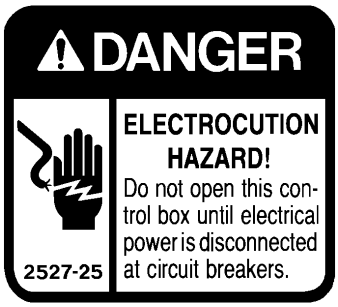
1. The screener bypass bucket should be checked daily.
   A. If feed is in bucket, check screens for plugging.
   B. If bucket does not contain normal amounts of whole corn or chunks of feed, check screens for holes.
2. Screener will not turn on.
   A. Check operation at the switch on the side of screener control.

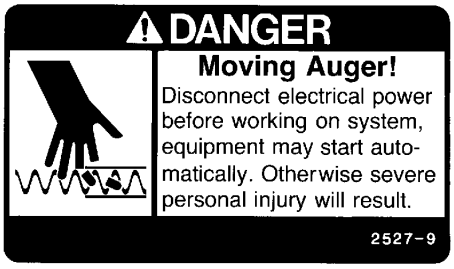
ULTRAFLO Breeder Feeder Maintenance Guide

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

Maintenance should be done by a qualified technician.

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





Each of the maintenance procedures should be done between each flock in addition to the intervals listed in the Maintenance Chart below.

ULTRAFLO Feeder Maintenance Schedule	Daily	Weekly	Three Months	Six Months	Between Flocks
Clean and Check Feeders	1				1
Clean Motor Areas				2	2
Check Feeder System Oil Level				3	
Grease Intake Cup				4	4
Clean Feed from Trough					5
Check Screener	6				6
Grease Bearings		7			7
Check Fill System Oil Levels		3			3
Clean Control Units				2	2
Clean Feed from Fill System					8

Match up the numbers in the chart with the maintenance notes below.

1 Check feeders to insure all lines have run. Check for foreign objects in the trough. Check feeders for loose hardware.

2 Remove dust and build up from around the motor areas to allow proper cooling of motors.

3 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 gear heads 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 Gear Heads: 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 Gear Heads (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.

4 Grease the bearing on the bottom of the intake cup. Use only 1 to 2 shots of grease per Intake Cup. Chore-Time recommends using an industrial or automotive grease.

5 Remove feed from trough by opening clean-outs in feeder loop. Use caution while clean-outs are open, do not place fingers or foreign objects into clean-outs.

6 Check Screener output. Empty container if necessary.

7 Grease the bearings on the bin boots and feed screener. Chore-Time recommends using an industrial or automotive grease.

8 Close bin slide and allow fill system to empty.

Miscellaneous Maintenance Notes

1. If the system is not to be used for an extended period of time, remove all the feed from the auger lines and from the Feeder Trough.

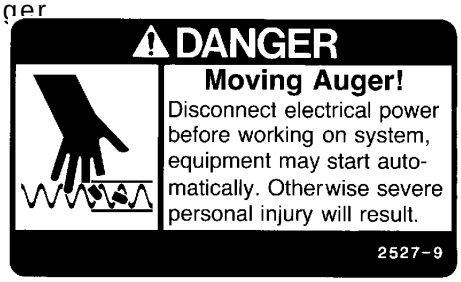
   Disconnect power to the system to prevent accidentally starting the system.

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

   A. Disconnect power to the entire system.

   B. Use bolt cutters to cut the auger. Leave auger in trough when cutting.

   CAUTION: Stand clear...the auger will spring to it's natural length.



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

3. Discard damaged or replaced equipment according to local and national codes. Many of the components may be recycled.

4. Replacing the battery in the Agri-Timer:
   A. Disconnect electrical service at the breaker.
   B. Remove the (6) screws and the face of the timer.
   C Replace the existing batteries with new “AAA” batteries.
   D. Use new wire ties to secure the new batteries in place.
   E. Reinstall the face of the timer and secure using (6) screws previously removed.
   F. Reconnect electrical service to the system.

Component Weight Chart

Component	Weigh in pounds (kg)
Trough, Grill, Auger, & Feed	5 lbs. (2.26 kg.) linear foot (.3 m)
Power Unit & Driver Assembly	50 lbs. (22.6 kg)
200 lbs. Feed Hopper & Feed	250 lbs. (113.4 kg)
Power Winch	40 lbs. (18.1 kg)

Management Procedure for Day Old to End of Lay Applications

Use of the ULTRAFLO Breeder Feeder for day old through lay presents the possibility for problems during the rearing period. Careful management will be required to get uniform pullets.

Operation of the feeder during laying period is covered in the management section of this manual.

During the rearing period the following general steps apply:

1. For successful operation the ULTRAFLO Breeder Feeder should be operated for only enough time to get the feed in all the trough. (That is, the Run Timer should be set for only enough time to run the auger from one hopper to 10 feet (3 m) past the next hopper. After the entire loop has feed, the feeder should be stopped and the birds allowed to eat from the stopped auger. This cycle is called a 'serving'. Each feed day the feeder should run for 3 to 5 servings.
2. After one pass through a fully open intake cup the trough holds 1/2 pound of feed per foot (.75 kg of feed per meter of trough). Early in the rearing period the amount of feed to be fed each day may only fill part of the trough. Later in the rearing period the amount of feed to be fed may fill the trough once, but not fill all of the trough during the second serving.
3. To achieve the desired 3-5 servings of feed per day, the level of feed in the trough must be lowered so that less feed is put in the trough on each pass of the auger. This is done by lowering the adjustable feed flow baffle at the bottom of the Intake Cup. Lower the baffle so that it takes 3 to 5 servings to get all the feed to the birds.

   If the baffle is set too high, the feed will run out after 1 or 2 servings. If it is set too low, 6 or more servings will be required to get all the feed fed.
4. For best results during the rearing period, the feeder needs to be run as soon a the trough is empty. The automatic time clock control will only allow servings every 20 minutes. During the rearing period, each of the 3 to 5 servings should be started manually. The Run Timer will stop the feeder

   Note: During the laying period, the rate of consumption will be slower, so the time clock will control the feeder automatically.
5. Do not continue to run the feeder after all the trough has feed in it (as would be done with a chain feeder) as this forces the birds to eat from a moving auger.
6. If skip-a-day feeding is practiced, the first serving will have to be made with the feeder raised above the birds. In other words, fill the trough before lowering the feeder. The later serving can be made without raising the feeder. When lowering the feeder try to lower the feeder as fast as possible and lower both loops at the same time.
7. The ULTRAFLO Breeder Feeder will not feed pellets.
8. Feed trough clean outs can be located ahead of each hopper. If these clean outs are opened during the first serving, the trough will be cleaned prior to new feed entering the trough.

General Management Guide

1. 0-5 or 6 weeks
   A. Pullets cannot be started on the ULTRAFLO Breeder Feeder.
   B. Leave the ULTRAFLO feeder hanging above the birds.
   C. Birds must be fed from the male line plus sufficient hanging feeders, or two lines of male feeders could be used.
2. 5 or 6 to 15 weeks
   A. Use the ULTRAFLO.
   B. Feed flow baffles lowered (closed) to allow 3 to 5 servings per feeding cycle.
   C. Manually start the servings so that the next serving starts as soon as the trough is empty.
   D. Run the feeder lowered to the birds unless skip a day feeding is used. If skip a day feeding is used, the first serving should be made with the feeder raised above the birds. The feeder should be left lower during subsequent feedings.
   E. Leave the male lines hanging above the birds.
3. 15 to 22 weeks
   A. Use the ULTRAFLO feeder and the male feeder(s).
   B. It will be impossible to separate feed males until approximately 23 to 25 weeks, because male head size will be too small to be restricted by grill openings. However, by this time the birds will be large enough that extra feeding space will be required.
   C. Feed flow baffles should be lowered (closed) to allow 3 to 5 servings per feeding cycle.
   D. Manually start the servings so that the next serving starts as soon as the trough runs empty.
   E. Run the feeder lowered to the birds unless skip a day feeding is used. If skip a day feeding is used, the first serving should be made with the feeder raised above the birds. The feeder should be left lower during subsequent feedings.
4. 22+ weeks
   A. Use the ULTRAFLO feeder and the male feeder(s).
   B. Start the male feeder 3 to 4 minutes before the ULTRAFLO feeder. Make sure the male pans are 17 to 18 inches (430 mm to 460 mm) above the litter to prevent the females from being able to reach the pan.
   C. Feed flow baffles should be raised (opened). The birds will have enough feed for 3 to 5 servings without using the baffles.
   D. Program the clock as shown on pages 48 & 49. The panel should be on automatic after the birds reach 22+ weeks of age.
   E. Run the feeder lowed to bird level.

Made to work.

Built to last.™

THANK-YOU for purchasing a Chore-Time ULTRAFLO System.

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

Chore-Time Equipment, A Division of CTB, Inc.

P.O. Box 2000, Milford, Indiana 46542-2000 U.S.A.

Printed in the U.S.A.