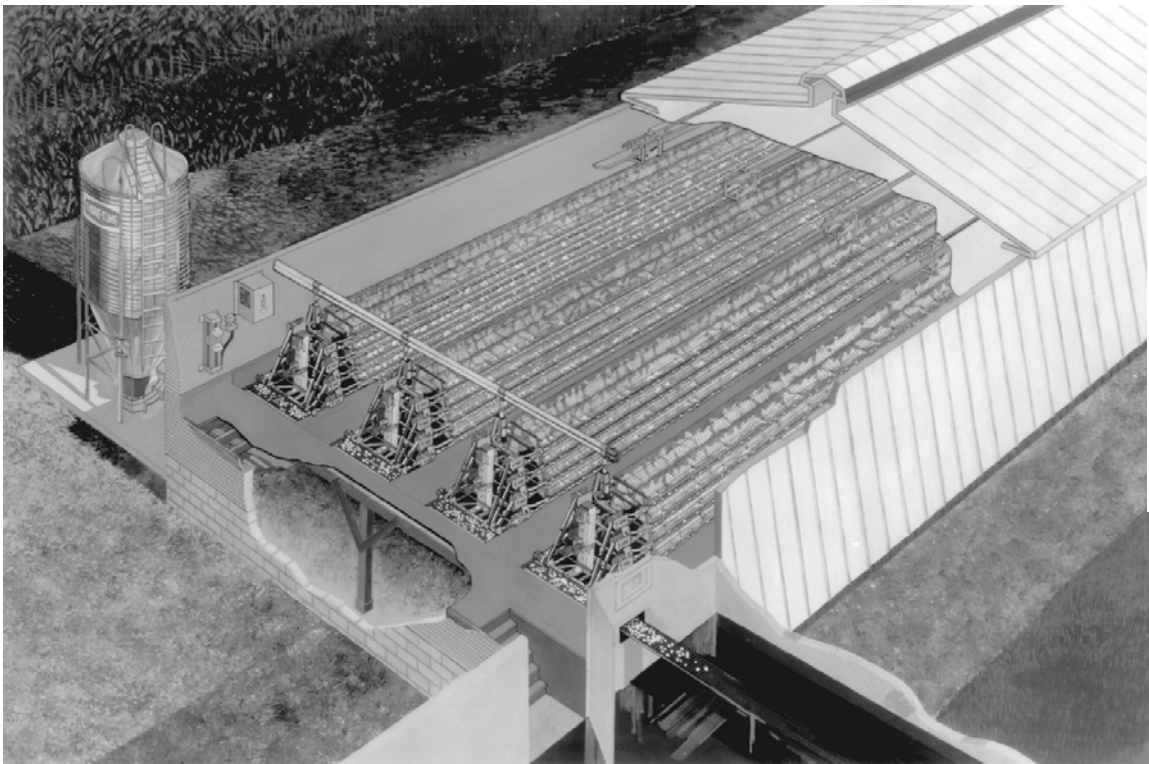


CHORE-TIME[®]

ULTRAFLO[®] Cage Feeding Systems for Brood Grow & Layer Installations

Installation and Operators Instruction Manual



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

Limited Warranty

Chore-Time Group, a division of CTB, Inc. (“Chore-Time”) warrants new CHORE-TIME Cage and Cage Components manufactured by Chore-Time to be free from defects in material or workmanship under normal usage and conditions, for One (1) year from the date of installation by the original purchaser (“Warranty”). If such a defect is determined by Chore-Time to exist within the applicable period, Chore-Time will, at its option, (a) repair the Product or Component Part free of charge, F.O.B. the factory of manufacture or (b) replace the Product or Component Part free of charge, F.O.B. the factory of manufacture. This Warranty is not transferable, and applies only to the original purchaser of the Product.

CONDITIONS AND LIMITATIONS

THIS WARRANTY CONSTITUTES CHORE-TIME’S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES. CHORE-TIME shall not be liable for any direct, indirect, incidental, consequential or special damages which any purchaser may suffer or claim to suffer as a result of any defect in the Product. Consequential or Special Damages as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs, and operational inefficiencies. *Some jurisdictions prohibit limitations on implied warranties and/or the exclusion or limitation of such damages, so these limitations and exclusions may not apply to you. This warranty gives the original purchaser specific legal rights. You may also have other rights based upon your specific jurisdiction.*

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

The following circumstances shall render this Warranty void:

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

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

Effective: **April, 2014**

Contents

Topic	Page
Limited Warranty	2
Safety and General Information	5
Follow Safety Instructions	5
Decal Descriptions	5
DANGER: Moving Auger	5
DANGER: Electrical Hazard	5
Planning the Installation	6
Power Unit Requirements	6
Hanger Requirements	6
Additional Manuals	6
ULTRAFLO® Hanger Chart	7
Installation for Brood-Grow Cage Systems Only	8
Power Unit Location	8
Single Power Unit System	8
Two Power Unit System	8
Three Power Unit System	9
Four Power Unit Assembly	9
Trough Installation	10
Trough Support	10
Trough	11
Trough Installation (continued)	13
Installation for Layer Cage Systems Only	14
Power Unit Location	14
Single Power Unit System	14
Two Power Unit System	14
Three Power Unit System	15
Four Power Unit System	15
Trough Installation	16
Trough Hangers	16
Trough	17
Retainer Wire Installation (for SSS & ST-2 Only)	19
Trough Clip and Wire Installation (for DURATM Systems Only)	19
MMB® Trough Hanger and Trough Installation	20
Versa Plus Trough Hanger and Trough Installation	21
Versa Trough Hanger and Trough Installation	21
Power Unit Installation	23
End Components Installation	25
Intake Cup Installation	25
Intake Cover Installation—Covers Included.	25
Clean-Out Section Installation	25
Elbow Installation	26
ULTRAFLO® Auger Installation	26
Auger Connector (50479) Installation	28
Control Panel Installation	29
Part Numbers	33
Intake Cup #48224	33
Power Unit and Driver Assembly Part Number	34
Power Unit & Driver Assembly Part Numbers	35
ULTRAFLO® Feeder End Caps Part Number	36
Brood Grow Applications	36

Contents - continued

Topic	Page
Layer Applications	36
Feeder Line Component Diagram	37
Feeder Line Component Part Numbers	38
Elbow Brace Kit Number.	39
Clean-Out Assembly (13405)	40
50479 Standard Auger Connector (2 per pack)	40
48401 Optional Auger Connector (2 per pack)	40
Maintenance.	41
Feeder and Fill System Maintenance Schedule	41
Initial Start Up Procedure	42
Troubleshooting.	43
One loop not running, motors overloaded.	43
One Loop frequently overloads	44
Auger comes out of trough.	44
One or more loops without feed.	44

Safety and General Information

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

Safety–Alert Symbol



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

Understanding Signal Words

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



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



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



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

Follow Safety Instructions

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

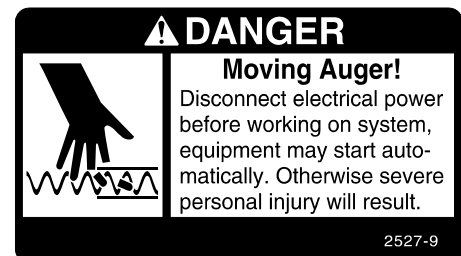
Keep safety signs in good condition. Replace missing or damaged safety signs.

Decal Descriptions

DANGER: Moving Auger

This decal is placed on the End Cap Weldment and Clean-out cover.

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



DANGER: Electrical Hazard

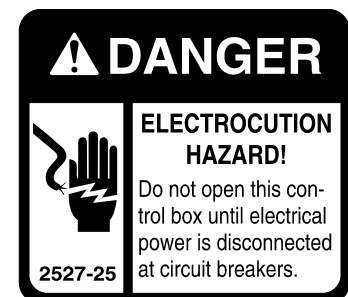
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

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.

Electrical disconnects and over current protection are not supplied with the equipment.



Planning the Installation

- Careful planning is required to insure an easy installation and proper operation of the equipment.
- Prior to beginning the installation, read the installation instructions that apply to your equipment. This will save time and help avoid confusion.

Important: *Due to the complexity of the equipment, make certain you are installing it properly as you go.*

Note: Different cage systems require different installation procedures for installing Power Units, Troughs, and some Hangers. Be careful to refer to the appropriate section when installing this equipment. The rest of the installation instructions for the different cage systems are the same, except where noted.

Power Unit Requirements

Use the chart below to determine the required number of Power Units for each ULTRAFLO® loop in your installation. The chart applies to layer and brood-grow cage styles.

Cage Row Length for 60 Hz. Systems (230 volts at Power Units)	Cage Row Length for 50 Hz. Systems (230 volts at Power Units)	Number of Power Units Required
Up to 120' (36 m)	Up to 96' (29 m)	1
121' (37 m) to 448' (137 m)	97' (30 m) to 358' (109 m)	2
449' (137 m) to 505' (154 m)	359' (109 m) to 404' (123 m)	3
over 505'(154 m)	404' (123 m) to 600' (183 m)	4

Note: 208 volt power will require a 20% reduction in line length recommendations.

Hanger Requirements

Refer to the ULTRAFLO® Hanger Chart on page 10 to help determine which Hangers are required for your installation. The ULTRAFLO® Hanger Chart also specifies the distance between Hangers.

Additional Manuals

Refer to the following manuals as required for related equipment installation instructions.

- Model 55, 75, 90, & HMC FLEX-AUGER Fill System Manual MA1000
- Model 108 FLEX-AUGER Fill System Manual MA1032
- Model 90, 108, & Dual 90 Feed Screener Manual MC1033
- Feeder and Fill System Maintenance Schedule MC821
- ULTRAFLO® Loop Fill System Manual MC1191
- Dead End Fill System Manual MC1190
- 3 & 4 Output Control Instructions MC832

Note: Some of the instructions listed above are available in various languages. Contact your CHORE-TIME Distributor for additional manuals.

ULTRAFLO® Hanger Chart

Part No.	Description	Cage Sizes				30" WIDE
		12" WIDE	15" WIDE	16" WIDE	24" WIDE	
		Distance Between Trough Supporting Components				
Dura-Cage™, Dura™ II						
14660	Hanger (Stand)	96"	120"	96"	96"	
28616	Wire Retainer	24"	30"	32"	24"	
27947	Trough Clip	24"	30"	32"	--	
Dura-Trim™						
14660	Hanger (Stand)	96"	120"	96"	96"	
28616	Wire Retainer	24"	30"	32"	24"	
27947	Trough Clip	24"	30"	32"	--	
Dura-Trim™ DBS & Layer Manure Belt, VDBS						
14660	Hanger (Stand)	96"	120"	96"	96"	
28616	Wire Retainer	24"	15"	16"	24"	
27947	Trough Clip	24"	--	--	--	
Dura™-Step & DuraMid™						
25388	Hanger (Stand)	96"	120"	96"	96"	
28616	Wire Retainer	24"	30"	32"	24"	
27947	Trough Clip	24"	30"	32"	--	
SSS & ST.						
9401	Hanger	48"	45"	48"	48"	
15347	Wire Retainer	48"	45"	48"	48"	
BEC						
14431	Trough Retainer		20"			
Salmet						
35168	Hanger		1 meter			
29241	Wire Retainer		1 meter			
13166	Trough Clip		1 meter			
Facco						
28669	Hanger		1 meter	Bottom Tier Only All Tiers Except Bottom Tier		
28269	Trough Hanger		1 meter			
24689	Wire Retainer		4 meter			
		24" Wide	30" Wide			
Brood-Grow (DBS, Seaboard, Curtain Back, Manure Belt, 2+2 Manure Belt)						
27107	Lower Level Hanger	24"	30"	All Tiers		
16204	Hanger (Stand)	120"		All Tiers		
39486	Trough Wire	120"		All Tiers		
Brood-Grow (2+2)						
37111	Hold Down Hanger	48"	60"	Tiers 1 & 3		
14729	Upper Level Hanger	24"	30"	Tiers 1 & 3		
27107	Lower Level Hanger	24"	30"	Tiers 2 & 4		
16204	Hanger (Stand)	120"		Tiers 2 & 4		
39486	Trough Wire	120"		Tiers 2 & 4		
Brood-Grow (Stacked)						
37111	Hold Down Hanger	48"	60"	All Tiers Except Bottom Tier		
27107	Lower Level Hanger	24"	30"	Bottom Tier Only		
14729	Upper Level Hanger	24"	30"	All Tiers Except Bottom Tier		
16204	Hanger (stand)	120"	120"	Bottom Tier Only		
39486	Trough Wire	120"	120"	Bottom Tier Only		
Modular Manure Belt & Modular Vertical DBS						
47654	Trough Hanger				48"	
50546	Hi-Lip Trough Hanger				24 or 48"	
Versa®						
53022	Trough Hanger				48"	
50456	Trough Support				24"/48"	
Versa® Plus						
53022	Trough Hanger					60"
50456	Trough Support					30"/60"

Installation for Brood-Grow Cage Systems Only

Power Unit Location

Determine where the power units should be located. See Figures 1 Through Figure 4 to determine Power Unit placement.

One and three Motor Systems: A Motor Support Floor Stand should have been installed at each Power Unit location during the installation of the cages. See Figure 1 and Figure 3. If the Motor Support Floor Stand is not present, install it according to the instructions packed with the Motor Support Floor Stand.

Two and four Motor Systems: A Space equal to one vertical row of cages should have been left at each motor location for motor installation. If cages were installed, it will be necessary to remove one set of cages and install a second main frame a minimum of one (1) cage width 24" – 30" (610 – 760 mm) from the existing mainframe. See Figure 2 and Figure 4. Refer to instruction MD785 for additional installation information.

Single Power Unit System

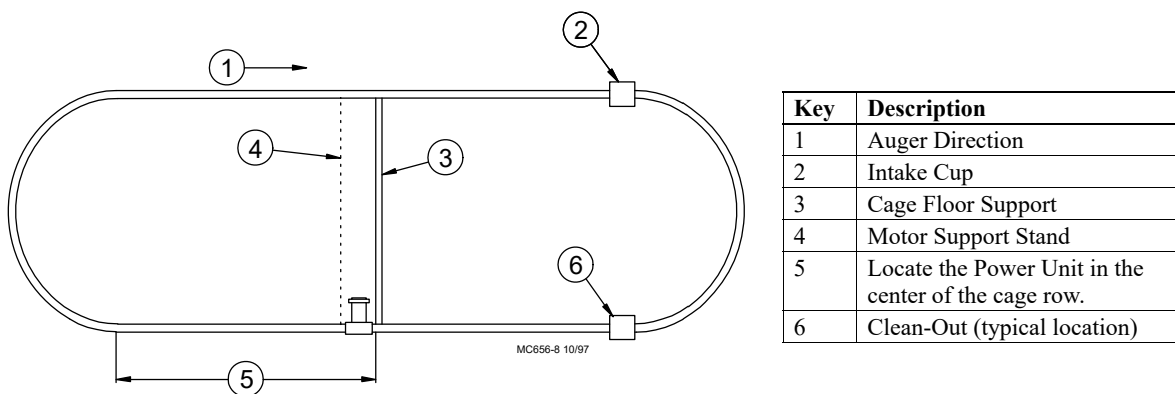


Figure 1. Power Unit Location Diagram for Single Power Unit Systems (top view)

Two Power Unit System

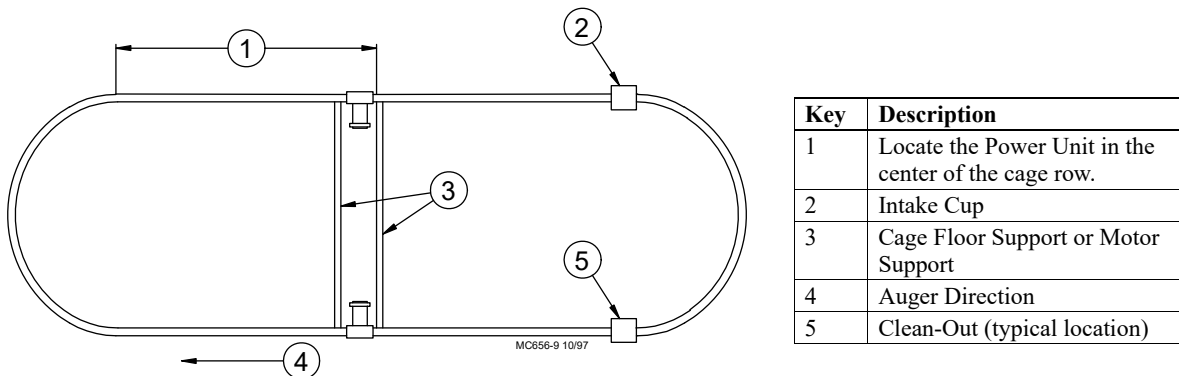
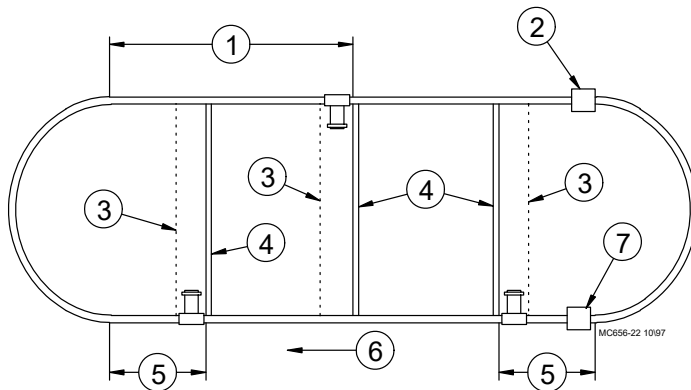


Figure 2. Power Unit Location Diagram for two Power Unit Systems (top view)

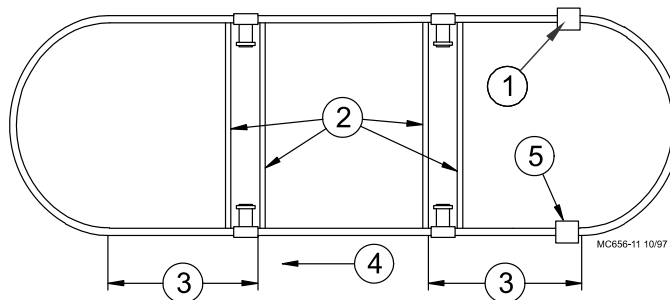
Three Power Unit System



Key	Description
1	Locate the Power Unit in the center of the cage row.
2	Intake Cup
3	Motor Support Stand
4	Cage Floor Support
5	64' (19.5 m)
6	Auger Direction
7	Clean-Out (typical location)

Figure 3. Power Unit Location Diagram for three Power Unit Systems (top view)

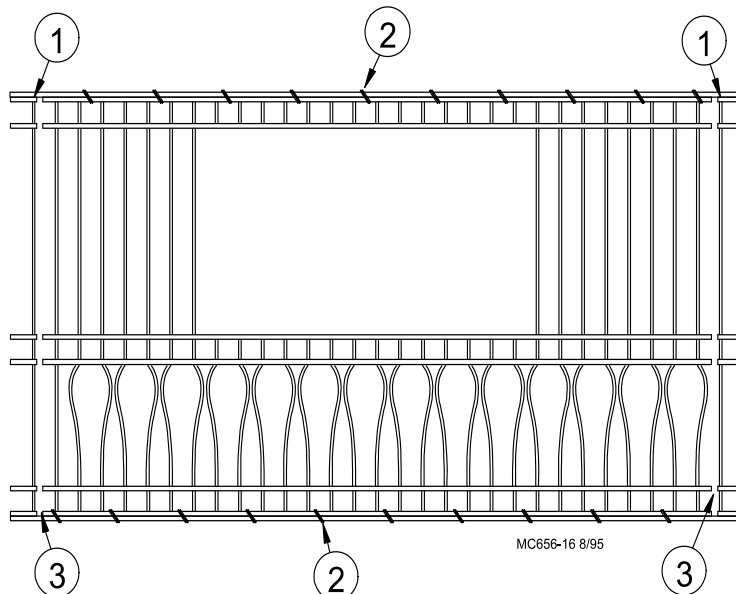
Four Power Unit Assembly



Key	Description
1	Intake Cup
2	Cage Floor Stand or Motor Support
3	Systems up to: 500' (152 m): 80' (24 m) 500' - 600' (152-183 m): 120' (37 m) over 600' (183 m): 152' (46 m)
4	Auger Direction
5	Clean-Out (typical location)

Figure 4. Power Unit Location Diagram for Four Power Unit Systems (top view)

If cages are to be removed to allow space for Power Units, cut the Grill, Cage Front, and Feed Trough Shield from the front of the cage next to a Cage Floor Support where the Power Unit is to be located. Remove the Top Fronts from this cage also (See Figure 5.).



Key	Description
1	Partition
2	Remove the Rings along the top and bottom
3	Cut wires along the Partition

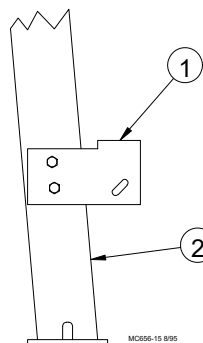
Figure 5. Modify cage for Power Unit

Trough Installation

Trough Support

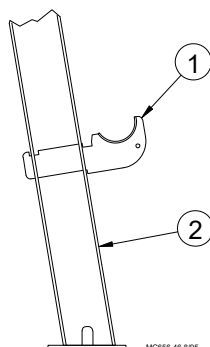
Note: Refer to the appropriate section for your cage style.

All Brood-Grow Cage Styles when Step Rail Brackets are used: Install a Trough Support on each Cage Floor Support--on the bottom tier (only). (See Figure 6.)



Key	Description
1	Trough Support
2	Floor Support

Figure 6.



Key	Description
1	Trough Support
2	Floor Support

Figure 7.

D.B.S. & Curtain-Backed Brood-Grow Systems ONLY (w/o Step Rail Brackets): Install a Trough Support on each Cage Floor Support --on all tiers (See Figure 7.).

Do not install Trough Supports on Intermediate Legs.

2 + 2 Brood-Grow Systems ONLY (w/o Step Rail Brackets): Install a Trough Support on each Cage Floor Support--on tiers #2 and #4 only (See Figure 7.).

Do not install Trough Supports on Intermediate Legs.

Stacked Brood-Grow Systems ONLY (w/o Step Rail Brackets): Install a Trough Support bottom on tier only (See Figure 7.).

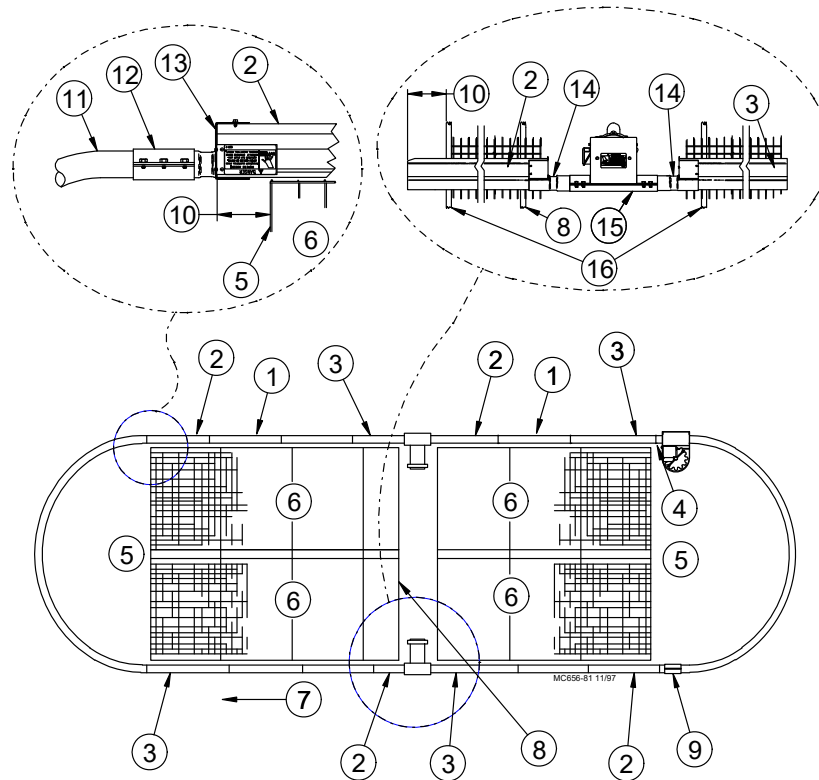
Trough

Note: It is very important that the Trough installation be started correctly. When properly installed, the trough joint will be approximately 8" (20 cm) to the right of the Floor Support. Refer to **Figure 8**, when determining trough starting locations, Power Unit-to-Trough connections, etc.

- **Always work from left to right when installing trough.**

Trough Sections are shipped in ten foot (3 m) lengths. Four special 11' (3.35 m) Starter Trough Sections are shipped with each line to be used where needed for proper trough alignment. See **Figures 8 through 13** for Trough Installation.

Various Hangers are used to hold the Trough in place. Refer to **Figure 9, 10, or 11** (depending on your cage style) for identification and correct installation of Hangers.



Key	Description
1	Standard Trough
2	Standard Trough: Cut off expanded end as required.
3	10' Cage Sections: Use 11' Starter Trough. 8' Cage Sections: Use 9' Starter Trough.
4	Start here.
5	Cage Row End
6	Cage Row
7	Auger Direction
8	Motor Support Stand
9	Clean Out
10	4" (100 mm)
11	Elbow
12	Tube Clamp
13	End Cap
14	Hangers may be installed here on 16" cages.
15	Power Unit Base Connector
16	Mainframe

Figure 8. Power Unit and Elbow Installation Diagram (top view)

Bottom Tier of All Brood-Grow Systems (with Step Rail Brackets)

Key	Description	Part No.	Location
1	Wireform Hanger	27107	Install at every partition on tiers with Feed Trough Supports.
2	Hold Down Hanger	37111	Install at every partition with Feed Trough Support.
3	Feed Trough Support	15568	See Trough Support Installation on page 10.

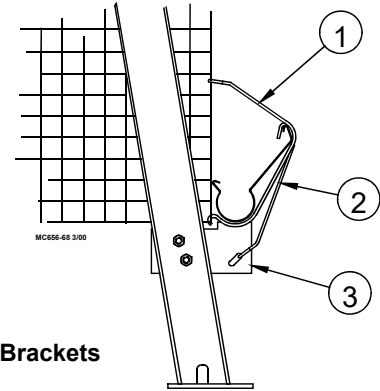


Figure 9.Hanger Installation Diagram for Brood-Grow with Step Rail Brackets (side view)

D.B.S. & Curtain-Backed Brood-Grow Systems (no Step Rail Brackets)

Key	Description	part No.	Location
1	Wireform	27107	Install at every partition.
2	Feed Trough Support	16204	See Trough Support Installation on page 10.
3	Trough Wire	39486	See Trough Support Installation on page 10.

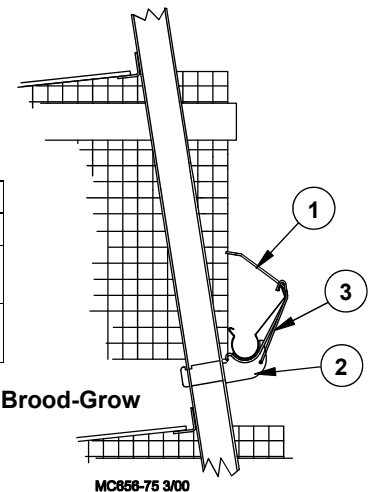


Figure 10.Hanger Installation Diagram for D.B.S. & Curtain-Backed Brood-Grow (side view)

2 + 2 Brood-Grow & Stacked Brood-Grow (no Step Rail Brackets)

Key	Description	Part No.	Location
1	Upper Levels Hanger	14729	Install at every partition on all tiers without Feed Trough Supports.
2	Hold Down Hanger	37111	Install at every other Cage Partition.
3	Wireform Hanger	27107	Install at every partition on tiers with Feed Trough Supports.
4	Feed Trough Support	16204	See “Trough Installation” on page 10.
5	Trough Wire	39486	See “Trough Installation” on page 10..

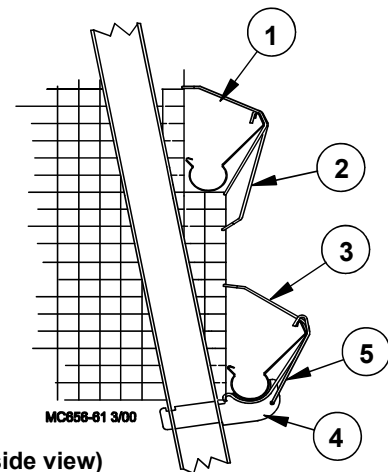


Figure 11.Hanger Installation Diagram for 2 + 2 Brood-Grow (side view)

Trough Installation (continued)

1. Fasten an End Cap to the end of one of the special 11' (3.35 m) Starter Trough Sections with self-drilling screws. Begin w/self taper at bulb and work upward (See Figure 12.).
2. Position the End Cap so that it sticks out 4" (100 mm) past the end of the Cage Row. (See Figure 12.)
3. Secure the Trough Section to the cages with the Hangers. See Figures 9 Through Figure 11

Key	Description
1	4" (100 mm)
2	Cages
3	Trough
4	End Cap
5	Self-Drilling Screw

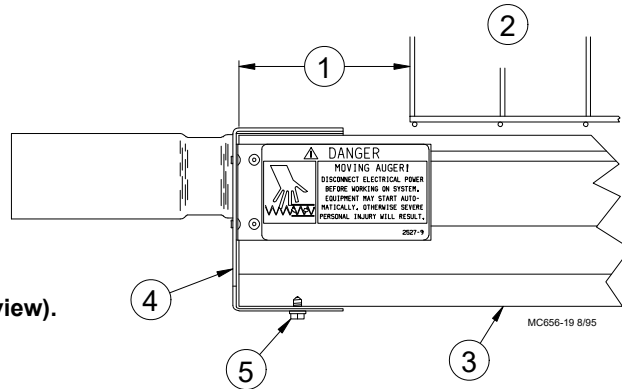
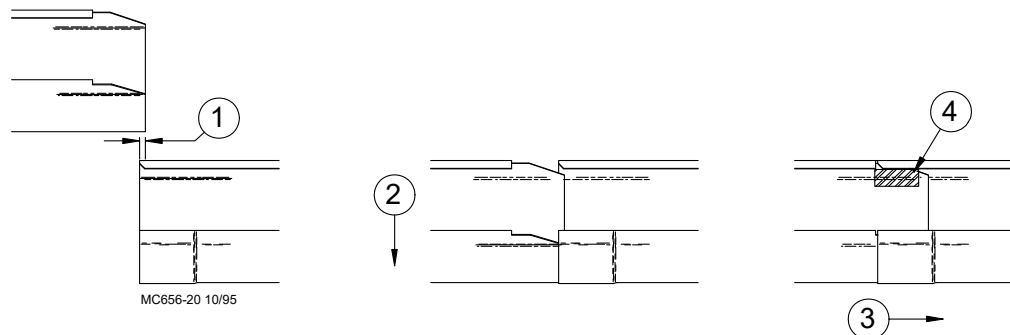


Figure 12. End Cap Installation (top view).

4. Overlap the straight end of the next Trough Section about 1/4 inch (6 mm) over the expanded end of the installed Trough. Snap it down into the installed Trough and then slide them together (See Figure 13.). Fasten the Troughs together with self-drilling screws at the first two joints at each end of the Cage Row.



Key	Description
1	1/4" (6 mm) Gap
2	Snap Down
3	Slide straight end of Trough into belled end of the next Trough.
4	A self-drilling screw should be installed in this area on the first two trough joints from both ends.

Figure 13. Trough Connection Diagram (side view).

5. Continue installing Trough Sections until a location for a Power Unit is reached. Then cut off a ten foot (3 m) Trough Section as shown in Figure 8. For Power unit installation see "Power Unit Installation" on page 23 of this manual.
6. After installing the Power Unit, continue installing Trough Sections until another Power Unit location or the end of the Cage Row is reached.
7. At the end of the Cage Row, cut the Trough so that it sticks out past the end of the Cage Row 4" (100 mm).
8. Slide the End Cap over the cut end of the Trough and fasten with self drilling screws (See Figure 12.).

Installation for Layer Cage Systems Only

Power Unit Location

Determine where the Power Units should be located. Refer **Figures 14 through 17** to determine Power Unit placement.

If the Motor Support Stand is not present as shown, it must be installed according to the instructions shipped. Refer to instruction **MD785** for additional information.

One Power Unit Systems: Place the Power Unit in the center of the cage row (See **Figure 14.**)

Two Power Unit Systems: The Power Units should be placed in the center of the cage row on opposite sides of the cage row (See **Figure 15.**)

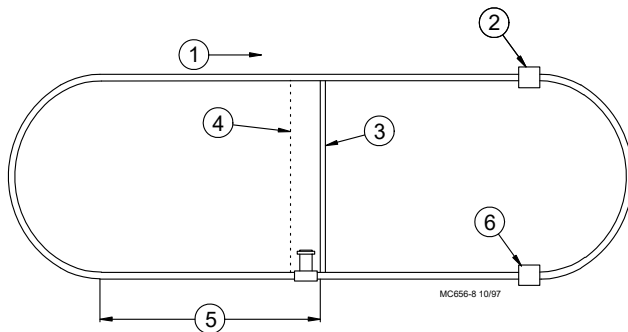
Three Power Unit Systems: Three Power Unit Systems require two Power Units on one side and one on the other side of the Cage Row. The two on the same side should be approximately 64' (19.5 m) from the ends of the Cage Row. The single Power Unit should be spaced in the center of the Cage Row, on the opposite side (See **Figure 16.**)

Four Power Unit Systems: Place the Power Units 80' or 120' (24 or 37 m) from each end of the Cage Row, depending on the length of the Cage Row (See **Figure 17.**)

For cage rows with 12" cages, space equal to two vertical rows of cages should be left out at each motor location for motor installation. If cages were installed, it will be necessary to remove two sets of cages and install a bolt together Motor Stand 24" (61 cm) from the existing mainframe.

For cages with 16" & 24" cages, space equal to one vertical row of cages should be left out at each motor location for motor installation. If cages were installed, it will be necessary to remove one set of cages and install a bolt together Motor Stand 16" (41 cm) or 24" (61 cm) from the existing mainframe

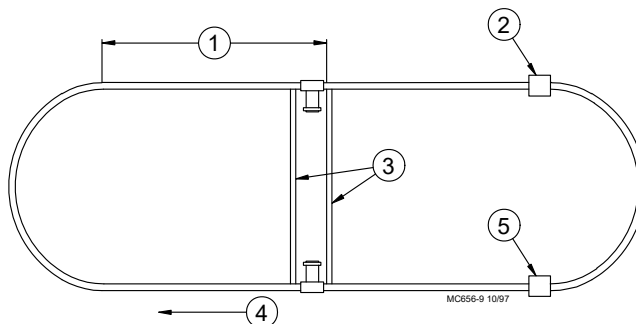
Single Power Unit System.



Key	Description
1	Auger Direction
2	Intake Cup
3	Cage Floor Support
4	Motor Support Stand
5	Locate the Power Unit in the center of the cage row.
6	Clean-Out (typical location)

Figure 14. Power Unit Location Diagram for Single Power Unit Systems (top view)

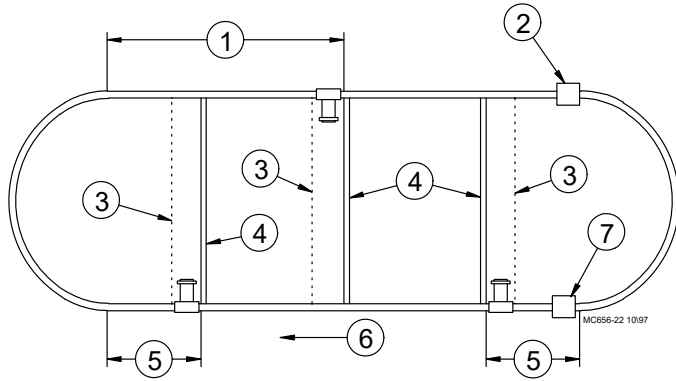
Two Power Unit System



Key	Description
1	Locate the Power Unit in the center of the cage row.
2	Intake Cup
3	Cage Floor Support or Motor Support Stand
4	Auger Direction
5	Clean Out (typical location)

Figure 15. Power Unit Location Diagram for two Power Unit Systems (top view)

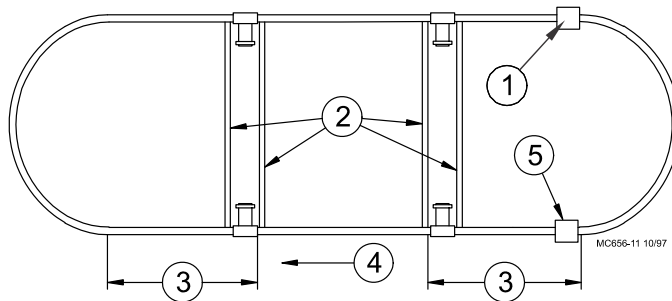
Three Power Unit System



Key	Description
1	Locate the Power Unit in the center of the cage row.
2	Intake Cup
3	Motor Support Stand
4	Cage Floor Support
5	64' (19.5 m)
6	Auger Direction
7	Clean Out (typical location)

Figure 16. Power Unit Location Diagram for Three Power Unit Systems (top view)

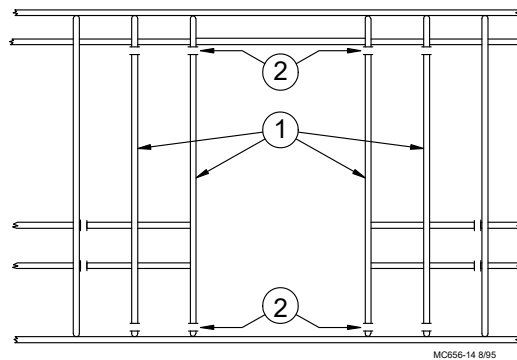
Four Power Unit System



Key	Description
1	Intake Cup
2	Cage Floor Stand or Motor Support Stand
3	Systems up to 500' (152 m): 80' (24 m) Systems over 500' (152 m): 120' (37 m) Systems over 600' (198 m): 152' (46 m)
4	Auger Direction
5	Clean-Out (typical location)

Figure 17. Power Unit Location Diagram for Four Power Unit Systems (top view)

If cages are to be removed to allow space for Power Units, cut the cage front wires shown in **Figure 18**. to allow room for the Power Unit to be installed.



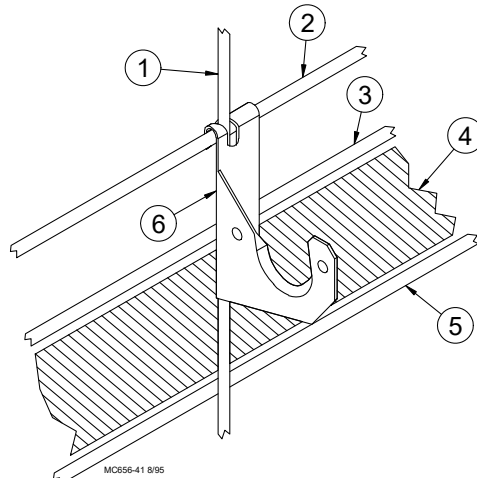
Key	Description
1	Cut out these cage front wires to allow for motor installation.
2	Cut here.

Figure 18. Modify cage for Power Unit Installation (front view).

Trough Installation

Trough Hangers

SSS & ST-2 Cage Systems ONLY: Trough Hangers should be hooked on the cages every 4' (1.2 m), beginning at the first "A" frame (See Figure 19.). The last Trough Hanger should be placed at the end of the cage row, even if the distance from the previous hanger is not 4' (1.2 m).

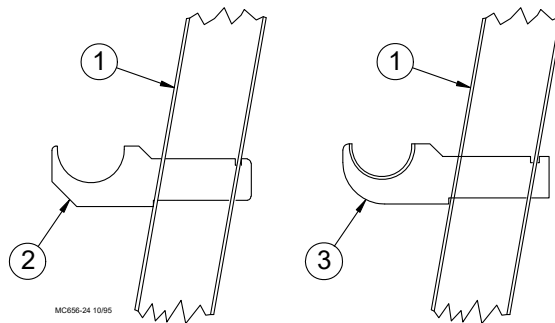


Key	Description
1	Partition Wire
2	Upper Line Wire
3	Middle Line Wire
4	Litter Shield
5	Lower Line Wire
6	Trough Hanger

Figure 19. Trough Hanger Installation for SSE & ST-2 Cage Systems only

DURA-CAGE™, DURA-TRIM™, DURA™-STEP, DURA™ II, & DURAMID™ Cage Systems ONLY: Install the appropriate style of Hanger in the Cage Floor Supports as shown in (See Figure 20.) A Trough Hanger should be installed on each side of the Power Units.

Note: At the Power Unit locations, the Hangers for the 15" & 16" cages support the Trough at the End Cap. The Hangers (with extruded lip) support the Trough several inches from the End Cap.



Key	Description
1	Leg
2	Hanger @ Motor Stand
3	Hanger — for all Cages

Figure 20. Trough Hanger Installation for DURA™ Series Cage Systems only (side view).

Trough

Note: It is very important that the Trough installation be started correctly.

When properly installed, the trough joint will be approximately 8" (20 cm) to the right of the Cage Support—**This dimension should not exceed 12" on Trough Systems.** Refer to **Figure 8** when determining trough starting locations, Power Unit-to-Trough connections, etc.

- Always work from left to right when installing trough.
- On All cage systems with swing down doors, install the cage doors prior to installing the trough.
- The ULTRAFLO® Trough is available in 8' (2.4 m) or 10' (3 m) sections (depending on your cage system). Longer pieces of trough, referred to as Starter Trough (9' or 11'), are sent with each feeder line (See **Figure 21.**)

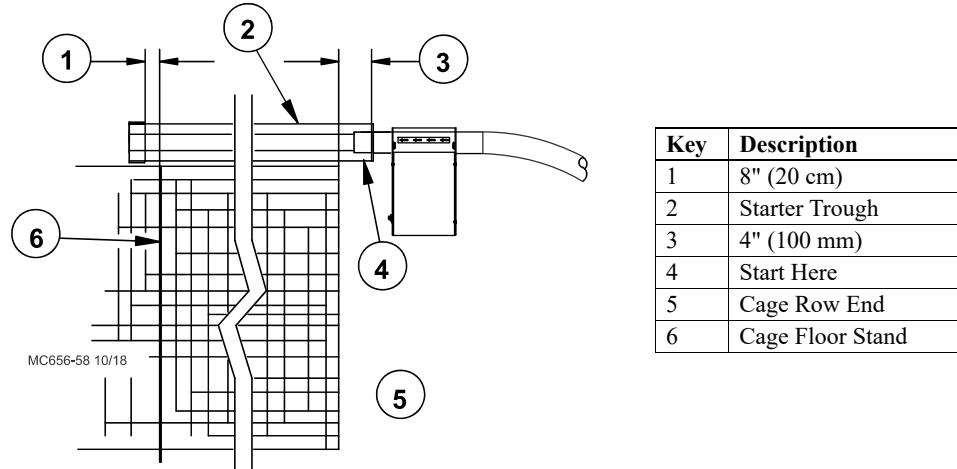


Figure 21. Starter Trough Location Diagram (top view).

1. Begin at left end of the Cage Row. Install a starter trough to extend 4" (100 mm) past the end of the cage row and 8" (20 cm) past the Cage Stand (See **Figure 22.**).
2. Attach an End Cap to the Starter Trough Section with self-drilling screws. Begin w/self tapper at trough bulb and work upward. **NOTE:** Never lay trough in egg tray. (See **Figure 22.**)
3. Position the End Cap so that it sticks out past the end of the Cage Row 4" (100 mm). See **Figure 21 and Figure 22.**

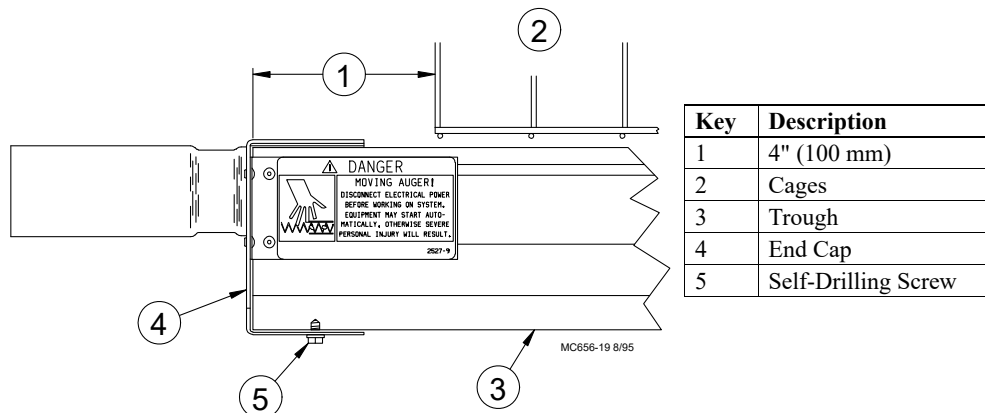
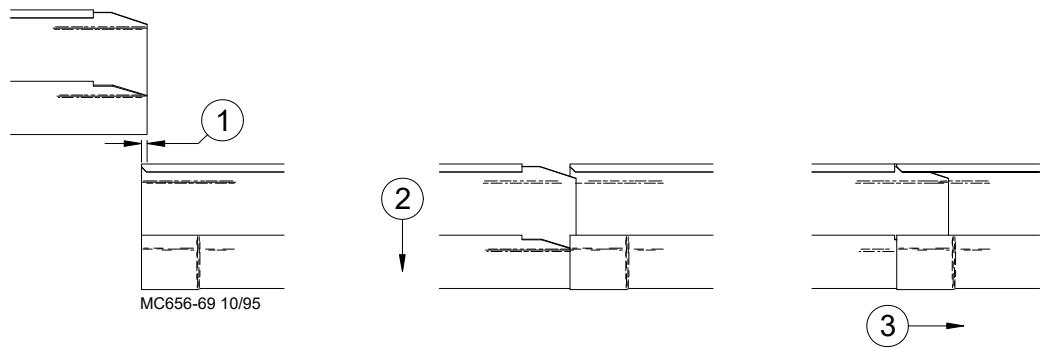


Figure 22. End Cap Installation (top view).

4. Overlap the straight end of the next Trough Section over the expanded end of the installed trough approximately 1/4" (6 mm). Snap it down on the installed trough and slide the Trough Sections together (See Figure 23.).



Key	Description
1	1/4" (6 mm) Gap
2	Snap Down
3	Slide straight end of Trough into belled end of the next Trough.

Figure 23. Trough Connection Diagram (side view).

5. At the first two joints from each end of the Cage Row, fasten the trough joints together with self-drilling screws (See Figure 24.).

Key	Description
1	A self-drilling screw should be installed in this area on the first two trough joints from both ends.

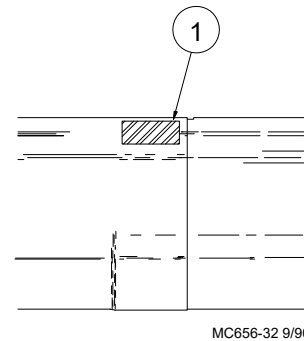


Figure 24. Trough Fastening Diagram (side view).

6. Continue installing Trough Sections until a Power Unit location is reached.

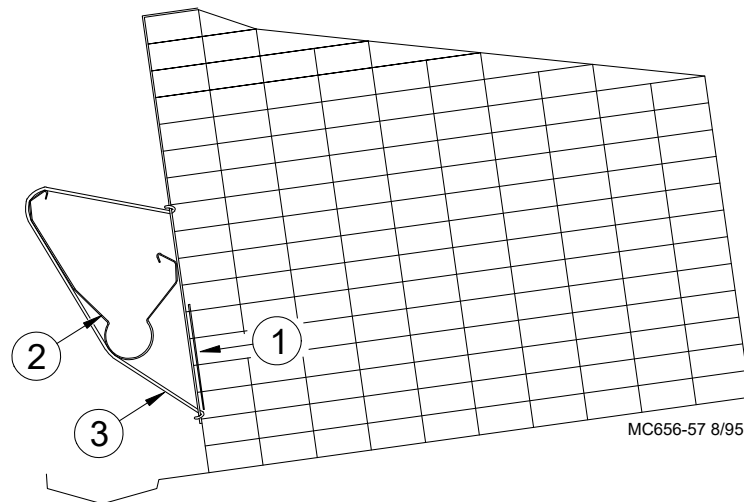
7. See “Power Unit Installation” on page 23, of this manual, for power unit installation instructions. Then, continue installing Trough Sections until another Power Unit location or the end of the Cage Row is reached.

8. At the end of the Cage Row, cut the trough so that it extends past the end of the cage row 4" (100 mm).

9. Slide an End Cap onto the Trough and fasten with self-drilling screws.

Retainer Wire Installation (for SSS & ST-2 Only)

Install the Retainer Wire every 4' (1.2 m), beginning one partition beyond the first Floor Support, as shown in **Figure 25**.



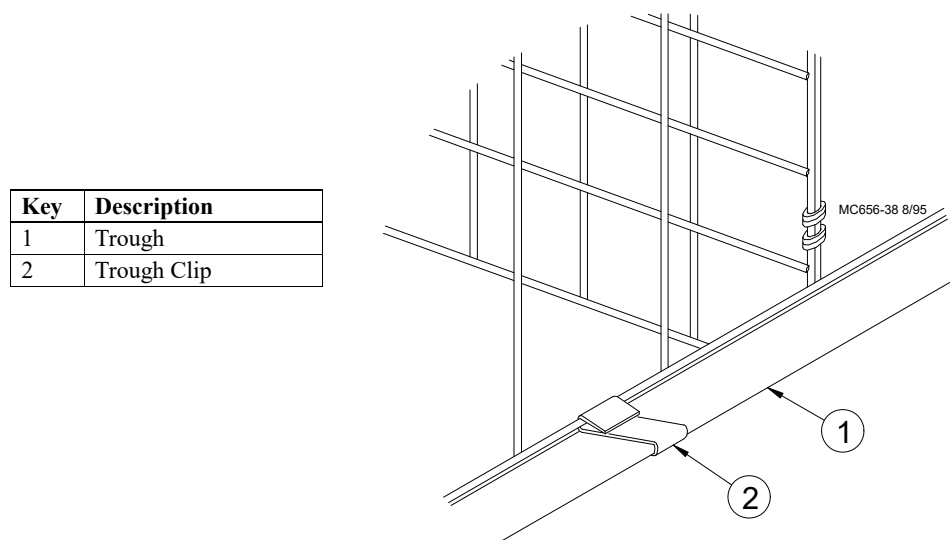
Key	Description
1	Litter Shield
2	Layer Trough
3	Retainer Wire

Figure 25. Retainer Wire Installation (side view).

Trough Clip and Wire Installation (for DURA™ Systems Only)

After the Trough has been installed and correctly positioned on the Trough Hanger, install the Trough Clips as shown in **Figure 26**. Trough Clips should be located at every other partition, beginning one partition from the Cage Floor Support and 2" from partition. Crimp the Trough Clips securely.

Note: Trough Clips are not required on 24" (610 mm) cages and DURA-TRIM™ DBS cages, MANURE BELT cages and VERTICAL DROPPING BOARD SCRAPER CAGES.



Key	Description
1	Trough
2	Trough Clip

Figure 26. Trough Clip Installation.

10. Install Trough Wires at every other partition, as shown in Figure 27.

Note: On 24" (610 mm) and 16" (406 mm) DURA-TRIM™ DBS & Manure Belt Cages, install the Trough Wires at every partition.

11. Install the Cage Support Rod, as shown in Figure 27, at each Trough Wire, except at Cage Floor Supports.

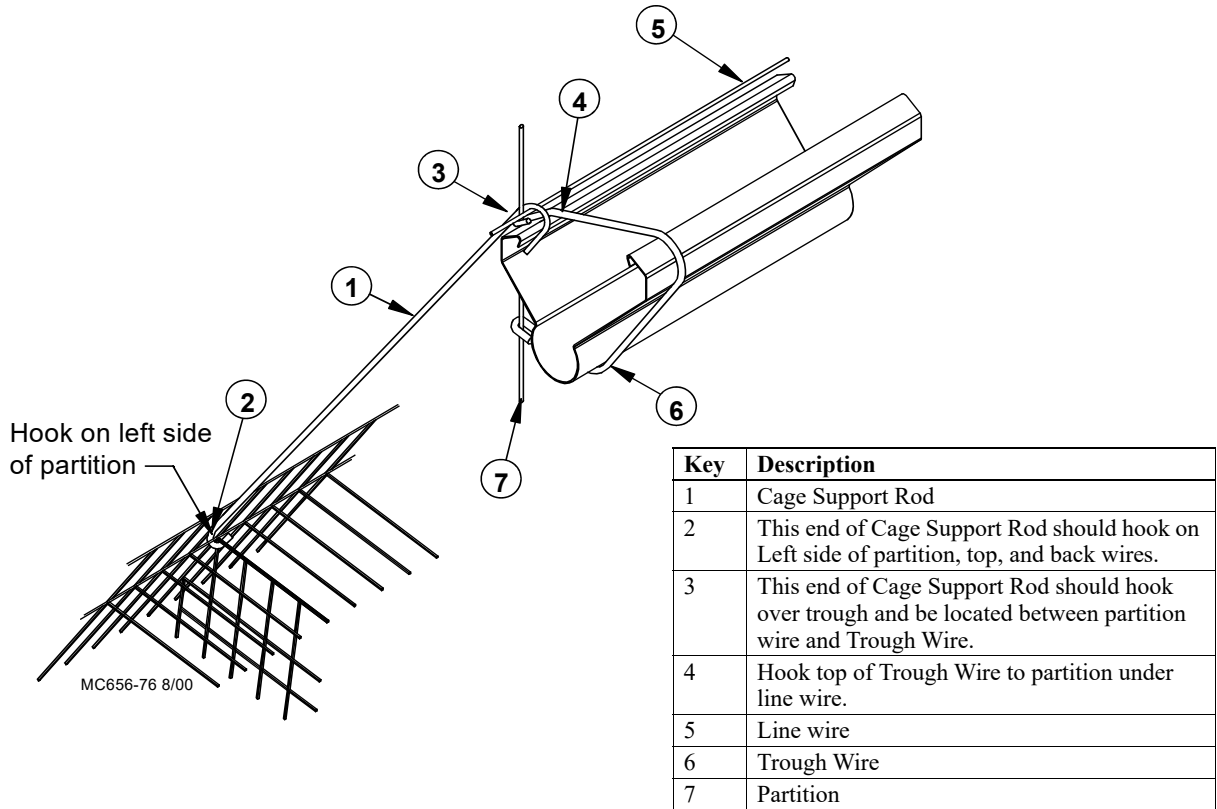


Figure 27. Trough Wire Installation

MMB® Trough Hanger and Trough Installation

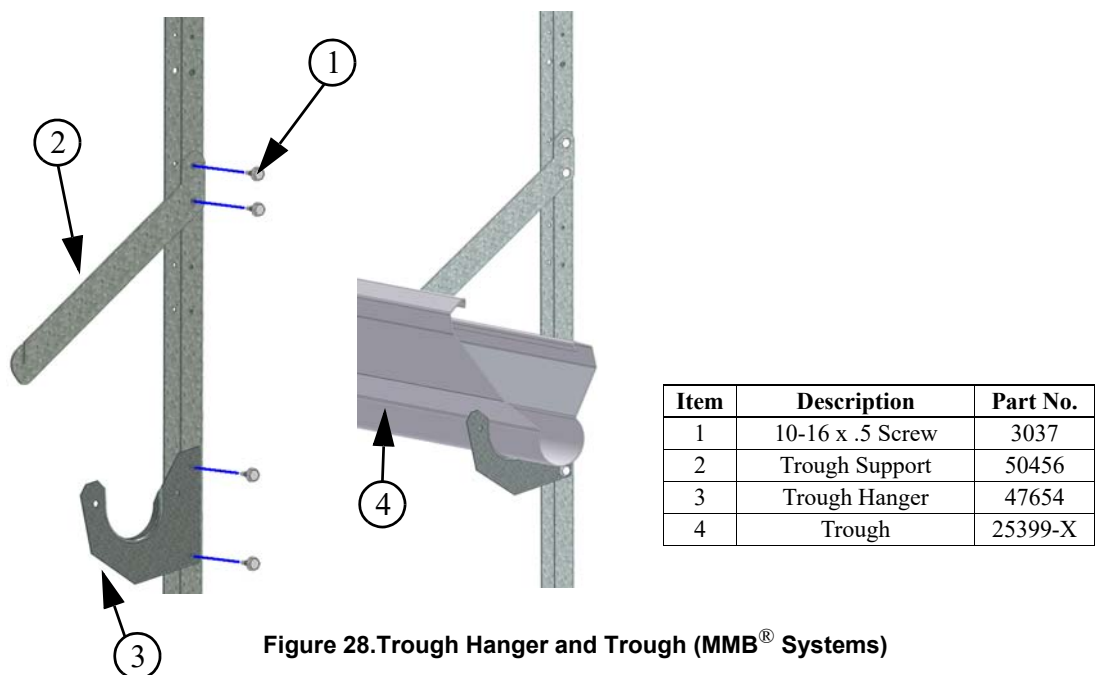
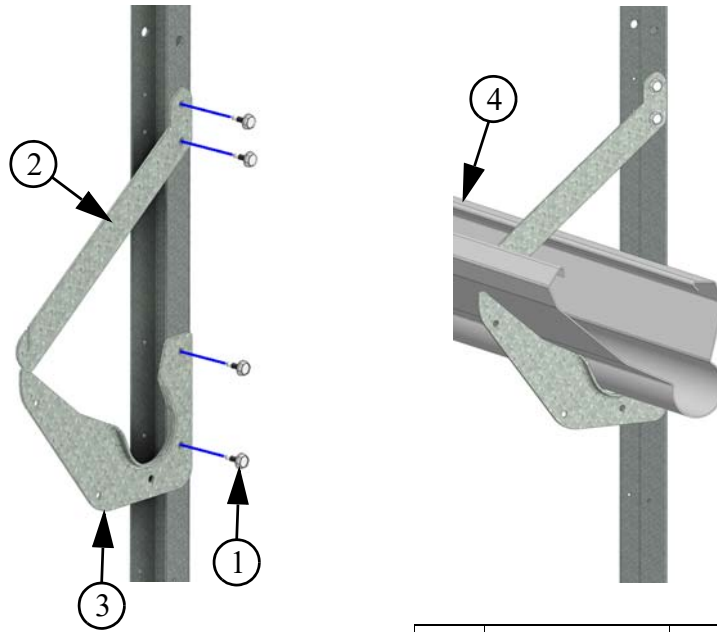


Figure 28. Trough Hanger and Trough (MMB® Systems)

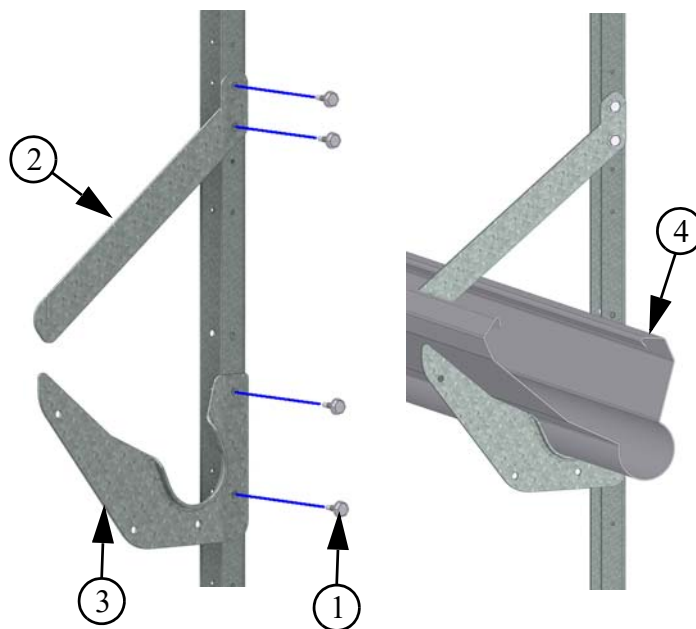
Versa Plus Trough Hanger and Trough Installation



Item	Description	Part No.
1	10-16 x .5 Screw	3037
2	Trough Support	50456
3	Trough Hanger	53942
4	Trough	25399-X

Figure 29. Trough Hanger and Trough (Versa Plus Systems)

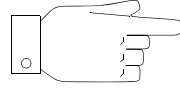
Versa Trough Hanger and Trough Installation



Item	Description	Part No.
1	10-16 x .5 Screw	3037
2	Trough Support	50456
3	Trough Hanger	53942
4	Trough	25399-X

Figure 30. Trough Hanger and Trough (Versa Systems)

From this point forward, the installation instructions for all of the cage systems covered in this manual are the same, except where noted otherwise.



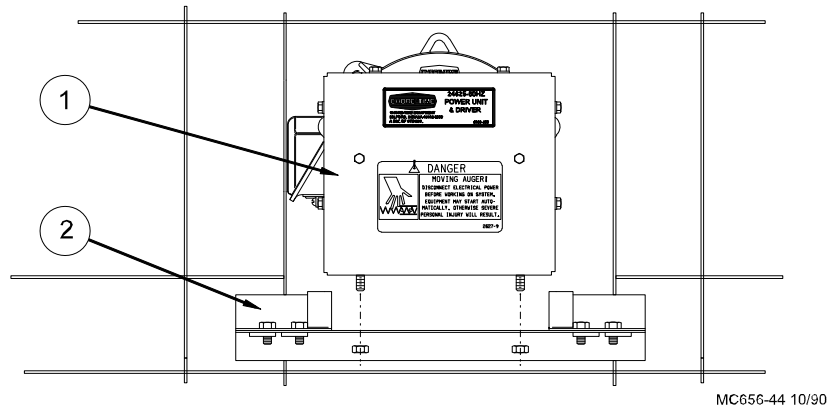
Power Unit Installation

The installation procedures for installing the Power Units are the same for all the cages systems covered in this manual.

See **Figures 1 Through Figure 4. on page 9** for the proper Power Unit location(s) for Stacked and Curtain-backed Brood-Grow Cage Systems.

See **Figures 14 Through Figure 17. on page 15** for the proper Power Unit locations for ST-2, SSS, and Dura™ Cage Systems.

1. Remove the Power Unit from the Drive Unit Base as shown in **Figure 31**

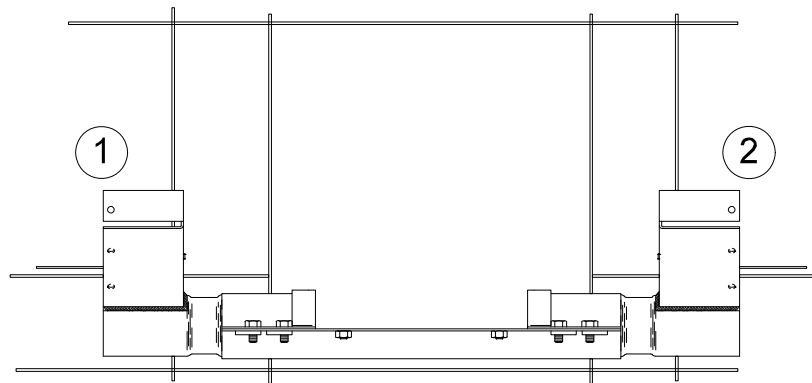


MC656-44 10/90

Key	Description
1	Power Unit
2	Drive Unit Base

Figure 31. Power Unit Installation (front view)

2. Slide an End Cap into each end of the Drive Unit Base. The End Caps are left and right handed so make sure that they are installed correctly (See **Figure 32.**)

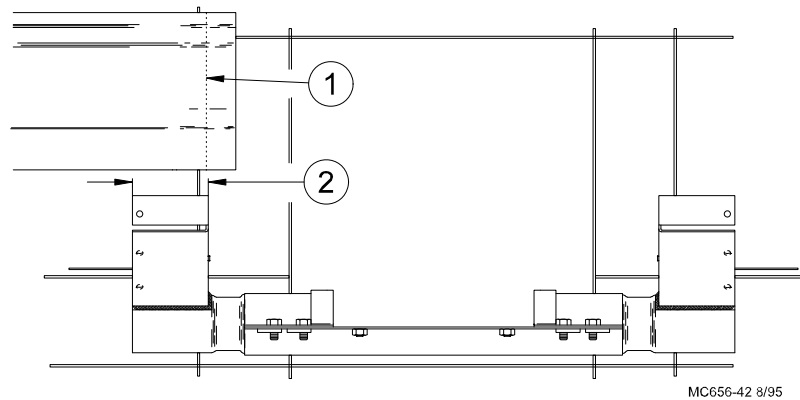


MC656-43 8/95

Key	Description
1	Right Hand End Cap
2	Left Hand End Cap

Figure 32. Power Unit / End Cap Installation (front view)

3. Align the End Caps but DO NOT TIGHTEN THE END CAPS AT THIS TIME.
4. Position the Drive Unit Base, with the End Caps attached, so that it is centered in front of a cage (on one and three motor systems). Position the Drive Unit Base, with the End Caps attached, in the center of the opening where the cages were removed for two and four motor systems).
5. Mark the Trough so that the Drive Unit Base remains as centered as possible in the cage. Allow enough trough length to fit in the End Caps (See **Figure 33.**).
6. Cut the Trough.

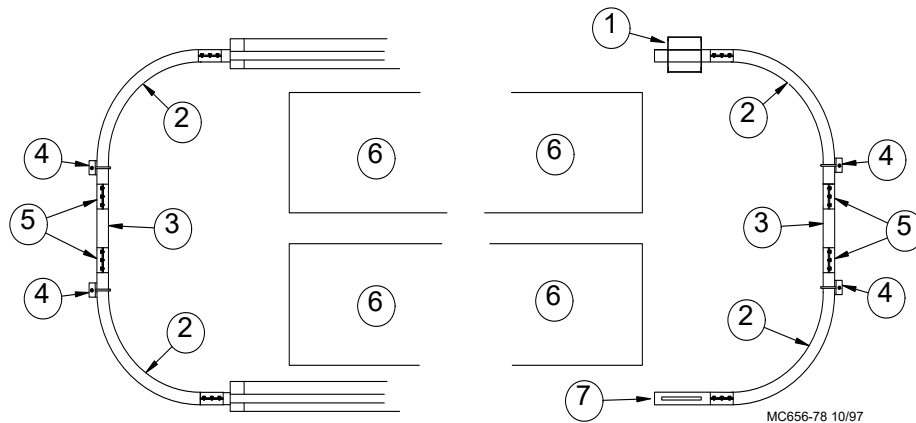


Key	Description
1	Cut Trough as required to fit into End Cap.
2	2-1/2" (64 mm)

Figure 33. Trough Installation at Power Unit Location (front view)

7. Remove the End Caps from the Drive Unit Base.
8. Use self-drilling screws to fasten an End Cap on each Trough end.
9. Slide the Drive Unit Base on to the left hand End Cap. Then slide the right hand End Cap into the Drive Unit Base.
10. Tighten the End Connector Weldments securely and install the Trough Clips, if required, on the Trough Sections.
11. After the Auger has been installed, bolt the Power Unit on the Drive Unit Base. Use chain and "S" hooks to support the Drive Unit.
12. Remove the plastic shipping plug from the Gearhead and replace it with the Vented Plug provided.

End Components Installation



Key	Description
1	Intake Cup
2	Elbow
3	Straight Section of Tubing
4	Elbow Brace
5	Clamps
6	Cage Row
7	Clean-Out Assembly

Figure 34. Trough Installation at Power Unit Location (front view)

Intake Cup Installation

1. Install the Intake Cup on the right hand side of the cage row, as shown in **Figure 34** Remember.
 - a. The top of the Intake Cup must be level.
 - b. The flat side of the Intake Cup must be toward the aisle.
2. Use Clamp to secure the elbow to the Intake Cup.

Intake Cover Installation—Covers Included.

Self-tapping sheet metal screws are supplied to fasten the Covers on the Intake Cups.

Clean-Out Section Installation

1. Install the Clean-Out Section on the return side of the cage row. It may be installed at either end of the cage row or between elbows.
The opening in the Clean-Out Tube must be facing down.
2. Use a Clamp to secure the Elbow to the Clean-Out Section, as shown in **Figure 34**.
3. To operate, turn the Clean-Out Cover down to allow feed to drop out. Turn Clean-Out Cover up to prevent feed drop out.

NOTE: NEVER RUN FEEDER WITH CLEAN-OUT COVER REMOVED.

Elbow Installation

The elbows have different length ends. Tube cutting will be required to achieve a proper fit for elbow installation.

Some installations may require adding straight sections of tubing to elbows to clear other obstacles, such as Dropping Board Scrapers, etc.

1. Install the short side of the Elbows in the Intake Cup and Clean-Out Section.
2. The top two tiers will require the longer, straight sections on the elbows to be cut. The maximum length of straight section that may be cut from each elbow is 12-1/4" (31 cm).

Do not discard the cut section(s) of tubing. They may be used to connect the elbows on the lower tiers, if required.

3. If the elbows on the lower two tiers do not meet, it *may* be possible to use the sections of tubing cut out of the upper tiers to couple the elbows. Otherwise, use straight sections of pipe supplied to couple the elbows.

The maximum distance from (elbow) center line to center line, without adding straight pipe, is 64-1/2" (164 cm).

4. Use Clamps to secure the elbow components together.
5. Install Elbow Support, **as shown** in Parts List section of this manual, to support the elbows.

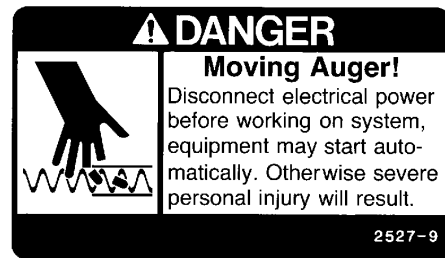
ULTRAFLO® Auger Installation



Caution!

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

To avoid kinking the Auger, be careful not to drop or drag the rolled auger when handling. Inspect the auger for kinks carefully as it is installed. Small kinks may be straightened. Large kinks must be cut out and the auger reconnected using an Auger Connector.



Chore-Time recommends connecting the ends of the auger using an Auger Connector, as shown in **Figure 36**. Auger Connectors are easy to install and generally cause less auger fatigue. Refer to the Auger Connector Installation information below.

1. Loosen the outgoing elbow from the End Cap at the far end of the cage row.
2. Take the end of the auger that was wound onto the roll last -it generally has a tag on it- and bend the end inwards so that it will not catch. **Slide the end of the auger with the plastic cap through the End Cap and into the trough, first.**
3. USE EXTREME CAUTION WHEN INSTALLING THE AUGER TO AVOID PERSONAL INJURY.

The auger should be pulled into the trough in the direction of feed flow (auger travel).

The motors may be used to pull the ULTRAFLO® Auger through the trough. Be careful not to kink the auger when guiding it into the trough.

The auger may be installed by hand, using an Auger Puller.

4. If more than one length of auger is needed, connect the second auger to the first auger using an Auger Connector.

5. On all new Auger both ends should be cut back approximately 6", to insure against Auger end damage.

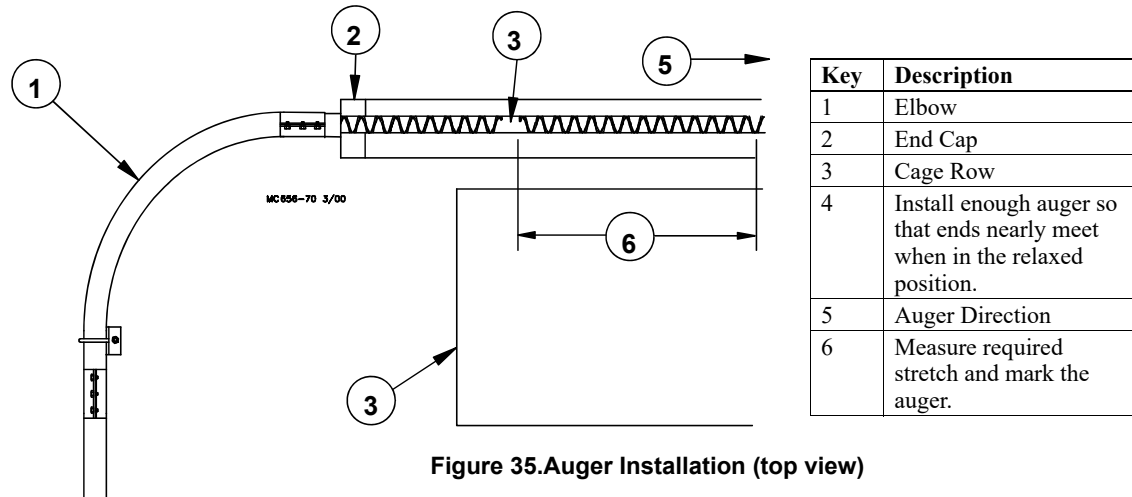


Figure 35. Auger Installation (top view)

6. After the auger has been installed completely around the system, push and pull the auger back and forth a few times to allow it to relax to its free length.

Note: The Power Unit Sprockets must be removed to allow the auger to relax. This may be done removing the entire Power Unit or just the Sprockets. After the auger has been stretched and connected, reinstall the Power Units and/or Sprockets.

7. Slide the auger through the far end elbow and pipe assembly.
8. Mark and cut the auger, so that when the elbow and pipe assembly is secured to the End Cap, the auger ends meet in the trough (several feet from the End Cap) (See Figure 35.). This will allow room to work with the auger during stretching and Auger Connector installation.
9. Push and pull on the auger a few times to make sure it is in a relaxed position.
10. Remove Wrap Around Hangers from approximately 4 feet (1.2 m) of trough.
11. Calculate the required auger stretch based on 4" per 100 feet (100 mm per 30 m) of total auger length.
12. Measure and mark the stretch required on the auger in the trough.
13. Pull the auger ends out of the trough.
14. Cut the required stretch out of the auger.
15. Connect the ends of the auger using an Auger Connector, as shown in Figure 36.
16. Carefully place the auger back into the trough.
17. Use chain and "S" hooks or an Elbow Stand Kit to support the elbows.

To install an Elbow Stand Kit, secure the Stand to the floor just outside the elbows. Use tube clamps supplied to secure the elbows to the Stand. The Elbow Stand has holes drilled for 3.5" and 8.5" (90 and 215 mm) Cage Main Frame Legs.

Auger Connector (50479) Installation

1. Screw the Auger Connector into one end of the Auger. Feed the Auger into second groove of the Auger Connector (See Figure 36.).
2. Untwist the other end of the Auger 1-1/2 turns so that when it is threaded into the other end of the Auger it will return to the relaxed state. Auger ends must be overlapped—**Not Butted**, when threaded into the track of Connector.
3. Stretch the Auger and twist the Auger ends together. Both ends of the Auger should be even with the end of the Connector, as shown below.
4. Tighten each Set Screw until it touches the Auger. Then tighten **1/2 turn**. If Auger can be unscrewed by hand then tighten an additional **1/4 turn**. **DO NOT TIGHTEN MORE THAN 3/4 TURN.**
5. File both ends of the Auger so that they are the same diameter as the rest of the Auger.
6. File both ends of the Auger so that they are the the same diameter as the rest of the Auger.

Be careful not to over-tighten the Set Screws and deform the Auger. Over tightening the Set Screws may cause the Auger to jam in the Power Units.

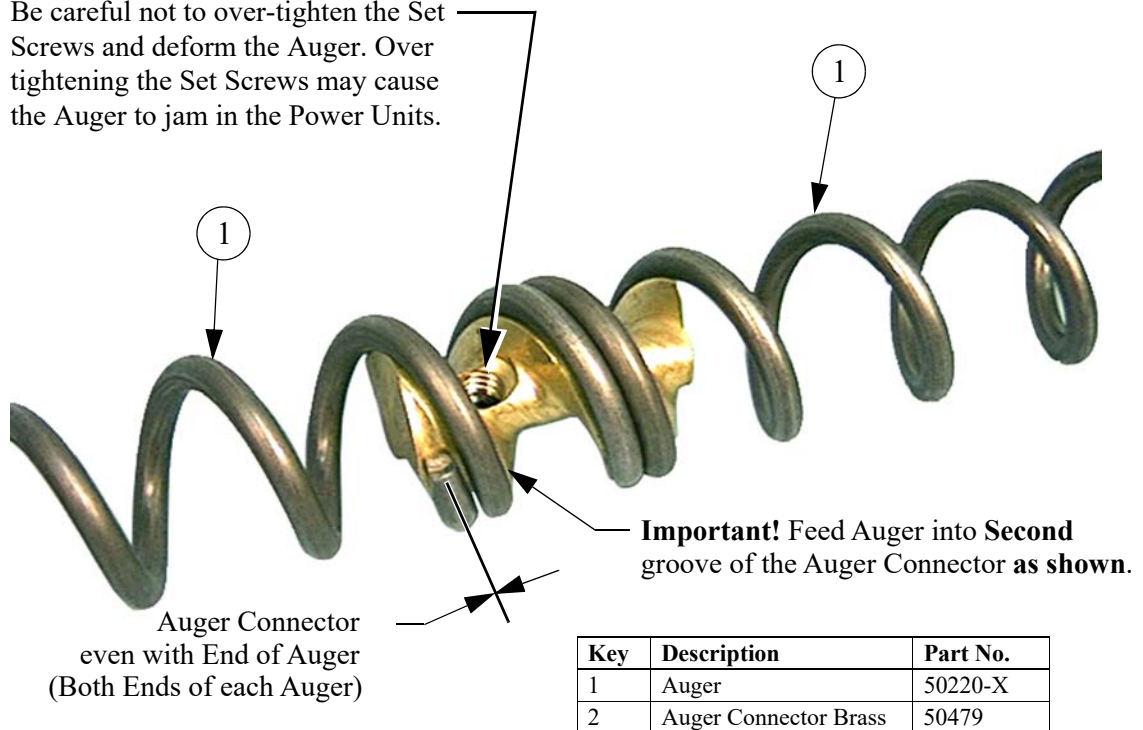


Figure 36. Auger Connector Installation

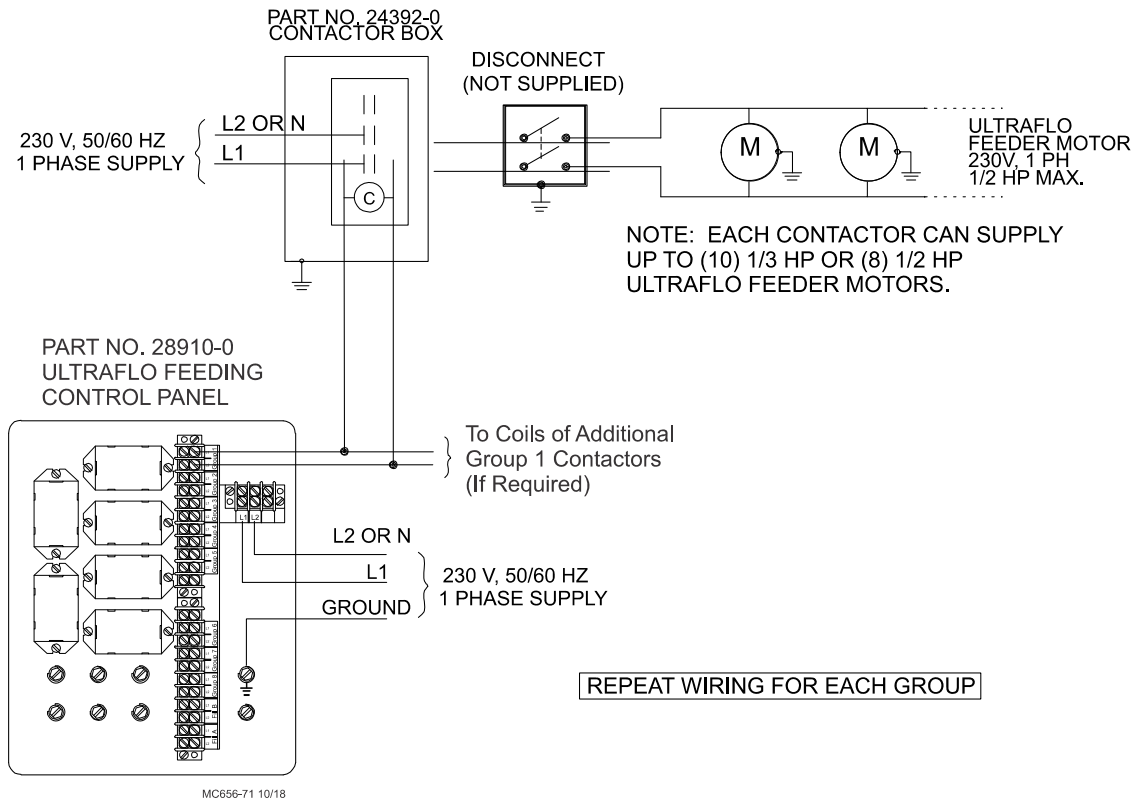
Control Panel Installation

Select a location for the ULTRAFLO® Control Panel that will be easily accessible for wiring and operating the controls. Place the Control where the birds cannot get to it and away from wet or excessively dusty conditions.

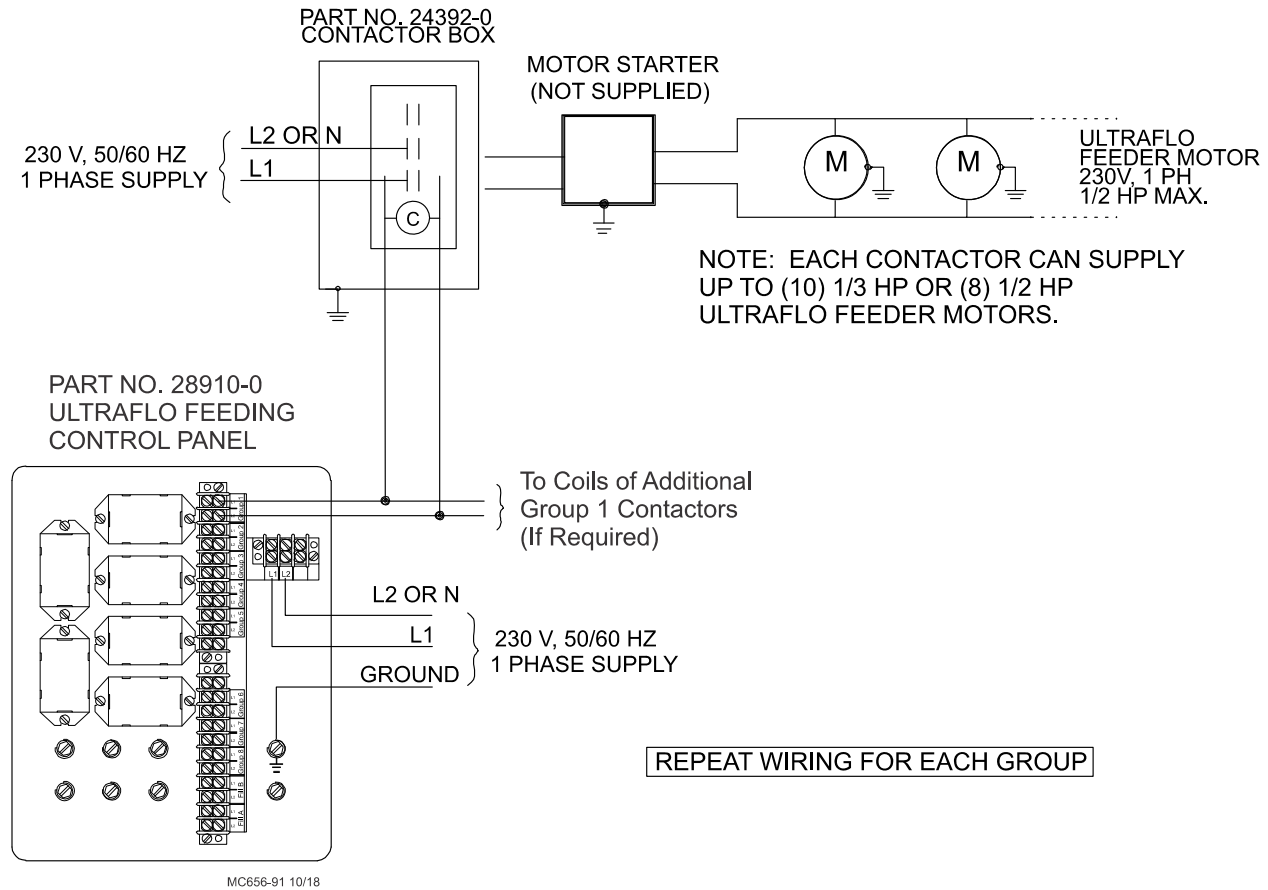
Install the Control Panel and wire the system according to the instructions packed with the ULTRAFLO® Fill System Manual (MC1191) or the Dead End Fill System Manual (MC1190).

Wiring Diagrams for ULTRAFLO® Feeder Line Motors

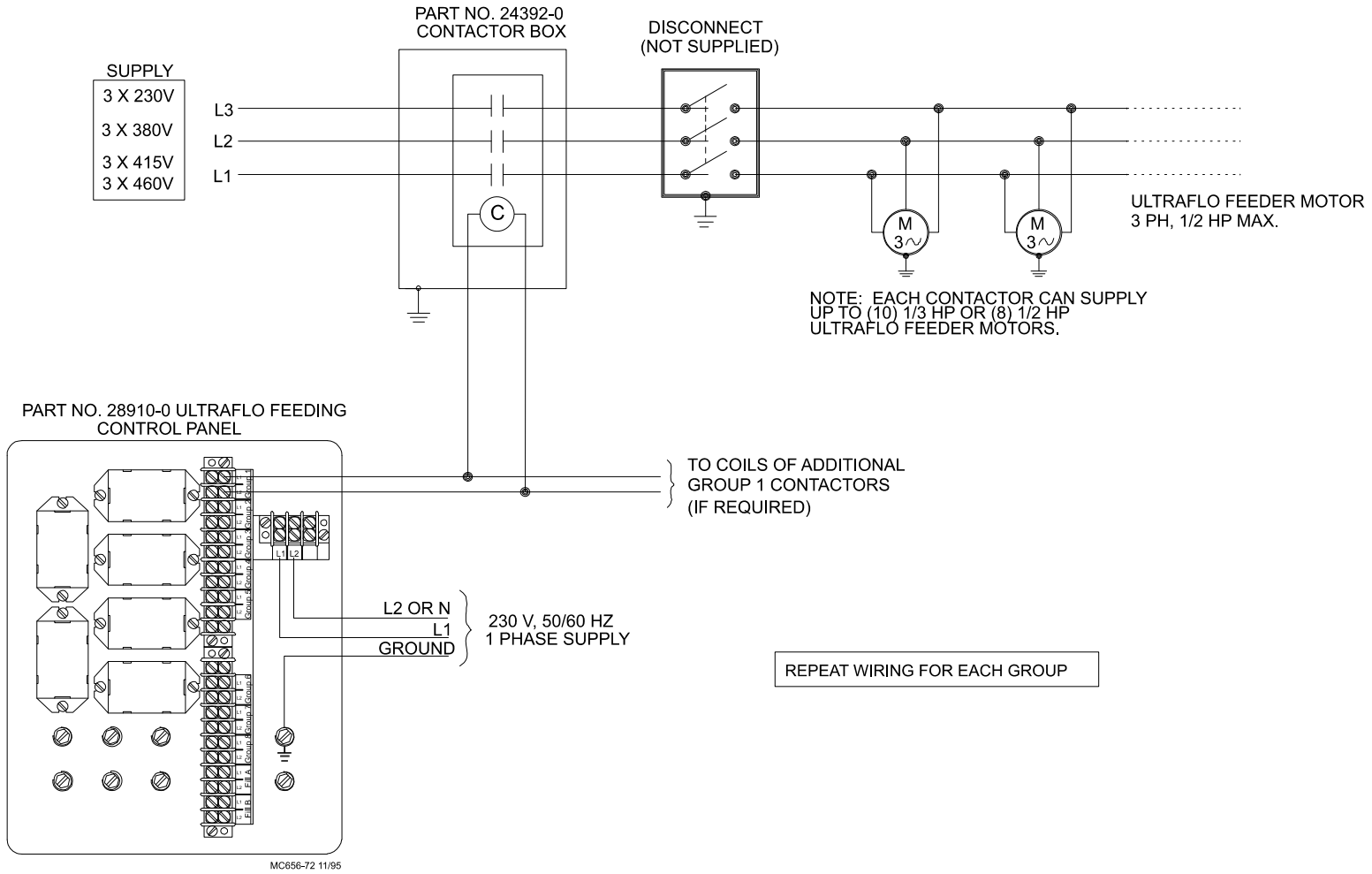
1-Phase, without Motor Starters



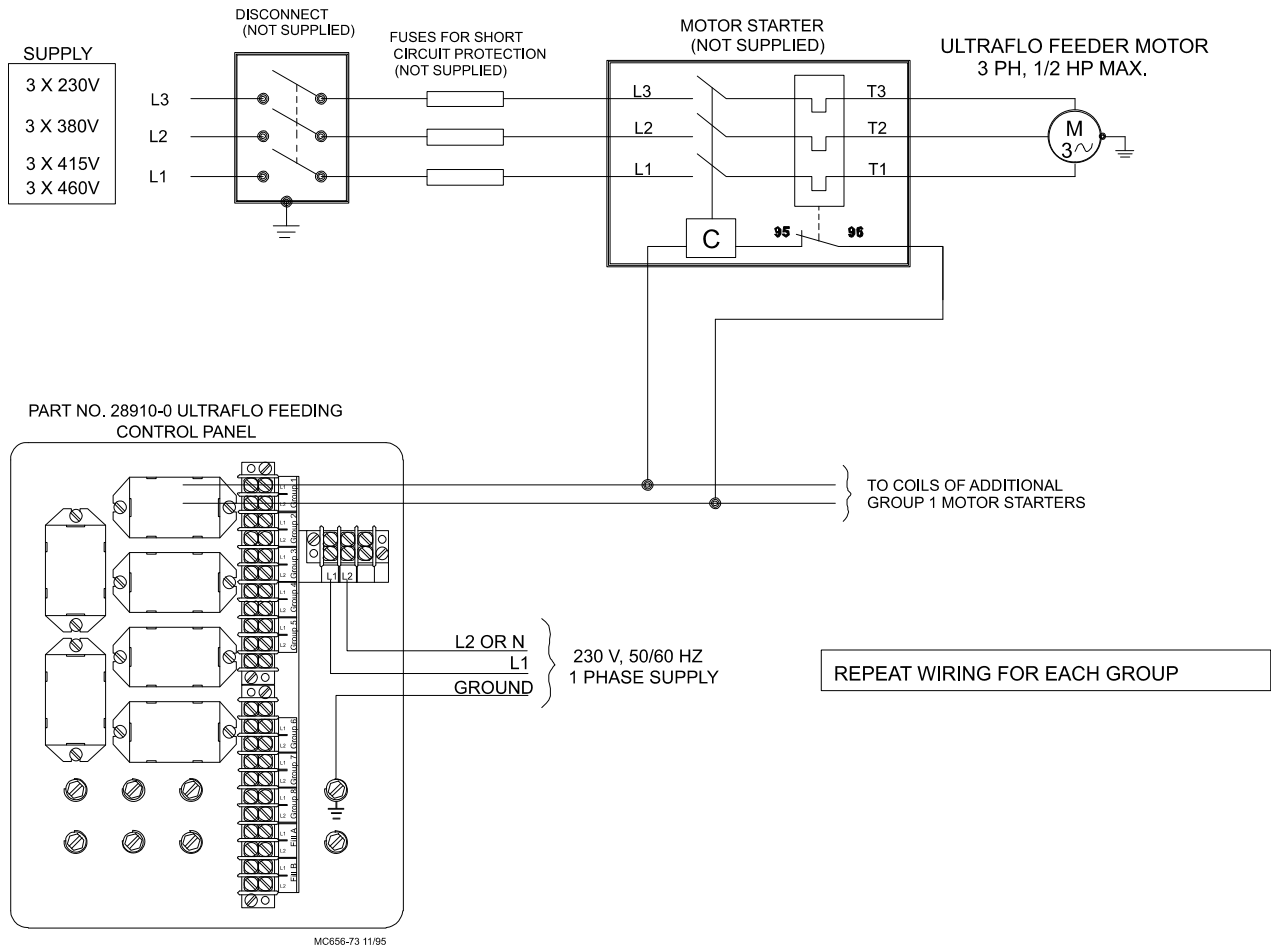
1-Phase, with Motor Starters



3 Phase without Motor Starters

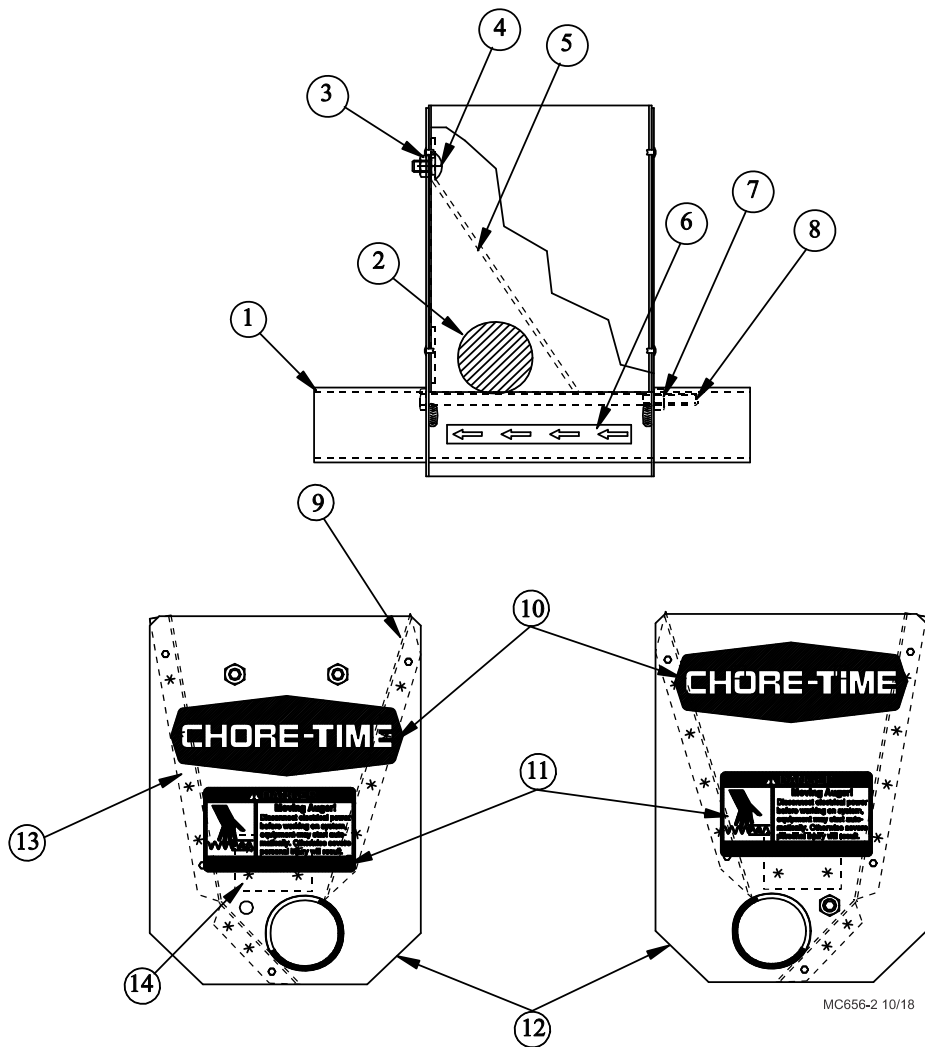


3 Phase with Motor Starters



Part Numbers

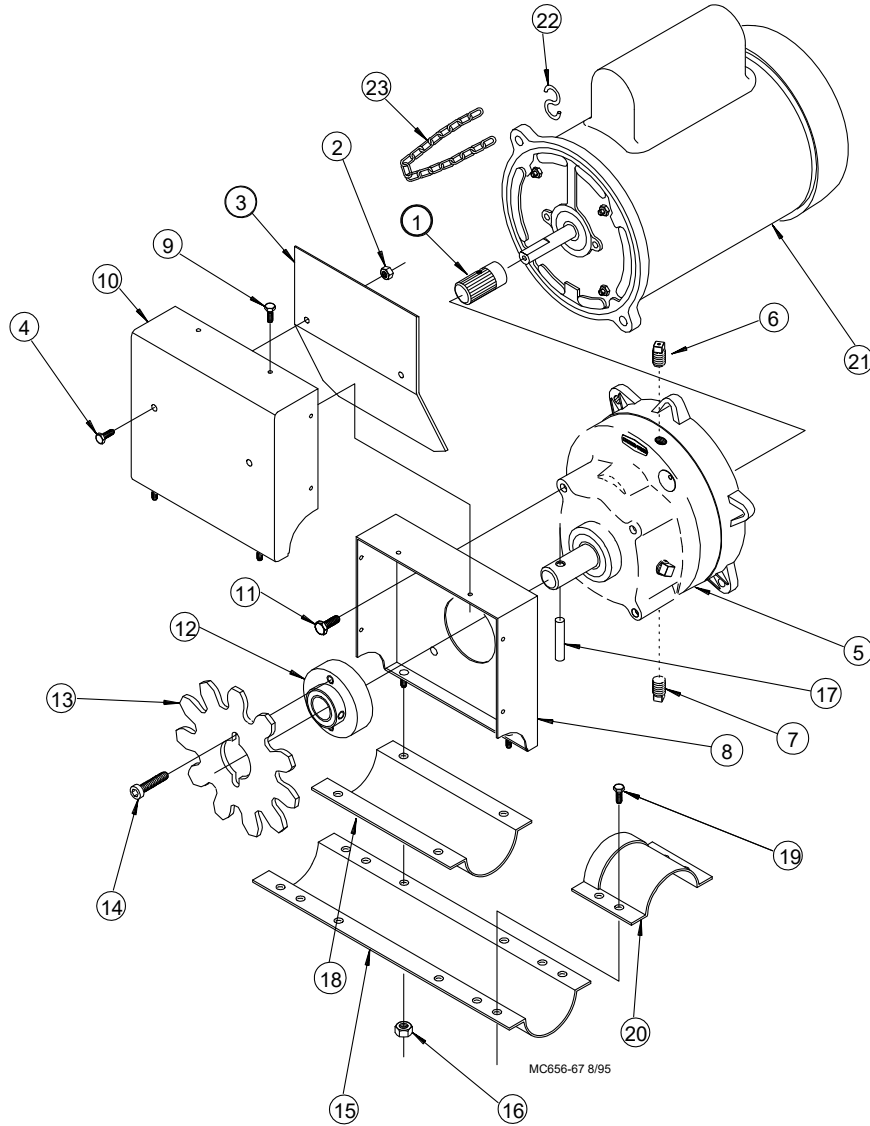
Intake Cup #48224



MC656-2 10/18

Item	Description	Part No.
1	Auger Tube	24553
2	Cannon Ball	3621
3	5/16-18 Lock Nut	2148
4	5/16-18 x .50 Carriage Bolt	34885
5	Retainer Baffle	43710
6	Rotation Decal	2526-76
7	5/16-18 Lock Nut	2148
8	5/16-18 x 6.50 Bolt	4412-25
9	Intake Cup Back Panel	46696
10	Chore Time Decal	2525-4
11	Danger Decal	2527-9
12	Intake Cup Side	46697
13	Intake Cup Front Panel	46695
14	Wear Plate	6206

Power Unit and Driver Assembly Part Number



Key	Description	Part No.
1	Pinion Assembly	See Chart
2	10-24 Stamped Nut	1560
3	Auger Brace	24674
4	10-24 Hex Head Screw	4416-3
5	Gearhead Assembly	See Chart
6	Vent Plug	3523
7	Magnetic Pipe Plug	30160
8	Drive Unit Base	8207
9	#10x1/2" Self-Drilling Screw	3037
10	Drive Unit Cover	8208
11	5/16-18x3/4 Hex Head Screw	2046
12	Drive Gear Hub	8213
13	MULTIFLO Drive Gear	54383
14	5/16-18x7/8 Cap Screw	6850-1
15	Base Connector Weldment	9636

Key	Description	Part No.
16	1/4-20 Locknut	1269
17	Dowel Pin	8699
18	Wear Shoe	8210
19	1/4-20x1/2" Hex Head Screw	1487
20	End Connector Weldment	9634
21	Motor	See Chart
22*	S-Hook	723
23*	Chain	1302
--	Danger Decal	2527-9

* Not included in the Power Unit/Driver Assembly

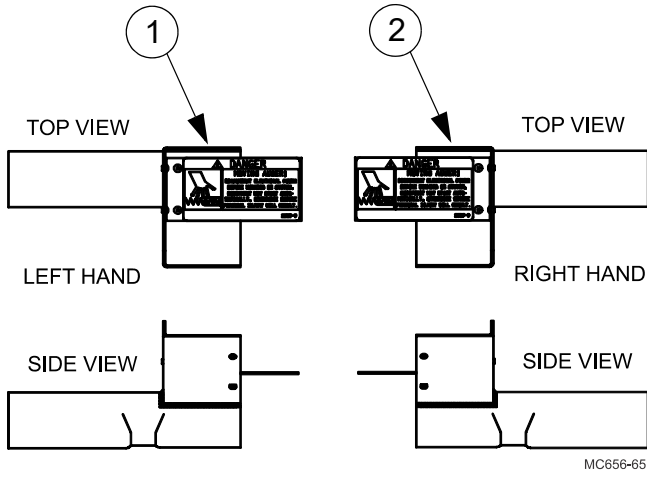
** Gearhead & Driver Assembly Part Numbers include items #2 through#20.

Power Unit & Driver Assembly Part Numbers

Power Unit/Driver Assembly Part No.	Gearhead Part No.	Motor Part No.	H.P.	Volts	Hz.	Phase	Pinion Part No.	Gearhead & Driver Assembly Part No.**
14833-60HZ	3261-21	14733	1/3	230	60	1	53390	27277
14833-50HZ	3261-22	14733	1/4	230	50	1	25836	27266
24778-60HZ	3261-21	30693	1/3	230	60	3	53390	27277
24778-50HZ	3261-22	30693	1/4	220	50	3	25836	27266
24625-60HZ	3261-21	24624	1/2	230	60	3	53390	27277
14850-60HZ	3261-21	14750	1/2	230	60	1	53390	27277
14850-50HZ	3261-22	14750	.4	220	50	1	25836	27266
26144	3261-22	25897	1/3	415	50	3	25836	27266
28680	3261-21	24624	1/2	460	60	3	53390	27277
33647	3261-21	30693	1/3	460	60	3	53390	27277

ULTRAFLO® Feeder End Caps Part Number

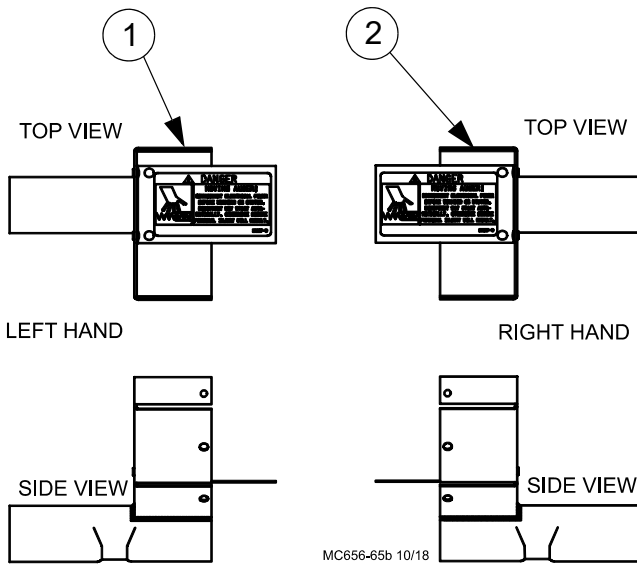
Brood Grow Applications



Key	Description	Part No.
1	Brood-Grow End Cap (L.H.)	28705-2
2	Brood-Grow End Cap (R.H.)	28705-1
--	Danger Decal	2527-9
--*	Power Unit Connector Packages Brood-Grow Layer	26829 27952

*Power Unit Connector Packages include (1) LH and (1) RH of the appropriate End Caps and the necessary hardware.

Layer Applications

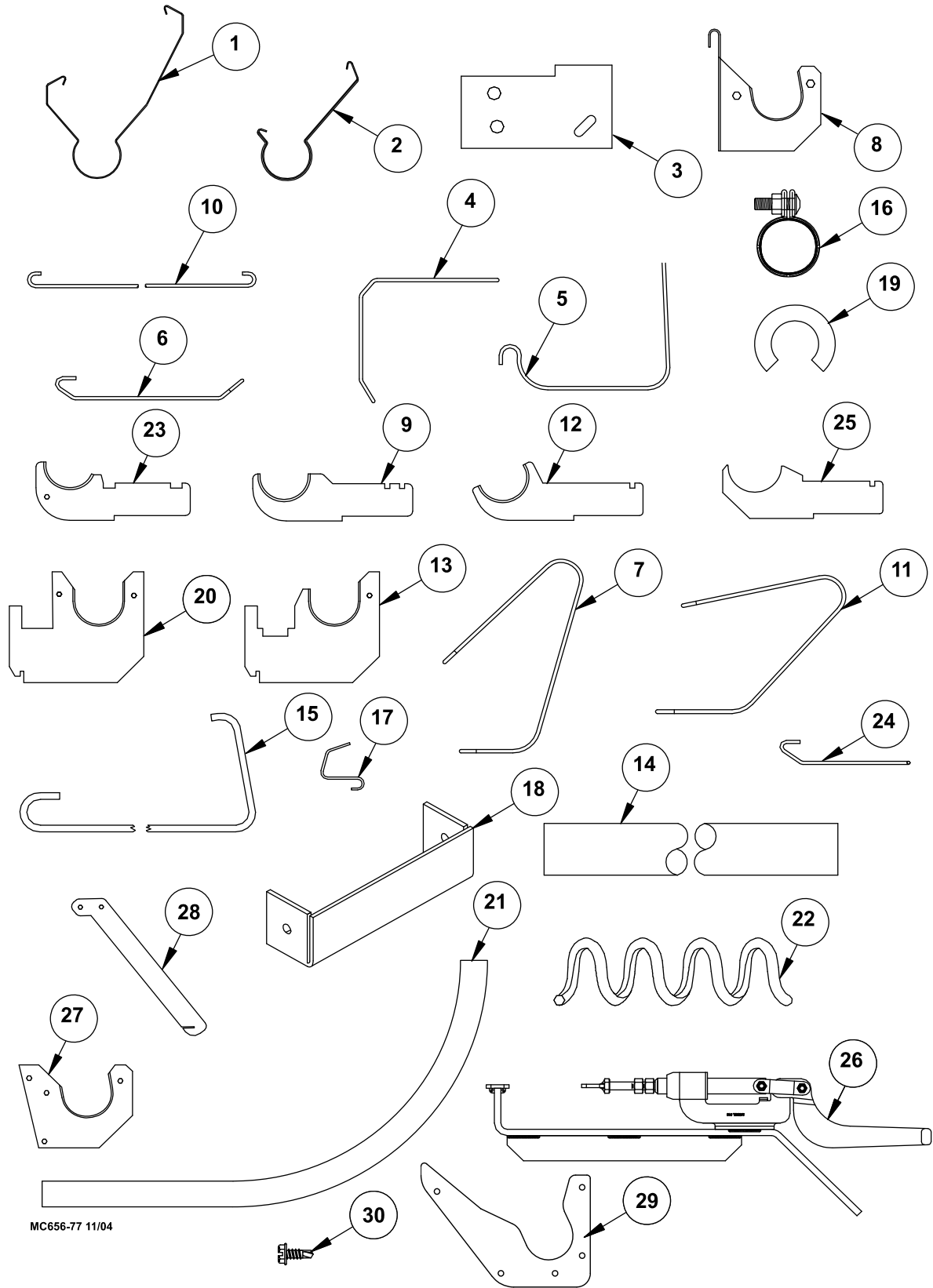


Key	Description	Part No.
1	Layer End Cap (L.H.)	27954-2
2	Layer End Cap (R.H.)	27954-1
--	Danger Decal	2527-9
--*	Power Unit Connector Packages Brood-Grow Layer	26829 27952

*Power Unit Connector Packages include (1) LH and (1) RH of the appropriate End Caps and the necessary hardware.

Feeder Line Component Diagram

including Hangers, Troughs, Elbow, & Clamp, etc.



MC656-77 11/04

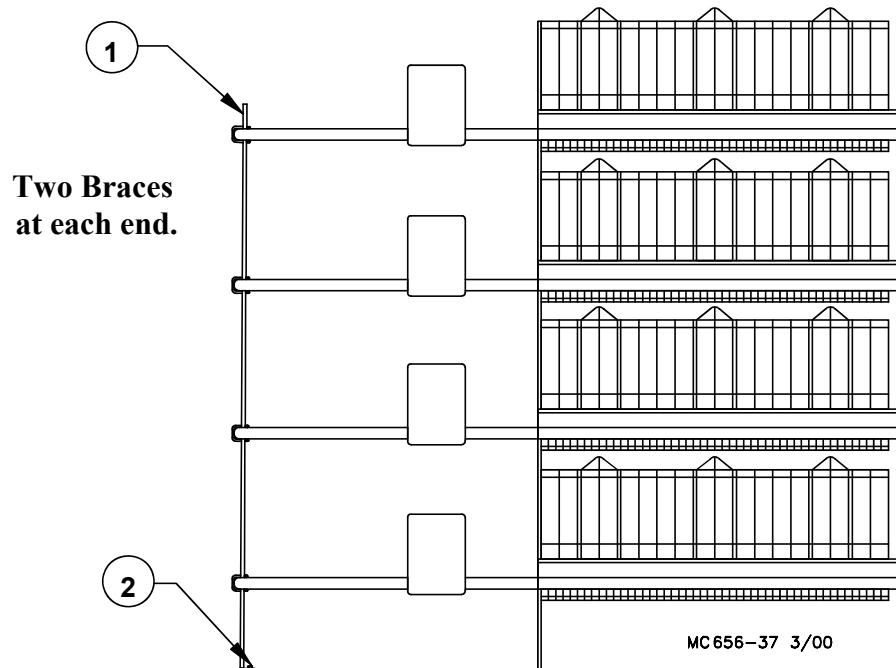
Feeder Line Component Part Numbers

Item	Description	Part No.
1	Layer Trough	
	8 Foot G-140	25399-1
	9 Foot G-140	25399-2
	10 Foot G-140	25399-3
	10 Foot 6 Inches G-140	25399-4
	8 Foot G-90	25399-5
	9 Foot G-90	25399-6
	10 Foot G-90	25399-7
	10 Foot 6 Inches G-90	25399-8
	2 Meters G-140	25399-10
	3 Meter Inches G-140	25399-11
	Facco Layer Trough (8 Foot)	26288-1
	Facco Layer Trough (2 M)	26288-2
	Stainless Steel (8 Foot)	36543-1
	Stainless Steel (10 Foot)	36543-3
	Stainless Steel (10 Foot 6 Inch)	36543-4
	Stainless Steel (2 M)	36543-10
Stainless Steel (3 M)	36543-11	
2	Brood-Grow Trough	
	10 Foot G-140	14559-1
	10 Foot G-90	14559-2
	11 Foot G-140	14559-3
	11 Foot G-90	14559-4
8 Foot G-140	14559-5	
3	Brood-Grow Hanger	15568
4	Upper Level Hanger (B.G.: Stacked, 2+2)	14729
5	Wireform Hanger(B.G.: Stacked, 2+2, C.B., D.B.S., Manure Belt)	27107
6	Hold Down Hanger (B.G.: Stacked, 2+2, C.B., D.B.S.)	37111
7	Wrap Around Hanger (DC, DM, D-II, DS, CTS, DT)	28616
8	Hanger (SSS & ST-2)	9401
	Hanger (1/2 SS)	26854
	Power Unit Hanger (SS/SSS)	27988
9	Hanger (DC, D-II, DT, Manure Belt)	14660
	Power Unit Hanger (15" & 16" Dura™-II, DT, DC, Manure Belt)	27987
10	Wire Retainer (SSS, St-2)	15347
	Wire Retainer (Facco)	24689
11	Wrap Around Hanger (Salmet)	29241
12	Hanger (Dura™-Step)	25388
	Power Unit Hanger (15" & 16" DS, DM)	27989
13	Bottom Hanger (Facco)	28669
14	Straight Tubing (2" X 36")	13269
	Straight Tubing (2" X 11-1/4") (Manure Belt)	28511
15	Auger Puller	6009
16	2" Tube Coupling	48722
17	Trough Clip (DC, DT, D-II, DK, DM, DS)	27947
18	ULTRAFLO® Motor Brace (for 15" Cages)	15879-1
	ULTRAFLO® Motor Brace (for 16" Cages)	15879-2
	ULTRAFLO® Motor Brace (for 12" & 24" Cages)	15879-3
	ULTRAFLO® Motor brace (for 30" Cages)	15879-4
	ULTRAFLO® Motor brace (for 12" Cages)	15879-5
	ULTRAFLO® Motor brace (for 20" Cages)	15879-6
19	Trough Retainer	14431
20	Hanger (Facco)	28669
21	Elbow	9639
22*	ULTRAFLO® Auger	50220-X
23	Trough Hanger (B.G.: Stacked, C.B., D.B.S., 2+2)	16204
24	Trough Wire	39486
25	Hanger (Dura™-step, Dura™-Mid)	30172
26	Retainer tool	14493
27	Trough Hanger (Modular Manure Belt)	47654
28	Trough Hanger High Lip	50456

Item	Description	Part No.
29	Versa Trough Hanger	53022
30	10-16 Screw	3037

*The ULTRAFLO® Auger may be purchased in lengths from 50' to 500' at 10' intervals.
Example: for 150' of Auger, order Part No. 50220-150.

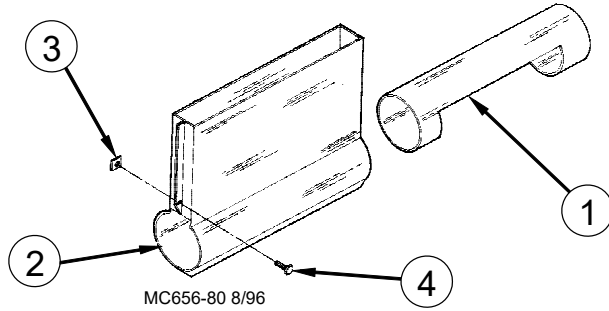
Elbow Brace Kit Number



Item	Description
1	Elbow Brace (for 4-Hi Dura-Cage™)
	Elbow Brace (for 5-Hi Dura-Cage™)
	Elbow Brace (for 3-Hi Manure Belt)
	Elbow Brace (for 4-Hi Manure Belt)
	Elbow Brace (for 5-Hi Manure Belt)
	Connector Brace 45995
	Elbow Brace (for 6-Hi Manure Belt)
	Connector Brace 45995
	Elbow Brace (for 4-Hi Dura-Trim™ C.B. and Dura-Plus™)
	Elbow Brace (for 5-Hi Dura-Trim™ C.B. and Dura-Plus™)
	Elbow Brace (for 3-Hi Dura™ II)
	Elbow Brace (for 4-Hi Dura™ II)
	Elbow Brace (for 4-Hi DuraMid™)
	Elbow Brace (for 5-Hi Brood-Grow C.B.)
	Elbow Brace (for 4-Hi SSS C.B. and D.B.S.)
	Elbow Brace (for 5-Hi SSS C.B. and D.B.S.)
	Elbow Brace (for C.B. Brood Grow)
	Elbow Brace (for Stack Brood Grow)
	Elbow Brace (for 2 + 2 Brood Grow)
	Elbow Brace (for D.B.S. Brood Grow)
Elbow Brace (for 2 + 2 Manure Belt Brood Grow)	
2	A-Frame Foot
	Parts Package includes clamps (for 3-Hi Cage systems)
	Parts Package includes clamps (for 4-Hi Cage systems)
	Parts Package includes clamps (for 5-Hi Cage system)

Note: Elbow Brace Kit contains all Hardware, Braces and Feet, per one Cage Row.

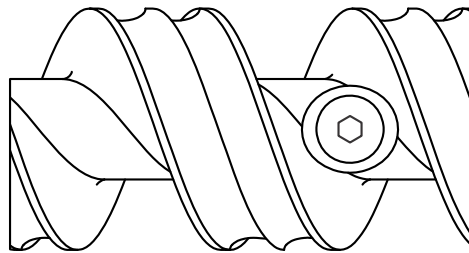
Clean-Out Assembly (13405)



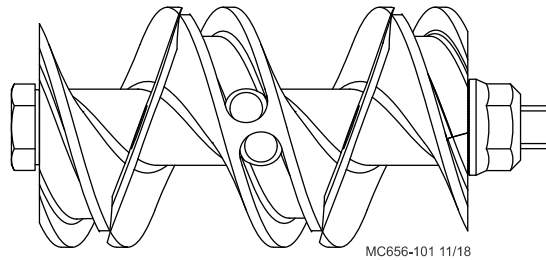
Item	Description	Part No.
1	Clean-Out Tube	24553
2	Clean-Out Half Assembly	14283
3	10-24 Stamp Nut	135
4	10-24x1/2 Hex Hd. Mach. Screw	4416-3

*** NEVER RUN FEEDER WITH COVER REMOVED.**

50479 Standard Auger Connector (2 per pack)



48401 Optional Auger Connector (2 per pack)



Maintenance

Feeder and Fill System Maintenance Schedule

ULTRAFLO® Feeder and Fill	Daily	Weekly	3 Months	6 Months	Between Flocks
Clean Feeders					1
Clean Motor Areas				2	2
Check Feeder System Oil Levels				3	3
Clean Feed From Trough					4
Check Screener	5				5
Grease Bearings			6		6
Check Fill System Oil Levels			3		3
Clean Control Units				2	2
Clean Feed From Fill System					7

*Match up the numbers in the chart with the maintenance info below.

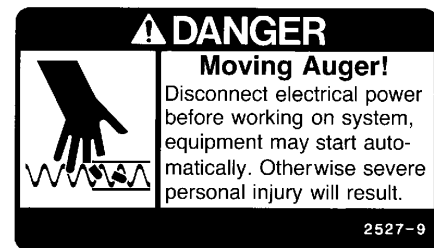
1. Check feeders to insure all lines have run. Check for wet spots and foreign objects in the trough.
2. Remove dust and build up from around the motor areas to allow proper cooling of motors. Remove cover to inspect and clean.
3. Check the oil level in all gearheads. The oil should be up to the side plug. If the oil level is low, add 40 weight S.A.E. oil.
4. Remove feed from trough by opening clean-out(s) in feeder loop. Use caution while clean-outs are open.

Caution: Do not place fingers or foreign objects into clean-outs.

Do not operate feeders with clean-out cover removed.

5. Check screener output. Empty container if necessary.
6. Grease the bearings on the bin boots and feed screener. Use a high grade grease.
7. Close the bin side and allow fill system to empty.

Note: Do not allow the feeders to sit idle for extended periods of time (3-4 days) without periodically running the auger.



Initial Start Up Procedure

Follow this Start-Up Procedure to make certain the Fill System is installed correctly and to make sure the equipment is working properly. It will also remove the manufacturing greases and oils from the equipment.

1. Turn off electrical power to all the feeder lines and Fill System components.
2. Check all feeder lines for foreign objects in the trough.
3. Turn power on.
4.
 - a. Open all Clean Out Assemblies on the feeder lines.
 - b. Switch the Control to Group 1 Feeders to the Manual On position and allow the auger to make at least one complete loop.
 - c. Switch Group 1 Off.
 - d. Repeat this step for all groups.
5. Close all Clean Out Assemblies.
6.
 - a. Switch the Fill System to the Manual On position. Check to see that all motors are running and the system is bringing feed into the house.
 - b. Open the bin slide approximately three inches.
 - c. Run the Fill System only long enough to fill all the Drop Tubes. Note: The Fill System will run until all the Feed Manifold and Drop Tubes are full.
7.
 - a. Switch Fill System Off.
 - b. Switch top level of feeders to Manual On.
 - c. Run the feeders until all feed is run out of the Feed Manifold or Drop Tubes.
 - d. Repeat these steps for the remaining groups of feeders in order from top to bottom level.
8. Switch all groups to the Manual On position. Run all the groups of feeders from one-half to one hour or until all loops have made at least 3 complete cycles. This cleans off the oil on the troughs and augers.
9.
 - a. Switch all groups to the Manual Off position.
 - b. Open all Clean-Out Assemblies.
 - c. Switch all groups to the Manual On position. Run the feeder lines long enough to complete 4–5 revolutions.
 - d. Switch all groups to the Manual Off position.
 - e. Close all Clean Out Assemblies.
10. When birds are to be housed, they must first be placed in the Control Row. The birds in the control row must be the last ones removed when the house is to be emptied.
 - a. Just before the birds are housed, switch the Fill System to the Manual On position and fill all of the Feed Manifolds and Drop Tubes.
 - b. Switch one group of feeders to the Manual On position. Allow the Auger to make one loop and then switch that group off.
 - c. Repeat for each group of feeders.
11. Run the feeders and fill System manually for the first few days after the birds have been housed until the amount of feed they consume has stabilized.
12. Program the ULTRAFLO® Control following the procedure in the Control Manual. Once it is programmed, switch only the groups that are being used, and the Fill System, to the Computer Controlled position. ALL OTHER SWITCHES SHOULD REMAIN IN THE OFF

POSITION.

Troubleshooting

One loop not running, motors overloaded.

Problem	Suggested Procedure
Feed Level too high	Reduce feed level. See manual MC739 ULTRAFLO® control “Developing a Feeding Program.”
Foreign objects in trough	<ol style="list-style-type: none"> 1. Reset motors (push overload button) and operate feeder. If feeder runs fine then the overload was caused by either excessive feed level or a hard to find foreign object 2. If the feeder fails to operate, check the auger for foreign objects and/or water. The most likely place for an object to jam is in the elbows or at a power unit. Using An Auger Puller or Pliers check both elbows (front and back) and all power units. It is likely that the auger will be difficult to move at all elbows and power unit, however the foreign object will be located at the elbow or power unit where the auger is most difficult to move. 3. Remove the object from the auger. If object is found at a power unit, check the auger to make sure the auger was not damaged. If damage occurred, replace damaged section of auger. 4. If an object is not found, check other power units and elbows. If still no object is found, remove power units from the trough and check to see if they operate, If not, replace the power unit. 5. If water is found in the trough, it may be necessary to move auger with an auger puller before it will start with the motors. 6. Check screens in screeners for holes if source of foreign objects cannot be found.



Always Keep Hand Out OF Jammed Auger. The Auger May Come Loose At Any Time, Causing Severe Personal Injury Or Death.

One Loop frequently overloads

When motors are reset, feeder runs fine for a period of time (from minutes to days) before stopping. No foreign objects are found.

Problem	Suggested Procedure
Object small and hard to see	Open the Clean-Outs and run the feeder, Small objects may fall out with feed through Clean-Outs.
Piece of metal wrapped around the auger	Carefully remove the foreign object. Be careful, springing auger can cause injury.
Damaged auger	<ol style="list-style-type: none"> 1. Check for stretched flightings or kinks. 2. Cut out any damaged auger and rejoin the auger using an auger Connector. If more than 18" (450 mm) of auger is removed, replace the removed section of auger. Less than 18" of auger does not have to be replaced. Add no less than 12', additional un-damaged Auger may need to be replaced.

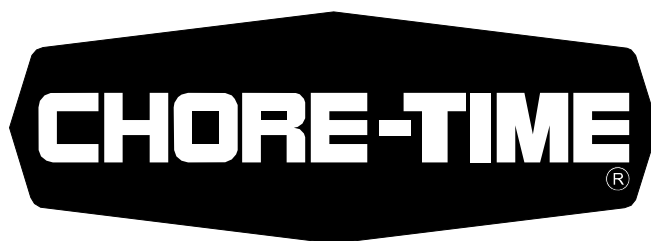
Auger comes out of trough

Problem	Suggested Procedure
Damaged trough	Repair or replace damaged section(s) of trough. Often adding additional hangers and trough wires will close the trough which has been spread open.
Missing hangers and trough wires	Replace missing or damaged hangers and trough wires.

One or more loops without feed

Problem	Suggested Procedure
Feed bridging or plugging in the chutes	Remove caked feed or plug from chutes.
Intake Cups	Remove feed build up, feathers, string, etc.
Fill System Control Unit	<ol style="list-style-type: none"> 1. Clean red switch if necessary 2. Adjust delay in drop tube switch to reduce fill system off line.

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**MADE TO WORK.
BUILT TO LAST.®**

Revisions to this Manual

Page No.	Description of Change	ECO
Various	Many updates and additions	33480

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

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