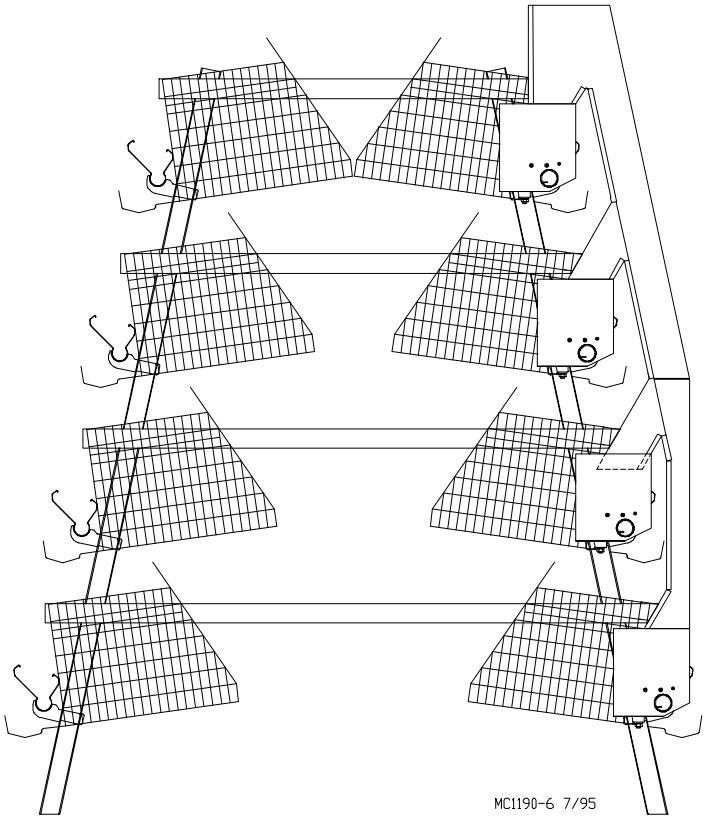
CHORE-TIME®

ULTRAFLO® Dead End Fill System

Installation Manual

installation • wiring diagrams • parts list



January 1996 **MC1190A16**

Support Information

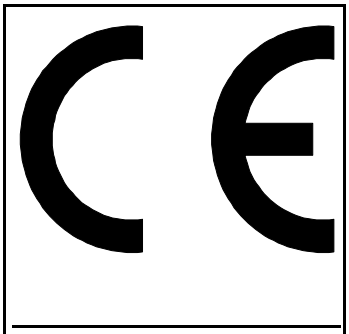
The ULTRAFLO Dead End Fill System is designed to convey poultry feed types. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury and/or death.

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).

IMPORTANT: CE stands for *certified Europe*. It is a standard which equipment must meet or exceed in order to be sold in Europe. CE provides a benchmark for safety and manufacturing issues. CE is required only on equipment sold in Europe.

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 name and address of your Chore-Time Distributor and installer.



(CE-mark serial number)

Please fill in the following information about your ULTRAFLO Dead End Fill 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 _____

Table of Contents

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

Related Instruction Manuals *Inst.No.*

Two Motor Tandem System Manual (Model 90)	MA524
Two Motor Tandem System Manual (Model 108)	MA1101
Model 55, 75, 90, & HMC FLEX-AUGER Fill System Manual	MA1000
Model 108 FLEX-AUGER Fill System Manual	MA1032
Dual Model 90 Control Unit	MA1277
Dual Model 108 Control Unit	MA1064
Model 90, 108, & Dual 90 Feed Screener Manual	MC1033
ULTRAFLO Feeding System Manual	MC656

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

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 ..... 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.

DANGER

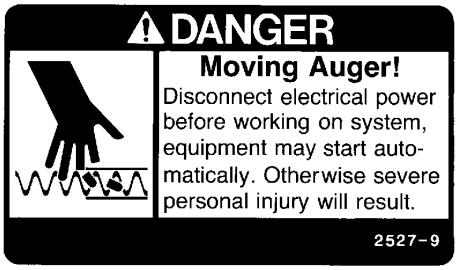
WARNING

CAUTION

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

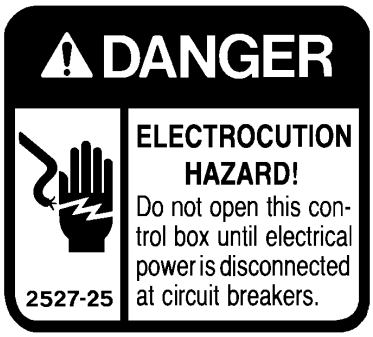
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

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

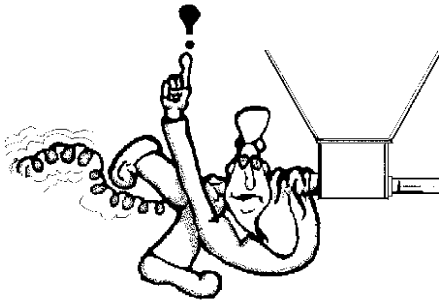
Ground all non-current carrying metal parts to guard against electrical shock.

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



CAUTION

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



General & Planning Information

Thank you for purchasing a CHORE-TIME Dead End Fill System.

Carefully read all the instructions prior to beginning the installation.

White rust is caused by moisture trapped between galvanized parts. If moisture is present, separate parts and allow for good air circulation.

CHORE-TIME fill systems and feeding systems are designed to handle most common poultry feeds. However, we cannot guarantee satisfactory operation with all rations. We suggest you contact the CHORE-TIME Technical Service Department concerning the use of new or unusual formulations.

The Dead End Fill System is used to supply the ULTRAFLO Feeding System with feed. The ULTRAFLO Feeding System Installation Manual (MC656) is included with the Intake Cups and covers the feeding system installation process.

The Dead End Fill System is used to deliver feed from the feed bins to the ULTRAFLO Cage Feeder as required. The Dead End Fill System is designed for *tier feeding* applications only. *Row feeding* applications require use of the ULTRAFLO Loop Fill System. See the ULTRAFLO Loop Fill System Installation Manual (MC1191).

The Dead End Fill System may be a Model 90, Twin or Dual Model 90, Model 108, or Hi-Speed Model 108, depending on the capacity required (number of ULTRAFLO Feeder Lines to be supplied). Dual Model 108 Dead End Fill Systems are also available for *split-ration* applications only.

The chart below shows the delivery capacities of the various Dead End Fill Systems available.

Systems	Pounds/ Minute	Pounds/ Hour	Kg./ Minute	Kg./ Hour	# of Lines Supplied
Model 90	100	6,000	45	2,700	4
Twin/Dual Model 90	200	12,000	90	5,400	8
Model 108	220	13,200	98	5,800	8
Hi-Speed Model 108	250	15,000	113	6804	8

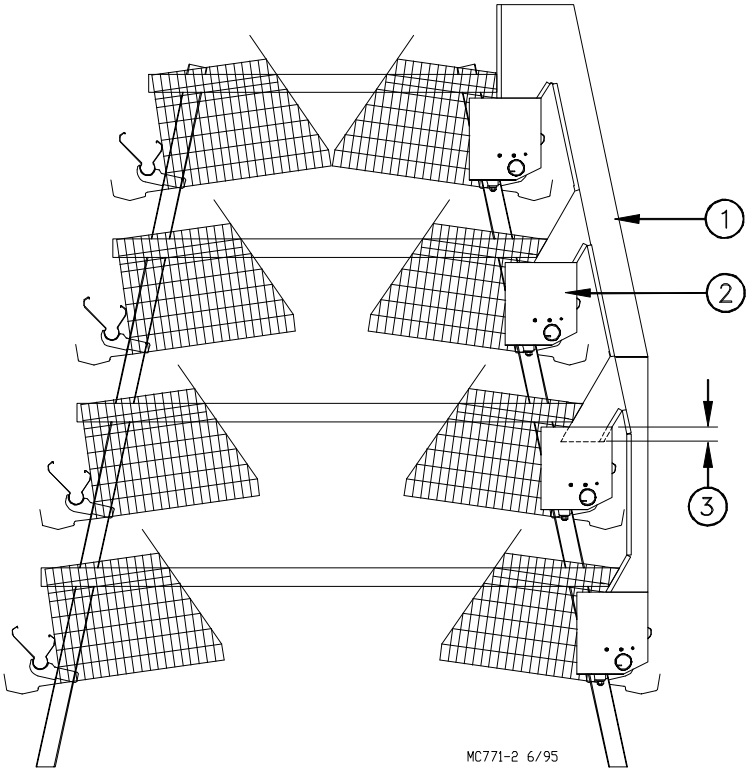
*These calculations are based on 40 pounds/ft^3 or 64 kg/m^3 feed density. Conveying capacity is based on Power Units using the standard 348 RPM Gearhead (except on Hi-Speed Model 108 which uses a 425 RPM Gearhead).

Dead End Fill System Installation

Feed Manifold Installation

1. The Intake Cups should be installed according the ULTRAFLO Feeding System Installation Instructions (MC656).
2. Install the Feed Manifolds with the *drop-outs* in the Intake Cups, as shown in Figure 1.

   Slide the Feed Manifolds down into the Intake Cups 3/4" (19 mm) to 1" (25 mm).
3. Fasten the Feed Manifolds to the Intake Cups using self-tapping screws supplied.



Key	Description
1	Feed Manifold
2	Intake Cup
3	3/4" - 1" (19 - 25 mm)

Figure 1. Feed Manifold Installation (end view).

Fill System Installation (inside portion)

Install the *inside* portion of the Fill System according to the appropriate Fill System Installation Manual (MA1000 for Model 90 Fill Systems, MA1032 for Model 108 Fill Systems, MA1033 for Model 90 & Model 108 Screeners).

NOTE: CAREFUL PLANNING IS REQUIRED. Make sure that the inside and outside portions of the Fill System are going to match up prior to beginning to install the equipment.

The Control Unit must be located directly over the Feed Manifold farthest from the Feed Bin.

An Outlet Drop must be located directly above each Feed Manifold. If possible do not install an Outlet Drop on or just before an elbow. If the Outlet Drop MUST be installed on or just before an elbow, reduce the size of the outlet hole to provide some feed bypass to cushion the auger.

The Fill System should be suspended approximately 12” (31 cm) above the Feed Manifolds.

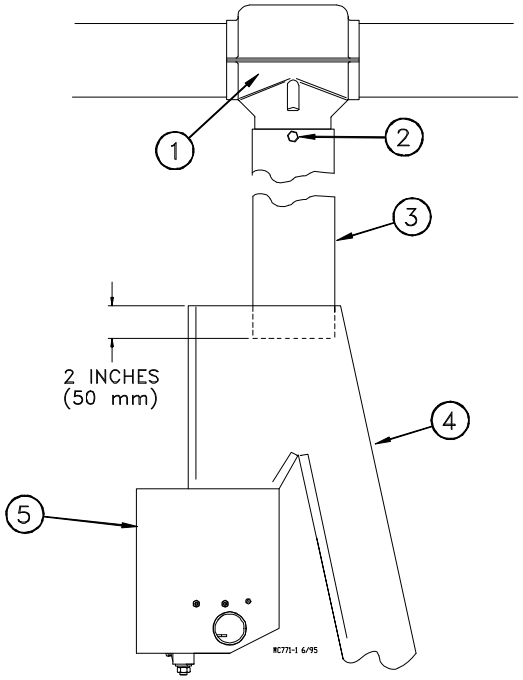
Drop Tube Installation

Cut the Drop Tubes to length and insert into the bottom of the Outlet Drop. See Figure 2.

The Drop Tubes should extend down into the top of the Feed Manifolds approximately 2” (50 mm), as specified in Figure 2.

Model 90, Twin 90, & Dual Model 90: Secure the Drop Tube to the Outlet Drop using the Hose Clamp supplied.

Model 108: Secure the Drop Tube to the Outlet Drop using the self-tapping screws supplied.



Key	Description
1	Outlet Drop (Model 108 shown)
2	Self-Tapping Screw (Note: Model 90 uses a Hose Clamp in place of Self-Tapping Screw.)
3	Drop Tube
4	Feed Manifold
5	Intake Cup

Figure 2. Drop Tube Installation–Model 108 Outlet Drop shown (side view).

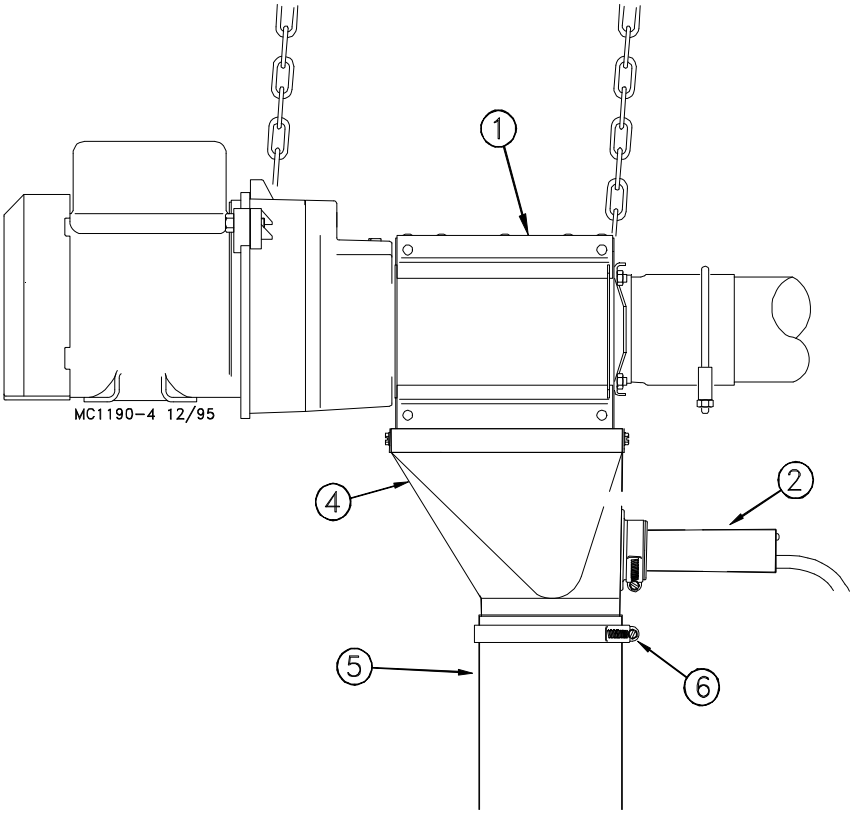
Switch Installation

The Proximity Level Switch Assembly is designed to provide reliable feed sensing in confinement poultry applications.

The ULTRAFLO version of the Proximity Level Switch does not include any switching relays or contactors and is intended to switch only control circuitry (not motor current).

The Switch is used to start and stop the Fill System during a feeding cycle.

Figure 3 shows a Proximity Level Switch installed. Refer to the Installation Instructions (MA1193) shipped with the Proximity Level Switch for detailed installation and wiring information.



Key	Description
1	Dead End Fill System Control Unit
2	Proximity Switch
3	Control Unit Drop Assembly
4	Drop Tube
5	Hose Clamp

Figure 3. Proximity Level Switch Installation (side view).

Fill System Installation (outside portion)

Install the *outside* portion of the Fill System according to the appropriate Fill System Installation Manual (MA1000 for Model 90, MA1032 for Model 108). See Figure 4.

If a Feed Screener is to be used, refer to the Feed Screener Installation Manual (MC1033) for planning and installation information.

NOTE: CAREFUL PLANNING IS REQUIRED. Make sure that the inside and outside portions of the Fill System are going to match up prior to beginning to install the equipment.

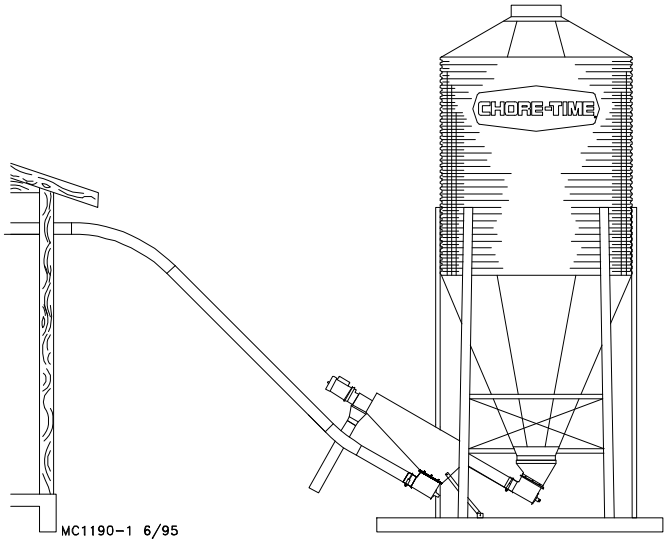
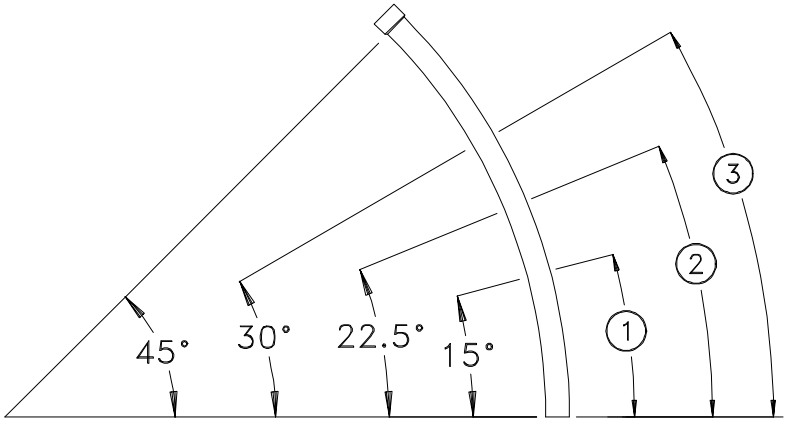


Figure 4. Fill System Installation--outside portion (side view).

If it is necessary to cut an elbow, refer to Figure 5. Always measure along the outside radius of the elbow when determining cut location. Use an abrasive cut-off saw to cut the hardened steel elbows.



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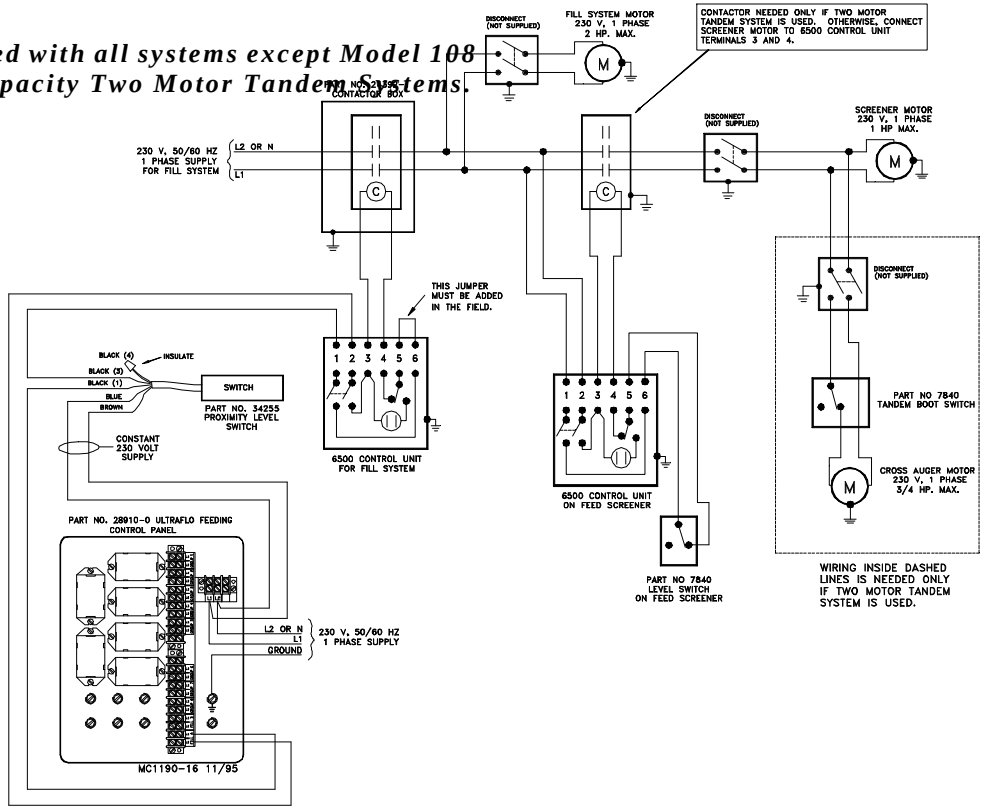
Dimension	° Radius	Model 90	Model 108
1	15° Elbow	15.8” (40.1 cm)	16.3” (41.4 cm)
2	22-1/2° Elbow	23.7” (60.2 cm)	24.4” (62 cm)
3	30° Elbow	31.6” (80.2 cm)	32.5” (82.6 cm)

Figure 5. Cutting the Elbow (side view).

Dead End Fill System Wiring Diagram

(Single Phase, w/o starters)

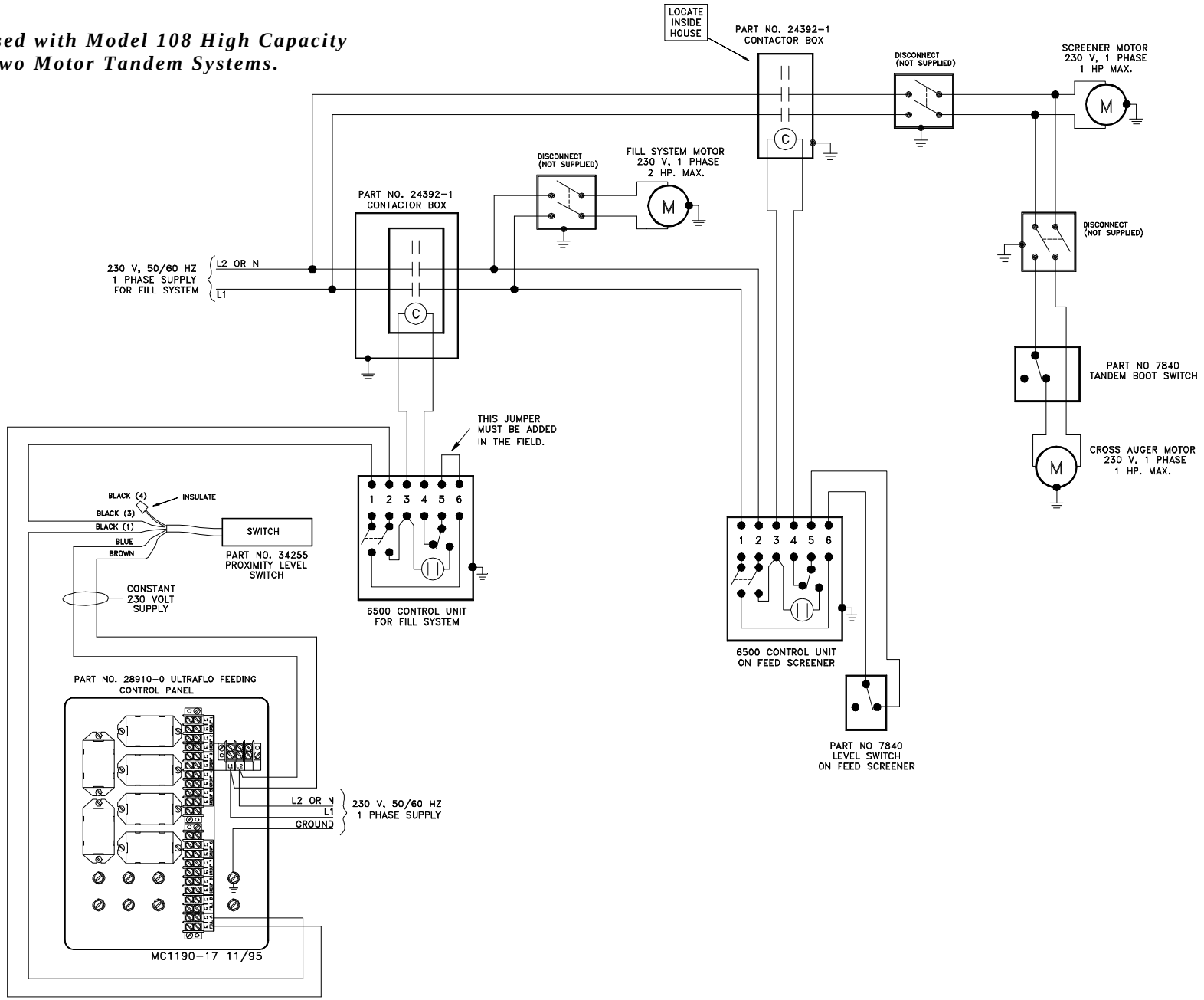
To be used with all systems except Model 108 High Capacity Two Motor Tandem Systems.



Dead End Fill System Wiring Diagram

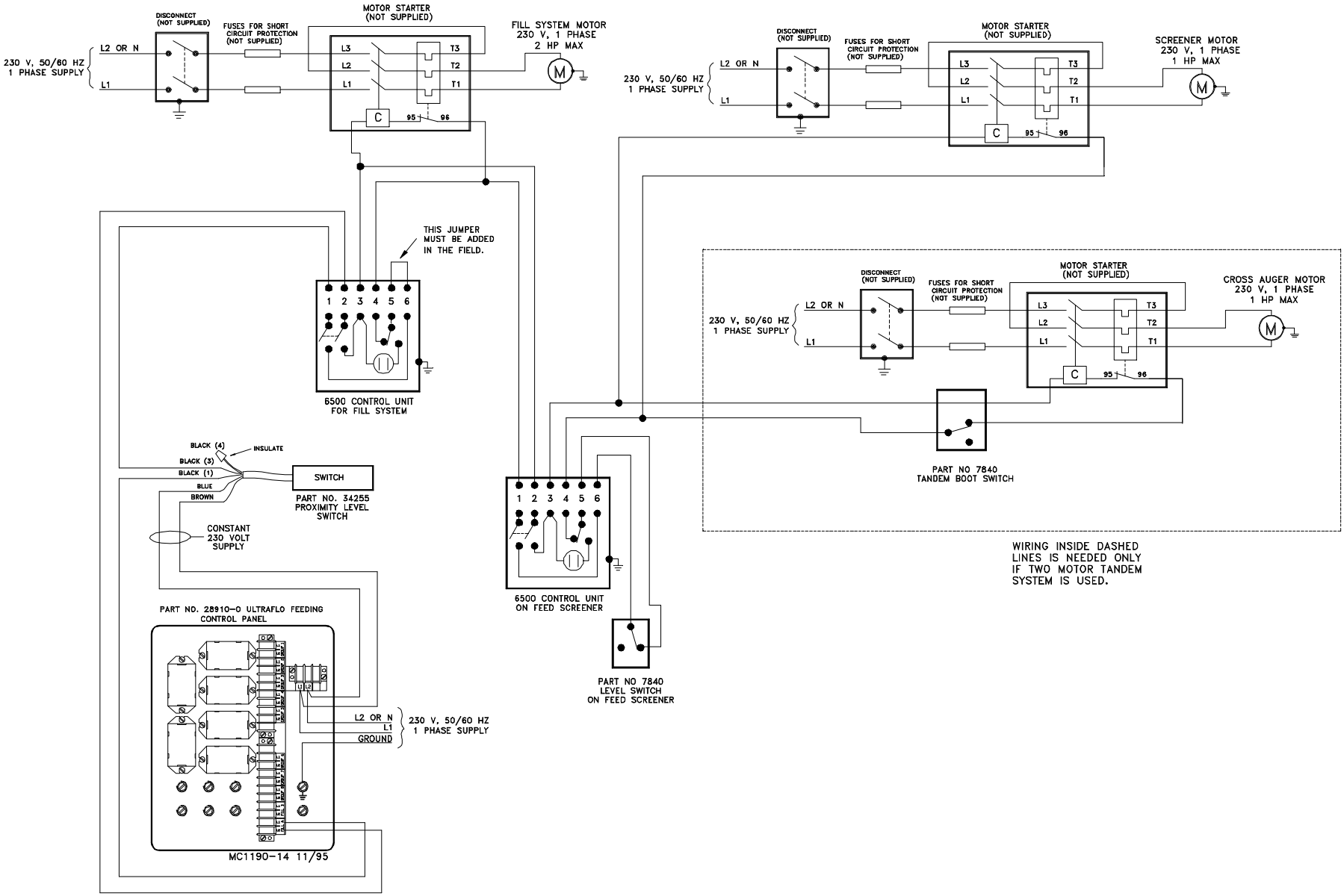
(Single Phase, w/o starters)

To be used with Model 108 High Capacity Two Motor Tandem Systems.



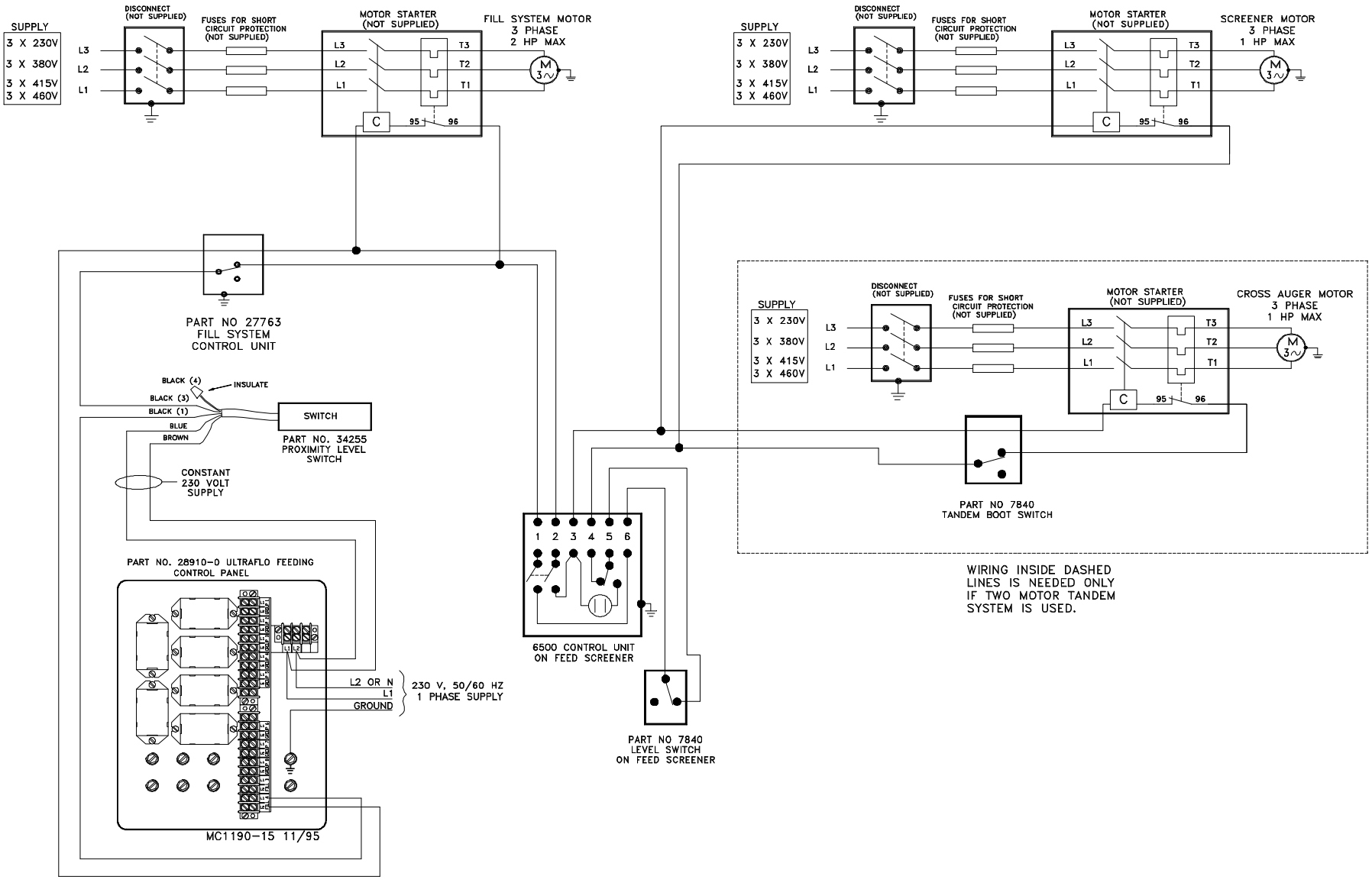
Dead End Fill System Wiring Diagram

(Single Phase, w/ starters)

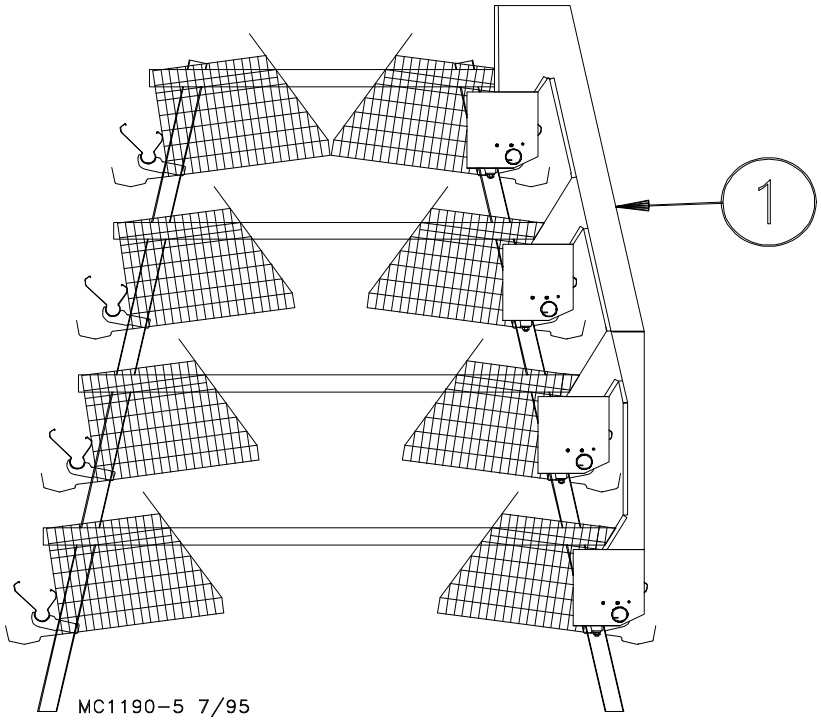


Dead End Fill System Wiring Diagram

(Three Phase, w/ starters)



Feed Manifold Part Numbers



Item	Description	Tiers	Part No.
1	**Feed Manifold**		
	DURA-CAGE	3	24850
	DURA-CAGE	4	24795
	DURA-CAGE	5	28570
	DURA-TRIM DBS	4	35194
	DURA-TRIM DBS	5	36777
	DURAKO	4	30780
	DURA-STEP	2	25530
	DURA II	3	27246
	Brood-Grow Curtain Back	4	24463
	Brood-Grow Stacked	2	25357
	Brood-Grow Stacked	3	24870
	Brood-Grow Stacked	4	24467
	Brood-Grow 2+2 (14”)	4	24509
	Brood-Grow 2+2 (15”)	4	26028
	Brood-Grow DBS	4	25781
	Brood-Grow ST	2	25807

THANK-YOU for purchasing a Chore-Time Dead End Fill System.

Made to work.

Built to last.™

Contact your nearby Chore-Time distributor or representative for additional parts and information.
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Printed in the U.S.A.