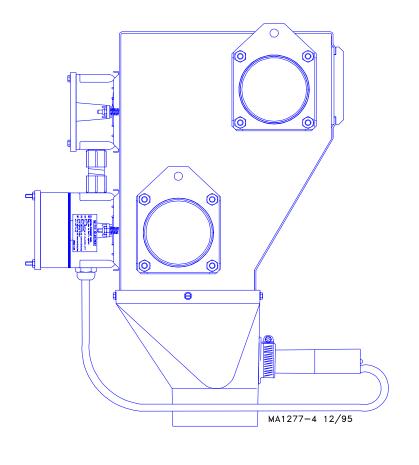


# Model 90 Twin Control Unit Installation Manual



February 1996 MA1277A16

#### **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. TURBO<sup>TM</sup> and RLX<sup>TM</sup> 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 caused solely by the auger.

#### 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 Chore-Time Cage Wire Warranty as to these products.

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

#### 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

avoided, MAY result in minor or moderate injury.







#### **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.

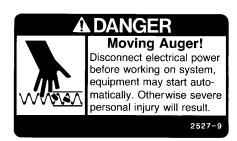
With the exception of motor overload protection, electrical disconnects and over current protection are not supplied with the equipment.



#### **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.

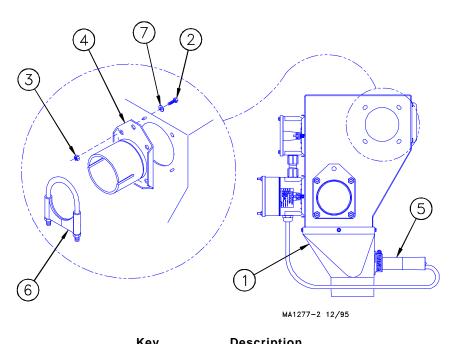


#### **Twin Control Unit Installation**

The Model 90 Twin Control Unit is shipped with the Terminal Boxes and Proximity Switch installed.

The Tube Anchors must be installed on the incoming side of the Body Weldment. See Figure 1. Hardware is supplied in the Hardware Package.

Either side of the Body Weldment may be chosen as the incoming side. Position Terminal Boxes to best suit the installation. The (plastic) Drop Weldment may also be rotated to suit installation requirements.



ne y	Description				
1	Twin Model 90 Control Unit				
2	5/16-18 Bolt				
3	5/16-18 Hex Nut				
4	Tube Anchor Weldment				
5	Proximity Switch				
6	Tube Clamp				
7	5/16" Flat Washer				

Figure 1. Tube Anchor Installation

Install the Driver Assemblies on the Output Shafts of the Gearheads. Leave the cap screws (on the side of the Driver Assemblies) loose enough so that the Auger can be threaded through the Anchor Clamp later.

Secure the Power Unit/Gearheads to the Body Weldment using 5/16-18 bolts.

Suspend the Control Unit and Motors from the ceiling or trusses at the locations specified in Figure 2.

Insert the Auger Tubes into the Tube Anchors and secure using the clamps provided, as shown in Figure 2.

Use Flexible Tubing to connect the Motors to the Terminal Box to route wires through.

Install the Auger as specified in the Model 55/75/90/HMC FLEX-AUGER Installation Manual (MA1000).

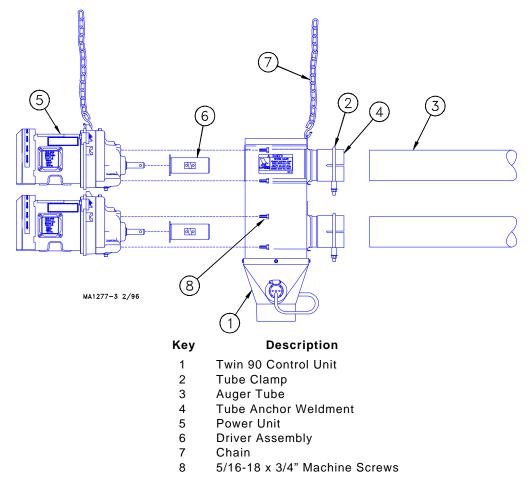


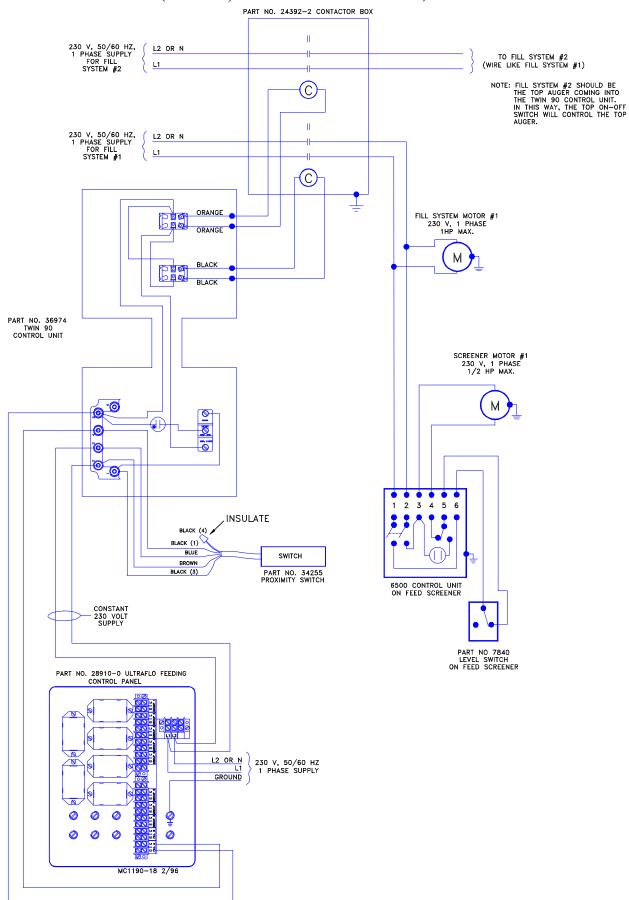
Figure 2. Power Unit and Auger Tube Installation (side view)

#### Wire the Twin Control Unit

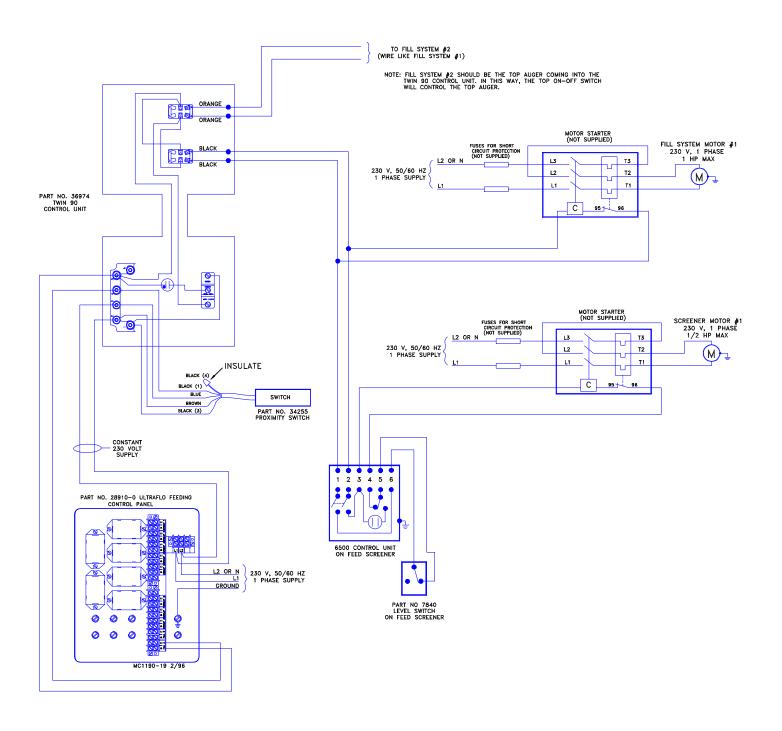
Refer to the appropriate wiring diagram on pages 6 - 11 for your individual system.

#### Model 90 Twin Control Unit with Dual Screener

#### (1-Phase, without Motor Starters)

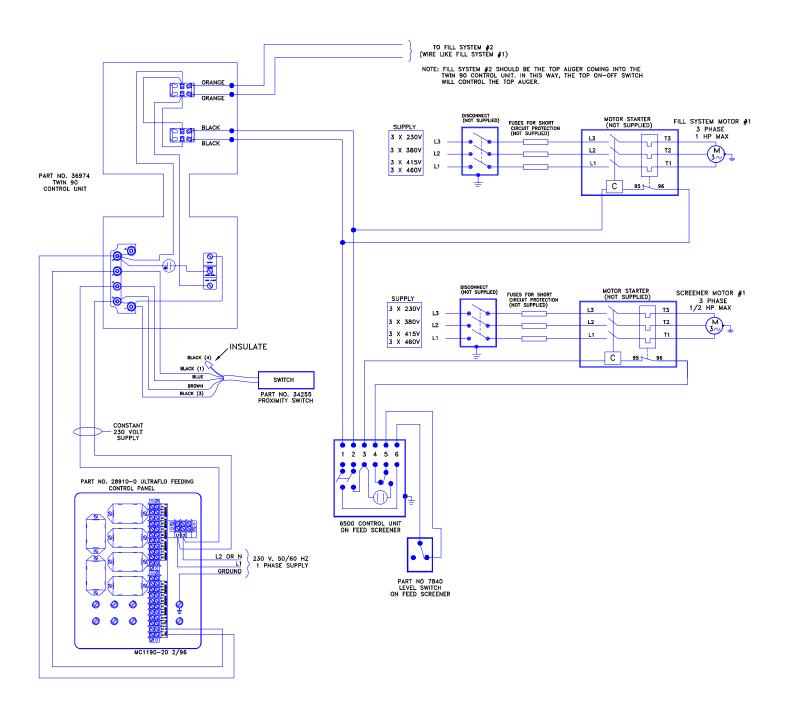


# Model 90 Twin Control Unit w/ Dual Screener (1-Phase, with Motor Starters)

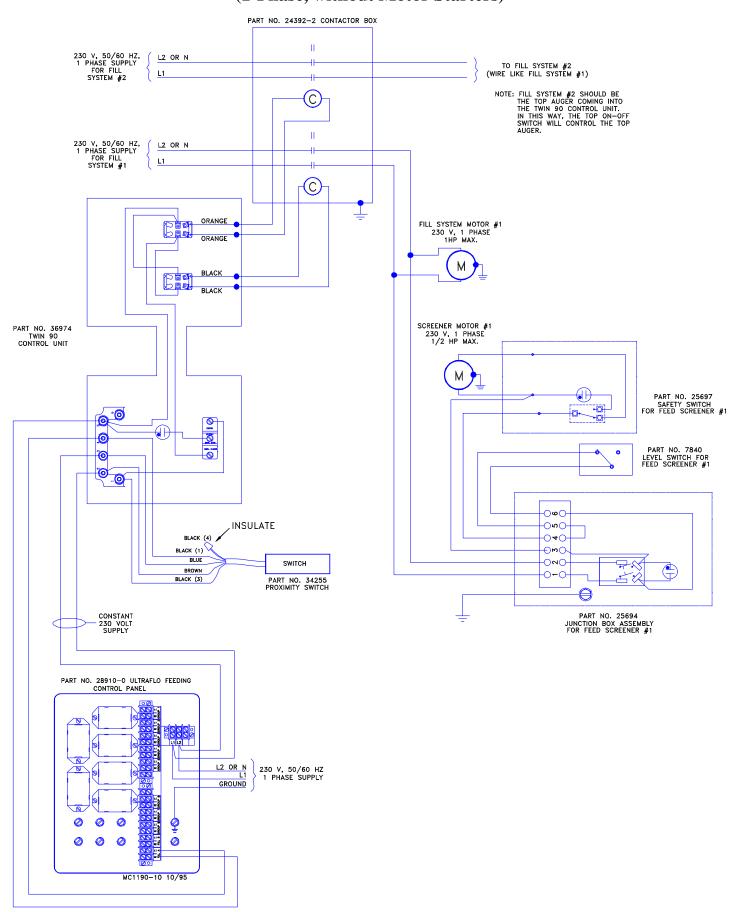


### **Model 90 Twin Control Unit with Dual Screener**

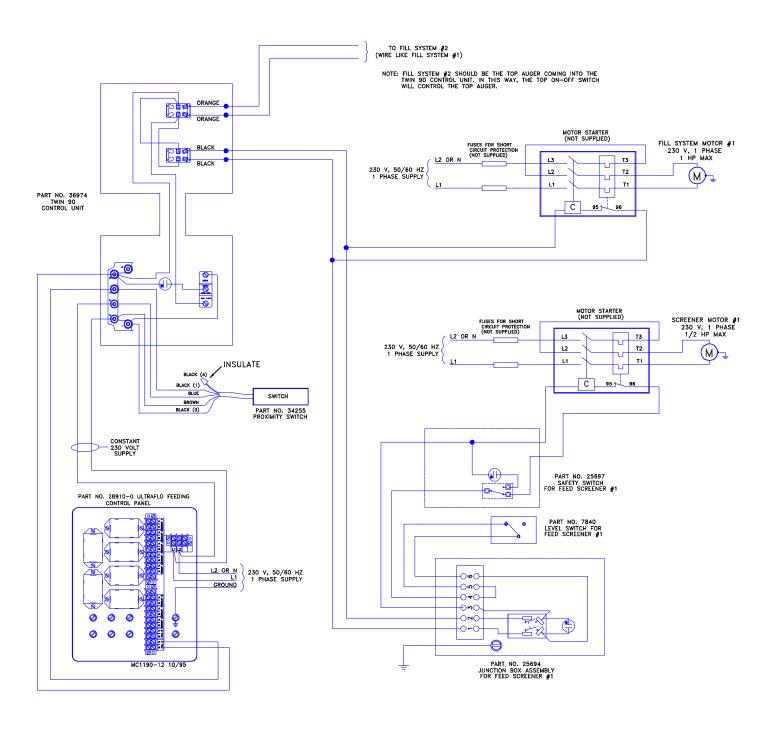
(3-Phase, with Motor Starters)



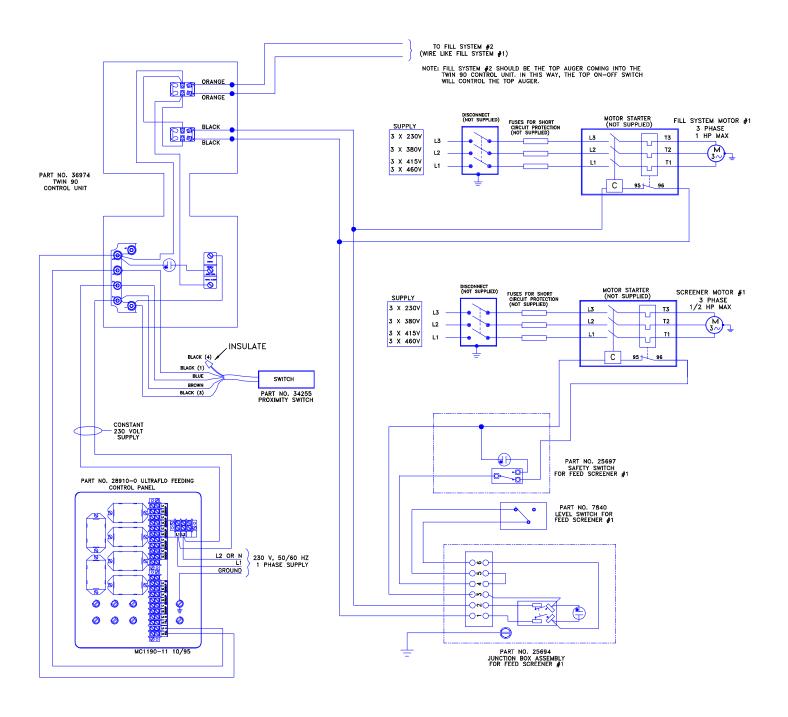
## Model 90 Twin Control Unit with Twin Screeners (1-Phase, without Motor Starters)



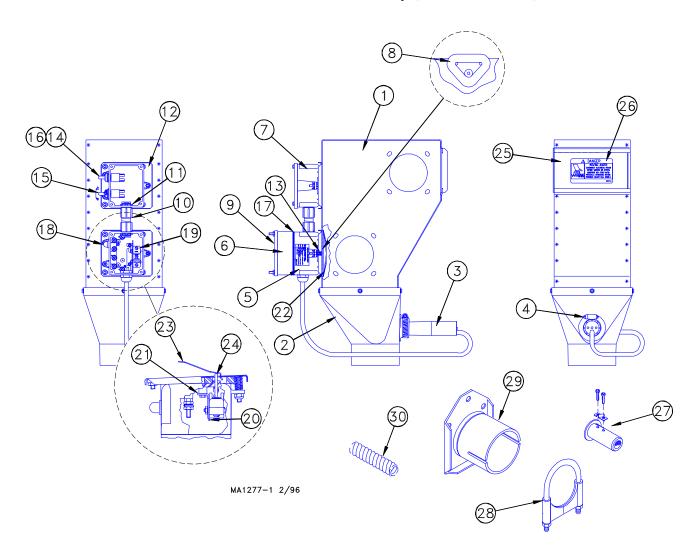
## Model 90 Twin Control Unit with Twin Screeners (1-Phase, with Motor Starters)



## Model 90 Twin Control Unit with Twin Screeners (3-Phase, with Motor Starters)



### Model 90 Twin Control Assembly (Part No. 36974)



<u>ltem</u>	<u>Components</u>	Part No.	<u>ltem</u>	Components	Part No.
1	Twin Control Body Weldment	36943	16	Toggle Switch Boot	13406
2	Weldment Drop	35788	17	Gasket	6777
3	Model 90 Twin Control Switch Assembly	36983	18	Pilot Light Assembly	7044
4	1-7/8" Adjustable Clamp	3527	19	SPDT Actuator Switch	7114
5	Terminal Box	36554	20	Switch Insulation	1907-5
6	Terminal Box	36946	21	Switch Bracket	7068
7	Terminal Box	36955	22	Diaphragm Assembly	7900
8	Gasket	6968-1	23	Paddle	7876
9	Switch Box Cover	6776	24	Pin	6775
10	Conduit Assembly	36554	25	Slide	5073
11	1/2" Conduit Lock Nut	3357	26	Danger Decal	2527-9
12	Switch Mounting Plate	7908	27	Model 90 Driver Assembly	6861
13	Compression Spring	6972	28	Tube Clamp Kit	6721
14	Toggle Switch	7767	29	Tube Anchor Weldment	5069
15	ON-OFF Dial	1740	30	1/2" Flexible Conduit	26982-10

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## THANK-YOU for purchasing a Chore-Time Model 90 Twin Control Unit.



Made to work.

Built to last.

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

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

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