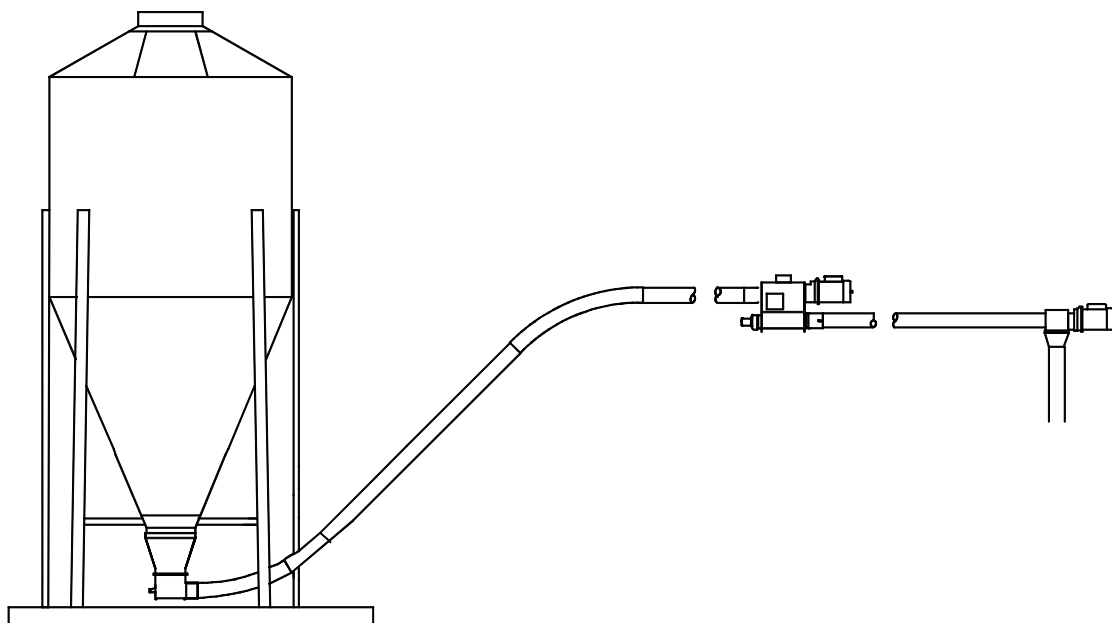


**Extension Hopper**  
**Installation & Operator's Instruction Manual**  
**for**  
**Model 55, 75, 90, & HMC FLEX-AUGER**  
**Feed Delivery Systems**



MA709-6 5/85

## Chore-Time Warranty

**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.

### 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.

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

# Table of Contents

<b>Topic</b>	<b>Page</b>	<b>User*</b>
<b>Chore-Time Warranty</b> .....	<b>2</b>	<b>C, D, I</b>
<b>Support Information</b> .....	<b>4</b>	<b>C, D</b>
<b>Distributor and Installer Information</b> .....	<b>4</b>	<b>C, D</b>
<b>Safety Information</b> .....	<b>5</b>	<b>C, D, I</b>
Safety–Alert Symbol. ....	5	
Signal Words. ....	5	
DANGER: Moving Auger ....	5	
DANGER: Electrical Hazard ....	5	
<b>Notice of Caution</b> .....	<b>6</b>	<b>I</b>
<b>Introduction.</b> .....	<b>6</b>	<b>C, I</b>
<b>Planning the Installation</b> .....	<b>7</b>	<b>C, I</b>
Straight Line Application ....	7	
Right Hand Turn Application ....	8	
Left Hand Turn Application ....	9	
<b>Installation Instructions</b> .....	<b>10</b>	<b>I</b>
<b>Extension System Wiring Diagram.</b> .....	<b>11</b>	<b>C, I</b>
(Single Phase, 230 V, 50/60Hz, w/o Motor Starters) ....	11	
(Single Phase, 230 V, 50/60Hz, w/ Motor Starters) ....	12	
(Three Phase, 220/380/415/460 V, 50/60 Hz, w/ Motor Starters) ....	13	
<b>Extension Hopper Parts Diagram</b> .....	<b>14</b>	<b>C, I</b>
<b>Extension Hopper Parts Listing</b> .....	<b>15</b>	<b>C, I</b>

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

## Support Information

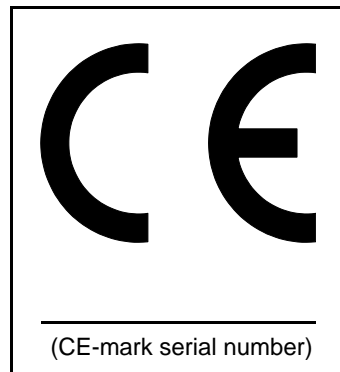
Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury.

This manual is designed to provide comprehensive planning, installation, 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 personnel, installer, and consumer (end user).

Refer to Chore-Time Model 55/75/90/HMC Installation Manual (MA1000) for additional installation, operation, and parts listing information.

**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. *Fill in the CE-Mark serial number in the blank space provided for future reference.*



## Distributor and Installer Information

Please fill in the following information about your Product.  
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** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

## 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 and or damage to the equipment.

### Safety–Alert Symbol

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



### 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**

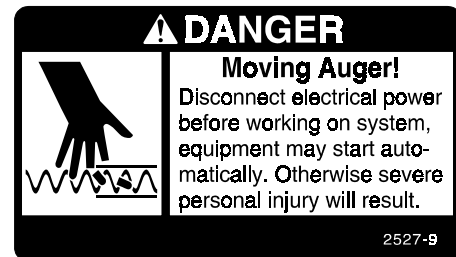


**CAUTION**

### DANGER: Moving Auger

This decal is placed on the Panel Weldment.

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



### DANGER: Electrical Hazard

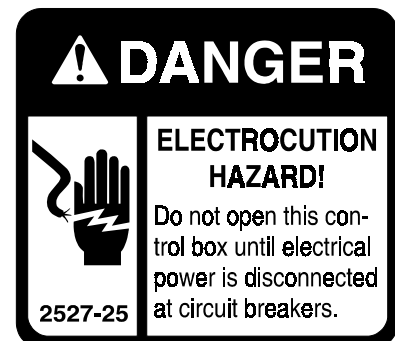
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

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

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

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





## Caution!

Use caution when working with the Auger—Springing auger may cause personal injury.

# Notice of Caution

## Introduction

The extended length Model 55, 75, 90, & HMC FLEX-AUGER Feed Delivery Systems are used to increase the total length of the system in applications where this is required.

The Extension Boot Kits may be used with Model 55—1/3, 1/2 H.P. Power Units. Model 75, 90, and HMC—1/2, 3/4, 1 H.P. Power Units.

Maximum lengths for the standard system and Extended Length Systems with various power unit are shown in the chart below.

	Model 55		Model 75		Model 90		Model HMC	
Motor Size	Max. Standard	Max. Extension	Max. Standard	Max. Extension	Max. Standard	Max. Extension	Max. Standard	Max. Extension
<b>1/3 H.P.</b>	150 Feet (46 M)	185 Feet (56 M)	n/a	n/a	n/a	n/a	n/a	n/a
<b>1/2 H.P.</b>	250 Feet (76 M)	285 Feet (87 M)	80 Feet (24 M)	125 Feet (38 M)	30 Feet (9 M)	65 Feet (20 M)	30 Feet (9 M)	55 Feet (17 M)
<b>3/4 H.P.</b>	n/a	n/a	150 Feet (46 M)	185 Feet (56 M)	90 Feet (27 M)	125 Feet (38 M)	90 Feet (27 M)	105 Feet (32 M)
<b>1 H.P.</b>	n/a	n/a	200 Feet (61 M)	245 Feet (75 M)	150 Feet (46 M)	185 Feet (56 M)	150 Feet (46 M)	185 Feet (56 M)

Maximum length recommendations for standard systems include use of two 45 degree elbows. No elbows are included in the recommendations for maximum length of extension systems. If additional elbows are required, decrease the length recommendations by 30 feet (9 m) for each additional 90 degree turn.

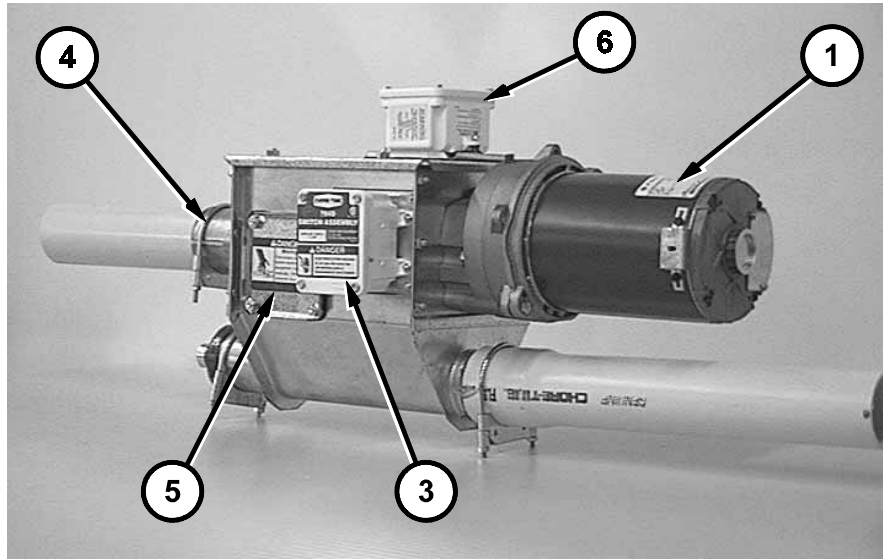
## Planning the Installation

By moving the **Window Plate, Cover Plate, Tube Anchor, Level Switch Assembly, and Power Unit**, it is possible to extend the system in a straight line or use the Extension Boot to replace elbows making a 90 degree turn where that is convenient.

The Safety Switch should be located toward the outlet end of the boot on all applications.

**Figures 1-6 (pages 7-9)** shows that by moving several components to different locations the Extension Boot may be used to turn right hand, left hand, or extend a straight line system.

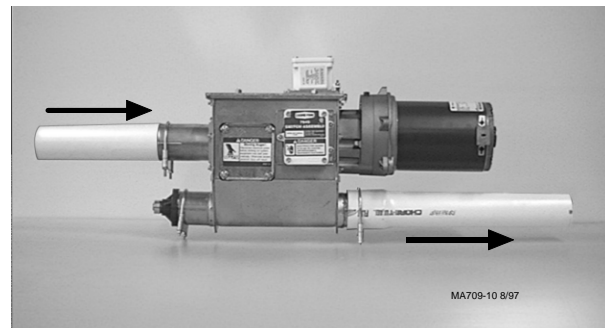
### Straight Line Application



MA709-14 8/97

Figure 1. Side View of a Straight Line Application

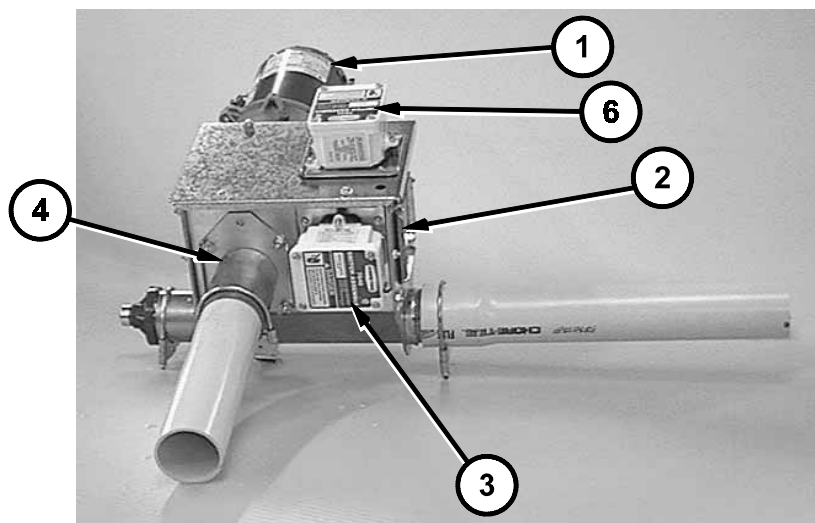
Key	Description	Part No.
1	Power Unit	—
3	Level Switch Assembly	7840
4	Incoming Tube Anchor Model 55 Model 75 Model 90, HMC Seal	35531 6518 5069 4873
5	Cover Plate Seal	4878 4873
6	Safety Switch Assembly	7840



MA709-10 8/97

Figure 2. Side View of a Straight Line Application  
— arrows indicating feed flow

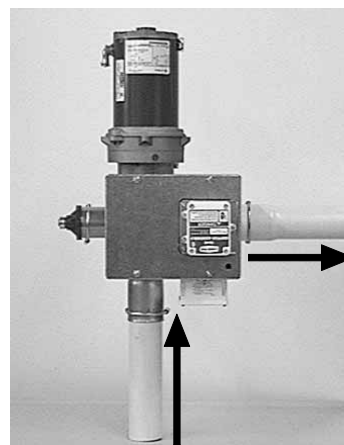
## Right Hand Turn Application



MA709-13 8/97

Figure 3. Side View of a Right Hand Application

Key	Description	Part No.
1	Power Unit	—
2	Window Plate	7842
	Window Seal	7852
		4873
3	Level Switch Assembly	7840
4	Incoming Tube Anchor	35531
	Model 55	6518
	Model 75	5069
	Model 90, HMC	4873
6	Safety Switch Assembly	7840



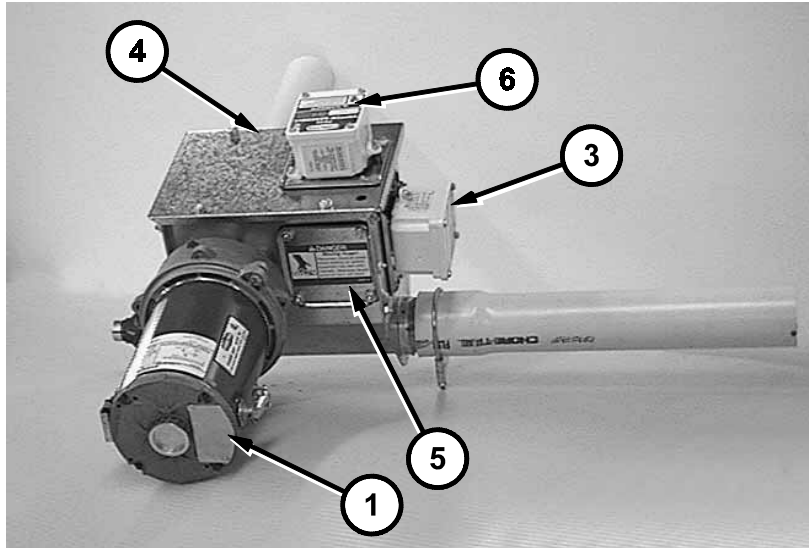
MA709-12 8/97

Figure 4. Top View  
Right Hand Application  
— arrows indicating feed flow



## Left Hand Turn Application

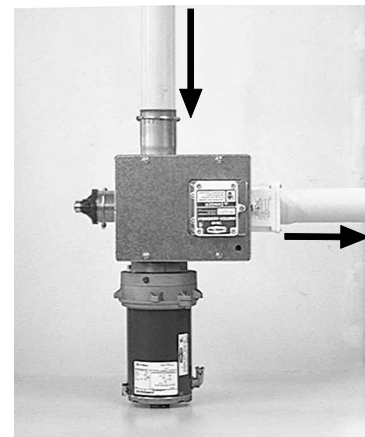
The Power Unit will not mount beside the switch (as boot is shipped) for left hand turn applications. Left hand turn applications will require moving the Level Switch to the Access Plate location over the outlet end of the boot as shown in **Figure 5**.



MA709-15 8/97

**Figure 5. Side View of a Left Hand Application**

Key	Description	Part No.
1	Power Unit	—
3	Level Switch Assembly	7840
4	Incoming Tube Anchor Model 55 Model 75 Model 90, HMC Seal	35531 6518 5069 4873
5	Cover Plate Seal	4878 4873
6	Safety Switch Assembly	7840



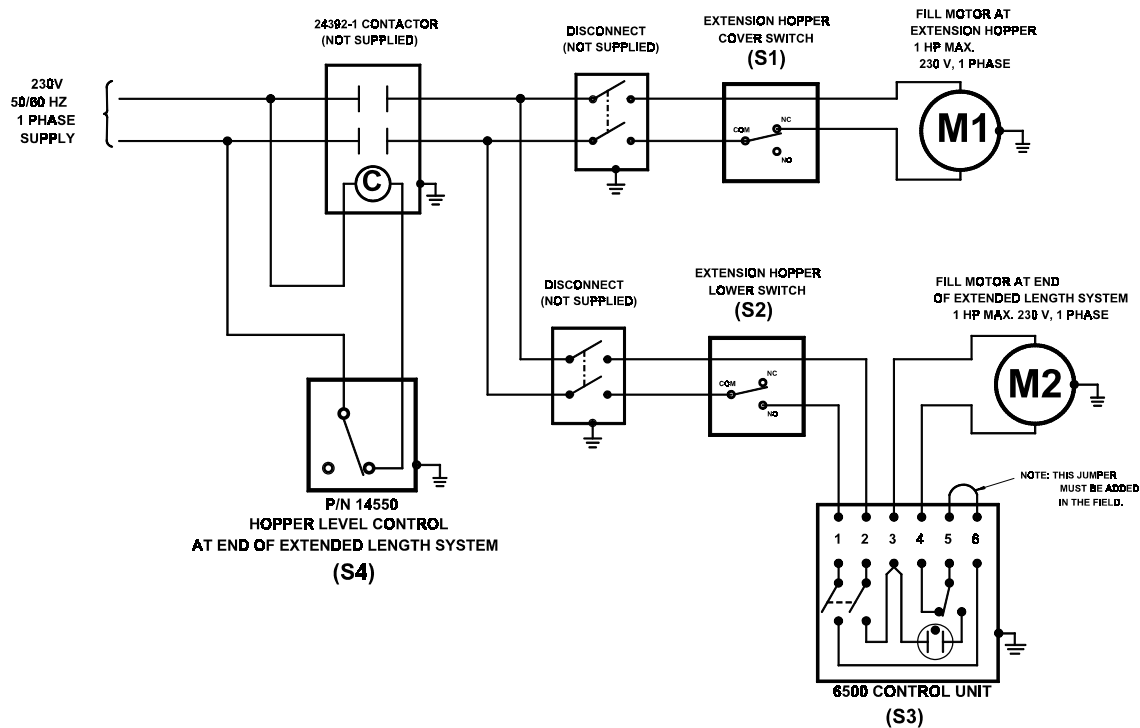
MA709-11 8/97

**Figure 6. Top View  
Left Hand Application  
— arrows indicating feed flow**

## Installation Instructions

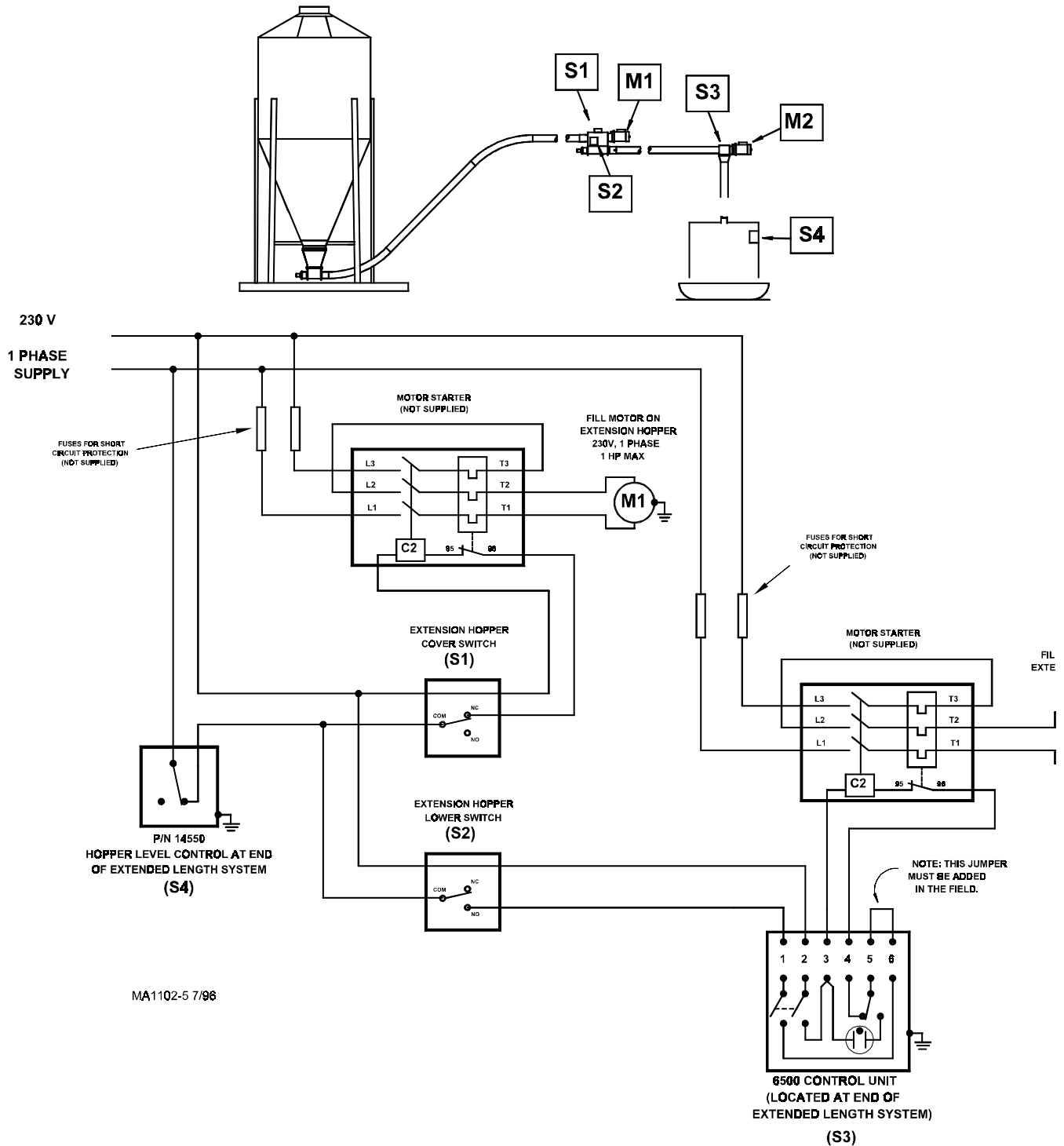
1. Attach the (incoming) Tube Anchor to the Extended Length Boot, using hardware supplied.  
Place a Tube Clamp on the Tube Anchor.
2. Mount the Power Unit on the Boot, using 5/16-18 hardware supplied.
3. The Extension Hopper should be located near the center of the auger line to balance the load on the systems.  
Suspend the Extension Hopper/Power Unit from the ceiling. The Extension Hopper, Power Unit, and feed will weigh approximately 90 pounds (40.1 kg). Adequate support must be provided to prevent sagging at the Extension Hopper location.  
Support the Boot securely, using the “ears” on the Power Unit, chain and screw hooks to suspend the Extension Hopper.
4. Install the incoming and outgoing auger tubes to the Tube Anchor and Boot Anchor on the Extension Hopper.
5. Install the remaining fill system components as specified in the FLEX-AUGER Fill System Manual (MA1000).
6. A full length Restrictor Tube is provided with the Extension Hopper. The Restrictor Tube may need to be shortened to match the outgoing feed with the incoming feed. Refer to the instructions on shortening the Restrictor in the FLEX-AUGER Fill System Manual (MA1000).
7. Refer to the wiring diagrams for proper wiring information for the Extension Hopper.

## 11

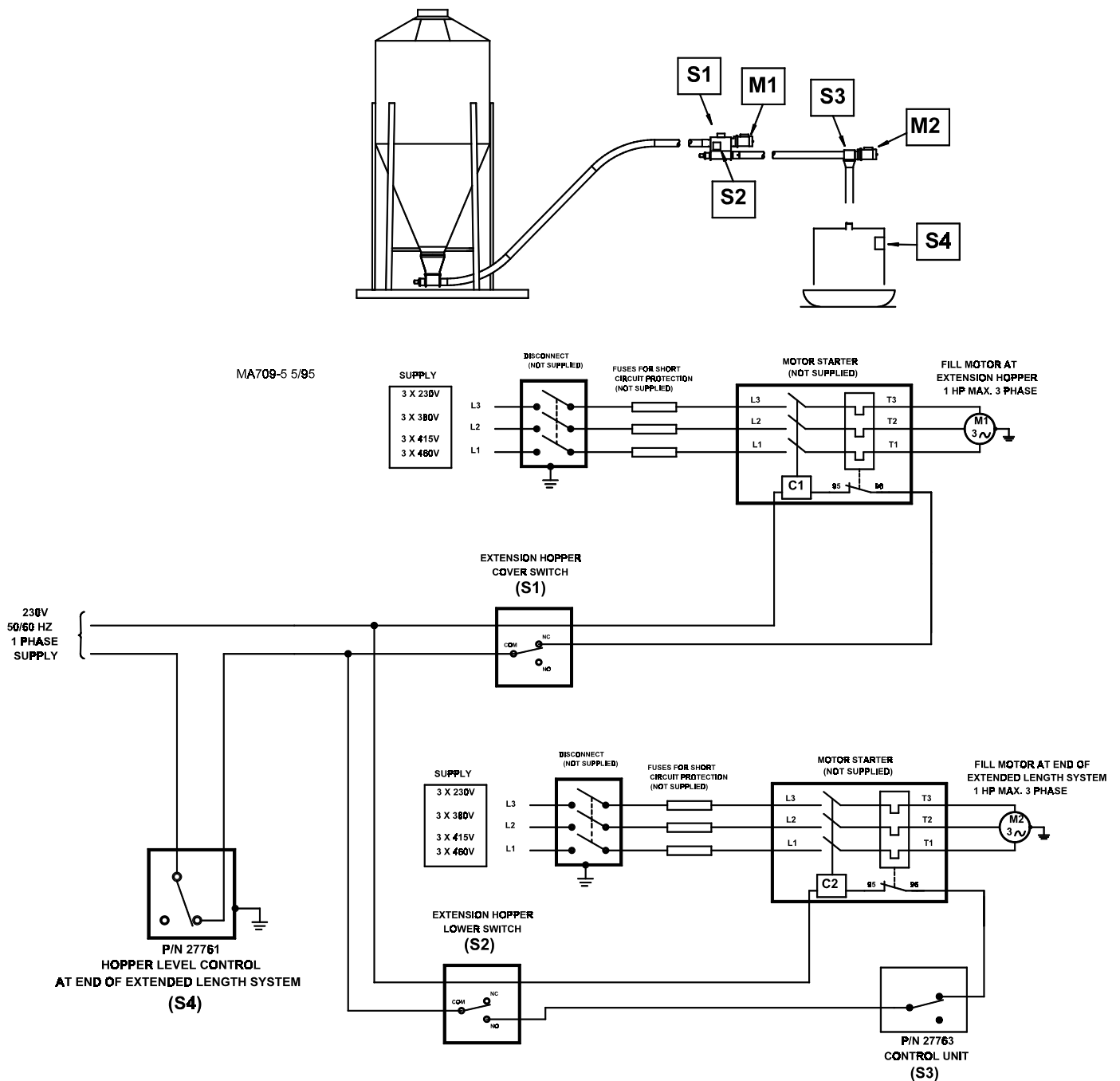


# Extension System Wiring Diagram

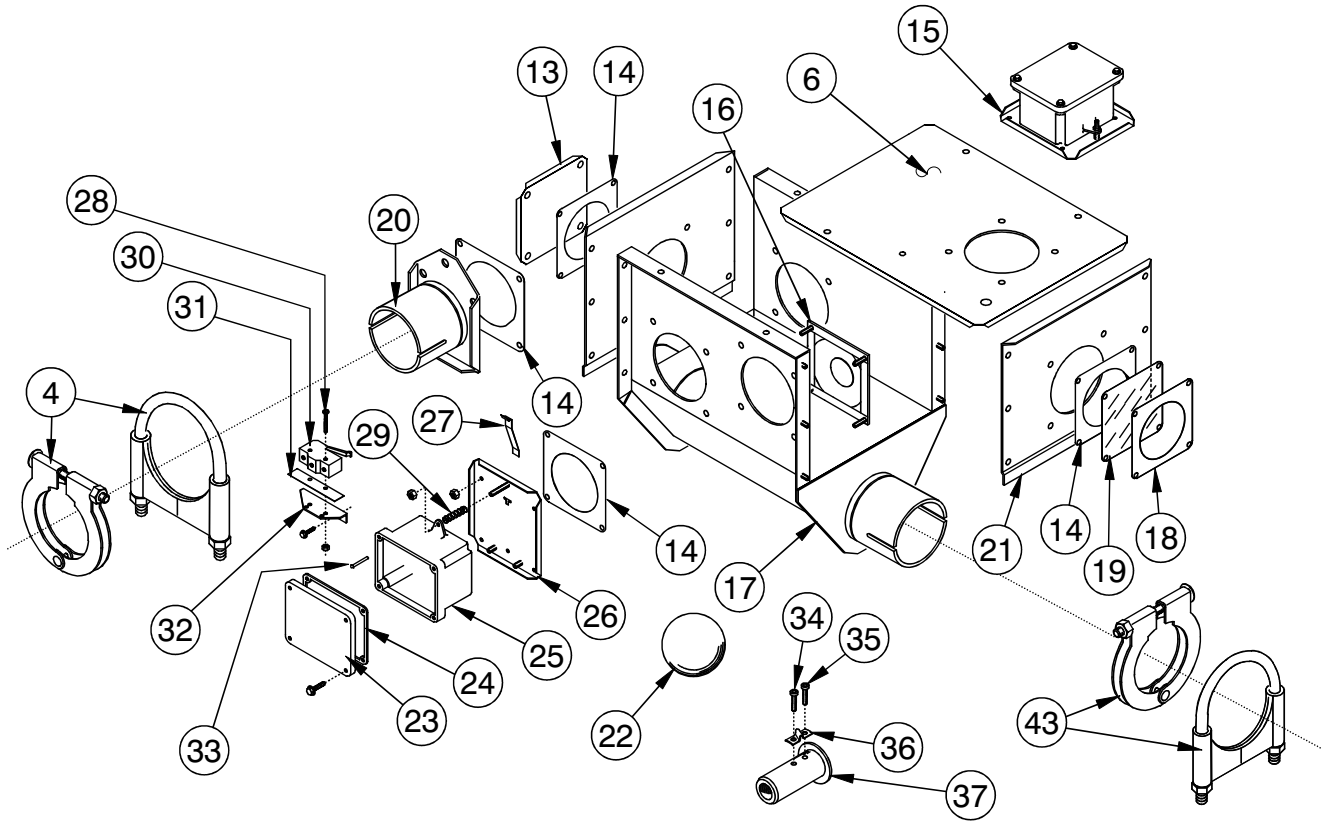
(Single Phase, 230 V, 50/60Hz, w/ Motor Starters)



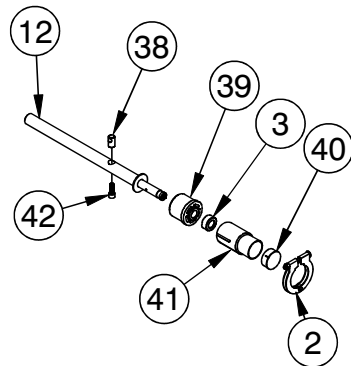
## 13



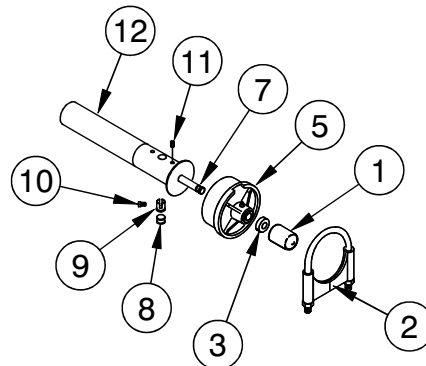
# Extension Hopper Parts Diagram



Model 55



Model 75, 90, & HMC



MA709-17 5/99

# Extension Hopper Parts Listing

Key	Description	Part No.
1*	Safety Cap (Model 75, 90, HMC)	29702
2	Tube Clamp Kit (Model 55)	29520
	Tube Clamp Kit (Model 75)	4141
	Tube Clamp Kit (Model 90, HMC)	6721
3*	5/8" Set Collar	1386
4	Tube Clamp Kit (Model 55)	35726
	Tube Clamp Kit (Model 75)	6515
	Tube Clamp Kit (Model 90, HMC)	6721
5*	Bearing Cap Assembly (Model 75)	35440
	Bearing Cap Assembly (Model 90, HMC)	34830
6***	Cover Assembly	7839
7*	Anchor Shaft (Model 75)	37345
	Anchor Shaft (HMC)	6839
	Anchor Shaft (Model 90)	6832
8*	Clamp Spacer (Model 90)	5009
9*	Clamp Pin (Model 75, 90, HMC)	4702
10*	5/16-18 x 1/2" Set Screw (Model 75, 90, HMC)	5095
11*	5/16-18 x 3/8" Set Screw (Model 75, 90, HMC)	1174
12*	Anchor Weldment (Model 55)	39410
	(Model 75, HMC)	6840
	(Model 90)	6833
13	Cover Plate	4878
14**	Seal	4873
15	Switch and Plate Assembly	7840
16	Diaphragm Assembly	7900
17	Boot Body Weld. (Model 55)	40168
	Boot Body Weld. (Model 75)	7878
	Boot Body Weld. (Model 90, HMC)	28881
18	Window Plate	7842
19	Window	7852
20	Tube Anchor Weldment (Model 55)	35531
	Tube Anchor Weldment (Model 75)	6518
	Tube Anchor Weldment (Model 90, HMC)	5069
21	Access Panel Assembly	7928
22	Cannonball (Model 55)	3621
	Cannonball (Model 75, 90, HMC)	3531
23**	Switch Box Cover	6776
24**	Gasket	6777

	Description	Part No.
25**	Switch Box	7841
26**	Switch Mounting Plate	7908
27**	Paddle	7896
28**	6-32 x 7/8" Pan Hd. Screw	1921
29**	Compression Spring	6972
30**	SPDT Actuator Switch	7114
31**	Switch Insulation	1907-5
32**	Switch Bracket	7068
33**	1/8 x 1" Rd Hd Rivet	8757
34	5/16-18 X 1/2 Socket Hd Screw	6850-3
35	5/16-18 x 2-1/4 Socket Hd Screw	6850-4
36	Anchor Block	7703
37	Driver Weldment (Model 75, HMC)	7704
	(Model 90)	7706
*38	Auger Clamp (Model 55)	39205
*39	Anchor Bearing (Model 55)	39407
40	Cap (Model 55)	29523
41	Stub Tube (Model 55)	4163
*42	Socket Head Screw (Model 55)	6850-7
43	Tube Clamp Kit (Model 55)	29515
	Tube Clamp Kit (Model 75)	6515
	Tube Clamp Kit (Model 90)	6721
Part Numbers for Complete Extension Hopper Kits		
	Model 55 Kit	40170
	Model 75 Kit	7944
	Model 90 Kit	7869
	Model HMC Kit	7849

\* These Anchor and Bearing components may be ordered as an assembly under the following Chore-Time part numbers:

Model 55: #39405  
 Model 75: #37346  
 Model 90: #35343  
 Model HMC: #35344

\*\* These Switch and Plate components may be ordered as an assembly under Chore-Time part number #7840

\*\*\* The #7839 Cover Assembly includes items 14, 15, and 16 and the required hardware.



**Made to work.  
Built to last.™**

### **Revisions to this Manual**

<b>Page No.</b>	<b>Description of Change</b>
14, 15	Changes and corrections to various part numbers and descriptions.

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

**CTB Inc.  
P.O. Box 2000 • Milford, Indiana 46542-2000 • U.S.A.  
Phone (219) 658-4101 • Fax (800) 333-4191  
E-Mail: [ctb@ctbinc.com](mailto:ctb@ctbinc.com) • Internet: <http://www.ctbinc.com>**

**Printed in the U.S.A.**