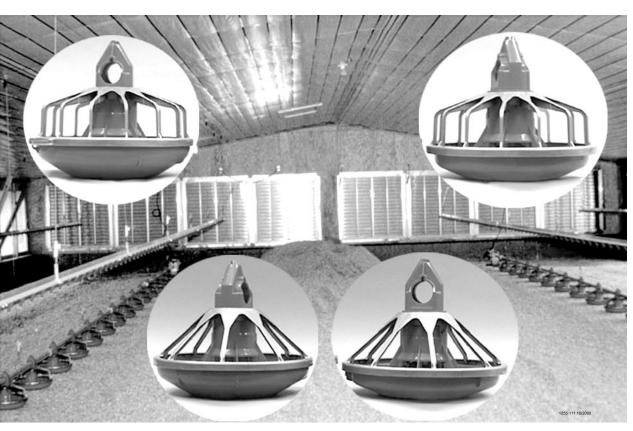


# Poultry Production Systems

MODEL C2® Plus and MODEL G<sup>™</sup> Plus Feeding System Operators Manual

**Operators Manual** 



June 2001 MF1660A

## **Installation and Operation Manual Request**

To receive an Installation and Operation Manual at no charge, please fill in the following information on the form at the bottom of this page, cut out the form, place in an envelope, and send to:

Chore-Time Equipment PPS Customer Service P.O. Box 2000 Milford, Indiana 46542

Date of Purchase:			
Customer Name:_			
Address:			
City	State	Zip Code	
Request for Manual Number MF1255			

#### **Chore-Time Warranty**

Chore-Time Equipment ("Chore-Time") warrants each new Chore-Time product manufactured by it to be free from defects in material or workmanship for one year from and after the date of initial installation by or for the original purchaser. If such a defect is found by the Manufacturer to exist within the one-year period, the Manufacturer 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. Labor costs associated with the replacement or repair of the product are not covered by the Manufacturer.

#### **Conditions and Limitations**

- 1. The product must be installed by and operated in accordance with the instructions published by the **Manufacturer or Warranty will be void**.
- 2. Warranty is void if **all components** of the system are not original equipment supplied by the **Manufacturer**.
- 3. This product must be purchased from and installed by an authorized distributor 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 the 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.

The **Manufacturer** shall not be liable for any **Consequential or Special Damage** 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.

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

Chore-Time Distributors are not authorized to modify or extend the terms and conditions of this Warranty in any manner or to offer or grant any other warranties for Chore-Time products in addition to those terms expressly stated above. An officer of CTB, Inc. must authorize any exceptions to this Warranty in writing. The Manufacturer reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

Effective: June 2001

Chore-Time Equipment
A Division of CTB, Inc.
P.O. Box 2000 • Milford, Indiana 46542-2000 • U.S.A.
Phone (219) 658-4101 • Fax (877) 730-8825
Email: ctb@ctbinc.com • Internet: http://www.ctbinc.com

Thank You

The employees of Chore-Time Equipment would like to thank your for your recent Chore-Time purchase. If a problem should arise, your Chore-Time distributor can supply the necessary information to help you.

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#### **About This Manual**

The intent of this manual is to help you in two ways. One is to follow step-by-step in the order of assembly of your product. The other way is for easy reference if you have questions in a particular area.

IMPORTANT: Read ALL instructions carefully before starting construction.

IMPORTANT: Pay particular attention to all SAFETY information.

• Metric measurements are shown in millimeters and in brackets, unless otherwise specified. "" equals inches and "'" equals feet in English measurements.

Examples:

1" [25.4]

4' [1 219]

- Optional equipment contains necessary instructions for assembly or operation.
- Major changes from the last printing will be listed on the back cover. Very small numbers near an illustration (*i.e.*, 1257-48) are identification of the graphic, not a part number.

#### **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 decals immediately.

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.

#### **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.

#### **Safety Instructions**

#### **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 Panel Weldment.

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

# DANGER Moving Auger! Disconnect electrical power before working on system, equipment may start automatically. Otherwise severe personal injury will result.

#### **DANGER: Electrical Hazard**

This decal is placed on the Control Pan white electrical box lid.

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.

#### **General**

#### **Support Information**

The Chore-Time MODEL C2® Plus and MODEL G® Plus Feeding Systems are designed to feed 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.

The Table of Contents provides a convenient overview of the information in this manual.

#### **Feeder Management and Operation**

This section provides you with valuable information concerning feeder operation and management. It is important that you read this information and understand how the feeding system was designed to operate. Once you become familiar with the system, you may *custom operate* it to fit your individual needs.

#### Initial Start-up of the Feeding System

The Feeding System should be operated prior to birds being housed to make sure the installation is correct, the switches function properly, and to fill the feeder lines with feed.

There are two typical layouts for the feeding system that was determined prior to the installation. Normally if the building is 400' [122 m] or over, a center house hopper set-up is used. See **Figure 1**. For buildings under 400' [122 m], the hopper is placed at one end and the control pan/power unit at the other end. See **Figure 2**.

It is common practice to use partial house brooding during the early days of broiler production. For buildings that have the feeder split in the center (center hopper set-up), normally only the feeders that are in the brood area are used during brood time. For buildings that have the hopper at one end, brooding can be done on the motor end or an optional mid line control pan(s) can be placed on the feeder line.

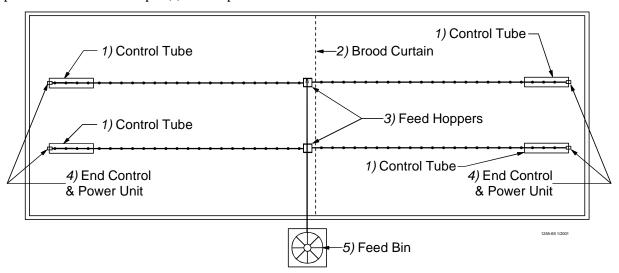


Figure 1. Component location diagram for systems over 400 feet [122 m]. (Top View).

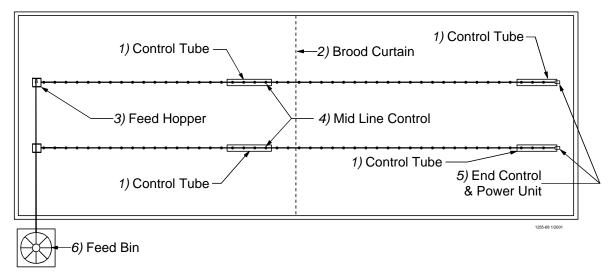


Figure 2. Component location diagram for systems up to 400 feet [122 m]. (Top View).

The feeder tubes and auger are supplied from the factory with a protective oil coating that will cause the system to deliver feed at a reduced rate. The oil coating will also create a larger load on the power unit (motor) until the system has been initially purged with feed, and becomes broken in.

#### To operate

- 1. Lower feeder lines so the feed pans are resting on the floor and the feed flood windows are completely open. Although the major weight of the feeder lines will be on the floor, do not remove all the weight from the suspension system and allow the cables to become slack.
- 2. Apply power to the feeder lines to check the operation. Allow to operate empty for 1-2 minutes.

NOTE: For feeder lines that have mid line controls, the recommended bypass switch(s) are wired into the system for selection of partial or full house control. Select the switch so the mid line control is functional. As the feeder operates, the feed will stop at the mid line control pan.

- 3. With the shut-off slide on the feed bin boot closed, energize the Flex-Auger® fill system. After operation of approximately 1-2 minutes, open the boot slide 1/2 way to allow feed to be conveyed to the feeders.
- 4. Once feed begins to be dispensed into the feed hopper(s), manually shut-off the fill system.
- 5. Apply power again to the feeder lines. Operate the fill system manually to dispense approximately 50 lb. [23 kg] increments of feed into the feed hopper(s). Allow the feed hopper to become empty for 30 seconds between each increment to reduce load on the feeder motor. Continue this procedure until feed has been dispensed to all the feeder pans. When the feed reaches the control pan, the feeder line will be shut-off.
- 6. Once the feeder lines have been initially filled with feed, manually dispensing feed in 50 lb. [23 kg] increments will no longer be necessary. The shut-off slide on the Flex-Auger® fill system may be completely opened. Refer to the Flex-Auger fill system Operator's Manual for information when multiple feed bins are used.

#### General Operation of the MODEL C2® PLUS and MODEL G™ PLUS Feeders

These recommendations are the guideline to aid producers with the use of the feeding system. With experience a feeding program will be developed to enhance the feeding systems performance. Several factors such as feed content, type of birds, climate, lighting programs, and etc. may dictate change from these recommendations.

The Model C2 Plus and G Plus feeders have a feed flood windows which allows the feeder pan, when lowered to the floor, to be filled with feed for the brooding of young birds. Start young birds with the feeder line lowered so the feed pans are resting on the floor and the feed flood windows are completely open. Although the major weight of the feeder lines will be on the floor, do not remove all the weight from the suspension system and allow the cables to become slack.

It is advisable to provide supplemental feed during the first few days for the young birds. This is especially true when partial house brooding is used (refer to page 6). Supplemental feeders such as the CHORE-TIME® E-Z START<sup>TM</sup> Chick Feeder, provide extra feeding space and access to the feed.

With the feeders lowered to the floor and the feed flood windows open, the operation of the feeder will allow a high level of feed to be placed into the feed pans making it easy for the birds to find feed, adapt to the feeder, and begin to eat.

Do not operate the feeding system on automatic (full demand feed) when the feed windows are open. Chore-Time recommends opening the feed windows for the first 8 to 14 days. The feeders will need to be operated at least 2 times a day for the first 5 days, and thereafter, 3 times a day or more as needed, while the windows are open. If it is not possible to operate the feeder manually 1-3 times a day during the brood time (windows open), then a time clock should be utilized to limit the number of times and length of time the feeder can operate. Failure to do one of the above will create the possibility of an excessive high feed level in the feed pans and the birds to waste feed.

DO NOT OPERATE THE FEEDING SYSTEM ON AUTOMATIC (FULL FEED) WHEN THE FEED WINDOWS ARE OPEN.

As the birds grow and become acclimated to the feeder pans, the feeder will need to be raised to the grow-out

position. Before raising the feeder, it is recommended to allow the birds to eat the feed level down below the feed flood windows. This will ease the process of the feed flood windows closing properly.

Use the suspension system to raise the feeder(s) line. As the feeder is raised the feed flood windows will close. Continue raising the feeder lines until the feed pans just begin to clear the floor or litter.

## IMPORTANT: When raising the feeder to the grow-out position, make sure the feed pans are to the point of just clearing the floor.

This will insure the feed will properly flow out into the feeder pan. When the feeder is raised to just clear the litter, there may a few places where the litter is lower and the pans seem too high. Do not be concerned as the birds will level the litter and at this young bird age, there will be sufficient feeder space.

The feeder should be set on the #4 position for most applications. The adjustment settings are easy to understand and change. Setting numbers are embossed on both sides of the grill so they may be easily seen from either side of the feeder line. See **Figure 3**.



Figure 3. Feeder Pan Assembly adjustment

Feed texture and consistency, type of bird, or other variables may make it necessary to change to another feed setting position. The combination of proper pan height, feeder setting, and feeder operation will result in optimum feeder performance (refer to **Figure 4** for pan height information). The operator will learn what performs best for his/her situation with experience.

#### **End Control and Mid Line Control Pans**

At installation time, the end control pan of the feeder was placed to be 10 feet [3 m] from the end of the building to allow the birds access around the end of the feeder line. It is important the feed setting of the end control pan be the same as the rest of the feeder pans so the birds activate the feeder (see page 11 for adjustment of the control).

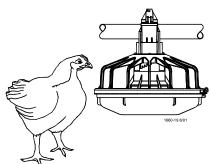


Figure 4. Feeder Pan Assembly height adjustment

The Mid Line Control is placed on the feeder line when partial house brooding is desired. It is important the mid line control be installed at least 2 feeder pans away from the curtain or partition so the birds will activate the feeder line. The feed setting for the mid line control should be the same as the rest of the feeder pans on the feeder line (see page 11 for adjustment information). A toggle switch or disconnect is used to bypass the power to the mid line control. This allows the mid line control to serve as a standard feeder after brooding. The feeder can be changed from full house operation to partial house brooding with the activation of the switch.

#### **Controlling the Feeders (optional equipment)**

A time clock control is used with the feeding system to reduce excessive feeder operation time and limit feed wastage. The basic use of a time clock control is to allow periods of time during the day for the birds to reduce the feed level in the feeder pans and to limit the possibility of the birds creating a high feed level and wasting feed. This is not to be confused with lighting programs that have become very common place. If lighting or intermittent lighting programs are to be used, the use of the time clock control will be limited to just the light period. **Caution should be used to not restrict the feed from the birds during the light period.** Experience with the feeding system will determine how the time clock control is used.

The MODEL C2 Plus and G Plus Feeding Systems may be controlled by the #34385 Control Panel or the #34574 Time Clock Control. Refer to the instructions supplied with each control for information.

#### **Electro-guard Operation**

The electro-guard chargers should be operated on a separate electrical circuit so the anti-roost system can be shut off using a switch next to the entrance door when someone enters the building. Birds are less likely to become wild and flighty if the anti-roost is off when people are in the building.

#### **Optional Slide Shut-Off**

An Optional Slide Shut-Off is available for Windowed and Non-Windowed Feeder Assemblies. The Slide Shut-Off may be used on either style of feeders.

To assemble the Slide Shut-Off to the Non-Window Feed Cone, remove the thinned area from the Non-Windowed Feed Cone, then insert the Slide Shut-Off into the slots, as shown in **Figure 5**.

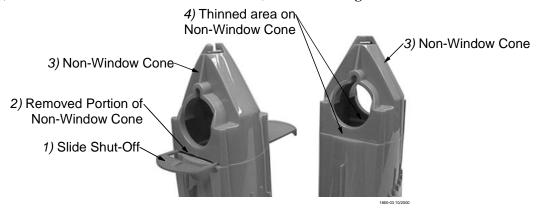


Figure 5. Optional Slide Shut-Off Assembly

#### **Optional MODEL G Plus Pan Extension**

An Optional Pan Extension is available for MODEL G Plus Feeder Pan Assemblies. The Pan Extension is used for Turkey Hens.

To assemble the Pan Extension on the MODEL G Plus Feeder Pan Assembly, place the Pan Extension around the MODEL G Plus Grill, as shown in **Figure 6**, and lock in place with the included carriage bolt and hex flange head nut



Figure 6. MODEL G Plus Feed Pan Assembly with optional Pan Extension installed

#### **Maintenance**

#### Floor Feeding System Maintenance

The Model C2 Plus and Model G Plus Feeders require minimum maintenance. However, a routine periodic inspection of the equipment will prevent unnecessary problems.

Maintenance should be done by a qualified technician.

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

#### **Gear Head Maintenance**

Refer to Figure 7.

Check the oil level in the gear heads at installation and every 6 months. The Pipe Plug, on the side of the gear head, indicates proper oil level. Add SAE 40W oil when necessary.

The oil in the gearheads should be replaced every 12 months with new SAE 40W oil

- A. Remove the bottom Pipe Plug to drain the oil. Discard used oil in accordance with local and national codes.
- B. Wipe any debris off the magnet on the bottom Pipe Plug and reinstall. Remove the side Pipe Plug and (top) Vent Plug.
- C. Set the power unit in the horizontal position.
- D. 2-Stage Gearheads: Add approximately 9 oz. (266 ml) of SAE 40W oil through top hole. This should be just enough oil to reach the side Pipe Plug.
  - 3-Stage Gearheads (3261-9, 3261-12, 3261-14): Add approximately 13 oz. (384 ml) of SAE 40W oil through top hole. This should be just enough oil to reach the side Pipe Plug.
- E. Install the side Pipe Plug and (top) Vent Plug.

Check equipment for loose hardware every 6 months--including the Anchor Block. Tighten if necessary.

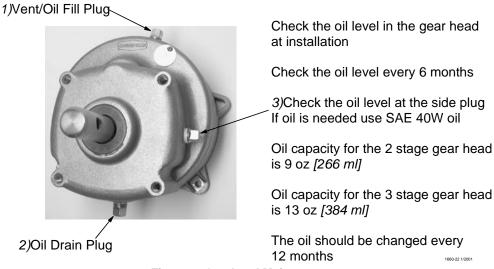


Figure 7. Gearhead Maintenance

## Mechanical Switch Adjustment procedure for Control Units

Refer to Figure 8.

- A. Turn the adjustment nut counterclockwise until the switch clicks.
- B. Turn the adjustment nut clockwise until the switch clicks.
- C. Turn the adjustment nut counterclockwise 3/4 turn.

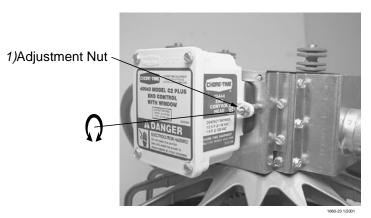


Figure 8. Switch Adjustment

#### **SENSOR PLUS Sensor Switch Adjustment for Control Units**

Refer to Figure 9.

The SENSOR PLUS Pan Half Round Sensor Switch is adjusted at the factory to a sensitivity of .25" [6 mm] away from face of sensor and a time delay of 15 seconds, but they may be changed for a specific installation. The sensitivity adjustment range is 0" to .80" [0 mm to 20 mm] and the time delay adjustment is 0 seconds to 600 seconds.

To adjust the Sensitivity:

- For less sensitivity turn Sensitivity Adjusting Screw (item 4) clockwise
- For more sensitivity turn Sensitivity Adjusting Screw (item 4) counter-clockwise

To adjust the Time Delay:

• For less time — turn Time Delay Adjusting Screw (item 5) clockwise (Light (item 6) blinks fast)
For more time — turn Time Delay Adjusting Screw (item 5) counter-clockwise (Light (item 6) blinks slow)

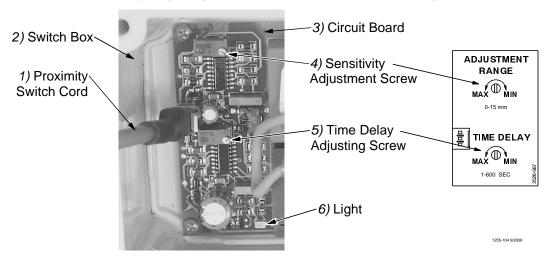


Figure 9. Adjusting the SENSOR PLUS Proximity Switch

#### **Feeder Line**

Keep anti-roost cables tightly stretched. This increases the effectiveness of the electro-guard anti-roost system and keep the pans from being tilted when birds push against them.

Remove all feed from the feeder when there are no birds in the house and when the building is washed and disinfected.

Moving Auger!

Disconnect electrical power before working on system,

equipment may start auto-

matically. Otherwise severe personal injury will result.

2527-9

Turn the feeders off prior to removing the birds from the house. This will allow them to clean the feed out of the pans.

If the system is not to be used for an extended period of time, remove all the feed from the feeder lines and feeder pans.

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

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

- A. Disconnect power to the entire system.
- B. Pull the Anchor and Bearing Assembly and approximately 18" [45 cm] of auger out of the boot.
- C. Place a clamp or locking pliers on the auger to prevent it from springing back into the auger tubes.
- D. Remove the Anchor & Bearing Assembly.
- E. Carefully remove the locking pliers.

#### **CAUTION:** Stand clear...the auger may spring back into the tube.

F. Remove system components in the opposite order they were installed, according to the Installation Manual.

#### AGRI-TIME® Time Clock Maintenance

Replace the batteries once per year. Follow the procedure listed below.

- A. Disconnect electrical service at the breaker.
- B. Remove the (6) screws and the face of the control.
- C. Cut the wire ties to allow for battery removal.
- D. Replace the existing batteries with new "AAA" batteries.
- E. Replace wire ties to secure the new batteries in place.
- F. Reinstall the face of the timer and secure using (6) screws previously removed.
- G. Reconnect electrical service to the AGRI-TIME Control.

#### **Power Lift Winch Maintenance**

Refer to Figure 10.

Grease the winch every 6 months with 1 to 2 shots of common industrial or automotive grease. **DO NOT OVER GREASE THE WINCH**.



1)Grease the Power Lift Winch every 6 months with 1 to 2 shots of common industrial or automotive grease DO NOT OVER GREASE THE POWER LIFT WINCH

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Figure 10. Maintenance to the Power Lift Winch

Remove any feed build-up in the Safety Switch Boxes in the Control Units.

It may be necessary to periodically retighten the shocker cable. Be sure to disconnect power to the shocker before servicing the equipment.

#### **Trouble Shooting the Floor Feeding System**

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

Service and maintenance work should be done by a qualified technician only.





Problem	Possible Cause	Corrective Action	
None of the feeder lines will operate	No power supplied to equipment	Replace burned fuses or reset circuit breaker	
		Make sure voltage required is supplied	
	Time Clock or relay defective	Replace Time Clock or relay	
	Time Clock improperly programmed	Refer to Programming the Time Clock section and reprogram the Time Clock	
Feeder line will not operate	Power unit cord not plugged in sufficiently to make contact	Check motor cord plug at control unit and control unit plug at outlet for connection	
	Motor cord wires are broken at plug or where cord enters motor	Check cord for continuity Replace if defective	
	Power Units thermal overload tripped	Push motor overload reset button to reset	
	Control unit switch defective or out of adjustment	Adjust switch according to the Switch Adjustment Procedure in the maintenance section	
Motor overloads frequently	Oil on new auger loads motor excessively when feed is carried for first time	Polish auger by running 50 lb (20 kg) increments of feed out to pans	
	Inadequate power reaching motors	Check line voltage at the motors Check starting current draw at motors Wiring of adequate size is essential to feeder operation	
	Object caught in the auger; motor runs, stalls, then auger spins in reverse	Check hopper boot, control unit and pan outlet holes for foreign objects Remove obstruction	
Auger runs erratically	Frozen or cracked bearing at boot anchor	Replace bearing Slowly ease auger back into tube Be careful not to damage the bearing when reinserting the auger	
	Insufficient stretch in auger	Shorten the auger	
	Obstruction in the auger	Remove obstruction	
Auger tube or boot wears out rapidly (Noisy feeder operation)	Auger is bent or kinked	Repair or replace damaged auger	
	End of auger is riding up on anchor weldment	Auger must not be positioned over weld on anchor  Check for bent or damaged auger	
Oil leaking out of seals on power unit	Gearhead vent plug not installed	Replace plastic shipping plug with vent plug	
	Defective gear head seal	Replace seal	
Not enough feed supplied to the feeder pans	Insufficient time programmed on the time clock	Add more operating time to feeding period	
	Feeder line control unit switch out of adjustment	Adjust switch according to the Switch Adjustment Procedure in the maintenance section	

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## Made to work. Built to last.

**Revisions to this Manual** 

Page No. Description of Change

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 (877) 730-8825 E-Mail: ctb@ctbinc.com • Internet: http://www.ctbinc.com

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