

48" Galvanized Cone Fan (Belt Drive)

Installation & Operator's Instruction Manual

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.**

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General

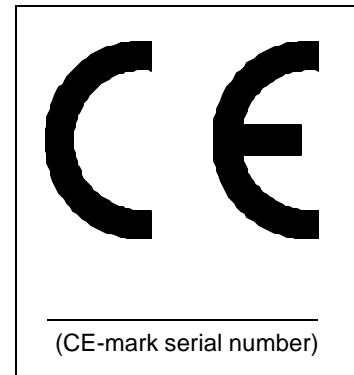
Support Information

The Chore-Time 48" Galvanized Cone Fans are designed to be used as exhaust fans. The Fans are shipped assembled. 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).

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 _____

About This Manual

The intent of this manual is to help you in two ways. One, to provide step-by-step instructions on the assembly of your product. Two, to provide an 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.
- This Planning Symbol is used in areas where planning needs to take place before construction continues.
- 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 in good condition, intact, and easy to read at all times. Replace missing or damaged decals.

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 Information - continued

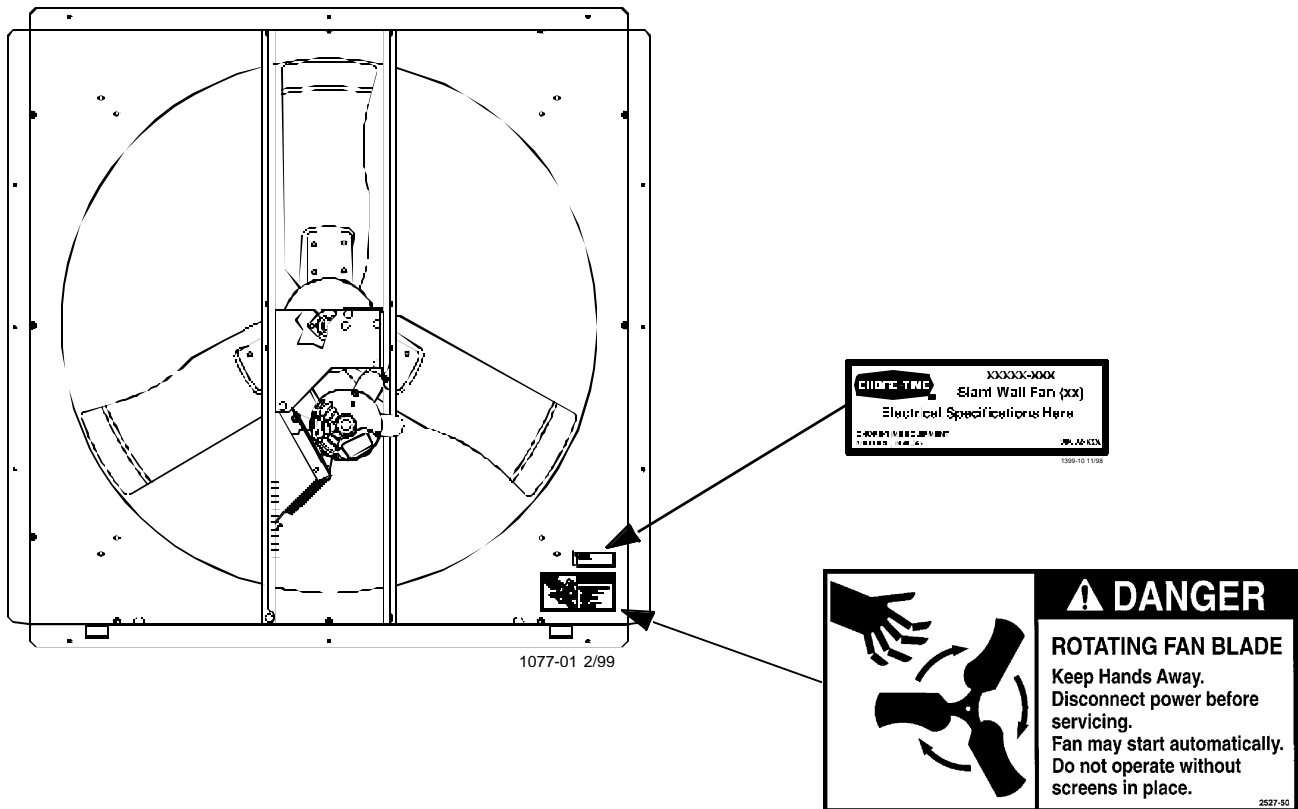
Follow Safety Instructions

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

Decal Descriptions

This diagram shows the proper location of the safety decal “**DANGER—ROTATING FAN BLADE**” as shipped from the factory. Replace damaged or missing decals. Make sure the decals may be seen at all times.

NOTE These decals are on placed on both sides of shroud.



IMPORTANT Chore-Time Equipment strongly recommends that a good alarm system should be installed in confinement buildings to warn of power failure and high temperature.

Chore-Time Equipment also recommends that an alternate power source be available for confinement buildings in case of power failure.

Fan Installation

IMPORTANT The 48" Cone Fan must be installed in a side wall.

Build fan framing out of 2" (50 mm) lumber (not supplied). The required rough opening is provided in the table below. Allow a minimum 4" spacing between framed openings for adjacent fans. This will provide clearance for the mounting flange.

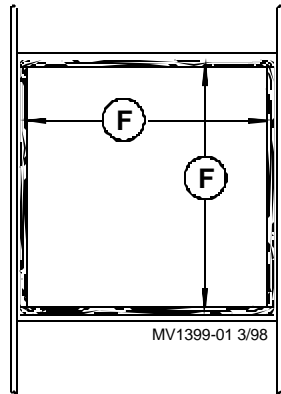


Figure 1. Framing Diagram (front view)

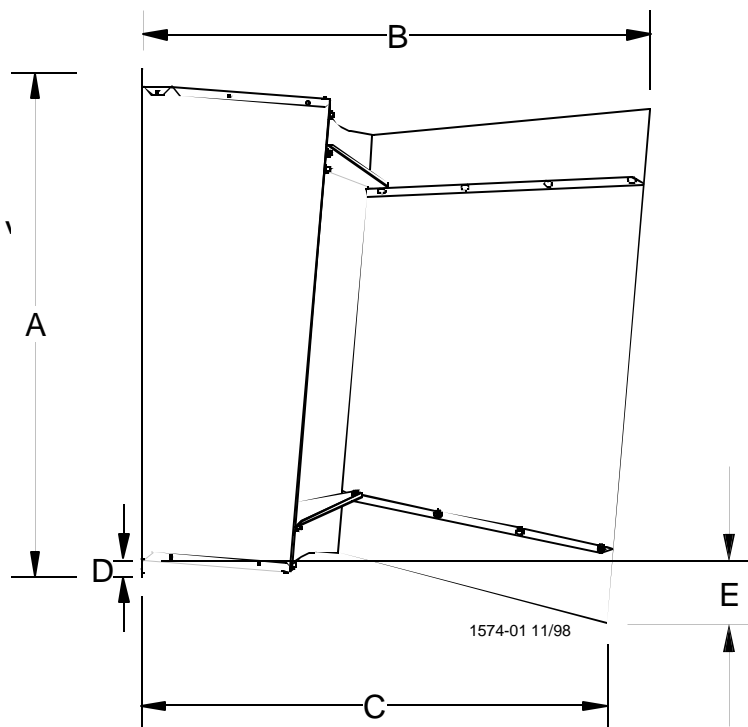


Figure 2. Fan (side view)

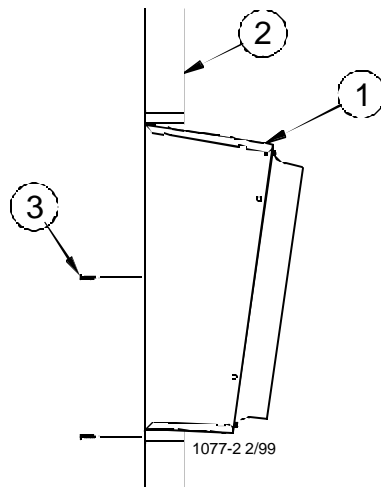
	A Square	B	C	D	E	F Rough Opening Square
48" Fan	58-1/4"x58-1/4"	50-3/8"	45-3/16"	2"	5-1/2"	55"x55"

Fan Installation - continued

Insert the Fan Assembly in the framed opening in the side wall

Center the Fan Assembly in the framed opening, left to right. Allow the Fan Housing to set on the bottom of the framed opening.

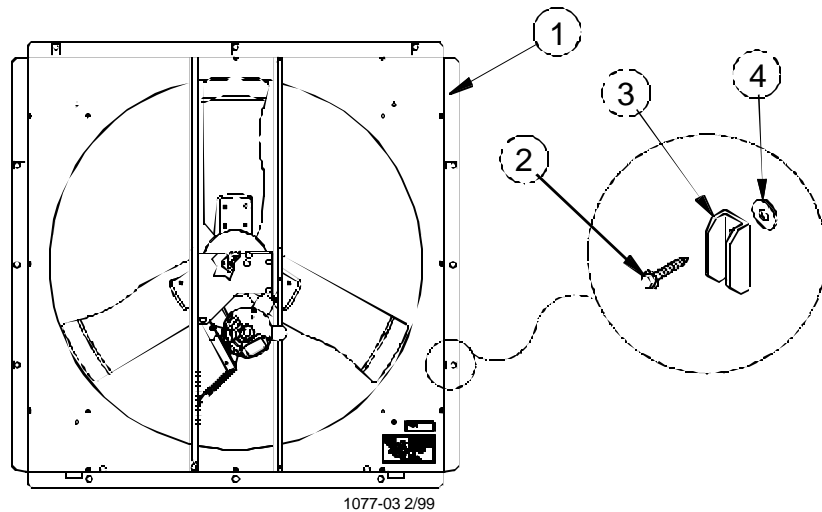
Secure the Fan Assembly to the framed opening, using (1) 1/4" x 1-3/4" Lag Screw through the middle hole on each side and (3) 1/4"x1-3/4" Lag Screws across the bottom panel. See **Figure 3**. Lag Screws are supplied in the Hardware Package.



Item	Description
1	Fan Assembly
2	Side Wall of Building
3	1/4"x1-3/4" Lag Screw (5 used)

Figure 3. Fan Assembly (side view)

Install the Shutter Clips in the remaining holes on the sides and top of the Fan. The Shutter Clips need to be tight, but loose enough to be turned. See **Figure 4**



Item	Description
1	Fan Assembly
2	1/4"x1-3/4" Lag Screw
3	Shutter Clip
4	Nylon Flat Washer

Figure 4. Shutter Clip Installation (front view)

Cone Assembly and Installation

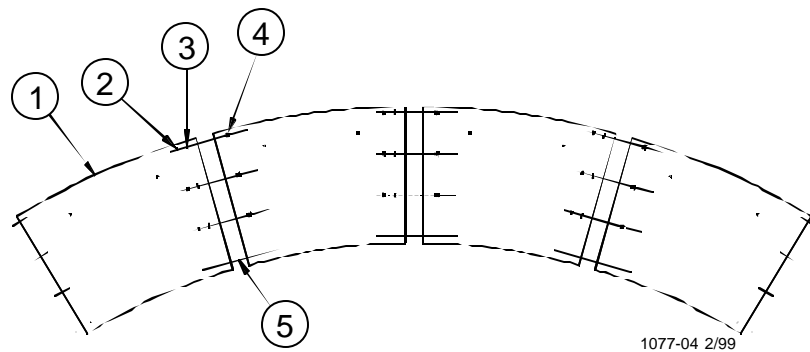
The Cone must be assembled and installed in the field.

Important: The Fan must be installed in the wall before installing the Cone to the Fan.

Lay the Cone Panels, with the flanges up, on a flat surface, as shown in **Figure 4**.

Loosely, fasten the Side Panels together with (3) 5/16-18 x 5/8" carriage bolts, (3) 3/8" lock washers, and (3) 5/16-18 hex nuts per joint. Only install hardware at the locations shown in **Figure 4**.

Do not tighten the hardware.



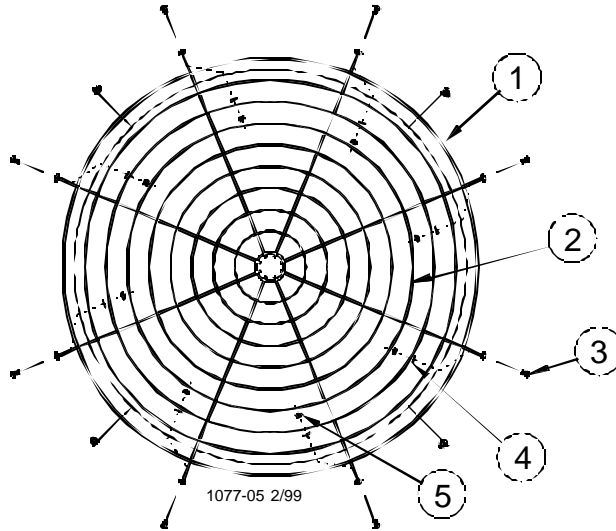
Item	Description
1	Cone Panel
2	5/16-18 Hex Nut
3	3/8" Lock Washer
4	5/16-18 x 5/8" Carriage Bolts
5	<i>Do not install hardware here.</i>

Figure 4. Cone Assembly (top view)

Set the Cone Side Panels up and align the ends to create the cone shaped housing. **Loosely**, secure the ends similar to the other joints.

Note: The flanges should be on the outside of the Cone.

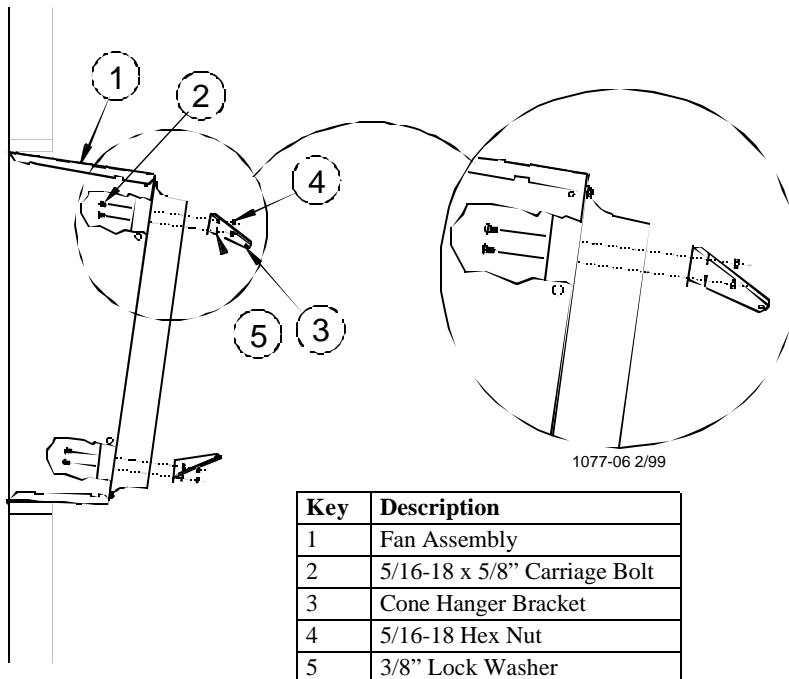
Position the Grill in the larger end of the Cone Assembly. Secure the Grill in place using the 5/16-18 carriage bolts, 3/8" lock washers, and 5/16-18 hex nuts. See **Figure 5**. This will help maintain the shape of the Cone Assembly while it is being secured to the Fan Shroud.



Item	Description
1	Cone Assembly
2	Grill
3	5/16-18 Carriage Bolt
4	3/8" Lock Washer
5	5/16-18 Hex Nut

Figure 5. Grill Installation (front view)

Secure each Cone Hanger Bracket to the Fan Shroud, using 5/16-18 carriage bolts, 3/8" lock washers, and 5/16-18 hex nuts. See **Figure 6**.



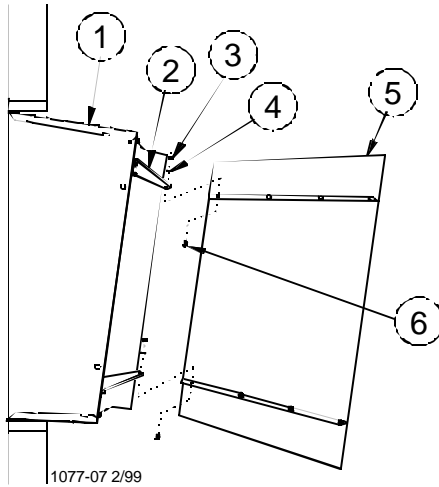
Key	Description
1	Fan Assembly
2	5/16-18 x 5/8" Carriage Bolt
3	Cone Hanger Bracket
4	5/16-18 Hex Nut
5	3/8" Lock Washer

Figure 6. Hanger Bracket Installation (side view)

With the help of an assistant, lift the Cone Assembly to the Fan Shroud. Slide the smaller end of the Cone Assembly over the Fan Shroud. Rotate the Cone Assembly to align the Panel Joints with the Cone Hanger Brackets.

Secure the Cone Assembly to the Cone Hanger Brackets using (1) 5/16-18 carriage bolt, 3/8" lock washer, and 5/16-18 hex nut. See **Figure 7**.

Tighten all the hardware.



Item	Description
1	Fan Assembly
2	Cone Hanger Bracket
3	5/16-18 Hex Nut
4	3/8" Lock Washer
5	Cone Assembly
6	5/16-18 x 5/8" Carriage Bolt

Figure 7. Cone Installation (side view)

Wiring Instructions

See wiring diagram on motor for Motor electrical connections. Follow local, state, and national electrical for wiring.

Install an electrical disconnect within reach of each Fan.

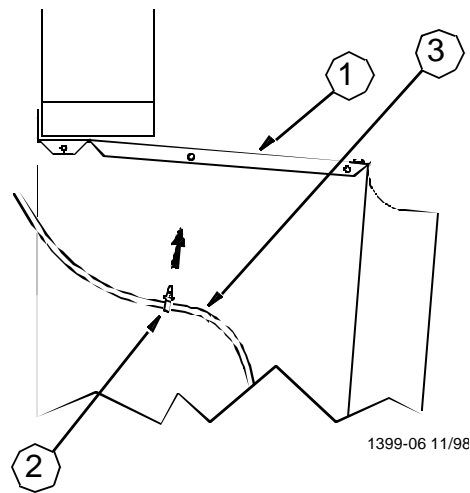
Route the motor cord (not supplied) toward the upper left corner of fan and attach to the top panel using the 3/8" cord clip mounted to the 1/4" hole in the top panel.

See **Figure 5**.

IMPORTANT If an aluminum Shutter will be installed, route the motor cord through the Rubber Grommet.

Some installations may require an exit hole for the motor cord be drilled in the side of the Housing. These installations must have electrical wires routed through conduit to protect them from damage.

IMPORTANT Make sure the conduit or wires do not interfere with the Fan Blades or Shutter operation.



Item	Description
1	Slant Wall Top Panel
2	Cord Clip
3	Cord (not supplied)

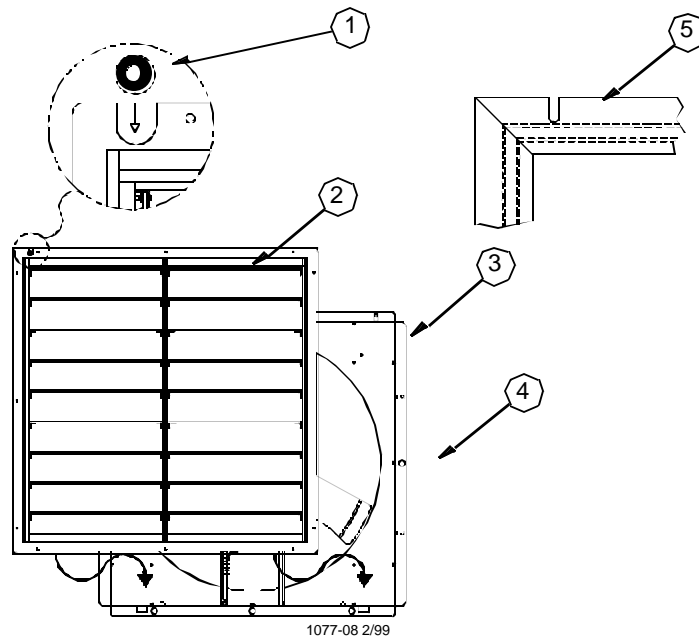
Figure 5. Installation of Cord Clip

Shutter Installation

Plastic and Aluminum Shutters are available, however installation is different. See below.

1. If you have a **Plastic Shutter**—cut a 3/8" slot in the upper left or right flange of the Shutter frame in order to route the electrical cord out the back.
2. If you have an **Aluminum Shutter**, route the electrical cord through the notch in the top of the Shutter Frame. Make sure the Grommet is installed correctly in the notch in the Shutter Frame. See **Figure 6**.
3. The Slant Wall Bottom Panel is designed to hold the Shutter. Slide the bottom of the Shutter into position in the Bottom Panel of the Slant Wall Kit, lean the Shutter back and lock it in place rotating the Shutter Clips. Check the Shutter for proper operation—the shutter must be able to open and close freely without obstructions. See **Figure 6**.

NOTE Make sure the electrical conduit and wire does not interfere with the Fan Blades or Shutter operation.



Item	Description
1	Grommet (for aluminum shutter)
2	Shutter
3	Shutter Clip
4	Slant Wall Housing
5	3/8" Slot in Plastic Shutter

Figure 6. Shutter Installation (front view)

Maintenance



DANGER

Disconnect Power Prior To Maintaining Or Cleaning The Fan. The fan may start automatically causing serious injury or death.

- Service and maintenance of fans should be done only by a qualified technician.
- Keep the fan clean for maximum life and best performance. **Do not spray water on Fan Shaft Bearings.**
- Periodically check the V-Belt. If necessary, adjust the spring tension to prevent the belt from slipping. The spring should be stretched to an overall length of 6" to 7" for proper belt tension.
- Two options are available for V-Belt replacement.
 1. Red Link V-Belt (see parts listing), which does not require disassembly of the fan.
 2. Black V-Belt (see parts listing), which requires the removal of the Fan Blade or Fan Shaft.
- The Motor and Fan Shaft Bearings are permanently lubricated. Grease Zerks are provided on the Fan Shaft Bearings for installations where relubrication is needed. Relubrication is required whenever water comes in contact with the Fan Shaft Bearings. Slowly rotate the Fan Shaft as bearing is filled with Grease. Use only high quality lithium soap base grease and clean all dirt from Zerk before applying grease.

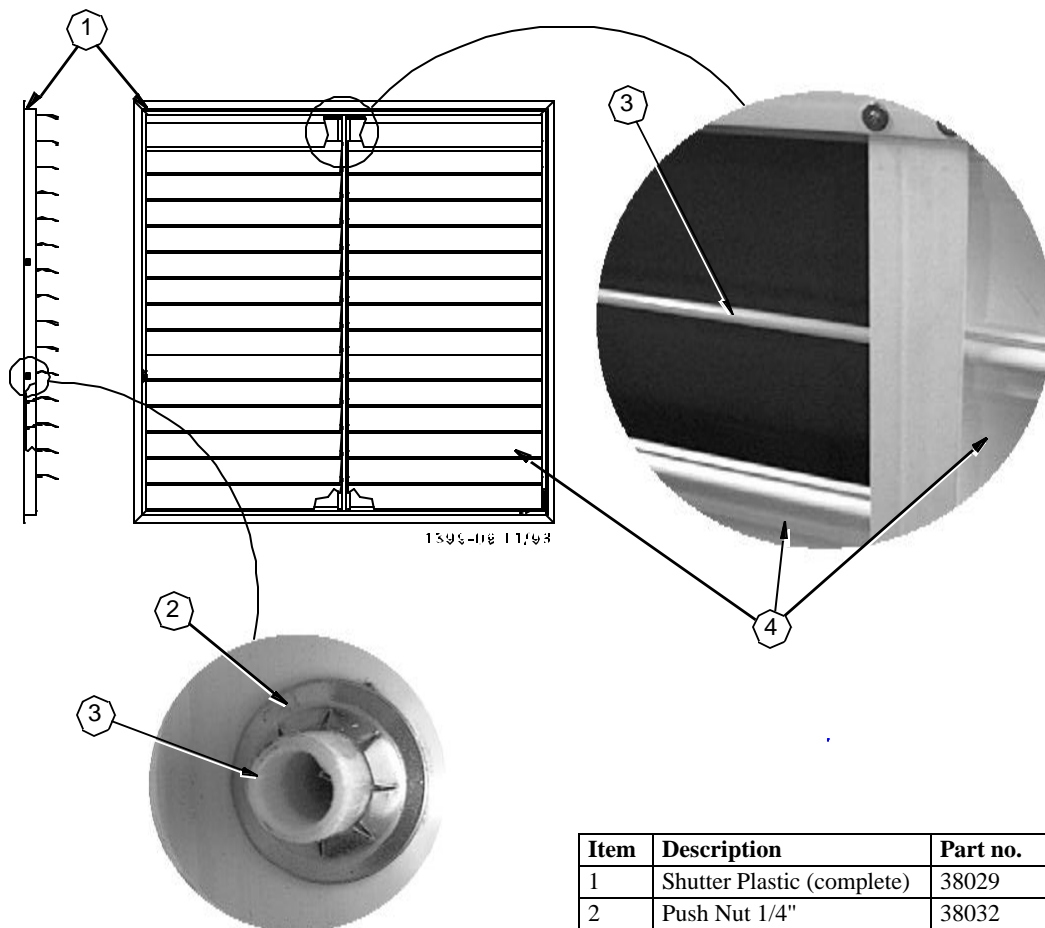
Product Specifications and Part Numbers

Motor Specifications and Part Numbers

Fan Specifications (assembled)		Motor Specifications						
Description	*Part No.	Voltage	HZ	Phase	HP	Motor P/N	Motor Sheave P/N	Fan Sheave P/N
48" Cone Fan BD	42049-482X	115/230	60	1	1	37729	35333	35009
	42049-483X	230	50	1	1	37729	8773	35009
	42049-484X	208-230/460	60	3	1	40157	35333	35009
	42049-485X	220-240/380-415	50	3	1	36142	24697	35009
	42049-486X	230/380-415	60	3	1	36142	35333	35009

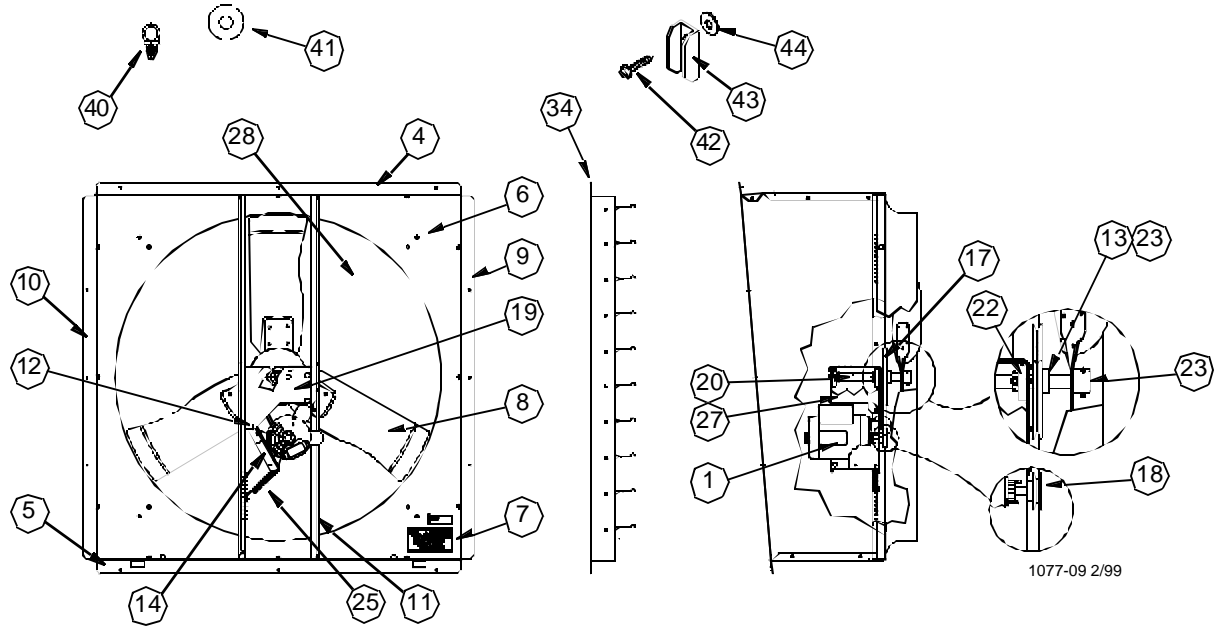
* Replace the "X" in fan P/N with "1" for an aluminum Shutter, "2" for a plastic shutter.

Plastic Shutter Part Numbers



Item	Description	Part no.
1	Shutter Plastic (complete)	38029
2	Push Nut 1/4"	38032
3	Shutter Rod Pivot	38702-4
4	Shutter Louver	38038-4

48" Galvanized Cone Fan Part Numbers

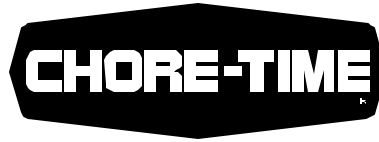


1077-09 2/99

Item	Description	Part No
*1	Motor	See Chart
4	Top Panel 5°	42052
5	Bottom Panel 5°	42050
6	Shroud (54)	37583
7	Danger Decal	2527-50
8	Fan Blade	28140
9	Side Panel RH	42051-2
10	Side Panel LH	42051-1
11	Post 48"	38390
12	Bushing	38896
13	Sheave, 8-1/4" O.D. 1" Bore	35009
14	Motor Mount	38895
17	V-Belt Black (AX35) V-Belt Red Link (3.0' required)	4468 30374
*18	Motor Sheave	See Chart
19	Support BD Module Bracket	38894
20	Shaft 1"	34723
22	Bearing, Cast Flange 1" Bore	38382
23	Square Key 1/4x1x1/8"	2419-2
25	Spring	7551
27	Bracket, BD Module	38893
40	Cord Clip	7242
41	Grommet	7256
42	1/4x1-3/4" Lag Screw	39217
43	Shutter Clip	36729
44	Nylon Washer	4856

*See Motor Specifications on previous page.

**This Page
Currently
Not in Use**



**Made to work.
Built to last.**

Revisions to this Manual

Page No.	Description of Change
	Complete update of entire manual.

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

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