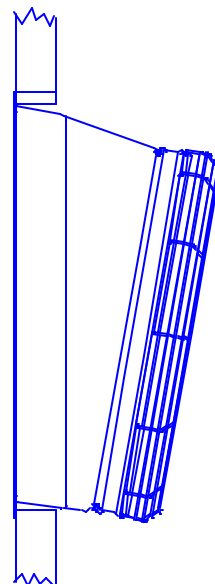
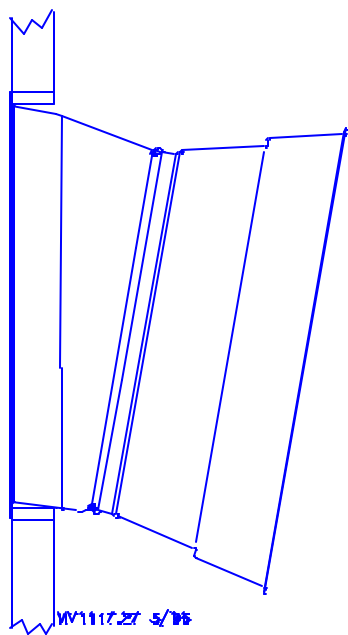


TURBO™
Cone Fan & Grill Fan
Installation Manual
(24" Direct Drive)



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™ and RLX™ 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.

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 "WARRANTY ADDITION" as to these products

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

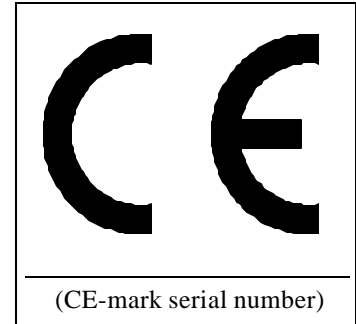
Support Information

The Chore-Time TURBO™ Cone & Grill Fans are designed to be used as exhaust fans in corrosive environments. The primary components are made from plastic or stainless steel materials. 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. Fill in the CE-Mark serial number in the blank space provided for future reference.



Please fill in the following information about your fans. 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 _____

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<u>Topic</u>	<u>Page</u>	<u>User*</u>
Warranty Information	2	C, D
Support Information	3	C, D
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Planning the TURBO Fan Installation	6	C, I
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24" Direct Drive TURBO Fan Parts List	12	C, I

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

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.

Chore-Time equipment is designed to be installed and operated as safely as possible...however, hazards do exist. Using the equipment for purposes other than specified in this manual may cause personal injury or damage to the equipment.

SIGNAL WORDS

Signal words are used in conjunction with the safety-alert symbol to identify the severity of the warning.

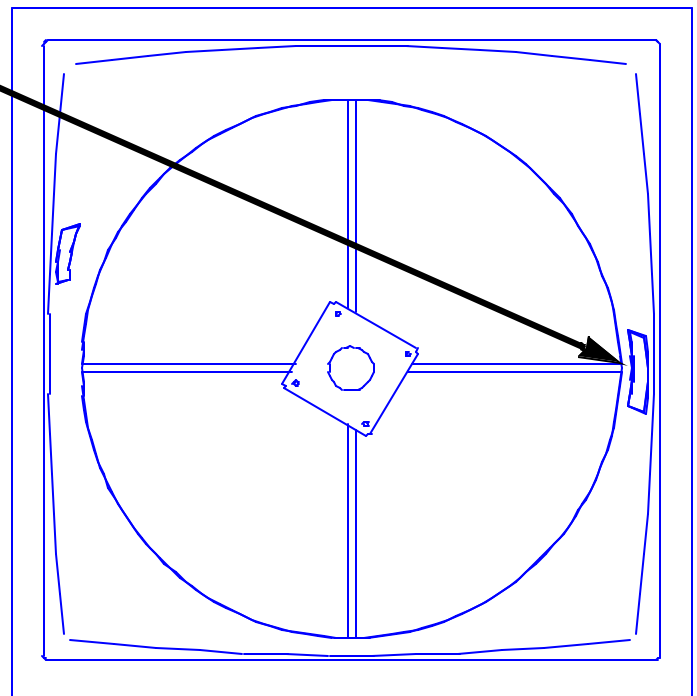
DANGER..... indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

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.



This diagram show the proper location of the safety decal as shipped from the factory. Replace damaged or missing decals. Make sure the decals may be easily seen at all times.



Technical Information

Motor Specifications:

Horsepower - - - - - 1/3 HP
Voltage - - - - - 230 V
Hz. - - - - - 60 Hz.
Phase - - - - - Single Phase
R.P.M. - - - - - 1075
Variable Speed - - - - - Yes

Blade:

Size - - - - - 24" (61 cm)
Type - - - - - Cast Aluminum

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.

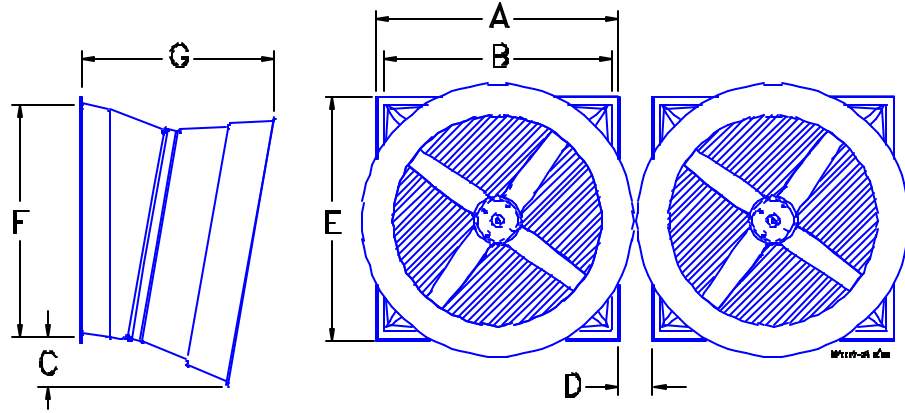
Tools Required for Installation:

1. Regular Screwdriver
2. Wire Cutters
3. Wire Strippers
4. Adequate Size and Quantity of Electrical Wire
5. Electrical Drill and Drill Bits
6. Another person to help !

Planning the Turbo Fan Installation

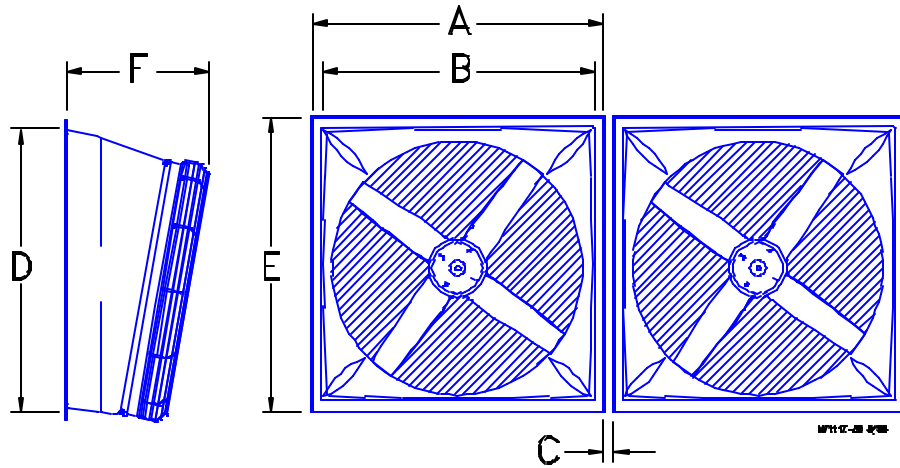
Carefully plan the installation. Dimensions are provided for the 2 Turbo Fan with Cones (Figure 1) and without Cones (Figure 2). Be sure to allow enough space to install fans without interfering with other fans or equipment.

Note: See page 7 for framed opening size.



A	B	C	D	E	F	G
31.0" (78.7 cm)	27.8" (70.8 cm)	6.5" (16.5 cm)	2.5" (6.4 cm)	31.5" (80.0 cm)	28.5" (72.3 cm)	32.8" (83.3 cm)

Figure 1. Planning and Layout Diagram with Cones (front view).



A	B	C	D	E	F
31.0" (78.7 cm)	27.8" (70.8 cm)	0" (0 cm) minimum	28.5" (72.3 cm)	31.5" (80.0 cm)	25.6" (65.0 cm)

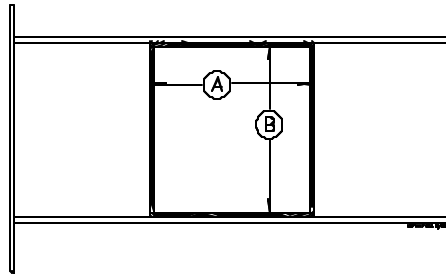
Figure 2. Planning and Layout Diagram without Cones (front view).

Fan Installation

The 24" Fan is shipped assembled.

Build fan framing out of 2" x 6" (50 x 150 mm) lumber (not supplied). The required wall opening is provided in the chart below. See Figure 3.

Refer to the planning section (on page 6) for minimum dimension between fans.



Dimension (minimum)	A	B
24" Fan	28-1/4" (71.8 cm)	29-1/4" (74.3 cm)

Figure 3. Framing Diagram (front view).

The Hardware Kit, supplied, includes (8) #10 screws to secure the fan to the framed opening. Install (4) screws at the locations shown in Figure 4.

Locate the screws approximately 1/2" (12 mm) from the outside edge of the Fan Shroud to avoid interference with the Shutter.

Do not allow the top or sides of the shroud to sag when securing to the wall. The Shroud Flange should be secured square in the opening.

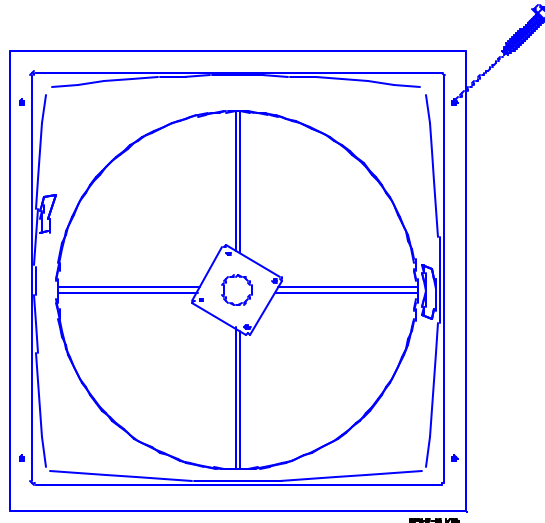


Figure 4. Fan installation (front view).

Cones may be installed to improve the performance of the TURBO Fans. If Cones are not to be installed, proceed to the Grill installation section on page 9 (Figure 7).

Begin by positioning the entire flange of the Cone over the outer edge of the Fan Shroud. Snap one edge of the cone flange into the groove on the Shroud. See Figure 5.

Work the remainder of the cone flange into the shroud groove without allowing any part of the Cone flange to slip off the Shroud.

Note: In cold weather it may be necessary to warm the Cone to room temperature before installing it on the Shroud.

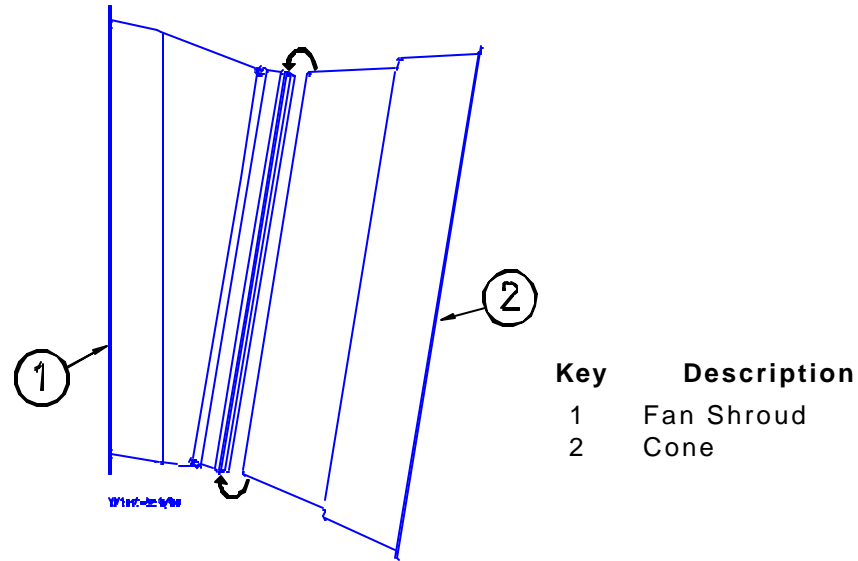


Figure 5. Cone Installation (side view).

Grills **must** be installed over the Shroud (Figure 7) or inside the Cone (Figure 6) to prevent injury from rotating blades.

Installations *using* Cones, refer to Figure 6 for Cone Grill installation.

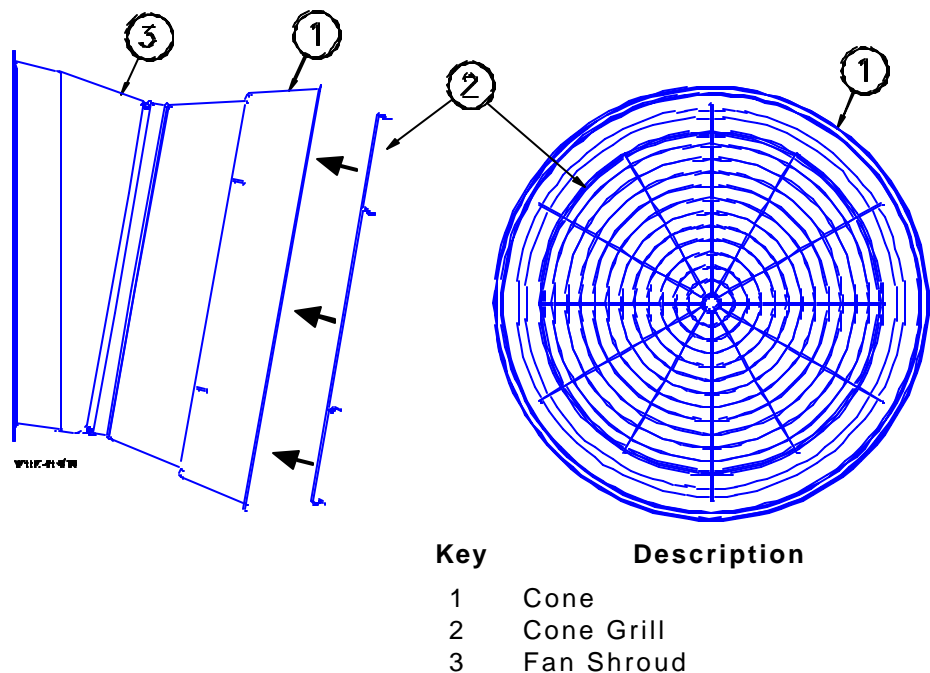
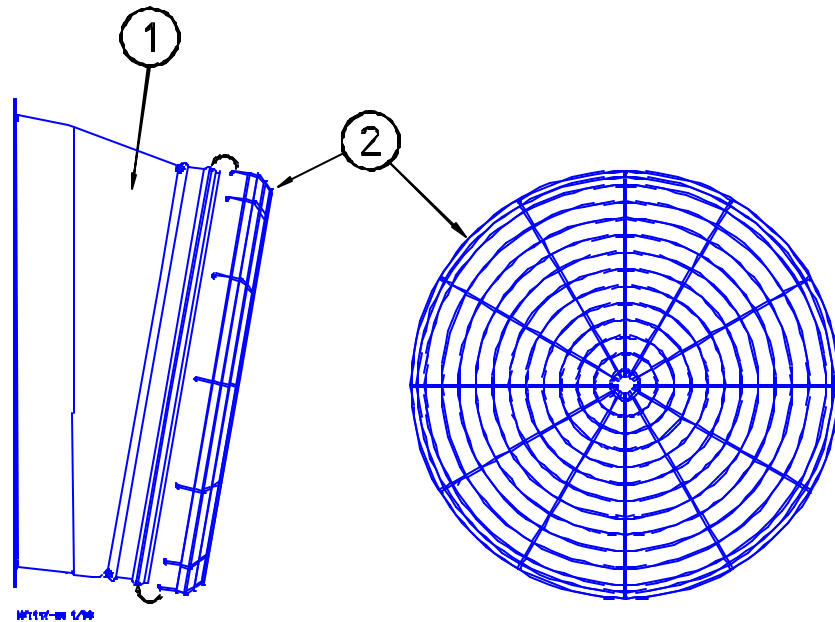


Figure 6. Cone Grill Installation

Installations *using Grills only*, refer to Figure 7 for Shroud Grill installation.



Key	Description
1	Fan Shroud
2	Shroud Grill

Figure 7. Shroud Grill Installation

Install the bottom (2) Shutter Brackets, as shown in Figure 8.

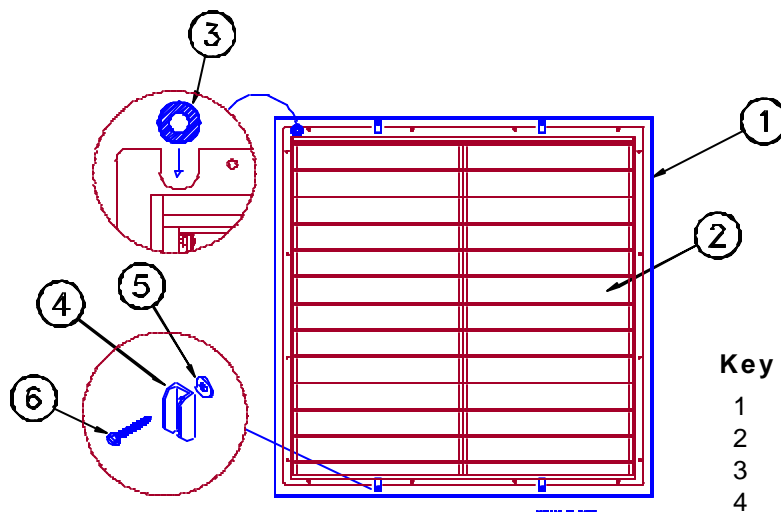
Position the Shutter, centered in the Fan Shroud, on the Brackets. Check the Shutter for proper operation...the Shutter must be able to open and close freely, without obstructions.

Install the remaining Shutter Brackets.

The 24" Fans use (4) Shutter Brackets, two on top, two on bottom.

Note: Make sure that the Shutter can be removed when the Brackets are rotated 90°.

A slot is provided in the upper left-hand corner of the Shutter to route electrical conduit/wires or SJO cord through. Install the Grommet, included in the Hardware Package, in the slot to protect the electrical wire. See Figure 8.



Key	Description
1	Shroud
2	Shutter
3	Grommet
4	Shutter Bracket
5	Nylon Flat Washer
6	2" S.S. Screw

Figure 8. Shutter Installation (front view).

A Cord Clip is included in the 24" Fan Hardware Package to assist in routing the motor cord away from the fan blades. See Figure 9.

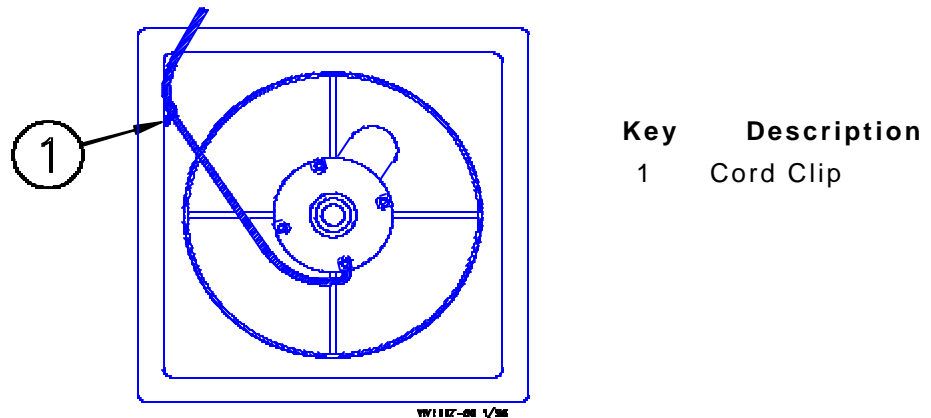


Figure 9. Cord Routing--Fan Blade not shown for clarity (back view).

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

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

Wire the motor to fan controls according to the instructions packed with the fan controls.

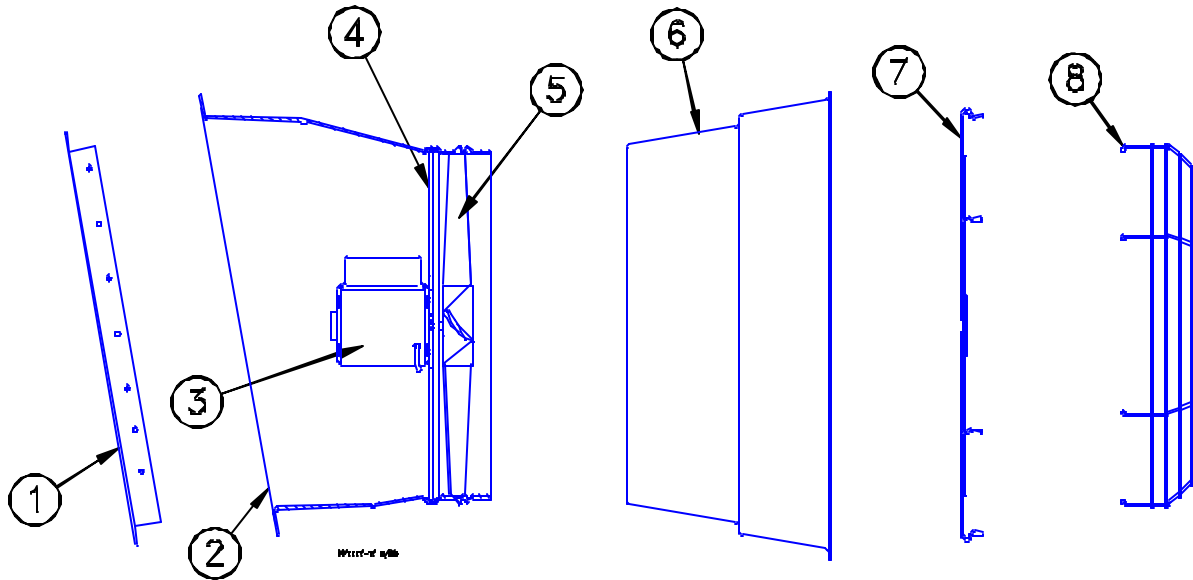
MAINTENANCE:

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

DISCONNECT POWER PRIOR TO MAINTAINING OR CLEANING THE FAN!
The fan may start automatically causing serious injury or death.

Keep the fan clean for maximum life and best performance.

24" Direct Drive TURBO Fan Parts List



Item	Description	Part No.
1	Fan Shutter (aluminum)	36816
2	Plastic Fan Shroud	35274
3	Motor (1-Phs, 1/3 HP, 60 Hz, 230 V)	35661
4	Motor Mount Weldment	38343
5	Fan Blade (cast aluminum)	38341
6	Fan Cone	35275
7	Cone Grill	35338
8	Shroud Grill	35339
--	Grommet	7256
--	Nylon Washer (for Shutter Clips)	4856
--	Shutter Clips	36560
--	10-16 x 2" S.S. Hx. Wash. Hd. Screw	36815

Items 2 - 5 may be ordered as an assembly under
Chore-Time Part No. 35680.

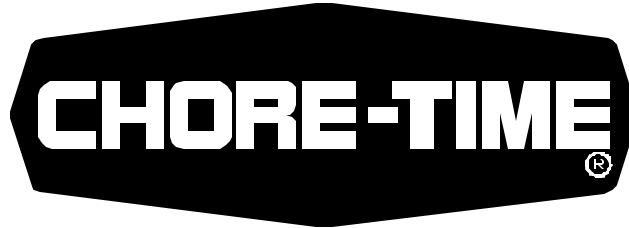
Items 2 - 5 and 8 may be ordered as a kit under Chore-Time
Part No. 36821-2420.

Items 1 - 5 and 8 may be ordered as a kit under Chore-Time
Part No. 36821-2421.

Items 2 - 7 may be ordered as a kit under Chore-Time Part
No. 36823-2420.

Items 1 - 7 may be ordered as an assembly under
Chore-Time Part No. 36823-2421.

***THANK-YOU for purchasing a Chore-Time
TURBO™ 24" Fan.***



Made to work.
Built to last.

Revisions to this Manual

Page No

Description of Change

11

Updated frame opening and fan size diagram information.

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

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