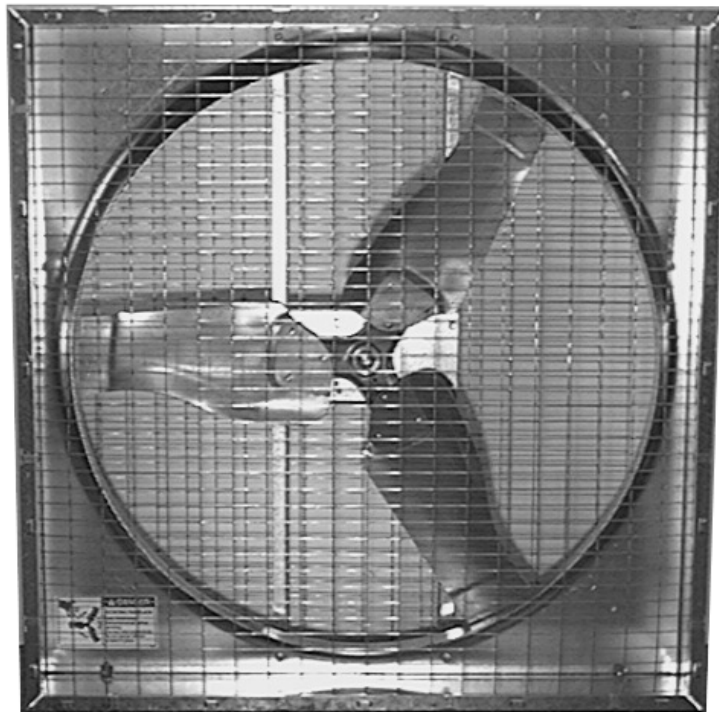


36" & 48" E-Z Box Fan
Installation & Operator's Instruction Manual
(Direct Drive · Standard & Deep Box)



MV1430-16 8/97

Limited Warranty

Chore-Time Group, a division of CTB, Inc. ("Chore-Time") warrants new CHORE-TIME Cage and Cage Components manufactured by Chore-Time to be free from defects in material or workmanship under normal usage and conditions, for One (1) year from the date of installation by the original purchaser ("Warranty"). If such a defect is determined by Chore-Time to exist within the applicable period, Chore-Time will, at its option, (a) repair the Product or Component Part free of charge, F.O.B. the factory of manufacture or (b) replace the Product or Component Part free of charge, F.O.B. the factory of manufacture. This Warranty is not transferable, and applies only to the original purchaser of the Product.

CONDITIONS AND LIMITATIONS

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, INCLUDING, WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES. CHORE-TIME shall not be liable for any direct, indirect, incidental, consequential or special damages 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. *Some jurisdictions prohibit limitations on implied warranties and/or the exclusion or limitation of such damages, so these limitations and exclusions may not apply to you. This warranty gives the original purchaser specific legal rights. You may also have other rights based upon your specific jurisdiction.*

Compliance with federal, state and local rules which apply to the location, installation and use of the Product are the responsibility of the original purchaser, and CHORE-TIME shall not be liable for any damages which may result from non-compliance with such rules.

The following circumstances shall render this Warranty void:

- Modifications made to the Product not specifically delineated in the Product manual.
- Product not installed and/or operated in accordance with the instructions published by the CHORE-TIME.
- All components of the Product are not original equipment supplied by CHORE-TIME.
- Product was not purchased from and/or installed by a CHORE-TIME authorized distributor or certified representative.
- Product experienced malfunction or failure resulting from misuse, abuse, mismanagement, negligence, alteration, accident, or lack of proper maintenance, or from lightning strikes, electrical power surges or interruption of electricity.
- Product experienced corrosion, material deterioration and/or equipment malfunction caused by or consistent with the application of chemicals, minerals, sediments or other foreign elements.
- Product was used for any purpose other than for the care of poultry and livestock.

The Warranty and Extended Warranty may only be modified in writing by an officer of CHORE-TIME. CHORE-TIME shall have no obligation or responsibility for any representations or warranties made by or on behalf of any distributor, dealer, agent or certified representative.

Effective: **April, 2014**

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Table of Contents

Topic	Page	User*
Chore-Time Warranty	2	C, D
Support Information	4	C, D
Distributor and Installer Information	4	C, D, I
Safety Information	5	C, I
Safety–Alert Symbol.	5	C, I
Signal Words.	5	C, I
DANGER: Electrical Hazard.	5	C, I
Technical Information	6	C, I
E-Z Fan Options	6	C, I
Tools Required	7	C, I
Fan Assembly Procedure	7	I
Slant Wall Kit Assembly (Optional)	12	I
Fan Installation	13	I
Side Wall Installations:	13	I
Fan Assembly without Slant Wall Housing:	13	I
Fan Assembly with Slant Wall Housing:	14	I
Suspended Fan Installations:	15	I
Wiring:	16	I
Shutter Installation	17	I
Maintenance:	17	C
Direct Drive E-Z Fan Part Numbers and Motor Specifications.	18	C, I
Direct Drive E-Z Fan Parts List	19	C, I

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

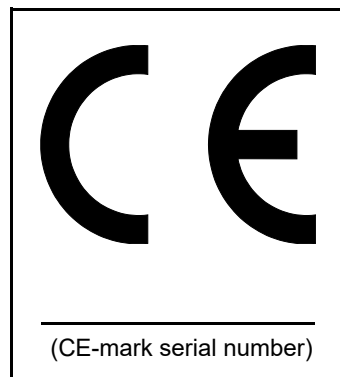
Support Information

The Chore-Time E-Z Fans are designed to be used as circulating or exhaust fans. The E-Z Fans may be shipped unassembled to save on shipping charges. 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 _____

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: Electrical Hazard

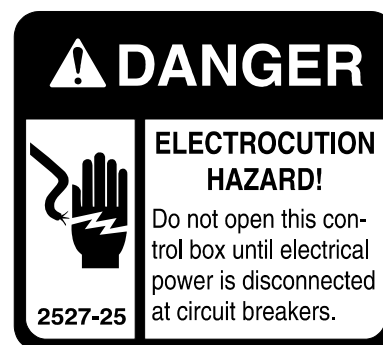
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

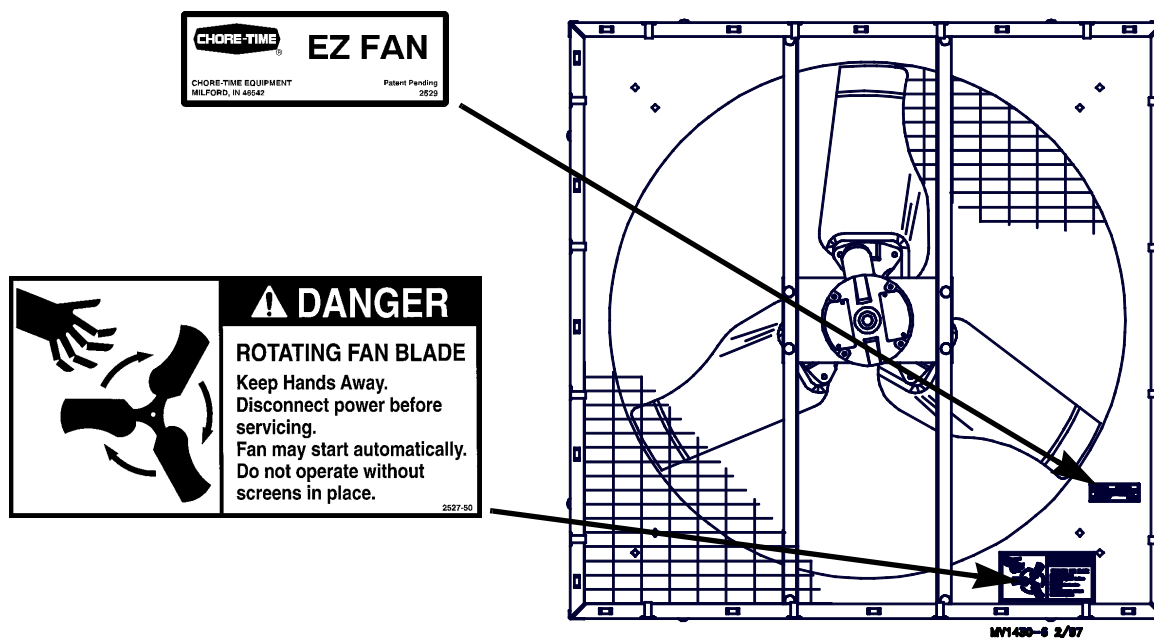
All electrical wiring must be done by a qualified electrician in accordance with local and national electric codes.

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.



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 easily seen at all times. If the fan is purchased unassembled, the Chore-Time Fan Assembly Part Number Decal will be packed with this instruction manual. Make sure the decal location shown below is clean and dry. Remove the backing of the decal and affix it to the Fan Shroud.



Technical Information

Motor choices and specifications are provided in the Parts List section of this manual. See page 14 for Fan Motor specifications.

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.

E-Z Fan Options

The E-Z Fan may be ordered assembled or unassembled (knock-down). If the Fan is to be suspended from the ceiling, the Slant Wall Kit is not used. If the Fan is to be installed in a side wall, the Slant Wall Kit may be used. There are a variety of Motors available for the E-Z Fans. See the motor specifications chart in the parts list section of this manual. The E-Z Fans may be ordered with standard width Side Panels or Deep Box Side Panels. The standard width Side Panels are 12-1/2" (31.8 cm) or 15-3/4" (40.0 cm), respectively, for the 36" and 48" Fans. The Deep Box Side Panels are 21" (53.3 cm) wide.

Tools Required

- Regular Screwdriver
- Hammer
- 1/2" Open End Wrench or Socket Wrench with 1/2" Socket
- Wire Cutters & Strippers
- Adequate Size & Quantity of Electrical Wire
- 5/16" Hex Key Wrench
- 5/16" Open End Wrench or a 12 Point 3/8" Socket and Ratchet

Fan Assembly Procedure

Installation Note: Many of the graphics provided reflect the standard Side Panels. Side Panels for the Deep Box Fans look similar, only wider.

Secure the Motor Mount Post to the Fan Shroud using the 5/16-18 x 5/8" carriage bolts and hex nuts provided in the Hardware Package

The Motor Mount Post must be installed as shown in **Figure 1**.

Secure the Motor Support, as shown in **Figure 1**.

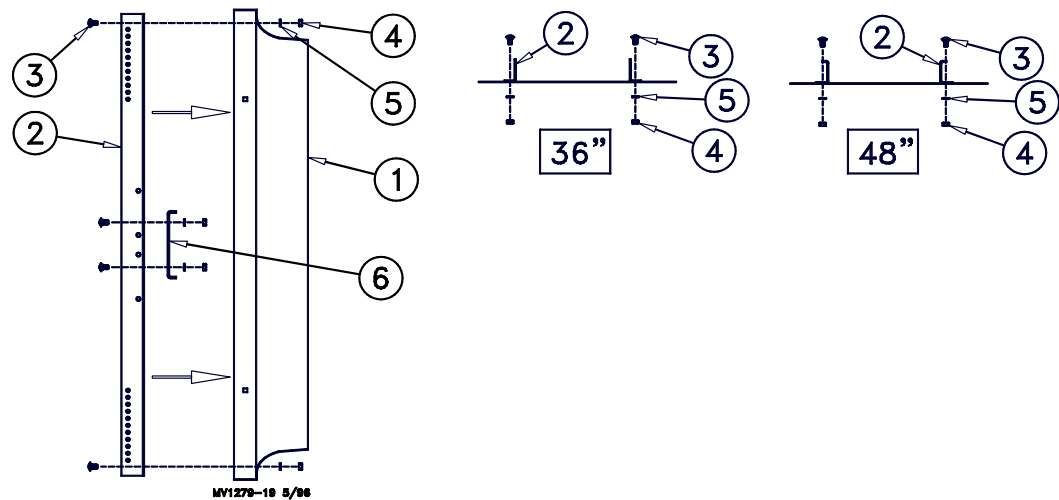


Figure 1. Motor Mount Installation (side view)

Key	Description
1	Fan Shroud
2	Motor Mount Post
3	5/16-18 x 5/8" Carriage Bolt
4	5/16-18 Hex Nut
5	Lock Washer
6	Motor Support Plate

The Side Panels for the Box Fans are identical. The Panels lock together by inserting the tabs of one Panel into the slot in the end of another Panel. See the detail in **Figure 2**.

Orienting the Side Panels as shown in **Figure 2**, assemble the Side Panels together around the Shroud using the 5/16-18 hardware provided.

Note: 36" Fans use (2) bolts, washers, and nuts per side. 48" Fans use (3) bolts, washers, and nuts per side.

Use a hammer to carefully bend the corner tabs over to secure the Side Panels together.

Orient the Shroud with the Shroud Drain Holes at the bottom of the Fan.

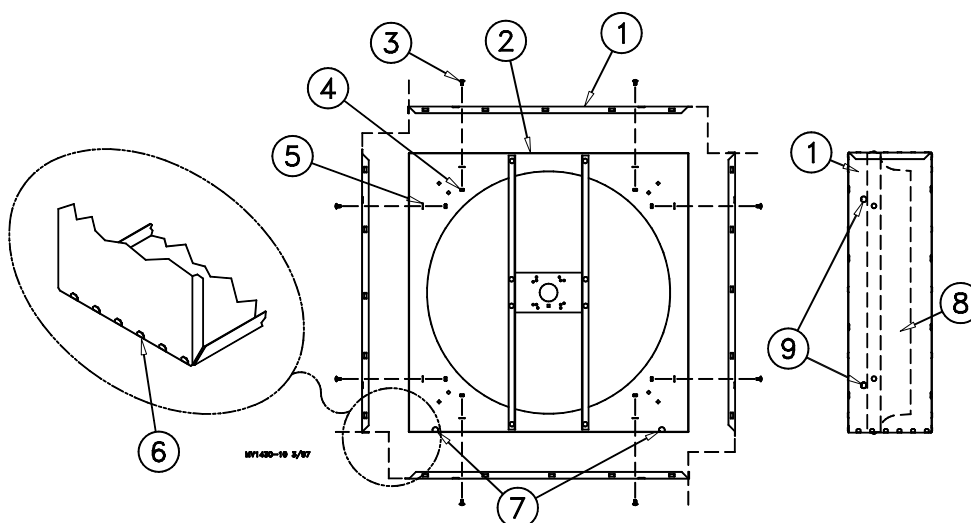


Figure 2. Side Panel Assembly (top view)

Key	Description
1	Side Panel
2	Fan Shroud
3	5/16-18 x 5/8" Carriage Bolt
4	5/16-18 Hex Nut
5	Lock Washer
6	Lock Side Panels together by bending tabs over.
7	Shroud Drain Holes
8	Shroud Orifice
9	Shroud Knockouts

Secure the Motor to the Motor Support. Fan Motors with capacitors, orient as shown in **Figure 3** and **Figure 4**.

The 36" Fans use 10-32 Serrated Flange Nuts provided in the Hardware Package. **Figure 3**.

The 48" Fans use lock washers and 3/8" x 3/4" bolts provided in the Hardware Package. See **Figure 4**.

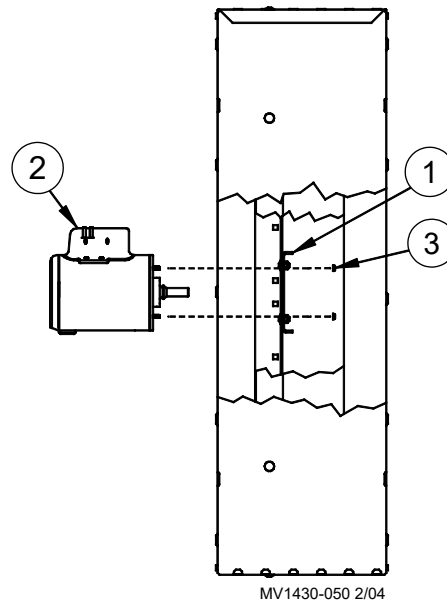


Figure 3. Motor Installation (side view)

Key	Description
1	Motor Support
2	Motor
3	10-32 Serrated Flange Nut

48" Fan

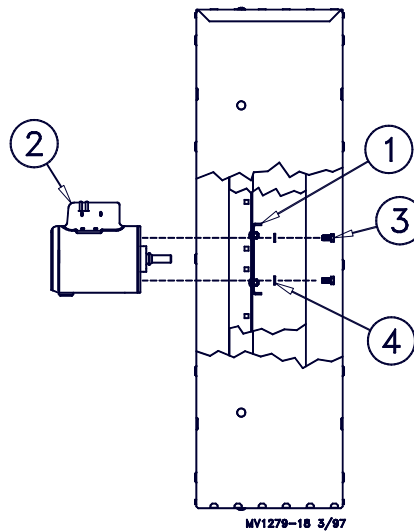


Figure 4. Motor Installation (side view)

Key	Description
1	Motor Support
2	Motor
3	3/8" x 3/4" Bolt
4	Lock Washer

Slide the Blade Assembly onto the motor shaft. The Fan Blade Hub should be flush to the end of the motor shaft. See **Figure 5**.

Apply Anti-seize (47749) to motor shaft. Insert key into keyway on motor shaft. Tighten the set screw(s) using a 5/16" open end wrench (12 point 3/8" socket and ratchet). Torque the set screws to approximately 150 in./lbs. See the decal placement instructions on page 4.

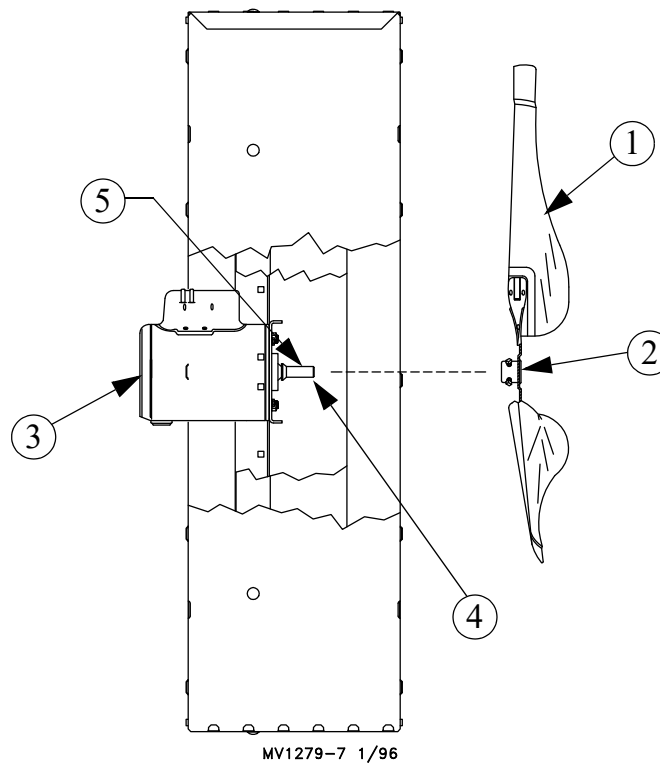


Figure 5. Blade Assembly Installation (side view)

Key	Description
1	Blade Assembly
2	Fan Blade Hub
3	Motor
4	Motor Shaft with key/keyway and flat
5	Anti-seize



DANGER: Wire Screen(s) MUST be installed to prevent serious injury or death.

Position the front Screen over the front of the fan.

Note: Make sure the natural bow of the Screen is away from the fan (to avoid blade interference).

Install (4) Wire Clips on each side to secure the Screen to the Panels. See **Figure 6**.

Box Fan Installations: The rear Screen is cut out to accommodate the motor.

Position the rear Screen over the back of the fan. Install (4) Wire Clips on each side to secure the Screen to the Panels. See Figure 6.

Slant Wall Fan Installations: The Shutter will be used in place of the Rear Screen.

Note: A Rear Screen is not included with a Slant Wall Fan.

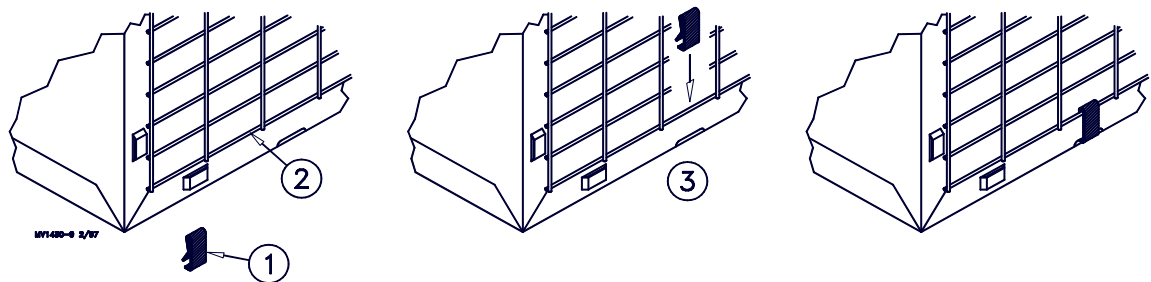


Figure 6. Screen Installation

Key	Description
1	Screen Clip
2	Wire Screen
3	Slip Screen Clip over Screen Wire. Snap in slot on Fan Side Panel to secure.

Slant Wall Kit Assembly (Optional)

If the Fan Assembly is to be installed in a side wall, the E-Z Fan Slant Wall Housing Kit may be assembled and installed.

Refer to **Figure 7** for assembly information.

1. Lay assembled fan on work surface (with the motor end up).
2. Set the Slant Wall Bottom Panel in place on the Fan Assembly. Secure the Bottom Panel to the Fan Assembly by inserting the tabs into the bridges, as shown in the detail in **Figure 7**.
3. Set the Slant Wall Side Panels in place on the Fan Assembly. The Slant Wall Side Panels are also secured to the Fan Assembly by inserting the tabs into the bridges, as shown in the detail in **Figure 7**.
4. Set the Slant Wall Top Panel in place on the Fan Assembly. Secure the Top Panel to the Fan Assembly by inserting the tabs into the bridges, as shown in the detail in **Figure 7**.
5. The Slant Wall Panels are designed to lock together similar to the Box Fan Panels. Use a hammer to carefully bend the corner tabs over to secure the Slant Wall Panels together.

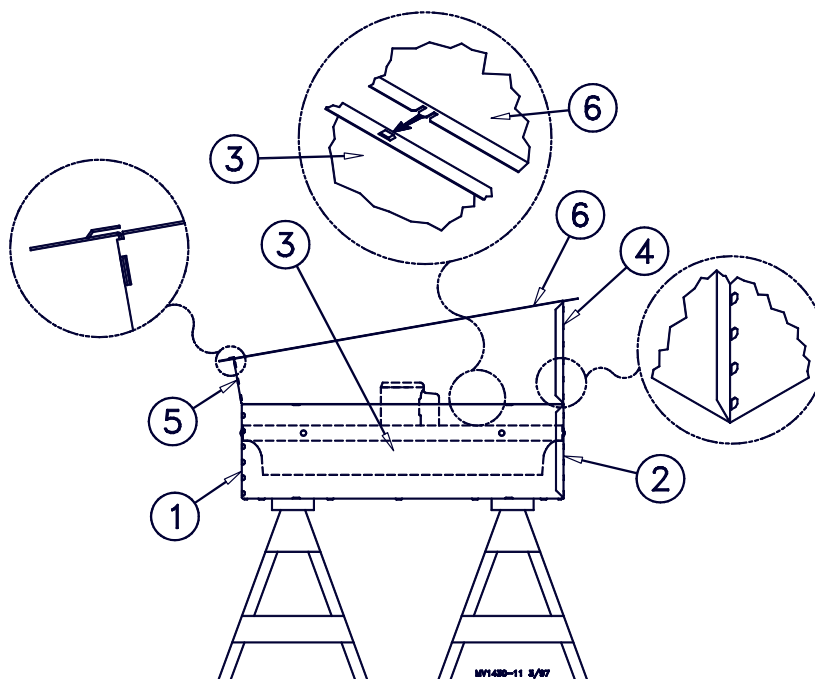


Figure 7. Slant Wall Housing Assembly (side view)

Key	Description
1	Bottom of Fan Assembly
2	Top of Fan Assembly
3	Fan Side Panel
4	Slant Wall Housing Top Panel
5	Slant Wall Housing Bottom Panel
6	Slant Wall Housing Side Panel

Lock the Slant Wall Kit on the Box Fan by bending the tabs in the Slant Wall Panels into the bridges of the Box Fan Panels as shown in **Figure 8**.

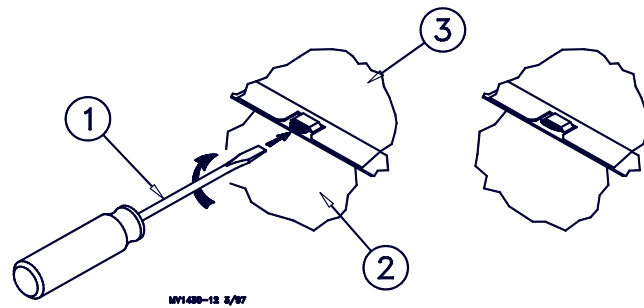


Figure 8. Slant Wall Lock Tab

Key	Description
1	Screwdriver
2	Box Fan Panel
3	Slant Wall Panel

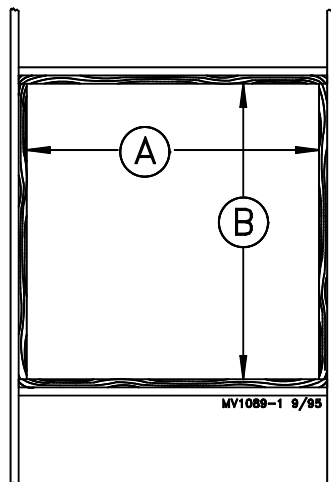
Fan Installation

The E-Z Fan may be installed in a wall or suspended from the ceiling. For installations with the fan suspended from the ceiling, refer to **Figure 12**.

Side Wall Installations:

Build fan framing out of 2" (50 mm) lumber (not supplied). The required wall opening is provided in the chart below. See **Figure 9**.

Allow a minimum 4" spacing between framed openings for adjacent Slant Wall Fans to allow clearance for the Slant Wall Fans 2" mounting flange.



Dimension (minimum)	A	B
36" Box Fan & Panel Fan	42-1/4" (107.3 cm)	42-1/4" (107.3 cm)
36" Box Fan w/Slant Wall Kit	43" (109.2 cm)	43" (109.2 cm)
48" Box Fan & Panel Fan	54-5/8" (138.7 cm)	54-5/8" (138.7 cm)
48" Box Fan w/Slant Wall Kit	55" (139.7 cm)	55" (139.7 cm)

Figure 9. Framing Diagram (front view)

Fan Assembly without Slant Wall Housing:

Insert the Fan Assembly in the framed opening in the side wall. If an Aluminum Shutter is to be installed, the fan must be recessed in from the outside edge of the framed opening approximately 1/2" (13 mm). Secure the Fan Assembly and Shutter to the framed opening (hardware not supplied).

Make sure the Shutter can open and close freely.

Fan Assembly with Slant Wall Housing:

Insert the Fan Assembly and Slant Wall Housing through the framed opening in the side wall. Center the Slant Wall Housing in the framed opening, left to right. Allow the Slant Wall Housing to set on the bottom of the framed opening.

Secure the Slant Wall Housing 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" x 1-3/4" Lag Screws across the bottom panel. See **Figure 10**. Lag Screws are supplied in the Hardware Package.

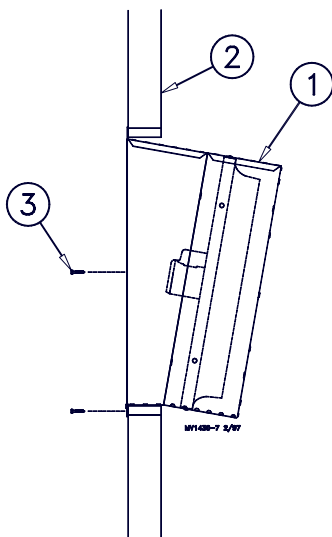


Figure 10. Fan installation (side view)

Key	Description
1	Fan and Slant Wall Housing Assembly
2	Side Wall of Building
3	1/4" x 1-3/4" Lag Screws (5 used)

Install the Shutter Clips, as shown in **Figure 11**, in the remaining holes on the sides and top of the Slant Wall Kit. The Shutter Clips need to be tight, but loose enough to be turned.

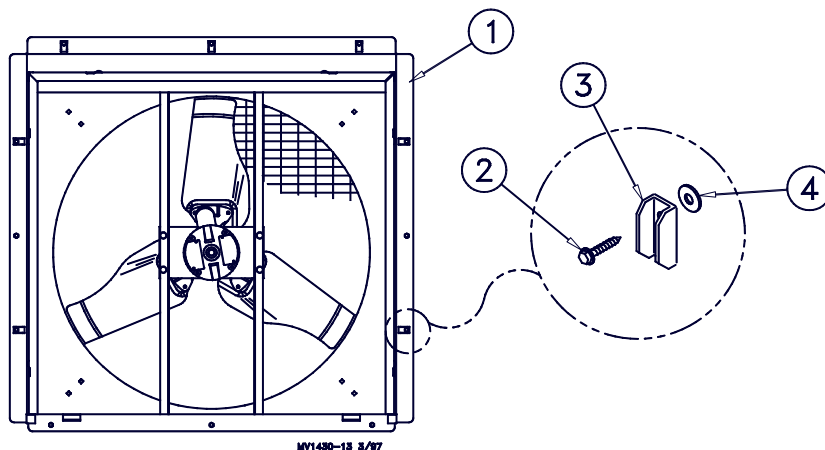


Figure 11. Shutter Clip installation (front view)

Key	Description
1	Slant Wall Housing
2	1/4 x 1-3/4" Lag Screw
3	Shutter Clip
4	Nylon Flat Washer

Suspended Fan Installations:

Replace Items 9 - 11 from both sides of the top of the fan with the suspension components, Items 1 - 7, as shown in **Figure 12**. Discard Items 9 - 11.

The 36" E-Z Fan Assembly weighs approximately 120 lbs. (43.1 kg). The ceiling, rafters, or trusses must be capable of bearing the required weight.

The 48" E-Z Fan Assembly weighs approximately 175 lbs. (70.3 kg). The ceiling, rafters, or trusses must be capable of bearing the required weight.

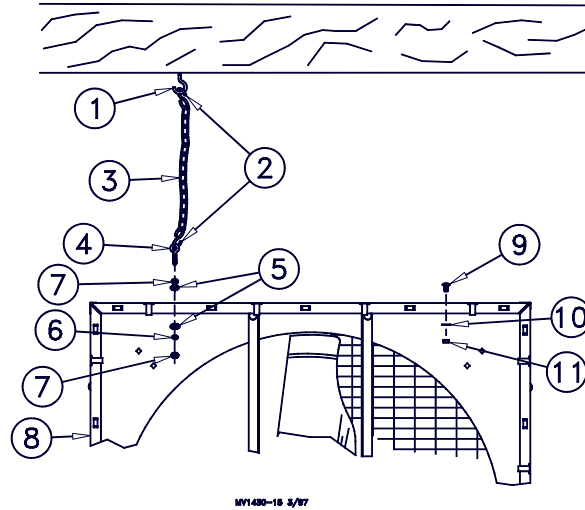


Figure 12. Suspending the Fan (front view)

Key	Description
1	Screw Hook
2	S-Hook
3	Chain
4	Eye Bolt
5	Flat Washer
6	Lock Washer

Key	Description
7	Hex Nut
8	E-Z Box Fan
9	5/16-18 Carriage Bolt
10	Flat Washer
11	Hex Nut

Wiring:

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

Install an electric disconnect within reach of each Fan.

Slant Wall Fans: Route the motor cord (not supplied) toward the upper left corner of fan and attach the cord to the top panel using the 3/8" cord clip mounted in the 1/4" hole in the top panel. See **Figure 13**.

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 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.

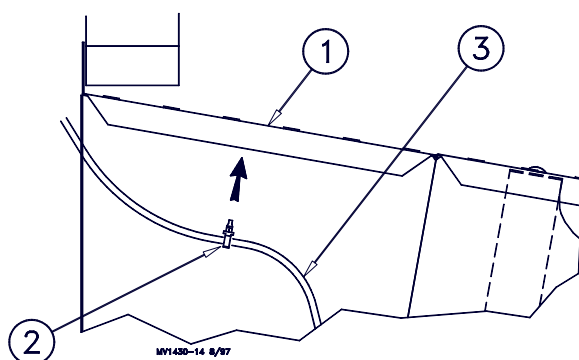


Figure 13. Installing Cord Clip.

Key	Description
1	Slant Wall Top Panel
2	Cord Clip
3	Cord

Shutter Installation

Install the Grommet in the corner of the Aluminum Shutter only. See **Figure 14**. For fans with plastic shutters, cut a 3/8" slot in the left end of the top flange of the shutter to route the cord through when the shutter is installed. See detail in **Figure 14**.

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 by rotating the Shutter Clips. See **Figure 14**.

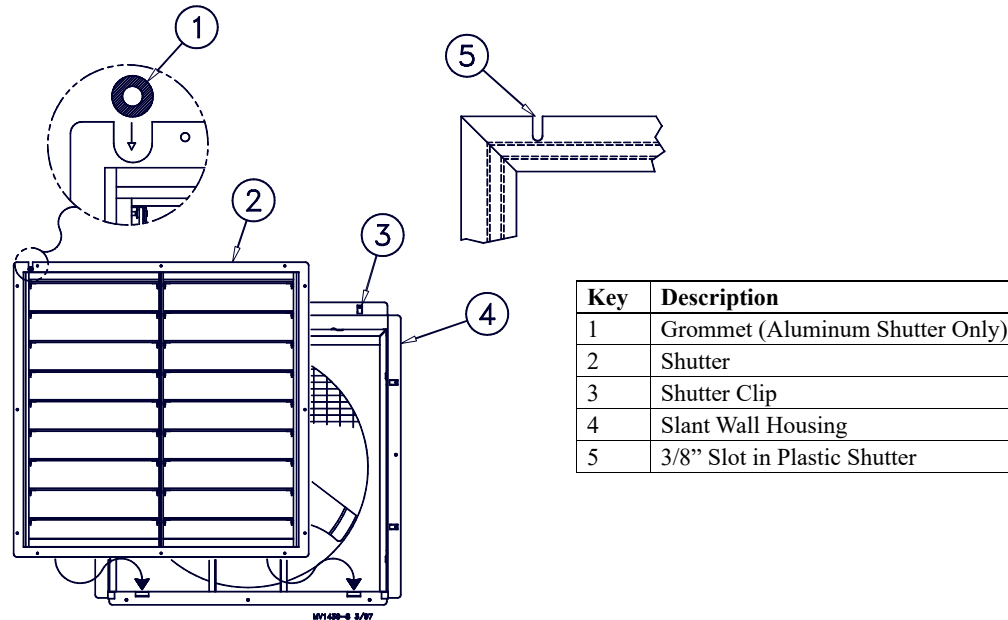


Figure 14. Shutter Installation (front view)

Maintenance:

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

- Service and repair of fans should be done only by a qualified technician.
- Minimize contact of moisture or corrosive chemicals to the surfaces of the fan components to maximize fan life.
- After washing fans, operate fans long enough to remove moisture from all fan surfaces.
- Keep the fan clean for maximum life and best performance.

Direct Drive E-Z Fan Part Numbers and Motor Specifications

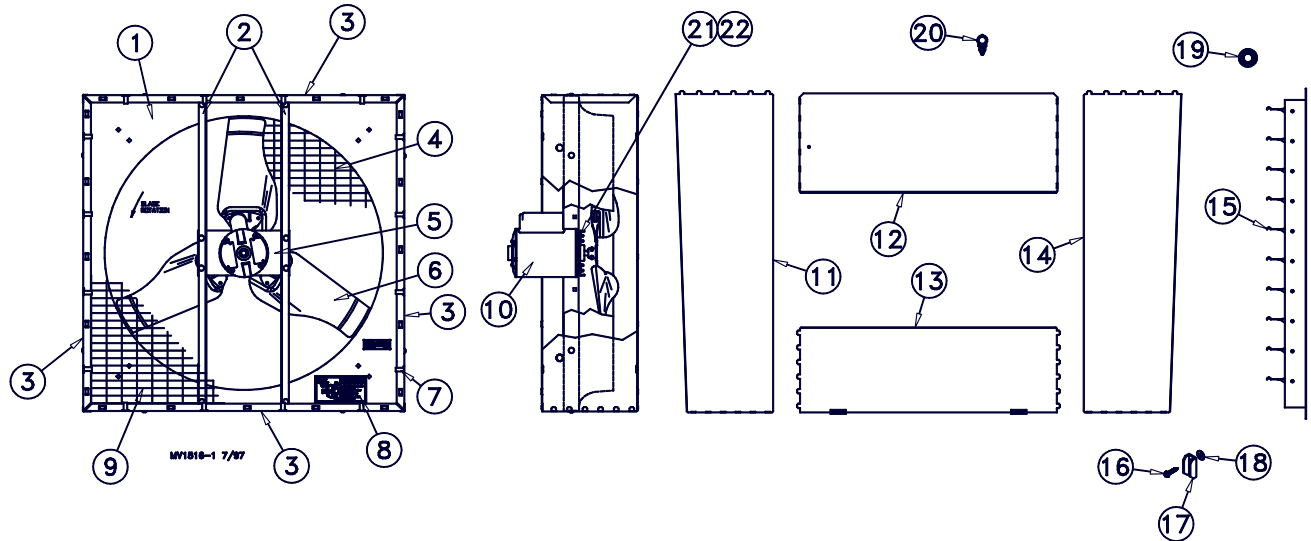
Direct Drive E-Z Box Fans

Fan Description		Assembled Fans	Unassembled Fans	Electrical Specs.				
		Fan P/N +	Fan P/N +	Voltage	HZ	Phase	HP	Motor P/N
36" Direct Drive E-Z Fans	Box	37124-3610	37125-3610	115	60	1	1/2	27536
		37124-3620	37125-3620	208-230	60	1	1/2	56061
		37124-3640	37125-3640	208-230/460	60	3	1/2	27536-3PH
		37124-3680	37125-3680	115/230	60	1	1/2	48614
	Deep Box	38109-3610	N/A	115	60	1	1/2	27536
		38109-3620	38110-3620	208-230	60	1	1/2	56061
		38109-3640	38110-3640	208-230/460	60	3	1/2	27536-3PH
	Slant Wall	38789-361X	38796-361X	115	60	1	1/2	27536
		38789-362X	38796-362X	208-230	60	1	1/2	56061
		38789-364X	38796-364X	208-230/460	60	3	1/2	27536-3PH
	Deep Slant Wall	N/A	38797-362X	208-230	60	1	1/2	56061
		N/A	38797-364X	208-230/460	60	3	1/2	27536-3PH
	Panel	40404-3610	N/A	115	60	1	1/2	27536
		40404-3620	40411-3620	208-230	60	1	1/2	56061
		40404-3640	N/A	208-230/460	60	3	1/2	27536-3PH
48" Direct Drive E-Z Fans	Box	38439-4820	38782-4820	230	60	1	1	37726
		38439-4840	38782-4840	460	60	3	1	39020
	Slant Wall	38785-482X	38792-482X	230	60	1	1	37726
		38785-484X	38792-484X	460	60	3	1	39020

+ Replace "X" in fan P/N with "1" for an aluminum shutter, or "2" for a plastic shutter

-slant wall fans include a box fan, slant wall kit, and shutter

Direct Drive E-Z Fan Parts List



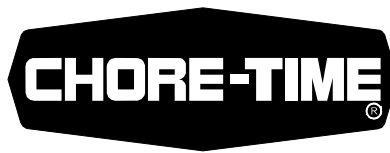
36" Fans

Item	Description	Part No.
1	36" Fan Shroud	5538
2	Motor Mount Post	37209
3	36" Fan Panel (12-1/2" Deep) 36" Fan Panel (21" Deep)	36006 37556
4	Wire Screen	29046
5	Motor Support	36564
6	36" 3 Wing Fan Blade	40358
7	Screen Clip	38891
8	Danger Decal	2527-50
9	Wire Inlet Screen	36629
10	Motor	See Chart
11*	36" S. W. L.H. Side Panel	39013-1
12*	36" S. W. Top Panel	39011
13*	36" S. W. Bottom Panel	39012
14*	36" S. W. R.H. Side Panel	39013-2
15	36" Aluminum Shutter 36" Plastic Shutter	38259 38027
16*	1/4 x 1-3/4 Lag Screw	39217
17*	Shutter Clip	36729
18*	Nylon Washer	4856
19*	Grommet	7256
20*	Cord Clip	7242
21	Nut, 10-32 Serrated Flange	48113
22	Not used on 36" Fan	--

48" Fans

Item	Description	Part No.
1	48" Fan Shroud	37583
2	Motor Mount Post	38390
3	48" Fan Panel (15-3/4" deep) 48" Fan Panel (21" deep)	38391 38438
4	Wire Screen	6023-22
5	Motor Support	37941
6	48" 2 Wing Fan Blade	37727
7	Screen Clip	38891
8	Danger Decal	2527-50
9	Wire Inlet Screen	38749
10	Motor	See Chart
11*	48" S. W. L.H. Side Panel	38449-1
12*	48" S. W. Top Panel	38447
13*	48" S. W. Bottom Panel	38448
14*	48" S. W. R.H. Side Panel	38449-2
15	48" Aluminum Shutter 48" Plastic Shutter	38260 38029
16*	1/4 x 1-3/4 Lag Screw	39217
17*	Shutter Clip	36729
18*	Nylon Washer	4856
19*	Grommet	7256
20*	Cord Clip	7242
21	3/8-16 x 3/4 Hex Bolt	2182
22	3/8 Lock Washer	5747

* These items included in 36" Slant Wall Kit Part Number 39018. * These items included in 48" Slant Wall Kit Part Number 38446.



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

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Revisions to this Manual

Page No.	Description of Change	ECO
18	Change part number from 28936 to 56061	33445

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

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