

# 48" Belt Drive Turbo<sup>®</sup> with Tensioner Cone Fan and Grill Fan

## Installation and Operators Instruction Manual



Operating static pressure should be less than 0.15 inches water column [37 Pa].

The Fan Inlet and exhaust must be kept clear of obstructions. Failure to keep the Fan airflow path clear of obstructions could cause loss of Fan performance and Fan damage.

**For additional parts and information, contact your nearest Chore-Time distributor or representative.  
Find your nearest distributor at: [www.choretime.com/contacts](http://www.choretime.com/contacts)**

# Limited Warranty

Chore-Time Group, a division of CTB, Inc. (“Chore-Time”) warrants the new CHORE-TIME Turbo Fans<sup>®</sup> 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”). Chore-Time provides for an extension of the aforementioned Warranty period (“Extended Warranty Period”) with respect to certain Product parts (“Component Part”) as set forth in the table below. 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.

Component Part	Extended Warranty Period
RXL Fan (except motors and bearings)	Three (3) Years
TURBO <sup>®</sup> Fan (except motors and bearings)	Three (3) Years
TURBO <sup>®</sup> Fan fiberglass housing, polyethylene cone, and cast aluminum blade.	Lifetime of Product
TURBO <sup>®</sup> fan motor and bearings.	Two (2) Years
Chore-Time <sup>®</sup> Poultry Feeder Pan	Three (3) Years
Chore-Time <sup>®</sup> Rotating Centerless Augers (except where used in applications involving high moisture feed stuffs exceeding 17%)	Ten (10) Years
Chore-Time Steel Auger Tubes	Ten (10) Years
ULTRAFLO <sup>®</sup> Breeder Feeding System auger and feed trough.	Five (5) Years
ULTRAPAN <sup>®</sup> Feeding System augers.	Five (5) Years

### 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

# Safety

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: Electrocution 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.



### DANGER: Rotating Fan Blade

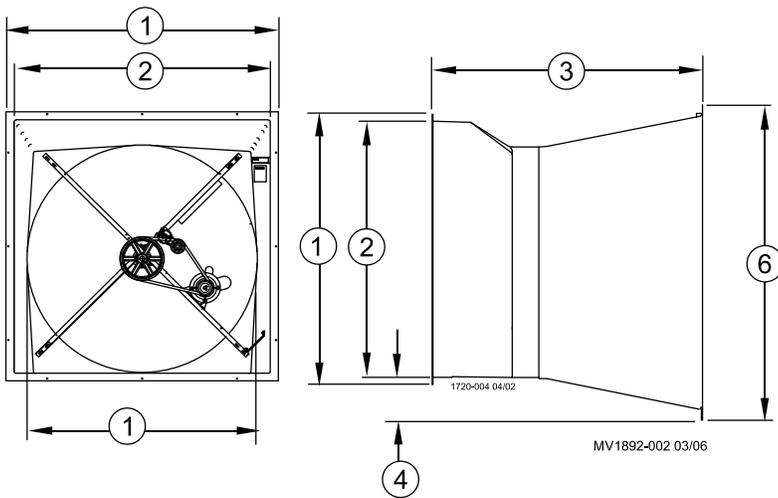
Keep Hands away. Disconnect power before servicing. Fan may start automatically. Do not operate the Fan without the screens in place.

Disregard to the above mentioned **Danger** may cause serious injury including death.



- Keep all Safety Signs and decals in good condition. Replace damaged or missing decals.

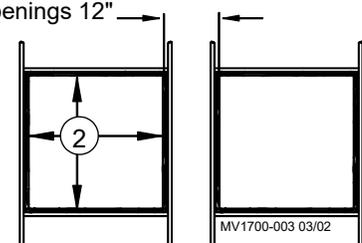
## Fan and Fan Framing Dimensions



Slant Wall Fan	
Item	Description
1	58" [147.32 cm]
2	55" [139.70 cm]
3	50.25" [127.63 cm]
4	8" [20.32 cm]
5	48.5" [123.2 cm]
6	64.5" [163.83 cm]

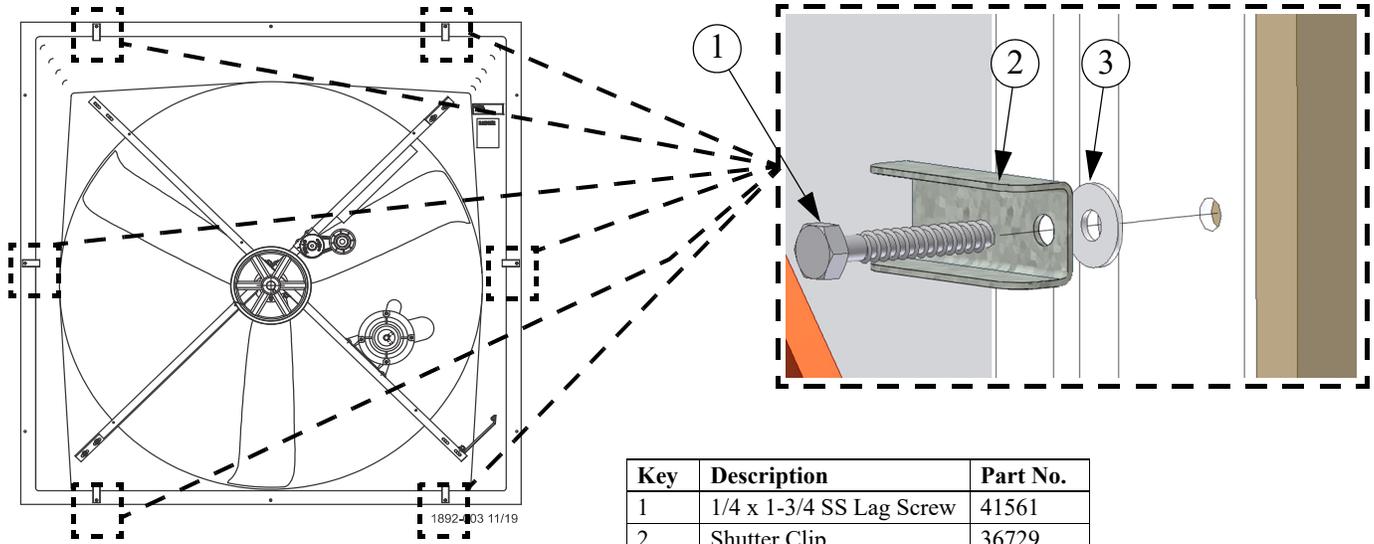
Planning the layout of the spacing between fans is very important. Spacing too close together will cause interference with the flanges. Allow a minimum of 12" between framed openings of adjacent fans.

Spacing Between Framed Openings 12"



# Installation

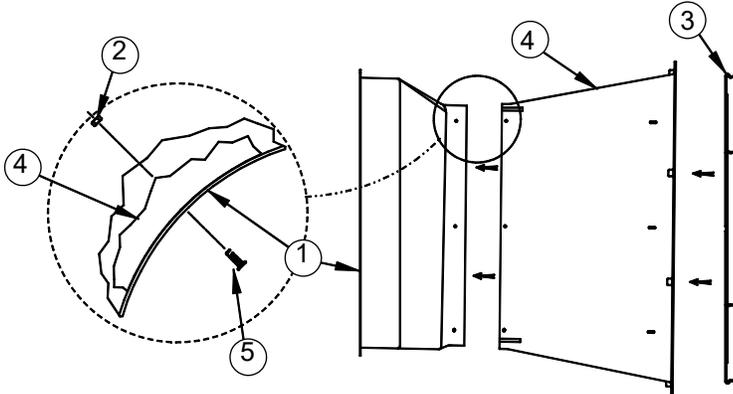
Insert the Fan Assembly in the wall opening and secure using the (12) 1/4 x 1-3/4 Lag Screws, (6) Shutter Clips, and (6) Nylon Washers provided. The Shroud is pre-drilled. The hardware must be installed as shown in the **Figure below**. This allows for rotation of the Shutter Clips when installing Shutter.



Key	Description	Part No.
1	1/4 x 1-3/4 SS Lag Screw	41561
2	Shutter Clip	36729
3	Nylon Washer	4856

## Installing the Cone and Grill to the Fiberglass Fan

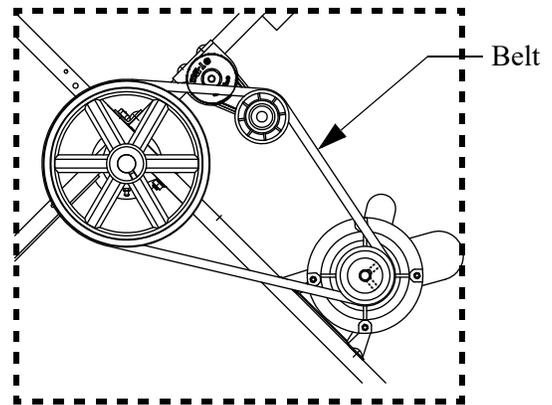
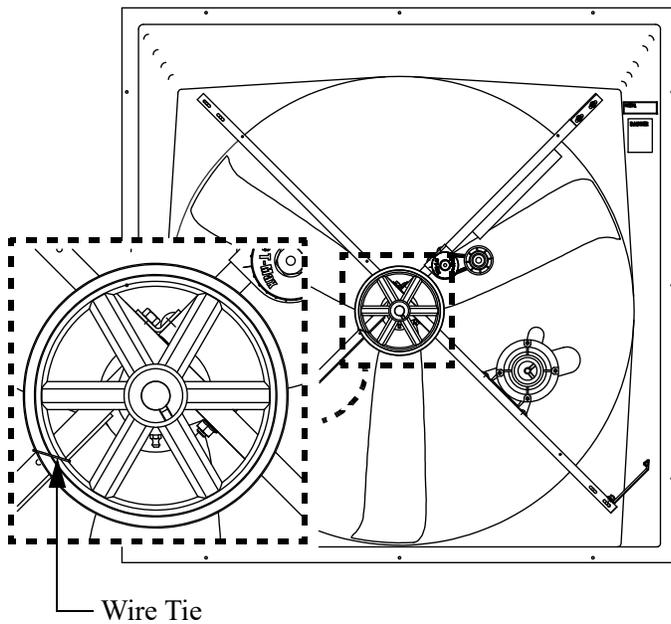
1. Slide the Cone onto the Shroud—the Shroud fits inside the Cone. (See Figure below)  
4" slots are cut into the edge of the cone to allow expansion as the Cone is slid onto the Shroud.
2. Align the holes in the Shroud with the slots in the Cone.
3. Insert the (6) Wafer Head Bolts from inside the Shroud through the Cone and thread the Flange Nuts onto ends of the Wafer Head Bolts.
4. Snap the Cone Grill into the slots on the outlet end of the Cone.



Key	Description	Part No.
1	Shroud (White)	37914
	Shroud (Black Interior)	46631
2	1/4-20 SS Hex Ser. Flange Nut	46298
3	Cone Grill	35199
4	Cone (White)	38268
	Cone (Black)	46630
5	1/4-20 x 7/8 Wafer Head Bolt	40775

## Removing Wire Tie and Installing Belt

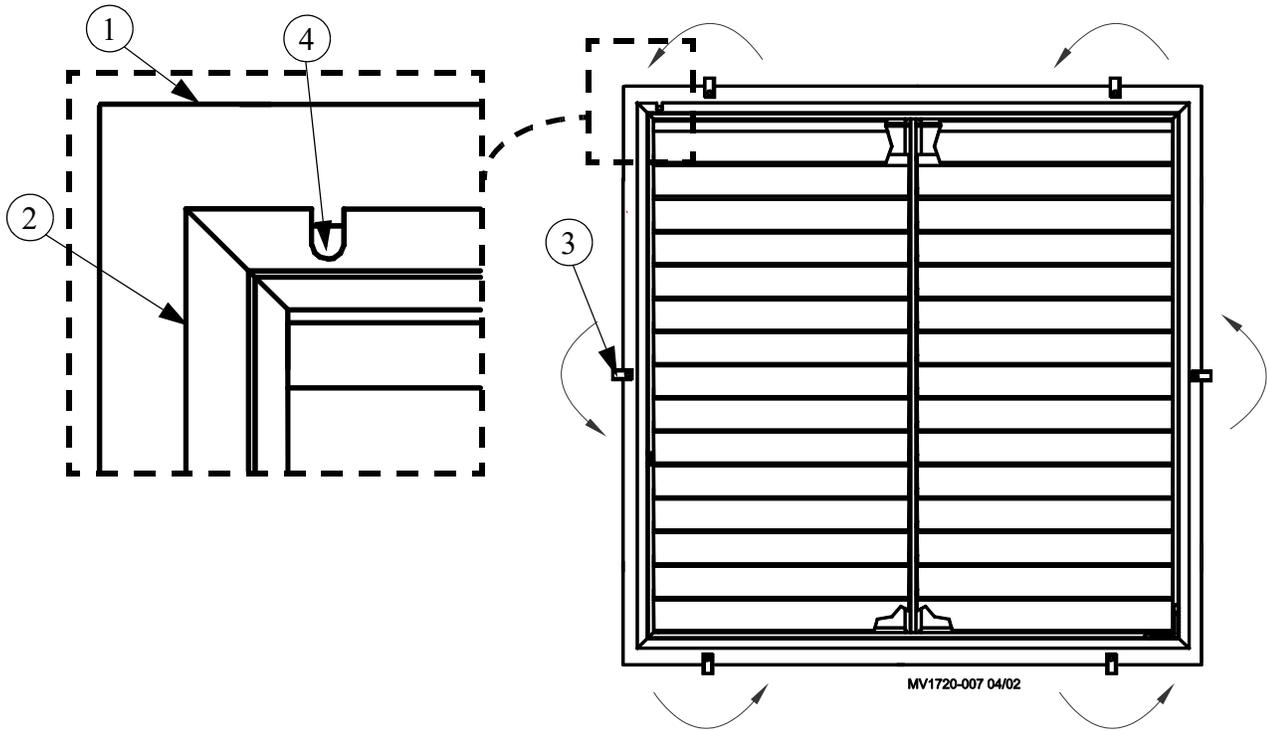
1. Cut and remove Wire Tie from Driven Sheave (See Figure below).
2. Install Belt as shown.



# Shutter Installation/Cord Routing and Wiring

1. See Wiring diagram on Motor for Motor electrical connections. Follow local, state, and national electrical codes for wiring
2. Install an electrical disconnect within reach of each Fan.
3. Route the motor cord (not supplied) toward the upper left corner of the Fan and attach the cord to the Motor Mount using the three Cable Ties—included in the hardware package.
4. Cut a 3/8" [9.53 mm] slot in the upper left flange of the Shutter frame in order to route the electrical cord out the back.
5. Position the Shutter, centered in the Fan Shroud, and rotate the Shutter Clips to lock the Shutter into place. Check the Shutter for proper operation. The Shutter must be able to open and close freely without obstructions.
6. Some installations may require an exit hole for the motor cord to be drilled in the side of the Shroud. These installations must have electrical wires routed through conduit.

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

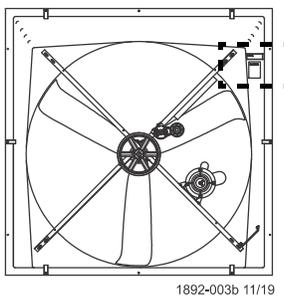
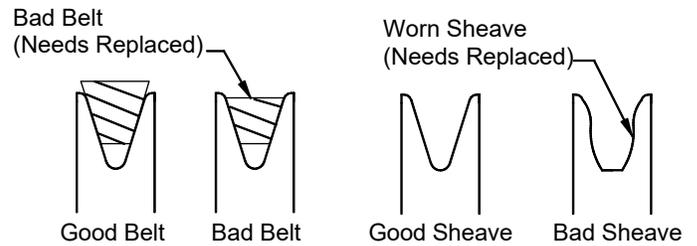


Key	Description
1	Shroud
2	Shutter
3	Shutter Clip
4	3/8" Slot to Route Motor Cord

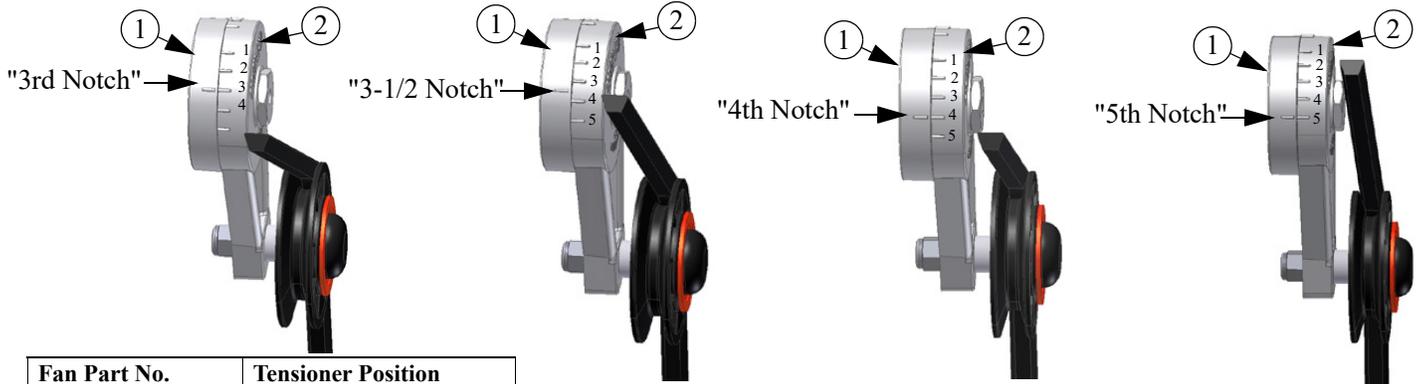
# Maintenance

- 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.
- Keep the fan clean for maximum life and best performance. **Avoid spraying water on fan shaft bearings.**
- Periodically check the V-Belt and replace if necessary. A bad Belt will cause a substantial drop in Fan performance or it can break and cause Fan failure. If a Belt rides below the Sheave edge, replace the Belt. (See Figure Below)
- Keep Shutters, Blades, and Housing clear of obstacles for best air performance.

- Check Sheaves for wear. Replace if Sheave groove is worn. (See Figure to the Right).
- Check Belt Tension. The Belt should be tensioned just tight enough to minimize Belt slippage. Over tensioning the belt will cause premature Belt and Bearing wear. With a new Belt, the notches on the outside wheel (Item 1, below) of the Tensioner should line up with the mark on the inside wheel (Item 2) of the Tensioner based on the chart below.



Fan Model Number  
(see chart for correct Tensioner positioning with belt installed)

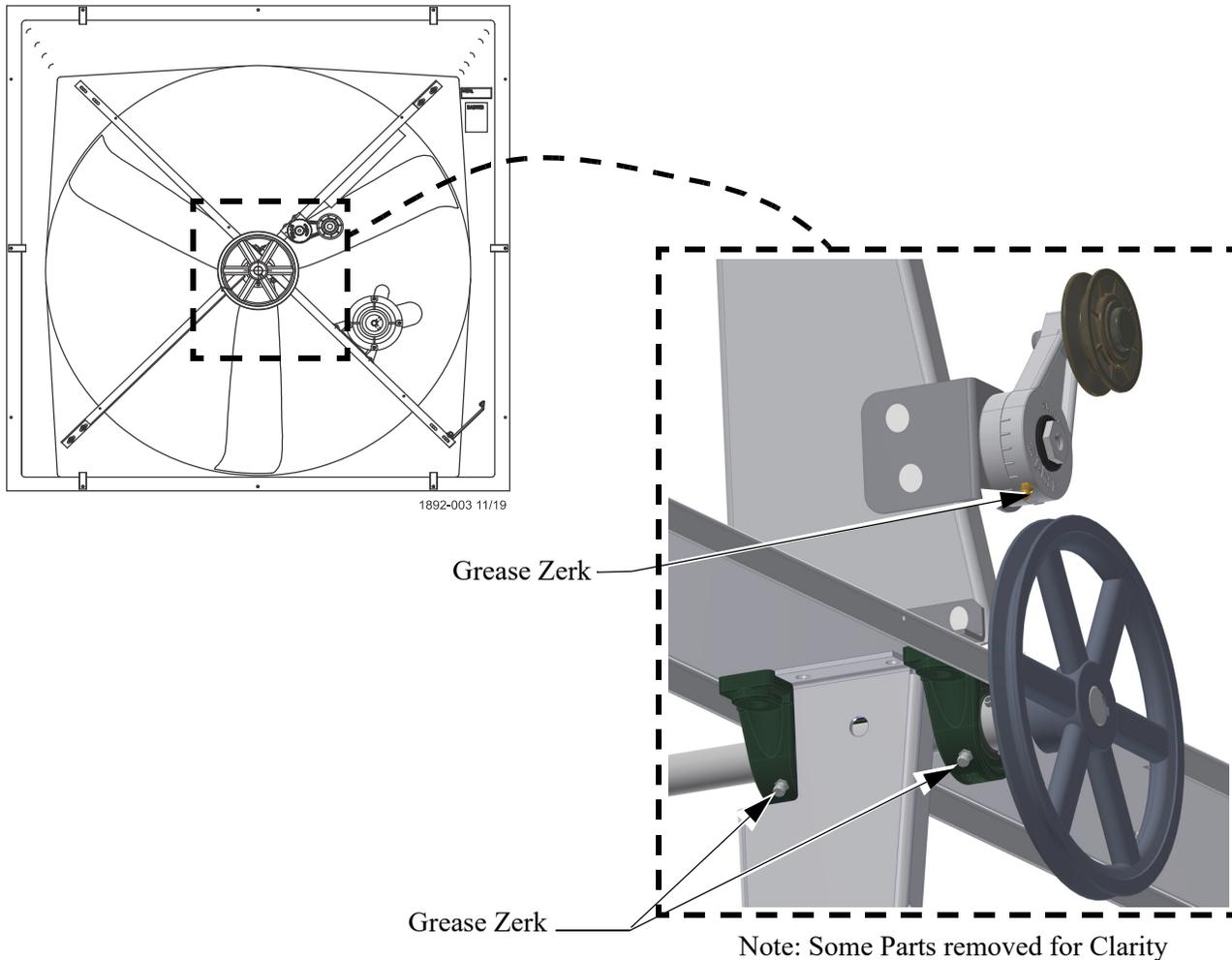


Fan Part No.	Tensioner Position
50232-32X Series	"3rd Notch"
50232-52X Series	
50232-92X Series	
50232-22X Series	"3-1/2 Notch"
50232-42X Series	
50232-72X Series	"4th Notch"
50232-82X Series	
50232-21X Series	"5th Notch"
50232-51X Series	
50232-41X Series	

Item	Description
1	Outside wheel on Tensioner
2	Inside wheel on Tensioner

## Fan Bearing and Belt Tensioner Lubrication

- Grease zerks are provided for lubrication on the fan shaft bearings and the belt tensioner.
- Lubricate the fan every 2-6 months or whenever these components get wet.
- Disconnect power to the fan before lubricating.
- Clean the zerk before lubricating to prevent contamination from entering the bearing.
- Use a high quality lithium based, NLGI #2, grease such as Shell Gadus S2 V100 2. Do not use incompatible greases containing aluminum, barium, calcium, bentonite clay or polyurea thickeners.
- Slowly rotate the fan shaft by hand while slowly applying the grease. Rapidly applying grease to a stationary bearing can damage the bearing seals.
- Apply about .10 oz (2.8 g, 3.1 cc) of grease at a time or until a slight amount of grease can be seen purging from the seal.

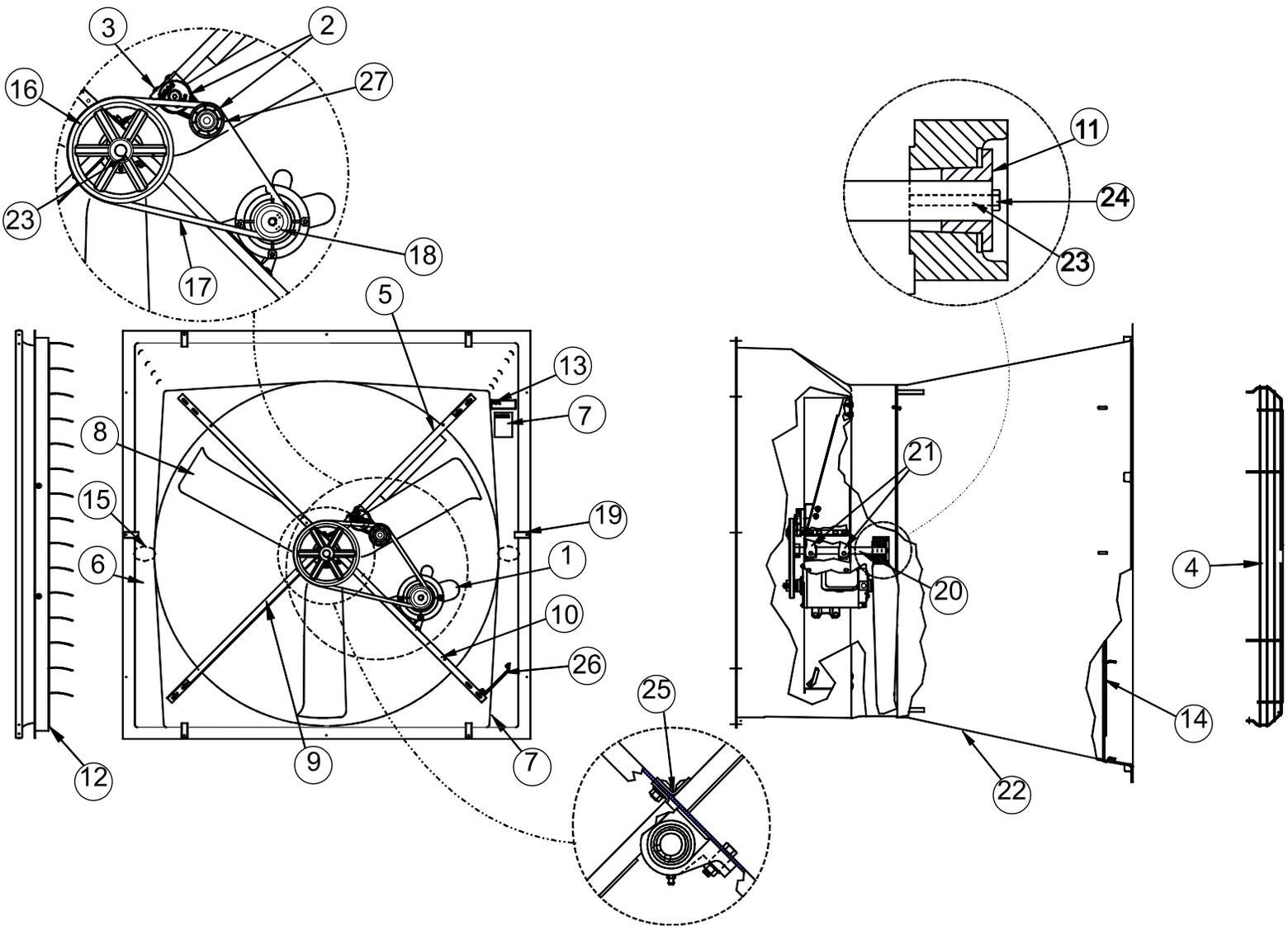


# Part Numbers

## Fan Assembly Part Numbers

Fan Assembly Part No.	Fan Sub Assembly	Housing Color	Outlet	Voltage	HZ	PH	Hp	Motor p/n	V-Belt p/n	Motor Sheave p/n	Fan Sheave p/n
38264-480X	50232-02X	White	Cone	--	--	--	--	--	50271 (AX49)	24697 (AK32)	54897 (AFD94100)
38264-482X	50232-22X	White	Cone	230	60	1	1	37729	50271 (AX49)	24697 (AK32)	54897 (AFD94100)
38264-483X	50232-32X	White	Cone	220-240	50	1	1	37729	50270 (AX48)	37919 (AK34)	54898 (AFD84100)
38264-484X	50232-42X	White	Cone	208-230/460	60	3	1	40157	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
38264-485X	50232-52X	White	Cone	200-230/380-415	50	3	1.5	56102	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
38264-487X	50232-72X	White	Cone	200/400	60	3	1	43290	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
38264-488X	50232-82X	White	Cone	208-230/460	60	3	1	44694	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
38264-489X	50232-92X	White	Cone	200/400	50	3	1	43290	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
38264-484XS	50232-42XS	White	Cone	208-230/460	60	3	1	40157	50271 (AX49)	24697 (AK32)	54897 (AFD94100)
46633-480X	50232-02XB	Black	Cone	--	--	--	--	--	40309 (AX43)	24697 (AK32)	54897 (AFD94100)
46633-482X	50232-22XB	Black	Cone	230	60	1	1	37729	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46633-482XS	50232-22XBS	Black	Black Cone	230	60	1	1	37729	50271 (AX49)	24697 (AK32)	54897 (AFD94100)
46633-482XSW	50232-22XBS	Black	White Cone	230	60	1	1	37729	50271 (AX49)	24697 (AK32)	54897 (AFD94100)
46633-483X	50232-32XB	Black	Cone	220-240	50	1	1	37729	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
46633-484X	50232-42XB	Black	Cone	208-230/460	60	3	1	40157	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46633-484XS	50232-42XBS	Black	Black Cone	208-230/460	60	3	1	40157	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46633-484XSW	50232-42XBS	Black	White Cone	208-230/460	60	3	1	40157	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46633-485X	50232-52XB	Black	Cone	220-240/380-415	50	3	1	36142	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
46633-487X	50232-72XB	Black	Cone	200/400	60	3	1	43290	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46633-488X	50232-82XB	Black	Cone	208-230/460	60	3	1	44694	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46633-489X	50232-92XB	Black	Cone	200/400	50	3	1	43290	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
47898-482X	50232-21X	White	Cone	115/230	60	1	1.5	56850	47880 (AX41)	24697 (AK32)	54898 (AFD84100)
47898-484X	50232-41X	White	Cone	208/230-460	60	3	1.5	47693	47880 (AX41)	24697 (AK32)	54898 (AFD84100)
47898-485X	50232-51X	White	Cone	200	50	3	1.5	56102	50347 (AX45)	48504 (AK32)	49811 (AK69)
47943-482X	50232-21XB	Black	Cone	115/230	60	1	1.5	56850	47880 (AX41)	24697 (AK32)	54898 (AFD84100)
47943-484X	50232-41XB	Black	Cone	208/230-460	60	3	1.5	47693	47880 (AX41)	24697 (AK32)	54898 (AFD84100)
38948-480X	50232-02X	White	Grill	--	--	--	--	--	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
38948-482X	50232-22X	White	Grill	230	60	1	1	37729	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
38948-483X	50232-32X	White	Grill	220-240	50	1	1	37729	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
38948-484X	50232-42X	White	Grill	208-230/460	60	3	1	40157	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
38948-485X	50232-52X	White	Grill	220-240/380-415	50	3	1	56102	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
38948-487X	50232-72X	White	Grill	200/400	60	3	1	43290	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46750-480X	50232-02XB	Black	Grill	--	--	--	--	--	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46750-482X	50232-22XB	Black	Grill	230	60	1	1	37729	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46750-483X	50232-32XB	Black	Grill	220-240	50	1	1	37729	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
46750-484X	50232-42XB	Black	Grill	208-230/460	60	3	1	40157	40308 (AX43)	24697 (AK32)	54897 (AFD94100)
46750-485X	50232-52XB	Black	Grill	220-240/380-415	50	3	1	56102	40308 (AX43)	37919 (AK34)	54898 (AFD84100)
46750-487X	50232-72XB	Black	Grill	200/400	60	3	1	43290	40308 (AX43)	24697 (AK32)	54897 (AFD94100)

\*Replace the "X" in Fan P/N with a "2" for a Flat White Plastic Shutter, "4" for a Flat Gray Plastic Shutter, "5" for a White Plastic Inlet, "6" for Gray Plastic Inlet Bell Shutter, "B" for a Black Shroud Interior "W" for White Cone.



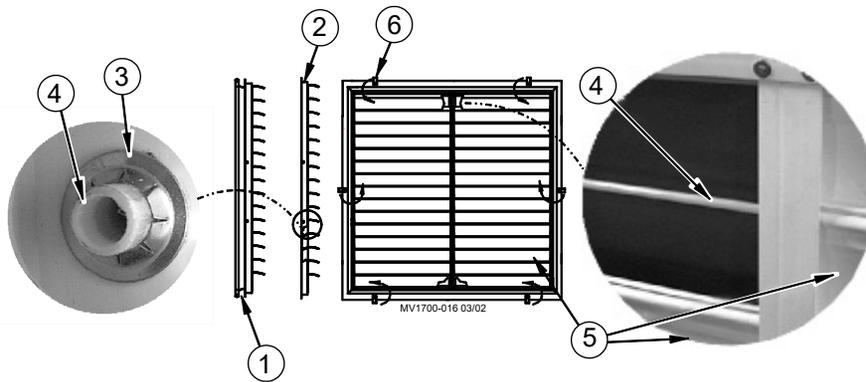
# Fan Part Numbers

Turbo® Fan Part Numbers		
Item	Description	Part No.
1**	Motor	Varies**
2	3.5" Arm 3" Dia. Tensioner Assembly	48429
3	48" Tensioner Bracket	50233
4	Fiberglass Fan Shroud Grill	37921
5	Upper Motor Mount Support	50266
6	Fan Shroud (White)	37914
	Fan Shroud (Black Interior)	46631
7	Danger Decal	2527-50
8	48" Cast Aluminum Fan Blade	38903
9	Lower Motor Mount Support	37732
10	48" Fan Motor Mount	50267
11	1" Taper Lock Hub	38909
12*	48" Shutter	Varies*
13	Identification Decal	Varies
14	Cone Grill	35199
15	Chore-Time Decal	2525-4

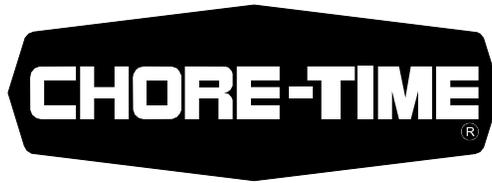
Item	Description	Part No.
16**	Sheave	Varies**
17**	Grip Notch V-Belt	Varies**
18**	Motor Sheave	Varies**
19	Shutter Clip	36729
20	1" Shaft	39688
21	1" Pillow Block Bearing	50553
22	Outlet Cone (White)	38268
	Outlet Cone (Black)	46630
23	1/4x1-1/8 Sq. Key	2419-2
24	1/4-20x1.00 SS Hx Hd Bolt	4404-11
25	Motor Mount Connector Angle	47877
26	48" Turbo® Fan Motor Mount Brace	39710
27	Idler with Bushings (For Repair)	50879

\* See "Shutter Part Numbers" below  
 \*\*See "Fan Assembly Part Numbers" on page 9

### Shutter Part Numbers



Item	Description	Part No.
1	Belled Plastic Shutter (White)	48291
	Belled Plastic Shutter (Gray)	48296
2	Flat Plastic Shutter (White)	38029
	Flat Plastic Shutter (Gray)	46716
3	Push Nut 1/4"	38032
4	Shutter Pivot Rod	38702-4
	Shutter Louver (White)	38038-4
	Shutter Louver (Gray)	46715-4
6	Shutter Clip	36729



## **MADE TO WORK. BUILT TO LAST.®**

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### **Revisions to this Manual**

<b>Page No.</b>	<b>Description of Change</b>	<b>ECO</b>
9	Changed 49903 to 56850, and 48608 to 56102 Motors Changed 28143 to 54898, and 40274 to 54897 Sheaves	31162
1	Added Fan obstruction warning and Static Pressure statement	

**For additional parts and information, contact your nearest Chore-Time distributor or representative.  
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