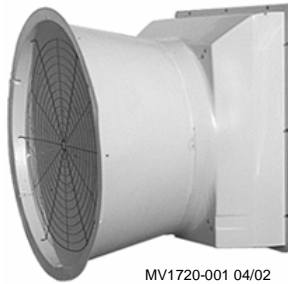




## 48" Belt Drive Turbo® Cone and Grill Fan Installation and Operators Instruction Manual

### Thank You

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



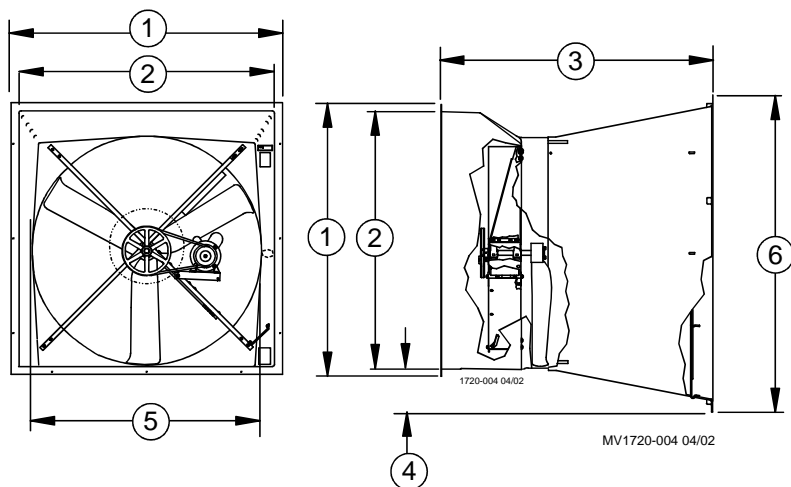
MV1720-001 04/02



Fan Assembly Part Number	Fan Sub-Assembly Part Number	Fan Interior Color	Outlet	Voltage	Hz	Ph	HP	Motor Part No.	V-Belt p/n	Motor sheave Part No.	Fan sheave Part No.
38264-480X	48617-02X	White	Cone						40308 (AX43)	24697 (MA33)	40274 (AK94)
38264-482X	48617-22X	White	Cone	230	60	1	1	37729	40308 (AX43)	24697 (MA33)	40274 (AK94)
38264-483X	48617-32X	White	Cone	220-240	50	1	1	37729	40308 (AX43)	37919 (AK34)	28143 (AK84)
38264-484X	48617-42X	White	Cone	208-230/460	60	3	1	40157	40308 (AX43)	24697 (MA33)	40274 (AK94)
38264-485X	48617-52X	White	Cone	220-240/380-415	50	3	1	36142	40308 (AX43)	37919 (AK34)	28143 (AK84)
38264-487X	48617-72X	White	Cone	200/400	60	3	1	43290	40308 (AX43)	24697 (MA33)	40274 (AK94)
38264-488X	48617-82X	White	Cone	208-230/460	60	3	1	44694	40308 (AX43)	24697 (MA33)	40274 (AK94)
38264-489X	48617-92X	White	Cone	200/400	50	3	1	43290	40308 (AX43)	37919 (AK34)	28143 (AK84)
46633-480X	48617-02XB	Black	Cone						40308 (AX43)	24697 (MA33)	40274 (AK94)
46633-482X	48617-22XB	Black	Cone	230	60	1	1	37729	40308 (AX43)	24697 (MA33)	40274 (AK94)
46633-483X	48617-32XB	Black	Cone	220-240	50	1	1	37729	40308 (AX43)	37919 (AK34)	28143 (AK84)
46633-484X	48617-42XB	Black	Cone	208-230/460	60	3	1	40157	40308 (AX43)	24697 (MA33)	40274 (AK94)
46633-485X	48617-52XB	Black	Cone	220-240/380-415	50	3	1	36142	40308 (AX43)	37919 (AK34)	28143 (AK84)
46633-487X	48617-72XB	Black	Cone	200/400	60	3	1	43290	40308 (AX43)	24697 (MA33)	40274 (AK94)
46633-488X	48617-82XB	Black	Cone	208-230/460	60	3	1	44694	40308 (AX43)	24697 (MA33)	40274 (AK94)
46633-489X	48617-92XB	Black	Cone	200/400	50	3	1	43290	40308 (AX43)	37919 (AK34)	28143 (AK84)
47898-482X	48617-21X	White	Cone	230	60	1	1.5	49903	47880 (AX41)	24697 (MA33)	28143 (AK84)
47898-484X	48617-41X	White	Cone	208/230-460	60	3	1.5	47693	47880 (AX41)	24697 (MA33)	28143 (AK84)
47943-482X	48617-21XB	Black	Cone	230	60	1	1.5	49903	47880 (AX41)	24697 (MA33)	28143 (AK84)
47943-484X	48617-41XB	Black	Cone	208/230-460	60	3	1.5	47693	47880 (AX41)	24697 (MA33)	28143 (AK84)
38948-480X	48617-02X	White	Grill						40308 (AX43)	24697 (MA33)	40274 (AK94)
38948-482X	48617-22X	White	Grill	230	60	1	1	37729	40308 (AX43)	24697 (MA33)	40274 (AK94)
38948-483X	48617-32X	White	Grill	220-240	50	1	1	37729	40308 (AX43)	37919 (AK34)	28143 (AK84)
38948-484X	48617-42X	White	Grill	208-230/460	60	3	1	40157	40308 (AX43)	24697 (MA33)	40274 (AK94)
38948-485X	48617-52X	White	Grill	220-240/380-415	50	3	1	36142	40308 (AX43)	37919 (AK34)	28143 (AK84)
38948-487X	48617-72X	White	Grill	200/400	60	3	1	43290	40308 (AX43)	24697 (MA33)	40274 (AK94)
46750-480X	48617-02XB	Black	Grill						40308 (AX43)	24697 (MA33)	40274 (AK94)
46750-482X	48617-22XB	Black	Grill	230	60	1	1	37729	40308 (AX43)	24697 (MA33)	40274 (AK94)
46750-483X	48617-32XB	Black	Grill	220-240	50	1	1	37729	40308 (AX43)	37919 (AK34)	28143 (AK84)
46750-484X	48617-42XB	Black	Grill	208-230/460	60	3	1	40157	40308 (AX43)	24697 (AK32)	40274 (AK94)
46750-485X	48617-52XB	Black	Grill	220-240/380-415	50	3	1	36142	40308 (AX43)	37919 (AK34)	28143 (AK84)
46750-487X	48617-72XB	Black	Grill	200/400	60	3	1	43290	40308 (AX43)	24697 (MA33)	40274 (AK94)

\*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 Bell Shutter, "6" for Gray Plastic Inlet Bell Shutter.

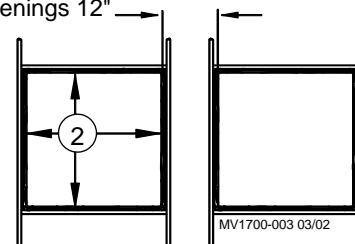
## Fan and Fan Framing Dimensions



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]

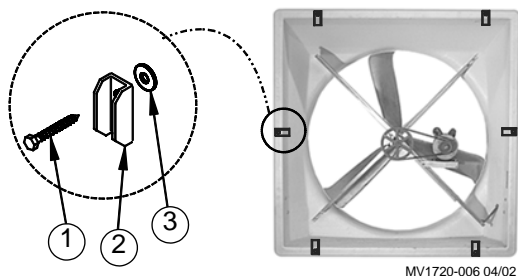
Planning the layout of the spacing between fans is very important. Spacing too close together will cause interference with the flanges. Allow a minimum of 12" between framed openings of adjacent fans.

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.



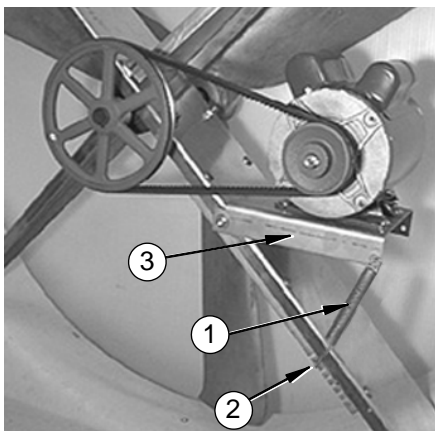
Key	Description	Part No.
1	1/4 x 1-3/4 SS Lag Screw	40938
2	Shutter Clip	36729
3	Nylon Washer	4856

## Belt Installation

Pivot the Motor Mount up and install the Belt as shown in the **Figure below**.

## Tension Spring Installation (Optional)

Place one end of the Tension Spring (Included in Hardware Pkg.) in the hole at the corner of the Motor Mount. Pull the Spring down and attach it to the Motor Mount in the **second notch** from the top as shown at the right.

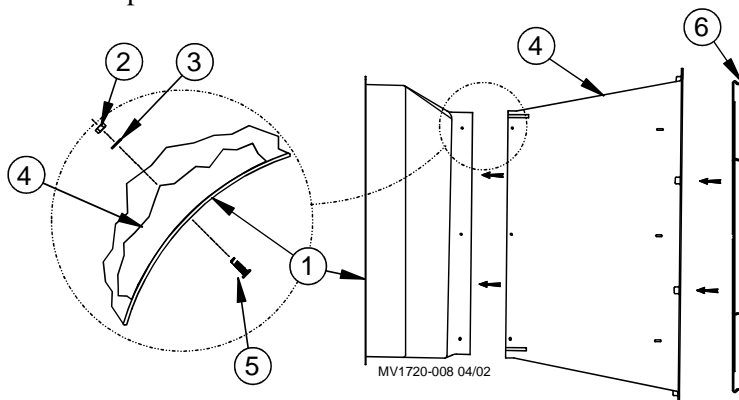


Key	Description
1	Tension Spring
2	Motor Mount Reinforcement (Spring in Second Notch)
3	Motor Mount

MV1720-010 1/04

## 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, place the Nylon Washers on the Wafer Head Bolts, and thread the Nylon Nuts onto ends of the Wafer Head Bolts.
4. Snap the Cone Grill into the slots on the outlet end of the Cone.

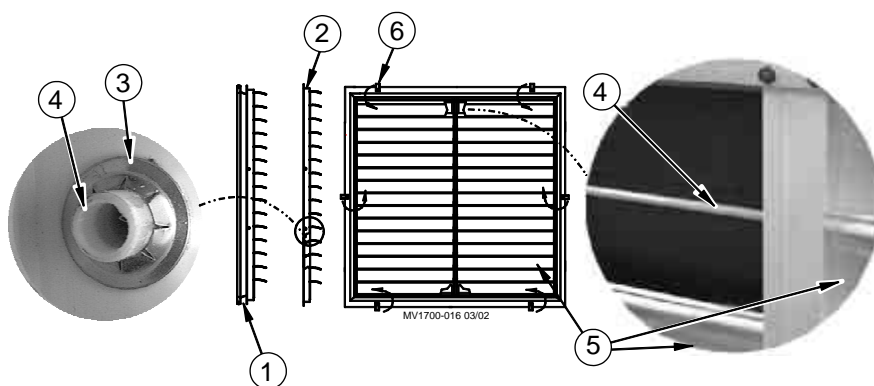


MV1720-008 04/02

Key	Description	Part No.
1	Shroud (White)	37914
	Shroud (Black Interior)	46631
2	1/4-20 Nylon Hex Nut	8916
3	Nylon Washer	4856
4	Cone (White)	38268
	Cone (Black)	46630
5	1/4-20 x 7/8 Wafer Head Bolt	40775
6	Cone Grill	35199

## Shutter Installation and Part Numbers

Position the Shutter, centered in the Fan Shroud, and rotate the Shutter Clips to lock the Shutter in place. Check the Shutter for proper operation—the shutter must be able to open and close freely without obstructions.

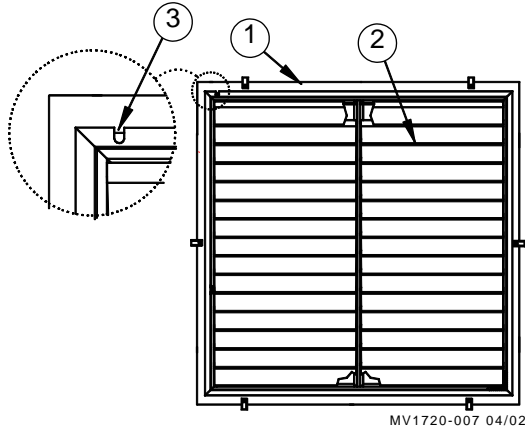


MV1700-016 03/02

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
5	Shutter Louver (White)	38038-4
	Shutter Louver (Gray)	46715-4
6	Shutter Clip	36729

## 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. Cut a 3/8" slot in the upper left flange of the Shutter frame, or cut an exit hole in the side of the Shroud to route the cord to a power source. **If exiting through the side of the Shroud use conduit and make sure that wires or conduit do not interfere with the Fan Blades or Shutter operation.**

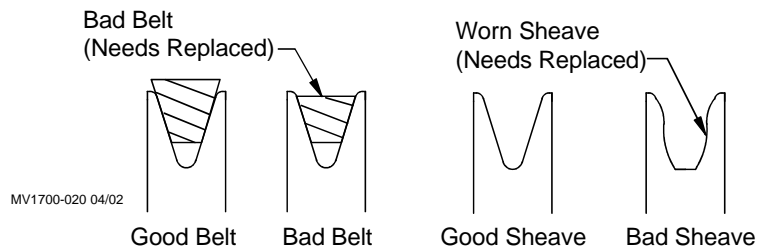


Key	Description
1	Shroud
2	Shutter
3	3/8" Slot to Route Motor Cord

## 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.
- The motor and fan shaft bearings are prelubricated. Grease zerks are provided on the fan shaft bearings for installations where relubrication is needed. Relubrication is required once annually or if water contacts the Bearings. Add only a small amount of grease to purge impurities out of the bearing seals.
- Use only high quality lithium soap base grease and clean all dirt from zerk before applying grease. Chore-Time recommends using Shell Alvania # 2 in the fan shaft bearings.
- Check Sheaves for wear. Replace if Sheave groove is worn. (See Figure to the Right).



## Safety Information

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: 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.



#### **DANGER: Rotating Fan Blade**

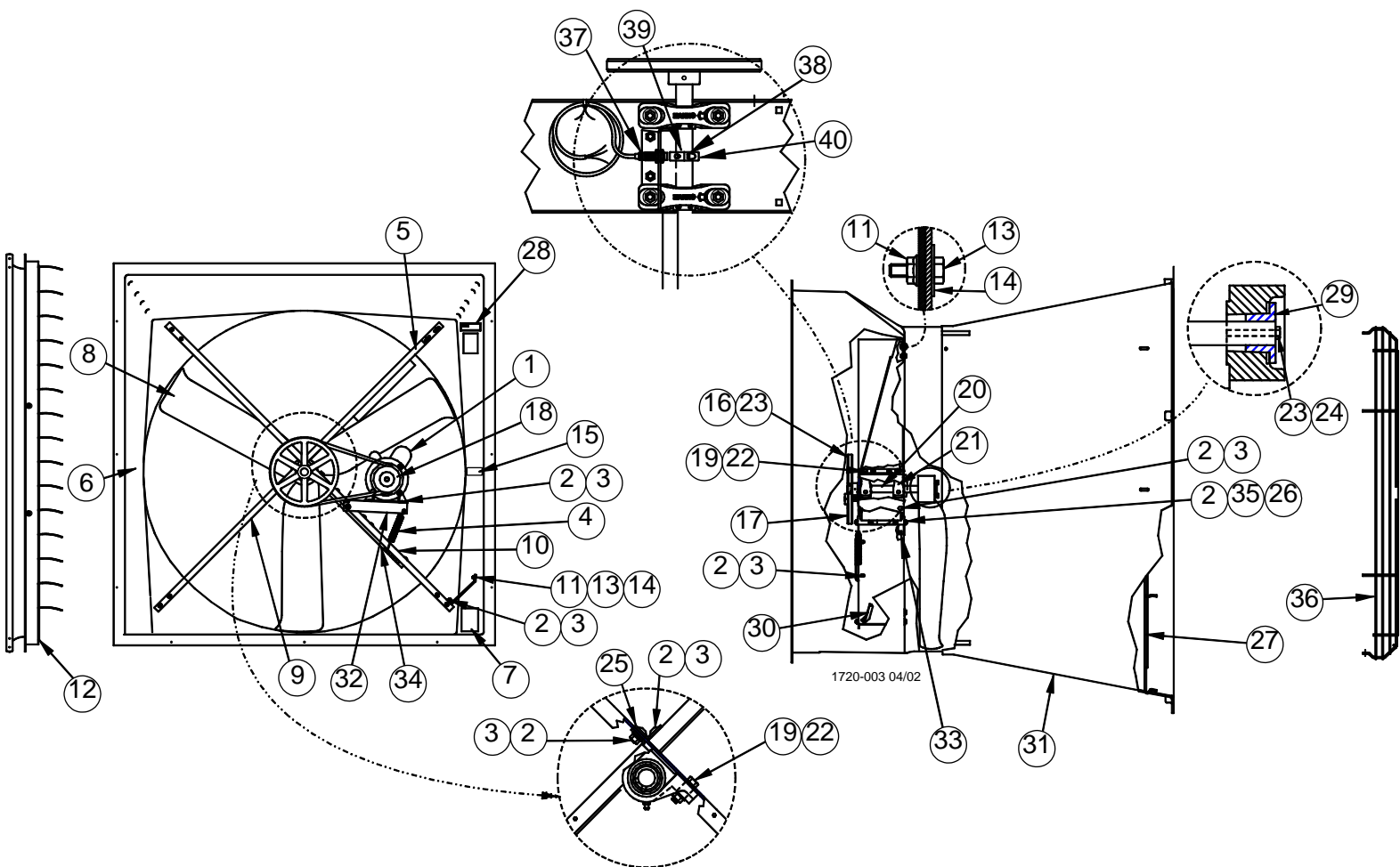
Keep Hands away. Disconnect power before servicing. Fan may start automatically. Do not operate the Fan without the screens in place.

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.



## Itemized Parts



# Part Numbers

Turbo® Fan Part Numbers		
Item	Description	Part No.
1	Motor	Varies**
2	5/16-18x.75SS Carriage Bolt	27868-1
3	5/16-18 Hex Serrated SS Nut	46764
4	Tension Spring (Optional)	39684
5	Upper Motor Mount Support	47878
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	39685
11	1/4-20 Hx Serrated SS Nut	46298
12	48" Shutter	Varies*
13	1/4-20x7/8 SS Bolt	4404-17
14	.275 x1.00x.050 SS Washer	2955-52
15	Chore-Time Decal	2525-4
16	Sheave	Varies**
17	Grip Notch V-Belt	Varies**
18	Motor Sheave	Varies**
19	3/8-16x1.5 SS Bolt	4413-10
20	1" Shaft	39688

Item	Description	Part No.
21	1" Pillow Block Bearing	37912
22	3/8-16 SS Hex Serrated Flange Nut	50191
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	5/16-18 SS Lock Nut	8938
27	Cone Grill	35199
28	Identification Decal	Varies
29	1" Taper Lock Hub	38909
30	48" Turbo® Fan Motor Mount Brace	39710
31	Outlet Cone (White)	38268
	Outlet Cone (Black)	46630
32	Self Tension Motor Mount	39677
33	Mtr. Mt. Reinforcement Front Angle	39678
34	Mtr. Mt. Reinforcement Rear Angle	39679
35	SS Self Tension Mtr. Mt. Bushing	39681
36	Fiberglass Fan Shroud Grill	37921
37	RPM Sensor Cord Assembly	46111
38	Nylon 1/4-28 x .50 Sensor Bolt	46134
39	Steel Sensor Collar Half	46135
40	Nylon Sensor Collar Half	46136
*See Shutter Part Numbers on Page 3		
**See Motor Specifications and Part Numbers on Page 1		

## Warranty Information

**Chore-Time Equipment** warrants new TURBO® Fans and components manufactured by it to be free from defects in material or workmanship from the date of initial installation by the original purchaser until expiration of the appropriate period set forth below. If such a defect is found by Chore-Time to exist within the applicable 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. The extended warranty is provided to the original purchaser for the following periods:

- \*1. **TURBO® Fan** fiberglass housings and cast aluminum blades - for as long as the original purchaser owns the product.
- \*2. **TURBO® Fan** motors and bearings - for two years from date of installation.
- \*3. **TURBO® Fan** components, including plastic shutters and polyethylene cones - for three years from date of installation.

### 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.



**This page left blank intentionally.....**



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

**Note:** The original, authoritative version of this manual is the [English] version produced by CTB, Inc. or any of its subsidiaries or divisions, (hereafter collectively referred to as "CTB"). Subsequent changes to any manual made by any third party have not been reviewed nor authenticated by CTB. Such changes may include, but are not limited to, translation into languages other than [English], and additions to or deletions from the original content. CTB disclaims responsibility for any and all damages, injuries, warranty claims and/or any other claims associated with such changes, inasmuch as such changes result in content that is different from the authoritative CTB-published [English] version of the manual. For current product installation and operation information, please contact the customer service and/or technical service departments of the appropriate CTB subsidiary or division. Should you observe any questionable content in any manual, please notify CTB immediately in writing to: CTB Legal Department, P.O. Box 2000, Milford, IN 46542-2000 USA.

### Revisions to this Manual

Page No.	Description of Change
1	Changed 47691 Motor to a 49903
10	Added Note:

**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 (574) 658-4101 • Fax (877) 730-8825**

**E-Mail: [ctb@ctbinc.com](mailto:ctb@ctbinc.com) • Internet: <http://www.ctbinc.com>**

**Printed in the U.S.A.**