

<sup>®</sup>  
**Dayton**



## **Utility Shutter- Mounted Exhaust Fans**

**Models: 484X36, 484X37, 484X38, 484X39,  
484X40, 484X41, 484X42, 484X43, 484X44,  
484X46, 484X47, 484X48, 484X49, 484X50**

®  
**Dayton**

**PLEASE READ AND SAVE  
THESE INSTRUCTIONS.  
READ CAREFULLY  
BEFORE ATTEMPTING  
TO ASSEMBLE, INSTALL,  
OPERATE OR MAINTAIN THE  
PRODUCT DESCRIBED.**

**PROTECT YOURSELF AND  
OTHERS BY OBSERVING ALL  
SAFETY INFORMATION. FAILURE  
TO COMPLY WITH INSTRUCTIONS  
COULD RESULT IN PERSONAL  
INJURY AND/OR PROPERTY  
DAMAGE! RETAIN INSTRUCTIONS  
FOR FUTURE REFERENCE.**

**PLEASE REFER TO BACK COVER  
FOR INFORMATION REGARDING  
DAYTON'S WARRANTY  
AND OTHER IMPORTANT  
INFORMATION.**

**Model #:** \_\_\_\_\_

**Serial #:** \_\_\_\_\_

**Purch. Date:** \_\_\_\_\_

*Form HV001SF/ Printed in USA*


*20003351 Version 01 01/2019*

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## GETTING STARTED

### **Tools/Materials Needed:**

-  • Saw to cut rough opening
- Appropriate fasteners to attach to wall
- Screwdriver or wrench to attach fasteners
- Sealant or caulk

### **Contents:**

- Shutter Style Exhaust Fan (1)
- Operating Instructions and Parts Manual (1)

### **Inspection:**

After unpacking your exhaust fan, carefully inspect for any damage that may have occurred during transit. Inspect for loose, missing or damaged parts. If there is physical damage to any parts of the fan, a freight claim must be filed with the carrier. Check to ensure that all bolts, screws and set screws are securely tightened that may have come loose during transit. Retighten as required. Rotate fan propeller by hand to be sure it turns freely.

## GENERAL SAFETY INSTRUCTIONS

**⚠ DANGER** *Before installing or servicing, always lock out and tag power source. Do not rely on a switch as the only means of disconnecting power. Failure to disconnect power source can result in fire, electrical shock or serious injury. Motor will restart without warning after thermal protector trips. Do not touch an operating motor as it may be hot enough to cause injury. Do not place any body parts or objects in fan propeller while fan is connected to a power source.*

**⚠ WARNING** Read and follow all instructions, cautions, dangers and warnings. Failure to do so could result in personal injury, death or property damage.

Make sure the electrical power source conforms to the requirements of the fan(s) as well as local codes.

Electrical connections, installation and maintenance must be performed by qualified electrical personnel in accordance with all applicable codes and ordinances. Refer to Fig. 1 of this manual.

Unit must be adequately grounded.

To reduce the risk of fire or electrical shock, do not expose this fan to water.

Do not touch electrically live components.

Free rotation of the fan propeller is critical. It must not touch any part of the guard or shutter.

Ensure that all power cords do not come in contact with any sharp edges, hot surfaces or chemicals. Immediately replace any damaged cords.

These utility exhaust fans are for general purpose exhaust applications only. Do not use these exhaust fans in explosive or corrosive atmospheres.

**⚠ CAUTION** *In the United States to reduce the risk of injury to persons, OSHA requires OSHA compliant guards when fan is installed within 7ft of the floor or working level. In Canada, to reduce the risk of injury to persons, CSA complying guards are required when fan is installed below 2.5 m (8.2ft) above floor or grade level.*

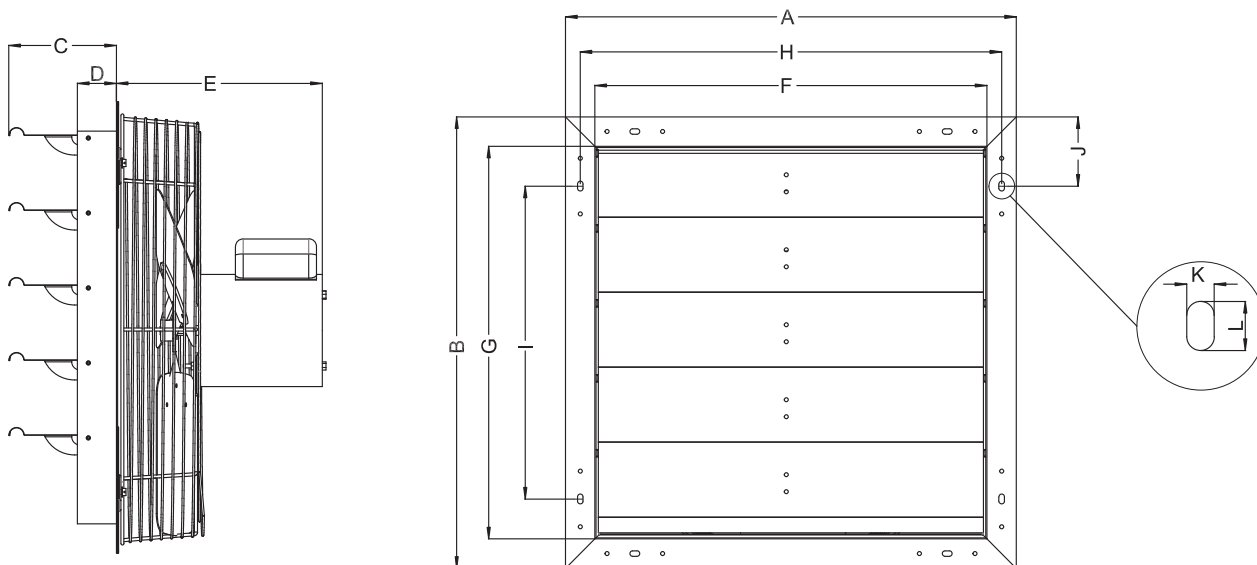
### Recommended Accessories:

Speed Control(48C172) for 484X36, 484X37, 484X38, 484X39, 484X40, 484X43, 484X46.

2 Speed Fan Switch(1DGZ9) for 484X48.

## SPECIFICATIONS

Power Requirements:	115v/60hz
Mounting Orientation:	Vertical, wall
Shutter Blades & Frame Material:	Aluminum
Propeller Material:	Aluminum, Galvanized Steel
Certifications:	UL/cUL 705



Dimension (In.)														
Model	Prop Dia.	A	B	C	D	E	F	G	H	I	J	K	L	Suggested Wall Opening (Sq)
484X36	7"	11"	11"	5 3/4"	2"	6"	8 1/8"	8 1/8"	9 5/8"	4 1/16"	3 1/2"	5/16"	1/2"	8 1/2"
484X37	10"	13"	13"	5 3/4"	2"	6"	10 1/8"	10 1/8"	11 5/8"	6"	3 1/2"	5/16"	1/2"	10 1/2"
484X38	12"	15"	15"	5 3/4"	2"	6"	12 1/8"	12 1/8"	13 5/8"	8"	3 1/2"	5/16"	1/2"	13"
484X39	16"	19"	19"	5 3/4"	2"	6"	16 1/8"	16 1/8"	17 3/4"	11 7/8"	3 1/2"	5/16"	1/2"	17"
484X40	18"	21"	21"	5 3/4"	2"	6"	18 1/8"	18 1/8"	19 3/4"	14"	3 1/2"	5/16"	1/2"	19"
484X41	18"	21"	21"	5 3/4"	2"	6"	18 1/8"	18 1/8"	19 3/4"	14"	3 1/2"	5/16"	1/2"	19"
484X42	20"	23"	23"	5 3/4"	2"	11"	20 1/8"	20 1/8"	21 3/4"	16"	3 1/2"	5/16"	1/2"	21"
484X43	20"	23"	23"	5 3/4"	2"	11"	20 1/8"	20 1/8"	21 3/4"	16"	3 1/2"	5/16"	1/2"	21"
484X44	20"	23"	23"	5 3/4"	2"	11"	20 1/8"	20 1/8"	21 3/4"	16"	3 1/2"	5/16"	1/2"	21"
484X46	24"	27"	27"	5 3/4"	2"	12"	24 1/8"	24 1/8"	25 5/8"	20"	3 1/2"	5/16"	1/2"	25"
484X47	24"	27"	27"	5 3/4"	2"	12"	24 1/8"	24 1/8"	25 5/8"	20"	3 1/2"	5/16"	1/2"	25"
484X48	24"	27"	27"	5 3/4"	2"	12"	24 1/8"	24 1/8"	25 5/8"	20"	3 1/2"	5/16"	1/2"	25"
484X49	30"	33"	33"	5 3/4"	2"	13"	30 1/8"	30 1/8"	31 5/8"	26"	3 1/2"	5/16"	1/2"	31"
484X50	36"	39"	39"	5 3/4"	2"	13"	36 1/4"	36 1/4"	37 5/8"	32"	3 1/2"	5/16"	1/2"	37"

## PERFORMANCE

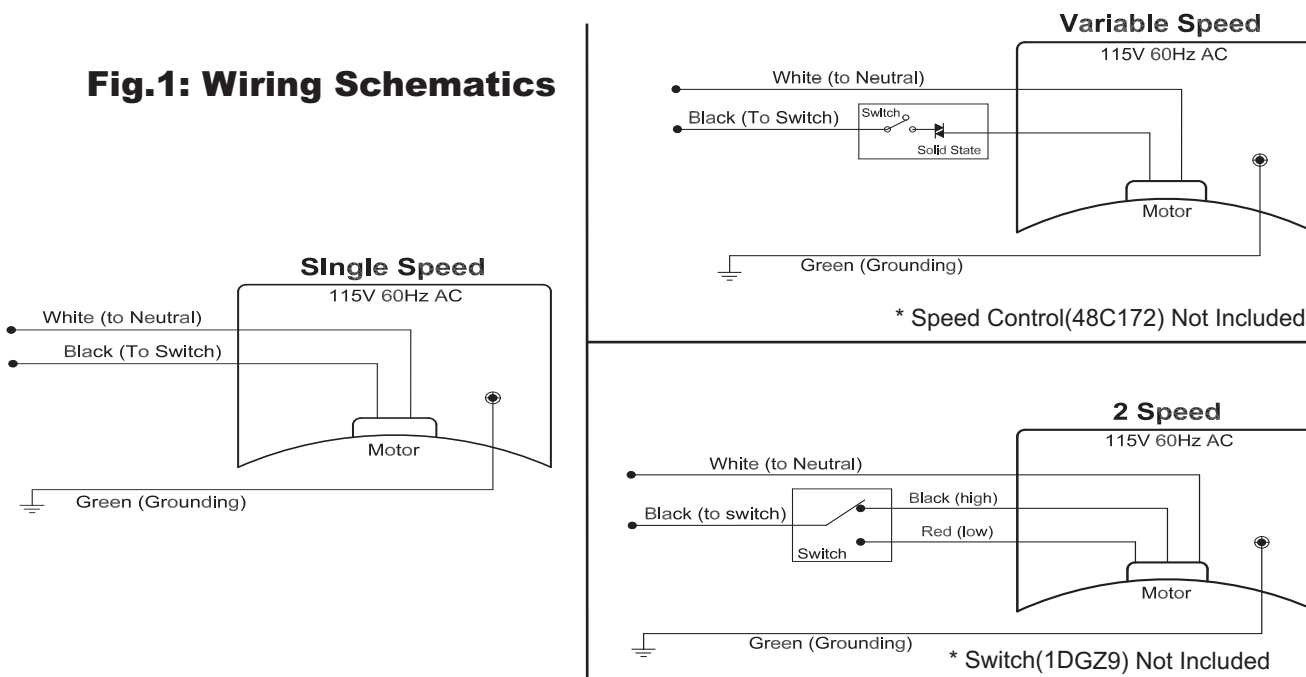
Model	Prop Dia.	Spd	Nom. HP	Amps	Nom. RPM	Bearing Type	Sones @ 0.00 SP	CFM @ 0.00 SP	CFM @ 0.125 SP	CFM @ 0.25 SP	Recommended Speed Control
484X36	7"	Var.	1/25	0.5	1550	Ball	5.37	254	197	NA	48C172
484X37	10"	Var.	1/25	0.6	1550	Ball	6.19	625	420	NA	48C172
484X38	12"	Var.	1/15	0.6	1550	Ball	6.00	884	401	NA	48C172
484X39	16"	Var.	1/10	0.9	1550	Ball	6.39	1381	770	NA	48C172
484X40	18"	Var.	1/8	1.0	1075	Ball	7.40	1785	605	NA	48C172
484X41	18"	1	1/4	3.0	1550	Ball	7.28	3128	2567	2201	N/A
484X42	20"	1	1/4	2.6	1550	Ball	7.01	3223	2508	2072	N/A
484X43	20"	Var.	1/4	3.0	1075	Ball	11.30	3151	2335	1099	48C172
484X44	20"	1	1/3	4.5	1600	Ball	8.10	4034	3334	2924	N/A
484X46	24"	Var.	1/4	3.0	1075	Ball	7.00	4163	3009	1097	48C172
484X47	24"	1	1/3	3.2	1075	Ball	7.42	4479	3428	1894	N/A
484X48	24"	2	1/3	3.2	1075/945	Ball	7.42/6.92	4424/3746	3385/2069	1886/0	1DGZ9
484X49	30"	1	1/3	3.8	825	Ball	7.01	5893	4288	2374	N/A
484X50	36"	1	1/2	5.7	825	Ball	8.24	8860	6828	3140	N/A

**Note:** Performance may vary slightly due to customer installation and operating conditions.

## INSTALLATION INSTRUCTIONS

1. Cut hole in wall, frame according to the suggested wall opening shown in dimensional chart for the appropriate size shutter fan or as required. Each installation may vary. Check and verify your specific requirements prior to cutting rough-in hole.
2. Ensure the unit is securely mounted in a rigid framework and sits flat against the wall to avoid unwanted noise or premature failure of components. Louvers should open towards the outside of the room you are exhausting air from.
3. Consult a qualified electrician to properly wire the exhaust fan (as well as additional controls or switches) according to the manufacturer's provided wiring diagram on the motor and control/switch.
4. Install compatible controls/switches according to wire diagrams provided by the manufacturer. Ensure your model shutter exhaust fan is compatible with the control you have chosen.
5. Connect power to the motor using approved wiring method shown below. Refer to Fig.1.

**Fig.1: Wiring Schematics**



## OPERATION

### ⚠ CAUTION

**Before starting or operating your new fan, ensure that the propeller is properly secured and torqued to the motor shaft. Check all fasteners for tightness. Ensure propeller rotates freely and shutters open easily.**

Fan inlet area and discharge area must be free of obstructions.

Once power is applied to fan, verify shutter louvers open for proper air discharge. Louver should open towards outside of room that air is being exhausted from.

Verify the amp draw does not exceed motor label amps or is not significantly less than motor label amps.

## TROUBLESHOOTING GUIDE

Symptom	Possible Cause(s)	Corrective Action
Excessive noise	1. Dry motor bearings	1. Replace motor
	2. Loose propeller	2. Tighten set screws on propeller hub.
	3. Bent/damaged propeller	3. Replace propeller
	4. Loose guard assembly or motor fasteners.	4. Tighten as required to 15-20 inch/lbs.
Fan inoperative	1. Blown fuse or open circuit breaker.	1. Replace fuse or reset circuit breaker.
	2. Defective motor	2. Replace motor
	3. Switch in Off position	3. Turn switch on
Insufficient airflow	1. Blocked intake or exhaust opening.	1. Clear intake and exhaust openings of any obstructions. Clean the motor, guard, propeller and shutter assembly. Increase fresh air intake opening size.
	2. Low voltage	2. Determine cause and correct

## MAINTENANCE

### ⚠ DANGER

**Disconnect and lockout power source before servicing. Only qualified personnel should service this equipment.**

Periodic maintenance schedules should be set to ensure reliability and performance of the fan. This maintenance should include inspection of all fasteners, propeller torque, and proper cleaning of the complete fan assembly.

Check for excessive vibration while fan is running.

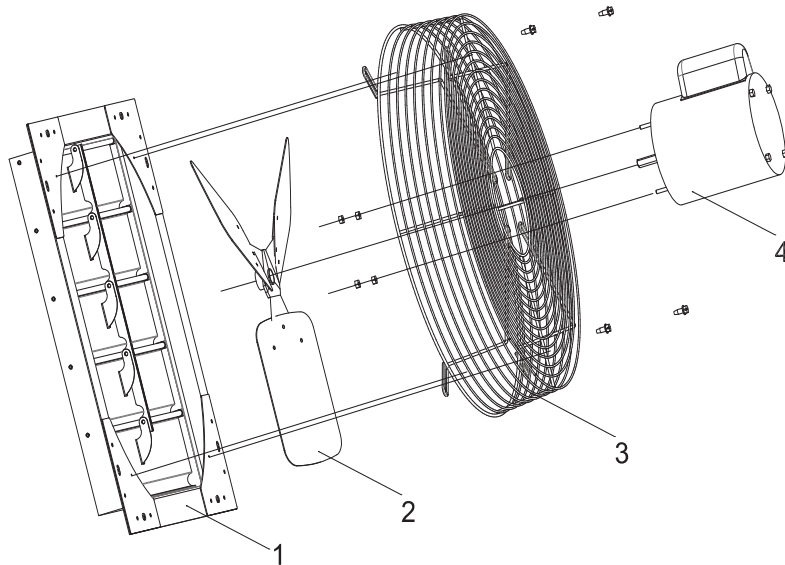
Periodically inspect and tighten all set screws and hardware.

Motors do not require lubrication. They feature permanently sealed ball bearings.

The fan propeller should be periodically cleaned to ensure proper balance and performance.

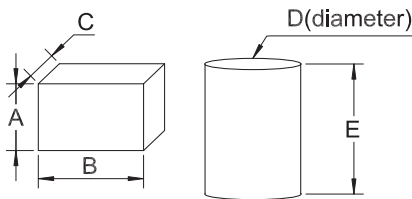
Periodically clean fan guard to ensure optimum performance.

# REPAIR PARTS ILLUSTRATION FOR DAYTON EXHAUST FANS



**Note:** Illustrations may not be representative of finished product with regards to design of fan propeller. All parts lists are accurate.

## CAPACITOR INFORMATION



SKU:	Motor Model	µF	VAC	Dim. A	Dim. B	Dim. C	Dim. D	Dim. E
484X36	494R47	6	250	1"	1 7/16"	5/8"	N/A	N/A
484X37	494R47	6	250	1"	1 7/16"	5/8"	N/A	N/A
484X38	494R48	5	250	N/A	N/A	N/A	1 3/16"	1 13/16"
484X39	494R49	10	250	N/A	N/A	N/A	1 3/16"	1 13/16"
484X40	494R50	10	250	N/A	N/A	N/A	1 3/16"	1 13/16"
484X41	494R51	20	450	N/A	N/A	N/A	1 9/16"	2 3/4"
484X42	494R52	20	450	N/A	N/A	N/A	1 9/16"	2 3/4"
484X43	494R53	25	370	N/A	N/A	N/A	1 3/4"	3"
484X44	494R54	20	370	N/A	N/A	N/A	1 3/4"	3"
484X46	494R53	25	370	N/A	N/A	N/A	1 3/4"	3"
484X47	494R55	30	370	N/A	N/A	N/A	1 3/4"	3"
484X48	494R56	30	370	N/A	N/A	N/A	1 3/4"	3"
484X49	494R57	25	370	N/A	N/A	N/A	1 3/4"	3"
484X50	494R58	30	370	N/A	N/A	N/A	1 3/4"	3"

Ref.	Descrip.	484X36	484X37	Qty.
1	Shutter	494R68	494R69	1
2	Propeller	494R34	494R35	1
3	Guard	494R59	494R60	1
4	Motor	494R47	494R47	1
Ref.	Descrip.	484X38	484X39	Qty.
1	Shutter	494R70	494R71	1
2	Propeller	494R36	494R37	1
3	Guard	494R61	494R62	1
4	Motor	494R48	494R49	1
Ref.	Descrip.	484X40	484X41	Qty.
1	Shutter	494R72	494R72	1
2	Propeller	494R38	494R39	1
3	Guard	494R63	494R63	1
4	Motor	494R50	494R51	1
Ref.	Descrip.	484X42	484X43	Qty.
1	Shutter	494R73	494R73	1
2	Propeller	494R41	494R40	1
3	Guard	494R64	494R64	1
4	Motor	494R52	494R53	1
Ref.	Descrip.	484X44	484X46	Qty.
1	Shutter	494R73	494R74	1
2	Propeller	494R42	494R44	1
3	Guard	494R64	494R65	1
4	Motor	494R54	494R53	1
Ref.	Descrip.	484X47	484X48	Qty.
1	Shutter	494R74	494R74	1
2	Propeller	494R43	494R43	1
3	Guard	494R65	494R65	1
4	Motor	494R55	494R56	1
Ref.	Descrip.	484X49	484X50	Qty.
1	Shutter	494R75	494R76	1
2	Propeller	494R45	494R46	1
3	Guard	494R66	494R67	1
4	Motor	494R57	494R58	1

**For Repair Parts,  
call 1-800-Grainger  
24 hours a day  
365 days a year**

Please provide following information:  
-Model number  
-Serial number (if any)  
-Part description and number as shown in parts list

GETTING STARTED

SAFETY / SPECIFICATIONS

ASSEMBLY / INSTALLATION

OPERATION

TROUBLESHOOTING

MAINTENANCE / REPAIR



## **DAYTON ONE-YEAR LIMITED WARRANTY**

**DAYTON ONE-YEAR LIMITED WARRANTY.** All Dayton® product models covered in this manual are warranted by Dayton Electric Mfg. Co. ("Dayton") to the original user against defects in workmanship or materials under normal use for one year after date of purchase. If the Dayton product is part of a set, only the portion that is defective is subject to this warranty. Any product or part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton or Dayton's designee designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced with a new or reconditioned product or part of equal utility or a full refund given, at Dayton's or Dayton's designee's option, at no charge. For limited warranty claim procedures, see "Warranty Service" below. This warranty is void if there is evidence of misuse, mis-repair, mis-installation, abuse or alteration. This warranty does not cover normal wear and tear of Dayton products or portions of them, or products or portions of them which are consumable in normal use. This limited warranty gives purchasers specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

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**Dayton Electric Mfg. Co.,  
100 Grainger Parkway, Lake Forest, IL 60045 U.S.A  
or call 1-888-361-8649**