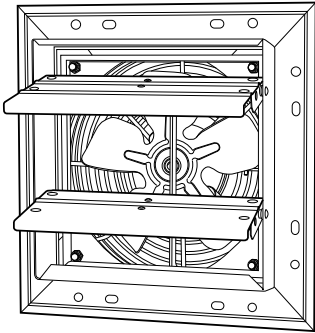
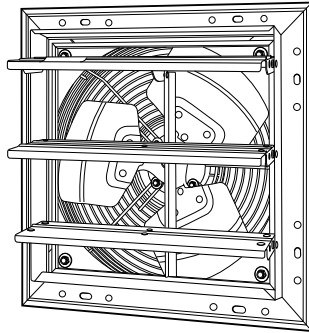


Hurricane[®] PRO

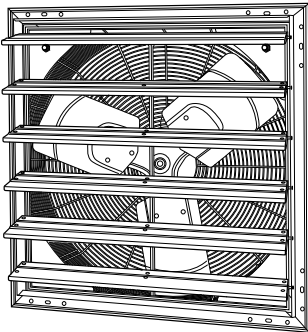
SHUTTER EXHAUST FAN INSTRUCTIONS



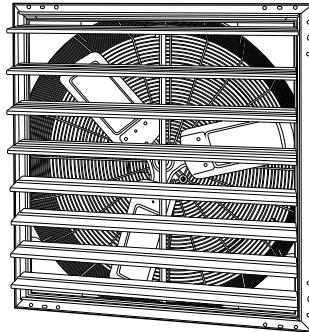
Product: #736493



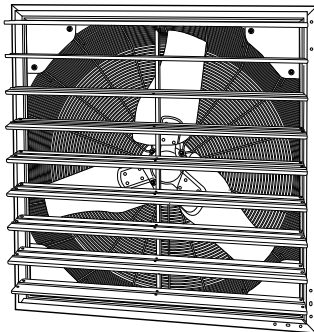
Product: #736494



Product: #736495



Product: #736496



Product: #736497

READ AND SAVE THESE INSTRUCTIONS

NOTE: Pictures in the manual are for reference only.

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IMPORTANT SAFETY INSTRUCTIONS

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 THE HURRICANE® WARRANTY AND OTHER IMPORTANT INFORMATION.

BEFORE YOU BEGIN

WARNING:

- Installation, troubleshooting and parts replacement are to be performed only by qualified personnel.

ELECTRICAL REQUIREMENTS:



- The motor amperage and voltage ratings must be checked for compatibility to supply voltage prior to final electrical connection. Please refer to the motor's nameplate label. Wiring must conform to local and national codes.

TOOLS / MATERIALS NEEDED:



- Mounting fasteners
- Sealant or caulk
- Regular screw driver set

UNPACKING

CONTENTS:

- Hurricane® Shutter Exhaust Fan (1)
- Instruction manual (1)

INSPECT:

- After unpacking unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. Shipping damage claim must be filed with carrier.
- Check all bolts, screws, set-screws, etc. for looseness that may have occurred during transit. Retighten as required. Rotate propeller by hand to be sure it turns freely.
- See GENERAL SAFETY INSTRUCTIONS on page 3, and Cautions and Warnings as shown.

GENERAL SAFETY INSTRUCTIONS

Fans are UL/cUL Listed, Standard 705.

DANGER: DO NOT DEPEND ON ANY SWITCH AS THE SOLE MEANS OF DISCONNECTING POWER WHEN INSTALLING OR SERVICING THE FAN. ALWAYS DISCONNECT, LOCK-OUT AND TAG-OUT POWER SOURCE BEFORE INSTALLING OR SERVICING. FAILURE TO DISCONNECT POWER SOURCE CAN RESULT IN FIRE, SHOCK OR SERIOUS INJURY. MOTOR WILL RESTART WITHOUT WARNING AFTER THERMAL PROTECTOR TRIPS. DO NOT TOUCH OPERATING MOTOR, IT MAY BE HOT ENOUGH TO CAUSE INJURY.

DANGER: DO NOT PLACE BODY PARTS OR OBJECTS IN FAN OR MOTOR OPENINGS WHILE MOTOR IS CONNECTED TO THE POWER SOURCE.

CAUTION: ALL ELECTRICAL CONNECTIONS SHOULD BE MADE BY A QUALIFIED ELECTRICIAN.

WARNING: THESE UTILITY EXHAUST FANS ARE FOR GENERAL PURPOSE EXHAUST APPLICATIONS ONLY. DO NOT USE THESE EXHAUST FANS IN EXPLOSIVE OR CORROSIVE.

1. Follow all local electrical and safety codes in the United States and Canada, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA) in the United States, and the Canadian Electric Code (CEC) in Canada.
2. Always disconnect power source before working on or near a motor or its connected load.
3. Protect the power cable from coming in contact with sharp objects.
4. DO NOT kink or create tight bends in the power cable and never allow the cable to come in contact with oil, grease, hot surfaces, or chemicals.
5. Make certain that the power source conforms to the requirements of your specific exhaust fan model.
6. The fan frame and motor must be electrically grounded to a suitable electrical ground, such as a grounded water pipe or ground wire system.

CAUTION: To reduce the risk of injury to persons, observe the following:

- In United States to reduce the risk of injury to persons, OSHA complying guards are required when fan is installed within 7 feet of floor or working level. These guards are to be purchased separately.
- In Canada to reduce the risk of injury to persons, CSA complying guards are required when fan is installed below 2.5 meters (8.2 feet) above floor or grade level. These guards are to be purchased separately.

GENERAL SPECIFICATIONS

Power source 115V, 60Hz
Mounting Position Vertical
Frame Material Aluminum Profile
Shutter Blade Material Aluminum Profile
Propeller Material Aluminum Alloy and Galvanized Steel
Agency Compliance UL/cUL 705

DIMENSIONS (INCHES):

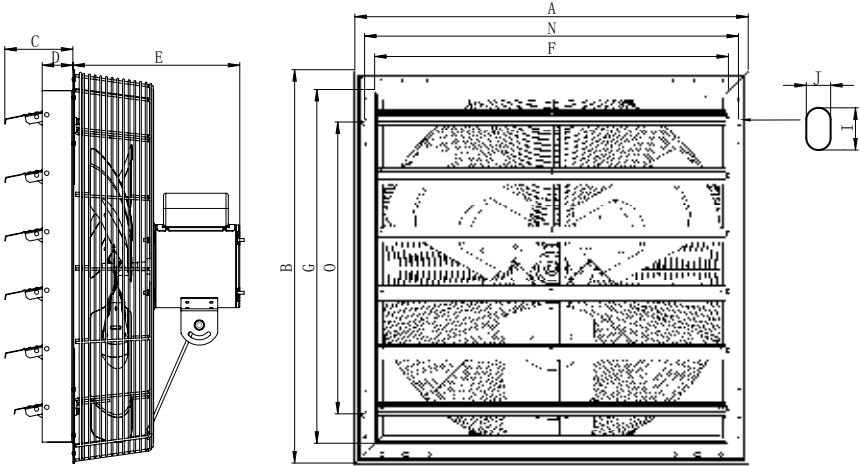


Figure 1

736493	12"	15"	15"	5 3/4"	2"	6 5/32"	13 5/8"	12 1/8"	12 1/8"	8"	3 1/2"	9/32"	1/2"	13"
736494	16"	18 29/32"	18 29/32"	5 3/4"	2"	7 7/8"	17 3/4"	16"	16"	11 29/32"	3 17/32"	9/32"	1/2"	17"
736495	24"	27"	27"	5 3/4"	2"	11 1/2"	25 21/32"	24 1/8"	24 1/8"	20 1/32"	3 17/32"	9/32"	1/2"	25"
736496	30"	33"	33"	5 3/4"	3"	13 3/32"	31 5/8"	30 1/8"	30 1/8"	26"	3 17/32"	9/32"	1/2"	31"
736497	36"	39"	39"	5 3/4"	3"	13 11/16"	37 21/32"	36 5/32"	36 5/32"	37"	3 17/32"	9/32"	1/2"	37"

PERFORMANCE:

736493	12"	1/20	1.0	1550	Sleeve	5.9	CFM Air Delivery @ Static Pressure Shown		
736494	16"	1/20	1.0	1550	Sleeve	6.39	1200	410	100
736495	24"	1/3	3.3	1075	Ball	7.42	4608	3524	3020
736496	30"	1/3	3.4	825	Ball	7.01	5088	3432	1552
736497	36"	1/2	5.3	825	Ball	8.24	6128	4380	3520

INSTALLATION INSTRUCTION

1. The unit should be securely mounted in a rigid framework.

NOTE: Allowing the fan frame to flex or move will result in undue vibrations and possible premature motor, propeller, or shutter failure.

2. Install any auxiliary components such as thermostats, switches, or speed controls.
3. Connect power to the motor, using an approved wiring method.
(Refer to the following wiring diagrams: **Figures 2** through **3**).

WARNING:

Fan frame and motor must be securely and adequately grounded to a suitable electrical ground, such as a ground water pipe or ground wiring system.

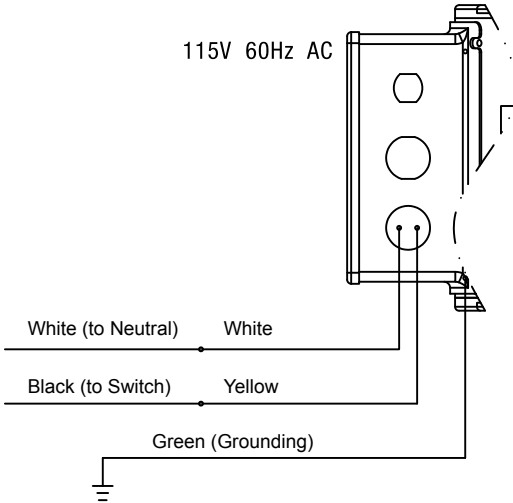


Figure 2
Wiring diagram - single speed, 115 volts connection.

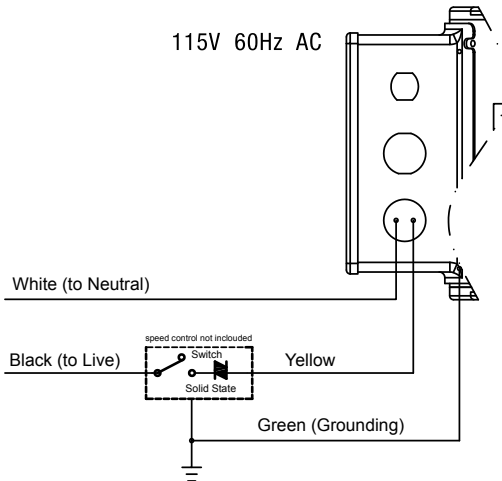


Figure 3
Wiring diagram - speed controllable, 115 volts connection.

OPERATION

1. Keep the area free of objects that could impede air flow on both the intake and exhaust side of fan.
2. For proper exhaust operation, a window, door, or louver should be opened for fresh air intake on the opposite side of the area to be ventilated.
3. Turn the fan ON, the shutter will open automatically. When the unit is turned OFF, the shutter will close.
4. Speed controllable units are designed to operate at a minimum of fifty percent line voltage.

MAINTENANCE

1. Disconnect power source before servicing.
2. Periodically clean the propeller, guard, motor, and shutter of any accumulated dirt.

DANGER:

DO NOT depend on any switch as sole means of disconnecting power when installing or servicing. If power disconnect is not visible utilize OSHA Lock out /Tag out procedure. Failure to do so may result in fatal electrical shock. Employ proper lock-out/tag-out procedures when performing maintenance.

REPAIR PARTS AND DISASSEMBLY

1. Disconnect power before servicing.
2. Refer to illustration of parts placement (**Figure 4**).
3. Remove the four screws holding the guard to the venturi panel. Remove the guard/motor/propeller assembly.
4. Loosen the set screw on propeller hub and remove the propeller.

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
EXCESSIVE NOISE	<ol style="list-style-type: none">1. Dry motor bearings2. Loose propeller3. Bent or damaged propeller4. Loose guard assembly or motor fasteners	<ol style="list-style-type: none">1. Relubricate motor bearings as per instructions or replace motor2. Tighten set screws on propeller hub3. Replace propeller4. Tighten as required to 15-20 inch lbs
FAN INOPERATIVE	<ol style="list-style-type: none">1. Blown fuse or open circuit breaker2. Defective motor3. Speed control off or too low or inoperative	<ol style="list-style-type: none">1. Replace fuse or reset circuit breaker2. Replace motor3. Turn controller on. If not working replace speed controller
INSUFFICIENT AIR FLOW	<ol style="list-style-type: none">1. Blocked intake or exhaust opening2. Low voltage3. Speed control set too low	<ol style="list-style-type: none">1. Clear intake and exhaust openings of any obstructions. Clean, motor, guard, propeller and shutter assembly. Increase fresh air intake opening size2. Determine cause and correct3. Increase speed with controller

REPAIR PARTS

#736493, #736494, #736495, #736496, #736497

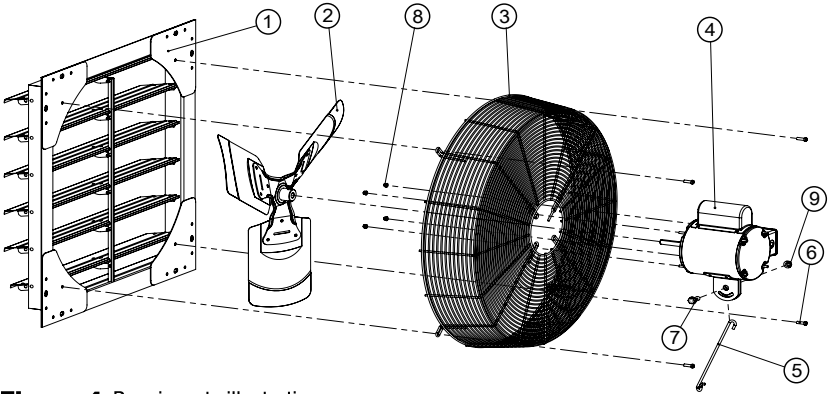


Figure 4: Repair parts illustration

REPAIR PARTS LIST

Ref. No.	Description	#736493	#736494	#736495	#736496	#736497
1	Shutter					
2	Propeller					
3	Guard					
4	Motor	D80U2902.1-1A1	D80U2902.1-1A1	D140U2906.7-1A2	D140U29110.7-1A2	D160U29111.7-1A2
5	Yoke brace					
6	Screw	M6 x 20mm	M6 x 20mm	M6 x 20mm	M6 x 20mm	M6 x 20mm
7	Brace bolts					
8	Motor nuts	5/32-32	5/32-32	3/16-32	3/16-32	3/16-32
9	Brace nuts			3/8-16	3/8-16	3/8-16

Hurricane[®] PRO

HIGH VELOCITY

SHUTTER EXHAUST FANS

PRODUCT

#736493

#736494

#736495

#736496

#736497

For more information please visit: www.hurricane-fans.com

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