# ENERVEX RSHT CHIMNEY FAN SHOP MANUAL

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# **RSHT VANE AND MOTOR REPLACEMENT**





P: 770.587.3238 F: 770.587.4731 T: 800.255.2923 info@enervex.com www.enervex.com



This repair requires working knowledge of electricity, electrical wiring, motors and hand tools. If you are unsure about your ability to perform this repair, contact a Mechanical Contractor. The Fan Motor and Impeller are heavy, assistance may be required with carrying and installing them.



## **CAUTION**

All work should be done by a qualified Mechanical Contractor.

#### **TOOLS REQUIRED**



#3 and #2 Phillips head screwdrivers



3mm and 5mm Allen wrenches



Standard socket set



13mm wrench



3/8" x min. 2" UNC (16 TPI) Bolt



strength threadlocker



**1** Switch OFF and tag out the power supply for the fan.



3 Remove fan head from base Using a 13mm wrench (bolt head) and 1/2" socket (nut).





2 Note the location of the wires. Disconnect and remove the wires from the junction box. Refer to Fig. 2 for junction box wiring diagram.



4 In order to remove the vane plug, loosen the setscrew using a 3mm Allen wrench. Pry up on the plug with a flathead screwdriver or clamshell style puller if necessary.





Remove the bolt securing vane to motor axle using a 7/16" Socket. Be sure to collect both safety washers and note their orientation for reinstallation.





Thread a 3/8" UNC bolt (16 TPI) into the vane to separate the vane from the axle. Apply anti-seize to the bolt threads before use.



Remove qty 3 bolts and washers to detach the top cover. Be sure to collect the dowels located between the motor plate and the top cover.

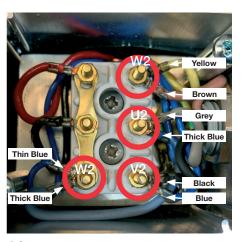


8 Remove qty 4 #3 Phillips screws to detach motor from the motor plate. Be sure to collect the qty 4 spacers located between the motor and plate.





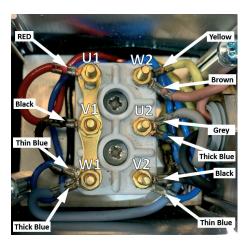
**9** Remove the qty 2 #2 Phillips screws to detach motor peckerhead cover.



**10** Remove the qty 4 7/32" terminal nuts from terminals W2, U2, V2, and W1 and disconnect wires.



**11** Undo ground connection (Y/G). Be sure to collect serrated washer.



**12** Wire the new motor as follows. Refer to Fig. 1 for additional clarification.

Ground (Y/G) to motor chassis ground terminal.

#### Terminal W2:

- Yellow from motor
- Brown from conduit

#### Terminal U2:

- Thick Blue from motor
- Grey from Conduit

## Terminal V2:

- Thin Blue from motor
- Black from conduit

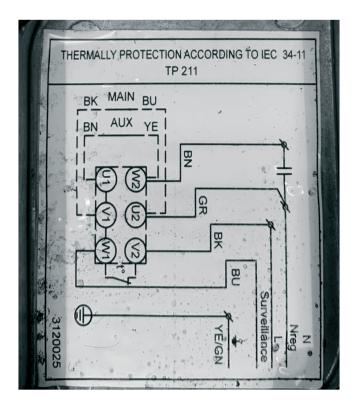
#### Terminal W1:

- Thin Blue from motor
- Thick Blue from conduit

13 Reassemble in reverse order.
Apply a light coat of anti-seize to motor plate, shaft extension and shaft and a small amount of low or medium strength threadlocker to threads before reassembly.
This excludes electrical conection terminals.

Refer to figure 2 for junction box wiring.





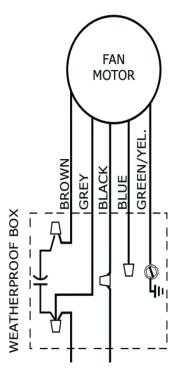


Fig. 1 Fig. 2

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