



# Philips Emerson CoughAssist CA Series Valve Actuator Motor Replacement

Replacing the actuator motor in the Philips Emerson Cough Assist CA ventilators.

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## INTRODUCTION

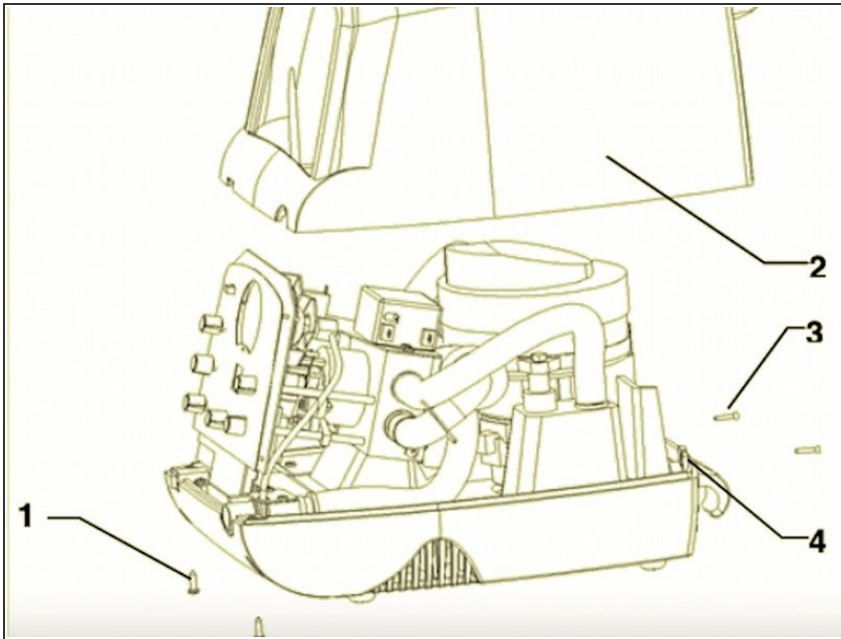
If your CoughAssist ventilator is not properly regulating pressure, your valve actuator motor may be to blame. The guide presented below shows you how to replace this integral part of the ventilator. All you'll need for the replacement is a Phillips head screw driver in order to remove all the screws, and replace the motor.



### TOOLS:

- [Phillips #0 Screwdriver](#) (1)
  - [Phillips #1 Screwdriver](#) (1)
  - [Flathead Screwdriver](#) (1)
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## Step 1 — Philips Emerson CoughAssist CA Series Disassembly



- First, remove the two 16mm pan head screws (1) directly under the front panel of the ventilator. (Page 3).

## Step 2



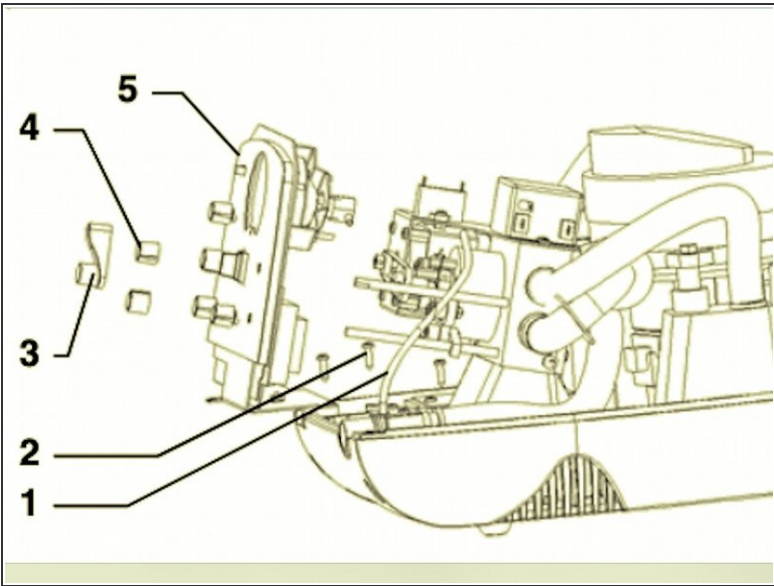
- Next, remove the two 16mm flat head screws (3) from the back panel of the ventilator. (Page 3).

Step 3



- Lift off the top cover (2) of the device. (Page 3).

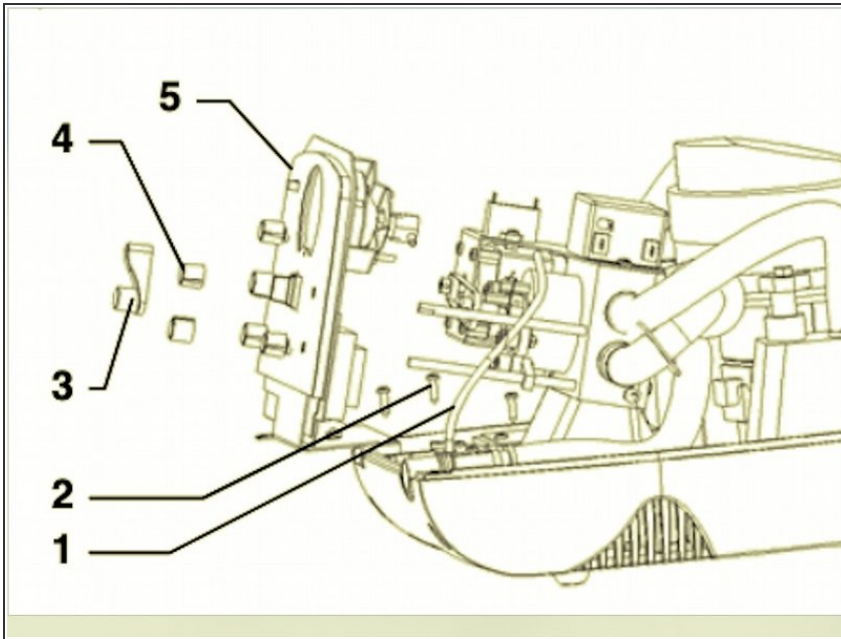
Step 4



Item	Part No.	Description
1	226-7001	PLASTIC TUBE, 1/8"ID x 8"
2	829-3108	SCREW, PLASTITE #8X1/2" (3 EACH)
3	325-0252	KNOB, MANUAL (CM only)
4	632-3004	KNOB (2 EACH)
5	325-9202	FRONT PANEL ASSEMBLY FOR CA-3000
	325-9222	FRONT PANEL ASSEMBLY FOR CM-3000
	325-9226	FRONT PANEL ASSEMBLY FOR CA-3200
	325-9227	FRONT PANEL ASSEMBLY FOR CM-3200

- Now remove the "Inhale flow" control knob (4) and "Inhale pressure" knob (4), by loosening the setscrew on each before pulling off. If you have a CM model, carefully remove the Manual Control Lever (3) by prying it off with the screwdriver. (Page 3).

## Step 5



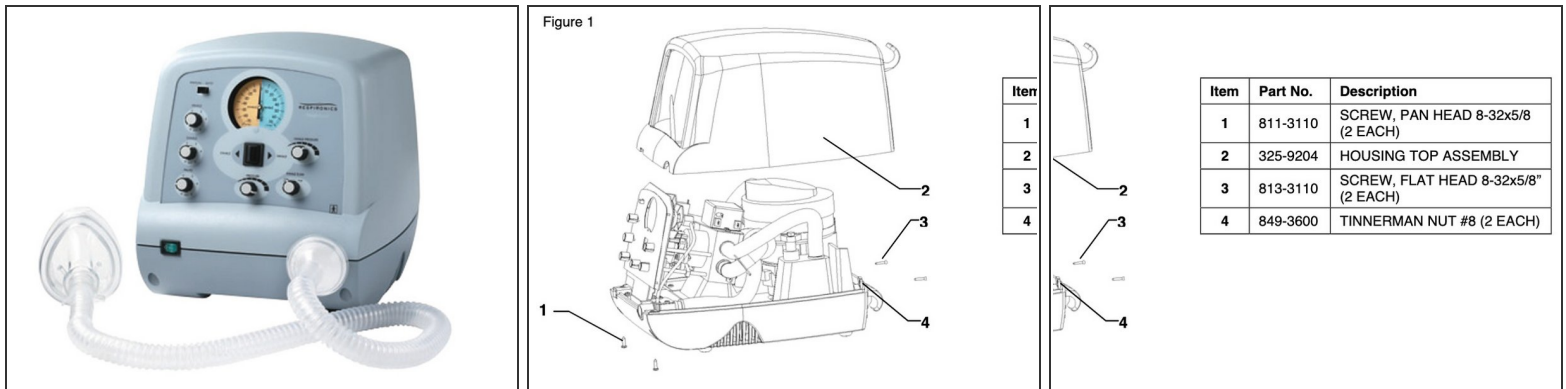
- Unscrew the three 12.7mm plastite screws ( 2) holding the panel assembly to the lower housing. A long Phillips screwdriver is very helpful for access to the three screws. (Page 3)

## Step 6



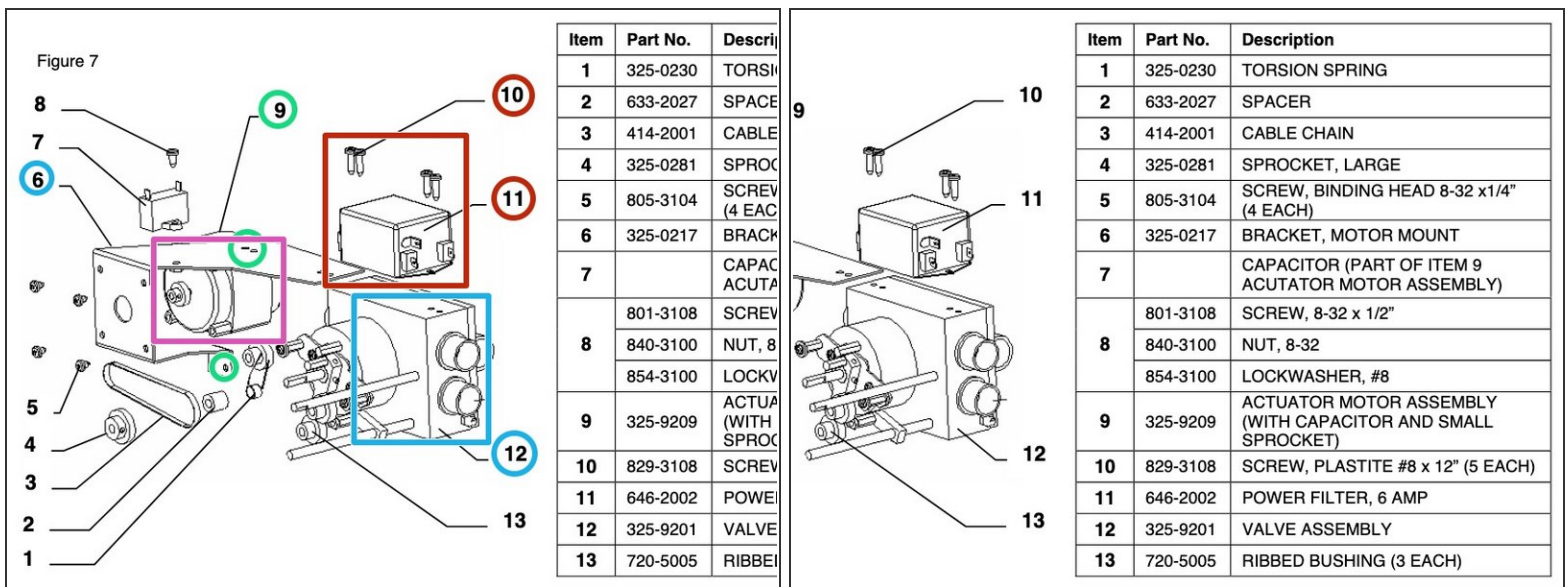
- The front control panel (5) should now be loose. Carefully slide it forwards to remove. (Page 4).

## Step 7 — Valve Actuator Motor



- Position the ventilator so the pressure gauge is facing right to your right.
- Follow the Preliminary Disassembly Guide to remove the top cover and the front panel.

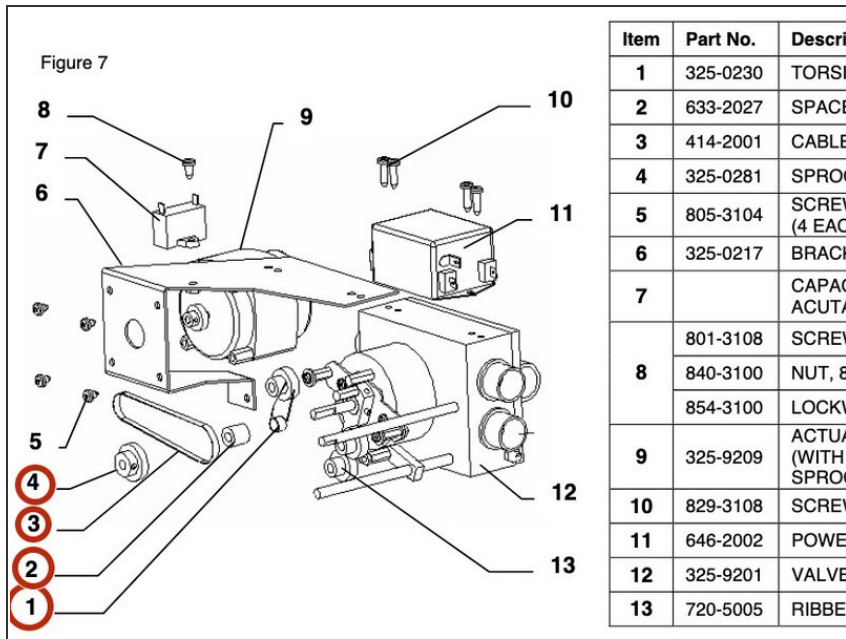
## Step 8



- Remove the two 12.7mm plastite screws (10) as shown, and remove the Power Filter (9). (Page 7)
- Remove all screws holding the Bracket (6) to the Valve Assembly (12). (Page 7)
- Remove the two 12.7mm plastite screws above and the one screw beneath the Actuator Motor (9). (Page 7)
- Take out the Actuator Motor (9) while it is still attached to the Bracket (6). (Page 7)



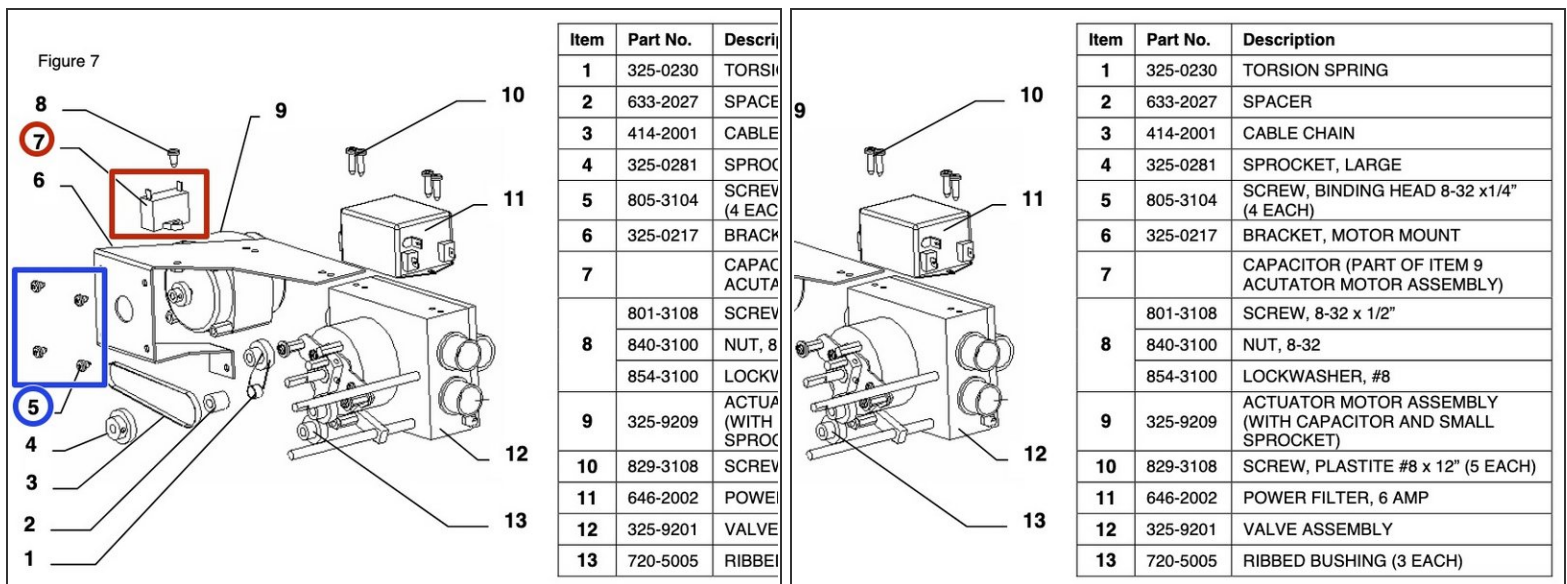
## Step 9



- If you notice other parts are damaged or faulty, replace them. These parts include the torsion spring (1), cable chain (3), larger sprocket (4), or the spacer (2). (Page 7).

**i** The small sprocket on the motor is not designed to be removed from the shaft, so make sure you are replacing the *large* sprocket.

## Step 10



- Disconnect the two motor terminals from the motor capacitor (7). (Page 7).
- Remove the 4 6.4mm binding head screws holding the motor to the bracket. (Page 7).
- Remove the motor. (Page 7)

To reassemble your device, follow these instructions in reverse order. After reassembly, check that the cable chain(3) is tensioned properly. This means that the two sides of the chain can be pinched together almost half way, but not able to touch. If you need more detail or looking for more information on this repair, please refer to the Service Guide attached, page 7.