

Repair your home heating system

(example: Trane XB home furnace)



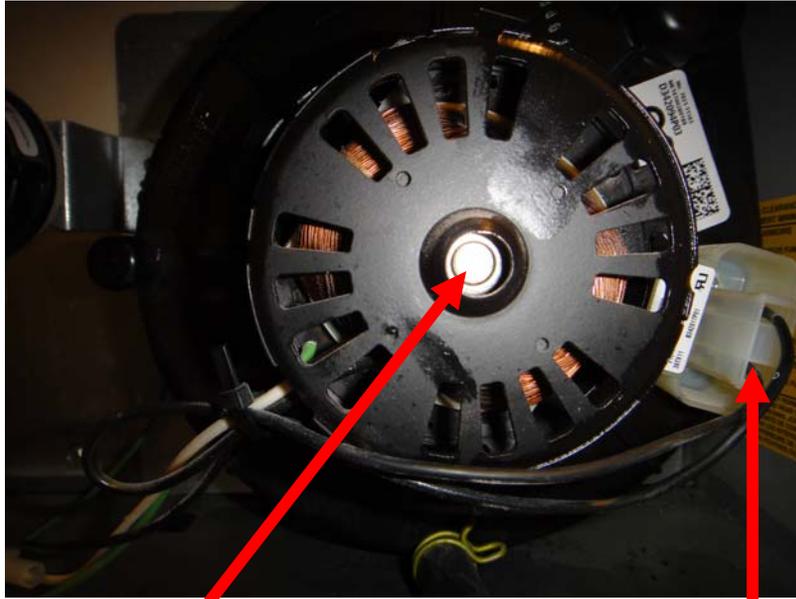
This is a furnace:

- To open, slide panels up and tilt toward you
- Peak through this hole to see the LED and determine the diagnostic code
- Diagnostic codes and wiring scheme are typically on the inside of this panel:

DIAGNOSTIC CODES

FLASHING SLOW: NORMAL	NO CALL FOR HEAT	5 FLASHES	FLAME SENSED WHEN NO FLAME SHOULD BE PRESENT
FLASHING FAST: NORMAL	CALL FOR HEAT	6 FLASHES	115 VAC POWER REVERSED
CONTINUOUS ON: REPLACE IFC		7 FLASHES	POLARITY OR POOR GROUNDING
CONTINUOUS OFF: CHECK POWER		8 FLASHES	GAS VALVE CIRCUIT ERROR
2 FLASHES: EXTERNAL LOCKOUT (RETRIES OR RECYCLES EXCEEDED)			LOW FLAME SENSE SIGNAL
3 FLASHES: PRESSURE SWITCH ERROR			
4 FLASHES: OPEN LIMIT DEVICE			

Finding out what is wrong

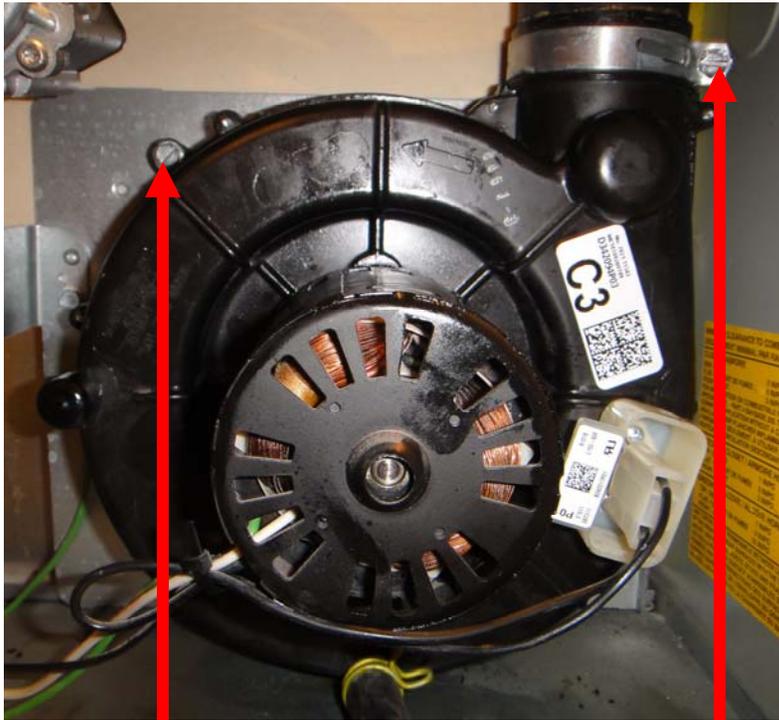


Fan axis

Power supply

- In the present case, “3 flashes” indicated “pressure switch error”
- A likely cause of malfunction is debris (such as a dead bird) in the draft inducer blower
- If this is the case, the motor housing will be hot and the fan inside will not rotate.
- Check if the fan does not rotate by touching the end of the fan axis with a screwdriver (careful!). You will feel a resistance and hear a noise if the fan *is* rotating
- If the fan is not rotating, unplug the power supply by pulling on it. You will need to clean the draft inducer blower.

Detaching the draft inducer blower

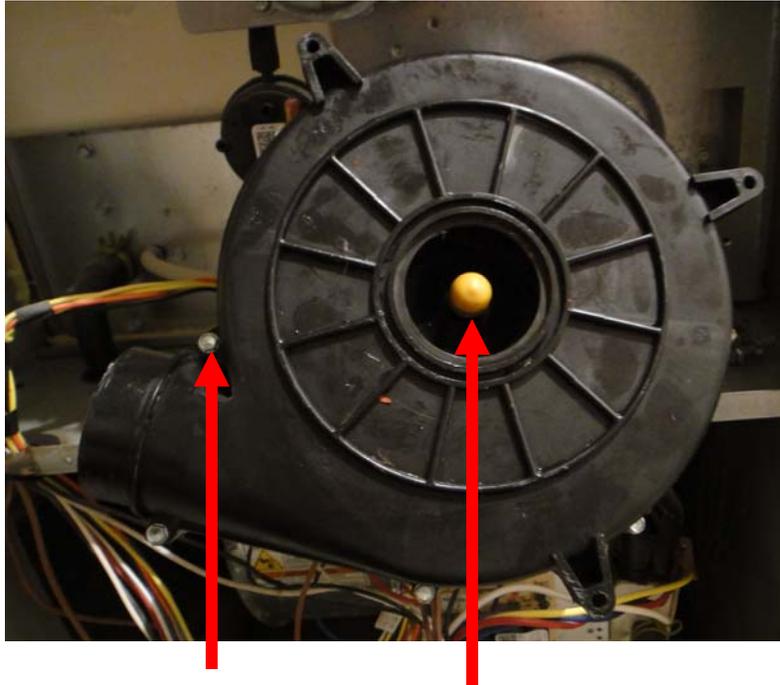


Unscrew attachment
to base plate

Loosen screw

- You have to detach the inducer from the base plate (in this case, unscrew 3 screws) and from the attached pipe
- (What looks like a rubber hose at the bottom can stay in place)
- After pulling the inducer out for the attached pipe, turn it around

Opening the draft inducer blower

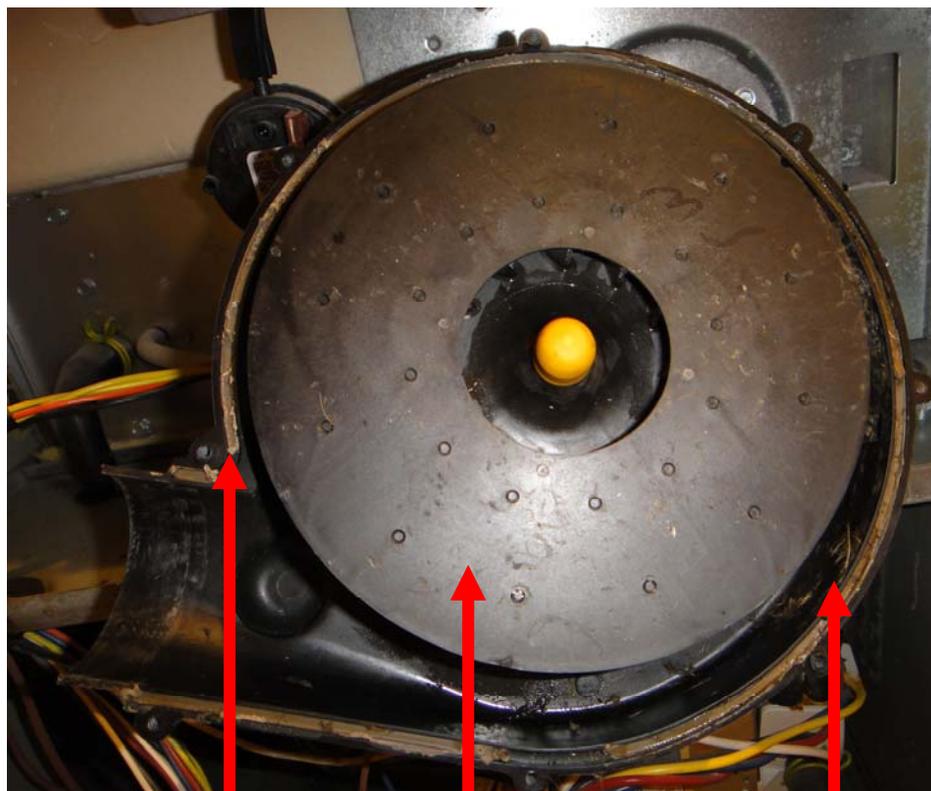


Unscrew all
screws at the
perimeter

End of fan axis

- This is the back side of the inducer blower
- Grab the end of fan axis (with yellow plastic cap) with your fingers and try to rotate. If you feel strong resistance, then debris inside needs to be removed (this is what we have suspected).
- Unscrew all screws at the perimeter
- When done, carefully pop open the fan casing. You can do it by hand. There is some resistance, since there is sealant around the perimeter of the fan casing.

Cleaning out debris from fan casing



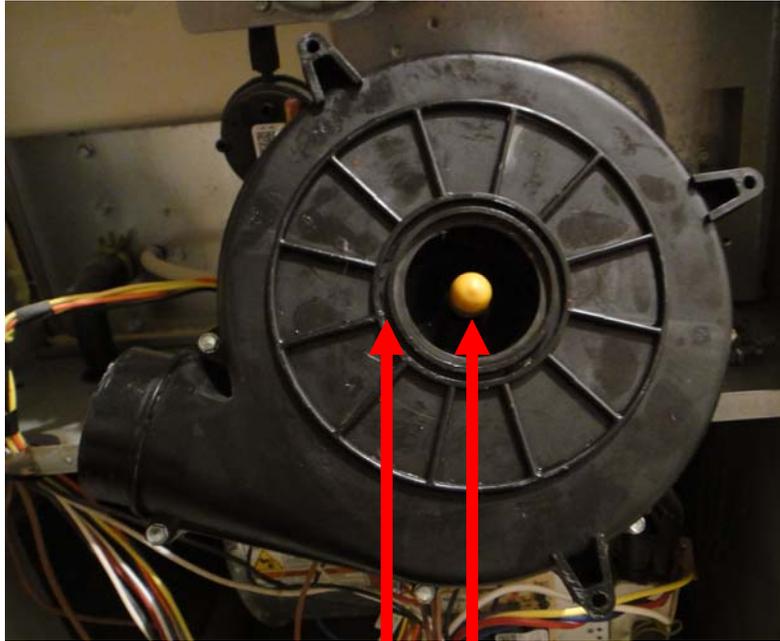
Sealant

Fan

Clear out any
debris until
fan may
rotate freely

- Debris accumulates typically at the fan perimeter – remove it.
- Check by grabbing the fan axis end with your fingers to see if the fan moves freely.
- Remove and reapply new sealant not to reduce your furnace's efficiency.

Reassemble inducer blower



End of fan axis

Apply sealant

- Close the back of the inducer blower
- Grab the end of the fan axis (with the yellow plastic cap) with your fingers and try to rotate. The fan should move freely now.
- Apply sealant as shown.
- Reattach the inducer blower to the furnace
- Attach the power supply
- You should feel that the fan is spinning now. After a few minutes, the furnace should start working.
- Peek at the LED behind the front furnace cover: If flashing slowly and continuously (as supposed for this furnace model), the furnace works properly again.