

# Re: Whirlpool dryer heater failure

---

*Source:* <http://sci.tech-archive.net/Archive/sci.electronics.repair/2008-02/msg00306.html>

---

- *From:* "Seán O'Leathlóbhair" <jwlawler@xxxxxxxxxx>
  - *Date:* Wed, 6 Feb 2008 13:33:44 -0800 (PST)
- 

On Feb 5, 11:27 am, jwlaw...@xxxxxxxxxx wrote:

On Feb 4, 6:12 pm, jakdedert <jakded...@xxxxxxxxxxxxxxxxxx> wrote:

jwlaw...@xxxxxxxxxx wrote:

On Feb 4, 1:09 pm, Sam Goldwasser  
<s...@xxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

jwlaw...@xxxxxxxxxx writes:

On Feb 4, 10:42 am,  
jwlaw...@xxxxxxxxxx wrote:

My  
Whirlpool  
electric  
tumble  
dryer  
AWZ241  
has failed.  
Last Friday,  
the  
house's  
circuit  
breaker  
tripped  
when it was  
turned on.  
After  
resetting the  
circuit  
breaker and  
trying the  
dryer, it did  
not trip

Re: Whirlpool dryer heater failure

again. The  
dryer runs  
but does not  
get hot. I  
guess that  
the heater  
and / or an  
internal fuse  
has blown.

Any other  
guesses of  
possible  
explanations?

Anyone  
know how  
easy this  
will be to  
fix?

I am not  
quite sure  
how old the  
dryer is. At  
least 5

years. It  
came  
with an  
offer of an  
extended 8  
year

guarantee  
but we did  
not take it.

Anyway, it  
might be as  
much as 8  
years old.

I have a  
good  
collection  
of tools  
(including a  
multimeter),  
access to

a  
reasonably  
good spare  
parts shop,  
good  
understanding  
of  
electricity,

Re: Whirlpool dryer heater failure

and some  
experience  
of working  
of these  
devices. For  
example, I  
have  
successfully  
changed the  
drive belt of  
dryers and  
repaired the  
door  
switches. I  
have not yet  
had any  
cause to  
open up this  
one.

I just checked the local  
spares shop. They could get  
me a new element  
in a day and it would cost  
£35. So, provided that is the  
fault and it  
is not too hard to change, it  
seems worth doing. Now, I  
need to work  
up the energy to take the  
thing apart.

It's very likely the heating element is the  
problem especially if the  
dryer operated normally the last time it was  
used. Replacement  
should be straightforward. However, it's  
worth checking the thermostats  
and of course for lint buildup which can lead  
to overheating.

Thanks. Yes, the dryer was working apparently fine last  
Thursday. I  
will check the thermostat as well when I have opened it up.  
Where  
might lint build up except for the filter just inside the door? I  
have already checked and cleaned this. There was little on it  
at the  
time of failure, we clean it regularly.

Re: Whirlpool dryer heater failure

Lint can build up anywhere in the airflow path...significant cause of accidental fires. Check the entire exhaust path, both inside and external to the dryer.

jak

Thanks again.

I was busy last night and will be busy again tonight but I should be able to take it apart Wednesday. With some luck, I will have it working by the weekend.

Took it apart tonight. It was easier than I expected. Unfortunately, the next step, the diagnosis, was harder than I expected. So, a bit of humble pie; I thought that understanding the electrics would be the easy bit.

Three wires: black, red, and brown come from the controller to the element. The red and black go to little devices which might be thermal cut-outs mounted on the side of the element. If they are cut-outs then it is a puzzle that they are in both lines. The outputs from these devices go the element itself. The brown goes directly to the same element terminal as the red indirectly goes. What's going here, is the brown a feedback to the controller so that it knows whether the cut-out is passing current? But, if the other one failed it wouldn't know.

Now the real puzzle. I don't know the power of the element but I would guess at least 1kW and at most 3kW. So (at 240V), the resistance should be a dozen or so ohms. However my meter thinks the resistance is infinite even on the 20M $\Omega$  setting. So, this would suggest the element is dead. However, the meter cannot detect any voltage between any pair of the red, black, and brown wires. Surely there are not two simultaneous faults: the element dying and something wrong in the controller? A final explanation is that the controller runs the motor for some time before sending power to the element. Is this likely? I ran the dryer for about a minute with the meter connected to the red and black wires.

—  
Sean Ó Leathlobhair

.