

Behmor Inc.

Manual Revision

February 6, 2008

FAQ and Troubleshooting:

I notice my roasting elements sometimes go off in the middle of a roast, is this normal? Yes, this is simply an indication that the system has reached its set-point in the temperature profile.

Does the on/off of the elements have a negative effect on the coffee? No, before using any feature we had the systems tested by coffee professionals to insure the quality of the cup was maintained and not negatively effected.

What is a safe time to rest the roaster in between roasts. We recommend 1 hour between roasts, to safeguard the systems critical components. <u>Please remember, this is considered a home roaster and is not intended for commercial level production.</u>

My system displays err1, and won't start, why? What can I do about it? One safety feature embedded within the system program deals with the roaster being stored or sitting idle for periods of time in sub 45F (7.2C) temperatures. Merely bring the unit into a warm environment then all should be fine. Remember to unplug the roaster to reset the program.

Can I still roast in my garage or similar setting when it's sub 45F (7.2C)? Yes, the safety feature deals only with storage and doesn't affect ones ability to roast in a sub 45F (7.2C) environment or setting.

The square peg on the right side of my cylinder sticks or does not fit well. Is my cylinder defective? No, on rare occasions too much stainless steel is deposited during the coating stage. To rectify this simply take emery clothe, emery board or very fine file and lightly remove any burrs or high points on each side. In general the square hole will also expand to accommodate the extra coating within a few roasts

My cylinder is stuck in the square peg and I'm afraid to pull on it. What should I do? Firstly, DO NOT pull on the cylinder. As stated above, the stainless steel coating is likely too thick. Take a Q Tip and a little olive oil (or similar food safe oil). Place a drop of oil on the Q Tip then rub the oil tip on the square peg where it enters the receiving end. Now gently move the cylinder in and out to work the oil in. If necessary rub the Q tip on this area again. Gently do this until the olive oil frees the bond. Once it has come loose do as stated above and remove any high points etc. If the cylinder still causes you problems contact tech support and request assistance. If emailing please include contact data such as phone number etc.

My roast times seem to be longer than they should. Do I have a defective unit? No. There are many factors to roast times as stated in the earlier version of the manual. Those factors include low voltage, old wiring and/or significant voltage drawdown. Other factors that can extend roast times in some cases significantly are:

- 1) Beans stored at temperatures of 65 F (18.3 C) or below, such as in a garage or refrigerator.
- 2) Use of an extension cord that would cause a voltage drop
- 3) Using the roaster in a cold environment (below 65 F).

The way to help us determine if there is an issue with the roaster is to do the following:

Take $\frac{1}{2}$ pound of green beans that are at no lower than 65 F (18.3 C), in an environment that is no lower than 65 F (including the roaster) and roast using 1 lb P1 Program A. Email us (tech@behmor.com) the times showing on the display when the **FIRST** crack of 1st was heard and the **FIRST** crack of 2nd. This data will help us determine your system's status... <u>Always include contact data such as phone number and best times to call.</u>



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Maintenance and cleaning:

It is highly recommended you keep the area (within the red box) clean of all oils and coffee roasting sediment. This insures the thermo-coupler properly reads the roaster temperatures and keeps roasts times normal. Simple Green seems to be the most effective cleaner while not containing anything corrosive.



Changing Interior Light.

Over time the interior light could burn out and to change requires the following steps.

- 1) Remove screws- blue arrows
- 2) Get small flat head screwdriver or similar thin tipped item, insert into the gap (red line) slowly edging it downward. Care must me taken to not crack the glass.
- 3) Replacement bulb type: 20 watt Incandescent light for ovens, clear glass.







Manual Revision

Jun 20, 2008

FAQ and Troubleshooting:

I like my beans oily but don't see this on the beans when I do darker roasts. What can I do?: The design of the Behmor will allow you take roasts that will generate oils. But due to the way heat is applied with the Behmor the oils appear only after several days of rest. Do your roast, then let the beans rest/degas and the oils will appear.

Never gauge your degree of roast by the appearance of oils.

When I've finished roasting and even after pressing off, I can hear a very faint humming sound. Do I have a problem unit? No. What you are hearing is the hum of the system's transformer. This is normal and one of the reasons we state in the manual to <u>always unplug the roaster when finished</u>.

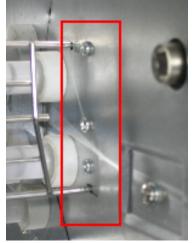
Are there other reasons why I should unplug my roaster? Yes There at least three other reasons why you should always unplug the roaster when not in use. One is power surges in the lines can destroy electronic circuitry. These surges can be caused by electrical storms or simple line surges caused by normal power spiking. The second reason is by unplugging the roaster you reset the systems memory. Lastly by even though the power draw is minimal by unplugging the roaster we use less energy and place smaller demands on the power grid.



Update 3- Important Maintenance Procedures May 27, 2009

In order to insure your Behmor 1600 roasts as it did when you first received it you must follow simple maintenance procedures as described below.

- 1) After every five (5) roasts we strongly recommend you do the system dry burn by placing the cylinder (empty) and chaff tray in the oven chamber as if doing a roast, close the door, press ¹/₂ then start. <u>Repeated from the manual</u>
- 2) We also strongly urge you regularly clean the interior with Simple Green or other non-caustic, non-abrasive cleaners (NO- Easy Off, Bon Ami. Ajax, Comet etc) to insure there is no sediment build-up blocking a key sensor. The area of the sensor is in that must be kept clean of oils and sediment is shown below in the red box. We suggest including this Simple Green cleaning of the interior as a part of your regular dry burn maintenance program. <u>Repeat of 02.06.08/Update 1</u>



Failure to perform this cleaning will lead to longer roaster times and possible equipment failure

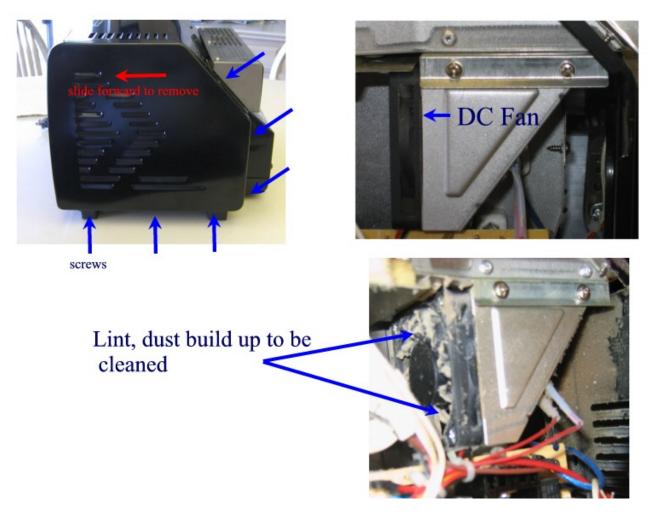
3) We also strongly urge you clean your DC fan's impellors (see below) every four months or sooner, if necessary. While not true in all locations if you roast in an area of high dust, or other airborne matter the impellor blades of the fan will get coated in the dust, lint etc and will cause the system's roast times to become extended.

This procedure is accomplished by removing the six screws holding the right outside panel in place. You will need a Philips head screwdriver.

Once the panel is removed a few strong gusts of air on the impellors should remove the lint, dust etc. We then suggest you plug in the roaster and press cool to insure the fan is rotating properly. If not contact tech support.



Update 3- Important Maintenance Procedures cont.



Failure to perform this cleaning will lead to longer roaster times should a buildup of dust, lint and/ or other airborne particulate matter occur, while at the same time possibly lead to a fans earlier than expected, end of design life.

While performing the above also we recommend removing the exhaust channel cover (see below) and cleaning any lint, dust, or stray chaff from the back of the cover and exhaust channels. This maintenance will insure air is allowed to flow freely and not clog exhaust holes.



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Exhaust channel and housing

