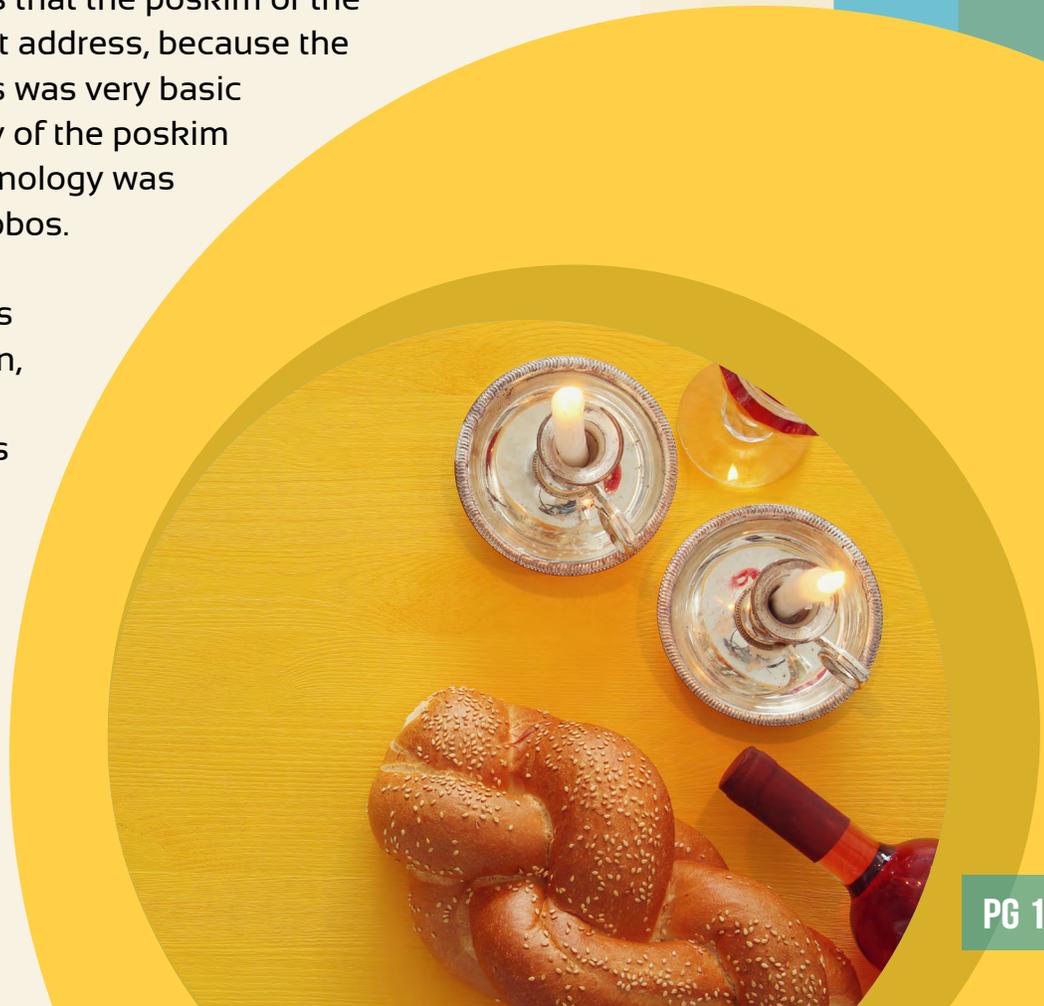


The Growing Halachic Dilemmas with Refrigerators—and the Solutions

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In Eretz Yisroel, the Torah-observant public has become increasingly aware of the growing issues inherent in the use of refrigerators—issues that the poskim of the previous generation did not address, because the technology for refrigerators was very basic back then, and the majority of the poskim ruled that the existing technology was permissible to use on Shabbos.

Refrigerator technology has furiously evolved since then, and the issues with this technology are very serious indeed. This awareness has yet to come to the public outside Eretz-Yisroel. The following article will seek to outline the problems, and the solutions that will be forthcoming, be'ezras Hashem.



The Mechanism

ה"ר ש"ס

In order to understand the problem, a small discourse into the mechanism of our modern refrigerator is in order.

- Cold air is pushed into the fridge/freezer through **COMPRESSED GAS** that becomes cool through compressions (by the compressor). The hot coils behind many refrigerators funnel the cooling gas in and out.
- The **FAN** blows the cool air that is produced on the coils around the inside the appliance until the desired temperature is reached.
- Remember when ice would accumulate inside the fridge/freezer and the only way to remove it was to turn off the appliance, and pour hot water on the ice to help it melt? Manufacturers have created a heating system inside the device that goes through a **DEFROST CYCLE**, melting the ice automatically.
- A **DAMPER CONTROLS** the amount of cold air that should blow into the appliance, depending on the temperature in the appliance (if no more cold air is needed, the vent is closed).
- The **THERMOSTAT**. In the past, a mechanical thermostat was used to control the cool air flow into the appliance (i.e. turning the compressor on and off). Manufacturers sought greater accuracy, and greater sophistication. This means that the thermostat, which essentially tells the compressor to turn on or off, can now do so with greater accuracy, and rather than completely cutting off electricity flow to the compressor, it can reduce the flow of electricity to the compressor, making it function on a lower level. This digital thermostat is controlled by a **COMPUTER**—which continues to function even if the digital display is off.

Past Leniencies

The poskim of the previous generation differed on the degree to which a person may affect the temperature of the inside of the fridge/freezer—thus directly causing the thermostat to activate the compressor. Followers of Rav Shlomo Zalman-

Aurbach's psak do open the door (in some cases), allowing warm air inside, even when the compressor is off, and this infusion of air will cause it to go on. Followers of the psak and Rav Aaron Kotler, zt"l, only open the door when the of Rav Moshe Feinstein compressor is already running—thus the action of infusing warm air does not directly cause the compressors to go on. Still others do not open refrigerators at all on shabbos- flowing the opinion of the Chazon Ish ad Rav Henkin, zt"l.

Today's Appliances are Different

In order to understand the problem, a small discourse into the mechanism of our modern refrigerator is in order.

1 The **DEFROST FUNCTION**—whose heating mechanism features a coil that becomes red hot, which constitutes *gacheles shel mateches*, making an iron red-hot, and that is considered *mav'ir*.

2 Causing a *d'Oraisa* event to occur (i.e. the defrost function) through opening the door, is another matter altogether from what the *poskim* of the previous generation have permitted.

3 The **DAMPER FUNCTION** which is controlled by the thermostat will directly turn on and off even when the compressor is running (in contrast to the past where the compressor merely continued working, and nothing really changed in the mechanism of appliance. The damper in today's appliances, however, does begin to work as a result of opening the door.

4 The **FAN** which is also controlled by the digital thermostat.

5 The multiple sensors and computer signals thy are Benny transmitted and recorded on a constant basis-- according to some a *d'Oraisah* transgression and according to others *mid'Rabbanan*-- every time the door is opened.

The degree of potential halachic transgression—R"l— will vary by appliance and by the psak that one follows.

Most would agree that with the growing sophistication of technology, and the potential for *issurim* to occur, *ch"v*, there is also the potential to develop simple technological solutions that will bypass the regular function of the mechanism for the holy day of Shabbos-- something that will surely be met with enthusiasm by G-d-fearing Jews everywhere.

We can and must do so.