

The Margarita Guys



Frozen Delight - Delivered Just Right!

877-99FIESTA

One Hopper Does Not Freeze

One hopper not freezing is a very common complaint. The vast majority of times this problem is caused by a damaged Torque Sensor Board (TSB). Each hopper has a TSB that is mounted behind the hopper. The TSB sends a signal to the machine's main processor ("brain") telling it how thick the product is in the hopper. If the TSB does not send the signal to the brain, the brain will not energize and open the valve that sends cold refrigerant to that hopper. See the Service Guide entitled Torque Sensor Board for more information.

Troubleshooting Process

To confirm the TSB is the problem, unplug the machine and remove the plastic auger motor covers at the back of the bad hopper and a good hopper. Look over the motor and visualize the motor shaft and the auger shaft. Ensure the two pins sticking up from the shafts are pointed to the left as you're looking at the motor from the back of the machine. On the bad hopper first, unplug the motor, remove the four motor mounting screws and remove the motor. Note one screw is longer than the other three – it holds on the motor starting capacitor (the little black plastic rectangular box). In the upper right corner visualize the one-inch-square torque sensor board. Unscrew the single screw holding it in the plastic tracks then carefully remove the TSB and unplug the wire from the TSB. Set the suspected bad TSB aside.

Perform the same removal process on the known good hopper (again, be careful to rotate the auger shaft so the pins are away from the TSB before removing the motor). Install the known good TSB on the bad hopper. Be careful all pins are properly seated when replacing the plug on the TSB. Ensure the TSB itself is properly seated in the plastic tracks. Reinstall the motor.

Plug the machine back in, turn the machine on, turn on the auger on the bad hopper and activate the bad hopper to ICE. Wait up to 5 minutes. If the compressor and fan come on and the cooling drum starts to frost over, turn off the machine. The problem is the TSB – replace the bad TSB.

If the bad hopper does not freeze after switching TSBs from a known good hopper, then the next most likely problem is the refrigerant solenoid for the bad hopper. While this is rare, it unfortunately requires advanced testing skills and will require an EPA-certified refrigerant technician to replace or repair. Additional problems could be wiring between the TSB and the main processor; electrical wiring to the refrigerant solenoid valve; a bad solenoid on the refrigerant valve; a problem with the main processor (unlikely); or some other electrical or refrigerant problem that will require a technician to troubleshoot and resolve.

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