

Technology

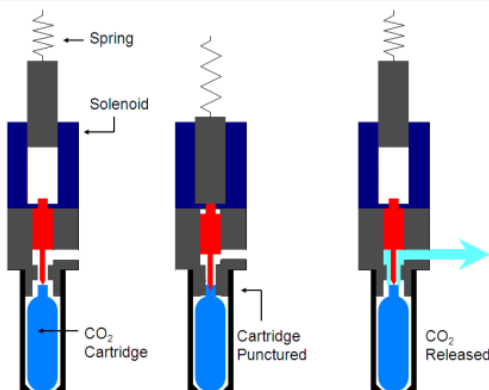
Circuitry

The circuitry is a digital control system with a photodiode sensor. The sensor will detect large peaks in light (sparks) and take fire safe actions.



Fire Suppression

When a fire is detected, the pull solenoid will puncture a cartridge, releasing carbon dioxide into a flow switch and the microwave. As the gas passes through the flow switch, it will break an electrical continuity and pop out the reset button.



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Fire Safe Microwave

Red Team Presents...

Fire Safe Microwave

*It's not your
typical microwave*

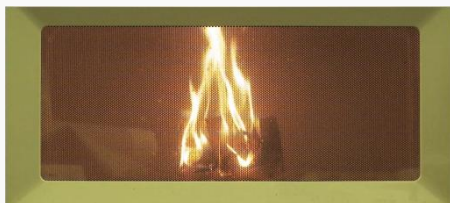
What is the FireSafe Microwave?

The FireSafe Microwave is not your typical microwave; it is an integrated product in your everyday microwave. FireSafe will alert you if a spark or fire appears in the microwave. In the worst case scenario, a fire suppression system will extinguish the fire using carbon dioxide.



Statistics

In United States, microwaves cause 7,400 household fires annually, resulting in 18 million dollars' worth of home damage.



Typical Foods/Items that will Spark or Ignite

- Foil/Paper Wrap
- Metal Utensils
- Twist Ties
- Frozen Vegetables
- Cans (Soups)
- Frozen Bagels
- Capri Sun
- Cookies in Bag Packages



Market and Price

Currently, there are **no products** like the FireSafe Microwave technology on the market.

There are two models of the FireSafe Microwave:
Standard -- only spark detection
Deluxe -- both spark detection and fire suppression.

Standard Feature: **\$17***

Deluxe Feature: **\$30***

*In addition to price of a microwave

How It Works

If a spark is detected, the FireSafe technology will stop the microwave and alert the user through a flashing "Spark" light and a beeping sound.

Once the spark is detected, the system will check for fires. If a fire is detected, the fire suppression system will turn on, emitting carbon dioxide into the microwave. The user will be alerted through a flashing "Fire" light and a faster beeping noise. The "Replace CO₂" light will also turn on.

If the fire is not extinguished, the microwave will emit a more rapid beep alerting the user to take immediate action.

To replace the carbon dioxide cartridge, the user slides off the filter cover, located underneath the microwave. Then user unscrews used CO₂ cartridge, screws in a new one, and presses the reset button. The "Replace CO₂" light will then turn off.