

WHAT IS PHANTOM OPERATION?

By Roy Bardowell, CDDC

Most door operator technicians are truly aware of what phantom operation is, because they have most likely experienced it when doing service. Homeowners who have experienced this phenomenon will describe the issue as “my door moved on its own. An operator that opened or closed the door without an intended input is rare and unlikely. Pure and simple, a motor operator cannot start on its own—it must be told to go. The units that command an operator to start are the wall push-button, a wired or wireless outside keypad, or one of the remotes.



When a technician is called to a job where phantom operation has occurred, his first intuition is to re-code the radio receiver, thinking the operator may have received a random rogue signal. Since the development of rolling code radio controls which are employed on most residential door operators in one variation or another, it has become nearly IMPOSSIBLE for two households to be paired up. The only way I can see this happening is if both nearby households are setting their codes at the same moment. Then one could learn the other.



Twenty years ago, the remotes and receiver in some cases had only 256 frequency combinations and it was only by chance two households might share the same frequency code. Sometimes other devices could set off a signal that could signal the door operator to move. In my own home in New Jersey, I experienced my door operator move when I left my keys in the ignition and swung the car door open. We have all heard the bing-bing-bing when you do this. By some rare accident this happened, but only one time. Afterwards, I began removing my key before exiting the vehicle.

Another weird problem I experienced was a heat related issue. Most remotes come with a visor clip so you can place the remote on your sun visor. In some cases, the remote may be placed between the visor and the vehicle roof. In hotter climates, the vehicle roof can become very hot effecting the plastic that makes up the remote casing. On an older Linear FXK remotes the plastic would warp just enough to click the button on the remote circuit board. If your car is parked outside on a really hot summer day your garage door might operate if the remote casing is warped.

However, the most common cause of Phantom Operation is seldom considered and mostly overlooked. In my 50 years of service experiences, I have often found the bell wire has been breached by a metal staple. Many operators are provided by insulated staples, yet they are often discarded and replaced by a hand stapler. This is common because it saves time when stringing the wire from the motor operator to the wall mounted push-button.



So, if you are stumped on what is causing Phantom operation/you must check every staple used along the bell wire. A staple may be causing a short even if it looks fine. I would pull any staple that looks like it is pressing on the wire too hard.

Another thing to look for is a defective push-button. If unsure, you can remove the button and give it a couple of days to see if the problem goes away. Some push-buttons supplied by LiftMaster have a resistor across the two screws on the back of their push-button. The resistor is there to verify the integrity of the push-button circuit and works properly with LiftMaster door operators, however sometimes an operator is replaced with another brand and the LiftMaster push button is used. Since the newer operator is not designed to ignore the

resistor, it acts like a contact and the door will experience phantom operation.

Another thing to look at is the base where the push-button is connected too. I have found a push-button connected to a 2x4 board that was soaking wet. The gutter above the garage was sending water down the board and shorting out the two terminals behind the button.

Old style key switches are another item that can fault when wet. If you find a turn type key switch, you should try and sell the homeowner the safer keyless entry.



Some dummy pushed a screw through the button circuit board, resulting in a short-circuit which was starting the door all day long.

TO CONCLUDE; If you experience Phantom Operation, check all the staples for shorts or check the push-button for integrity. You can also disconnect the two wires where connected at the motor operator for a spell and see if your problem is remedied.

Changing the radio codes are a last resort.

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