

# EMF Kill Switch

Build by Manufacturing Technical Consultants, LLC for EMF Kill Switch

For all models with or without remote

## Installation And Operating Instructions

**Note:** There is a pictorial guide to installation on our website that may be helpful.

**Warning:** All models of the EMF kill switch should be installed by a professional electrician familiar with electrical wiring and codes. Manufacturing Technical Consultants LLC accepts no responsibility for accidents, damages or personal injury caused by incorrect installation. These units are designed for surface mounting *INDOORS* only, unless you purchased our outdoor rated enclosure.

**Caution:** These units are rated at 20 A per Branch Circuit with motor loads not to exceed more than indicated on the unit's data label.

### **Other Requirements:**

1. 1 independent 120 VAC 20 A or 15 A rated single pole circuit breaker will be required to power the EMF Kill Switch unit.
2. Circuit breakers should be marked to indicate which circuits are to be turned off and each assigned a sequential number starting with the number 1. The highest number should correspond to the number of circuits your EMF KILL SWITCH is capable of handling.
3. If the EMF kill switch is going to be zoned, circuits should be grouped and labeled for zoning. **For Example:** Zone A: home circuit breakers numbers 12, 14,18, 21,17 (for this project, numbers 1 thru 5) and Zone B: home circuit breakers numbers 13, 15, 20 (likewise numbers 6 thru 8). Our 6-circuit unit can be zoned into 2 zones of 3 circuits each and the 12-circuit unit can be zoned into 2 zones of 6 circuits each. If you are establishing zones, you will need to select a unit that works for your largest zone. In our example, we have one zone of 5 circuits and another zone of 3 circuits, and will resultantly require the 12-circuit unit. In this case, Zone A would use the first five circuits and Zone B would use the remaining three. All zones in a home must utilize the same control method (either remote FOB or hard wired switch).

### **Installation Procedure:**

**IMPORTANT:** Please read this entire procedure before beginning installation. **WARNING:** For SAFETY, turn **OFF** the **MAIN** circuit breaker in the main electrical panel **BEFORE** starting installation. Remember the wiring ahead of the Main is still **HOT** even with the main breaker turned off.

1. The EMF Kill Switch can be installed on either the left or right side of the load center (main electrical panel). The EMFKS is provided with a flexible conduit connection (unless you purchase our flush enclosure which only comes with the pre-wired pigtail). The pre-wired pigtail of the EMF Kill Switch should connect to the home's main electrical panel thru one of the bottom or lower knockouts of the main electrical panel enclosure.

*Caution:* To prevent damage to wire harness, do not rotate flexible conduit more than 90 degrees left or right of centerline of EMF KILL SWITCH enclosure.

2. While holding the unit against the wall, attach the flexible conduit of the EMFKS to the home's main electrical panel. Permanently anchor the EMFKS against the wall by using screws thru the designated anchor points in the back of the enclosure.

**Note:** Be careful not to put excessive stress on the flexible conduit and at the EMF KILL SWITCH. Ensure that at the termination of the wire harness that there is no excessive twisting or strain on the wires.

3. After mounting the unit to the wall, you are ready to terminate the wires from the EMFKS unit to each circuit breaker and branch circuit. All **BLACK** wires are marked **CB** for termination into the circuit breaker and will have a corresponding **RED** wire for the corresponding home's branch circuit marked **BC**. Each of these wire pairs will have a sequential number to indicate which internal contact the EMF kill switch is using. These pairs should be kept together for each circuit you are switching off.

*Example: You are using a EMF 6 Kill Switch which can switch off 6 circuits. There will be 6 pairs of wires each labeled 1 thru 6. Each pair will have CB for the circuit breaker and a BC for the branch circuit. You should have up to 6 circuit breakers in your load center (main electrical panel) pre- marked indicating what circuits you are switching off and whether they are going to be zoned.*

4. At the load center, start with number 1 wire pair from the EMF KILL SWITCH wire harness and find the corresponding number 1 circuit breaker that was previously marked. Remove the wire from the circuit breaker and inset the new black wire labeled **CB -1** back into this breaker and tighten. On the branch circuit wire removed from the circuit breaker previously, using a wire connector, connect this wire to the wire labeled **BC-1**. Repeat this procedure for the rest of the wires in the harness.
5. If everything was properly connected as described in the previous step there should be just 3 wires left to connect (unless you did not use all of the potential circuit controllers in our unit). These 3 wires are used to provide power to EMF KILL SWITCH using the dedicated circuit described in the requirements section and a ground. The **GREEN** wire should go to the ground bus, the **WHITE** wire to the neutral bus and **BLACK** wire labeled **PWR** to the circuit breaker. With all the wires hooked up, go back and check that each wire is at the correct location and everything is terminated properly. **DO NOT POWER UP UNIT.** Note: If there are any unused wires from the EMF Kill Switch in the main electrical panel, cover them with wire nuts.

6. If the EMF KILL SWITCH is going to be controlled by a hard-wired remote switch go to the remote switch section. If RF remote unit is to be controlled by a FOB, proceed to step #7.
7. Inside the EMFKS unit you will see 2 switches, one labeled REMOTE, WIRED and the other labeled, ZONE 1 and ZONE 2. If you are using the remote FOB for control, select "remote". If you are establishing zones, select "zone 2", otherwise select "zone 1".
8. Reinstall the main electrical panel cover and turn on the main breaker. At the home's main electrical panel, ensure that all the circuit breakers that are to be controlled by the EMFKS are in the ON position. Confirm (by checking lighting and receptacles) that power is restored to all the areas of the home that the EMFKS will be controlling. Do not proceed if power was not restored to these areas. Stop and shutdown the main breaker and determine the issue. If all the power was restored, turn on the circuit breaker used to POWER the EMF KILL SWITCH. At this point you should see a light on the RF remote control unit indicating it is ON.
9. Your EMF KILL SWITCH RF remote is pre-setup at the factory and you should be able to turn off and on your desired mitigated areas with the FOB. If you are controlling 1 zone use button labeled A on the FOB. If you are using 2 zones, the button labeled B will control the other mitigated area.

### **Installation of EMF KILL SWITCH using a hard wired traditional control switch**

1. These steps describe the installation of the EMF KILL SWITCH that uses a hard wired switch (typically placed in the bedroom) to control the operation of the unit. You should have completed steps 1 thru 6 above. Additionally, you will have routed appropriately rated wire (minimum of 22g) and installed a field control switch (typically a common light switch).
2. Inside the EMFKS, locate the 2 terminal blocks at bottom of the interface board. Their location and labeling are shown on the web site. If you are going to control 1 zone, you will use 1 set of these terminal blocks to wire in a remote switch and if you are using 2 zones, then both sets of terminal blocks will be utilized.
3. The wires that go to the terminal blocks must be routed separately from the other electrical wiring of the EMFKS. You will need to create and utilize an opening (and customer provided strain relief) at the bottom of the EMF KILL SWITCH enclosure
4. Depending on your desired set up move the switches on the terminal board to their appropriate locations: For a hard-wired switch set up, select "wired". If you are establishing zones, select "zone 2", otherwise select "zone 1".

5. Reinstall the load center cover and turn on the main breaker. Ensure that all the circuit breakers that are being controlled by the EMF kill switch are manually set to ON. With your field installed switch/es in the OFF position, confirm that power is restored to all the areas that you are controlling (check lights and receptacles). Do not proceed if power was not restored to these areas. Stop and shutdown the main breaker and determine the issue. If all the power was restored, turn ON the circuit breaker used to POWER the EMF KILL SWITCH.
  
6. Turn OFF and ON your field switch and verify proper operation.