

# **Instructions for Operating the Lightning® Switch**

(USA version)

## **To set up the system:**

**Plug the Receiver into any 110-volt outlet.** *The red light will glow for a few seconds to confirm that the outlet is powered. Note: A Receiver will not respond to any Transmitter, until the Receiver learns the code of that Transmitter.*

### **How a Receiver learns to respond to a Transmitter**

1.) **Press the "Learn" Button on the Receiver.** *The green light will glow for a few seconds, during which the Receiver is in learning mode.*

2.) **While the green light is glowing, press the Transmitter button.** *The green light on the Receiver will go out when it has learned the code of the Transmitter. The Receiver will now work with that Transmitter.*

Note: A Receiver can learn to respond to up to 30 different Transmitters. When the Receiver is in operation, the red light will glow when the Receiver is ON.

### **How to erase a single Transmitter's code from a Receiver's memory**

1.) **Press the "Erase" Button on the Receiver.** *The yellow light on the Receiver will glow for a few seconds, during which the Receiver is in erase mode.*

2.) **While the yellow light is glowing, press the Transmitter button.** *The yellow light on the Receiver will go out when it has erased the code of the Transmitter. The Receiver will no longer work with that Transmitter.*

### **How to erase all Transmitter codes from a Receiver's memory**

**Press the "Learn" and "Erase" Button on the Receiver simultaneously, and hold them down for five or more seconds.** *The green and yellow lights on the Receiver will flash for a few seconds to indicate that the Receiver is erasing all the codes in its memory. The green and yellow lights on the Receiver will go out when it has erased all transmitter codes. The Receiver will no longer work with any Transmitter until it has learned a new code.*

### **Meaning of Receiver lights:**

**Red** When you initially plug the receiver in, the red light will glow for a few seconds to let you know that the electrical outlet is powered, then the red light will go out. After the receiver has learned the code of your transmitter, and the system is in operation, the red light signals when the receiver is turned "On." When you press the transmitter button, the receiver will switch its own outlet "On" and the red light will be lit. When you click the transmitter again, the receiver will switch its outlet "Off", and the red light will go out.

**Green** The green light indicates that the receiver is in "learn" mode. It will only be turned on for a few seconds after you press the "learn" button. The green light will go out after you click the transmitter to "teach" the receiver the transmitter's code, or after five seconds, whichever comes first.

**Yellow** The yellow light indicates that the receiver is in "erase" mode. It will only be turned on for a few seconds after you press the "erase" button. The yellow light will go out after you click the transmitter to "erase" the transmitter's code from the receiver, or after five seconds, whichever comes first.

**Green and Yellow flashing lights** The green and yellow lights flash together whenever you press the "learn" and "erase" buttons simultaneously and hold them down for five seconds. *The green and yellow lights on the Receiver will go out when it has erased all transmitter codes. The Receiver will no longer work with any Transmitter until it has learned a new code.*

### **How to mount the Lightning® Switch Transmitter on a wall:**

The Lightning® Transmitter may be hand-held, placed on a table or in a drawer, or mounted on a wall like a traditional light switch. When it is wall-mounted, it may be placed over an existing switch box, or it may be mounted anywhere on the flat surface of any wall.

- **Mounting over an existing Switch Box:** When the Lightning® Transmitter is mounted over an existing standard switch box, the large "frame" should be used so the Lightning® Transmitter covers the entire hole in the wall. Simply snap the transmitter into the large frame, then position the frame and transmitter together over the switch box. The top and bottom holes in the frame will line up with the corresponding holes in the switch box. Use the screws from your old cover plate to attach the frame and transmitter to the switch box.
- **Mounting on a plain flat wall:** When the Lightning® Transmitter is to be mounted on a plain flat wall, you may use screws (provided) with or without expansion anchors (also provided) or you may mount the transmitter with double-stick tape (also provided)
  - a) On wooden walls, first remove the frame if it is already in place. The frame will "snap" off the transmitter from the top and bottom so you can mark the four mounting holes in the base. Drill pilot holes for the four screws before mounting the base on the wall. Then snap the frame over the base.
  - b) On hollow plaster or sheetrock walls, first remove the frame if it is already in place. The frame will "snap" off the transmitter from the top and bottom so you can mark the four mounting holes in the base. Drill pilot holes for the expansion anchors, insert the expansion anchors into the holes, then fasten the frame and transmitter to the anchors using the screws provided. You should drill the holes for the expansion anchors just large enough so the anchors fit in snugly without having to hammer them in. That way, when the anchors expand, the transmitter will be held in place firmly.
  - c) On glass, metal, or marble walls, the Lightning® Transmitter may be mounted with double-stick tape (provided in the kit) in this case, it is not necessary to remove the frame before mounting the transmitter on the wall.
- **Mounting on an uneven or rough surface:** When the Lightning® Transmitter is to be mounted on an uneven or rough surface, regardless of the method used to mount the transmitter, (screws, screws and anchors, or double-stick tape) it should be firmly secured to the surface so it does not move or vibrate when the button is pressed. However, if it is mounted on a very irregular surface, it should not be screwed down so hard that the base is bent. If the Lightning® Transmitter needs to be mounted on a very irregular surface, the surface should first be flattened to a reasonable tolerance by sanding or other methods.

## General Information about the Lightning® Switch System:

### Warranty

The Lightning® Switch is covered by a limited lifetime warranty. Lightning® products are warranted to be free of defects in materials and workmanship for the lifetime of the Purchaser. We will replace the defective product when it is returned by the Purchaser, along with the original proof of purchase. This limited warranty applies to home use only and will be considered void if the unit is tampered with or is subject to misuse, negligence or accidental damage.

### How it works:

When the button on the transmitter (what appears to be the push-button “switch”) is pushed, a revolutionary piezoelectric device called Lightning® is bent, producing enough electrical energy to send a coded radio frequency signal to the receiver. Lightning® is a special laminated sandwich made up of metallic and piezoelectric ceramic layers. The piezoelectric ceramic is the part of the sandwich that actually generates the electricity; the metallic layers maximize its performance. Each of the transmitters has its own unique ID code, so you will never turn on the wrong thing in your house (or in the neighbor's house). Each transmitter's unique code can be matched with one or many receivers. The matching of transmitters and receivers is accomplished in less than five seconds by pushing two buttons. Please see the detailed instructions above.

The Lightning Switch system will transmit *at least* 75 feet (23 meters) from the transmitter to the receiver... through multiple walls, floors, or doors... in a normal building environment. We have tested our current products to well over 350 feet through air.

You can create a 2, 3, 4 (or even a 30-way) switch system just by adding more transmitters. Remember that the actual switching occurs at the receiver. Each receiver can accept commands from as many as 30 different transmitters (the pushbutton device on the wall that you press with your finger). One transmitter can control as many receivers as you like.

If you buy another transmitter or receiver later, (even years later) the transmitters (or receivers) you purchase later will be fully compatible with the system you purchase today. Because each transmitter uses a unique code which can be "learned" by any receiver, the system is very flexible.

### Federal Communication Commission Interference Statement

The Lightning® Switch system has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### Underwriters Laboratories Statement

The Lightning® Switch system is listed with the Underwriters Laboratories. The system complies with all known safety requirements when operated with reasonable care in accordance with the instructions.