



INTEGRATING FORBES & LOMAX SWITCHES WITH HOME AUTOMATION SYSTEMS

BASIC PRINCIPLES

Forbes & Lomax “dry contact” push buttons and toggle switches can be used as controls for panel-based home automation systems such as Lutron Homeworks, Crestron, Savant and Control 4.

The switches connect to these systems using contact closure interfaces. Once connected, different functions can be assigned to the switches via programming in the system’s software. Typical examples of functions would be selecting and dimming a lighting zone or scene, cycling through multiple scenes, switching the “whole house off”, raising and lowering window shades, etc. Cover plates can be custom engraved with text to denote the functions of each switch.

Whilst our “dry contact” push buttons and toggles function as the front-end controls (an alternative to standard “keypads”), it is the Lutron, Crestron, Savant or Control 4 processor and “panel” of dimmers, which are hidden away in an electrical closet, that would handle the lighting loads.

The contact closure interfaces can either be housed in the junction boxes behind the Forbes & Lomax switches or in the electrical closet with the system’s processor. If the interfaces are located with the processor, home runs of data cable would need to be run from each switch location back to the interfaces. If the interfaces are located in the junction boxes behind the switches, the switch locations can be wired together as a network. One must bear in mind the size of the interfaces, when considering housing them in the junction boxes behind the switches. Some configurations of Forbes & Lomax switches only fit into specific junction boxes, so please consult with Forbes & Lomax to clarify what junction boxes to use.

TYPES OF DRY CONTACT SWITCHES

Momentary Push Buttons provide *one contact closure*. In the resting position, the switch contacts are ‘open’ and when the button is pushed, it closes the contacts to ‘make’ the circuit. As soon as the switch is let go of, it ‘breaks’ the circuit.

Momentary 2-Position Toggles provide *one contact closure*. The 2-Position momentary toggles can be mounted so the switch levers rest pointing up or down. In the resting position, the switch contacts are ‘open’ and when the switch is pushed the other way, it ‘closes’ the contacts to ‘make’ the circuit. As soon as the switch is let go of, it springs back to the resting position and ‘breaks’ the circuit.

Momentary 3-Position Toggles provide *two contact closures*. The 3-Position momentary toggles rest pointing straight forward at a 90 degree angle to the faceplate. In the resting position, the switch contacts are ‘open’ and when the switch is pushed up, it ‘closes’ one set of contacts to ‘make’ a circuit and when the switch is pushed down, it ‘closes’ another set of contacts to ‘make’ another circuit. As soon as the switch is let go of, it springs back to the center resting position and ‘breaks’ the circuit.

Latching 3-Position Toggles provide *two maintained contact closures*. The 3-Position latching toggles are OFF when pointing straight forward at a 90 degree angle to the faceplate. When the switch is pushed up, it ‘closes’ one set of contacts to ‘make’ a circuit and when the switch is pushed down, it ‘closes’ another set of contacts to ‘make’ another circuit. The switch stays in place, it does not automatically spring back to the center, therefore is a “latching” switch.

INSTALLATION

It is important to note that some plate configurations of dry contact switches require specific types of junction boxes. Please consult with our sales office for details. Also note that all junction boxes must be recessed below the finished wall surface by at least 1/8”, as shown in our Junction Box Assembly diagrams.