

## SECURITRON MODEL MSS-1C SERIES MAXIMUM SECURITY SWITCH INSTALLATION & OPERATING INSTRUCTIONS

### 1. DESCRIPTION

Securitron's concealed maximum security magnetic switch is intended for 4 7/8" ANSI cut-out door/frame mortise mounting in critical environments where an attempt to defeat the switch is a concern. The MSS-1C consists of two pieces: the switch module and the magnet pack.

### 2. DEFEAT RESISTANCE ISSUES

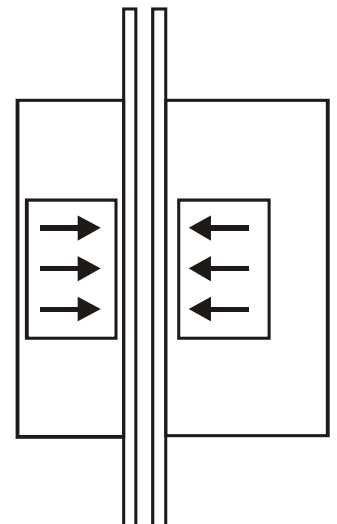
The MSS-1C is virtually impossible to defeat with a single external magnet. A threat can exist if an intruder attempted to defeat the switch by obtaining a second MSS magnet pack. The MSS might be defeated by positioning the second magnet pack near the switch module in a manner that permits the door to be opened without an alarm being signaled.

The fact that the switch module and magnet pack are mortised into the door frame and door is a major defense against this threat. This is particularly the case when the door frame is made of steel as steel will constitute magnetic shielding against an attempt to defeat the switch with an externally applied second magnet pack. The MSS also includes an extra defense against this. The product is **manufactured in different types**. The magnet pack must be of the same type as the switch module to work. The MSS is delivered as a matched pair with no marking that identifies its type. Therefore, a person attempting to introduce a second MSS magnet pack in an attempt to defeat the switch may well have the wrong type pack.

### 3. PHYSICAL INSTALLATION

The MSS-1C includes a **minimum and maximum operating distance**. The unit will report secure only when the separation distance is between this maximum and minimum. If the magnet pack is too close to the switch module or too far away, the unit will alarm.

The distance between the minimum and maximum separation points is called the gap. The MSS provides a **gap of 4/10"-1/2" (10-12.5MM)**. When looked at in terms of actual separation distance, typical operating range is from **1/10" to 6/10" (2.5MM to 15MM)**. The actual separation distance in a mortise mount, however, is generally controlled by the way in which the door is mounted. It almost always falls well within the separation distance range of the MSS-1C but in the event of an unusual door, you may have to shim the magnet pack or switch module to achieve proper separation. Note that you can also choose whether to mount the MSS-1C on the **vertical or horizontal** section of the door frame as a means to achieve a reliable separation distance.



### 4. WIRING

The MSS1-C has three wires that are assigned by color as follows:

White = Common      Red = NC      Black = NO

Because we're using the terms normally open and normally closed, it's necessary to define what we mean by "normal". **The normal condition of the MSS is when it is reporting secure** (the magnet pack is at the separation distance from the switch module). So, for example, you'll read a closed circuit between White and Black if you meter the switch module in alarm condition (magnet is not near the switch module) but you'll read open if you meter it in the secure condition.

**Maximum contact ratings** depend on the voltage put through the switch. **They are 250 mA at 12V or less and 125 mA at 24V.** In special applications, the switch can accept up to 100V but the current must be proportionately limited to a maximum 3 watt power rating (60 mA at 50V; 30 mA at 100V).

### 5. MAGNACARE® LIFETIME REPLACEMENT WARRANTY

For warranty information visit [www.securitron.com/en/site/securitron/About/MagnaCare-Warranty/](http://www.securitron.com/en/site/securitron/About/MagnaCare-Warranty/)

**PATENT NOTE:** The products discussed in this manual are covered under US patent #5,668,533