Single Zone Security Control for MM220

This security system utilizes momentary KeySwitch arming/disarming, a Normally Closed Burg Loop, an Alarm Relay Output, and a Status LED Output. It features an Instant or Delay mode with 30 second Exit and Entry timers. The Exit, Entry, and Alarm cutoff times can be changed by using the optional ELK-MK400S Starter Kit and running the Wizard on the source file. The hookup diagram is shown below.

Hookup:

Power: Connect a 12 Volt Power Supply. The system will power-up in the Armed Delay (Away) mode. This is a precaution in case of a power failure. If any loops are bad, the unit will go into alarm. A battery-backed power supply is highly recommended, such as the Elk-624 connected to an Elk-1240 battery.

Input1: KeySwitch. Connect a normally open switch which is used to momentarily arm or disarm.

Input2: Normally Closed Burg Loop. Connect normally closed contact switches in series.
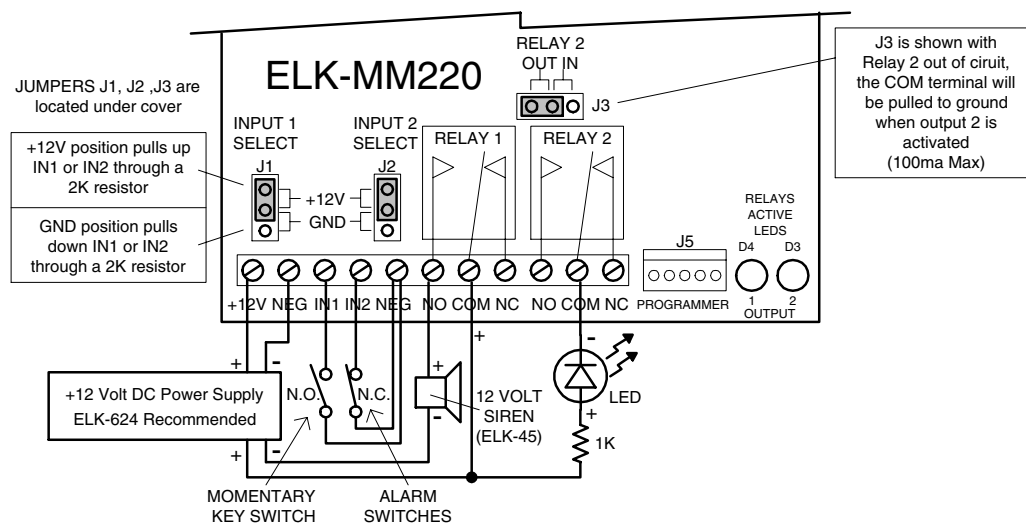
Output 1 - Alarm Relay. Activated when the system is armed and the burg loop is opened after the entry timer has expired. The Alarm Relay will remain on until the Alarm Cutoff timer expires or disarmed with the keyswitch, the default cutoff time is 5 minutes.

Output 2 - Status. This output is configured to drive an LED indicator to indicate system status. JP3 should be set to the RELAY OUT position and the "-" lead of the LED should be connected to the Relay2 COM terminal.

Operation:

Delay (Away) Mode. Make sure the Burg loop is good (closed). Output 2 (Status) should be flashing at a .5 second rate. Momentarily close the keyswitch. The Status output should start flashing at an uneven blink rate of .1 sec on, .4 sec off indicating the "Delay Exit" mode. The Burg loop may be opened during the exit time without causing an alarm. Once the exit time expires, the Status output will flash at a .1 sec rate indicating the "Armed" condition. If the Burg loop is opened, the Status output will begin flashing at .1 sec on, .4 sec off indicating the "Delay Entry" mode to alert the user to disarm the system. If not disarmed, the system will go into alarm after the entry timer expires and Output 1 will activate for the time programed in the Alarm Cutoff timer.

Instant (Home) Mode - To switch to Instant Mode, Hold the Keyswitch closed for 2 seconds. This will activate the Instant Mode and cause the Status output to immediately go to the fast flash rate. In Instant Mode, the Burg loop will instantly cause an alarm if it is opened. This would be used for the "Home" mode, when no entry time is desired.

Example Hookup: ELK-MM220 used as a Single Zone Security System

IN1 is a Momentary Key Switch, IN2 is a Normally Closed Burglar Loop, Relay 1 is the Alarm Output, Relay 2 is the Status LED