ELK-6020 Wireless Slim-Line Door and Window Sensor

APPLICATION

The ELK-6020 Wireless Slim-Line Door & Window Sensor is ideal for use on narrow jamb door and window applications. It features Elk's Industry Leading Two-Way Technology with positive signal acknowledgment, extended range, and long battery life. It works with Wireless Transceivers and Controls that accept Elk's two-way technology; such as, the ELK-M1XRFTW. Each time the 6020 transmits it sends a unique TXID identifier and a Loop number.

SPECIFICATIONS:

Frequency: 902 Mhz - 928 Mhz frequency hopping
Tamper: Field installed plunger for front and back detection
Dimensions: .71"W x 3.4"L x .8"D Mag: .57"W x 1.5L x .6D
Maximum Operating Gap of Reed: 1/2"
Operating Temperature: 14° to 104° F (-10° to 40°C)
Relative Humidity: 5-95% Non-Condensing
Battery: 3.6V ER14250 Lithium - See Battery Installation
Unique TXID Code: Over 1 million combinations

Enrolling from M1 Keypad Installer Programming

1. Enter **M1 Keypad Installer Programming** and navigate to Menu: **14-Wireless Setup**
2. Press right arrow, then scroll up to Sub-Menu: **3:Learn Sel WirelessTransmtr**
3. Press right arrow, then scroll or select a unused/available **WZone** (wireless zone).
4. Press right arrow to **Lrn** (Enroll) a new sensor.
5. Insert the Battery into the 6022 as soon as the keypad displays: **Push Transmitter Button**. The M1G voice will speak; "Press Transmitter button for zone xx".
   NOTE: If battery is already installed; remove it, wait 5 seconds, then re-insert.
6. Upon successful enrollment the Keypad will chime and briefly display the 6 digit TXID code of the sensor.
   If enrollment fails the TXID will not display. If that occurs; remove the battery, wait 5 seconds, then re-insert. In certain instances it may be necessary to repeat steps 3 - 6.
7. The Rapid-Enroll feature will auto advance to the next wireless zone in sequence and wait for the next sensor enrollment. Simply repeat step 5 for each additional sensor.
8. To end Rapid-Enroll after all wireless zones (sensors) have been enrolled press the ELK key one time.
9. Set the Loop Number. ELK wireless sensors use Loop 2 for the built-in reed switch. Since the 6020 only has the single "reed switch" zone, the default M1 Loop # 0 will recognize the reed switch WITHOUT the need to change the Loop from 0 to 2. If you wish to view (or change) the Loop #, scroll up or down to the desired M1 wireless zone and press the left arrow. The screen will display a 9 digit number (TXID in decimal) followed by **Loop=**.
10. Supervision - For wireless Burg sensors the supervision should be set to 1=Normal "Burg". This happens to be the factory default setting for all wireless zones. To view or change the Supervision value, press the ELK key to locate Sub-Menu: **2:Xmit Transmitter Opt**. Press the right arrow and scroll to the wireless zone, then press right arrow to select.

ZONE DEFINITION: After all wireless zones have been enrolled proceed to Menu: **5 - Zone Definitions** to program the name, zone type, and any desirable options.

Enrolling from ElkRP Software

1. Launch ElkRP and open the desired Customer Account file.
2. If no wireless zones currently exist in this M1 you will need to create a group of 16 wireless zones. In the folders column right click on **Zones (Inputs)** and then click **New Wireless Zones**. Place a check mark in the box beside the desired group, then click OK. Repeat if additional wireless groups are required. All expanded zones must be defined in groups of 16. The M1XRFTW wireless must always start at Zone 17 (Group 2) and the last wireless zone CANNOT be higher than Zone 160 (Group 10).

   Note: M1 only allows Zones 17 to 160 to be used for wireless zones (max. of 144 wireless sensors). If a large number of wireless zones is expected, avoid conflict with any future Hardwired Zones in the range of zones 17 to 160 by NOT enrolling any Hardwired Zone Expanders (M1XIN) at data bus addresses below 10.

3. Double click on **Wireless - Group _** (the group just added), then double click one zone at a time to define a name, type, and options. Repeat for each wireless zone. It is more time efficient in ElkRP to program the Zone Definitions (name, type, and options) before moving to the Wireless Setup for entering the TXID and Loop number.
4. From the Folders column double click on **Wireless Setup** to setup and enroll the wireless sensors.
   4a. Click the **Transmitters** tab, then double click a zone.
   4b. Place a check mark in the **Enabled** box.
   4c. Set Supervision type: **0**=Non Supervised (Keyfobs), **1**=Normal "Burg" Supervision, or **2**=Fire Supervision
   4d. Skip down to the **TXID box** and enter the Sensor TXID from the printed label located on the sensor.
   4e. Skip to the **LOOP** box and enter a 2. Loop 2 defines the built-in reed switch.
   4f. Click **Save**. Repeat the entire step 4 for each additional Wireless Zone and Sensor.

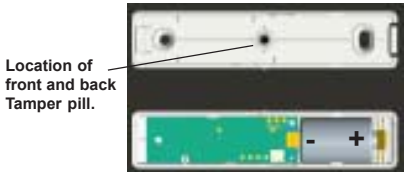
Locating Sensor & Mounting

Sensor should be mounted to a clean, flat, dry surface. Always pre-test sensor in its intended location PRIOR to permanent mounting. NOTE: Avoid metal mounting surfaces whenever possible since metal surfaces can negatively affect wireless operation. Observe temperature and humidity specs. Do not use in high moisture/humidity areas.

1. Remove the baseplates from the sensor and magnet by inserting the tip of a small flat screwdriver in the end slot.
2. Enroll the sensor into the control and transceiver.
3. Test the sensor at its intended location prior to mounting.
4. When ready to permanently mount, use the supplied adhesive pads or #4 flathead sheet metal screws. Screws are strongly recommended when using the tamper option. Be sure the align marks on both backplates face each other and the maximum gap DOES NOT EXCEED the gap specs.

Figure 1. ELK-6020 Mounting Gap and Alignment

To use the case/wall tamper option, insert the rubber actuator (from hardware bag) into the post near the center of the baseplate. Tamper will auto-enable when sensor is snapped onto the baseplate. Tamper alerts will now be sent if sensor is opened or removed. *Once enabled, tamper can only be disabled by removing the battery, removing the actuator, and re-powering the sensor WITHOUT the actuator present.*



CAUTION: Do not reverse the battery polarity!

Figure 2. ELK-6020 Sensor & Backplate

5. Attach the sensor and magnet to their baseplates.

Applying the self adhesive mounting tape:

1. Clean all surfaces of any grease, dirt, etc.
2. Hold tape with pink surface towards you. Gently bend at one corner, then grasp and remove the pink backing.
3. Grasp the remaining clear backing with adhesive facing side down and align the edges over the back of the sensor.
4. Gently rub down the tape to the sensor back.
5. Grasp and remove the clear backing just prior to mounting.
6. Hold sensor in place for several seconds to allow a strong bond. It may require up to 24 hrs for tape to reach full bond.

NOTE: Adhesive tape cannot be used for UL Listed Installations.

Operational Testing

A two color LED located behind the plastic cover (front & center) will display feedback each time the sensor is violated or restored. The blink color of this LED may be used for installation and troubleshooting. NOTE: It can be difficult to see this LED under direct sunlight conditions.

GREEN blink = Sensor has successfully transmitted a signal to the transceiver and that signal has been received and acknowledged by the transceiver.

RED blink = CAUTION This indicates the sensor was unable to communicate with the transceiver after multiple repeated attempts. The most likely problem is that the distance between the sensor and the transceiver is too great. However it is also possible that the transceiver if off-line or powered off. Try the following troubleshooting steps:
A. Verify that the transceiver is on with its status LED blinking.
B. Walk to another sensor and test (trip) it to see if it can communicate with the transceiver.
If steps A & B appear to work then the last step would be to temporarily remove the failed sensor and re-test it at a closer range with the Transceiver. If the sensor successfully communicates at a closer range then one of two solutions may be needed:
1. Try to relocate the transceiver at a closer and more central location this and all other sensors.
2. Purchase and install an additional "remote" transceiver to cover the area where this sensor was mounted.

Per UL a complete test of the security system and all zones should be performed once a week. The zones may be walk tested using the M1 Keypad Menu **3 - Walktest Area**.

Limited Warranty

The 6020 Wireless Slim-Line Door & Window Sensor is warranted to be free from defects and workmanship for a period of 2 years from date of manufacture. Batteries used with wireless devices are not warranted. Elk makes no warranty, express or implied, including that of merchantability or fitness for any particular purpose with regard to batteries used with wireless devices. Refer to Elk's website for full warranty statement and details.

Battery Installation and Replacement

A Low Battery signal will be reported to the Control when the sensor battery needs to be replaced.

1. **Remove sensor cover** by grasping the sides and inserting the tip of a small flat screwdriver in the end slot.
2. **Observe correct polarity** when installing the new battery. Do not bend or damage the metal battery holder leafs. Approved Batteries: 3.6V Lithium - ER14250
3. Test sensor operation with panel.

BATTERY WARNING: Risk of fire, explosion and burns. Do not attempt to recharge or dissassemble. Do not incinerate or expose to heat above 212° F (100° C). Dispose of used batteries properly. Keep away from children.

FCC COMPLIANCE STATEMENT:
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.

ELK-6020 Wireless Slim-Line Door & Window Sensor FCC ID: TMAELK-6020

NOTE: ELK PRODUCTS IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

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Printed In USA
L641 12/17/2012