

Ness 6022 Wireless Universal 3-Zone Sensor

Ness Part No. 106-267 (K-106-267 Includes Battery)

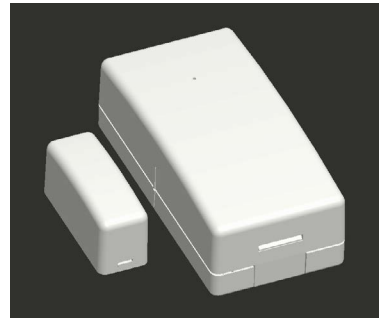


APPLICATION

The Ness-6022 Wireless Universal 3-Zone Sensor is capable of securing up to 3 openings. It features Industry Leading Two-Way Technology with positive signal acknowledgment, extended range, and long battery life. The 6022 provides a built-in reed switch plus 2 aux. terminal inputs (LP1 & LP3). It works with Wireless Transceivers and Controls that accept Ness's two-way technology; such as, the M1XRFTWM. The 6022 transmits a unique TXID identifier plus one of 3 Loop numbers, one for each input zone. The Loop number is used by the control to determine which input is assigned to which wireless zone.

SPECIFICATIONS:

Frequency: 902 Mhz - 928 Mhz frequency hopping
Zones: Built-in Reed + LP1 & LP3 Auxiliary Inputs (terminals)
Tamper: Field installed plunger for front and back detection
Dimensions: 1.5"W x 3"L x .9"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: 3V CR123A Lithium - See Battery Installation
Unique TXID Code: Over 1 million combinations



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

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 WirelessTransmr**
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.

To use external zones LP1 or LP3 the 6022 must be enrolled once again for each zone. It is suggested (but not required) that all three (3) zones be enrolled in sequence. To enroll the next zone; remove the battery, wait 5 seconds, then re-insert. The 6022 (same TXID) will be enrolled again as the next wireless zone. Repeat if using LP3 zone.

8. To end Rapid-Enroll AFTER after all wireless zones (sensors) are enrolled, press the ELK key one time.
9. **Set the Loop Number - VERY important on the 6022.** Scroll 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#**. Press the right arrow and set the Loop to 1, 2, or 3 depending on the input of the 6022 being used for this wireless zone. Loop 2 is for the built-in reed, Loop 1 is for external input LP1, and Loop 3 is for external input LP3.
10. **Supervision** - For wireless Burg sensors the supervision should be set to 1=Normal "Burg". This is also 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.

NOTE: To utilize the external zone input LP1 the 6022 must be enrolled a 2nd time. And to use external input LP3 the 6022 must be enrolled a 3rd time. The TXID number will be identical for each of the 3 wireless zones since they are from the same sensor. The Loop Number assigned to each must be programmed to tell the control which input on the 6022 belongs to which wireless zone. Loop 2 is for the built-in reed, Loop 1 is for external LP1, and Loop 3 is for external LP3.

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 M1XRFTWM 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 set to either 1, 2, or 3 depending on the input of the 6022 being used for this wireless zone. Loop 2 is for the built-in reed, Loop 1 is for external LP1, and Loop 3 is for external LP3.
- 4f. Click **Save**. Repeat the entire step 4 for each additional wireless zone(sensor).

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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 baseplates face each other and the maximum gap DOES NOT EXCEED the gap specs.

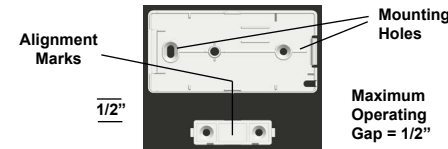


Figure 1. Ness-6022 Mounting Gap and Alignment

For case/wall tamper option place the rubber actuator on the backplate post. Tamper will auto-enable when sensor is snapped on the baseplate and will send a violation if sensor is opened or removed. *Tamper can only be disabled by removing the battery, removing the actuator, and re-powering the sensor WITHOUT the actuator present.*

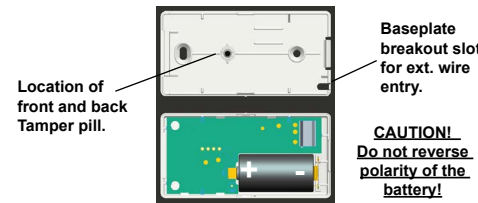


Figure 2. Ness-6022 Sensor & Backplate

5. To utilize the external zones (LP1 & LP3) remove the small breakout slot in the baseplate and connect the wires from the N/C external switches to the terminals marked LP1, COM, and LP3. (COM is shared between zones) Carefully dress wires, passing by the battery and out the baseplate slot.
NOTE: N/O (Normally open) contacts may alternately be connected to the external zones LP1 & LP3 by enabling Option 2 under Menu 14, sub-menu 2:Xmit Transmitter Opt. Per UL no external contact may exceed 3 feet from the sensor.
6. Attach the sensor and magnet to their baseplates. Do not pinch any wires leading from the LP1 or LP3 terminals.

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

FCC AND IC COMPLIANCE STATEMENT:
This device complies with Part 15 of the FCC Rules and Industry Canada License-Exempt RSS Standards. 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.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Ness-6022 Wireless Universal 3 Zone Wireless Door & Window Sensor FCC ID: TMAELK-6022 IC: 4353A-6022

NOTE: NESS CORPORATION 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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Applying the self adhesive mounting tape:

1. Clean all surfaces of any grease, dirt, etc.
2. Gently bend a corner of the pink surface backing and remove.
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 in the sensor front displays feedback of transmission status. This is useful during installation and troubleshooting but may be hard to see in bright light conditions.

GREEN blink = Good

Sensor has successfully transmitted a violation (alarm) transmission to the transceiver and that signal has been received and acknowledged by the transceiver. The green blink is not provided for a sensor restore transmission.

RED blink = CAUTION

Indicates that sensor was unable to communicate with the transceiver after multiple repeated attempts. The distance between the sensor and the transceiver may be too great. Another possibility is that the transceiver is disconnected or powered off. Try the following troubleshooting steps:

- A. Verify transceiver is on with its status LED blinking.
- B. Trip another sensor to determine if it can successfully communicate with the transceiver.
If steps A & B pass, try moving the sensor closer to the Transceiver and re-test. If sensor communicates at a closer range then one of two solutions may be needed:

1. Relocate the transceiver to a closer and/or more central location to 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 6022 Wireless Universal 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. Ness 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

Low Battery trouble will be transmitted when the sensor battery needs to be replaced. Approved 3.0V Lithium Batteries are:

- Panasonic CR123A Duracell DL123A Varta CR123A**
1. Remove sensor cover by grasping the sides and inserting the tip of a small flat screwdriver in the end slot.
 2. Remove old battery and **WAIT AT LEAST 20 SECONDS** before installing new battery. Trip sensor several times to send an "all good" and clear the low battery trouble.
 3. **Observe correct polarity** when installing new battery. Do not bend or damage the metal battery holder leaves.
 4. Test sensor operation with panel.