

# WT-211

## Waterproof Wrist Transmitter



## Installation Instructions

### 1. INTRODUCTION

The WT-211 is a miniature water-proof wrist-worn transmitter, designed to send coded transmissions to wireless receivers of the WR-200 and WR-300 series. Transmission is activated by depressing the pushbutton at the center of the unit.

All WT-211 units are supplied with a wrist band, to be worn like a regular watch. Operating power is obtained from a coin-type, 3-volt lithium battery that can last up to 10 years.

A LED lights during transmission, indicating that the battery voltage exceeds 2.7 V. If the LED lights dimly or does not light at all during transmission, the battery must be replaced immediately.

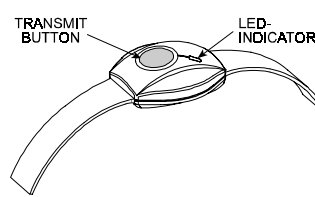


Figure 1. WT-211, General View

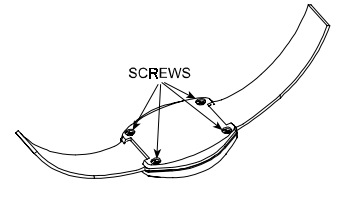


Figure 2. Opening the Case

### 2. SPECIFICATIONS

**Frequency (MHz):** 315, 404, 418, 433.92 or other frequencies according to local requirements.

**Modulation:** ASK (ON-OFF keying)

**System Code:** 8-bit digital word, 256 possible code combinations, pulse width modulation.

**Channel Code:** 4-bit digital word

**Transmit Duration:** Continuous, for as long as the pushbutton is being pressed.

**Power Supply:** 3-volt Lithium cell (Sanyo type CR-2025 or equivalent).

**Nominal Battery Capacity:** 150 mAh

**Current Consumption:** 2 mA (during transmission only).

**Battery Life:** 3 to 5 years with about 3 transmissions per day; up to 10 years with one transmission per day or none at all.

**Battery Check:**

Good battery - LED lights steadily upon transmission.

Low battery - LED lights dimly or not at all upon transmission.

**Low Battery Threshold:** 2.7 VDC

**Operating Temperature:** 0° to 50°C (32° to 122°F).

**Dimensions:** Ø 35 mm (1.4 in.).

**Weight:** 25 g (0.9 oz).

**Color:** Watch - black, button - turquoise.

**Standards:** Meets FCC part 15, MPT1340 and RTTE requirements

This device complies with Part 15 of the FCC Rules and RSS-210 of Industry and Science Canada. 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.

This device complies with the essential requirements and provisions of Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio and telecommunications terminal equipment.

### 3. PREPARATION FOR USE

#### 3.1 Opening the Case

A. Put the transmitter face down.

B. Loosen and remove the 4 screws where shown in Figure 2. Take care not to lose the screws.

C. Turn the transmitter over. Hold the base between the fingers of one hand, and pull the cover off.

D. Make sure that the rubber ring that serves as a seal is in place around the rim of the base. If it comes loose, save it for later use together with the screws.

**Note:** The strap pivots are seated in open grooves at the two edges of the base.

If you put the base on the table "on its back", the pivots and the two sections of the strap will remain in place.

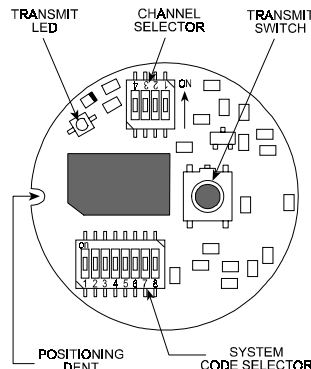


Figure 3. Transmitter Module - Top Side

Upon removal of the cover, the top side of the transmitter module can be viewed (Fig. 3).

#### 3.2 System Code Selection

A miniature 8-position DIP switch with levers marked "1" to "8" is used to select the SYSTEM code - a "password" between the WT-211 and the target receiver.

Each lever on this switch may be set to ON or OFF, to obtain one of the 256 possible code combinations. The digital code selected must match the code setting of the target receiver.

Use a ball point pen or a similar pointed object to shift the switch levers to the positions producing the desired system code (Fig. 4).

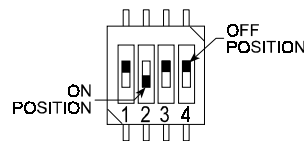


Figure 4. System Code Selector

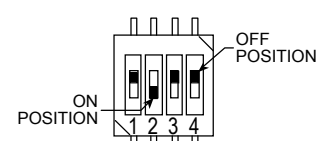


Figure 5. Channel Code Selector

**Important:** The factory test code shown in Figure 4 (2, 4, 5, 6, 7 ON / 1, 3, 8 OFF) must not be used. Also avoid codes such as: all keys ON, all keys OFF or alternating ON/OFF settings.

#### 3.3 Channel Code Selection

A 4-position DIP switch with levers marked "1" to "4" is used to select the CHANNEL code transmitted by the WT-211. Each transmitter can be set to activate any one of the outputs or "channels" of a 4-output receiver. This way, different zones of an alarm control panel may be activated via a multi-channel receiver. The channel code is selected by shifting the lever marked with the desired channel number to ON (Fig. 5).

Use a ball point pen to set the channel selector as required by the host system.



**CAUTION!** disregard the "ON" mark on the channel switch body. The true ON position for each channel is with the lever set close to the channel number.

### 3.4 Closing the Case

- A. Check that the rubber ring is in place around the rim of the base. If not, place it carefully around the rim.

## 4. TESTING AND MAINTENANCE

### 4.1 Testing a New Unit

- A. Stand 3 m (10 ft) away from the receiver and operate the transmitter by depressing its transmit pushbutton.  
 B. Verify that the transmitter LED lights, indicating good battery condition.  
 C. Observe that the target receiver LED lights, indicating detection of the transmitted RF signal.  
 D. In the target receiver, verify activation of the particular output relay associated with the transmitted channel code.  
 E. Operate the transmitter from various locations within the area covered by the target receiver to determine "dead" locations, where transmission is blocked by walls and large objects, or affected by structural materials.

**Note:** If dead/marginal zones are a problem, relocating the receiver may improve the performance.

### 4.2 Replacing the Battery

The original battery supplied with the transmitter can last up to 10 years if used sparingly (only a single transmission per day). Battery replacement will therefore be needed very rarely.

- B. Align the cover with the base: make sure that the transparent lens is over the transmit LED and the transmit pushbutton is over the transmit switch (Fig. 3). Then press the cover and the base together between your fingers.  
 C. Turn the reassembled unit upside down, and while keeping both halves of the case pressed together, insert the four screws and tighten them well.

- A. Open the case as directed in Para. 3.1. The battery clip and the battery will be out of sight - they are both located on the bottom (hidden) side of the module.  
 B. Grasp the **transmit switch** with two fingers. Lift the transmitter module out of the base and turn it over. The bottom side of the module can now be viewed.  
 C. Slide the old battery from under the clip in the opposite direction to the arrow shown in Figure 6.

- D. Hold the 3-volt lithium replacement battery (type CR-2025 or equivalent) with the positive (+) side up. Slide the battery all the way in under the battery clip until it stops.

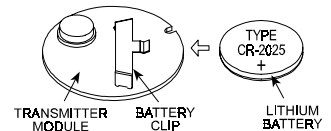


Figure 6. Battery Insertion

- E. Turn the transmitter module over and briefly press the transmit switch (Fig. 3). The on-board LED should light brightly while the switch is pressed.  
 F. Align the positioning dent (Fig. 3) with the guide pin in the base and place the module within the base. Then close the case as instructed in Para. 3.4 above).

## 5. GENERAL COMMENTS

Our wireless systems are very reliable and are tested to high standards. However, due to their low transmitting power (required by FCC, DTI and other regulatory authorities) there are some limitations to be considered:

- A. Receivers may be blocked by radio signals on or near their operating frequencies, regardless of the code selected.  
 B. A receiver can only respond to one transmitted signal at a time.  
 C. Wireless equipment should be tested regularly (at least once a week) to determine if there are sources of interference and to protect against faults.

**WARNING:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### 4.3 Frequency Allocations for Wireless Devices in European (EU) Countries

- 433.92 MHz has no restriction in any EU member state.
- 418 MHz is allowed in the UK only.
- 315 MHz is not allowed in any EU member state

### WARRANTY

Visonic Ltd. and/or its subsidiaries and its affiliates ("the Manufacturer") warrants its products hereinafter referred to as "the Product" or "Products" to be in conformance with its own plans and specifications and to be free of defects in materials and workmanship under normal use and service for a period of twelve months from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or replace the product or any part thereof. The Manufacturer shall not be responsible for dismantling and/or reinstallation charges. To exercise the warranty the product must be returned to the Manufacturer freight prepaid and insured.

**This warranty does not apply in the following cases:** improper installation, misuse, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than the Manufacturer.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express or implied, including any warranty of merchantability or fitness for a particular purpose, or otherwise. In no case shall the Manufacturer be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties whatsoever, as aforesaid.

This warranty shall not be modified, varied or extended, and the Manufacturer does not authorize any person to act on its behalf in the modification, variation or extension of this warranty. This warranty shall apply to the Product only. All products, accessories or attachments of others used in conjunction with the Product, including batteries, shall be covered solely by their own warranty, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, caused by the malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Products.

The Manufacturer does not represent that its Product may not be compromised and/or circumvented, or that the Product will prevent any death, personal and/or bodily injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection. User understands that a properly installed and maintained alarm may only reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no death, personal damage and/or damage to property as a result.

**The Manufacturer shall have no liability for any death, personal and/or bodily injury and/or damage to property or other loss whether direct, indirect, incidental, consequential or otherwise, based on a claim that the Product failed to function.** However, if the Manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, the Manufacturer's maximum liability shall not in any case exceed the purchase price of the Product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive remedy against the Manufacturer.

**Warning:** The user should follow the installation and operation instructions and among other things test the Product and the whole system at least once a week. For various reasons, including, but not limited to, changes in environmental conditions, electric or electronic disruptions and tampering, the Product may not perform as expected. The user is advised to take all necessary precautions for his/her safety and the protection of his/her property.

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