WT-104

4-Channel Hand-Held Wireless Transmitter



1. INTRODUCTION

The WT-104 is a miniature, 4-channel hand-held wireless transmitter, designed to operate with Visonic Ltd. wireless receivers of the WR-200 and WR-300 series.

Transmission is activated by pressing any one of the 4 recessed buttons on the unit. Transmitted data consists of a system code (see Para. 3.2 below) and one of four different channel codes that activates the corresponding output of the target receiver.

The transmitter is powered by a 12 volt alkaline battery. An LED lights during transmission, indicating the battery voltage condition. If the LED does not light during transmission, the battery must be replaced immediately.

All WT-104 units are supplied with a key-holder installed. A neck chain is also included in the package, to permit the unit to be worn as a pendant transmitter.

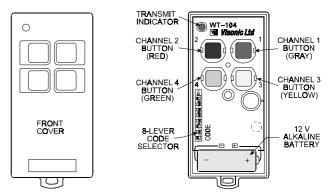


Figure 1. WT-104 with Front Cover Removed

2. SPECIFICATIONS

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

Encoding: 8-bit digital word, 256 combinations, pulse width modulation.

Power Supply: 12-volt alkaline battery (Duracell MN-21, Golden Power GP-23A, or equivalent).

Attention: Transmitter characteristics may be affected by battery condition.

Transmit Indicator: Lights if the battery voltage exceeds 8 VDC.

Operating Temperature: 0° to 49° C (32° to 120° F). Dimensions: $35 \times 80 \times 18 \text{ mm}$ ($1-3/8 \times 3-1/8 \times 3/4 \text{ in}$).

Weight: 28 g (1 oz).

Color: White

Standards: Designed to meet FCC Part 15; meets MPT 1340, ETS 300 220, ETS 300 339 and ETS 300 683 (CE approved).

3. INSTALLATION

3.1 Battery Installation

- A. Open the case by removing the screw from the back cover.
- B. Insert the 12-volt alkaline battery (Duracell MN-21 or Golden Power GP-23A or equivalent) between the battery clips, so that the (+) and (–) markings on the battery are in the same direction as the markings on the P.C. board (close to each battery clip see Figure 1). Check that the battery is held securely by the battery clips.
- **C.** Gently press one of the pushbutton switches and verify that the LED lights, indicating good battery condition.

3.2 Coding

A. All WT-104 units have an 8-key DIP switch block (marked 1 to 8). Each switch may be set to ON or OFF position, to create a unique digital system code - see Figures 1 and 2.

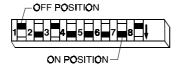


Figure 2. Code Selector

B. Use a ball point pen to set each of the switches to match the code setting of the companion receiver.

CAUTION: The code combination 2, 4, 5, 6, 7 ON / 1, 3, 8 OFF is a factory test code which must not be used. Also avoid codes which are often used: all keys ON, all keys OFF or alternating ON/OFF settings.

C. Carefully position the front cover hole over the LED. Secure the front cover with the screw (through the back cover).

3.3 Testing

- **A.** Carefully position the front cover hole over the LED. Secure the front cover with a screw (through the back cover).
- B. Stand 10 feet away from the receiver and press the Channel 1 (Gray) button on the WT-104.
 - **Note:** Verify that the transmission indicator lights, indicating good battery condition.
- **C.** Observe that the receiver LED lights, indicating detection of the transmitted RF signal.
- $\textbf{D.}\ \mbox{Verify activation of the \textbf{CHANNEL 1}}\ \mbox{relay at the receiver.}$
- E. Repeat steps B through D for channels 2, 3 and 4.
- **F.** Operate the transmitter from various locations within the protected area to determine "dead" spots, where transmission is affected by structural materials etc.

3.4 Neck Chain Installation

- A. Remove the key-ring leaving the triangle installed on the bottom of the WT-104.
- **B.** Open the chain and slip it through the triangle.

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4. MISCELLANEOUS COMMENTS

4.1 Product Limitations

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

- A. Receivers may be blocked by radio signals occurring 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.

4.2 Compliance with Standards

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.

The 315 MHz model of the WT-104 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 that may be received, including interference that may cause undesired operation.

The 418 & 433.92 models of the WT-104 comply with the European Council Directive EMC 89/336/EEC & 92/31/EEC and bear the CE mark and certification.

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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