

MCT-237





1. INTRODUCTION

1.1 Description

The MCT-237 is a miniature CodeSecure™ 6-button keyfob transmitter, designed for use with the PowerMax Pro unit. The device enables the user to arm/disarm the alarm system and to view system status.

For each PowerMax Pro control panel, a maximum of eight MCT-237 keyfob devices may be enrolled. Operating power is obtained from an internal 1.5 V alkaline battery. Each transmitter is supplied with a small keyring.

Transmission is initiated by pressing any one of the six pushbuttons. Upon pressing a specific button, the keyfob transmits a CodeSecure™ digital sequence identifiable by the PowerMax unit, and a 4-bit function code associated with the button that was pressed.

The next time a button is pressed, the keyfob will transmit a digital sequence of three transmissions that differs from the one used in the previous transmission and the respective function code. As a result, malicious "code grabbing" is virtually impossible.

The main features of the MCT-237 are:

- Status, alarm memory, and trouble data retrieval from PowerMax Pro.
- · Visual indications by LCD icon display.
- · LCD backlighting activation.
- Various audible signals sounded by the speaker in response to specific actions.
- 1.5 Volt Alkaline battery.

1.2 LCD Icons

The following table provides definitions for each of the eight icons that appear on the LCD display.

Icon	Definition
ĺ ķ ĺ	Lights when the system is in Arm Home mode
û	Lights when the system is in Arm Away mode
ज	Lights when the system is disarmed
123	Partition: Not available in this version

Icon	Definition
A	Trouble: Indicates a trouble state is detected within the PowerMax Pro.
Q	Low Battery: Indicates the battery must be replaced without delay. In addition, a "low battery" report will be transmitted with the outgoing digital message.
*	Communication: Indicates a communication failure
Ä	Alarm: Indicates that the alarm has been activated

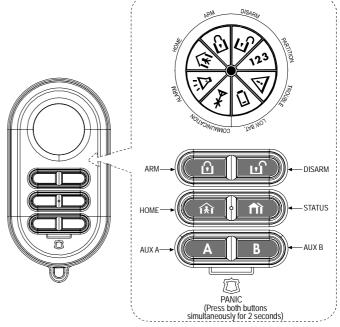


Figure 1. External View

2. SPECIFICATIONS

Frequency (MHz): 315, 433, 868.95 or according to local requirements

Modulation: ASK (ON-OFF keying)

Coding: CodeSecure

Battery: 1.5 V AAA alkaline battery, type GP or equivalent **Current Consumption:** 85 mA during transmission **Battery Life Expectancy:** 2 years (for typical use)

Note: If transmission is still possible despite the battery condition,

the unit will send a low battery signal to the receiver.

Control Functions: Home Arming, Away Arming, Disarming,

System Status, AUX 1 and 2

Operating Temperature: 0° to 49°C (32° to 120°F). **Dimensions:** 75 x 38 x 18 mm (2-15/16 x 1-1/2 x 11/16 in.).

Weight (including battery): 36 g (11/4 oz).

Color: Black

Compliance with Standards: EN 50131-1 Grade 2, Class II

3. TESTING AND MAINTENANCE

3.1 Testing a New Unit

Since the keyfob transmitter is supplied with the battery already installed, the unit is practically ready to be tested.

IMPORTANT! Before testing, "teach" the PowerMax Pro the ID code of the keyfob, as instructed in the PowerMax Pro Installer Guide.

- **A.** Stand near the PowerMax Pro control panel and press the keyfob button marked with a closed padlock icon.
- **B.** Make sure that the control panel responds as programmed and as stated in the PowerMax Pro Installer Guide.
- C. Operate the keyfob from various locations within the area covered

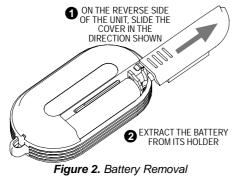
by the receiver to determine "dead" locations, where transmission is blocked by walls and large objects, or affected by structural materials. For optimum operation, point the keyfob directly toward the PowerMax Pro control panel.

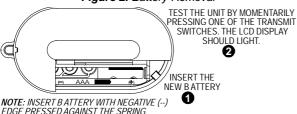
Note: If dead/marginal zones are a problem, relocating the PowerMax Pro control panel may improve the performance.

3.2 Replacing the Battery

Caution: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions. The battery should be replaced upon receiving a low battery LCD indication. A replacement 1.5 V AAA alkaline battery, such as **GP** (or equivalent), should be used. Replace the battery as follows:

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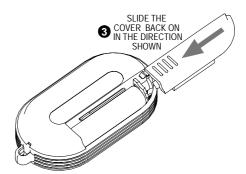


Figure 3. Inserting New Battery

3.3 Cleaning

The transmitter may get dirty if touched with greasy fingers. Clean it only with a soft cloth or sponge moistened lightly with a mixture of water and mild detergent, and wipe it dry immediately.

The use of abrasives of any kind is strictly forbidden. Also never use solvents such as kerosene, acetone or thinner.

4. DEFINING KEYFOB OPTIONS

Note: To enroll the MCT-237, refer to the PowerMax Pro User Guide section 7 (User Settings) - Enrolling Keyfob Transmitters.

Here you select the function of the two AUX buttons on the transmitter. Four options are offered for each AUX button:

Status: Pressing the AUX button will cause the control panel's voice module to announce the system status.

Instant: Pressing the AUX button while the exit delay is in progress will cause the system to arm "instant" (the entry delay is canceled).

Skip exit delay: Pressing the AUX button will immediately cause the system to arm.

PGM / X-10: Pressing the AUX button will activate the PGM output or X-10 units.

Proceed as shown in the following flow chart.

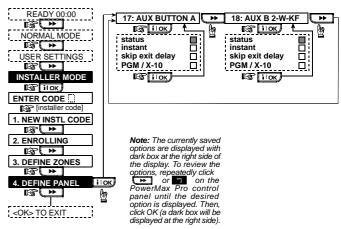


Figure 4: Performing PowerMax Pro Audio Functions

5. GENERAL COMMENTS

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.

Any changes or modification not expressly approved by the party responsible could void the uses' authority to operate the device.

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 referred to as "the Product" or "Products" to be in conformance with its own plans and specifications and one 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.



W.E.E.E. Product Recycling Declaration

For information regarding the recycling of this product you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. This product is not to be thrown away with everyday waste. Directive 2002/96/EC Waste Electrical and Electronic Equipment.



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