

# CL-4WB

## Wireless Keypad



## Installation Instructions

### 1. INTRODUCTION

The **CL-4WB** is a digital, wireless multi-function keypad unit, especially suitable for electronic security systems. It is designed to transmit a radio frequency (RF) signal to a remote receiver as soon as the user enters a pre-programmed, 4-digit secret access code.

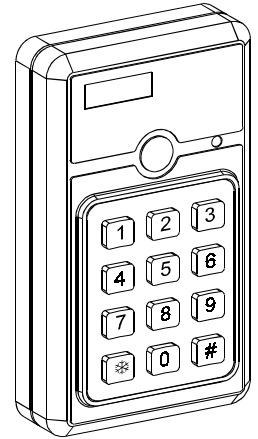
Applications of the **CL-4WB** include: remote arming and disarming of control panels, operating doors, gates, etc. The unit can be easily incorporated into virtually any new or existing Visonic Ltd. wireless system.

The transmitted RF signal consists of two digital codes - a SYSTEM code and a CHANNEL code, which perform the following functions:

- The SYSTEM code serves as a password – the remote receiver ignores RF signals other than the correctly coded ones. System code matching between the CL-4WB and the remote receiver is obtained by selecting identical settings on an 8-position CODE switch in both units. It is possible to select 256 different system codes (para. 3.3).
- The CHANNEL code determines which one of the remote receiver

outputs will be activated by the transmitted RF signal. This code is selected by presetting the **CL-4WB's** 4-position "CHANNEL" selector (para. 3.4). "Channel 2" code is dedicated to tamper and PANIC alarms (a PANIC alarm signal is transmitted when the k and # keys are pressed simultaneously).

The **CL-4WB** is powered by a 9-volt alkaline or lithium battery. Its plastic housing is suitable for wall mounting and opens by removal of a single screw. A short antenna wire extends from the bottom of the case.



### 2. SPECIFICATIONS

#### ELECTRICAL

**Voltage:** 9-volt alkaline or lithium battery.

**Keypad:** 12 keys, 3 x 4 tactile operation

**Security Code:** 4-digits, jumper selectable - 5040 different code combinations.

**Code Combinations:** 5040 (the codes are not lost due to power failures).

**Automatic Reset:** 5 seconds

**Panic Output:** Activated by simultaneously pressing the \* and # keys. Channel code 2 is transmitted as the panic signal, while these keys remain depressed.

**Tamper Switch:** Normally closed. Channel code 2 is transmitted as a tamper signal, when the keypad assembly is separated from the back cover.

**Visual Indications:** Red LED lights during transmission, provided that the battery voltage exceeds 7.5 Volts. The indicator is inhibited during transmission of the tamper and panic signals

(channel 2 code).

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

**Channel:** 4 switch-selectable channel codes: 1, 2, 3 and 4.

**Frequency (MHZ):** 315, 304, 404, 418, 433.92, 224.7 or other frequencies according to local requirements.

#### ENVIRONMENTAL

**For indoor use only.**

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

**Storage Temperature:** -20° to 60°C (-4°F to 140°F).

\* Does not apply to the battery.

#### PHYSICAL

**Size:** 110 x 63 x 25 mm (4 1/3 x 2 1/2 x 1 in.)

**Weight:** 110 g. (3.5 oz).

**Mounting:** Surface-mounted

**Color:** White.

### 3. INSTALLATION

#### 3.1 OPERATION

The **CL-4WB** is triggered into transmission by a 4-digit security code entered by the user on its front panel keypad. The installer programs the selected security code by linking a few on-board terminals. This programming method ensures that the code is not lost due to power failures or electrical disturbances.

To initiate transmission, the user is required to enter the correct (programmed) four digit code in proper sequence within about 5 seconds.

Should the user take more time than permitted, or if the user makes an error while entering a code, an automatic reset results, requiring the user to wait a few seconds and then repeat entry of the security code. This feature virtually prevents unauthorized

people from defeating the code by randomly pressing keypad buttons.

Once the correct code has been entered, the keypad's transmitter operates for 2 - 4 seconds. A front panel LED lights during transmission, indicating the battery status (provided that the battery voltage is above 7.5 VDC). If the LED does not light during transmission, the battery must be replaced immediately.

**Note:** For security reasons, the LED does not light when the tamper alarm or panic alarm are transmitted (Channel 2).

**CAUTION:** The keypad is only for indoor use.

**DO NOT INSTALL OUTDOORS!**

## 3.2 Installation Procedure

- Remove the screw from the front of the unit. Punch out at least two diagonally opposed mounting knockouts. Mark the wall and drill holes as required. Use wall inserts and screws to mount the unit firmly.
- Select the SYSTEM code (para. 3.3).
- Select the CHANNEL code (para. 3.4).
- Program the user's secret access code (para. 3.5).
- Snap the battery clip onto the 9-volt battery terminals. For long life, use alkaline or lithium battery.
- Test the unit as instructed in para. 3.6.

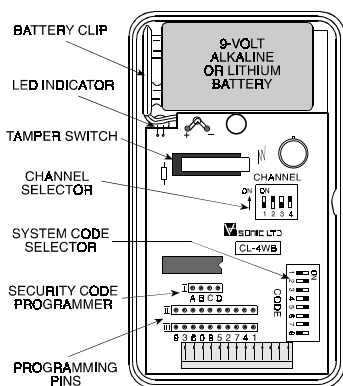


Figure 1 - Components Layout

## 3.3 System Code Selection

The CL-4WB has an 8-position DIP switch, marked CODE, as shown in Figures 1 and 2. Each switch (1 through 8) may be set to ON or OFF, to create a unique digital system code that differs from that used by other wireless systems that may be operating in the vicinity.

Use a ball-point pen to set each switch lever to match the system code setting of the remote companion receiver.



Figure 2 - System Code Selector

**Note:** 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.

## 3.4 Channel Code Selection

The CL-4WB has a built-in multichannel transmitter that can be set to transmit one of 4 different channel codes to activate different outputs in the remote receiver.

The channel selector consists of a 4-position DIP switch, marked CHANNEL, as shown in Figures 1 and 3. The channel code transmitted by the CL-4WB is selected by switching the corresponding channel key (1, 2, 3 or 4) to ON.

Select the channel according to the remote receiver's output you wish to be activated by the CL-4WB.

**Note:** Since channel 2 code is transmitted automatically upon occurrence of Tamper and Panic alarms, refrain from selecting it for other purposes.

It is also possible to select more than one channel for simultaneous transmission, which will activate the corresponding channel outputs at the receiver.

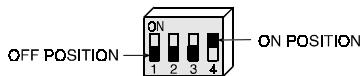


Figure 3 - Channel Code Selector with Channel 4 Selected.

## 3.5 Programming the User's Security Access Code

### Access Code

Programming of the user's 4-digit security access code is accomplished by linking pins in ROW I to the appropriate pins in ROW III (the digits row) in accordance with the desired code (see Figure 4). Use the 4 wires supplied with the keypad.

**Note:** Each unprogrammed pin in ROW III (pins 0, 4, 5, 6, 7, 9 in Figure 4) must be bridged to the pin just above it in ROW II, using the jumpers supplied with the keypad. For convenience, it is preferable to carry out this bridging operation first and then connect row I pins to the remaining row III pins in the correct order.

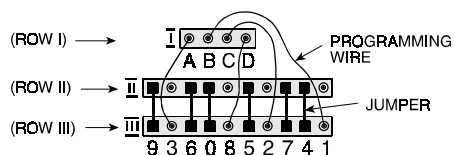


Figure 4. Programming Access Code 3128

### EXAMPLE: CODE 3128

Digit	ROW I	ROW III
1st	Pin A →	Connect to Pin 3
2nd	Pin B →	Connect to Pin 1
3rd	Pin C →	Connect to Pin 2
4th	Pin D →	Connect to Pin 8

## 3.6 Testing

- Carefully position the keypad assembly over the rear cover. Secure both halves of the case together using the screw.
- Have someone observe the remote receiver and report its response to you during the following steps.
- Operate the transmitter by entering the correct access code. Verify that the front panel LED lights, indicating good battery condition.
- The receiver LED should light, indicating detection of the transmitted RF signal.
- Verify activation of the channel output relay(s) at the receiver, in accordance with the setting of the CL-4WB's CHANNEL switch.
- While monitoring receiver channel 2 (tamper and PANIC channel), separate the CL-4WB keypad assembly from the back cover, thus activating the tamper switch. Verify that the tamper signal is received continuously at receiver channel 2, as long as the tamper switch remains activated.
- Replace the CL-4WB keypad assembly over the back cover and attach with the screw. Push the round plastic cap supplied in the package over the head of the screw. Verify that channel 2 output at the receiver restores (reverts to the standby state).
- While monitoring receiver channel 2 (tamper and PANIC channel), simultaneously press the k and # keys, thus activating the PANIC alarm. Verify that the PANIC signal is received continuously at receiver channel 2, as long as the two keys remain pressed.

## 4. MISCELLANEOUS COMMENTS

Visonic Ltd. wireless systems are 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:

- Receivers may be blocked by radio signals occurring on or near their operating frequencies, regardless of the code selected.
- A receiver can only respond to one transmitted signal at a time.

- 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.

## 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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