



### 1. INTRODUCTION

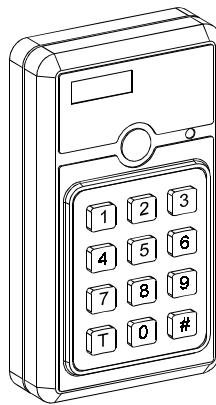
#### 1.1 General Description

The CL-4 digital keypad family includes six low-cost, easy to use models that are designed to answer most security and access control requirements.

These highly versatile field-programmable keypads include numerous features which enable easy incorporation into virtually any new or existing security system.

The CL-4 keypads are powered by either 12VAC or DC Supply Voltage. The output relay is jumper selected to operate in either momentary (adjustable from 1 to approximately 30 seconds) or latching (alternate) mode. Visonic Ltd. Keypads can be surface mounted or flush mounted into a standard, single gang, electrical switch box.

Special-models provide an 8-Amp relay output which enables direct connection to virtually any electrical door strike.



### 2. SPECIFICATIONS

#### ELECTRICAL

**Voltage:** 10-14 Volts AC or DC. Reverse voltage protection.

**Current at 12 VDC:**

Model	Standby	Operating
CL-4,4F	3mA	45mA
CL-4P,4PF	3mA	55mA
CL-4D,4DF	3mA	45mA (75 mA*)

\* (Simultaneous operation of panic and code relays).

**Keypad:** 12 Keys, 3 x 4 tactile operation.

**Security Code:** 4 digits jumper selectable.

**No. of Combinations:**

CL-4, 4F, 4P, 4PF - 11,800

CL-4D, CL-4DF - 5,040

Wired coding prevents combination loss due to power failure.

**Automatic Reset:** 5 Seconds.

**Code Output:** Adjustable to times between 1 to 30 sec. or latching (Selectable).

**Panic Output:** Activated by simultaneously pressing the \* and # keys (CL-4D and CL-4DF only).

**Relay Outputs:** Form 1C (C/O) dry contacts:

CL-4, 4D, 4F,4DF- 1 Amp, 28 VAC/DC

CL-4P, CL-4PF- 8 Amp, 28 VAC/DC.

**Door Strike Operation :** CL-4P, CL-4PF only.

**LED Indicators:** 3 LEDs

**Yellow:** Indicates code relay activation.

**Red and Green:** For user applications. Include a 1kΩ current limiting resistor on the P.C board.

**Tamper Switch:**

Models CL-4, 4P, 4D only.

Normally closed, 0.5 Amp / 24 Volts AC/DC.

**ENVIRONMENTAL:** For indoor use only.

**Operating Temperature:** -10 °C to 50 °C (14 °F to 122 °F)

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

**MOUNTING:**

CL-4, 4P, 4D: Surface mounted

CL-4F, 4PF, 4DF: Flush mounted in a standard, single gang, electrical switch box.

**PHYSICAL**

**Dimensions:**

CL-4, 4P, 4D: 110 x 64 x 30 mm (4.3 x 2.5 x 1.2 in)

CL-4, 4PF, 4DF: 118 x 72 x 40 mm (46 x 28 x 1.6 in).

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

**Color:** CL-4, 4P, 4D: Off white

CL-4F, 4PF, 4DF: Off white or black.

**MODELS AVAILABLE:**

**Wall Mount:**

CL-4: Keypad with 1A relay

CL-4P : Keypad with 1A relay

**Flush mount:**

CL-4D : Keypad with panic alarm (Two 1A relays)

CL-4F: with 8A relay

CL-4PF: with 8A relay

CL-4DF: with panic alarm (Two 1A relays)

### 3. OPERATION

The CL-4 operates on a 4 digit security code which is easily programmed by the installer. The selected code is wired in and therefore cannot be lost due to power failure or electrical disturbances.

The user is required to enter the correct (programmed) four digit code, in proper sequence, within approximately five 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 to repeat entry of the security code.

These features virtually preclude the possibility of someone

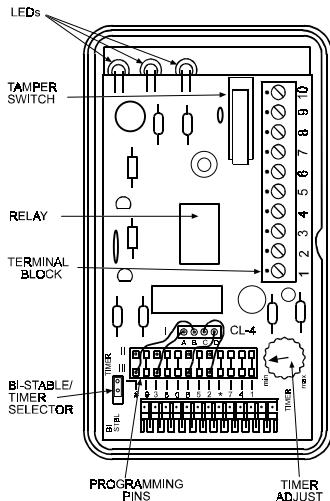
gaining access by randomly pressing keypad switches.

After entering the correct code the keypad relay operates and the yellow LED lights (see para. 3.3 selecting the operating mode).

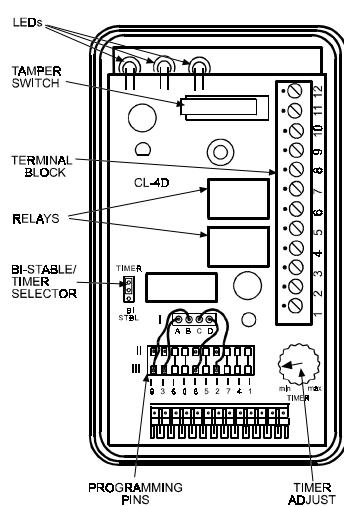
#### 3.1 Panic Feature (CL-4D)

Models CL-4D and CL-4DF include a panic feature.

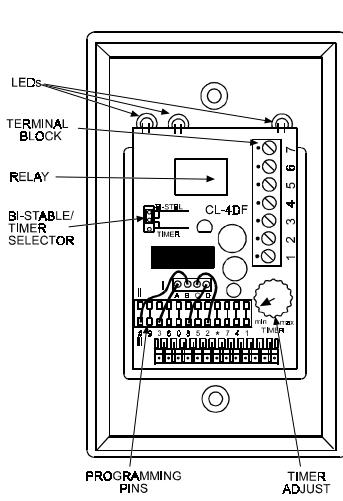
Panic signaling is initiated by simultaneously pressing the \* and # keys. The panic relay will remain energized as long as both keys (\* and #) are depressed.



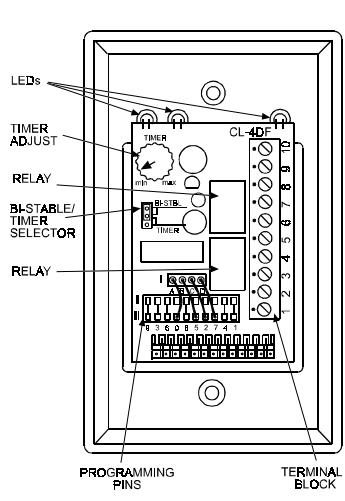
**Figure 2. CL-4/CL-4P**



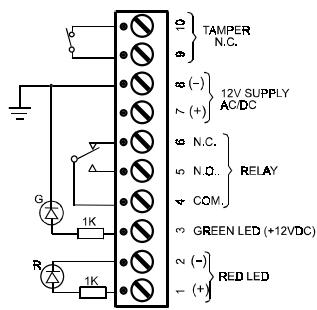
**Figure 3. CL-4D**



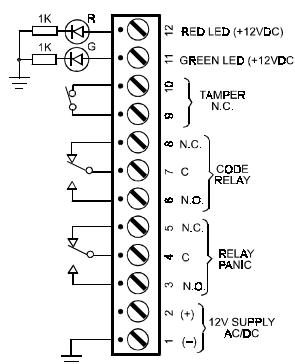
**Figure 4. CL-4F/CL-4PF**



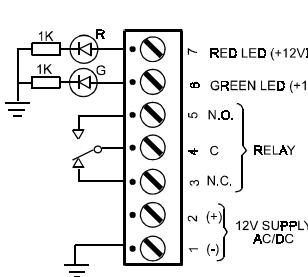
**Figure 5. CL-4DF**



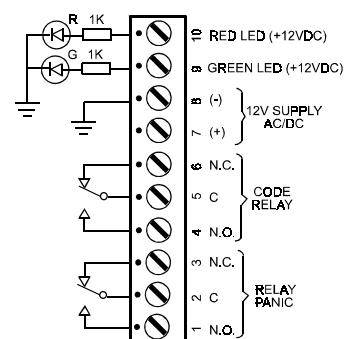
**Figure 2A. Terminal Block Wiring**



**Figure 3A. Terminal Block Wiring**



**Figure 4A. Terminal Block Wiring**



**Figure 5A. Terminal Block Wiring**

## 4. INSTALLATION

### 4.1 Mounting

#### Flush Mount:

Models CL-4F, CL-4PF and CL-4DF. These models are designed for flush mounting and fit into virtually any standard, single gang, electrical switch box see fig. 6. The electrical box should be installed according to its specific instructions.

#### Surface Mount:

Models CL-4, CL-4P and CL-4D are designed for surface mount.

**CAUTION:** All keypads are only for indoor use.  
**DO NOT INSTALL OUTDOORS.**

### 4.2 Programming The Operating Code

- A. Programming of the operating code (4 digits) is accomplished by linking pins in **ROW I (A,B,C,D)** to the appropriate pins in **ROW III** (characters) according to the selected code sequence, using the 4 supplied wires (Fig. 1). For location of pin rows I, II, III - refer to figures 2,3,4 & 5.

**Example: Code 3#28**

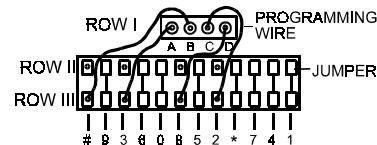
DIGIT	ROW I	ROW III
1st	Pin A to Pin 3	
2nd	Pin B to Pin #	
3rd	Pin C to Pin 2	
4th	Pin D to Pin 8	

- B. All unprogrammed pins in row III (i.e. for this example pins 1,4,5,6,7,9,0, \*) must be bridged to the same pin character in

row II, with the 8 supplied jumpers.

#### NOTE:

- For convenience, it is preferable that bridging of all unprogrammed characters (rows II and III), be done first.
- In models CL-4D and CL-4DF the characters # and \* are not programmed for the security code, but used only for PANIC.



**Figure 1. Programming 3 # 28**

### 4.3 Selecting The Operating Mode

Two operating modes can be selected with the **BI STBL/TIMER** selector.

#### A. BI STABLE MODE (ALTERNATE)

Each correct code keying sequence changes the state of the relay. BI STABLE operation is selected by installing the jumper across the **BI STBL** and center pins.

#### B. TIMER MODE (MOMENTARY)

Each correct code keying sequence will activate the relay for a time period, determined by the setting of the timer potentiometer (approximately 1 to 30 seconds).

Timer operation is selected by installing the jumper across the **TIMER** and center pins.

## 4.4 Wiring

### A. For wiring the CL-4 use:

#20 AWG or larger wires for the relay(s) connections.

#22 AWG or larger wires for all other connections.

### B. Route the wires through the wiring knockouts on the back cover (CL-4 models) -see fig. 7.

### C. Make no splices within the unit and avoid contact between uninsulated conductors and the printed circuit board.

### D. Connect wires to the terminal block in the following order - refer to Fig. 2,3,4 or 5, according to the appropriate model number.

- Connect **Tamper N.C.** terminals to a control panel normally closed, 24-hour protection zone or any other system used to monitor the tamper contacts (models CL-4, 4P, 4D only).

Tamper contacts will open when the cover is removed.

- Connect relay(s) terminals to a door strike, control panel or any other system used.

Use #20 AWG or larger wires. Only models CL-4P and CL-4PF are for use in door strike applications.

- Connect the 12 Volt supply terminals to a 12 Volt  $\pm$  2 Volt AC or DC power source. When using a DC power source - observe for correct polarity (see wiring diagrams).

### • Red and Green LEDs

All models have two extra LED indicators for user applications.

The Red LED in models CL-4, 4P (Fig. 2) is floating and can be powered with 12 VDC voltage, either floating voltage, or with common (-) or (+) poles.

All other LEDs are already connected within the unit, with one side to the (-) terminal of the supply voltage input, and can be powered by applying 12 VDC  $\pm$  20% to the appropriate LED terminal.

**Note:** All LEDs include a  $1k\Omega$  current limiting resistor.

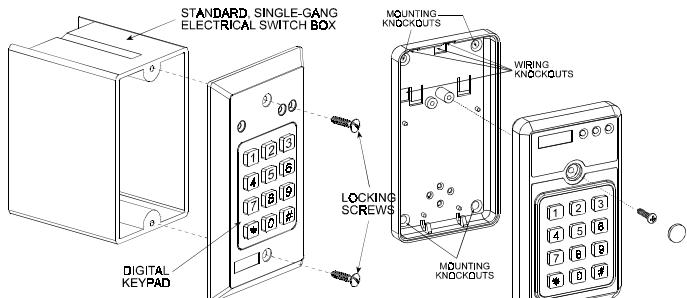


Figure 6. Flush Mounting

Figure 7. Surface Mounting

## 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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VISONIC LTD. (ISRAEL): P.O.B 22020 TEL-AVIV 61220 ISRAEL. PHONE: (972-3) 645-6789, FAX: (972-3) 645-6788  
 VISONIC INC. (U.S.A.): 10 NORTHWOOD DRIVE, BLOOMFIELD CT. 06002-1911. PHONE: (860) 243-0833, (800) 223-0020 FAX: (860) 242-8094  
 VISONIC LTD. (UK): UNIT 1, STRATTON PARK, DUNTON LANE, BIGGLESWADE, BEDS. SG18 8QS. PHONE: (01767) 600857 FAX: (01767) 601098  
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