

FCC requirements § 2.1033 (b)(3)

INSTALLATION INSTRUCTIONS

User's Guide and Installation Instructions furnished to the user of the RDR-1 radio transmitting device follow this page and contain 7 pages.

RDR-1

Tab-In-A-Bag™ External Reader



Visonic Ltd

User's Guide

1. Introduction

The Tag-in-a-Bag™ (TIAB) is an access control system, designed to limit access to restricted areas, while permitting authorized people to enter. The integration of the external reader in the TIAB system is shown in figure 1.

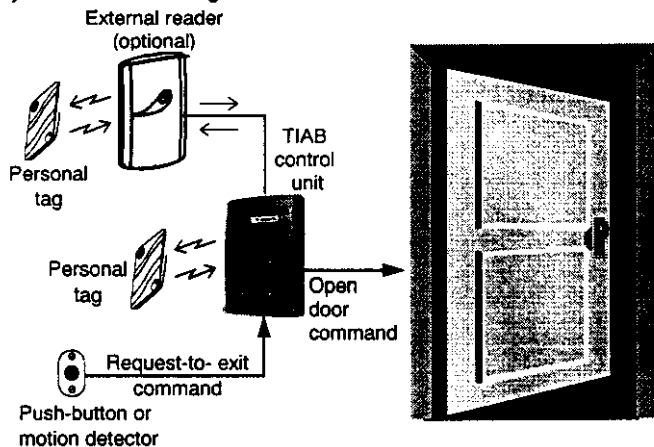


Figure 1 - Integration of External Reader in TIAB System

The TIAB has an internal proximity tag reader. For installations in which an additional tag reader is required, an external tag reader RDR-1 (see figure 2) can be used.

The external reader is connected to the TIAB control unit by means of integral 4 wires.

When presenting a personal tag to the internal or external reader, it is powered by the RF signal transmitted from the reader. As a result, the tag transmits a coded RF signal back to the reader.

While the TIAB control unit is installed adjacent to the secured door's frame, the external reader can be installed in any location, as desired by the user.

For information about the TIAB system, refer to the TIAB user's guide and installation instructions documents.

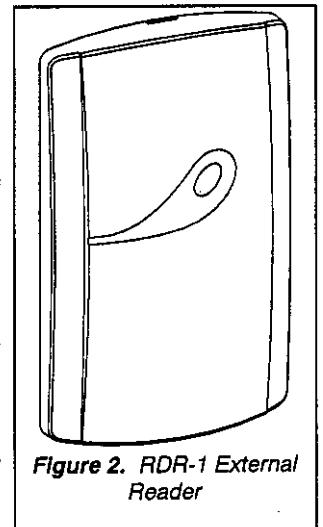


Figure 2. RDR-1 External Reader

2. SPECIFICATIONS

- Indicators: Tri-color LED (green, red, amber).
- Tag reading range: 50 - 100 mm (2 -4 in.)
- Internal tag reader frequency: 125 KHz.
- Tag codes possibilities: 10¹² possible combinations.
- Dimensions (L x W x D): 116 x 70 x 16.8 mm (2 3/4 x 4 1/2 x 5/8 in.)
- Weight: 121.5 g (4.3 oz)

- Cable (to TIAB control unit) maximum length: 10 meters (32ft.)
- Color: Dark gray
- Compliance with standards: 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.

3. MOUNTING

- A. Use a screwdriver, in the base bottom or top recess (see figure 3), to lever out the base from the reader.
- B. Place the base on the installation surface, mark points, drill the holes and insert plastic anchors, if necessary.

C. Close the reader's cover.

Caution: Close the cover in the proper direction (see figure 3) otherwise the LED light will not be visible.

4. WIRING

The External reader has an integral 4-wire cable. Connect the wires to the terminal strip of the TAGE-IN-A-BAG control panel, as shown in figure 4.

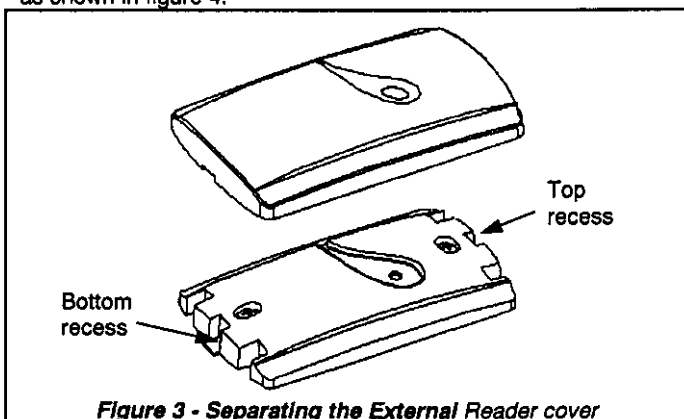


Figure 3 - Separating the External Reader cover

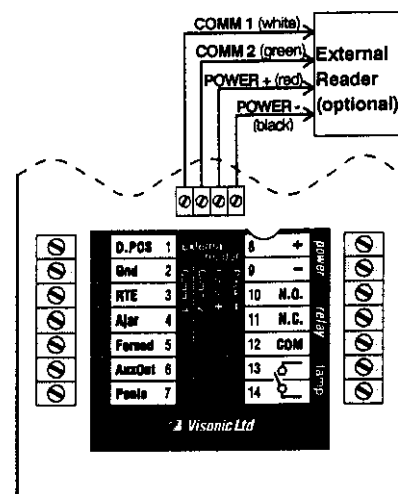


Figure 4 - Wiring Diagram

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.

6/91

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.



Visonic Ltd

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
 OVISIONIC LTD. 1998 TAG-IN-A-BAG EXTERNAL READER DE6301U (REV. 0 11/98)

MADE IN
ISRAEL

TAG-IN-A-BAG™

Single door RF/ID Proximity Access Control Unit



Visonic Ltd

Installation and Programming

1. INTRODUCTION

Preliminary

The TIAB (Tag-in-a-Bag)™ is a versatile weather-resistant proximity access control unit (fig. 1), designed to limit access to restricted areas, while permitting authorized people to enter. This product is the best in its class - using state-of-the-art proximity (non-contact) RF/ID technology. It was designed to serve your customers' needs, while making installation and use simple and easy.

The TIAB control unit includes a keypad with an internal proximity reader and a display, that provide full access control operation.

The TIAB control unit can be programmed to offer 2 security levels for opening the door:

1. Valid tag only.
2. Valid tag and PIN (Personal Identification Number) code.

The TIAB control unit transmits 125 kHz RF signal. A valid proximity tag (fig. 3), presented to the control unit or to the optional external reader (fig. 2), transmits a coded RF signal back to the TIAB control unit, causing it to energize an output relay. The optional external reader is designed for installations in which an additional reader is required. It is connected to the TIAB control unit via 4 wires.

The TIAB control unit is installed adjacent to the secured door's frame. It is connected to the door's EMS (Electro-Magnetic Strike) or magnetic lock and operates by either a 12V DC or AC power supply. The TIAB control unit includes internal non-volatile memory, unaffected by power failure. The internal memory stores data of up to 250 tags and PIN codes (used for security level 2 only). Each PIN is composed of 4 digits.

The proximity tags (fig. 3) are totally sealed and do not require any maintenance.

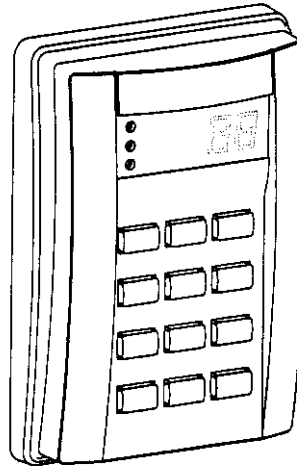


Figure 1. TIAB Keypad

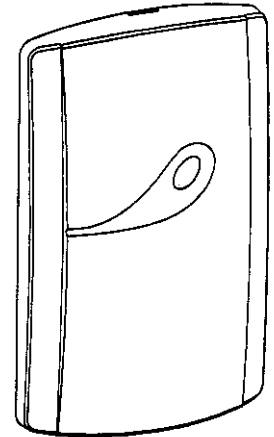


Figure 2. RDR-1 External Reader

The tags are powered from the RF signal transmitted from the TIAB control unit. In a case of loss or theft of a tag, the tag data can be easily deleted from the TIAB control unit memory list. The standard TIAB package includes 10 user tags. Additional tags are available.

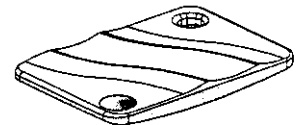


Figure 3. TAG-1 Key

2. SPECIFICATIONS

Power input: 12V AC or DC

Max. Current Consumption: 200 mA (excluding EMS current).

Operating temperature: -20°C to 50°C (-4°F to 122°F).

Dry Contact Relay: 10A Max.

TIAB: CONTROL UNIT

Display: 2 x 7 segments and 3 LEDs.

Buttons: 12 (numeric keypad).

Memory capacity: 250 tag codes.

Tag reading range: 50 - 100 mm (2 -4 in.)

Internal tag reader frequency: 125 KHz.

Tag codes possibilities: 10¹² possible combinations.

Inputs:

- Request-to-exit (N.O.)
- Door position (N.C.)

Outputs:

- N.O. / N.C. dry contact
- Door ajar (door held open, open collector output).
- Panic (open collector output).
- Auxiliary output (open collector output).
- Forced Entry (open collector output).
- Tamper

Dimensions (H x W x D): 122 x 82 x 31 mm (4 13/16 x 3 1/2 x 1/4 in.)

Weight: 170 g (6 oz) without the rubber gasket

Color: Dark gray

TAG-1 PROXIMITY TAG

Dimensions (L x W x D): 53 x 35 x 7 mm (2 1/8 x 1 3/8 x 9/32 in.)

Weight: 5.5 g (0.2 oz).

Color: Dark gray

OPTIONAL ACCESSORIES

RDR-1 EXTERNAL READER

Indicators: Tri-color LED (green, red, amber).

Tag reading range, tag reader frequency and tag codes possibilities: identical to Control Unit specification.

Dimensions (L x W x D): 116 x 70 x 16.8 mm (2 3/4 x 4 1/2 x 5/8 in.)

Weight: 121.5 g (4.3 oz)

Cable (to TIAB control unit) maximum length: 10 meters (32ft.)

Color: Dark gray

TAG-10: Package of 10 TAG-1 proximity tags

Compliance with standards: 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.

3. MOUNTING

- A. Remove the case closure screw.
- B. Use a screwdriver, in the bottom recess at the base, to lever out the base from the keypad assembly.
- C. Place the base on the installation surface, mark points, drill the holes and insert plastic anchors, if necessary.
- D. Fit the base into the rubber gasket and use the 3 mounting screws to attach the base and gasket to the selected surface.

Important: The Tamper switch is activated when the TIAB control unit's front cover is removed or when the base is forcibly pulled from the mounting surface, which causes tamper switch tab to break (see figure 4). It is therefore especially important to firmly attach this tab to the wall with a long screw.

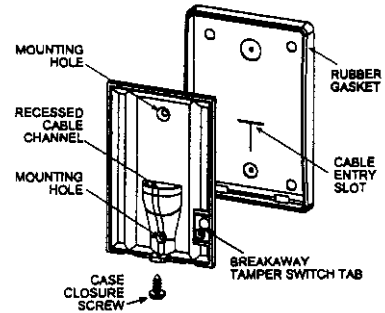


Figure 4 - Base and Rear Sealing Gasket

4. WIRING INSTRUCTIONS FOR ACCESS CONTROL

The connections to the TIAB terminal block are shown in fig. 5.

- A. Connect one lead of the door strike to one of the hardware (door strike) power supply terminals. Connect the other lead of the door strike to terminal No. 10 (N.O.) of the TIAB.

Note: If you are using a magnetic door lock, connect one of the leads to one of the hardware power supply terminals. Connect the other lead to terminal No. 11 (N.C.) of the TIAB.
- B. Connect the other terminal of the door strike or magnetic lock power supply to terminal 12 (COM).
- C. Connect the TIAB power supply leads between terminals 8 (+) and 9 (-). Observe polarity.
- D. Connect the optional remote Request-To-Exit push-button (N.O.) or PIR detector contacts (N.O.) between terminals 3 and 2.

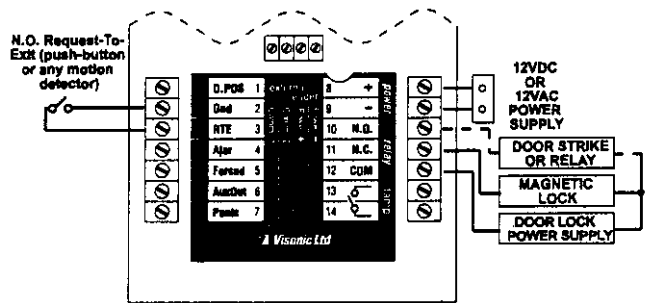


Figure 5 - Wiring Diagram for Access Control

5. WIRING FOR INTEGRATION WITH AN ALARM SYSTEM

5.1 Wiring Gauges and Routing

Use # 20 AWG or larger for connections between relay and door strike or other switching devices. All other connections are to be made with # 22 AWG or larger. Route the wires through the slot in the rubber sealing gasket (see figure 4) and the recessed entry channel in the TIAB control unit base. Verify that there is no contact between uninsulated wires and the printed circuit board.

5.2 Wiring Procedure (Fig. 6)

- A. Perform steps A to D in section 4.
- B. Connect the Panic output (terminal 7), Auxiliary output (terminal 6) and Forced Entry output (terminal 5) to the appropriate zone of the alarm system. These outputs are of the open collector type.
- C. Connect the Ground (terminal 2) to the alarm system ground terminal.
- D. Connect the tamper terminals (13 & 14) to a 24-hour zone of the alarm system.

Table 2. TIAB control unit terminals Assignments

Terminal	Description	Terminal	Description
1	Door Position (*)	8	+ V
2	Ground	9	- V
3	Request-To-Exit (*)	10	Door lock relay N.O.
4	Door Ajar (*)	11	Door lock relay N.C.
5	Forced Entry (*)	12	Door lock relay common
6	Auxiliary Output (*)	13	Tamper Switch
7	Panic Output (*)	14	Tamper Switch

* The signal is between this terminal to ground (terminal 2).

Caution!
 When operating the TIAB control unit by AC power, disregard polarity, but note that external buzzers (which are connected to the AUX or PANIC outputs) require a separate DC power supply. For proper operation, in this case, the buzzer circuit should be wired as follows:

- Buzzer's DC power supply [-] to TIAB terminal 9 (-).
- Buzzer's DC power supply [+] to Buzzer [+] terminal.
- Buzzer [-] to AUX output (terminal 6) or to PANIC output (terminal 7) (as required).

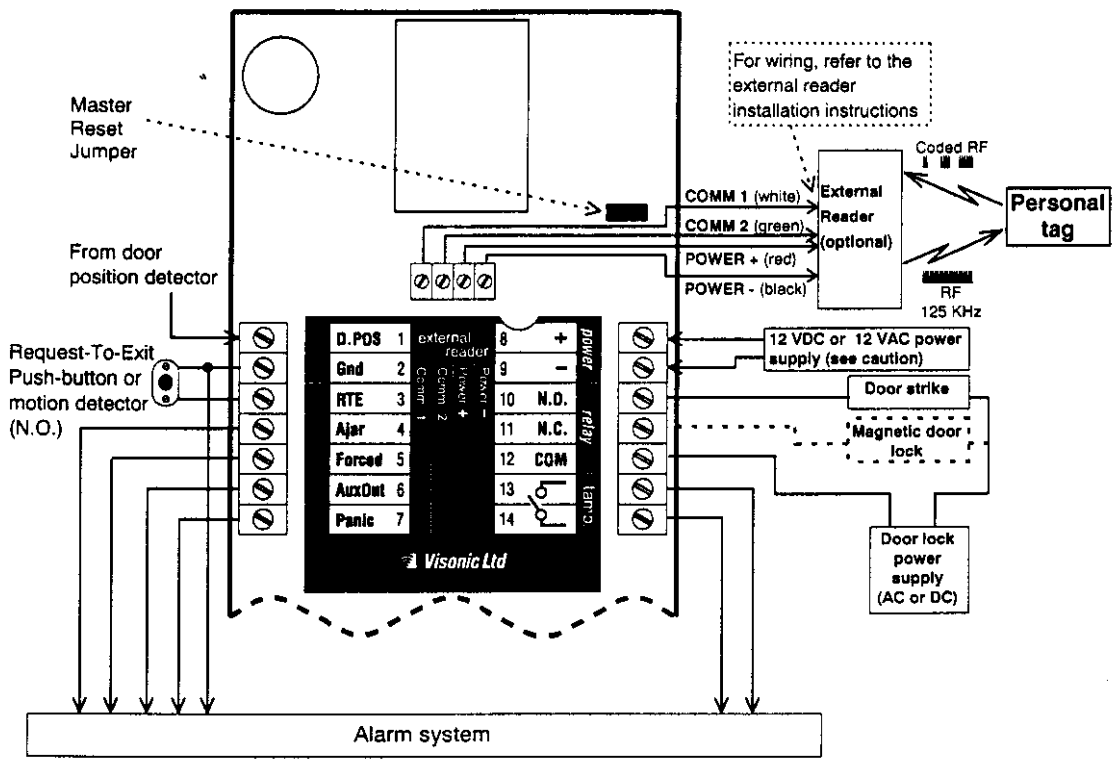


Figure 6 - Wiring diagram for Integration with an alarm system

6. PROGRAMMING

6.1 General Description

This programming guide provides a set of "instructions" that determines how the TIAB control unit will react.

The available functions are: programming of master tag (par. 6.2), adding user tags (par. 6.4), reviewing user tags (par. 6.5), deleting user tags (par. 6.6) and TIAB functions setup (par. 6.7).

The TIAB control unit recognizes a single 4-digit master code which is used for all programming modes. This code accompanies a tag which is defined as the master tag.

Programming changes can be made as many times as necessary, but for security reasons this operation is restricted to the master tag holder.

Each one of the 250 users tags has an internal code (one of a trillion possible factory-defined combinations,) and a 4 digit PIN code assigned to it (entered by the operator). The TIAB control unit "learns" these codes during programming.

Important:

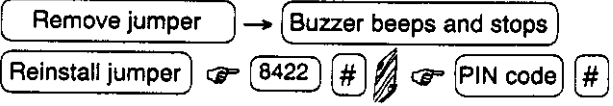
1. The person in charge must have an updated list which includes up to 250 tags holders names and the PIN code assigned to each of the tags. The table attached to the TIAB User Guide may be used.
2. The master tag must be kept in a secure place.

Changing an existing code requires that the existing code be deleted first and a new code may than keyed in at the same memory address.

Note: The TIAB control unit reverts to normal mode after a 30 second non-activity timeout, or if "*" is pressed.

While waiting for the programmer's selection, the internal buzzer continuously sounds short beeps.

6.2 Master Tag Programming



Important! The TIAB control unit does NOT operate unless a valid master tag and master code have been programmed.


- A. Remove the Master Reset Jumper (fig. 6). The TIAB buzzer will start beeping.
- B. After the buzzer stops beeping, the jumper must be re-installed and the master code "8422" should be keyed in, followed by pressing "#", within 10 seconds. As a result, the TIAB control unit goes into ADD mode automatically (blinking green LED) and displays the master code memory address - flashing "00".
- C. Place the tag, assigned as the master tag, within range of the keypad. The buzzer will beep twice and the display will show "Co" (Code).
- D. Key in the desired master PIN code (4 digits) and than press "#". The programming of the master tag code is completed and the unit returns to normal position.

6.3 Entering/Exiting Programming Mode

For any programming, you need the master tag and its 4-digit PIN code.

Note: The master PIN code is always required for programming, regardless of security level setting.

Entering the Programming Mode
 Hold the master tag near the keyboard for at least 10 seconds. After receiving an acknowledge signal from the buzzer, key in your master tag PIN code (4 digits). "Pr" (Programming) will blink in the display.



Exiting the Programming Mode
 Press "*" to exit any of the programming mode options into the main programming mode. Press "*" again to quit the main programming mode and revert to normal operation.

TIAB's Modes Description

Mode No.	Mode Name	Functions	Blinking LEDs
1	ADD (tags)	Enables adding user tag	Green
2	SHOW (codes)	Enables checking users codes	Red
3	DELETE (tags)	Enables deleting user tags	Yellow
4	FUNCTIONS setup	Enables modifying system parameters	All LEDs

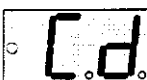
6.4 Adding User Tags

Note: It is recommended to maintain a list of valid tags and user names for future reference.

For security level 2 1 # PIN code #

For security level 1 1 # #

- In programming mode ("Pr" is displayed), press "1" to select the ADD function (the green LED will blink). The unit will display two flashing digits (the memory address available for the tag) and the buzzer will beep twice.
- Present a user tag near the keypad. Once the tag is read by the unit, the two flashing digits become steady and two short beeps sound to indicate tag reading.
- Press "#" to confirm.
- "Co" flashes, to prompt you to enter the desired user PIN code within 5 seconds. If the TIAB security level is 1 (tag only required), press "#" (or enter any PIN code followed by "#").
If the TIAB security level is 2, enter a PIN code and press "#" to conclude the tag adding process.
For security reasons, 4 identical digits, like "1111" are not accepted as valid PIN code.
- The tag adding process is completed and the TIAB reverts to the ADD mode, ready for the next tag. You can program up to 250 tags, by repeating steps B-D above.

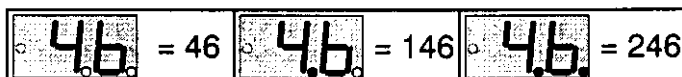


6.5 Reviewing User Tags

The master tag holder may review all PIN codes of the valid tags. In the "Pr" mode, press "2" to select the SHOW function. The red LED blinks and all the 250 memory addresses are scanned, one by one. Each address is displayed for 3 seconds and then the next address appears, followed by 2 beeps. Each unused address (no tag programmed) blinks and each occupied address (tag programmed) is displayed steadily.

Please Note:

- Pressing "#" while the address is displayed steadily will show the first 2 digits of the PIN code designated for that address. Pressing "#" again displays the last 2 digits of the PIN code. Additional pressing "#" expedites the advance to the next address.
- You may enter a 3-digit number to go directly to a specific address (i.e., to see address 10, enter 010).
- Since the TIAB display can show 2 digits only, the two decimal point LEDs assist in the numeric display of 3 digits, when needed. When one decimal point LED is lit, the number is between 100 to 199. When two decimal point LEDs are lit, the number is between 200 to 250. The following example clarifies the decimal LED function.



6.6 Deleting an Existing User Tag

3 # # or 3 TAG Address # # #

Deleting a tag is possible when the tag to be deleted is available or not available (lost or stolen), as follows:

- In the "Pr" mode, press "3" to select the DELETE function. The yellow LED will blink and the display will be blank.
- Present the tag, that you want to delete, to the keypad. Alternatively, if the tag is lost or stolen, enter its 3-digit address instead and press "#". The address will flash in the display.
- Press "#" again, to confirm the tag's deletion. The display will stop flashing. Press "#" once more for farther confirmation. The TIAB sounds 3 short beeps, to indicate that the tag is deleted. The display blanks out, ready to delete another tag.

Notes:

- In the DELETE mode, the TIAB control unit searches automatically through addresses 001 to 250 (does not search address 000).
- Tag deletion deletes tag information and the 4-digit PIN code.
- Deletion of address 000 causes the TIAB control unit to return to the ADD mode. A new master tag and PIN code must be entered for further use.
- Deleting information in address 000 invalidates the master tag. The entry to location 000 is possible only by keying in the tag number and not by presenting the master tag.
- Deleting ALL codes except the master code is accomplished by entering address 999.
- If you made a mistake and do not want to delete, press "*", before pressing "#", to cancel the operation and return the TIAB control unit to DELETE mode. Pressing "*" a second time causes the TIAB control unit to return to normal operation mode.

6.7 Setup Mode

Setup mode enables to determine how the TIAB reacts in various situations. In programming mode ("Pr" is displayed) press "4" to select the functions setup mode. All the 3 LED's continuously blink and the display is blank. In this state, the installer can select one of seven functions to modify the setup, as detailed in the function setup table.

Table 3 - Function Setup Table

Function	Description	Enter	Default	Display
1	Door unlock duration or toggle mode. (See note 3)	01-98 (Seconds) 99 = toggle mode	05 seconds	
2	Door Position input. Set alarm timeout of opened door to 01-99 seconds or disable (00). (see note 6)	01-99 (seconds) 00= disable door input	00	
3	Auxiliary Output. (notes 1,6). (See table 4)	0 - 7	0	
4	Ambush Digit - Fifth digit after PIN code for signaling duress situation. (Notes 2,6)	0-9 00= disable	00	
5	Security Level (notes 4, 5) 1 = No PIN code required. 2 = PIN code is required.	1 or 2	1	
6	Buzzer feedback control. 0=No buzzer feedback. 1= Buzzer beeps when button is pressed.	0 or 1	1	
7	Buzzer's Indication that the door is opened. 0 = No buzzer operation. 1 = Buzzer beeps when door is opened.	0 or 1	0	

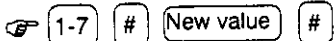
Notes:

- If the Auxiliary output is enabled, it operates for all tags.
- Ambush Digit is applicable for security level 2: Ambush Digit is the fifth digit of the user PIN code. If the user is forced to enter under threat, pressing the Ambush digit after the last digit of the PIN code activates the Panic output.
- In the Toggle mode, presenting a valid tag/code turns the

output on and presenting it again turns the output off.

- When selecting security level 1 (no PIN code required) it is still possible to enter a PIN code for each tag, during programming. However, in normal operation the TIAB will not prompt the user for the PIN code.
- Selecting security level 1 does not affect the master tag. The master tag always requires a PIN code.
- Disabling a function, by pressing 00, will show -- on the display.

Programming steps in the SETUP mode:



- Press the number that corresponds to the desired function (1-7).
- The TIAB control unit displays the two letters corresponding to the function (see functions setup table).
- Press “#” to enter the functions selection mode.
The TIAB control unit displays the current value for the selected function.
- To accept the existing value, press “#”. To return to the setup function selection, press “*”. To change the existing value, enter the new value followed by pressing “#”.

Table 4 - Auxillary Output Modes:

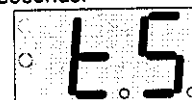
Setting	Description
0	Output disabled.
1	Output triggered for 1 second.
2	Output toggled (latch/unlatch).
3	Output operated together with relay timer (function 1), but stays on for 5 seconds more.
4	Output latches when a valid tag is presented and

Setting	Description
	resets by pressing “*”.
5	Output turns on for 10 seconds, by pressing any button after presenting a valid tag.
6	Output triggered after 3 invalid keys are presented or 3 invalid PINs are entered. The output is triggered once a second for 10 minutes and may be reset only by entering a user code no sooner than 30 seconds after being tripped.
7	Output turned on by pressing “1” and “3” simultaneously.

6.8 Testing the TIAB Keypad, Display and Buzzer

The TEST mode is used for checking the TIAB keypad, display elements and the internal buzzer. To enter TEST mode, press and hold buttons 4 and 6 simultaneously for 5 seconds.

Upon entering this mode, the display shows “tS”. Press 0 - 9 successively and then “*” and “#”.



When pressing each button, the buzzer sounds and the display shows the associated number (*=11,#=12). Once “#” is pressed, the display shows “88”, both decimal points and all LED light up (to verify that all segments are operational) and the buzzer sounds for 2 seconds.

The TEST mode will time out 10 seconds after the last button is pressed. Upon exit from TEST mode, the TIAB control unit reverts to the previous mode (normal or “Pr”).

7. SYSTEM NORMAL OPERATION AND FUNCTIONAL TEST

7.1 Normal Operation

Normal operation is the mode in which when a tag is presented to the reader (In security level 2, followed by user PIN), the doors lock is opened.

The TIAB control unit can use the internal reader or an external reader to read proximity tags.

Pressing “*” and “#” simultaneously causes the panic output to be activated for 5 seconds. In this case, the buzzer does not beep.

The LEDs functions in normal operation are summarized in the next table.

LEDs functions in normal operation

LED	Function
✓ GREEN	Indicates that the door is opened.
✗ RED	Indicates that an invalid tag was presented or an invalid PIN was entered.
Ⓞ YELLOW	Remains lit to indicate that the power is on. In security level 2, blinks after a tag is accepted, to prompt the user for PIN.

Time Out

A delay of more than 5 seconds, between presenting a tag and starting to key user PIN code, or between any two digits, cancels the operation.

If you enter three consecutive wrong codes, the TIAB control unit will be disabled for 30 seconds and the buzzer will beep quickly.

7.2 System Functional Test

- Supply power to the TIAB control unit and verify that the yellow LED lights continuously, to indicate that the power is ON.

- Enter the TEST mode (as described in paragraph 6.8) and verify proper functions of the TIAB keypad, display and buzzer.

For security level 1 only

- Present a valid tag at a distance of 50 - 100 mm (2 - 4 in.) from the keypad (or external reader) and verify that all the functions are performed as programmed. Verify also that when the door is opened the green LED is illuminated.
- Verify that when an invalid tag is presented to the reader the door is not opened and the red LED is illuminates.

For security level 2 only

- Present valid tag at distance of 50 - 100 mm (2 - 4 in.) from the keypad (or external reader), key in the PIN code and verify the proper response, as described in step 3.
- Verify that if there is delay of more than 5 seconds, between the user tag presentation and the user PIN code entering, or between the entry of any two digits, the operation is cancelled.
- Verify that the yellow LED light starts blinking after tag presentation, to prompt the user to enter PIN code.
- Enter the user code followed by the ambush digit. The PANIC output should be activated.
- Verify that an invalid tag, an invalid code, or both, do not open the door and that the red LED illuminates.

For both security levels

- Verify that all the user tags enable the opening of the door.
- Verify that pressing “*” and “#” simultaneously activates the panic output for 5 seconds.