

AXS-10

Single-Door Proximity Access Control System

User Guide

1. INTRODUCTION

The Visonic Technologies AXS-10 is an electronic access control system designed for a single access point, such as a main door in an apartment building or individual office doors. The system control unit relay activates a lock or electromagnet strike lock (EMS), when a valid proximity key (tag or card) is presented to the reader located outside the protected area.

The use of a proximity (non-contact) key makes the installation of the AXS-10 system an attractive possibility in harsh environments and in places with poor lighting conditions. The proximity keys are totally sealed and are wear resistant. The reader reads the key's ID, whenever the key is presented.

A second proximity reader may be connected to the AXS-10 to control both sides of a door. An optional magnetic stripe card reader may be connected instead of a proximity reader.

The separate weatherproof readers give added security and flexibility allowing outdoor or indoor installation.

The AXS-10 control unit (see figure 1) includes a 3-digit display, 3 visual indicators (LEDs) and 4 buttons. An internal proximity reader located in the upper right corner of the control panel allows fast and easy programming of access keys. The buttons are used for entering the password and for programming the unit.

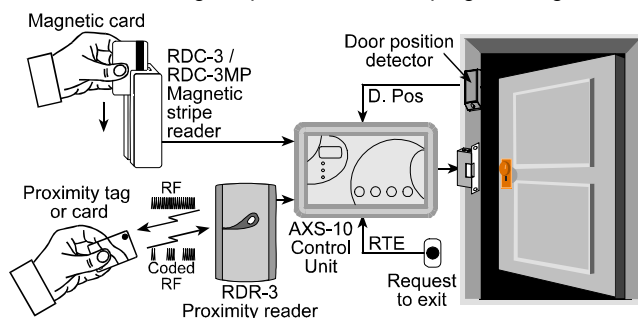


Figure 1 - System Functional Presentation

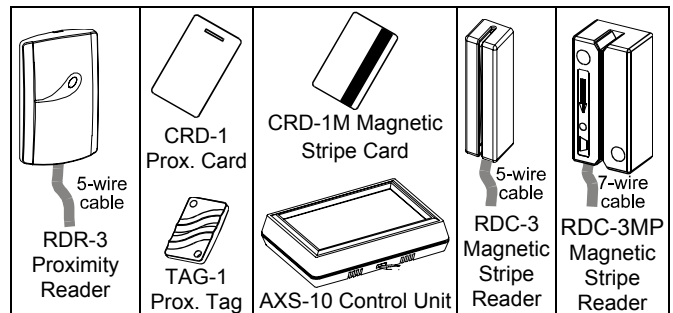


Figure 2 - System Components

A new Toggle mode feature is added to the AXS-10 controller. By using this feature, presenting a valid tag arms/disarms an alarm system or activate/deactivate an electrical device (such as air conditioner).

The AXS-10 has a memory capacity of 300 keys. Adding keys simply involves presenting new keys to the controller while the system is in ADD mode.

The user can delete keys in the DELETE mode by presenting them to the reader or, if a tag/card is not available, by typing in its number (the same one that appears when adding the key).

The AXS-10 kit includes:

- AXS-10 controller
- RDR-3 proximity reader with 1m (3 ft) 5-wire cable
- Installation instructions
- User Guide
- Control unit base template, for wall installation

Additional tools and equipment that may be needed:

- Proximity tags or cards (ordered separately)
- Power supply for the controller - 12V AC/DC
- Electromagnetic strike (EMS) unit
- Request-to-exit push button or PIR, if "request to exit" option is required.

2. USER PROGRAMMING

Note: While in any one of the programming modes, the AXS-10 will not operate the reader or the lock.

2.1 Entering the Programming Menu

The master key enables the user to select the programming menu and add or delete keys.

Note: Inactivity for more than 10 seconds will cause AXS-10 to exit the programming mode and revert to normal operation.

The AXS-10 recognizes one master key and one password. The master key cannot be used as a user key and will NOT unlock the door. To use the master key for entering the programming menu, press the "MODE" button and then present the master key to the internal reader, located at the top right corner or the AXS-10 controller, for 2 seconds. The reason for the 2 seconds delay is to prevent inadvertent activation of the programming menu.

For setup functions such as "password", "master key", "unlock time" or "erase all keys" an additional four-presses password is needed. Each button press may involve pressing any one of the four buttons or a combination of two.

Altogether, there are 10,000 password combinations (see "2.9 Setting Password"). The master key is also used to confirm changes made to parameters.

2.2 Selecting The Programming Mode

The AXS-10 recognizes 6 programming modes:

- Adding User Keys
- Deleting User Keys
- Erasing All User Keys
- Setting Unlock Duration
- Defining Master Key
- Setting User Password

To select the programming mode, press the "MODE" button and enter the installer password or present the master key to the reader until the green led ("ADD" light) starts flashing for at least 2 seconds.

Press the "MODE" button to choose between Add, Delete and Special Operations.

Adding User Keys is possible when the ADD light is ON.

Deleting User Keys is possible when the DELETE light is ON.

Set-up functions are available when the SPECIAL light is ON.

For set-up functions, enter the user's password and select the desired option by pressing the "MODE" button.

Erase All User Keys - "Er"



Set Unlock - "UL"



Set Master Key - "S0"



Set User Password - "PP"



2.3 Adding User Keys

Note: It is recommended to keep a list of key-holder names and keys address numbers, in order to be able to delete stolen or lost keys.

Adding Proximity Keys

- To select the ADD mode press the "MODE" button and enter the installer password, or present the master key to the reader until the green "ADD" LED starts flashing, indicating that the AXS-10 is ready to add a key.
- Once you present a key to the internal reader, the key will be added and its number will be displayed for a few seconds.

Adding Magnetic Stripe Cards

- To select the ADD mode press the "MODE" button and present the master card to the magnetic stripe reader until the green "ADD" LED starts flashing, indicating that the AXS-10 is ready to add a key.
- Once you present a magnetic stripe card to the magnetic stripe reader, the card will be added and its number will be displayed for a few seconds.

Final Steps of Procedure

- Write down the number and the card holder's name for future reference.
- After a few seconds the green LED will flash indicating that the system is ready for adding the next key or magnetic stripe card.
- Add another key or magnetic stripe card or wait 5 seconds for the system to time out and revert to normal operation.

2.4 Deleting User Keys

Deleting Proximity Keys

- To select the DELETE mode press the "MODE" button and enter the installer password, or present the master key to the reader until the "ADD" LED starts flashing, then press "MODE" again. The red "DELETE" light will start flashing to indicate that the system is ready to delete a key.

Deleting keys can be accomplished in two ways:

- If you have the key to be deleted, present it to the internal reader located on the top right corner of the AXS-10 controller. The key number will be displayed for a few seconds and then the numeric display will blank to indicate readiness for the next operation.

Deleting Magnetic Stripe Cards

- To select the DELETE mode press the "MODE" button and present the master card to the magnetic stripe reader until the green "DELETE" LED starts flashing, indicating that the AXS-10 is ready to delete a key.

Deleting magnetic stripe cards can be accomplished in two ways:

- If you have the magnetic stripe card to be deleted, present it to the magnetic stripe reader located on the top right corner of the AXS-10 controller. The key number will be displayed for a few seconds and then the numeric display will blank to indicate readiness for the next operation.

Final Steps of Procedure

- To delete a missing key or magnetic stripe card, press the "100", "10" and "1" buttons until you reach the key or magnetic stripe card number you wish to delete.

For example: To indicate the number 143, press the "100" button once, then press the "10" button four times then press the "1" button 3 times.

Once the number is set, present the master key or magnetic stripe card, or press the "MODE" button to acknowledge the operation. Hold the master key or magnetic stripe card until the key or

magnetic stripe card number disappears from the numeric display and the red LED is ON. The red LED will start blinking again to indicate that the system is ready for deleting the next key or magnetic stripe card.

Present another key or magnetic stripe card to be deleted or wait 5 seconds for the system to time out and revert to normal operation.

2.5 Erasing ALL User Keys

- To select the ERASE ALL mode press the "MODE" button and enter the installer password, or present the master key to the reader until the ADD light starts blinking.
- For magnetic stripe cards, present the master card to the magnetic stripe reader until the green LED starts flashing.
- Press "MODE" twice until the yellow "SPECIAL" LED lights (if the master key is used, type the 4 level password and verify that the display shows "Er").
- To make sure that this function is not easily executed, you will have to present the master key again until the yellow and green LEDs light. This function does NOT erase the master key.
- Wait 5 seconds for the system to time out and revert to normal operation.

2.6 Setting the Unlock Duration

The system default unlock duration is 5 seconds. The time can be set between 1 to 99 seconds.

Note: In Toggle mode, the unlock duration is unlimited (until a valid tag is presented).

Setting Door Unlock Period:

- Press the "MODE" button.
 - Enter the installer password or present the master key or magnetic stripe card. The green "ADD" LED will start flashing (if the master key is used, press the "MODE" button a few times until the "SPECIAL" LED lights and the display shows "UL").
 - Press F2 (tens) and F3 (units) to set the unlock time in seconds. For example, for 35 seconds press "10" three times and "1" five times.
 - The display will show the number of seconds.
 - To save the unlock time and return to normal operation, present the master key to the internal reader.
- You may press "MODE" at any time to continue without saving the new unlock duration.

2.7 Setting AXS-10 To Toggle Mode

To turn the AXS-10 into Toggle mode:

Setting the Unlock Duration (see par. 2.6) to 100 seconds turns the AXS-10 into **Toggle** mode. If the unlock time setting is less than 100 second, the AXS-10 is in regular mode.

To turn the AXS-10 from Toggle mode into Regular mode:

Set the unlock duration to any number other than "100", then exit the unlock duration mode.

To turn the AXS-10 into Toggle mode by using master tag:

Note: If the system is reset, the system returns to idle mode.

- While the system is in idle mode present the master tag for 5 seconds to the RDR-3 reader.
The LED will change to green (the lock is unlocked and the AXS-10 turns into **Toggle** mode).
- Presenting any valid non-master key will turn the relay to lock position.

To turn the AXS-10 from Toggle mode to regular mode by using the master key:

While the system is in idle mode, present the master tag for 5 seconds. The LED will blink red, which means that the AXS-10 is in regular mode.

2.8 Setting The Master Key

Note: The AXS-10 can have only one master key.

- To change the master key, press the "MODE" button and enter the installer password or present the master key or magnetic stripe card to the reader until the "ADD" LED starts flashing.

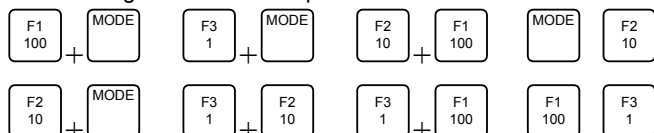
- Press "MODE" twice until the "SPECIAL" LED lights (if the master key is used, type the 4 level password and verify that the display shows "Er", then Press "MODE" a few times until the display shows "S0").
- At this stage the system will try to read a key for up to ten seconds.
- Hold the new master key until the green and yellow LED light.
- Wait 5 seconds for the system to time out and revert to normal operation.

2.9 Setting the User Password

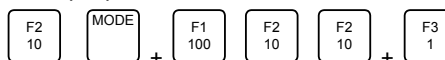
A password consists of four button presses, each involves either pressing a single button or a combination of two buttons.

Note: The MODE key by itself cannot be used as the first step of the password.

The following table shows the possible combinations:



A sample password:



To select the CHANGE PASSWORD mode:

- Press the "MODE" button and enter the installer password, or present the master key or magnetic stripe card to the reader until the "ADD" LED starts blinking.
- Press the "MODE" button twice until the "SPECIAL" LED lights (if the master key is used, enter the current 4 level password and verify that the display shows "Er", then press the "MODE" button a few times until the display shows "PP").
- Enter in the new password, as a combination of 4 button presses.
- Present the master key until the green and yellow LEDs light to confirm acceptance of the password.
- Press "MODE" for the next programming modes or simply wait 5 seconds for the system to time out and revert to normal operation.

3. NORMAL OPERATION

3.1 Valid Key Detection

If a key is presented to the external reader, the AXS-10 will search the list of valid keys in its memory. If the key is found, the AXS-10 will light the green LED and activate the output relay to unlock the door for the pre-programmed unlock duration.

3.2 Invalid Key Detection

If the key presented to the reader is not found in the AXS-10 memory, the red LED will light for two seconds and the lock will not open.

3.3 Key Event Log

By pressing F1 at idle mode, the AXS-10 shows up to 32 most recent key numbers that unlocked the door. Returning to latest tag can be accomplished by pressing F2 or F3.

3.4 Internal Request To Exit

The AXS-10 has a request-to-exit feature. To use it connect a proper Normally Open switch or PIR detector to the Request-to-exit terminal in the AXS-10. Each time the button is pressed or the PIR detects, the relay output of the AXS-10 will be activated for the pre-programmed unlock duration.

WARRANTY

Visonic Technologies 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

This device 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 residential installations. 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 and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or re-locate the receiving antenna.
- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from the one which supplies power to the receiver.
- Consult the dealer or an experienced radio/TV technician.



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Appendix - Users List

Tag No.	User name	PIN code	Tag address
1			001
2			002
3			003
4			004
5			005
6			006
7			007
8			008
9			009
10			010
11			011
12			012
13			013
14			014
15			015
16			016
17			017
18			018
19			019
20			020
21			021
22			022
23			023
24			024
25			025
26			026
27			027
28			028
29			029
30			030
31			031
32			032
33			033
34			034
35			035
36			036
37			037
38			038
39			039
40			040
41			041
42			042
43			043
44			044
45			045
46			046
47			047
48			048
49			049
50			050

Tag No.	User name	PIN code	Tag address
51			051
52			052
53			053
54			054
55			055
56			056
57			057
58			058
59			059
60			060
61			061
62			062
63			063
64			064
65			065
66			066
67			067
68			068
69			069
70			070
71			071
72			072
73			073
74			074
75			075
76			076
77			077
78			078
79			079
80			080
81			081
82			082
83			083
84			084
85			085
86			086
87			087
88			088
89			089
90			090
91			091
92			092
93			093
94			094
95			095
96			096
97			097
98			098
99			099
100			100

Note

This is a sample user list for your convenience. Please copy the list as necessary.