Instruction Manual

Stand-Alone Access Control Keypad
with Built-in EM Reader

ACS\textsuperscript{K}-EM

\textbf{Please read the Operational Manual before attempting to use this product.}

Instruction manual subject to change without prior notice from the manufacturer.
Locks, cards, sensor and power adaptor not included.
Features

• Outdoor, water resistant
• Built-in EM Reader; Card / Code / Combined access
• IP65 Rating
• 125KHz Frequency
• 1.97 inch / 5 cm Effective distance
• Up to 1000 password & card holders for Zone 1
• Digital keypad operation
• Built-in pickproof function
• Watchdog timer, powerful reboot & self-recovery watchdog
• Dual relay outputs, 0~99 sec unlock output delay time
• 12V~15V DC, 150 mA
• 3” x 4.57” x 0.87”
Keypad Description

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mode Indicators</td>
</tr>
<tr>
<td></td>
<td>Yellow, Red, Green</td>
</tr>
<tr>
<td>2</td>
<td>Door Indicators</td>
</tr>
<tr>
<td>3</td>
<td>Antenna</td>
</tr>
<tr>
<td>4</td>
<td>Matrix Keypad</td>
</tr>
<tr>
<td>5</td>
<td>Vandal Proof Case Screw</td>
</tr>
</tbody>
</table>

Mounting Installation

(Note: Before mounting, decide first where to mount the keypad.)

1. Open the control keypad by removing the screw at the bottom using the provided torque wrench.
2. Punch the necessary holes at the back template for the screws.
3. Using the back template as a guide, drill the holes for the screws and system wiring (make a bigger hole for the system wiring).
   Note: Level the back template
4. Draw out the system wiring through the center hole of the back template.
5. Mount the back template using the screws provided.
6. Mount the front panel using the torque wrench.
7. Connect system wiring (see System Wiring Diagram and System Wiring Connections).
System Wiring Diagram

Note: White NO 1: For Electric Strike Lock
Aqua NC 1: For Electric Magnetic Lock

Red = DC Input: +12V ~ +24V
Black = AC Input: ~9V ~ 18V
White = Normally Open: N/O
Pink = Electric Door Strike Lock
Aqua = Normally Close N/C
Magnetic Lock
Brown = Door Status Detection
(See * on page 5 for DSD)
Orange = Unlocking Button 1
Yellow = Unlocking Button 2
Green = GND
Blue = NO 2
Purple = COM 2
Gray = NC 2
Shielded Ground

Note: The first 4 wires (bolded) are the most important.

* Please make sure you are using one of the two locks.
System Wiring Connections

Connecting to Power:
Connect the Red to power positive (+).
Connect the Black to power negative (-).

Connecting to Locks (two options):
Option 1: Using a Strike Lock
Connect the White to power positive (+).
Connect the Pink to the Strike lock power positive (+) or the normally open (NO).
Connect the Strike lock power negative (-) to the power negative (-).

Option 2: Using a Magnetic Lock
Connect the Aqua to power positive (+).
Connect the Pink to the Magnetic lock power positive (+) or the normally close (NC).
Connect the Magnetic lock power negative (-) to the power negative (-).

Connecting an Unlocking Button to Open the Door from the Inside:
Connect the Orange to the button NO for Strike lock or NC for Magnetic lock.
Connect the button negative (-) or common to power negative (-).

Connecting to Button 2:
Connect the Yellow to the button NO for Strike lock or NC for Magnetic lock.
Connect the button negative (-) to power (-).

Connecting the Door Status Detection:
Connect the Brown to the sensor positive (+).
Connect the sensor negative (-) to power negative (-).

* The Door Status Detection (DSD) will automatically lock the door once a connection is detected. When a person comes in, it will not wait for the delay time to lock the door but locks it automatically when connection is detected. This is a good way to prevent someone coming in from behind a person who has access.
Programming & Operation

* All programming need to go to Setup Mode first.

Two-zone relays can be programmed for opening the lock. Up to 1000 user cards and correlative codes can be stored into ZONE 1 and up to 10 user cards or codes can be stored into ZONE 2. In addition the ZONE 1 can be programmed for 3 modes to open the lock: only the card access, both the code and card access, or combined access. The ZONE 2 could be programmed for door bell.

The Factory Default Programming/Admin Code is 1 2 3 4.

To enter Setup Mode press Programming Code twice.
(ex: 1 2 3 4 1 2 3 4) The mode indicator will turn yellow.
To exit or quit from the Setup Mode, press #.

Changing Programming/Admin Code:
1
In Setup Mode, press * and 3. The mode indicator will flash yellow.
2
Enter new Programming Code twice.
(ex: 5 6 7 8 9 5 6 7 8 9 ) A long beep means Programming Code was changed. The length of the admin code must be the same as X.
Please remember your new programming code.
3
Exit Setup Mode.

Restoring the Programming/Admin Code to its factory default (only if you cannot remember your new programming code):
1
Turn off control keypad power.
2
While pressing #, turn on the power of the control keypad. A long beep means Programming Code factory default was restored.
(Programming Code: 1 2 3 4).
3
Exit Setup Mode.
Access Mode Setting:

Card access only

1. In Setup Mode, press ⋆ and 0. The mode indicator will flash yellow.
2. Press 0 twice. The mode indicator will turn yellow and a long beep will sound.

Card & code access

1. In Setup Mode, press ⋆ and 0. The mode indicator will flash yellow.
2. Press 0 and 1. The mode indicator will turn yellow and a long beep will sound.

Combined access

1. In Setup Mode, press ⋆ and 0. The mode indicator will flash yellow.
2. Press 0 and 2. The mode indicator will turn yellow and a long beep will sound.

To exit or quit from the Setup Mode, press #.

Length of Password Setting:

1. In Setup Mode, press ⋆ and 9. The mode indicator will flash yellow.
2. Press 0 and 4. A “BI” sound will beep. Enter X (X = 2, 3, 4, 5, 6).

Note: 2 – stands for the password/code length of 2 digits (00~99)
3 – stands for the password/code length of 3 digits (000~999)
The rest may be deduced by analogy, and the max. is 6 digits.

A “BI” sound means digit length setting is successful. A “BI BI BI” sound means digit length is the same as the existing, so setting is not permitted.

To exit or quit from the Setup Mode, press #.

IMPORTANT NOTE: In case the digit length changed, all added cards and passwords clean out.
Adding a Master Card (Only for ZONE 1):

Note: It is advisable to install the Master Card first before installing any User Cards

To add a Master Card:

1. In Setup Mode, press [ and [ ]. The mode indicator will flash green indicating there is no master card stored. If the mode indicator turns red, a Master Card is already stored. To clean up and remove, press [ twice.

2. Swipe Master card. A long beep means master card was installed.

3. Exit Setup Mode.

Using the Master Card to enter and exit Setup Mode:

1. Swipe Master Card. A long beep will sound and the mode indicator will flash yellow. This means that you are in Setup Mode.

2. Exit Setup Mode by swiping Master Card again. Three rapid beeps and the mode indicator will turn green means that you have exited from Setup Mode.

The access control will be locked for 60 seconds if one of the following occurs:

- A wrong code is entered continuously
- An invalid card is swiped 5 times

When a door is opened and then closed, the system will automatically detect the door status and lock the door even though it is still in delay period (for ZONE 1 only).

IMPORTANT NOTE: The user code must be different from the Programming/Admin Code. The code of ZONE 1 must be different from that of ZONE 2.

Adding a User Card and Code:

ZONE 1

In Setup Mode, press one number from 000 to 999 data storage units. Yellow LED indicator light will flash.

1. At the same time, if red LED indicator light is flashing, this means the number data storage unit existed. Press [ twice to clean up.

2. If green LED Indicator light is flashing, this means the number data storage unit can add card(s) and password(s).
To add card and passwords:

1. Enter Setup Mode. The yellow LED indicator light will flash.
2. Input a 3-digit number from 000 to 999 data storage units and the green LED indicator light will also flash.
3. Swipe card and a sound “BI” means the card has successfully been added. Then input the correlative passwords. The length of passwords should be the same as the admin code. After the “BI” sound, this means the card is added and the passwords are set successfully.

Press # to exit and standby.

ZONE 2

In Setup Mode, press button ✶ and 4. Input a 2-digit number from 00 to 09 data storage unit. Yellow LED indicator light will flash.

1. At the same time, if red LED indicator light is flashing, this means the number data storage unit existed. Press ✶ twice to clean up.
2. If green LED indicator light is flashing, this means the number data storage unit can add card(s) and password(s).

To add card and passwords:

1. Enter Setup Mode. The yellow LED indicator light will flash.
2. Input a 3-digit number from 000 to 999 data storage units and the green LED indicator light will also flash.
3. Swipe card and a sound “BI” means the card has successfully been added. Then input the correlative passwords. The length of passwords should be the same as the admin code. After the “BI” sound, this means the card is added and the passwords are set successfully.

Press # to exit and standby.

Modifying the User Code (For ZONE 1):

1. In Setup Mode, press ✶ and 9. The mode indicator will flash yellow.
2. Press button 0 and 2. A beep will sound.
3. Input 3-digit number from 000 to 999 data storage units and input the correlative passwords. (The length of relative passwords should be the same as the Programming/Admin Code).
4. Exit Setup Mode.
Group Cards Added in ZONE 1:

1. In Setup Mode, press 🎉 and 9. The mode indicator will flash yellow.
2. Press 0 and 1.
3. Input the 3-digit numbers from 000 to 999 for data storage unit starting number and then another 3-digit number for the whole cards account you want to add. For example, Input 005 060 – means the cards added in storage units start at 005 and the number of cards added are 60 cards.
4. Exit Setup Mode.

Swipe the first added card or input the first added card serial number (8 digits). A beep will sound indicating the add is successful.

Removing All User and Codes (and cards if also installed):

1. In Setup Mode, press 🎉 and 8. The mode indicator will flash yellow.
2. Press 8 twice, a long beep means all Users and their Codes were removed (except Programming Code).
3. Exit Setup Mode.

Changing the Unlock Delay Time:

ZONE 1

1. In Setup Mode, press 🎉 and 1. The mode indicator will flash yellow.
2. Enter unlocking delay time from 00 to 99 (ex: 010 means ten seconds delay time before it locks). A long beep means unlock delay time was adjusted. If setting lock-time is 00: swipe card or input password once and open the door, then swipe card or input password again and close the door.
3. Exit Setup Mode.
ZONE 2

1. In Setup Mode, press ⭐ and 5. The mode indicator will flash yellow.

2. Enter unlocking delay time from 00 to 99 (ex: 10 means ten seconds delay time before it locks). A long beep means unlock delay time was adjusted.

If setting lock-time is 00: swipe card or input password once and open the door, then swipe card or input password again and close the door.

3. Exit Setup Mode.

Pickproof Alarm:

The built-in buzzer will send a continuous beeping if the photoresistor sensor is directly exposed into the light. The buzzer will turn off automatically in 60 seconds. The light is no longer detected by entering the admin code.

To turn on:

1. In Setup Mode, press ⭐ and 6. The mode indicator will flash yellow.

2. Press 0 and 2. A long beep will sound and the mode indicator will turn yellow to indicate that pickproof alarm was turned on.

3. Exit Setup Mode.

To turn off:

1. In Setup Mode, press ⭐ and 6. The mode indicator will flash yellow.

2. Press 0 and 1. A long beep will sound and the mode indicator will turn yellow to indicate that pickproof alarm was turned off.

3. Exit Setup Mode.
Note: If the **photoresistor** is directly exposed into the light, a buzzing sound will be heard. It will only stop upon removing the light exposed directly to the photoresistor, the Programming/Admin Code was pressed or after 60 seconds.

![Photoresistor Sensor](image)

**Door Bell:**

**To turn on:**

1. In **Setup Mode**, press ✱ and 2. The *mode* indicator will flash yellow.
2. Press 0 and 2. A long beep will sound and the *mode* indicator will turn yellow to indicate that pickproof alarm was turned on.
3. Exit **Setup Mode**.

**To turn off:**

1. In **Setup Mode**, press ✱ and 2. The *mode* indicator will flash yellow.
2. Press 0 and 1. A long beep will sound and the *mode* indicator will turn yellow to indicate that pickproof alarm was turned off.
3. Exit **Setup Mode**.
Restoring Factory Default:

1. In Setup Mode, press 🔄 and 8. The mode indicator will flash yellow.

2. Press 8 twice. A continuous long beep means all user cards and codes have been cleaned out. factory default was restored.

3. In Setup Mode, press 🔄 and 8. The mode indicator will flash yellow.

4. Press 9 twice. A continuous long beep means factory default was restored.

3. Exit Setup Mode.

If done improperly, the device will beep and revert back without any actions in 30 seconds. During the access mode setting, there is a 5-second window to either input password or swipe card. If no action is taken within 5 seconds, it will revert back.

When ZONE 1 relay is activated, the door LED indicator light will turn green. When ZONE 2 relay is activated, the door LED indicator light will turn red.

If you forget the Programming/Admin Code, press and hold button #, then power on the device. A beep will sound indicating the default Programming/Admin Code setting is successful.

2-digit Length – default code is 12

3-digit Length – default code is 123

4-digit Length – default code is 1234

5-digit Length – default code is 12345

6-digit Length – default code is 123456 (max.)
## Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>ACSK-EM</th>
</tr>
</thead>
</table>
| Capacity  | 1000 passwords & card holders (Zone 1)  
10 passwords or card holders (Zone 2) |
| EM Reader Frequency | 125 KHz                                 |
| Card Effective Distance | 1.97 inch / 5 cm                         |
| Power Consumption | 12V~15V DC, 150mA                      |
| DC Input  | +12V ~ +24V                                  |
| AC input  | ~9V ~ 18V                                   |
| Current   | < 80 mA Standby  /  < 110 mA Working          |
| Unlock Delay Time | 0~99 sec                              |
| IP Rating | 65                                          |
| Operating Temperature | -20°C ~ 50°C                             |
| Humidity  | RH < 95%                                     |
| Dimension | 3 (W) x 4.57 (H) x 0.87 (D) inches  
7.2 (W) x 11.6 (H) x 2 (D) cm                     |

* Specifications are subject to change without notice.

## Package Contents

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>One (1) Access Control Panel</td>
<td></td>
</tr>
<tr>
<td>One (1) Mounting Plate</td>
<td></td>
</tr>
<tr>
<td>One (1) Short Screw</td>
<td></td>
</tr>
<tr>
<td>Four (4) Long Screws</td>
<td></td>
</tr>
<tr>
<td>Four (4) Wall Anchors</td>
<td></td>
</tr>
<tr>
<td>One (1) Torque Wrench</td>
<td></td>
</tr>
<tr>
<td>One (1) Instruction Manual</td>
<td></td>
</tr>
</tbody>
</table>

*For any returns, please include all components listed above with original packaging in Resalable Condition. Absolutely No Returns will be accepted if any component is missing/damaged.

⚠️ **Caution:**

- Do not connect this device to any power source other than what is supplied.
- Do not handle the unit with wet hands.
- The unit is weatherproof, not waterproof. Do not install in areas where it may be exposed to rain constantly.
Other Related Product Options

A. Buzzer
- Can be programmed 1~10 sec, recommend 5 sec.
- 5V~14V DC

Buzzer Connection:
1. Connect the buzzer positive (+) to lock (magnetic or strike) positive (+)
2. Connect the buzzer negative (-) to power negative (-)

B-1. 2-CH Wireless RF Receiver & Remote

RF Receiver + Single Button OR 2 Button

B-2. 2-CH Wireless RF Receiver & Desktop RF Transmitter

Error! Not a valid link.

C. Door Bell Station w/ Color IR Camera & 7” Color Monitor Station w/ Door Buzzer Button

Door Bell Station w/ Color IR Camera SS-NC-DS2 + 7” Color Monitor Station w/ Door Buzzer Button SS-NC-DS2 + Power Supply w/ 16 Power Cord SS-AC-POWERDC
Recommended Lock Systems

A. Magnetic Lock with LED

- Available in 600 lbs and 1200 lbs

B. Electric Door Strikes for Metal Door

- Jaw Strength: 2000 lbs
- 12V DC

C. Electric Door Strikes for Wood Door

- Jaw Strength: 2000 lbs
- 12V DC