❶ Main Features

- Up to 500 pin-codes programmable from keypad.
- Two access groups. (Optional)
- 2 request to exit inputs.
- 2 relay outputs contact support Latching or momentary outputs.
- Built-in watchdog to prevent the system from halting.
- Built-in tamper switch, include external security system interface.
- Bell output, Press ✱ # together for bell using. (Optional)
- Keypad will be locked for 30 seconds while continuous error operation.

❷ Specification

Digits	3-6
Power Requirement	9-18VDC / 100mA
Power Consumption	< 2W
Environment	-10℃ to +60℃
Memory	EEPROM
Color	Dark Pearl Gray / Silver
Indicator	A bi-color LED and a beeper
Dimensions (mm)	111(H)*77(W)*26(D)

The installation of 721KP, electric strike and door bell

❸ Notice

- If the master code is forgotten it can be restored to the factory default. Remove the AR-721KP from the mounting plate. Press and hold the reset switch 5 seconds . LED light green during 2.5 seconds and five beep sounds mean that master code have restored to the factory default 123456.
- If you would like to delete all user codes. Remove the AR-721KP from the mounting plate. Press and hold the reset switch 10 seconds (RESTER, on the KEYPAD circuit board).LED light green during 5 seconds and six beep sounds mean that all user are deleted.
- A user number programmed in the first group (000-249, default value) operates door relay-1. A user number programmed in the second group (250 to 499, default value) operates door relay-2.
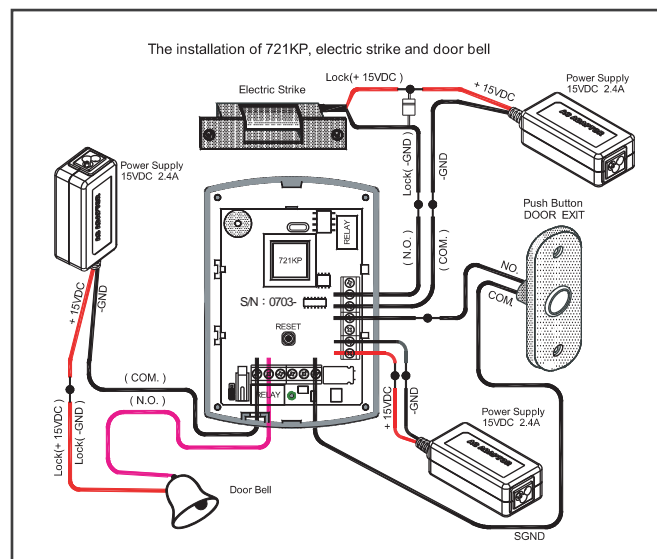
❹ Front Panel Indicators

1. The unit should make a beep sound when any key on the keypadis depressed.
2. If no key is made within 30 seconds, it will automatically exit the programming mode.
3. In the programming mode, LED light green and flash rapidly. It means that the unit waits for entering. LED is red and flash rapidly, it means that the reader is busy.
4. LED light green and one beep sound mean acknowledge, LED light red and two beep sounds mean not acknowledge.

❺ Terminator

Table 1 - Connector CN1 Coding

Wire Application	Wire		Description
Door Relay-1	N.C.	1	(N.C.) DC24V1Amp
	N.O.	2	(N.O.) DC24V1Amp
	COM	3	(COM) DC24V1Amp
Exit Switch	EGR	4	Negative Trigger Input for Door Relay-1
	DLY	5	Negative Trigger Input for Door Relay-2
Power	VIN-	6	DC Power GND
	VIN+	7	DC Power 12~16VDC

Table 2 - Connector CN2 Coding

Wire Application	Wire		Description
Door Relay-2	COM	1	(COM) DC24V1Amp
	N.O.	2	(N.O.) DC24V1Amp
	N.C.	3	(N.C.) DC24V1Amp
Tamper Switch	SW	4	N/O or N/C select via jumper
	SW	5	COM
SGND	SGND	6	Signal Ground

❻ Installation

Steps
1. Use the screwdriver to screw the mounting plate on the wall.
2. Pull cable ends through the access hole in the mounting plate.
3. Attach the AR-721KP to the mounting plate and install screw (supplied) into the hole at the bottom with the Allen wrench (supplied).
4. Apply power. The red LED will flash once and the beeper will sound.

Installation Notice
1. Exit Switch input must be a dry contact, with no voltage present.
2. The AR-721KP does not supply power to operate electric strike or magnetic locks a separate supply is required. Refer to strike/magnetic lock manufactures instructions. If common power supply is used for both the AR-721KP and electronic door lock, be sure to install the diode which is provided with the AR-721KP.
3. Alternatively, you can use any good 9-18 VDC supply that provides at least 150mA. DC power should be clean and filtered with no more than 1 VAC ripple (Peak to Peak). Do not run AC power in the same cable with DC power to theAR-721KP.

❼ Troubleshooting

Q:No appearance

A: 1. Check power, if it is 9 18 VAC/VDC adaptor?
2. Check if the polarity is correct?
3. The unit should make a beep sound when any key on the keypad is depressed.
4. If you remove and restore power, the unit should beep once and the LED should flash red once.

❽ Return of Products

If you think that you have a defective unit, please contact the distributor who sold you the unit. All service and repairs must be done through an authorized distributor.

❾ Warranty

SOYAL warrants that the product(s) shall be free from manufacturing defects in materials and workmanship for a period of fifteen (15) month from the date of delivery provided that the product was properly installed and used. Note: Don't tear a paster such as AR-721KPXXX 0506-123456 on the PCB board, because it is SOYAL warranty.

⑩ Easy Guide

> Enter the programming mode (∗123456#)
>
> ➡ Add a User Code to the system
>
> ➡ Set the door relay release time
>
> ➡ Exit the programming mode (∗ #)

1 Enter the programming mode

Press ∗+ 1 2 3 4 5 6 +# (all new units are preprogrammed with the master code 123456).
The LED will flash green rapidly to show that the unit is in the programming mode. The unit will time out and return to the reading mode in 30 seconds if no key is pressed.

Add a User Code to the system

❶ Press ∗ + Master Code + #
❷ Enter 1 2 ∗ 0 0 1 ∗ 2 0 8 1 #
           User Number   User Code

The above for example, the user number 001 can access the door by entering 2081#. Note that a user code must be 3 to 6 digits in length and the key # cannot be used in a code.
For example: (The user code of user number 001 can be 123, 1234, 12345 or 123456)
Enter 12∗001∗123 # (set user code 123 to user 001)
Or   Enter 12∗001∗1234 # (set user code 1234 to user 001)
Or   Enter 12∗001∗12345 # (set user code 12345 to user 001)
Or   Enter 12∗001∗123456 # (set user code 123456 to user 001).
❸ Press ∗#

3 Set the door relay-1 release time

❶ Press ∗ + Master Code + #
❷ Enter 0 2 ∗ 0 0 1
              1 Seconds
             └─ Set door relay-2，enter 0 3

TTT = 000: Latch (Toggle) / TTT = 001 ~ 600 (001 ~ 600) seconds / TTT = 601 ~ 609 (0.1 ~ 0.9) second.
A green light and beep means that the door relay release time was changed.
❸ Press ∗#

4 Exit the programming mode

Press ∗# - - exit the programming mode and return to the reading mode.

⑪ Others

CHANGE

Change your Master Code

❶ Press ∗ + Master Code + #
❷ Enter 0 9 ∗ 6 5 4 3 2 1 6 5 4 3 2 1 #
          Re-type New Master Code-654321
A green light and beep means that the master code was changed.
Note that 123456 is the default master code; use another number for best security.
❸ Press ∗ #

DELETE (Remove)

Delete (Remove) a User Code from the system

❶ Press ∗+ Master Code +#
❷ Enter 1 4 ∗ 0 0 1 #
            └─User Number
A green light and beep means that the user code was deleted.
❸ Press ∗ #

Delete (Remove) all Users Codes from the system

❶ Press ∗ + Mater Code + #
❷ Enter 2 9 ∗ 2 9 ∗ #

The LED flash red during 1 seconds to mean that the system is deleting all user codes. Then a green light and beep means that all user codes were deleted.
❸ Press ∗ #

DISABLE(SUSPEND)

Disable (suspend) a User Code from the system

❶ Press ∗+ Master Code + #
❷ Enter 1 0 ∗ 0 0 1 ∗ 0 0 1 #
          Starting User No.1 Ending User No. 1
A green light and beep means that the user code was disabled.
❸ Press ∗ #

Disable (suspend) a range of Users Code from the system

❶ Press ∗+ Master Code + #
❷ Enter 1 0 ∗ 0 0 1 ∗ 0 1 0 #
          Starting User No.1   Ending User No. 10
A green light and beep means that the range of user codes was disabled.
❸ Press ∗ #

ENABLE

Enable a User Code to the system

❶ Press ∗+ Master Code + #
❷ Enter 1 1 ∗ 0 0 1 ∗ 0 0 1 #
          Starting User No.1 Ending User No. 1
A green light and beep means that the user code was enabled.
❸ Press ∗ #

Enable a range of Users Code to the system

❶ Press ∗+ Master Code + #
❷ Enter 1 1 ∗ 0 0 1 ∗ 0 1 0 #
          Starting User No.1 Ending User No. 10
A green light and beep means that the range user codes was enabled.
❸ Press ∗ #

ABOUT KEYPAD

Set time out value

❶ Press ∗+ Master Code + #
❷ Enter 0 4 ∗ 4 9 #
         4.9 seconds
TT=00 ~ 09 (0 ~ 0.9) seconds/TT=10 ~ 49 (1~4.9) seconds.
❸ Press ∗ #

Set keypad lock of continuous error operation

❶ Press ∗+ Master Code + #
❷ Enter 0 5 ∗ 3 #
        times   T = 0 or 3 ~ 9。
The above for example, three incorrect user code (or master code) are entered, keypad will be locked for 30 seconds. If you do not need keypad lock of continuous error operation function, enter 0 5 ∗ 0 #
❸ Press ∗ #

> ● Please visit **www.soyal.com** to download the operation manual for more detailed information. AR-721KP is also allowed to operate through software please contact your supplier to acquire it.