YLI ELECTRONIC

RFID/Digital Keypad Control Station

Model:YK-168

INTRODUCTION

YK-168 is an RFID and digital keypad control station,designed for access control and home security applications.The control station provides 3 operation mode: i) RFID Card operation,ii) Digital Code operation, iii) RFID Card+Digital Code combinations operation.
YK-168 provides multi-User Codes or single User Code, and provides manual code entry or auto code entry.
YK-168 can be connected with door opening buttons and door bell, it has the safety functions as the keypad locks or alarms after 5-10 false entries and tamper alarm.
YK-168 has advanced features with the Microprocessorand EEPROM non-volatile memory for reliable performance.
YK-168 is fully keypad programmable, all programming proceed on the keypad.
YK-168 is a device of simple operation, easy to use, reliable functions; it is an ideal device for office, home and factory in access control and security system installations.

TECHNICAL DATA

- Dimensions: 117Lx117Wx21H(mm)
- Operating Voltage: 12VDC+10%
- Current Drain: Quiescent State=25mA, Active State=70Ma (2 Relays actuated, all LED lighted)
- Relay Output Contacts: N.O. and N.C. Dry Contact, Max Rating of Contact Current 3A/24VDC
- Capacity of Recording: 250 ID Cards, 250 Codes or 1 Common Code
- Card Reading Distance: Max Distance 10cm
- Type of ID card: EM Card, 125KHZ
- Operating Temperature: -20℃-60℃
- Operating Humidity: 10%-90%
- Weight: 0.14kg

AUDIBLE & VISIBLE INDICATIONS

Definition of Audible and Visible Indications	Status Indicator STATUS	Output Indicator PASS	Audible Indicator	Key Act Lamp KEY ACT
	Amber LED	Green LED	Buzzer	LED
Standby mode	1 Flash in 2 Sec interval			
Successful key entry	1 Flash then light for 10Sec (Press # to return to standby mode)		1 Beeps	Light for 10Sec
Successful card / code entry	2 Flashes	Light	2 Beeps	
Successful operation	2 Flashes		2 Beeps	
Unsuccessful card / code entry	5 Flashes		5 Beeps	
Unsuccessful operation	5 Flashes		5 Beeps	
In locking status (no response to card / code entry)	1 Flash in 10 Sec interval		1 Short beep in 10 secretary interval 1 Long beep finish locking	
In programming mode	Light	Light		

During programming	Light	Continuous Flash		
Programming confirmation (PRESS KEY #)	Light	Light	2 Beeps	
Alarm status	Continuous flash		Continuous beeps	

Alarm statusContinuous flashContinuous beeps

Notice to user: (1)Successful entry, it will keep 10 seconds, if no further key entry in 10 seconds, It will return to normal operation status(Standby mode).

(2)In case wrong entry, cancel the wrong entry by pressing key #, or waiting for 10 seconds then re-enter.

PROGRAMMING

Before use of the new control station,programming every item to confirm the functions and settings meet the requirement of the users

Programming code = Management code = Master code

Default programming code is 1234

NOTE: (1) Successful programming operation The amber LED will show 2 flashes and the buzzer will sound 2 beeps.

Unsuccessful programming operation The amber LED will show 5 flash and buzzer will sound 5 beeps.

(2)The User Number / User ID Card / User Code, are not allowed to record repeatly.Repeat record will not be entered and will give warning signal :amber LED 5 flash, buzzer sound 5 beeps to signify rejection. It is required to delete the old data the re-enter.

PROCEDURES OF PROGRAMMING

(1)Entry into programming

PRESS KEY * ⟶ Enter the programming code (4-8 digits, default code is 1234) ⟶ # (The amber LED and green LED lighted, signifying entry into the programming mode)

(2)Recording the new programming code

(For security purpose, change the new programming code from default code before use of the new control station).

PRESS KEY 0 ⟶ Enter the new programming code (4-8 digits) ⟶ # ⟶ Repeat the new programming code ⟶ #

(3)Recording the User ID card

(Assign a number of any 3 digits as the User Number for each User Card, the User Number is not allowed to repeat use in the programming, keep the User Number as a record of an user)

PRESS KEY 1 ⟶ Enter the User Number (3 digits) ⟶ Read the User ID Card ⟶ #

(When recording the User ID Card, should note if the recording is successful and the indicating amber LED show 2 flash and buzzer sound 2 beeps, signifying acceptance of the entry)

NOTE: If continue to record more User ID Cards,at the end of each recording,it is no necessary to press key # per each time, to repeat above steps, until all User ID Card recording are finished. Finally to press the key # to confirm all recordings are completed.

(4)Deleting the User ID Card

A. PRESS KEY 2 ⟶ 0000 ⟶ # (Deleted all the User ID Cards)

B. PRESS KEY 21 ⟶ Read the User ID Card to be deleted ⟶ # (Deleted the User ID Card)

C. PRESS KEY 21 ⟶ Enter the User Number of the User ID Card to be deleted ⟶ # (Deleted the User ID Card of the User Number)

(5)Programming the open-door mode

A.PRESS KEY 3 ⟶ 00 ⟶ # (Open door by User ID Card)

B.PRESS KEY 3 ⟶ 01 ⟶ # (Open door by User ID Card or User Code)

C.PRESS KEY 3 ⟶ 02 ⟶ # (Open door by User ID Card + User Code)

(6)Programming the door-open time

PRESS KEY 4 ⟶ (01-99 seconds) ⟶ # (Setting door-opening time 1-99 seconds)

NOTE: Factory setting Door-opening time is 3 seconds

(7)Recording the User Code

A. Single User Code (Common User Code)

PRESS KEY 5⟶00⟶Enter the User Code (4-8 digits)⟶#

Deleting the common User Code

When enter new common User Code the old one will be deleted automatically

B. Multi-User Codes

PRESS KEY 5⟶01⟶Enter the User Number (3 digits)⟶Enter the User Code (4-8 digits)⟶# (Confirming the code length) (Green LED flash)⟶# (Green LED stop flash) (confirmed entering is completed)

NOTE: 1. If continue to record more User Codes, at the end of each recording, it is no necessary to press the key # per each time, to repeat the above steps until all User Code recordings are finished. Finally to press the key # to confirm all recording are completed.

2. The User Number of the User Code and the User Number of the User ID Card must be the same,i.e.the User Number of the User Code is 008,the User Number of the User ID Card is also 008,so in Card + Code operation mode the User Number of both the User ID Card and User Code can be matched in application.

* Deleting the User Code recorded (Multi-User Code)

PRESS KEY 5⟶02⟶0000⟶# (Deleted all the User Codes)

PRESS KEY 5⟶02⟶Enter the User Code to be deleted⟶# (Deleted the User Code)

PRESS KEY 5⟶02⟶Enter the User Number of the User Code⟶# (Deleted the User Code of the User Number)

(8)Programming User Code entry mode

(User Code entry mode)

PRESS KEY 70⟶0⟶# (Manual entry mode, have to press the key # follow the User Code entered to confirm the code length of the User Code entered. The User Code can be 4-8 digits)

PRESS KEY 70⟶1⟶# (Auto entry mode, the User Code must be set in the same code length as the program code. No need to PRESS KEY # to confirm the code length of the User Code entered.
The User Code can 4-8 digits)

NOTE: Factory setting anual code entry mode

(9)End of programming

Exit programming mode in 60 seconds

PRESS KEY * to exit programming mode and return to normal operation status(Standby mode)

OPERATION OF THE CONTROL STATION

NOTE: The amber LED 1 flash in 2 second interval-the control station is in normal operation mode, standby for use.

(1) Open door by User ID Card (Door opened by reading User ID Card)

(2) Open door by User Code (Door opened by entering User Code)

(3) Open door by User ID Card User Code (Door opened by reading User ID Card, green LED will flash, in 10 seconds entering the User Code)

SAFETY FUNCTIONS

(1) Entry of 10 false codes or reading 10 invalid ID Cards, the control station locks for 30 seconds.

(2) In case tamper switch is activated, warning signal is indicated:amber LED continuous flash and buzzer continuous beeps, until tamper switch is deactivated.

Control station in locking state:

No response to ID Card / or key entry, amber LED and green LED show 1 flash and buzzer sounds 1 short beep in 10 seconds interval, at the end of locking the buzzer sounds 1 long beep to signify the end of locking and return to normal operation mode.

RESTORING THE DEFAULT PROGRAMMING CODE

If the programming code is lost (or unknown), use the DAP jumper to restore the default programming code, procedures as follows:

(1)Disconnect power supply.

(2)Put the DAP jumper from OFF position to ON position.

(3)Reconnect power supply, amber LED will flash constantly and the buzzer will beep constantly.

(4)Put the DAP jumper back to OFF position, amber LED will stop flashing, buzzer will stop beep.

(5)The default programming code 1234 is restored.

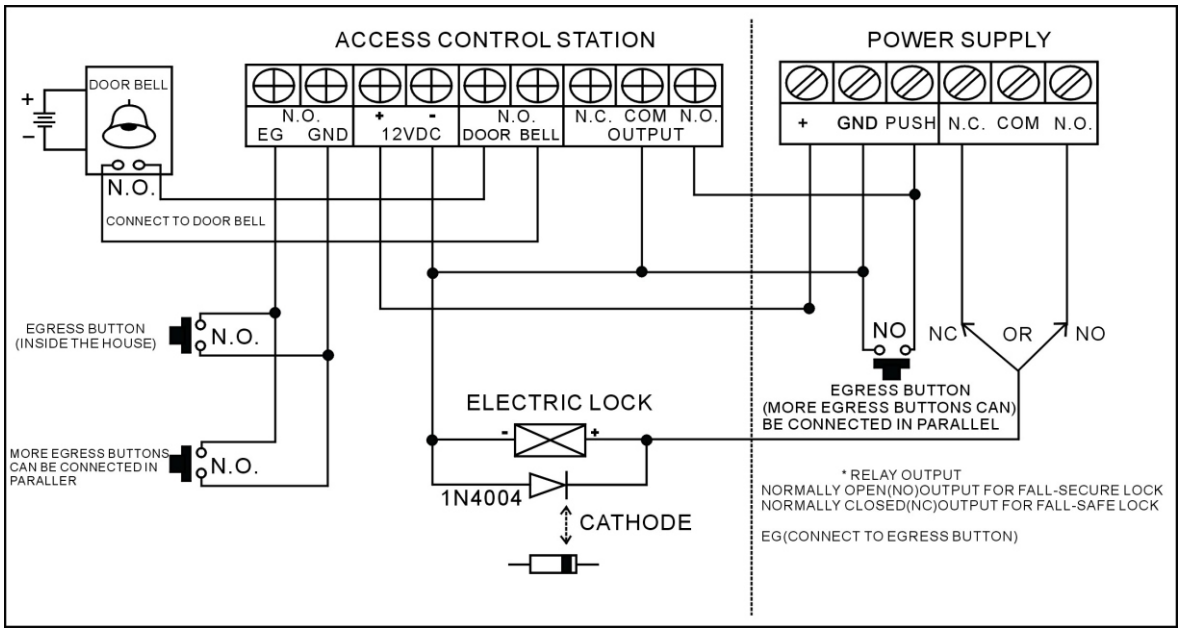
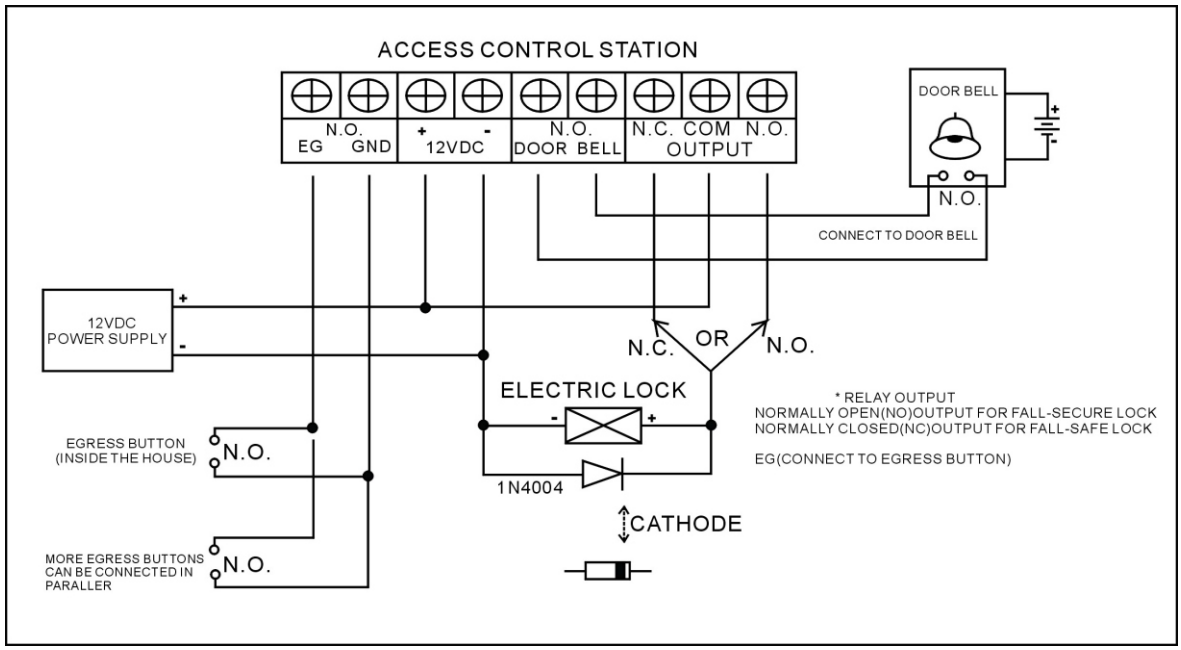
Note: The restoring operations only restore the default programming code 1234,the recorded Data or Settings will not be changed or deleted.

NOTICE TO INSTALLER

(1)Around the control station in 50cm distance, there must be no any apparatus with 100 KHZ frequency sources (In order that no interference is appeared).
(2)In the installation, the distance of 2 control stations, or one control station and other card readers, should over 50cm.
(3)Do not connect wires with power ON. Before apply power to the control station, should confirm power voltage is 12VDC and the polarity (+ -) is correct.
To install the back-plate of the control station after pass all performance and function testing.

WIRING DIAGRAM

(1) The Control Station controls the apparatus Via Power Supply



(2)The Control Station directly controls the connecting apparatus (Note: Max Rating of Relay Contact Current 3A / 24VDC)