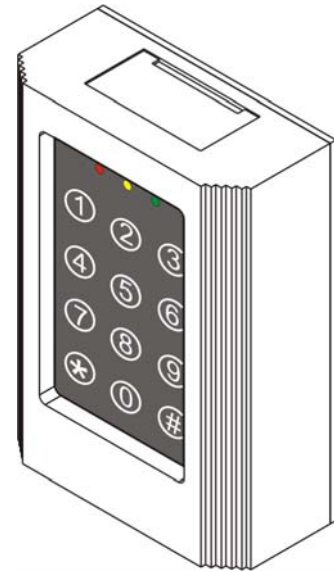


DK-502 Touch Panel Keypad Entry system User Manual



1. Specifications:

- ◆ Operating Voltage: 9~12 VAC/VDC
- ◆ Operating Current: Average 100 mA, Peak 180 mA at 12VDC
- ◆ Input: request-to-exit, time out reed switch contact
- ◆ Output: Dual relay, N.O./N.C./Com. (free voltage contact)
- ◆ Current for relays: 2 A Max. at 30 VDC ; 400 mA at 120 VAC
- ◆ Relay Activation Time: (*100 · *200)
 - Strike Time: 01~99 seconds (adjustable)
 - Strike mode: Access Timer or Latch (00)
- ◆ Memory Volume: 49+50 slots of PIN codes
 - Relay 1 is controlled by 001~049 user slots
 - Relay 2 is controlled by 050~099 user slots
- ◆ PIN code: 5-digit code only
- ◆ Operating Temperature: -20°C ~ +70°C
- ◆ Ambient Humidity: 5%~95% relative humidity and non-condensing
- ◆ Default Master Code: 12345
- ◆ Invalid PIN Lockout: The system will be locked for 60 seconds after 32 consecutive incorrect digits to default master code or PIN code. Beeper will also stop working temporarily.
- ◆ Time interval between keys:
 - Stand-by mode: One key has to be pressed after another one within 30 seconds, or the complete password has to be re-dialed again.
 - Programming mode: The system will automatically leave the programming mode after 60 seconds if you have not entered any code or data.
- ◆ Colour: Beige White

2. The indicator signal chart:

Signal		Stand-by mode	Programming mode
LED signal	Red LED	Solid : Power on Flashing: System lockout due to invalid PIN	Flashing: In Programming Mode
	Yellow LED	Solid :Relay 1 activated	Flashing: Slot or activation time of relay 1 ready to be set. Solid: User code already stored in this slot or relay 1 activation time setting successful.
	Green LED	Solid :Relay 2 activated	Flashing: Slot or activation time of relay 2 ready to be set. Solid: User code already stored in this slot or relay 2 activation time setting successful.
Sound signal	1 Beep (short)	Effective PIN code	Setting successful.
	1 Beep (long)	Entering or leaving programming mode.	Input error, or other operation errors
	3 Beeps	System lockout due to invalid PIN	
	5 Beeps	Master Code reset to Factory default (12345)	

3. Operation Instructions:

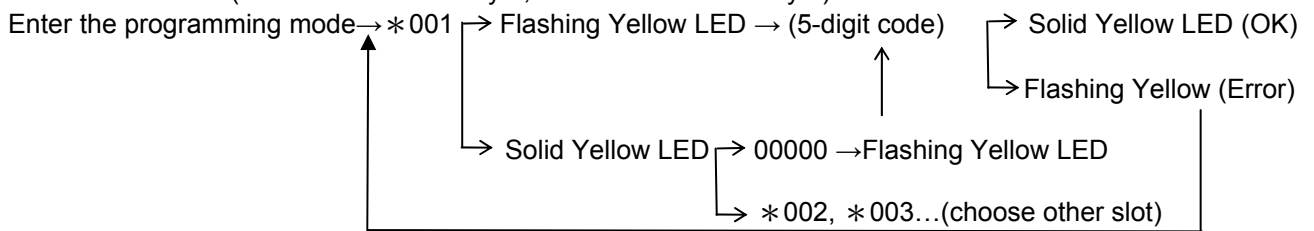
◆ Entering Programming Mode:

1. Enter the master code twice (Default master code:12345)
→1 Beep (short) and Flashing Red LED→ "Programming mode".
2. System lockout due to invalid PIN: The system will be locked for 60 seconds after 32 consecutive incorrect digits to default master code or PIN code.

◆ Leaving Programming Mode:

1. Press 「#」 to leave the programming mode.
2. If the system has been left unused for 60 seconds, it will automatically leave the programming mode.

◆ Add PIN codes (*001~*049 for relay 1; *050~*099 for relay 2):



(repeat or press 「#」 to leave the programming mode)

Note 1: Ineffective user codes: Codes 「00000」, 「12345」, master code and PIN codes that already existed on other slot cannot be used again for PIN code.

Note 2: To avoid PIN code being seen by others, the system will allow up to 11 random digits to be entered before the actual PIN code. e.g. PIN code "60478", Random code operation: "730269812**60478**" or "456**60478**" etc. Random digits before the correct PIN code here are called random code.

◆ Deleting a User Code:

Enter the programming mode→ Press the slot position code of your choice to delete (example "06") →*006 (Solid Yellow LED)→00000→Flashing Yellow LED. User code has been deleted successfully.

Note 1: Removing 001~049 user slots: *888→ Solid Yellow LED →00→Flashing Yellow LED (Successful)

Note 2: Removing 050~099 user slots: *999→ Solid Green LED →00→Flashing Green LED (Successful)

◆ Programming Relay Activation Time:

Enter the programming mode,

1. Relay 1→ *100→Flashing Yellow LED→05 (=5 seconds) →Solid Yellow LED (enrolled) → Press 「#」 to leave the programming mode, or program other settings.
2. Relay 2→ *200→Flashing Green LED→25 (=25 seconds) →Solid Green LED (enrolled) → Press 「#」 to leave the programming mode, or program other settings.
3. Enter 「00」 to set the relay to **latching mode**. (Relay opens when the correct code is entered and will stay open until the correct code is entered again).

◆ Changing the Master Code:

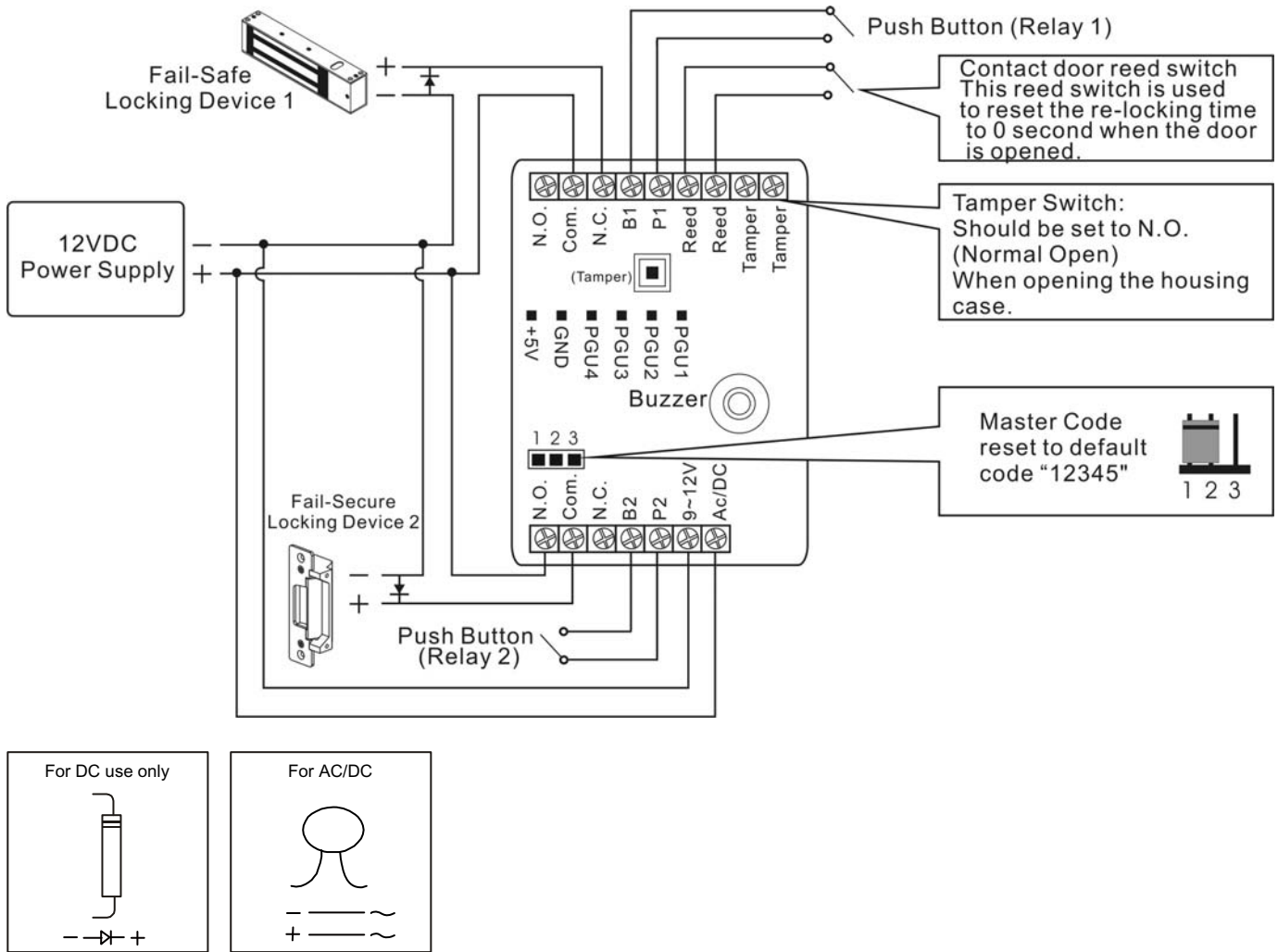
Enter the programming mode→ *000→Flashing Yellow and Green LED →(5-digit code)→Solid Yellow and Green LED→(enrolled)

Note: If fail to change the master code (Yellow and Green flashing continuously) this way please set it again through the same method as "Add PIN codes" above.

◆ Master Code Reset to Default 「12345」

Insert the jumper P1→ position 1-2 (see wiring diagram on following page) → 5 beeps→Reset successful→ Insert the jumper back to position 2-3.

4. Wiring diagram:



Note:

- ◆ The suggested wire gauge is #22~26 AWG.
- ◆ The door strike must have a varistor or a diode across the door strike terminals to suppress the back EMF of the strike - failure to do so will damage the relay contacts and electronic components.
- ◆ Reed contact input is designed for anti-tailgating. An example for REED function (Relay 1): If the door is closed after 3 seconds while time delay is set to be 10 seconds, the remaining 7 seconds will be cut off by the system and the door will lock itself automatically once the door is in correct position, except if the time delay set to "00" i.e. latching mode.

Warranty:

The product is warranted against defects in material and workmanship while used in normal service for a period of 1 year from the date of sale to the original customer. GEM policy is one of continual development and improvement, therefore GEM reserves the right to change specifications without notice.