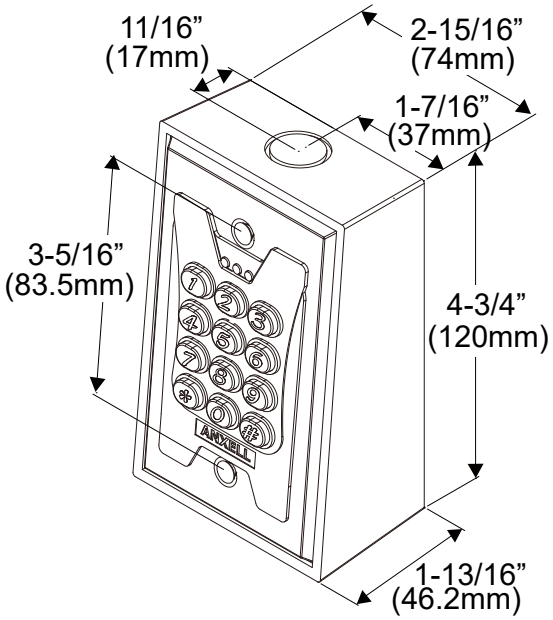
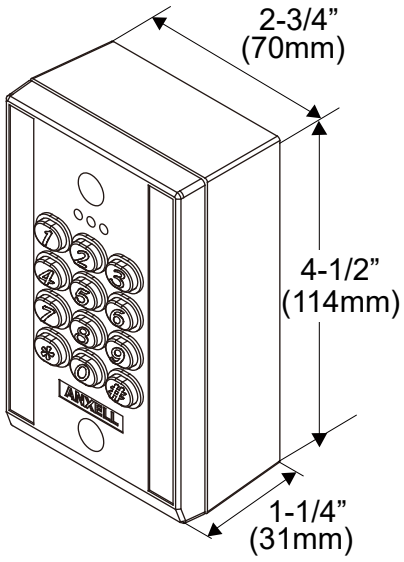
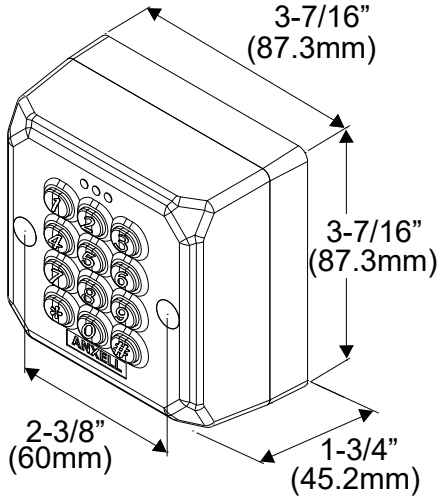
Standalone Digital Keypads
DG-110L/120L/130L
Operation Manual



DG-110L



DG-120L



DG-130L

I. Features

- 50 Users, 4 digit PIN codes.
- 3 LED indicators and built-in buzzer for status programming feedback.
- Audible code entry verification.
- Maximum 29 digit PIN code length to avoid spying.
- Adjustable timer output, 1-99 seconds or latching.

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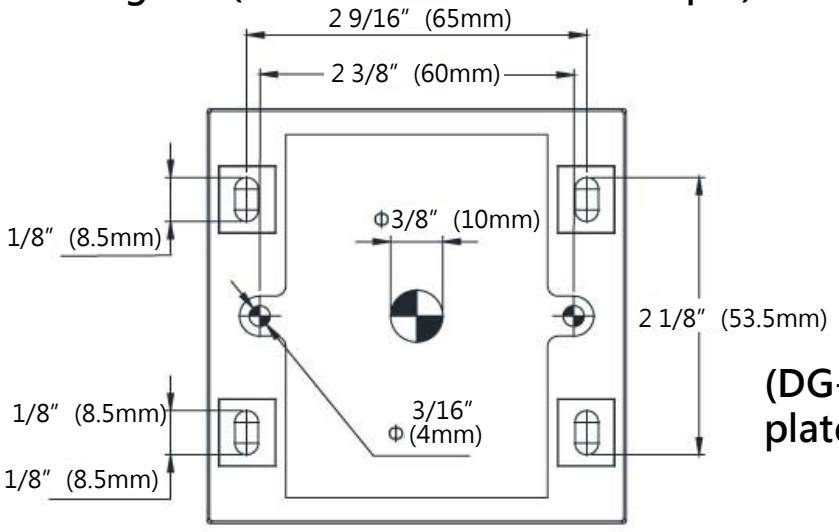
II. Specifications

Operating Voltage	DC 12~24V
Current Draw	Holding:15mA ，Pull in: 60 mA @12VDC
Keypad	4X3 matrix backlit keypad, 12 buttons (0~9, * , #)
LED Status Indication	3 LED indicator display (Red/Yellow/Green)
Input	1 contact for Request-To-Exit button（N.O.）
Output	1 relay(Dry contacts: N.O./N.C./Com.）
Relay Strike Time	01~99 seconds or Toggle Mode (00)
Relay Electric Current	0.4A @ 120VAC or 2A@30 VDC
Memory Volume	50 User codes (* 01~ * 50)
EPROM	Non-volatile memory protects programmed information in case of power loss.
Casing Material	DG-110L: Stainless steel plate, ABS back box; DG-120L/130L: ABS
Ambient Humidity	0%~95% (Non-condensing)
Operating Temperature	-20°C~+70°C

III. Status Indication

LED	Red On	Power on, Standby
	Green On	Relay activated
	Yellow On	Enter setting mode
Beep	1 Beep	Valid key press
	2 Beeps	Enter, exit setting mode
	3 Beeps	Incorrect operation
	5 Beeps	Delete all user codes
	7 Beeps	Reset Master code to 1234

IV. Installation Diagram (DG-130L shown as example)



(DG-130L mounting plate shown)

Position the template onto the wall and then drill cable access and mounting holes.

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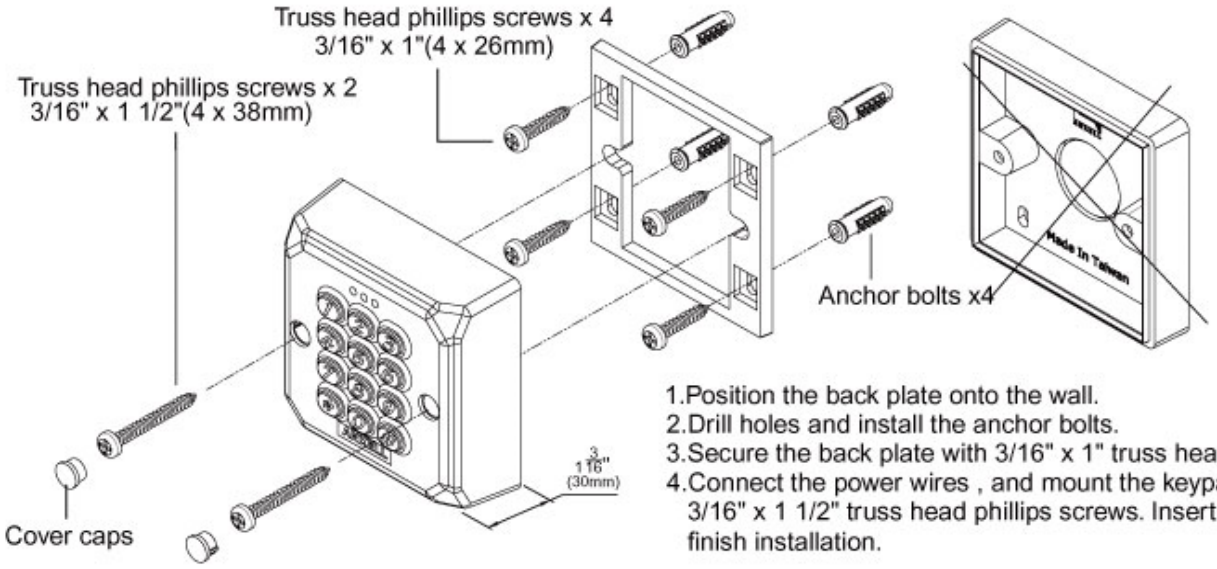
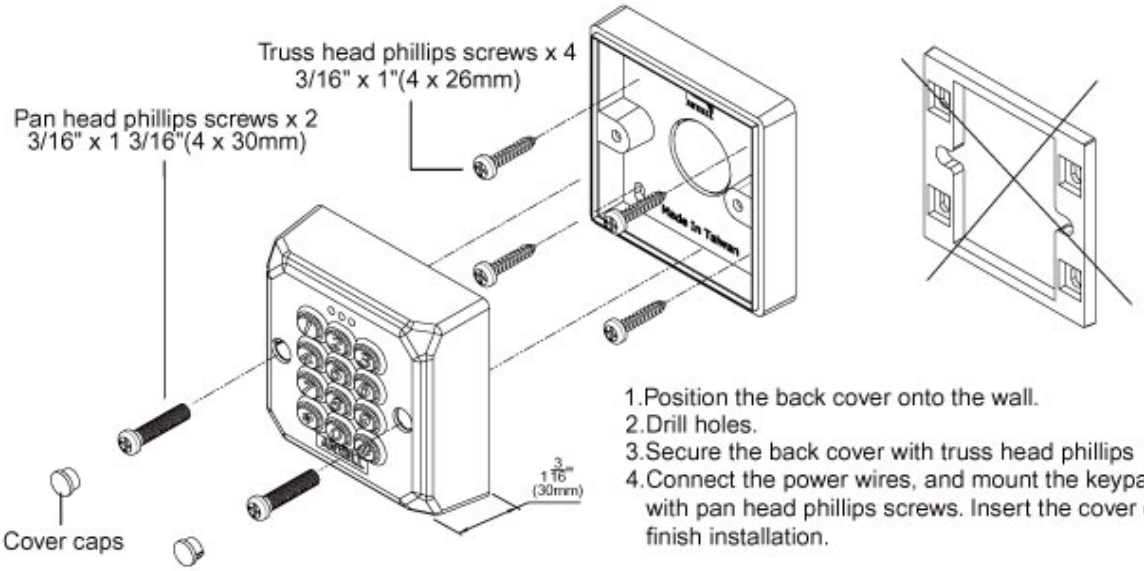
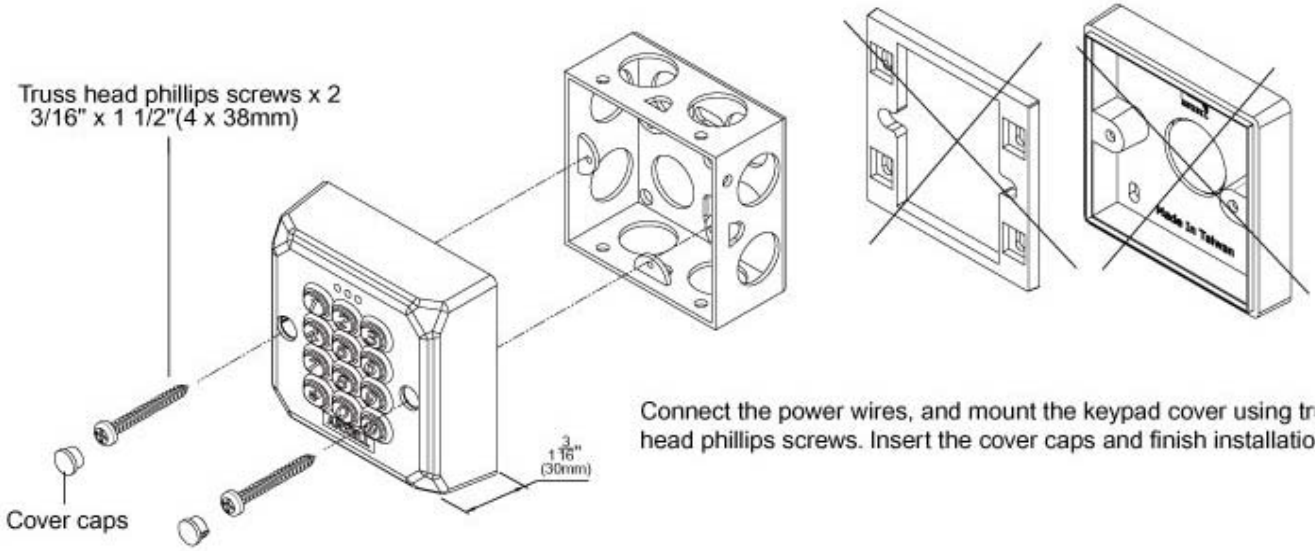


1.Position the back plate onto the wall.
2.Drill holes and install the anchor bolts.
3.Secure the back plate with 3/16" x 1" truss head phillips screws.
4.Connect the power wires , and mount the keypad cover using 3/16" x 1 1/2" truss head phillips screws. Insert the cover caps and finish installation.



1.Position the back cover onto the wall.
2.Drill holes.
3.Secure the back cover with truss head phillips screws.
4.Connect the power wires, and mount the keypad cover with pan head phillips screws. Insert the cover caps and finish installation.



Connect the power wires, and mount the keypad cover using truss head phillips screws. Insert the cover caps and finish installation.

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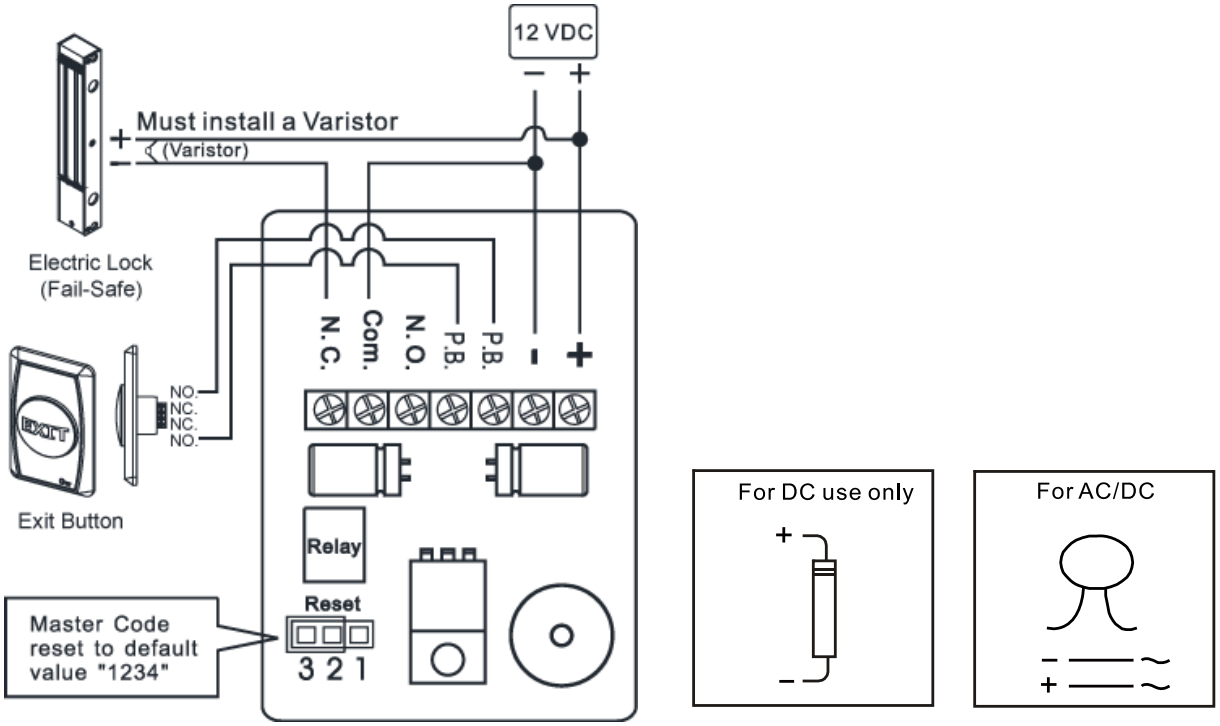
V. Wiring Diagram



Note:

- The door strike or relay 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, or even burns the controller.

VI. Operation Instructions

- **Enter the Setting Mode**

  Enter the master code twice (Default value "1234") to enter setting mode (2 beeps).

  Note:

  1. After 15 seconds if no data is entered, the keypad will automatically exit setting mode.
  2. The keypad will be locked out for 60 seconds upon wrong 29 digit master code entries

- **Exit the Setting Mode**

  Press "#" to exit setting mode. The keypad will sound 2 short beeps.

- **Add a New User Code (In Setting Mode)**

  1. Enter the master code twice (2 beeps).
  2. Press * 01 (slot position * 01~ * 50) .
  3. Enter 4-digit user code (1 beep).
  4. Repeat, or press "#" to exit setting mode.

  Note: "0000", "1234" and master code cannot be used as user codes.

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◆ **Set the Relay Strike Time (In Setting Mode)**

1. Enter the master code twice (2 beeps).
2. Press * 60.
3. Press 05（01~99, 1 beep).
   Press 05 will set the relay strike time to 5 seconds.
4. Press "#" to exit setting mode.

In Toggle mode, the relay will switch from NC to NO upon entering the user code once. Enter the user code again and the relay will switch back.

◆ **Delete a User Code (In Setting Mode)**

1. Press * 06 (the slot position to be deleted).
2. Enter the master code twice (2 beeps).
3. Press * 06 (slot position * 01 ~ * 50)
4. Press 0000 (1 beep).
5. Press "#" to exit setting mode.

◆ **Change the Master Code (In Setting Mode)**

1. Enter the master code twice (2 beeps).
2. Press * 00.
3. Enter new 4-digit master code (1 beep).
4. Press "#" to exit setting mode.

◆ **Reset the Keypad**

1. Reset the Master Code
   Insert the jumper at RESET location 2 -3 (see wiring diagram). After the keypad sounds 7 beeps, the master code will be reset to 1234.

2. Delete All User Codes
   Insert the jumper at RESET location 2 – 3 (see wiring diagram). After the keypad sounds 7 beeps, the master code will be reset to 1234, and then after 5 beeps, the keypad will start deleting user codes with beep sounds. The beep sounds will stop until all the user codes are deleted.

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.

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Appendix

Slot Number	User	Note
01		
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Slot Number	User	Note
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