



FEATURES AND PROGRAMMING GUIDE

SELF-CONTAINED ACCESS CONTROL SYSTEMS KEYPADS:

DOOR-GARD SELF-CONTAINED ACCESS CONTROL SYSTEMS offer field proven reliability and cost effective solutions for residential, commercial and industrial installations. Elegant yet durable, Door•Gard systems blend with virtually any decor. Designed for compatibility with virtually any electric locking device, Door•Gards accept power from a 12 or 24V AC/DC supply. No separate programmer is ever necessary.

FEATURES:

- LOCK RELEASE RELAY
- LOCK RELEASE TIMER
- FORCED DOOR ALARM RELAY
- PROPPED DOOR ALARM RELAY
- ALARM ZONE SHUNTING RELAY
- TIMED EGRESS INPUT
- 120 USERS
- FRONT PROGRAMMING

MEMORY

Non-volatile EEPROM memory means your codes and instructions will be there whether you remove power for 5 minutes or 5 years.

CODES

The Door-Gard Self-Contained Access Control Systems allow up to 120 individual user codes to be valid. Codes may be from 1-6 digits in length and digits may be repeated. The Master Code is always user one (1)

FORCED DOOR RELAY

Assisted by the Door Position Sensor Input, this 1 Amp Form-C relay will energize if the door is opened without a valid user entry or egress input. This output can be programmed to energize for up to 15 minutes or latch. It can be reset by a valid code entry.

PROPPED DOOR RELAY

Programming a 1 to 15 minute open door time allows the Door-Gard to alert you to a propped door by energizing a 1 Amp Form-C relay. Assisted by the Door Position Sensor Input, this relay will deenergize upon closure of the door.

ALARM ZONE SHUNT RELAY

Assisted by the Door Position Sensor Input, this 1 Amp Form-C relay is energized simultaneously with the lock release relay providing an easy means of shunting existing door contacts. The relay will continue shunting until the Door•Gard sees the door close; preventing nuisance alarms (annunciate with the *Propped Door Relay* instead).

LOCK RELEASE RELAY

This is an 8 Amp (10 Amp surge) Form-C relay which can be toggled (by code) or timed from 1 to 90 seconds.

DOOR POSITION SENSOR INPUT

By simple adding a normally closed magnetic door switch, the Door•Gard system will monitor the position of the door and immediately relock it after valid access has been gained, preventing unwanted "tailgate" entries.

PROGRAMMING

All programming is accomplished entirely from the front of the keypad. LED guidance makes programming easy, and changing codes a matter of seconds for an authorized user.

TIMED EGRESS INPUT

Upon a momentary closure, this normally open loop will trigger the main relay for the same time period as the Master Code.

KEYPRESS FEEDBACK / AUDIBLE KEYPRESS

Door-Gard Self Contained Access Control Systems will acknowledge a keypress by momentarily illuminating the yellow LED on the indoor(i), weather resistant(w), mullion(m) styles or momentarily sounding the sounder in the ruggedized(r) and sealed environmental(se) styles. This can be turned off through programming.

KEYPAD ACTIVE OUTPUT

Door-Gard Self Contained Access Control Systems can be programmed to energize a voltage output whenever a key is touched. This can be used to turn on lights, CCTV camera, or notify a guard. This output is not available if the IEI 250 Printer Interface is used.

AUDIT TRAIL

An accurate real-time audit trail can be provided by any Access Control Series Door-Gard (except 233/234) with the addition of a model 250 Printer Interface (not included). Up to 8 keypads can be monitored simultaneously. The 250 comes with power supply and printer cable and easily connects to any parallel printer (not included).

TESTING THE KEYPAD

1. Connect the positive (+) lead of your power supply to the terminal strip (TS1) +V input.
2. Connect the negative (-) lead of your power supply to the terminal strip (TS1) -V input.
3. Turn on your power supply.

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4. Press 7890#123456*. If all 12 keypresses have been verified, the keypad will enter self test mode. Either the LED's will flash or the sounder will beep 3 times, then light or sound continuously for 3 seconds (except on the mullion). If these responses do not happen, try the test mode again and then call tech support. Note: self test mode can be used when troubleshooting a keypad in the field. If you do not get the continuous light or sound then the memory has been corrupt and should be re-programmed with the 46 command (see option #16).

5. Enter the master code of 1234*. The relay will energize. Refer to programming section to program your keypad.

NOTE:

The keypad may be programmed in your shop or at the installation site. Programmed information is stored in non-volatile memory so it will not be lost if power is removed.

ACCESS CONTROL DEFAULTS

Door-Gard Self-Contained Access Control Systems are designed for easy installation in a minimum amount of time. The following defaults have been factory programmed.

Master Code (user 1)	1234 *
Lock Release Relay will energize for	5 secs.
Keypad Active Output	Off
Keypress Feedback	On
Propped door relay will energize after	30 secs.
Forced door relay will energize for	10 secs.

If defaults must be changed or additional functions are desired, please refer to the PROGRAMMING OPTIONS Chart after you are familiar with the PROGRAMMING section.

PROGRAMMING

1. Enter programming mode¹ Yellow LED²
Press 99 # (master code) * Flashes slowly

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2. To Change master code³

Press 1 # (new master code) * Flashes fast
Press (new master code) * Flashes slowly

If main relay time must be changed, substitute option 2 from Programming Options chart for step 2 above.

3. To Add/change second code

Press 2 # (new user code) * Flashes fast
Press (new user code) * Flashes slowly

4. To Add/change third code

Press 3 # (new user code) * Flashes fast
Press (new user code) * Flashes slowly

5. Up to 120 codes may be added in this fashion

6. Exit programming mode

Press * Out

NOTE:

- ¹ Door•Gard Self-Contained Access Control Systems are factory programmed with a master code of 1234 *.
- ² Some Door•Gard products contain a sounder in place of the yellow LED. In these products the flashing is replaced by a beeping.
- ³ The master code is always user 1.
- The master code allows access to the programming mode & activates the main relay.
- All codes must be followed by the *.
- Codes may be from 1-6 digits in length, and digits may be repeated.
- If the master code is forgotten or does not seem to be working, momentarily remove the programming jumper (or push SW1 on the SE style, see wiring diagram for location) to enter programming mode and go to option #16 and default keypad.
- If the yellow LED lights (or sounder sounds) solid while in programming mode an error has occurred. Press * to clear (yellow LED should flash or sounder sound) and start over from step 2 or 3 above.

PROGRAMMING OPTIONS CHART

If the pre-programmed default values must be changed or additional functions are desired, the following

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options may be programmed.

1. Enter programming mode	Press	99 # (master code) *
2. Change master code/set main relay time ¹ Example: Master code of 4321/relay time of 10 seconds	Press	(time) # 1 # (new code) * (new code) * Press 10 # 1 # 4321 * 4321 *
3. Add/change user code	Press	(user number) # (new code) * (new code) *
4. Add/change user code to toggle main relay ¹	Press	(00) # (user number) # (new code) * (new code) *
5. Delete user codes	Press	(user number) # * *
6. Turn keypress feedback/audible keypress on	Press	30 # 0 # 1 # * *
7. Turn keypress feedback/audible keypress off	Press	30 # 0 # 0 # * *
8. Turn yellow LED/sounder on with relay	Press	30 # 1 # 1 # * *
9. Turn yellow LED/sounder off with relay	Press	30 # 1 # 0 # * *
10. Turn auto entry on	Press	30 # 2 # 1 # * *
11. Turn auto entry off	Press	30 # 2 # 0 # * *
12. Turn keypad active on ²	Press	43 # 0 # 99 # * *
13. Turn keypad active off	Press	43 # 0 # 00 # * *
14. Set propped door time ³	Press	44 # (time) # 0 # * *
15. Set forced door relay time ³	Press	45 # (time) # 0 # * *
16. Erase keypad memory/reset defaults	Press	46 # 00000 # 00000 # * *

NOTES:

1 Time must always be represented by 2 digits. Example: 5 seconds = 05.

Latching /toggle is accomplished by entering a time of 00

2 Keypad active is a negative voltage output (sink) available

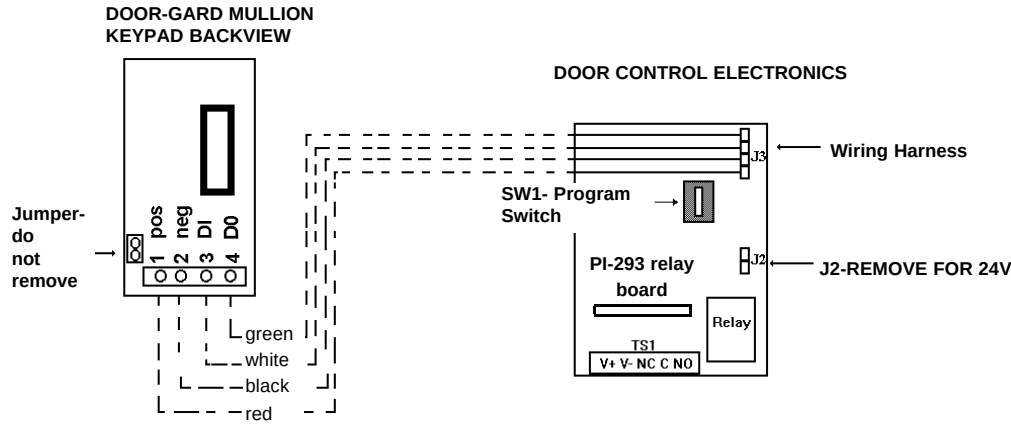
on terminal (or wire) marked WB (see wiring diagrams for location).

3 Propped Door and Forced Door times must be programmed in intervals of

10 seconds. ie. 10, 30, 60, ... up to 900 seconds. Forced door time of 00 will latch output, until reset by code.

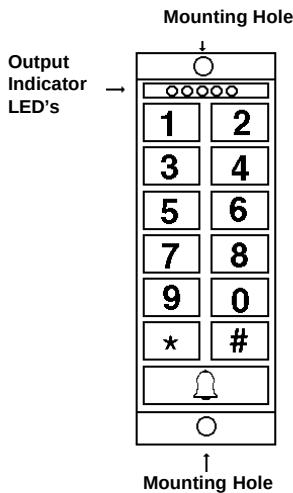
DOOR-GARD SELF-CONTAINED ACCESS CONTROL SERIES

232m Wiring Diagrams and Specifications



NOTE: Maximum length of cable between mullion keypad and door electronics should be 100'(feet).
If you are going to run this wire in a conduit with other cable then use shielded cable and connect the drain wire to -V on terminal strip.

DOOR-GARD MULLION KEYPAD FRONTVIEW



LED

1(green)
2(green)
3(green)
4(yellow)
5(red/green)

212

output 2
output 3
output 4
program
red-relay off
green-relay on

232

not used
not used
not used
program
red-relay off
green-relay on

BELL

An optional output or outputs may be selected to operate when the bell button is touched. This function is programmed with the 16 command. No output is selected upon power up. This output will operate for 1 second when the key is pressed.

TO SET BELL OUTPUT

16#(0,1,2,3,4)#0#**

0=turn off function; 1=main relay; 2=output 2; 3=output 3; 4=output 4

Default=0 (no output)

NOTE: On the 212 series keypad 1,2,3,4 refer to the main relay, output 2, output 3, and output 4 respectively. On the 232 series 1,2,3,4 refer to the main relay, alarm shunt, forced door, and door ajar relays respectively. On the 232 if you use the relay for the bell function then you will lose the function that is designated for that specific relay.

NOTE: If the "bell" function is not used you may wish to cover that button on the keypad. A self stick label is provided for this purpose.

TEST MODE

There is a feature built into the mullion keypad which allows testing of the keypad. LEDs and the communication between the keypad assembly and the door control electronics. Once your keypad is connected to the door control electronics, you activate this feature by pressing 7890#123456*. If everything is working, the LEDs will illuminate in sequence (1-5) and then start LED #1 flashing slowly. The LED #1 flash corresponds to data communication from the door control electronics. If the LED is not flashing, then there is a communication problem. To turn off the LED, simply enter any key.

TECHNICAL NOTES

To avoid ESD(electro-static discharge) from interfering with the operation of the DOOR-GARD, ground the negative terminal of the keypad to earth ground. If the power supply cannot be grounded, then the case should be grounded.

When mounting the 212m outside, apply silicone to the area where wires enter the case and install a weep hole at the bottom of the box. This will help prevent warm air from condensing on the circuit board.

For use in extreme weather conditions, please consult the factory for additional methods of protecting your DOOR-GARD from the environment.

SPECIFICATIONS:

Mechanical:

MULLION KEYPAD HOUSING DIMENSIONS

1.75"w x 6.50"h x 1.00"d

DOOR CONTROL BOARD DIMENSIONS

1.70"w x 2.60"h x 1.125"d

1.70"w x 2.60"h x 1.675"d(w/293 relay board)

ELECTRICAL:

VOLTAGE: 12 to 24 volts AC/DC (Selected by jumper)

CURRENT:

@ 12VDC 14ma typical-44ma w/relay energized

@ 24VDC 19ma typical-49ma w/relay energized

Note: add 6ma per LED @ 12volts/12ma @ 24volts

keypads using the IEI-293 relay board require an additional 30ma for each relay energized.

OUTPUTS:

Main relay: 8 Amp, Form-C @ 24VDC-10 Amp Surge

Outputs 2, 3, & 4 are 50 ma negative voltage outputs

ENVIRONMENTAL:

TEMPERATURE:

-20 DEGREES F TO 130 DEGREES F (-28C to 54C)

PACKING CHECKLIST

232m KEYPAD ASSEMBLY

DOOR CONTROL BOARD ASSEMBLY

293 AUXILLARY RELAY BOARD

FOUR CONDUCTOR WIRING HARNESS (1)

SLOTTED WOOD SCREWS (2)

SLOTTED PAN HEAD SCREWS (2)

PLASTIC ANCHORS (2)

DRILL BIT (1)

MOUNTING SCREW COVER LABELS (4)

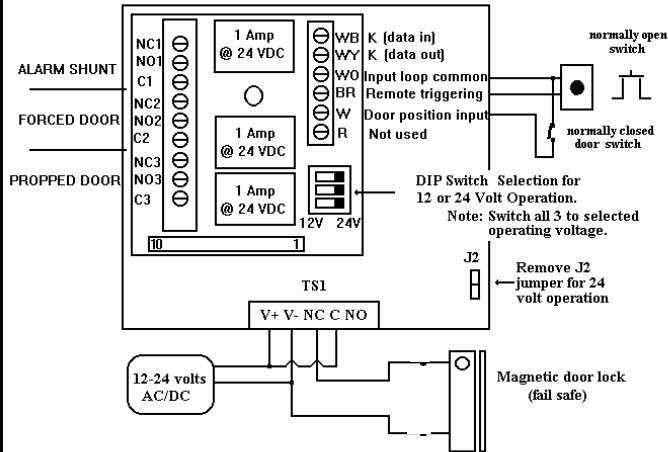
BELL BUTTON COVER LABEL (1)

MOUNTING GASKET (1)

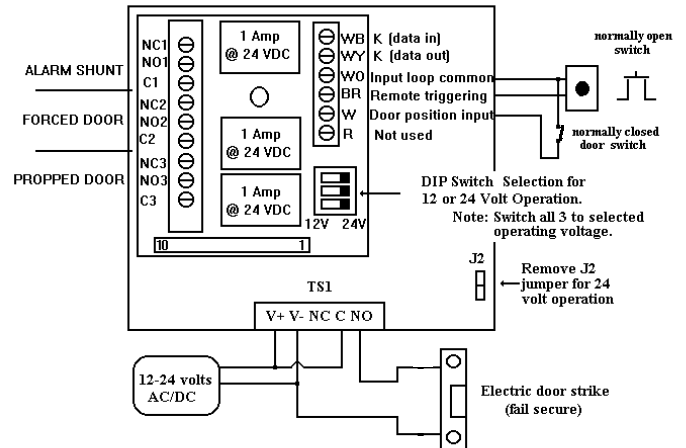
FEATURES AND PROGRAMMING GUIDE

WARRANTY CARD

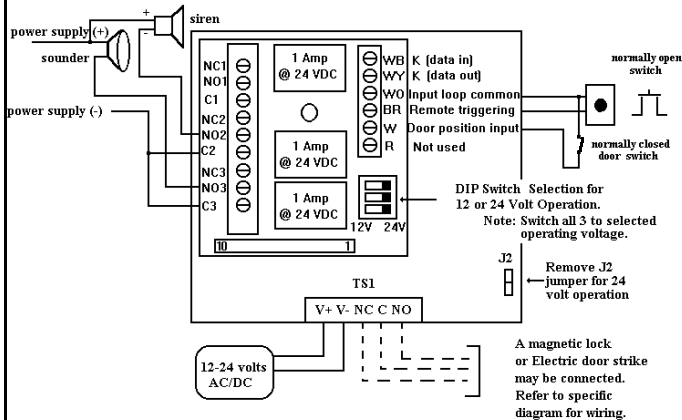
BASIC ACCESS CONTROL WITH AN ELECTROMAGNETIC DOOR LOCK



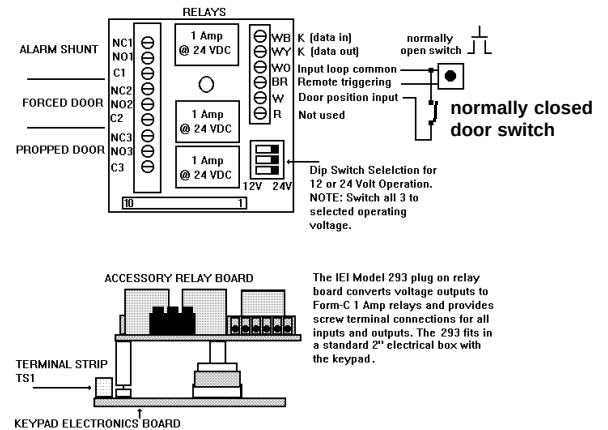
BASIC ACCESS CONTROL WITH AN ELECTRIC DOOR STRIKE



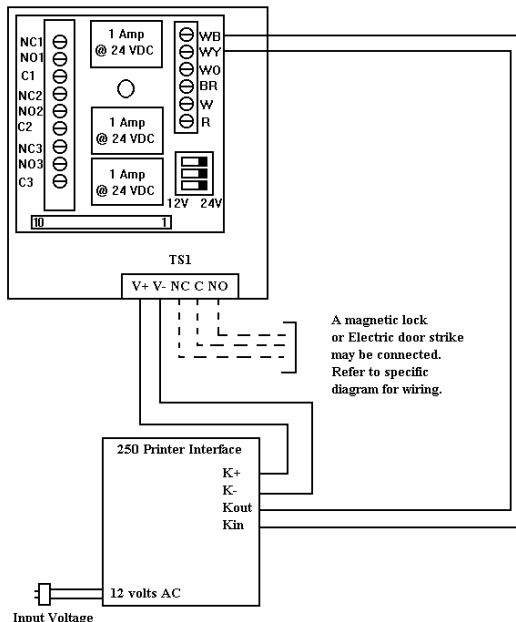
INTERGRATED ACCESS CONTROL/ EMERGENCY EXIT SOUNDER



293 AUXILLARY RELAY BOARD



WIRING TO A MODEL 250 PRINTER INTERFACE FOR A HARD COPY AUDIT TRAIL



SELF CONTAINED ACCESS CONTROL SYSTEM STYLES:

232i-INDOOR STYLE

- Flushmount indoor design.

232w-WEATHER RESISTANT STYLE

- Flushmount outdoor design.

232r-RUGGEDIZED STYLE

- Weatherproof self-contained metal housing.
- Vandal resistant.
- Cast metal housing suitable for wall, post or gooseneck mounting.
- Available in White or Black.

232se-SEALED ENVIRONMENTAL STYLE

- Weatherproof self-contained metal housing.
- Vandal resistant.
- Small design suitable for residential, commercial and industrial applications.

232m-MULLION STYLE

- Weather resistant metal housing.

- Two-piece design with secured electronics.
- Narrow housing suitable for aluminum door frame mounting.
- Available in Bronze or Satin Aluminum.

233 CARD READER SYSTEM

- Weatherproof metal housing.
- Two-piece design with secured electronics.
- Narrow style suitable for aluminum door frame mounting.
- Uses any ABA standard track II magstripe card.
- 120 users.

234 KEYPAD CARD READER SYSTEM

- Weatherproof metal housing.
- Uses any ABA standard track II magstripe card.
- Access via card, keypad or both.
- 60 users.

ACCESSORIES:

DATA LOGGING

- IEI-250 PRINTER INTERFACE provides power, communication

inputs and outputs for up to 8 Door•Gard

Keypads.Interfaces

with any parallel printer for user/door activity logging.

INSTALLATION

- IEI-280 WEATHERPROOF SURFACE BACK BOX.
- IEI-281 FLUSH MOUNT BACK BOX.
- IEI-290 12 VDC PLUG-IN POWER SUPPLY. 300MA.
- IEI-293 THREE RELAY PLUG-IN BOARD with FORM C, 1 Amp relays.

Converts transistor outputs to dry contacts (for use with

Command and Control indoor, weather resistant and mullion styles).

MAGNETIC STRIPE CARDS –

Track II encoded, low coercivity cards.

- IEI-2010 – Pack of 10 cards.
- IEI-2025 – Pack of 25 cards.

TAMPER PROTECTION

- IEI-282 TAMPER SWITCH detects faceplate removal.
- IEI-283 SECURITY MODULE responds to tamper switch (included) and cuts all in/out power to the door lock. Wires can't be crossed to unlock door. Must be reset from inside the protected area.
- IEI-289 TAMPER SCREWS - TRI-HEAD.
- IEI-267 1/4" DRIVER.
- IEI-270 ADAPTER SOCKET - TRI-HEAD.
- IEI-288 TAMPER SCREWS - ALLEN WITH PIN.

OTHER DOOR-GARD PRODUCTS FROM IEI

CONTROL PANEL INTERFACE SERIES

COMMAND & CONTROL SERIES KEYPADS

Please call to request more information.

LIMITED WARRANTY

International Electronics, Inc. (IEI) warrants its products to be free from defects in material and workmanship, when they have been installed in accordance with the manufacturer's instructions, and have not been modified or tampered with. IEI does not assume any responsibility for damage or injury to person or property due to improper care, storage, handling, abuse, misuse, normal wear and tear, or an act of God.

IEI's sole liability is limited to the repair or (at IEI's option) the replacement of the defective product or part when sent to IEI's facility (freight and insurance

charges prepaid), after first obtaining IEI's Return Merchandise Authorization.

IEI will not be liable to the purchaser or anyone else for incidental or consequential damages arising from any defect in, or malfunction of, its products.

This warranty shall expire two years after shipping date for DOOR-GARD keypads.

Except as stated above, IEI makes no warranties, either express or implied, as to any matter whatsoever, including, without limitation to, the condition of its products, their merchantability, or fitness for any particular purpose.

INTERNATIONAL



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MADE IN U.S.A.

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