



**MULTI-PURPOSE SECURITY KEYPAD
WEATHERPROOF THREE-OUTPUT SYSTEM**

**DK-9610
SUPER**

FOR DOOR STRIKE AND SECURITY CONTROL APPLICATIONS



INTRODUCTION

DK-9610 Super is a self-contained, three output digital access keypad designed for door strike and other access control applications in office and home security installations.

The DK-9610 Super consists two sets of application software for owner's selection. They are Single User Code and Multi-User Codes for each output. The single user code gives 10,000 combinations and the multi-users code gives over 100 million combinations. All the saved data in the system are nonvolatile in case of power failure.

The DK-9610 Super is weatherproof, which is suitable for both out-door and in-door installations. The DK-9610 Super is available with version A, B and C. They have identical specifications except the outputs.

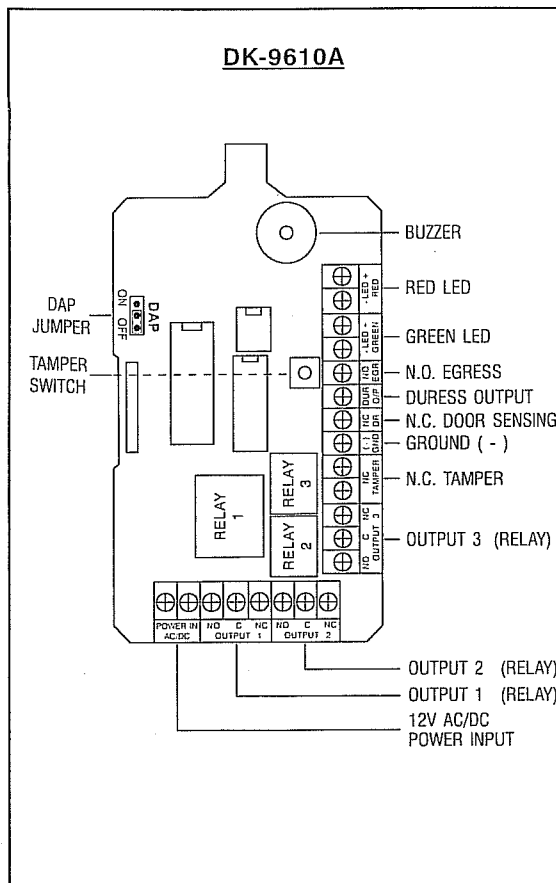
OUTPUT \ PRODUCT	OUTPUT 1	OUTPUT 2	OUTPUT 3
DK-9610A Super	5 Amp Relay	1 Amp Relay	1 Amp Relay
DK-9610B Super	5 Amp Relay	1 Amp Relay	NPN Transistor Open Collector
DK-9610C Super	5 Amp Relay	NPN Transistor Open Collector	NPN Transistor Open Collector

CONNECTION TERMINALS

- POWER IN AC/DC**
Power supply input, 12V AC or DC power is possible, no polarity discrimination for the terminals.
- OUTPUT 1**
5 Amp dry relay contacts, with Normally Open (N.O.) and Normally Close (N.C.) terminals. This relay is primarily prepared for door strike application, or for alarm ON-OFF control. For door strike connection, use the N.O. Relay contact for Fail-secure lock; and the N.C. Relay contact for fail-safe lock. If for alarm ON-OFF control, connect the appropriate pair of these terminals (N.C. or N.O.) to the remote ARM/DISARM terminals on your alarm system; consult the manual for your system. N.O. or N.C. loop is possible. Relay is programmable for momentary or start / stop operation.
- OUTPUT 2**
Output 2 is prepared for alarm ON-OFF control or for reporting panic event to an alarm system or to a telephone dialer. The output is programmable for momentary or start / stop operation.

Version A & B: 1Amp dry relay contacts, with N.O. and N.C. terminal outputs.

Version C: NPN transistor open collector output, switch of the (-) supply. Ic max: 150mA sink, Vce max: 12V DC.



● OUTPUT 3

Output 3 has identical function as output 2. It is recommended for alarm ON-OFF control or for the auxiliary functional control in your system.

Version A: 1Amp dry relay contacts, with N.O. and N.C. terminal outputs.

Version B & C: NPN transistor open collector output, switch of the (-) supply. Ic max: 150mA sink, Vce max: 12V DC.

● TAMPER N.C.

Tamper switch Normally Close contact. It is open when the keypad is separated from the mounting box.

● GROUND (-)

The (-) grounding point of the keypad.

● DOOR N.C.

This terminal is prepared for connecting a Normally Closed optional door sensing switch (e.g. MC-01 or MC-02 Magnetic Contact) to the door which is controlled by output 1, for initiating the auto re-lock function.

With the help of the door sensing switch, the keypad releases the door latch immediately to re-lock the door automatically after the door is re-closed even the pre-set operation time is not expired in momentary mode; or you do not require to enter Code 1 again to re-lock the door when the keypad is in Start / Stop mode.

In normal operation without the door sensing switch, an opened door is re-locked after timeout in momentary mode; or by entering Code 1 again in Start / Stop mode.

NOTE: If the door sensing switch is not used, connect the terminal to Ground (-).

● DURESS OUTPUT

NPN transistor open collector output, switches of the (-) supply when the Duress Code is entered. Use this output to trigger remote alarm, dialer, indicator etc., in case of duress. Transistor rating -- Ic max: 150mA, Vce max: 12V DC

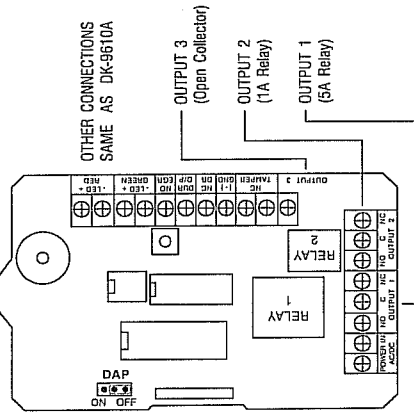
● EGRESS N.O.

A Normally Open (N.O.) input terminal refers to (-) ground with the help of a normally open button (e.g. PB-01 Egress Button) to activate the Relay Output 1. Egress button is usually put inside the house near the door. Leave this terminal open if it is not used.

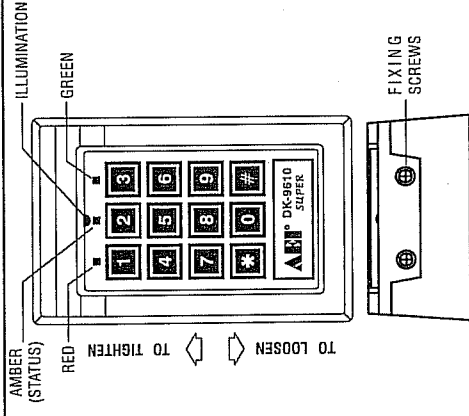
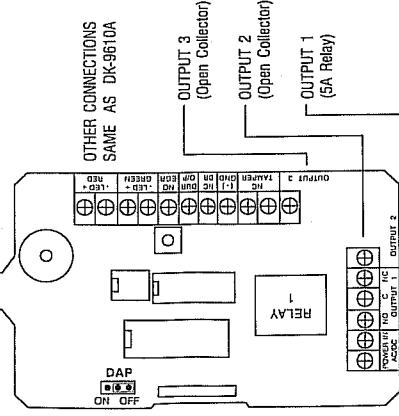
● GREEN & RED LEDS

Two de-energized LED lamps are available for free connections, to indicate alarm or door operation status. They are built-in with 1.5K Ohm current limiting resistors.

DK-9610B



DK-9610C



THE PACIFIER TONES & THE LED INDICATING SIGNALS

The built-in buzzer and the amber LED indicator give the following tones and signals for operation status:

STATUS	TONES	LED SIGNALS
1. In programming mode	---	ON
2. Successful key entry	1 Beep	1 Flash
3. Successful code entry	2 Beeps	2 Flashes
4. Unsuccessful code entry	5 Beeps	5 Flashes
5. DAP jumper not-replaced	Continuous Beeps	Continuous Flashes
6. In standby mode	---	1 Flash in 2 seconds interval

KEYBOARD ILLUMINATION LED

The keyboard illumination LED lights up for 10 seconds when a key button is pressed, which indicates the duration of the allowable time for each digit of continuous code entry. The digit of code entry is invalid beyond the allowable time when the LED lamp is off.

THE DAP JUMPER (DIRECT ACCESS TO PROGRAMMING)

If the Personal Master Code is forgotten, use the DAP jumper to override the forgotten code permitting direct entry into programming mode. You are required to apply the following procedures precisely:

1. Disconnect power supply.
2. Displace the DAP jumper from OFF to ON position.
3. Reconnect power supply (buzzer is activated).
4. Put the DAP jumper back to OFF position (this done, the buzzer is de-activated).
5. The keypad is in programming mode and ready to receive new programming data.
6. Enter the new programming data starting from Section (B) in the Summary Chart shown below.

THE FACTORY-SET DATA -- IMPORTANT NOTE

For the owner's convenience in programming at the first time, the factory has put a Master Code 0000 and the Default Values (listed on page 5) into the keypad. The owner has to put his own unique codes before use. To compromise security, in all cases, the owner should program a Personal Master Code to invalidate the factory-set Master Code.

PROGRAMMING OF THE KEYPAD -- SUMMARY CHART

A) Use The Factory-set Master Code Entry in Programming -- When starts for first time

Entry of Code	Validation	Comments
000000	*	Enter into Programming Mode by the Factory-set Master Code

B) Set System to Single User or Multi User Mode & Refresh with The Default Values -- Installer Programming

Access Keys	Validation	Comments
8900	#	Set system to Single User Mode, clear all the data previously stored and refresh system with the default values
8901	#	Set system to Multi User Mode, clear all the data previously stored and refresh system with the default values

SET THE SYSTEM TO MULTI-USER MODE

The system can be set for Multi User Mode with the command code "8901" and stay in that mode until the system is refreshed for other mode.

MASTER CODE * 8 9 0 1 # ----- Multi-User Mode (wait 2-3 seconds until the confirmation beeps are heard)

REFRESH THE SYSTEM -- CHANGE OF OPERATION MODE

A system was set to Single User Mode. It is possible to change it to Multi-User Mode; or vice versa. Just refresh the system with the above operation command codes.

A refreshed keypad will reset itself as a fresh unit with the Default Values. All the programmed data that saved previously are cleared except the Master Code.

IMPORTANT NOTES:

- 1) Make sure all the User Codes and Master Code are set to 4 Digits after the system is refreshed for Single User Mode operation. Otherwise, code entry will not be successful.
- 2) It is necessary to change the Master Code to 4 digits first (if it was more than 4 digits in Multi Users Mode) before refreshing from Multi User Mode to Single User Mode.
- 3) The system takes approximate 2 to 3 seconds to refresh itself for new operation mode after the refresh code is entered. DO NOT enter any code during the system is being refreshed until the 2 confirmation beeps are heard.

PROGRAM AND USE THE KEYPAD -- OPERATION

Once the operation mode is selected - Single User or Multi Users, all the three outputs will operate with that mode.

A) SINGLE USER MODE OPERATION -- An Example

- 1) Requirement -- Set the following data into the system:
 - a) Single User Mode Operation
 - b) Change the factory-set Master Code 0000 to a Personal Master Code 3289
 - c) Set User Code 1 in 8321
 - d) Set User Code 2 in 6854
 - e) Set User Code 3 in 9270
 - f) Set Output 1 in Momentary Mode, 1 second
 - g) Set Output 2 in Start / Stop Mode without accelerated code
 - h) Set Output 3 in Start / Stop Mode with accelerated code
 - i) Set the keypad to lock itself during 15 minutes after 10 successive false codes
- 2) Programming -- Set the above requirement into the keypad:

0 0 0 0 * -----Enter to programming mode with the factory-set Master Code
8 9 0 0 # -----System has been set for Single User Mode**
0 3 2 8 9 # ---3289 has been saved as the new Personal Master Code & Super User Code
1 6 3 2 1 # ---8321 has been saved as User Code 1, with Duress function
2 6 8 5 4 # ---6854 has been saved as User Code 2
3 9 2 7 0 # ---9270 has been saved as User Code 3
4 0 1 # -----Output 1 has been set in Momentary Mode, 1 second
5 1 # -----Output 2 has been set in Start / Stop Mode without accelerated code
6 2 # -----Output 3 has been set in Start / Stop Mode with accelerated code
7 2 1 0 # -----The keypad has been set to lock during 15 minutes after 10 successive false codes
* ----- Keypad exits programming mode. All the data above are saved and ready for use

NOTE: a) **Enter the Single User Mode Command Code "8900" may not be necessary if the keypad was already in Single User Mode.

b) In case of wrong entry during programming, cancel it with # key, or, wait 10 seconds, then re-enter.

3) Operate The Keypad -- Taking the data programmed above as reference

a) To command the output 1, 2 & 3, enter the corresponding codes into the keypad. Press # is NOT required.

8 3 2 1 ----- Output 1 activates for 1 second
6 8 5 4 ----- Output 2 starts (or stops)
9 2 7 0 ----- Output 3 starts (or stops)

b) The Personal Master Code is also a Super User Code. It allows the owner to use Only One Code to operate all the 3 outputs. To command output 1, 2 or 3, enter the Personal Master Code and validate via the # key and the corresponding output number.

3 2 8 9 # 1 ---Output 1 activates for 1 second
3 2 8 9 # 2 ---Output 2 starts (or stops)
3 2 8 9 # 3 ---Output 3 starts (or stops)

c) The Duress Code does not need to program. The keypad determines it automatically by increasing the first digit of the User Code 1 of Two units.

For example: The User Code 1 is "1234", then the Duress Code is "3234", or the User Code 1 is "8321", then the Duress Code is "0321".

To command the Duress Function, enter the Duress Code.

0 3 2 1 ----- Duress output activates (output switches to ground) & Output 1 activates for 1 second

NOTE:

The Duress Code has double actions. It activates the Duress Output and at the same time activates the Output 1 as like the User Code 1. The Duress Code can always activates or deactivates (in Start / Stop mode) Output 1, but cannot deactivate (reset) the Duress Output. ONLY the User Code 1 can deactivate (reset) the Duress Output.

d) The Accelerated Code is the First Two Digits of the User Code. If the User Code 1, 2 or 3 has been programmed in Start / Stop mode with Accelerated Code, it is possible to activate the corresponding Output 1, 2 or 3 with only the First Two Digits of the User Code. Deactivating of the corresponding Output 1, 2 or 3 always requires the composition of its own Complete User Code.

In this example, Output 3 has been programmed in Start / Stop Mode with Accelerated Code.

The Complete Code of Code 3: 9270

The Accelerated Code of Code 3: 92

9 2 # -----Output 3 starts
9 2 7 0 ----- Output 3 stops

e) Try to put some random false codes to the keypad to test its Safety. The keypad considers 4 digits as one code and it generates 5 beeps for each unsuccessful code entry. The keypad locks itself during 15 minutes after 10 successive false codes are entered. Normal operation will be resumed after 15 minutes expired, or, it can be reset with the Master Code during the locking period.

3 2 8 9 # -----Locking is reset and keypad resumes normal operation.

In this example, Output 3 has been programmed in Start / Stop Mode with Accelerated Code.

The Complete Code of 1st User Code of Group 3: **9270** The Accelerated Code is: **92**

2nd User Code of Group 3: **22898** The Accelerated Code is: **22**

9 2 **1** **#** -----Output 3 starts

9 2 **7** **0** **1** **#** -----Output 3 stops

2 2 **1** **#** -----Output 3 starts

2 2 **8** **9** **8** **1** **#** -----Output 3 stops

- g) Try to put some random false codes to the keypad to test its **Safety**. The keypad generates 5 beeps for each unsuccessful code entry. The keypad locks itself during 15 minutes after 10 successive false codes are entered. Normal operation will be resumed after 15 minutes expired, or, it can be reset with the Master Code during the locking period.

3 2 **8** **9** **1** **#** -----Locking is reset and keypad resumes normal operation

C) RE-PROGRAM THE KEYPAD WITH NEW DATA

It is possible to change the current data at anytime, such as change the User Codes, Door Open timing, etc.

- 1) Make the system in **Programming Mode** first. Enter your Personal Master Code and validate via **1** key.

3 2 **8** **9** **1** **#** -----The keypad is in Programming Mode & ready to receive new data

- 2) After the system is in Programming Mode, you can enter the appropriate "Access Keys" number and put in the new data in the location. Please see the programming "Summary Chart" for details. You can re-program any individual item in the Summary Chart.

- 3) It is necessary to exit the programming mode and save the new data after programming via the **1** key

1 ----- All the new data are saved and the keypad is back to normal operation mode

D) REFRESH THE SYSTEM -- IT IS REQUIRED ONLY FOR CHANGING OPERATION MODE

It is possible to change the current operation mode (Single User or Multi-User Mode) by refreshing the system with the User Mode Command Code (8900 or 8901) and re-program the keypad with new data.

NOTE: All the current data in the system will be cleared **except the Master Code** and save with the Default Values once the system is refreshed.

- 1) To refresh the system, set system in programming mode and then enter the appropriate **User Mode Command Code (8900 or 8901)** and validate via **1** key.

NOTE: The system takes approximate 2 to 3 seconds to refresh itself for the new operation mode. DO NOT enter any data immediately after the validation **1** key is pressed until the 2 confirmation beeps are heard.

3 2 **8** **9** **1** **#** -----System in programming mode

8 9 **0** **0** **1** **#** -----System is refreshed for Single User Mode and ready to accept new data after the confirmation beeps

OR

8 9 **0** **1** **#** -----System is refreshed for Multi User Mode and ready to accept new data after the confirmation beeps

- 2) After the system is refreshed, it is still in Programming Mode. You can consider it as a new keypad power up at the first time and program it with new data. Please see the programming "Summary Chart" for details. You can re-program any individual item in the Summary Chart.

- 3) It is necessary to exit the programming mode and save the new data after programming via the **1** key
1 ----- All the new data are saved and the keypad is back to normal operation mode

E) DELETE USER (MULTI-USER MODE)

If you need to delete a user who has left the company or who no longer has authority to enter the protected area:

- 1) Enter program mode by keying in your Personal Master Code and the **1** key

3 2 **8** **9** **1** **#** -----The keypad is now in the programming mode

- 2) Enter the User Number and the **1** key

if you want to delete User Number 05 from output 1, press **1** **0** **5** **1** **#**

if you want to delete User Number 3 from output 2, press **2** **3** **1** **#**

if you want to delete User Number 2 from output 3, press **3** **2** **1** **#**

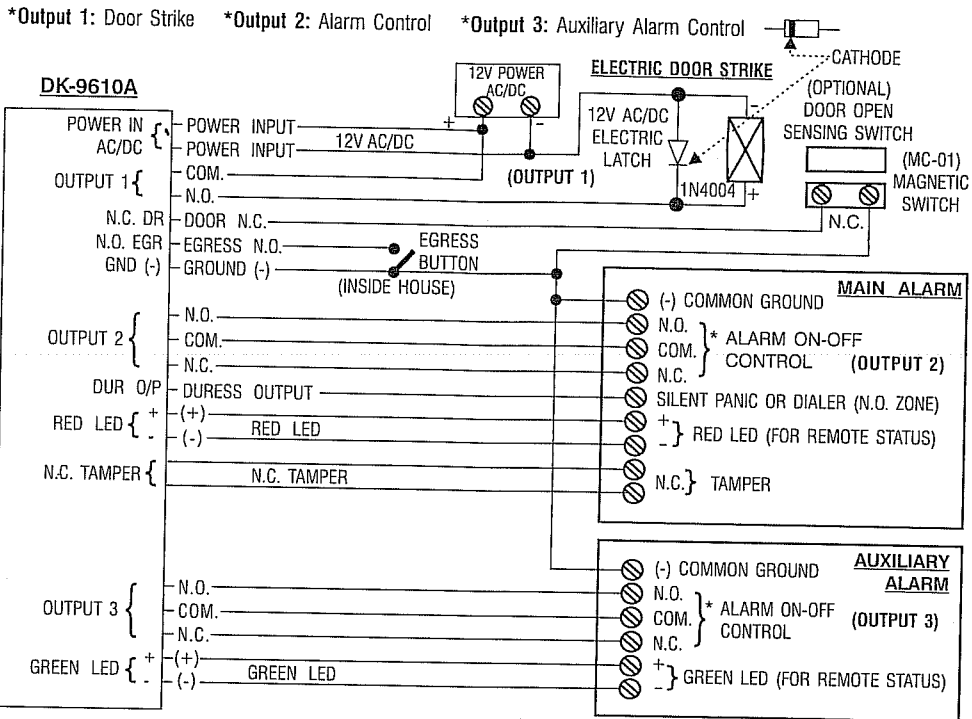
- 3) Exit the programming mode by pressing the **1** key

SPECIFICATIONS

- **Operation Voltage** : 12V AC/DC Nominal , 10-14VAC or 12-16VDC
- **Current Drain** : Version A) 15-150mA; Version B) 15-110mA; Version C) 15-80mA
- **Operation Codes Available** : A) Single User Mode
 - User Code 1, 2 & 3 (Fixed to 4 Digits)
 - Master Code (Fixed to 4 Digits)
 - Super User Code (4 digits Plus Output Number)
 - Duress Code (Fixed to 4 Digits)
 - Accelerated Code (2 Digits)B) Multi User Mode
 - User Codes in Group 1 - 100 Users (4-8 Digits)
 - User Codes in Group 2 - 10 Users (4-8 Digits)
 - User Codes in Group 3 - 10 Users (4-8 Digits)
 - Master Code (4-8 Digits)
 - Super User Code (4-8 digits Plus Output Number)
 - Duress Codes (4-8 Digits)
 - Accelerated Codes (2 Digits)
- **Code Combinations** : A) Single User Mode --- 10,000 for each User Code
B) Multi User Mode ---- 111,110,000 for each User Code
- **Relay Output Contacts** : Output 1 -- 5A / 30VDC Max. N.C. & N.O. Dry Contacts
Other Outputs -- 1A / 30VDC Max. N.C. & N.O. Dry Contacts (or NPN open collector output)
- **Duress Output** : 100mA Sink / 12VDC Maximum, Open Collector switches to ground (-)
- **Digit Entry Allowable Time** : 10 seconds, auto refresh
- **Code Entry Allowable Time** : 30 seconds, auto refresh
- **Dimensions** : 129(H) x 84(W)mm X 41(D)mm, Weatherproof Plastic Case
- **Weight** : 220g net

Specifications are subject to change for modification without notice

TYPICAL APPLICATION



* Please consult your alarm control panel manual for the selection of N.C. or N.O. for system ON-OFF control. For those Open Collector Outputs at the DK-9610B/C, please consider them as N.O. contacts referring to ground.

APPENDIX

● DRY CONTACT

A dry contact means that no electricity was connected to it. It is prepared for free connections. Usually the relay output contacts provided in a keypad system are dry contacts.

● N.C.

Normally Closed, the contact is closed circuit at normal status. It is open circuit when activated.

● N.O.

Normally Open, the contact is open circuit at normal status. It is closed circuit when activated.

● TRANSISTOR OPEN COLLECTOR OUTPUT

An open collector output is equivalent to a Normally Open (N.O.) contact referring to ground similar to a relay contact referring to ground. The transistor is normally OFF, and its output switches to ground (-) when activates. The open collector can only provide switching function for small power but it is usually good enough for controlling of an alarm system.

Output 2 & 3 in DK-9610C, output 3 in DK-9610B, and the Duress Output in all three keypads are open collector outputs.



OPEN COLLECTOR
OUTPUT ----
Output switches to
ground when activates

EQUIVALENT



N.O. CONTACT
OUTPUT ----
Output switches to
ground when activates



SINCE 1979

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