

# DECA

## ACCESS CONTROL SYSTEMS

# MAG SWIPE CARD

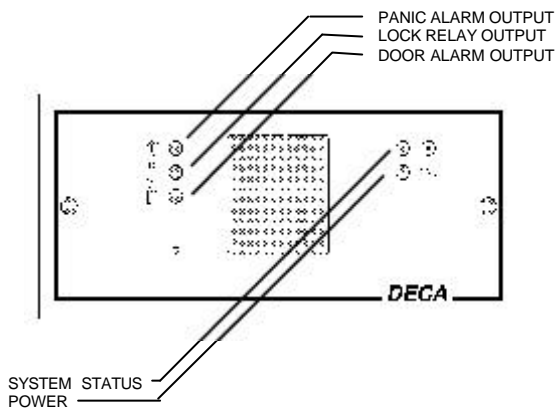
## INSTALLATION AND PROGRAMMING INSTRUCTIONS



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### DECA CONTROL UNIT - FRONT PANEL



### MAIN FEATURES

- \* **CARD AND CARD/PIN VERSIONS AVAILABLE** - To aid system design
- \* **USER FRIENDLY SET UP** - With tone and LED indication of system state
- \* **ACCESS CARDS** - Can be 24 hour or time zoned
- \* **PROGRAMMERS CODE** - For ease of use and front end security
- \* **SHUT DOWN MODE** - Allowing card reader functions to be shut down
- \* **ON/OFF MODE** - Allowing lock output to be used as a switch
- \* **BLEEP MODE FOR THE PARTIALLY SIGHTED** - For audio location of reader
- \* **DOOR OPEN ALARM** - With programmable door open time and auto reset
- \* **TAMPER ALARM** - Will inhibit system for invalid card reads
- \* **MULTIPLE DOOR INTERLOCK** - Allows groups of doors to be interlocked
- \* **EXIT PUSH BUTTON INPUT** - Fully processed to allow interlock feature
- \* **TIME SWITCH INPUT** - To provide time zoning of cards & control codes
- \* **CLEAR DOWN MODE** - To clear down all access cards & reset defaults
- \* **LOCK AND ALARM RELAY OUTPUTS** - 2 amp volt free change over contacts
- \* **POWER SUPPLY** - Either a simple 12v AC or DC supply

### SYSTEM DESIGN

The DECA MAG SWIPE CARD Access Systems are simple to install, simple to program swipe card entry kits which will allow individual validation or deletion of magnetic swipe cards. These systems can be used for single door applications or by purchasing additional kits more complex multiple door installations. In multiple door installations the readers can be programmed to restrict specific cards at specific doors, i.e. all personnel would be allowed through the main entrance but only accounts personnel into the accounts office etc.

An audit trail of entry events can be logged by using the DECA Printer Interface downloaded to a dot matrix parallel printer.

Any of the DECA access control systems may be combined with an Audio or Visual system.

This will allow audio or visual communication and remote operation of the door lock for unauthorised personnel.

Use either the DECA kits complete with a card reader, control unit, standard lock release & 12vAC power supply, or the card reader and control unit with any 12vAC or DC power supply and any locking device failsafe or failsecure upto 2amps.

For locking devices drawing more than 2amps use an interface relay.

### OVERVIEW

#### CARD SYSTEMS

The DECA Mag Swipe Card access system is available in six versions, card systems for 20 users, 500 users, 1500 users, 5000 users, 10000 users and 32000 users.

All units are identical in feature and programming.

#### TIME ZONES

A time switch with isolated contacts may be connected to the controller to allow time zoning of access cards and control codes.

Any access card or control code may be time zoned, this is done when the card is entered (see programming options).

Time zoned cards will only operate when the time switch input is shorted.

#### DOOR CONTACT

A standard normally closed magnetic contact needs to be fitted to the controlled door if all of the system features are to be taken advantage of. If a door contact is not fitted then the following features are lost:

1. Lock output cut-off 2 seconds after door has opened
2. Door open alarm
3. Multiple door interlock

#### MULTIPLE DOOR INTERLOCK

This feature allows two or more doors to be interlocked together allowing only one of the group to operate at a time.

The interlock feature monitors the door position via the door contact and internally if the lock output is powered, if any of the doors are unsecure due to either state then all other doors connected to the group will be inhibited.

#### EXIT PUSH BUTTON

The exit push button input should be used to activate the lock output when manual operation of a door is either not possible or not desirable. The input is designed to accept a normally open contact, and is fully processed to take account of the interlock feature.

#### P.A. ALARM

If the \* and # buttons are pressed together the PA Alarm output will operate and the system will shut down for its programmed time. The alarm time setting defaults to 30 secs. but may be varied by using option "50".

#### PROGRAMMERS CODE

The programmers code is the first six digits (\*# excluded) to be keyed in after depressing the program code switch following power up (depress switch through hole in front panel). The system will then enter the programmers mode. Valid programming entries are signalled by 2 short bleeps. Incorrect entries are ignored and signalled by 6 long bleeps. When in the programmers mode the system LED (Yellow) will be on and both the reader and the controller sounders will operate, the sounders will give 2 bleeps (high and low tone) every 10 seconds. To leave or re-enter the program mode, enter the programmers code preceded by a #  
The programmers code may be changed at any time after initial set up from within the programmers mode by using option "00".

#### ACCESS CARDS

Access Cards have a unique 8 digit serial number printed on the front of the card (for physical identification) and an encoded card number that is put onto the magnetic stripe for the controller to use. The batch of cards will be encoded with the lowest serial number set at the lowest encoded number 0001, the next serial number being encoded number 0002 and so on upto a maximum of 32,000. The relationship between the card serial number and the card encoded number is shown on the "DECA Card Encoding Sheet". Access cards may be entered or deleted by using option "10" or option "20" respectively from within the programmers mode.

#### LOCK OUTPUT TIME

The lock output time can be programmed to operate for a set duration in either seconds, option "30" or in hours & minutes, option "31". The seconds feature is normally used for all access control applications and the hours & minutes setting for control of squash court lighting, snooker tables, sun beds etc. When the lock output time is set in hours & minutes the lock output operation is modified in that when the system detects a valid access card the lock output will turn on for the programmed time, however the programmed time will be cut short if a valid access card is used again. The lock output time defaults to 5 seconds but may be varied by using either option. **NOTE:** If a door contact is fitted the lock output will turn off 2 seconds after the door has been opened ensuring that the door is secure on closing.

#### DOOR OPEN ALARM DELAY TIME

With a standard (N/C) magnetic door contact fitted to the door, the controller will monitor the door open time, if the door is open for longer than the programmed time, the door alarm output will operate and continue to operate until 15 seconds after the door has been closed. The door open alarm delay time defaults to 30 secs. but may be varied by using option "40".

**NOTE: THE DOOR CONTACT INPUT TERMINALS IN THE CONTROLLER MUST BE SHORTED WITH A WIRE LINK IF A DOOR CONTACT IS "NOT" FITTED.**

#### TAMPER ALARM TIME

If 13 invalid key strokes are made or an invalid card is swiped three times the door alarm output will operate and the system will shut down for the programmed time. The tamper alarm time defaults to 5 secs. but may be varied by using option "60".

#### CLEAR ALL ACCESS CARDS, CONTROL CODES AND SET DEFAULTS

This mode will clear all access cards, control codes and reset all programmable timings to their default values.

**NOTE:** The program code will remain unchanged. The clear down mode is activated by using option "70" and the fixed password 654321, the clear down will take a few seconds to complete.

#### Default Values:

Lock output time - - - 5 seconds  
Door open time - - - 30 seconds  
Tamper shutdown time - 5 seconds  
PA Alarm time - - - 30 seconds

#### ENTER SYSTEM I/D & SITE CODE

This mode is accessed by using option "80" and allows you to set-up the controller enabling it to read the encoded information that makes the cards for each controller or group of controllers unique. Each batch of cards comes with an "DECA Card Encoding Sheet" this is an A4 sheet listing the encoding details for that particular batch of cards.

**IMPORTANT: THE DECA CARD ENCODING SHEET SHOULD BE RETAINED AS IT WILL BE REQUIRED WHEN ORDERING ADDITIONAL CARDS.**

The "System I/D" is the six digit number that is supplied with the cards at the time of purchase and appears on the top right hand corner of the DECA Card Encoding Sheet.

The "Site Code" is the two digit number that is supplied with the cards at the time of purchase and appears on the top right hand corner of the DECA Card Encoding Sheet.

**NOTE: IF THIS SECTION IS "NOT" SET-UP OR IS SET-UP WITH INFORMATION THAT IS DIFFERENT TO THAT ENCODED ON THE CARDS, THE SYSTEM WILL "NOT" RECOGNISE THE CARDS AS VALID FOR THAT SYSTEM AND WILL REJECT THE CARDS AS TAMPER ALARMS AFTER THREE ATTEMPTS.**

#### TEST MODE

The test mode option "90" allows the keypad, lock output and alarm outputs to be tested. Each key should be pressed in sequence 0123456789#. A problem will be indicated by 6 long bleeps. After entering the last digit (#) the lock output will turn on, press the \* key to move on and step through the other outputs. **NOTE:** If no keys are pressed the output will stay turned on for two minutes then step to the next output etc.

#### ON/OFF CODE

This code, when entered with the system in normal running mode, will allow the output to be used as a switch. When a valid card is swiped the lock output will turn on and remain on until a valid card is swiped again turning the output off. The system will remain in this mode until the ON/OFF code is re-entered restoring the system to full function. To set the ON/OFF code enter the program mode and use option "97". This sets the code and when entered preceded by a # the system will function as above.

#### SHUTDOWN CODE

This code, when entered with the system in normal running mode, will shutdown valid access cards but leave the other system features operating. It may be used by management for holiday shutdown periods etc. The system will remain in this mode until the shutdown code is re-entered restoring the system to full function. To set the shut down code enter the program mode and use option "98". This sets the code and when entered preceded by a # the system will function as above.

#### BLEEP CODE FOR THE PARTIALLY SIGHTED

This code, when entered with the system in normal running mode, will make the card reader sounder "chirp" every 12 seconds. This is to assist partially sighted users in locating the device. The system will remain in this mode until the Bleep Code is re-entered. To set the Bleep Code enter the program mode and use option "99". This sets the code and when entered preceded by a # the system will function as above.

## INSTALLATION & PROGRAMMING

### INSTALLATION

#### CARD READER

Install on the unsecure side of the door adjacent to the opening edge of the door.

#### CONTROL UNIT

Install on the secure side of the door within 10 metres of the card reader.

#### DOOR CONTACT

Fit to the leading edge of the opening door, if the door contact is not fitted the following features will be inoperative:

1. Lock output cut-off 2 seconds after door has opened
2. Door open alarm
3. Multiple door interlock

**NOTE: THE DOOR CONTACT INPUT TERMINALS IN THE CONTROLLER MUST BE SHORTED WITH A WIRE LINK IF A DOOR CONTACT IS "NOT" FITTED**

#### LOCK RELEASE

Fit the door release to the frame in place of the existing lock keep.

#### POWER SUPPLY

Install the power supply on the secure side of the door and feed via a 5 Amp fused 240v 50Hz mains outlet.

#### TIME SWITCH

Install the time switch adjacent to the controller to provide time zoning of cards.

#### EXIT PUSH BUTTON

If required fit a normally open push button on the secure side of the door.

#### DOOR ALARM

If required fit a door alarm on the secure side of the door this will be activated by the tamper alarm & door open alarm.

#### PA ALARM

If required fit a PA alarm on the secure side of the door this will be activated by the PA alarm.

#### MULTIPLE DOOR INTERLOCK

If required wire between each controller that is to be interlocked.

#### CABLING

Card reader.. ... controller ... .. 7 cores  
Door Contact ... .. controller ... .. 2 cores  
Time switch ... .. controller ... .. 2 cores  
Exit push button ... .. controller ... .. 2 cores  
Door Alarm .. ... controller ... .. 2 cores  
PA Alarm. ... .. controller ... .. 2 cores  
Lock Release ... .. controller ... .. 2 cores  
Power Supply ... .. controller ... .. 2 cores  
Interlock .. ... controller to controller ... 2 cores

### PROGRAMMING

#### INITIAL SET-UP

- a. Double check all connections and power up the system.
- b. Depress the programmers code switch through the 2mm hole in the controller front panel & the system LED (yellow) will come on.
- c. Select your programmers code (6 digits excluding \* or #) and enter at the keypad, this takes you straight to the program mode.  
**NOTE:** When in the programmers mode the system LED (Yellow) will be on and both the card reader and the controller sounders will operate, the sounders will give 2 bleeps (high and low tone) every 10 seconds while in the programmers mode. Valid programming entries are signalled by 2 short bleeps.  
Incorrect entries are ignored and signalled by 6 long bleeps.

- d. Clear the system & reset the default values using option "70".
- e. Set the system ID & site code using option "80"
- f. Enter an access card using option "10".
- g. Leave the programmers mode by entering the six digit programmers code preceded by a #.
- h. Test the system by swiping the card through the card reader.
- i. To re-enter or leave the program mode, enter the programmers code preceded by a #.
- j. Complete the Access Card Allocation sheet and keep secure.

### PROGRAMMING OPTIONS

#### CHANGE THE PROGRAM CODE

00\*(NEW CODE 6 digits)\*

#### ENTER AN ACCESS CARD

10\*(ENCODED No 4 digits)\*(ENCODED No 4 digits)\* Standard  
10\*#(ENCODED No 4 digits)\*(ENCODED No 4 digits)\* Timed  
(ie. 10\*0001\*0001\* = access card encoded number 0001 entered)

#### ENTER A BATCH OF ACCESS CARDS

Use the first & last encoded number of the batch to be entered.  
(ie. 10\*0001\*0020\* = card encoded numbers 0001 to 0020 entered)

#### DELETE AN ACCESS CARD

20\*(ENCODED No 4 digits)\*(ENCODED No 4 digits)\*  
(ie. 20\*0001\*0001\* = access card encoded number 0001 deleted)

#### DELETE A BATCH OF ACCESS CARDS

Use the first & last encoded number of the batch to be deleted.  
(ie. 20\*0001\*0020\* = card encoded numbers 0001 to 0020 deleted)

#### SET THE LOCK OUTPUT TIME (Secs) for access control.

30\*(SECS. 3 digits)\*  
(ie. 30\*009\* = lock output set for 9 secs. Max time 120 secs)

#### SET THE LOCK OUTPUT TIME (Hours & Mins) for lighting etc.

31\*(HOURS 1 digit)\*(MINUTES 2 digits)\*  
(ie. 31\*1\*09\* = lock output set for 1 hour 9 mins. Max time 9 hours)

#### DOOR OPEN ALARM DELAY TIME

40\*(SECS. 3 digits)\*  
(ie. 40\*060\* = door open time set for 60 secs. Max time 120 secs.)

#### SET PA ALARM TIME

50\*(SECS. 3 digits)\*  
(ie. 50\*100\* = PA alarm set for 100 secs. Max time 120 secs)

#### SET TAMPER SHUT DOWN TIME

60\*(SECS. 3 digits)\*  
(ie. 60\*009\* = tamper shut down set for 9 secs. Max time 120 secs.)

#### CLEAR ACCESS CARDS, CONTROL CODES (not prog.code) & SET DEFAULT VALUES

70\*654321\*  
(ie. 70\*654321\* = access cards, control codes cleared, defaults set)

#### SET SYSTEM I/D & SITE CODE

80\*(SYSTEM I/D 6 digits)\*(SITE CODE 2 digits)  
(ie. 80\*100175\*28\* = system I/D set to 100175 & site code to 28)

#### TEST MODE

90 \* 0 1 2 3 4 5 6 7 8 9 \*# Step through outputs by pressing \*  
ie. 90\*0123456789\*#\*\*\* = if reported OK keypad & outputs tested

#### SET THE ON/OFF CODE

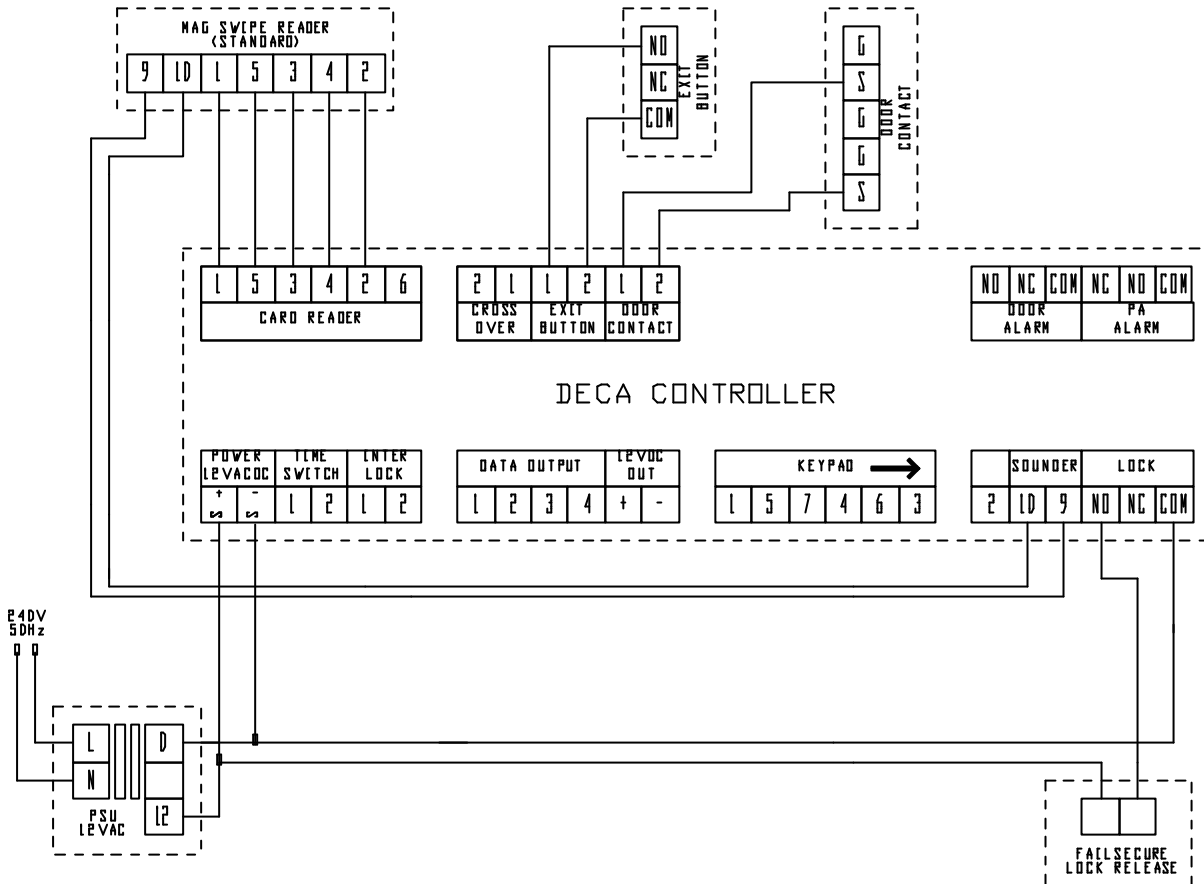
97\*(CODE 6 digits)\*Standard 97\*#(CODE 6 digits)\*Timed

#### SET THE SHUT DOWN CODE

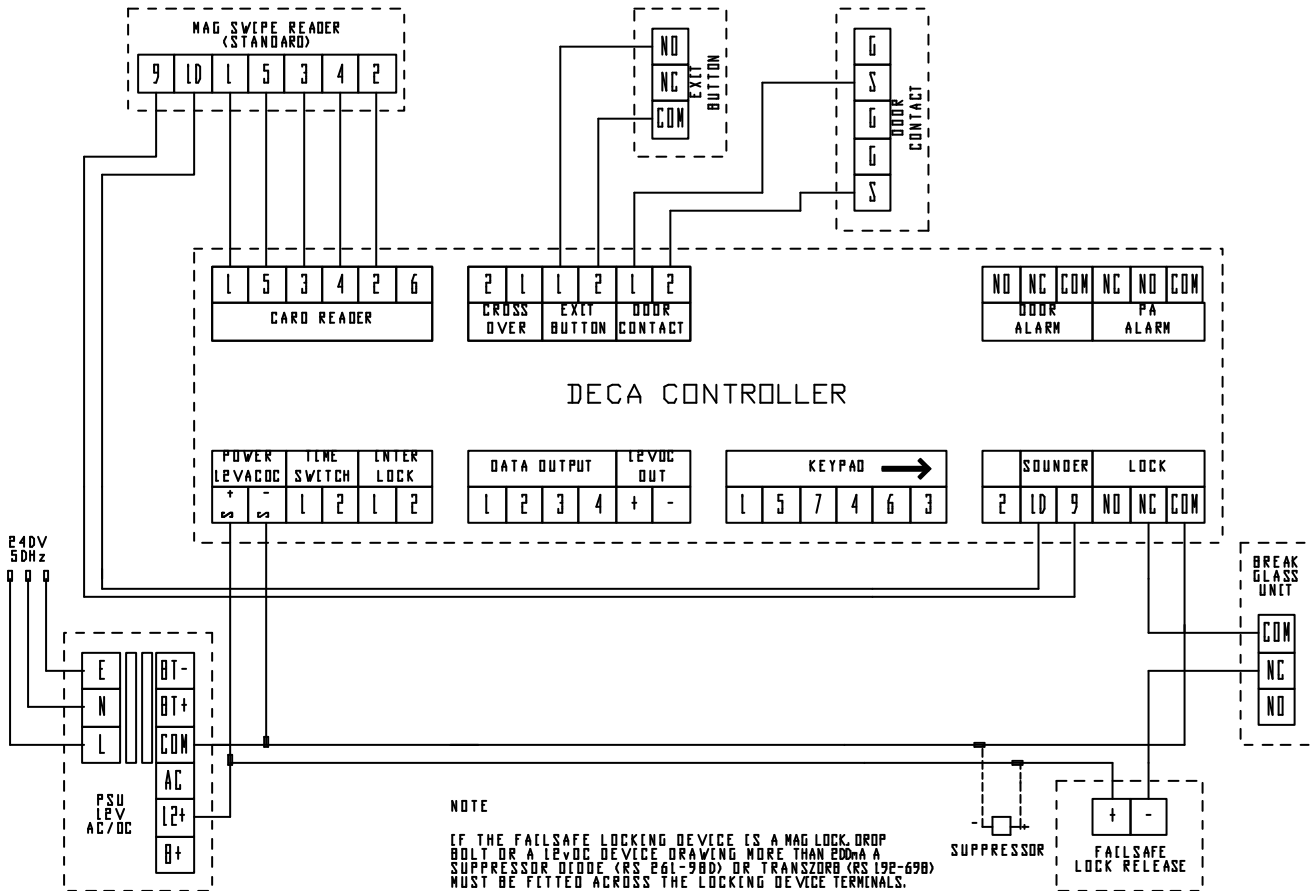
98\*(CODE 6 digits)\*Standard 98\*#(CODE 6 digits)\*Timed

#### SET THE BLEEP CODE

99\*(CODE 6 digits)\*Standard 99\*#(CODE 6 digits)\*Timed



(L.1) LEVAC PSU, FALLSECURE (F/LOCKED) LEV REL. S/READER, E/BUTTON & D/CONTACT.



NOTE

IF THE FALLSAFE LOCKING DEVICE IS A MAG LOCK, DROP BOLT OR A LEVDC DEVICE DRAWING MORE THAN 200mA A SUPPRESSOR DIODE (RS P61-98D) OR TRANSORB (RS 192-69B) MUST BE FITTED ACROSS THE LOCKING DEVICE TERMINALS.

(L.2) LEVAC/DC PSU, FALLSAFE (F/UNLOCKED) LEV REL. S/READER, E/BUTTON, D/CONTACT & B/GLASS.

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DECA MAGNETIC SWIPE CARD  
 ACCESS CONTROL SYSTEM  
 DECA MAGNETIC SWIPE CARD ENTRY SYSTEM  
 (L.1) LEVAC PSU, FALLSECURE (F/LOCKED) LEV REL. S/READER, E/BUTTON & D/CONTACT.  
 (L.2) LEVAC/DC PSU, F/SAFE (F/UN/L) LEV REL. S/READER, E/BUTTON, D/CONTACT & B/GLASS.

DRAWING NUMBER  
 DECA-MS  
 002\_008

