Eight Code lock board

The Eight code lock board is a code recognition device for restricting access to authorized people in a secure environment. Unlock codes are entered via a keypad, a relay will then operate for a set time permitting access to an operating button or similar. At the same time the relay operates a bleeper sounds.

Power Input

The Eight code is supplied with a DC voltage. 0V is connected to B- and +V to B+. The supply should be between 18vdc and 30vdc.

Keypad Wiring

The keypad is wired to the circuit board via a 10-way cable. This should be kept as short as possible and in any case not be longer than about 0.5m. If using screened cable connect the screen to 0V at the board end only.

Connections as follows: -

Board terminal	Keypad terminal
1	1
2	2
3	3
4	4
5	5
6	6
7	7
L1	LG
L2	LR
+5	LC

Relay Outputs

The relay outputs are shown on the edge connector as: -
N/O   Normally open contact
C   Main contact
N/C   Normally closed contact

Override input

If a +24volt input is applied to the input designated RD then all relays will switch on until the input is removed.

Technical Specifications

1.	Supply voltage	+18V to +30V dc
2.	Overall size	18mm X 75mm X 146mm

Lester
Controls.co.uk

LC34 Iss 1 04/08

Default Setup

1.	Default code 0	(override all)	8,7,6,5 (4,3)
2.	Default code 1	(floor1)	1,2,3,4 (5,6)
3.	Default code 2	(floor2)	1,2,3,4 (5,6)
4.	Default code 3	(floor3)	Not programmed
5.	Default code 4	(floor4)	Not programmed
6.	Default code 5	(floor5)	Not programmed
7.	Default code 6	(floor6)	Not programmed
8.	Default code 7	(floor7)	Not programmed
9.	Default code 8	(floor8)	Not programmed
10.	Default code 9	(override code)	0,2,4,6 (8,1)
11.	Default programming code		872254
12.	Default unlock time		3 seconds
13.	Output Latching		Enabled
14.	User code change		Disabled
15.	Security code length		4 digits

The parts of the security codes shown in brackets are only used when the security code length is set to five or six digits.

Operation

At power-up the unit will perform a short self-test by powering the relays sequentially for .5s each and on-board LED for 0.5s. It will also give a short bleep.

To unlock a particular floor the floor number is entered followed by the security code for that floor; the unit will unlock for the set time. If floor latching is enabled and the floor number is preceded by '*' the unit will remain unlocked for as long as required and will lock again when the floor number and code is entered again.

Example using default settings: -

2 1234	will unlock floor 2 for 3 seconds
***2 1234**	will unlock floor 2 and leave it unlocked (2 1234 will re-lock floor 2).

Override codes

Security or maintenance staff can use these to gain access to all floors.

To unlock a floor enter '9' followed by security code nine (default 0246) followed by the floor number to unlock. To unlock all floors enter '0' followed by security code zero (default 8765). Preceding either of these sequences with a '*' will cause the floors to stay unlocked for as long as required.

Example using default settings: -

9 0246 4	will unlock floor 4 for 3 seconds
***9 0246 5**	will unlock floor 5 and leave it unlocked (9 0246 5 will re-lock floor 5)
0 8765	will unlock **all** floors for 3 seconds

Changing Settings

All commands to change settings are preceded by pressing the '#' key, the commands are then accessed by number: -

#1	User change to floor security code (if user changes enabled)
#2	Change floor security code
#3	Set unlock time (1 to 250 seconds)
#4	Enable or disable output latching
#5	Enable or disable user change to security codes
#6	Set length of security codes (4 to 6 digits)
#0	Change programming code (**see warning about this**)

User setting security codes

Enter '# 1'
Then press the number key for the floor code you wish to set.
Enter the old security code for that floor.
Then enter the code required. The unit will give a long bleep and the new code will be programmed.

Example using default settings: -

#1 2 1234 5678   gives a new code of 5678 for floor two.

To abandon a code change before all digits are entered, press the # key.

#1 1 1234 56#   would leave code one unchanged.

Setting security codes

Enter '# 2'
Then press the number key for the floor code you wish to set.
Enter the programming code.
Then enter the code required. The unit will give a long bleep and the new code will be programmed.

Example using default settings: -

#2 1 PPPPPP 5678   gives a new code of 5678 for floor one.

To abandon a code change before all digits are entered, press the # key.

#2 1 PPPPPP 56#   would leave code one unchanged.

Note that this command is also used to set the override codes as they are designated as floors zero and nine.

#2 0 PPPPPP 2468   would set 2468 as the override code to access all floors.

Setting unlock time

Enter '# 3'
Enter the programming code.
Then press the * key a number of times, once for every second of unlock time less one.
Then press the # key the unit will give a long bleep and the new time will be programmed.

#3 PPPPPP * #**   gives a four second unlock time (maximum is 250seconds)

Enable or disable output latching

To determine if output latching is enabled enter '*'. A series of rapid bleeps indicates this function is disabled.

To change the setting,
Enter '# 4'.
Enter the programming code.
A long bleep will indicate the setting is changed, if output latching was previously disabled it is now enabled and if previously enabled it is now disabled.

#4 PPPPPP   will enable or disable output latching.

Enable or disable user change

To determine if users are able to change their security codes enter '#1'. A series of rapid bleeps indicates this function is disabled.

To change the setting,
Enter '# 5'.
Enter the programming code.
A long bleep will indicate the setting is changed, if user setting was previously disabled it is now enabled and if previously enabled it is now disabled.

#5 PPPPPP   will enable or disable the ability of users to change their security code.

Setting security code length

Enter '# 6'
Enter the programming code.
Then enter the number of digits required (4,5 or 6). The unit will give a long bleep and the new security code length will be programmed.

#6 PPPPPP 5   will set the security code length to five digits.

If security codes have been set previously they will be retained in memory as follows: -

If the new code length is shorter than before then the last digits will not be used e.g. 123456
Will become 1234 when changing from six to four digits.

If the new code length is longer than before then any longer code previously used will be used by adding the extra digits to those already in use. If no longer code has been used before then

the default code will be used (see default values given above). E.g. floor 1 has been set to 4321 and then code length is set to six digits, the original default was 123456, the new code will be 432156.

Note that the default code for un-programmed floors is 123456.

Changing programming code

Enter '# 0'
Enter the programming code.
Then enter the new six-digit code required. The unit will give a long bleep and the new code will be programmed.

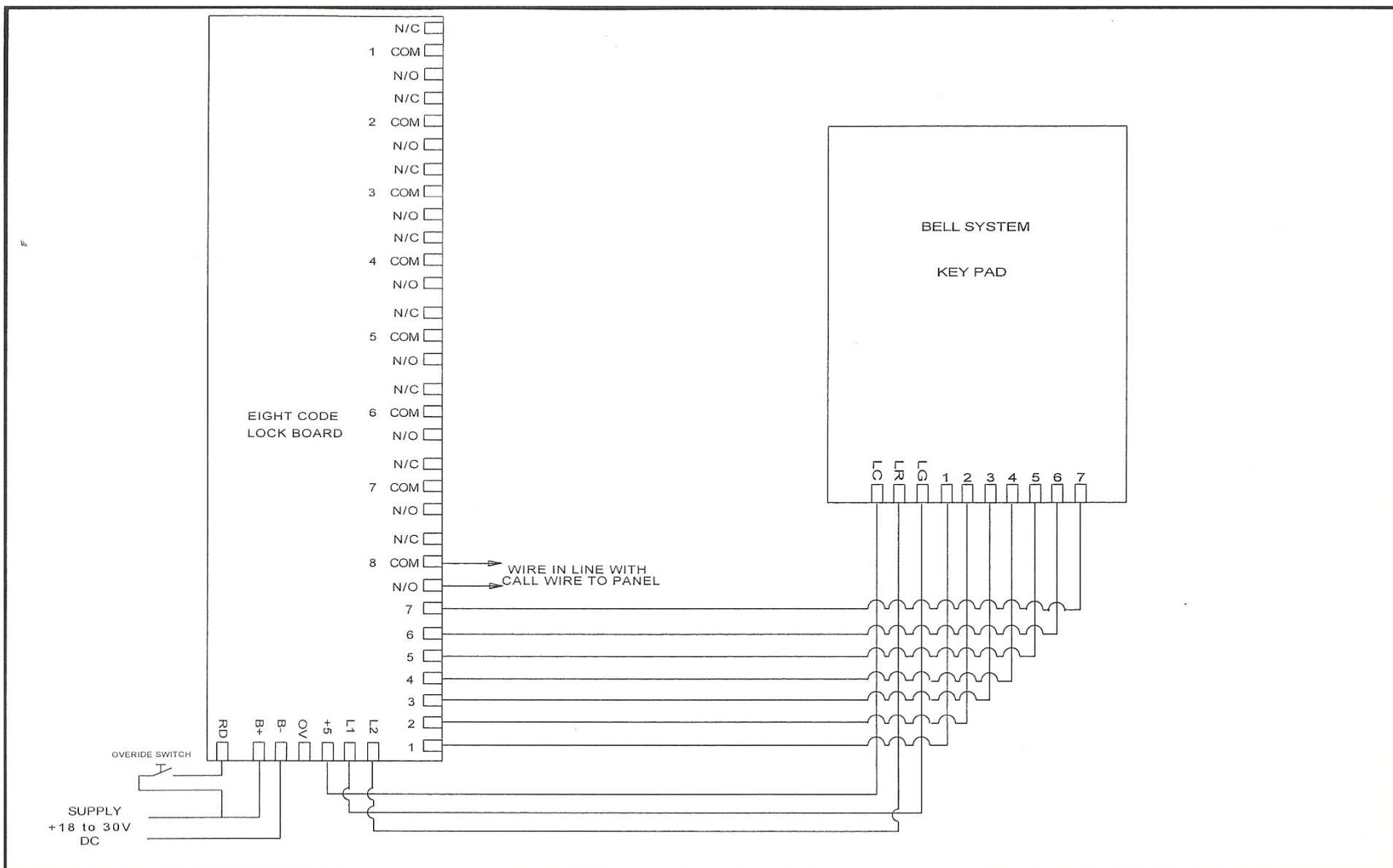**#0 PPPPPP 567890** gives a new programming code of 567890. (PPPPPP is the old programming code.

Warning! Take care when changing the programming code to make sure it is remembered as once it has been changed there is no easy way if it is forgotten (for security reasons) to return to the original default code.
It is recommended this code is changed during installation from the default and a secure record kept of the new code.

Time out

If an invalid code is entered three times in succession the keypad will lock out for a period of 15 minutes and no codes can be entered during this time.

If an unlock or command sequence is not completed after entry has started, all keys pressed will be cancelled after a few seconds.

EIGHT CODE
LOCK BOARD

N/C
1 COM
N/O
N/C
2 COM
N/O
N/C
3 COM
N/O
N/C
4 COM
N/O
N/C
5 COM
N/O
N/C
6 COM
N/O
N/C
7 COM
N/O
N/C
8 COM
N/O
7
6
5
4
3
2
1

BELL SYSTEM

KEY PAD

LC LR LG 1 2 3 4 5 6 7

WIRE IN LINE WITH
CALL WIRE TO PANEL

OVERIDE SWITCH

RD B+ B- OV +5 L1 L2

SUPPLY
+18 to 30V
DC