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## Hardware description

66E electronic board without bolt switch, RTC and EEPROM.  
Can drive solenoid (motor option scheduled for next release).  
Connectors to keypad, alarm box and solenoid.  
Configuration can be done via keypad or PC.

## Keypad connector

Standard 4 wires connector to keypad, LED, buzzer and emergency battery pads.  
Keypad may include a TAG reader to allow use of serial connection to PC or other devices.

## TAG reader connection to serial adapter

Serial connection specifications are: 1'200bauds, no parity, 8 data bits, 1 stop bit. PC and other serial devices may be connected to setup the lock and the get audit file.

## Alarm box connector

Standard 4 wires connector to external battery, silent alarm output and remote input. Also used to connect Reset Box to initiate factory reset.

## Silent alarm output

When silent alarm mode selected, code entered with last digit plus one will activate this output during 1.5s.

## Remote input

When closed to ground, this input will either deny solenoid activation or override time delay. Selection done by PC software.

## Solenoid / motor connector

2 wires connector to solenoid (motor scheduled for next release, selection mode must be defined as procedure to activate motor like forward / backward timing).

Solenoid is activated during 3s.

A built in battery measure detects battery low condition.

## Features

39E software is based on 37E, with **motor driver** and remote override.

## Codes & users

Up to ten codes:

- **One manager** (ID = 0): can open, changes his code, manage users, print audit, setup configuration, change time delay values. Before changing his code for this first time, manager deleting user code will in fact block it. Once his code is changed, cannot modify configuration nor install users that are blocked.
- **Up to 9 users** (ID = 1 - 9): each user can open and changes his code.

Codes length programmable from 4 to 9 digits long. New codes are rejected when less than 2 digits are different from existing codes.

## Time delay

Time delay programmable from 0 (no time delay) to 99 minutes. Open window from 1 to 19 minutes.

During time delay enabled LED flashes at two seconds intervals. Open window is indicated by LED then buzzer at 1 seconds intervals alternately (once LED, once beep).

## Battery low warning

If battery low (< 6V) during solenoid activation, multiple beeps.

## Time penalty

When entering code, a time penalty of 5 minutes will be started after the 4<sup>th</sup> consecutive wrong code entered.

During time penalty, LED flashes at 10s interval, no access possible to lock.

Any key pressed during time penalty emits a triple beep.

After time penalty, two consecutive wrong codes will start it again.

## Programmable features

Additional features can be individually selected by manager or PC Setup software:

- **Time delay override:** user #9 overrides time delay and opens.
- **Dual code:** two codes needed to access / open.
- **Silent alarm:** last digit of code +1 activates silent alarm when dialing to open or to enter special functions.

## Audit

On board non volatile memory records up to 63 last events, including user ID and action.

Audit file is sent to serial interface at each power-up and upon request of manager, using special function #7.

Audit file can not be deleted.

## Pre-setup mode

After factory reset lock enters pre-setup mode. Communication with lock using serial interface on TAG reader is possible to test and setup the lock.

Into this mode, pressing key '1' activates solenoid, silent alarm and test remote input. Key '0' send power-up prompt (request for PC Setup software). Other keys beep once.

Pre-setup mode cancelled by keeping down '0' key until double beep, and entering any valid code.

## Special procedures

### **Setup process, to do list**

The following steps are necessary to setup the lock from the ground:

- Factory reset. Configuration is reset to default.
- Select code length (manager function #8). Choose how many digits for manager and users codes. Select standard mode (without additional features).
- Install users (manager function #1). Install all users you need with default codes. Deleted (or never installed) users will not be available after manager changes his code.
- Select additional features (manager function #8). Enter '0' as code length to not modify it. Choose optional features.
- Freeze configuration (manager function #0). Manager changes his code to freeze configuration.

Lock is now fully operational.

Note that PC Setup software is able to set whole configuration using serial interface.

### **Factory reset procedure** Remove battery.

Hold down key '0' during 10s to discharge all internal capacitors.

Connect Reset Box to alarm box connector.

Put the battery back in place, factory reset is completed.

Disconnect Reset Box.

Lock configuration is: 6 digits code, only manager code exists, set to all '5'. Audit file not cleared.

Lock will be operational as soon as manager changes his code.

## General procedures

### ***To enter manager or user code***

Enter code. Double beep if valid, triple beep if wrong code.

### ***To enter special function (manager or user)***

Enter code, holding down last digit. Double beep. Keep holding down last digit until double beep. Enter special function number (0 - 9). Double beep if valid, triple beep if not.

## Open procedures

### ***To open (Standard mode)***

Enter code.

If time delay enabled wait open window. Enter code again.

Solenoid / motor is activated.

### ***To open (Time Delay override mode)***

Enter user #9 code. Solenoid / motor is activated.

#### Note :

- If dual code mode enabled, enter first manager or user code, then override code.

### ***To open (Dual code mode)***

Enter first code.

Enter second code.

If time delay enabled, first code will start time delay. During open window, enter both codes to activate solenoid / motor.

Solenoid / motor is activated.

## Special functions

### **To change code**

**(special function #0)**

Enter special function #0.

Enter new code. Enter code again to confirm. Double beep if correct, triple beep if confirmation error.

#### Notes:

- To be compatible with older products, alternative way to change code is to enter an all '0' code. Then enter old code. Enter new code. Enter code again to confirm. Double beep if correct, triple beep if confirmation error.
- When manager changes hits code, this will freeze configuration (function #8 no more available). Also blocked users at that time can not more be installed (no more available to manager).

### **To install or reinstate user**

**(special function #1)**

Enter special function #1.

Enter user ID (1 - 9). Single beep if user exists; user is now enabled. Double beep if user does not exist. Triple beep if user blocked. Enter new code. Enter code again to confirm. Double beep if correct, triple beep if confirmation error.

#### Notes:

- Manager only. When enrolled, he can install only users that were not blocked by PC Setup software or by himself.
- Manager can install user #9 only if no time delay or during open window or if time delay override input active.  
If dual code mode enabled, manager code has to be entered after an user code to access special function.

### **To disable user**

**(special function #2)**

Enter special function #2.

Enter user ID. Single beep if user exists, he is now disabled. Triple beep if user does not exist.

#### Notes:

- Manager only.
- If dual code mode enabled: manager code has to be entered after an user code to access special function. Manager can not disable user that allows him to access special function.

### **To delete user**

**(special function #3)**

Enter special function #3.

Enter user ID. Single beep if user exists, he is now deleted. Triple beep if user does not exist.

#### Notes:

- Manager only.
- If dual code mode enabled: manager code has to be entered after an user code to access special function. Manager can not delete user that allows him to access special function.

### ***To get audit file (special function #7)***

Enter special function #7, but before pressing on '7', connect serial adapter to TAG reader, and start acquisition on connected device.

Audit file is transmitted to serial interface.

After transmission, LED is still on a during search of audit beginning into memory.

#### Notes:

- Manager only.
- Audit file is automatically printed at each power-up (except in pre-setup mode).
- Audit printing may be stopped by sending a break signal to lock (or keeping down '0' key).
- Audit file can not be cleared. When memory is full, older events are replaced by newer.

### ***To check user status (special function #7b)***

Enter special function #7, holding down function number until double beep.

By pressing user ID, you get his status: 1 beep = active, 2 = disabled, 3 = does not exist, long = blocked, not available.

Enter '0' to exit function.

#### Notes:

- Manager only.

## **To set mode and code length**

**(special function #8)**

Enter special function #8.

Enter code length (from 6 to 9, 0 will not modify last entered length) and mode (see below). Double beep. Enter values again to confirm. Double beep if correct, triple beep if confirmation error.

<i>Mode</i>	<i>Time delay override</i>	<i>Dual code</i>	<i>Silent alarm</i>
0			
1	•		
2		•	
3	•	•	
4			•
5	•		•
6		•	•
7	•	•	•

### Note:

Manager only, and only if not enrolled (his code was never changed).

Manager cannot choose dual code mode if no user installed nor active.

If code length is modified, users codes are deleted and manager code is set to all '5'.

Change in code length is not allowed if dual code mode is selected.

## **To change time delay and open window values (special function #9)**

Enter special function #9.

Enter time delay value (from 00 to 99 minutes, 2 digits, 00 disables time delay) and open window (from 01 to 19 minutes, 2 digits). Double beep. Enter values again to confirm. Double beep if correct, triple beep if confirmation error.

### Note:

Manager only.

If manager changes values during time delay, the time delay value may only be increased. Smaller values will be ignored.