



# A1 Motorized Lock

## Operating Manual



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## 1. FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.



## 2. Introduction

The A1 lock is a product developed in Singapore, with its app, software, and firmware also originating from Singapore, while it is assembled in China. A1 is a registered trademark. The A1 is designed as a standalone time lock or as a server-managed time lock assigned to authorized users, each of whom is granted specific access through User Verification Codes (UVC). Powered by a worm-gear motor, the A1-G3 ensures both power and reliability. The locking bolt has a force ranging from 2 to 4 kgf and features a redundant electronic power-plus circuit to support higher loads. The administrator or security manager can monitor the status of the safes in real-time, even without a LAN connection.

## 3. Standard Components



- Keypad
- Motorized worm gear deadbolt lock
- 3 pcs of M6 screws
- 2 pcs of M4 screws
- 4 pcs of AA batteries that are leakproof and include a plastic tab designed to break the circuit during transportation.

## 4. Installation Preparation

1. To detach the keypad from the base, use a blunt object to press the red button, then turn it to the 5 o'clock position. The keypad will detach from the base.



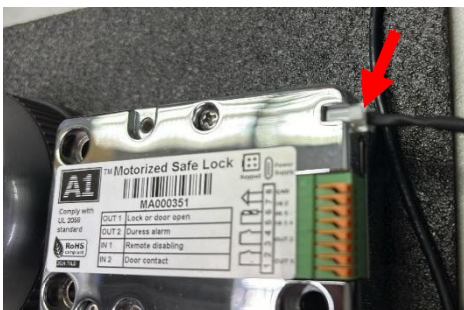
2. Remove the plastic tab from the battery compartment.



3. To secure the base plate back to the keypad, insert the access wire 2 to 4 cm into the keypad slot. This will facilitate the future removal of the keypad for battery replacement.



4. Connect keypad cable to lock.

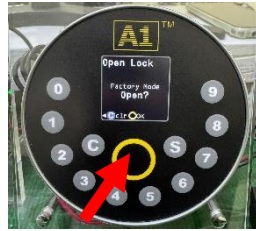






## 5. Testing the Lock's Opening and Closing in Factory Mode

To open the lock in factory mode, press the big yellow button to wake up the lock.



To close the lock, press the big yellow button.

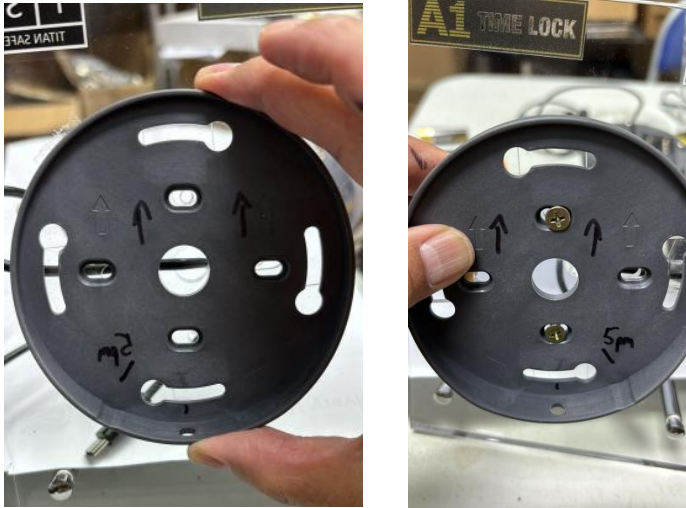


## 6. Installation

1. Remove existing lock and clean surface outside and inside bolt works.



2. Attach keypad base and tighten it with 2-3pcs of M4 screws.



3. Slip in the keypad cable



4. Insert the access wire 2 to 4 cm into the keypad slot. This will facilitate the future removal of the keypad for battery replacement. Insert 4 pcs of AA batteries.



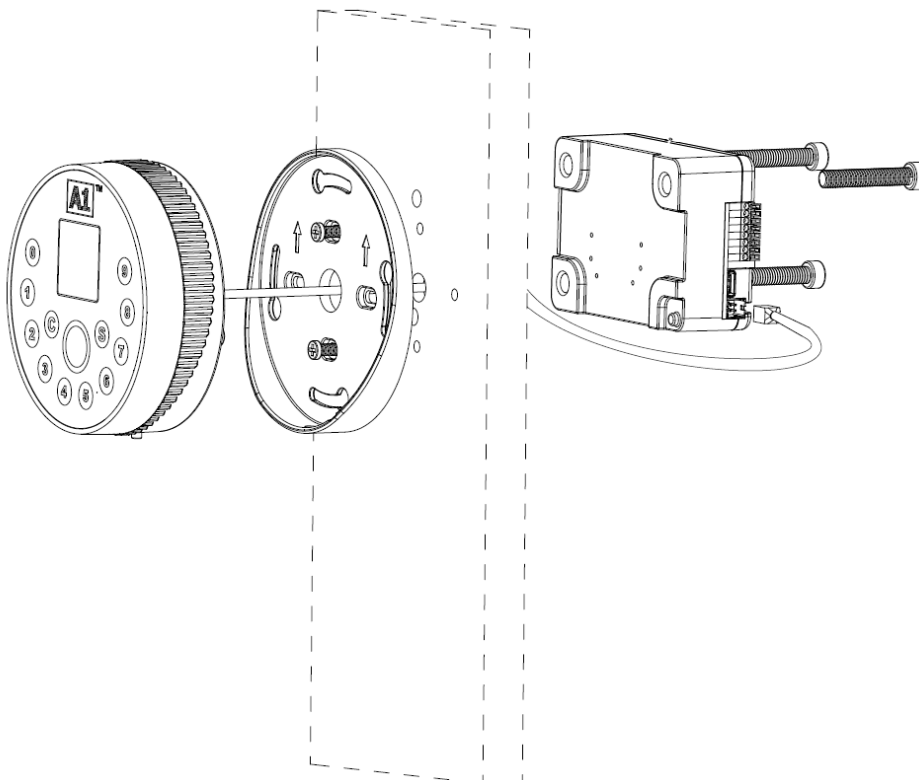




5. Keypad installed and powered up.



6. Mount the lock and secure it with three screws. Make sure the cable is organized.





## 7. Lock Modes

Mode	Description
Factory	No Code is required to open the lock. Factory default mode.
Static	Use the user's PIN + Code to open the lock. The PIN-Code is stored in the lock.
OTC	One-Time Code Use one-time code to open the lock. The code is generated by the management software. ① ②
UVC	User Verification Code First generate a user verification code on the lock, and then submit it to the management software to generate a one-time open code. ① ②

## 8. Code System

Functions	Description
Format	PIN +Code 4-digit PIN + 6-digit Code 4-digit PIN + 8-digit Code (optional)
Users (Static)	30 Static Users PIN from 0000 to 0029
Users (OTC/UVC)	9899 OTC/UVC Users PIN from 0100 to 9999
Dual Mode	Programmable
Duress Code	Programmable (last code digit +1/-1)
User Role	MU – Master TU – Time Manager MU – User Manager MU&TU – Time&User Manager Audit – Audit only
Code Options	Code expiration settings ①  Master bypass time locking period ①  Master can program when locked ①



## 9. Time function

Function	Description
Date/Time	Calendar until 2099
Day light Savings	Programmable ①
Time Delay	Programmable from 0 to 20 minutes ①
Duress Delay	Programmable from 0 to 10 minutes ①
Confirmation Window	Programmable from 30 to 60 seconds ①
None-Return Time	Programmable from 0 to 20 minutes ①
Locking periods weekly	20 periods ①
Locking periods holiday	20 periods ①

## 10. Audit

Audit log	Description
>6000 records	Protected against manipulation and power failure ①

## 11. Interface

Interface	Function	Electronics
Input 1	Remote Disabling	Signal-triggered 12VDC / 20mA
Input 2	Door contact	Contact triggered
Output 1	Lock or Door open alarm	Potential free contacts (30VDC / 2A, 50VAC / 0.5A with resistive load).
Output 2	Duress alarm	
Wireless	Programming interface ①	Bluetooth Low Energy 4.0+

## 12. Power supply

Keypad	Description
Standard Keypad	4 x 1.5v AA Alkaline batteries Build-in battery compartment Optional external 5vDC1A power supply
Slim Keypad	4 x 1.5v AA Alkaline batteries External AA compartment Optional external 5vDC1A power supply

### 13. Mechanics

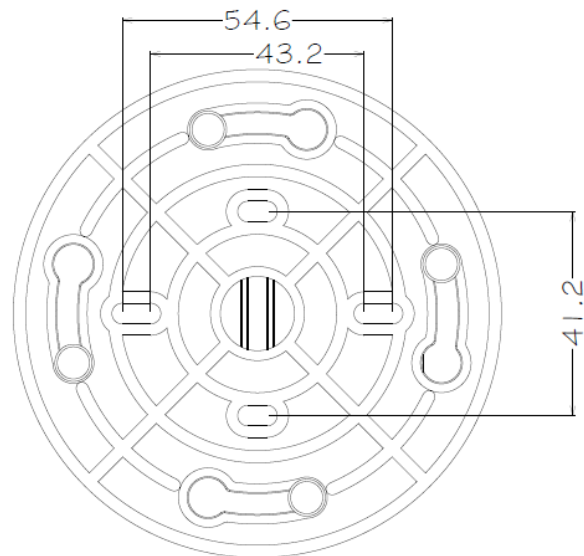
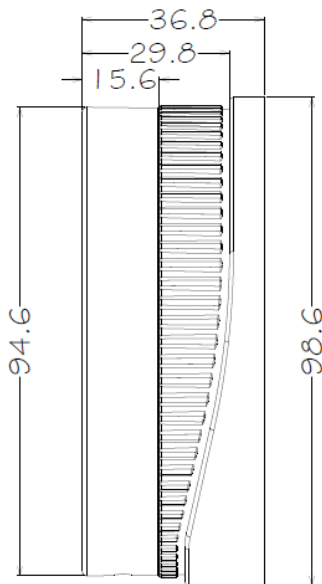
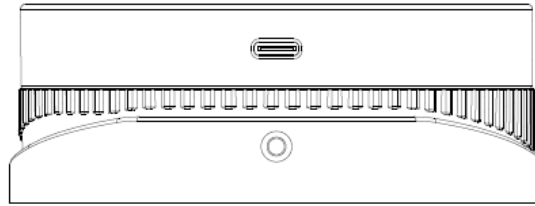
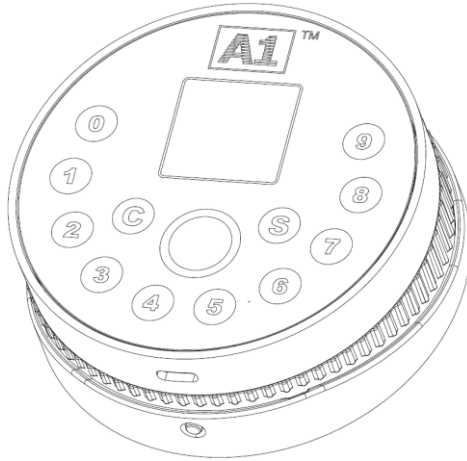
Keypad	Standard	Slim
Dimensions	95x37	95x21
Weight	278g (without battery)	218g
Environmental conditions	Operation: 0...+60°C Storage: -40...+70°C / system of protection: IP53	
Lock		
Dimensions	61x96x31	
Weight	480g	
Mounting	3 screws M6 (template 67 x 41 mm)	
Motor bolt	Dead bolt	
Relocker	integrated lock relocker	
Cycle times	opening/closing approx. 7 seconds	
Static resistance force	>1000 N in all directions	
Moving force	max. 5 N when closing max 10N when opening	
Service life	>50,000 cycles	
Environmental conditions	Operation: 0...+60°C Storage: -40...+70°C / system of protection: IP53	

① Requires programming software

② Requires Management software

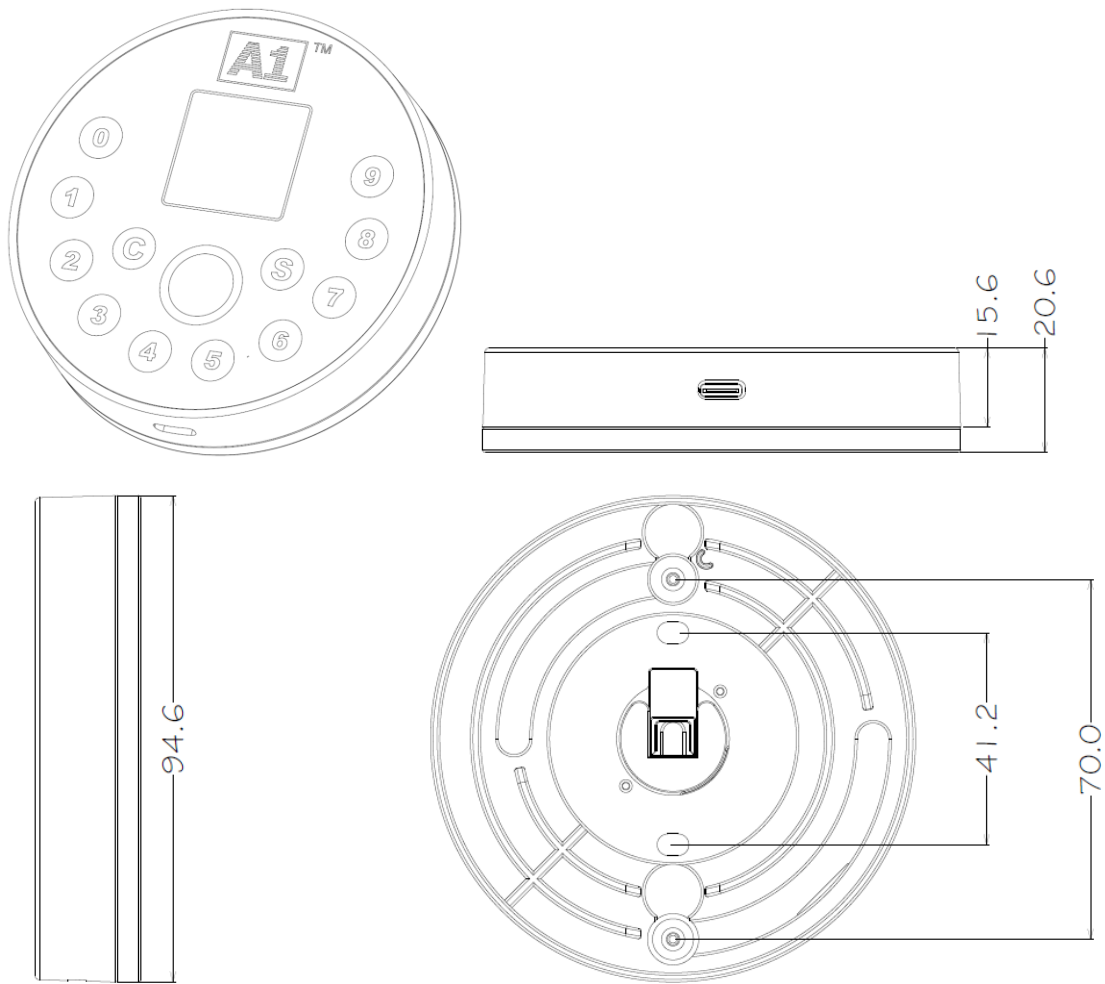
## 14. Dimensions

### 14.1 Standard Keypad



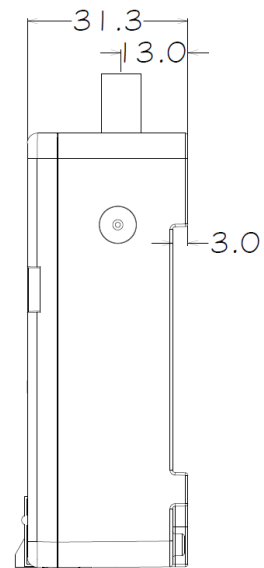
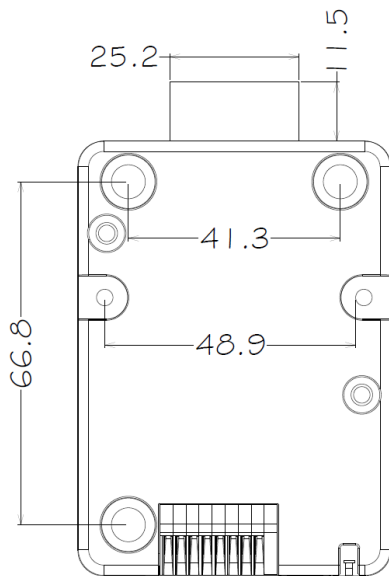
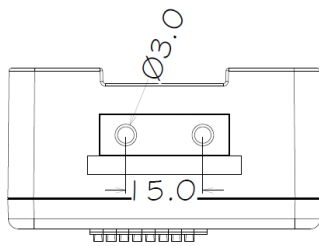
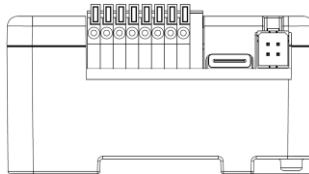
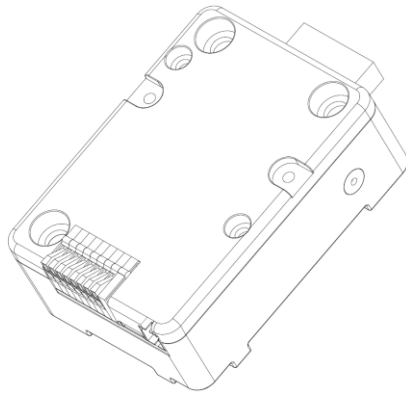


14.2 Slim Keypad



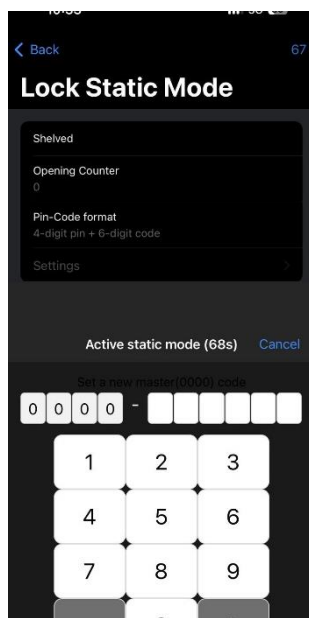
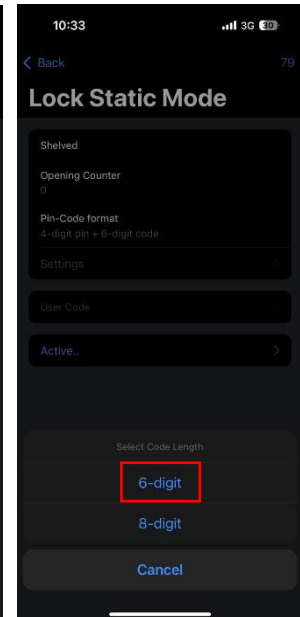
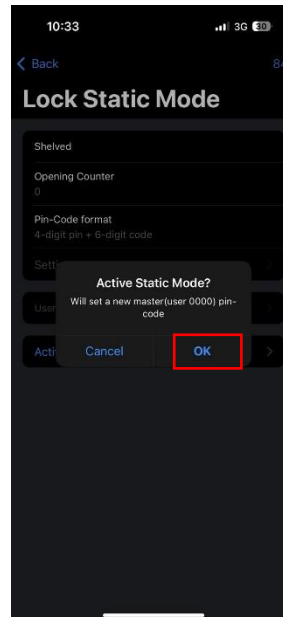
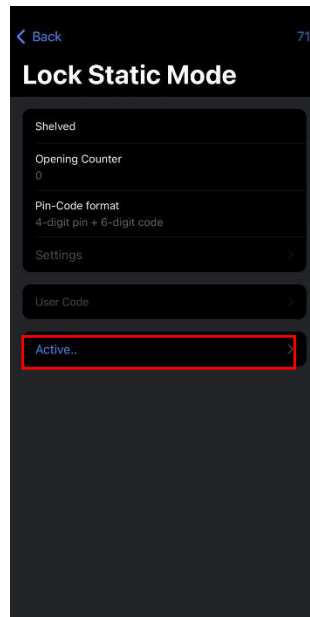
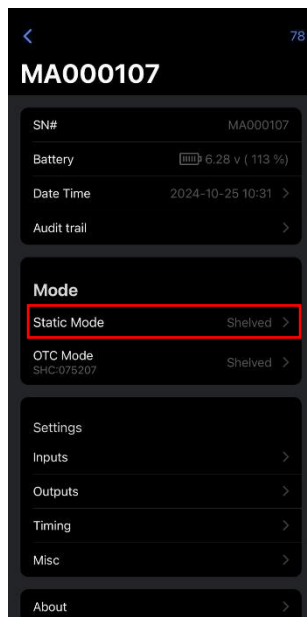


## 14.3 Lock



## 15. Activate Static Mode

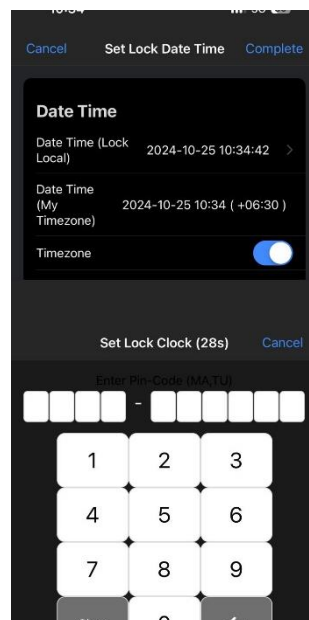
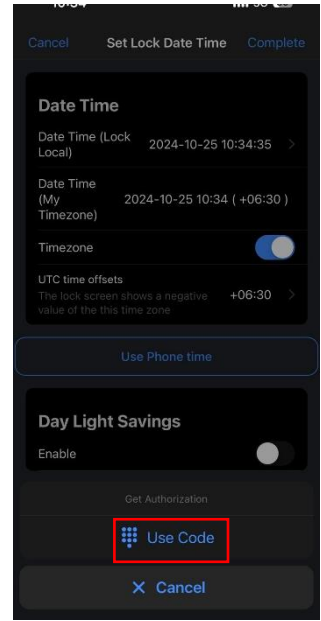
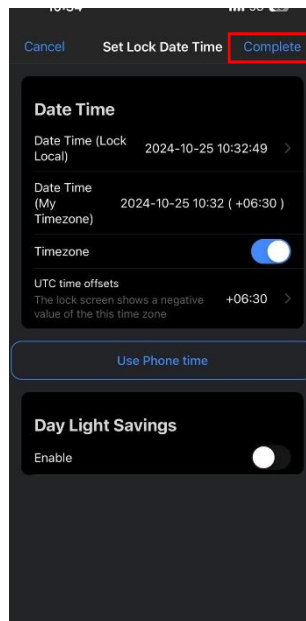
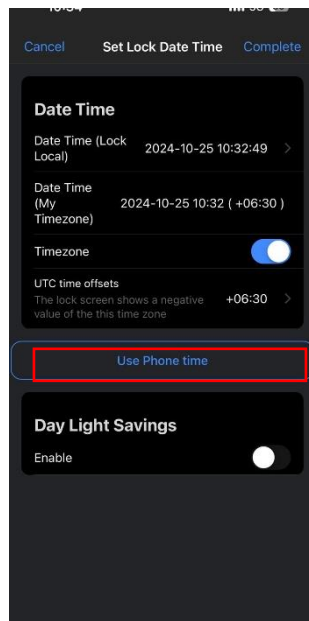
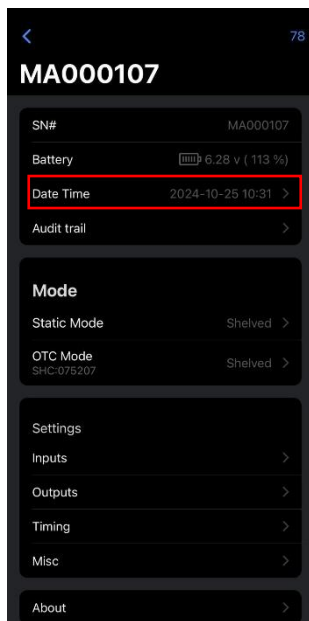
1. Wake up the lock and press yellow “O” button to open the lock in factory mode.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Active” -> “OK” -> select “6-digit” or “8-digit” -> enter 6 or 8-digit master code and enter same 6-digit code to confirm.





## 16. Program Date/Time

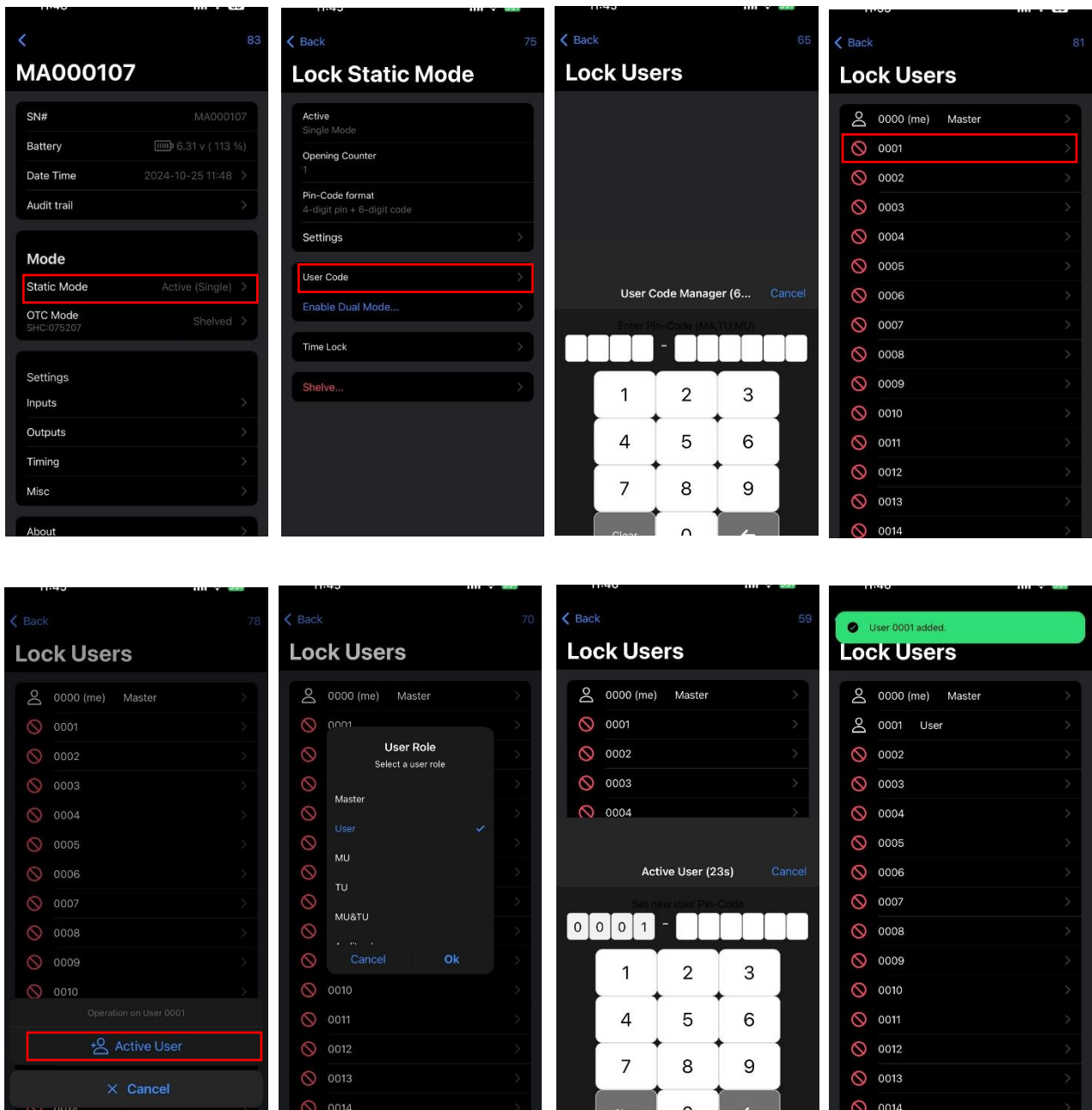
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Date Time” -> “Use Phone Time” -> “Complete” -> “Use Code” -> enter master (MA) or time user (TU) code





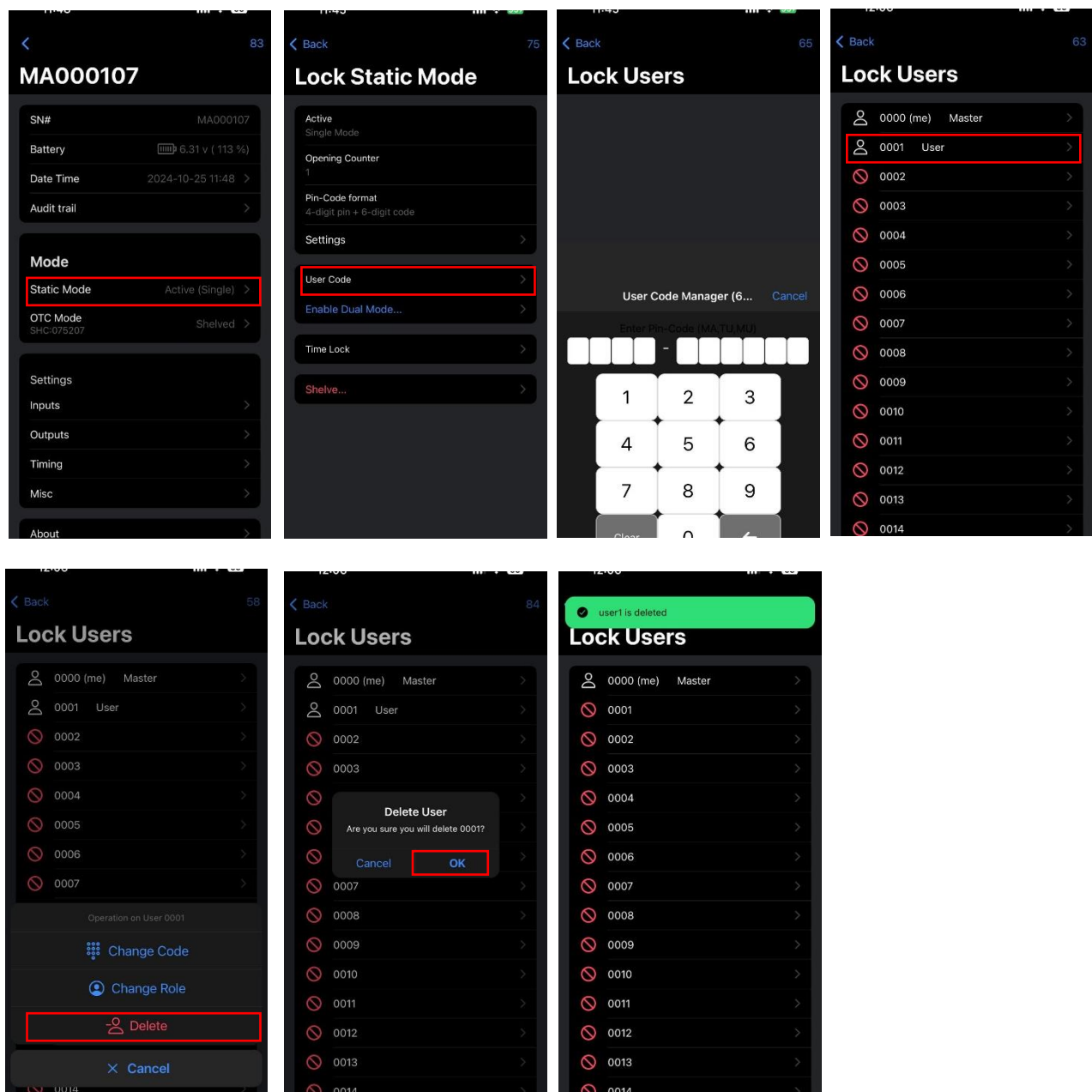
## 17. Add New User

1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press "C" button at lock keypad and QR code will be displayed.
4. Click "QR" at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click "Static Mode" -> "User Code" -> enter MA or MU code -> click on user PIN -> "Active User" -> select user role -> enter 6-digit code for user and enter same 6-digit code again to confirm



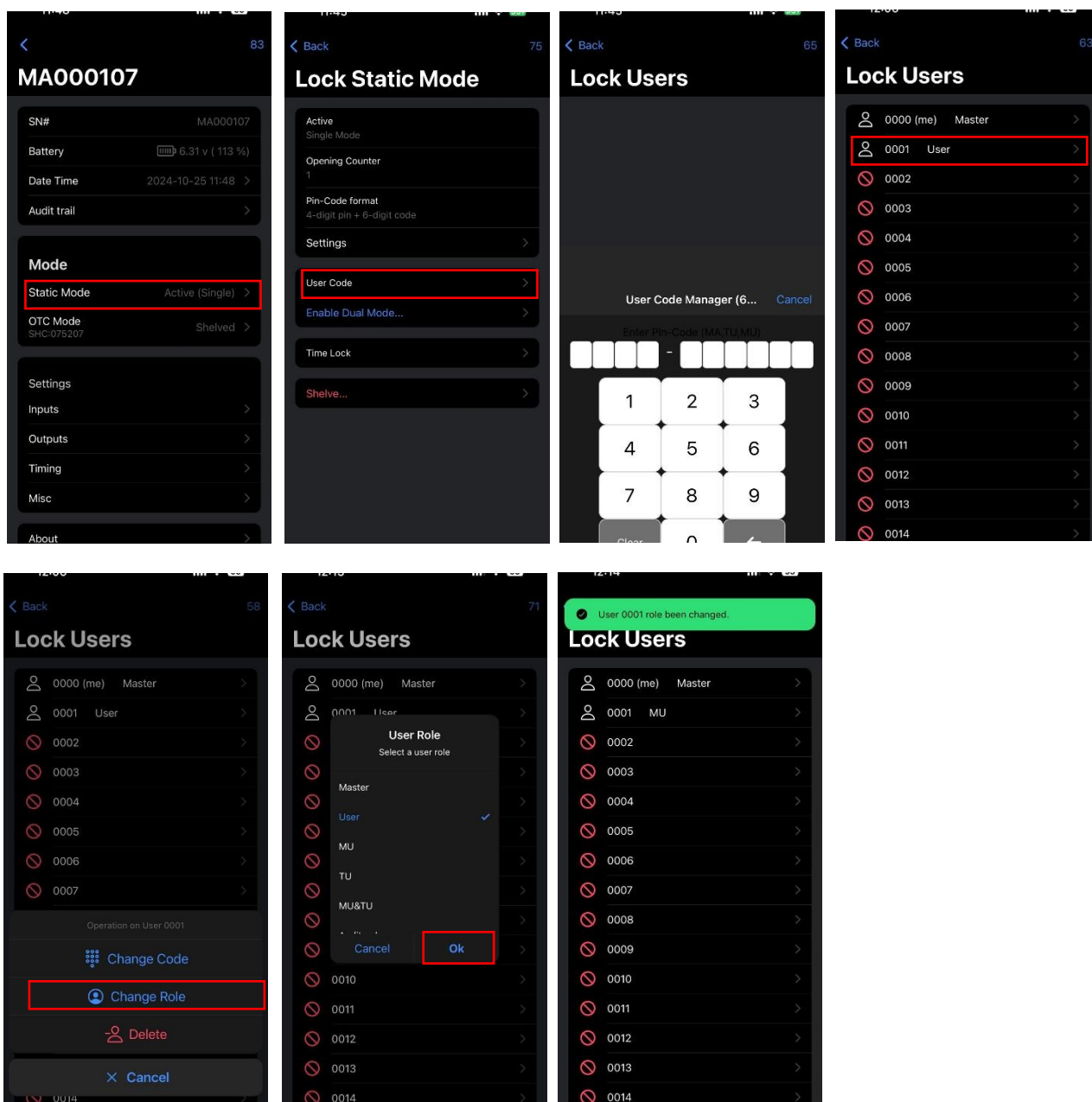
## 18. Delete User

1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” → “User Code” → enter MA or MU code → click on User pin → “Delete” → “OK”



## 19. Change User Role

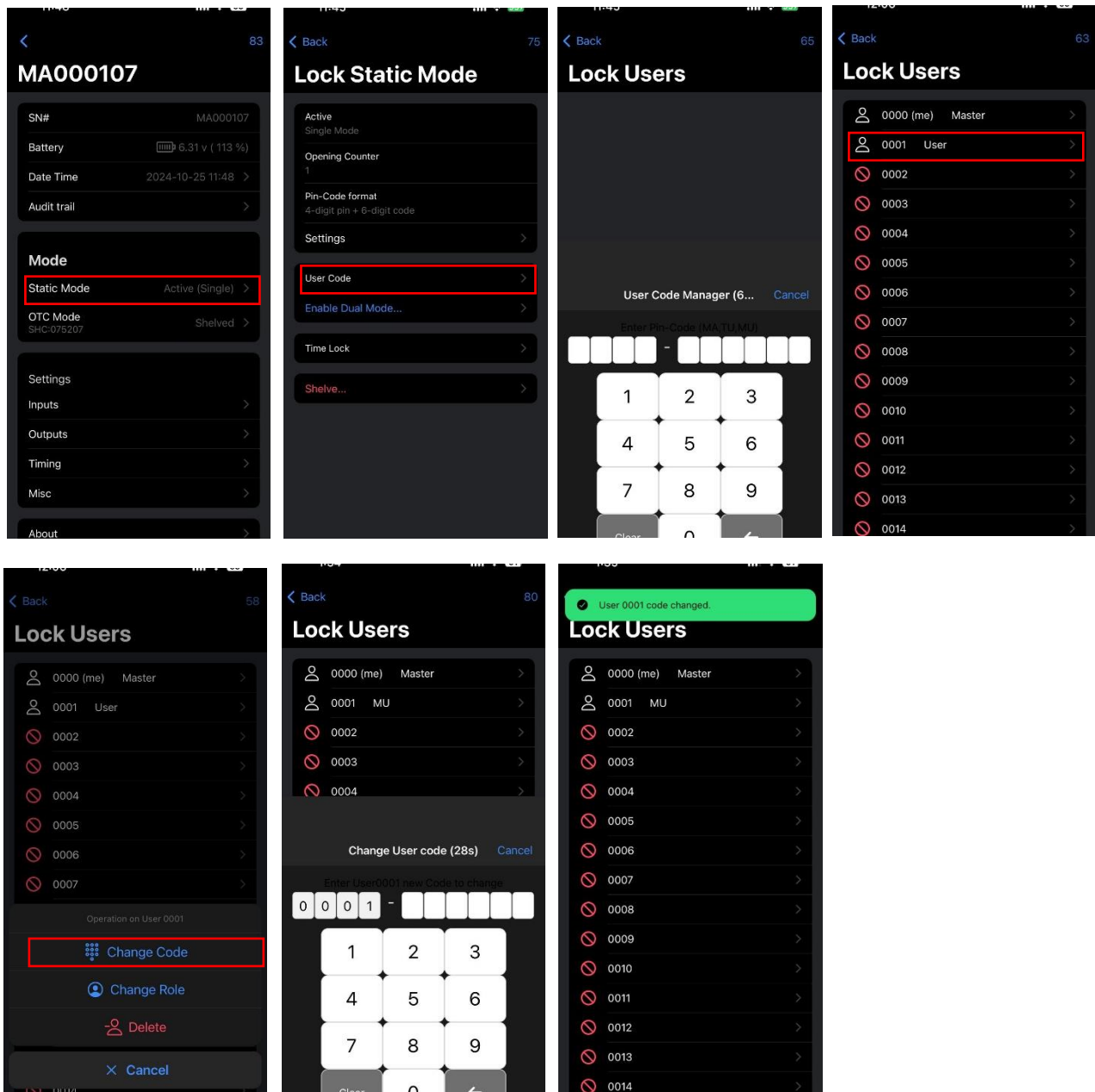
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” → “User Code” → enter MA or MU code → click on user pin → “Change Role” → select new role → “OK”





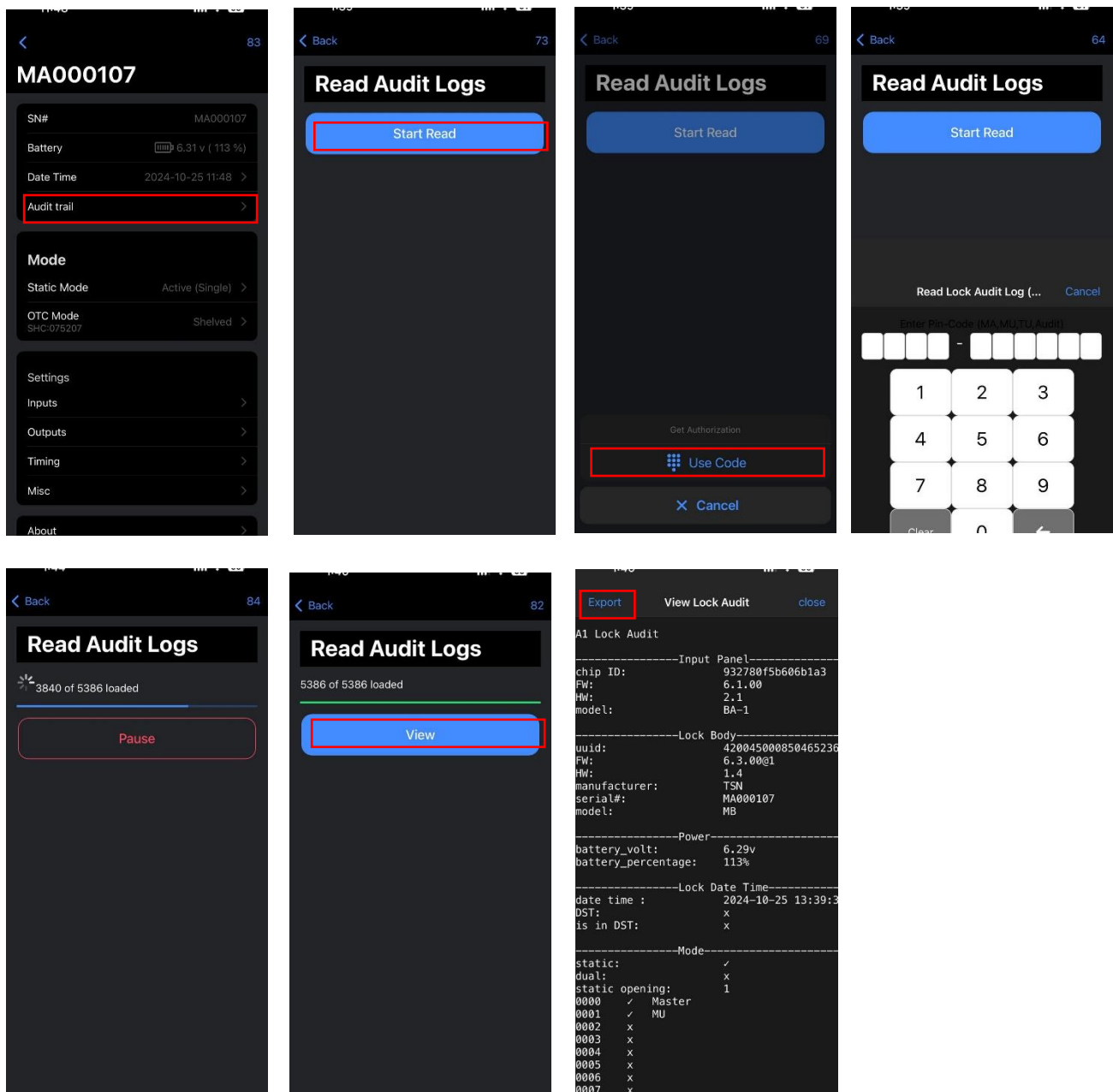
## 20. Change User Code (Mobile App)

1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press "C" button at lock keypad and QR code will be displayed.
4. Click "QR" at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click "Static Mode" -> "User Code" -> enter MA or MU code -> click on user pin -> "Change Code" -> enter new 6-digit code and enter same 6-digit code again to confirm



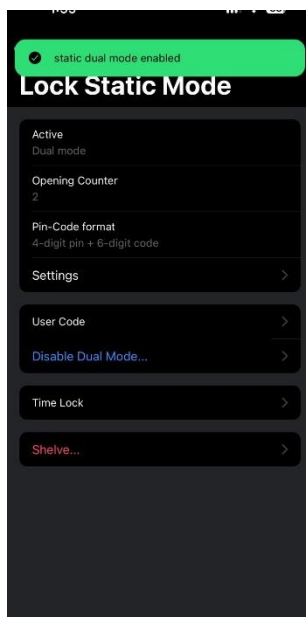
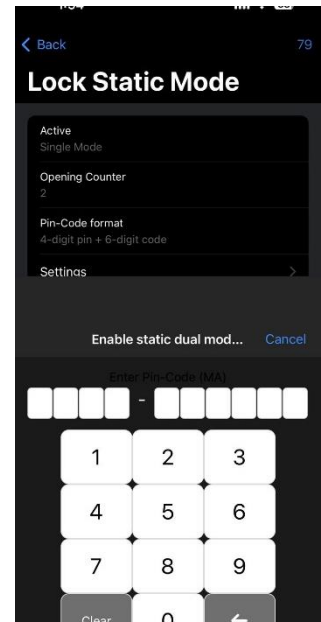
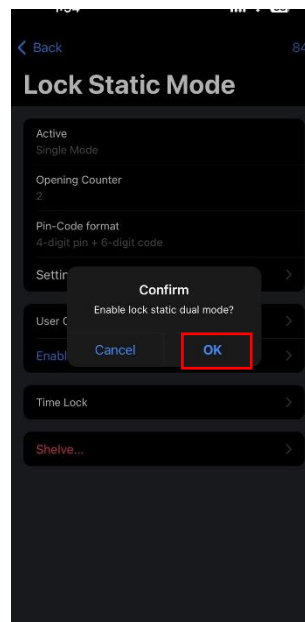
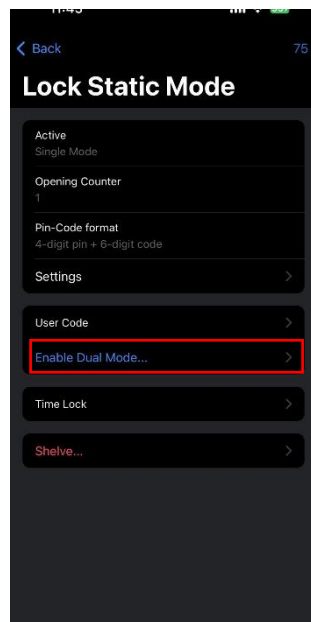
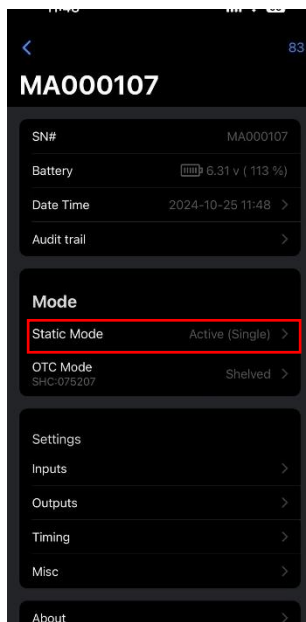
## 21. Download Audit

1. Wake up the lock.
2. Open A1 Toolbox app at mobile phone.
3. Press "C" button at lock keypad and QR code will be displayed.
4. Click "QR" at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click "Audit Trail" -> "Start Read" -> "Use Code" -> enter MA, MU, TU or Audit user code -> downloading audit -> "view" -> "export" to save or send via email/whatsapp/other messaging app



## 22. Enable Dual Mode

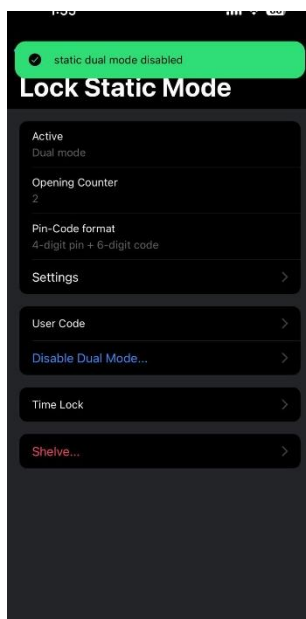
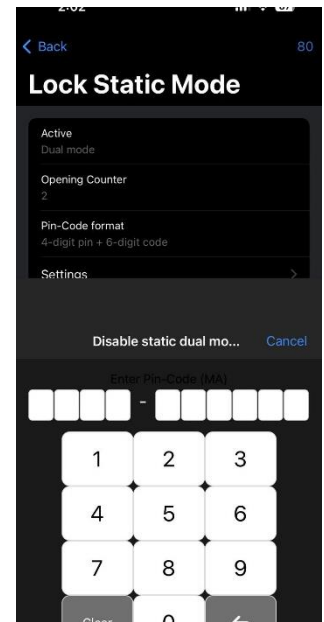
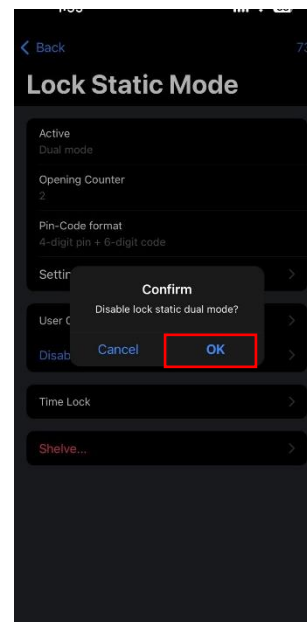
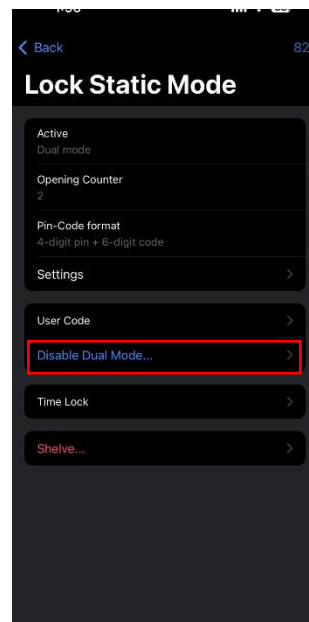
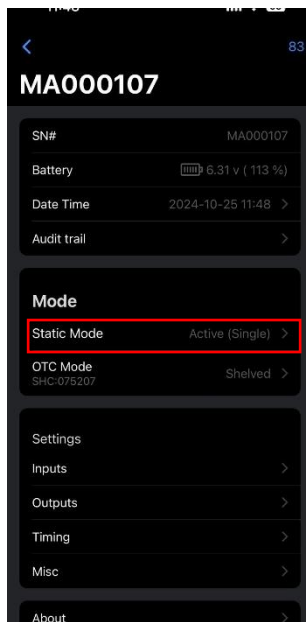
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Enable Dual Mode” -> “OK” -> enter master code





## 23. Disable Dual Mode

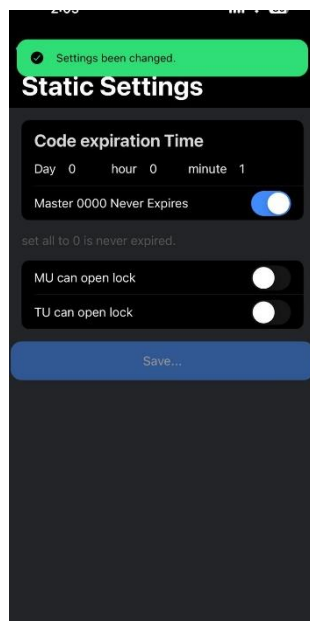
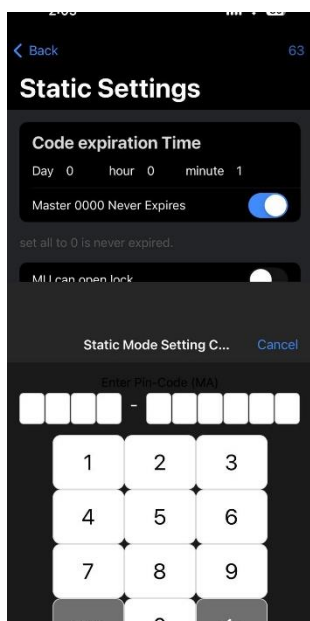
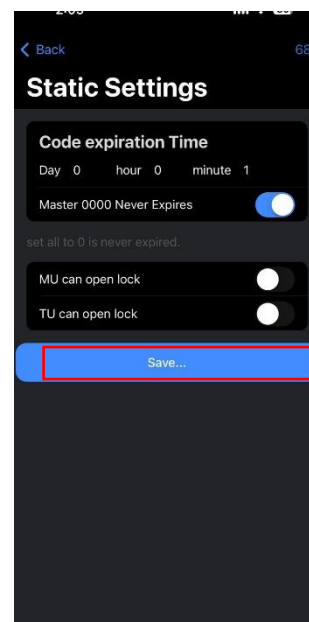
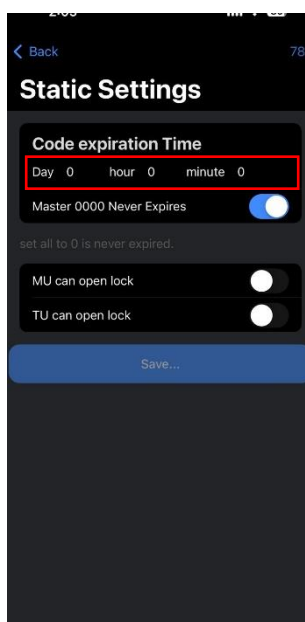
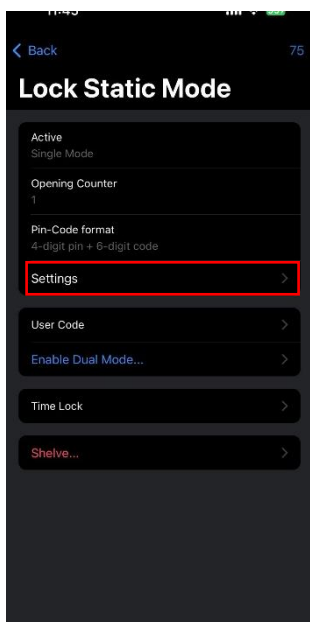
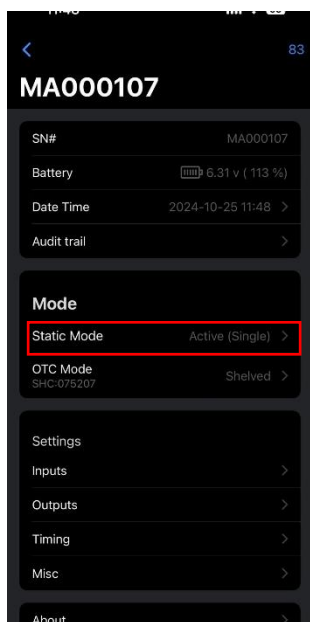
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Disable Dual Mode” -> “OK” -> enter master code





## 24. Code Expiration Time

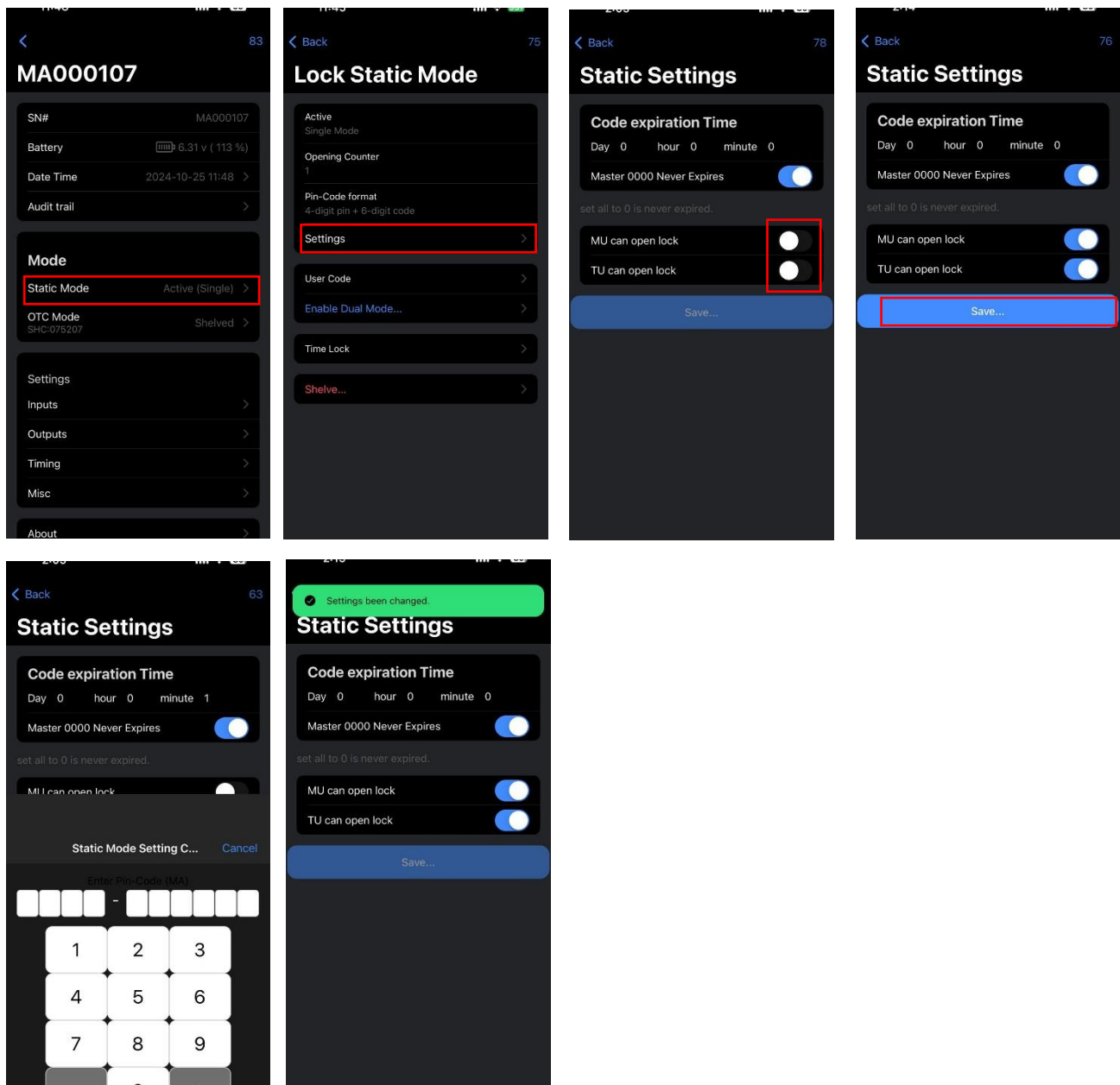
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Settings” -> change Day Hour Minute value -> “Save” -> Enter master code





## 25. Turn On/Off “MU can open lock” or “TU can open lock”

1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Settings” -> turn On/Off toggle for “MU can open lock” or “TU can open lock” -> “save” -> enter master code

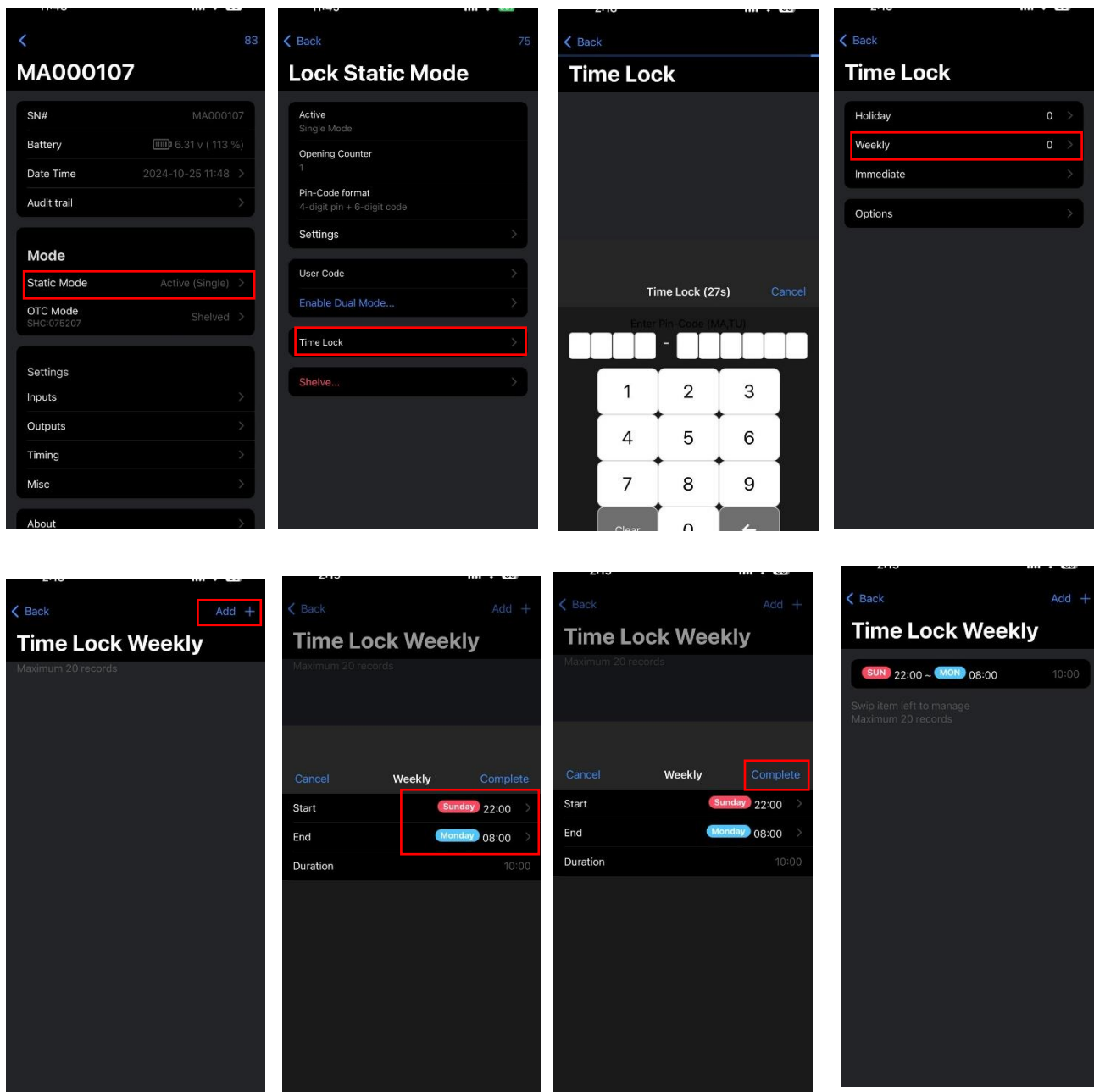






## 26. Add Weekly Time Lock

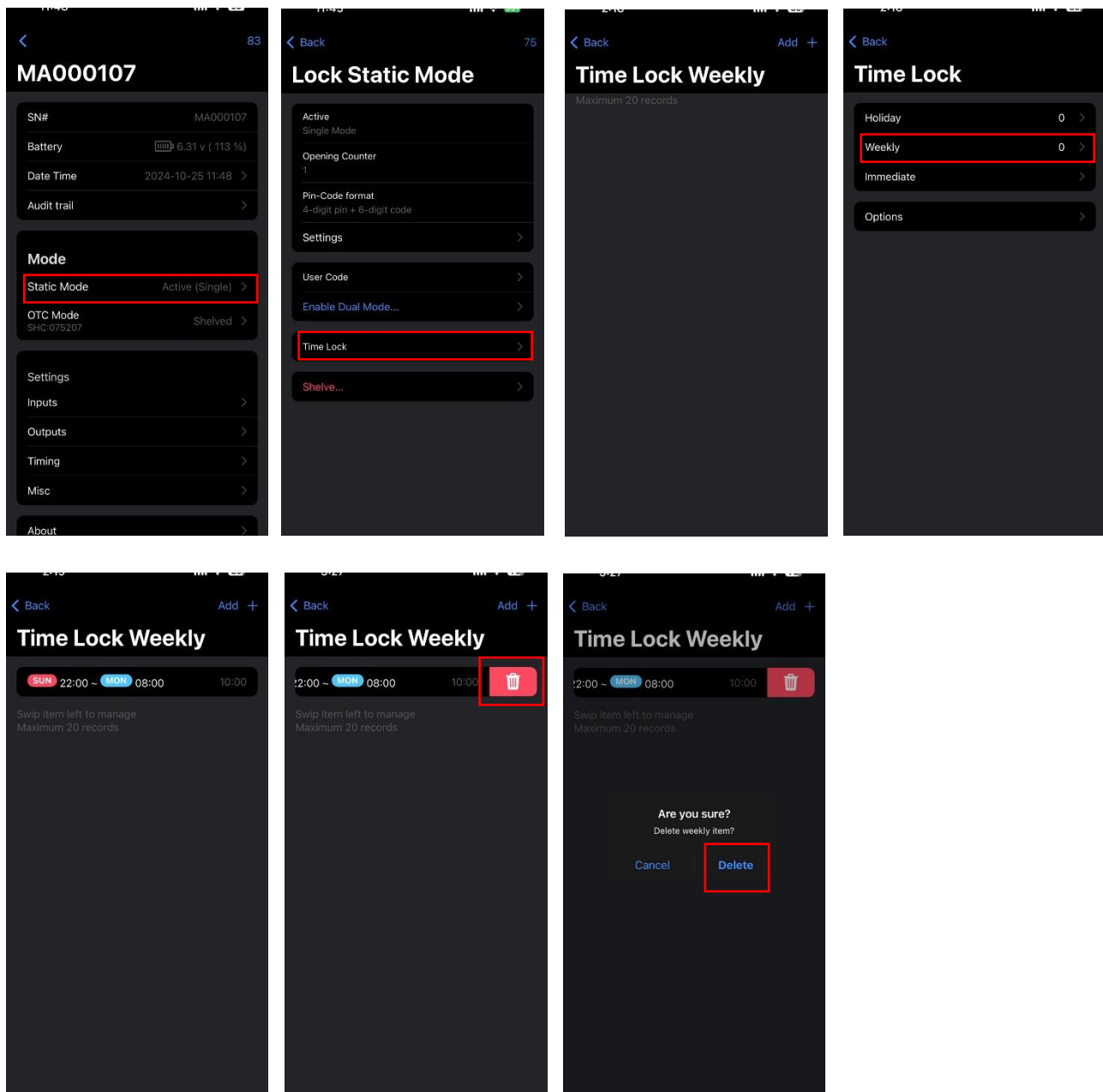
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Time Lock” -> enter MA or TU code -> “Weekly” -> “Add +” -> change start and end date/time ->





## 27. Delete Weekly Time Lock

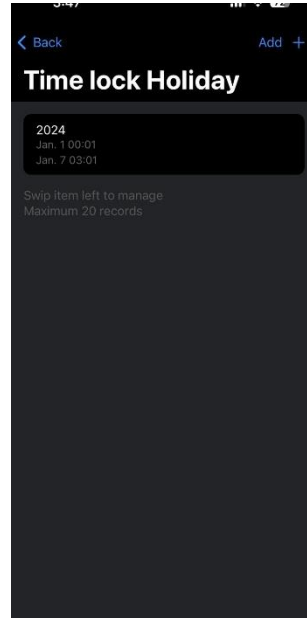
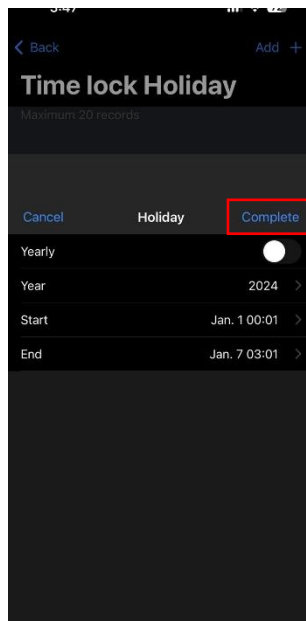
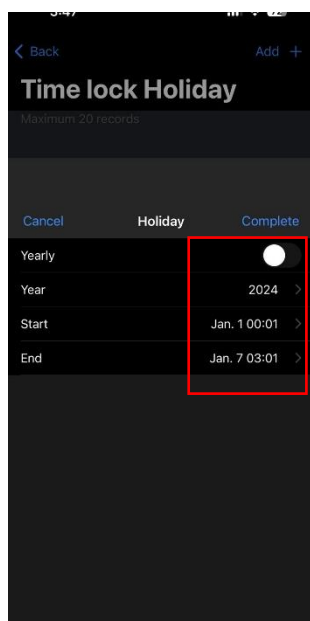
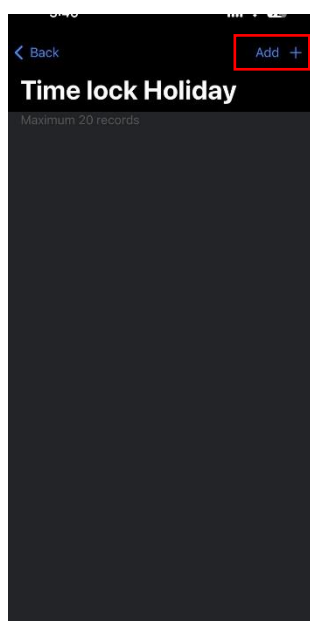
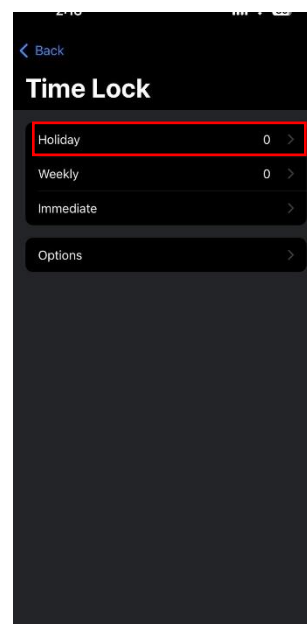
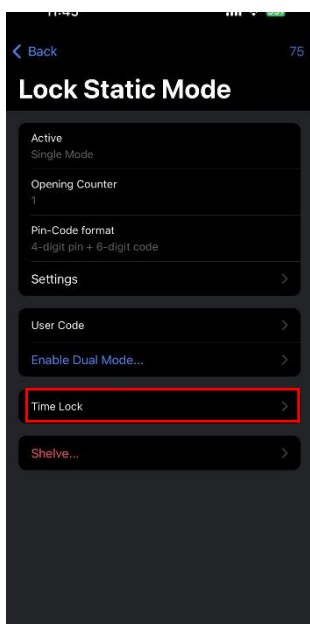
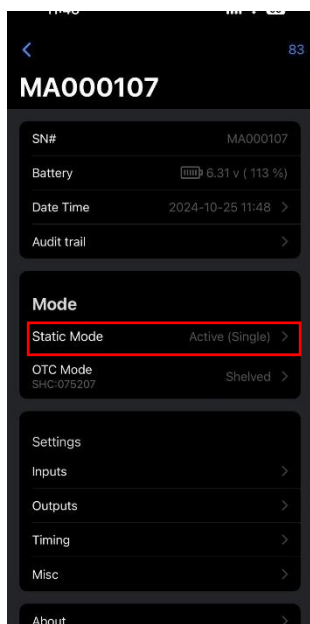
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Time Lock” -> enter MA or TU code -> “Weekly” -> swipe left on time lock record -> click bin icon -> “Delete”





## 28. Add Holiday Time Lock

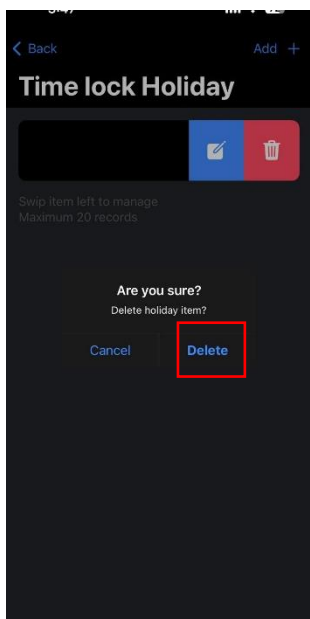
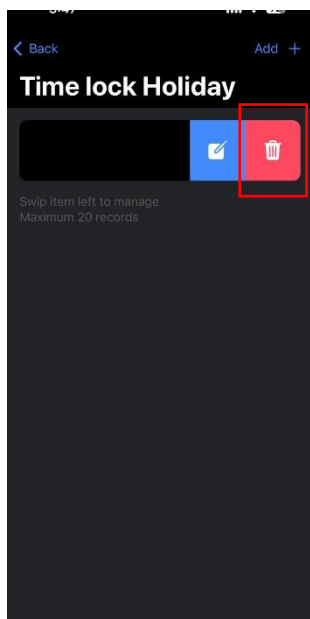
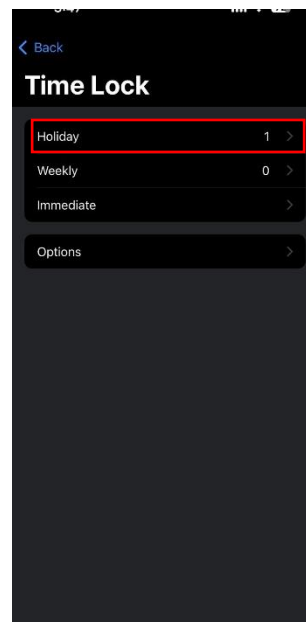
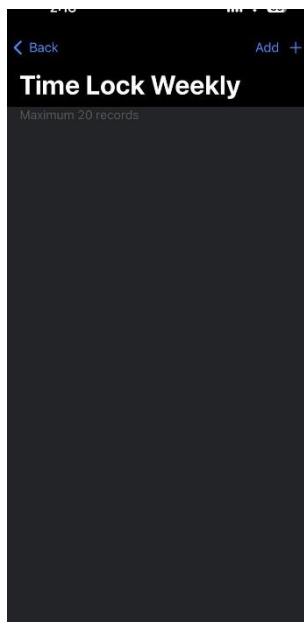
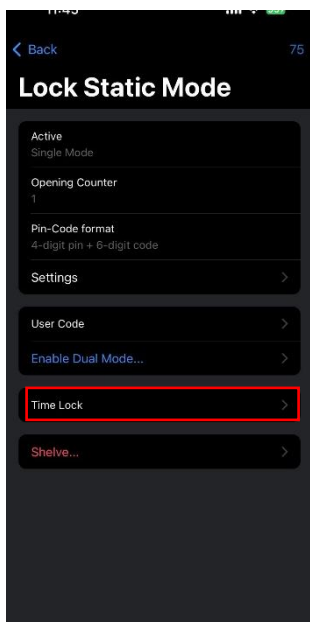
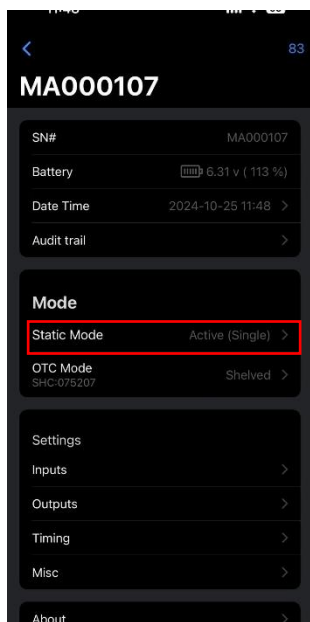
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Time Lock” -> enter MA or TU code -> “Holiday” -> “Add +” -> turn of yearly and change year, start and end -> “complete”





## 29. Delete Holiday Time Lock

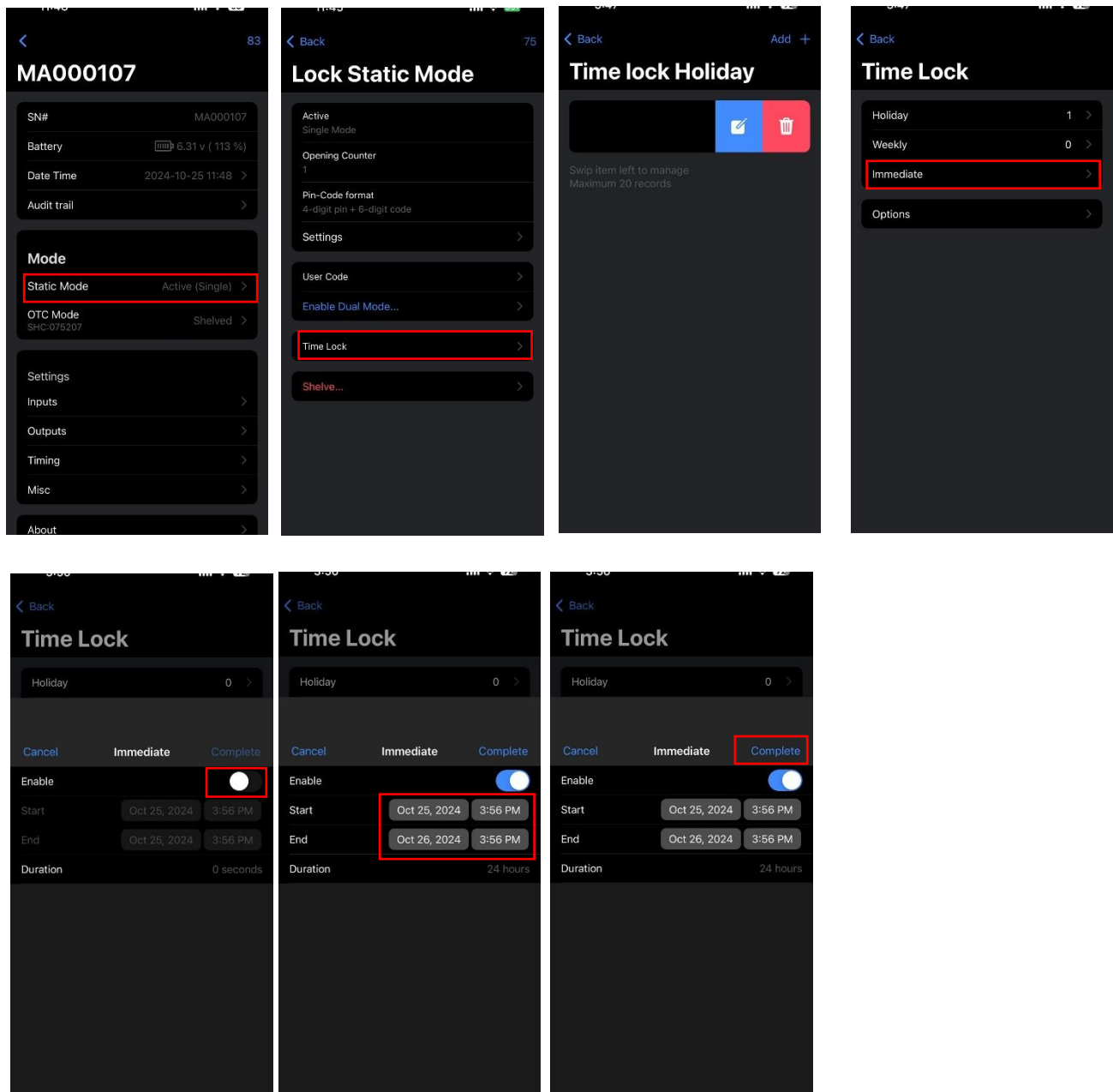
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Static Mode” -> “Time Lock” -> enter MA or TU code -> “Holiday” -> swipe left on holiday record -> click on bin icon -> “Delete”





## 30. Immediate Time Lock

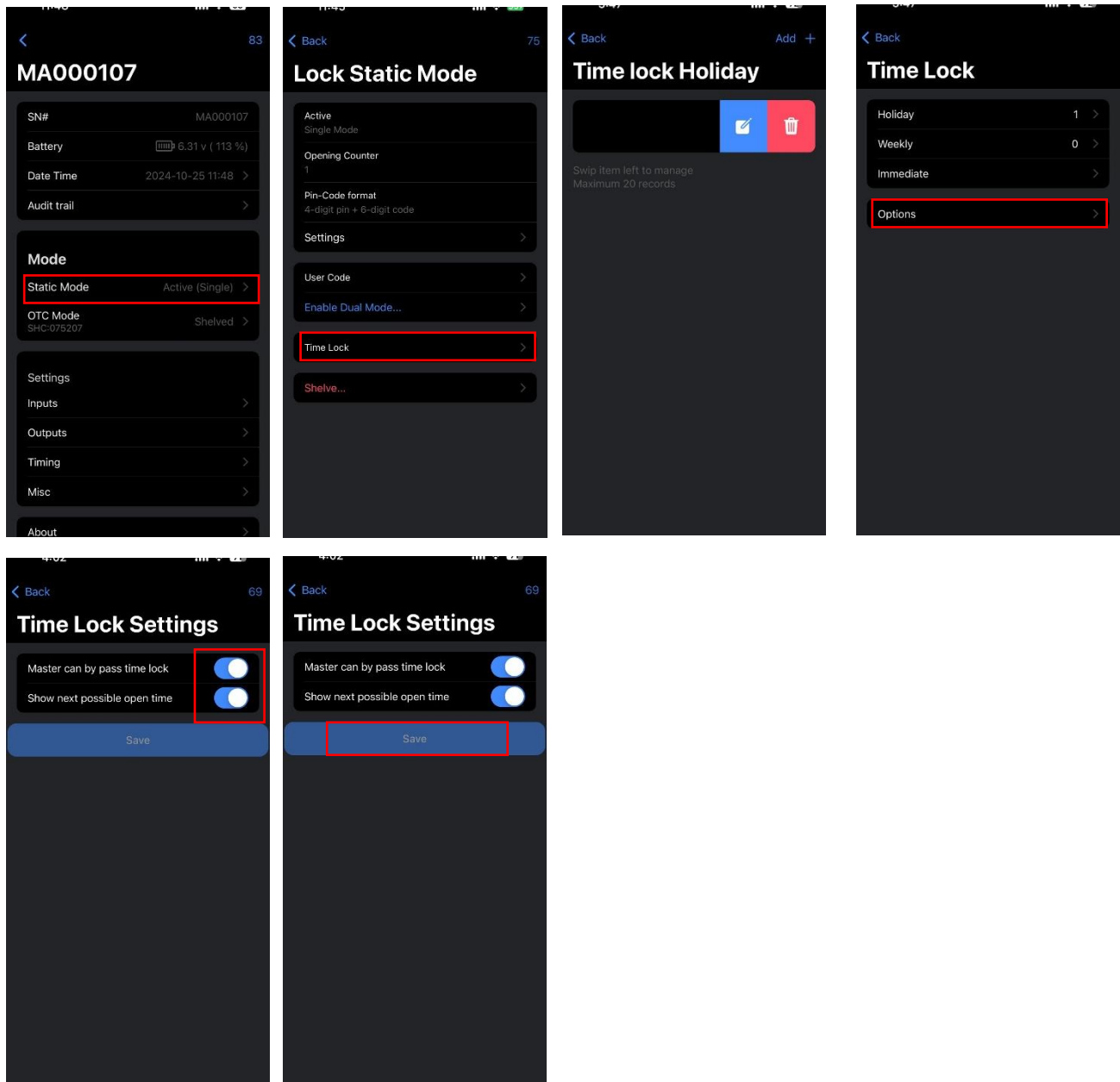
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press "C" button at lock keypad and QR code will be displayed.
4. Click "QR" at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click "Static Mode" -> "Time Lock" -> enter MA or TU code -> "Immediate" -> turn on "Enable" -> change start and end -> "complete"





## 31. Time Lock Option

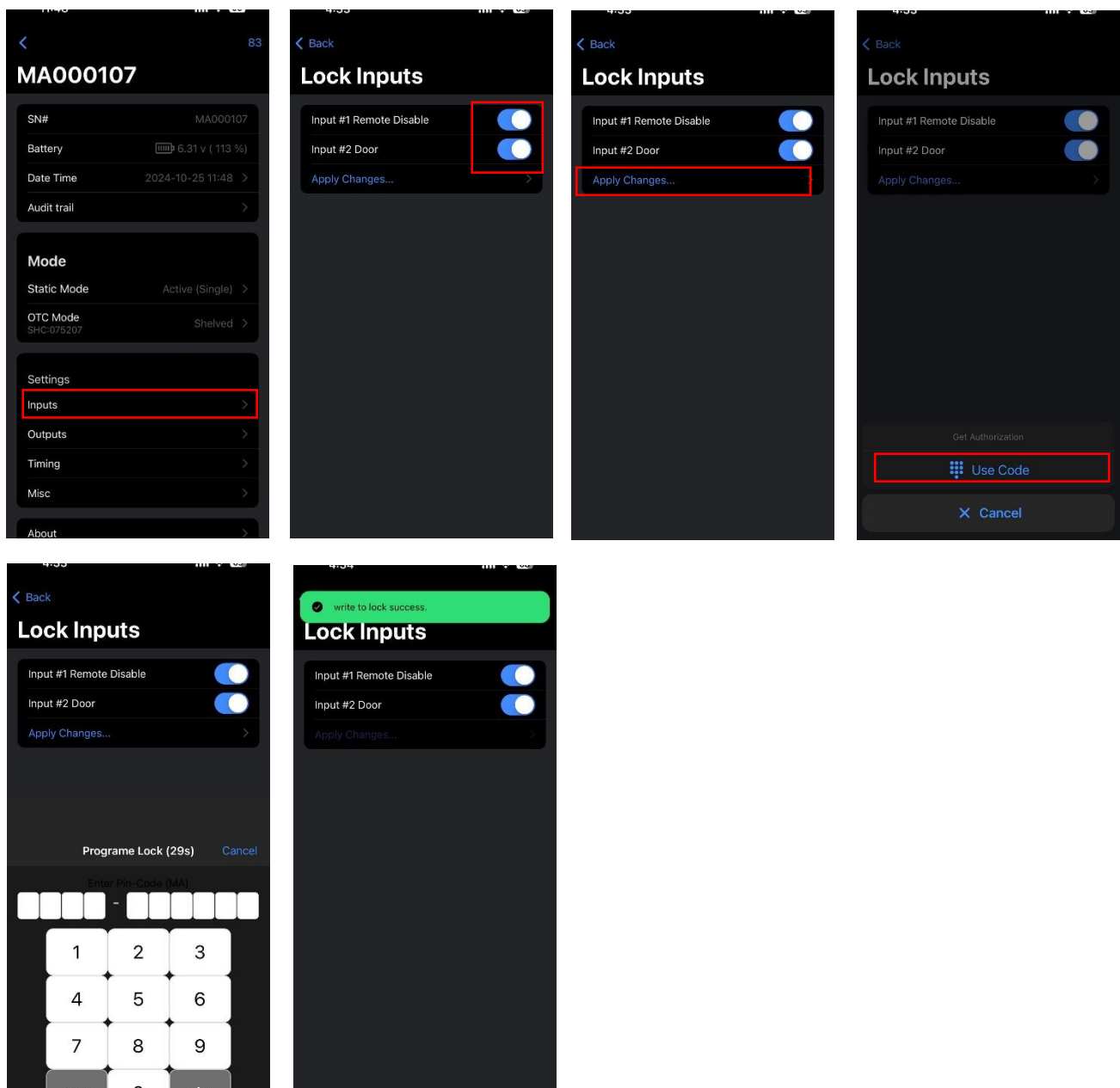
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press "C" button at lock keypad and QR code will be displayed.
4. Click "QR" at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click "Static Mode" -> "Time Lock" -> enter MA or TU code -> "Options" -> turn on/off settings -> "save"





## 32. Program Inputs

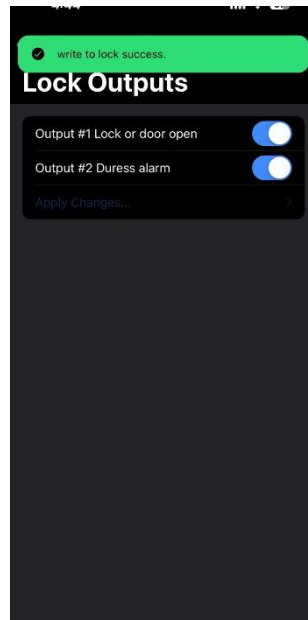
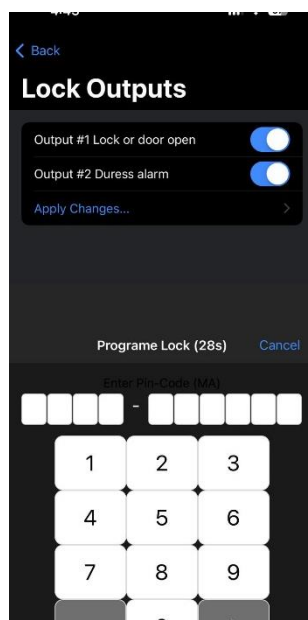
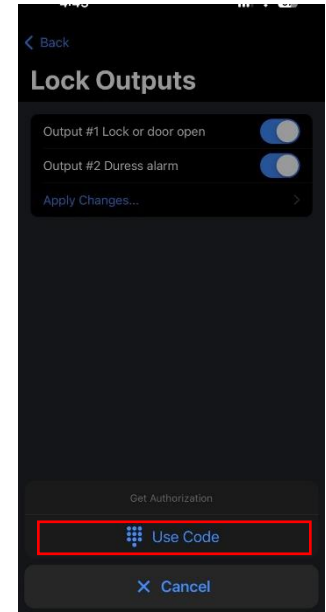
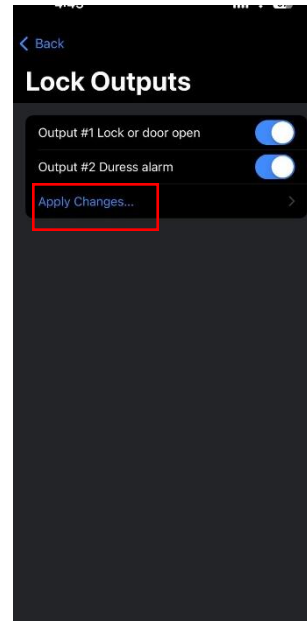
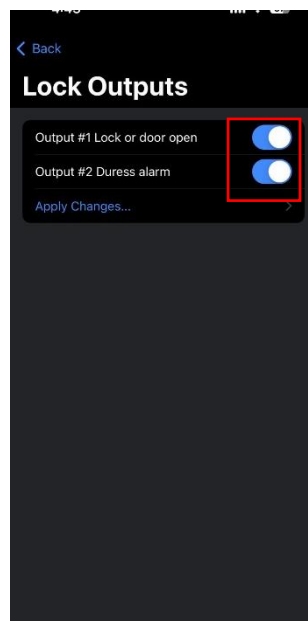
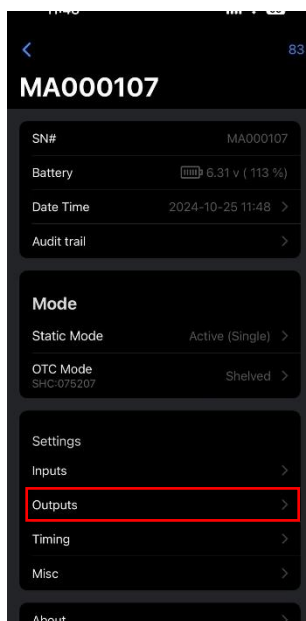
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Inputs” -> turn on/off input 1 or 2 -> “Apply changes” -> “Use Code” -> enter master code





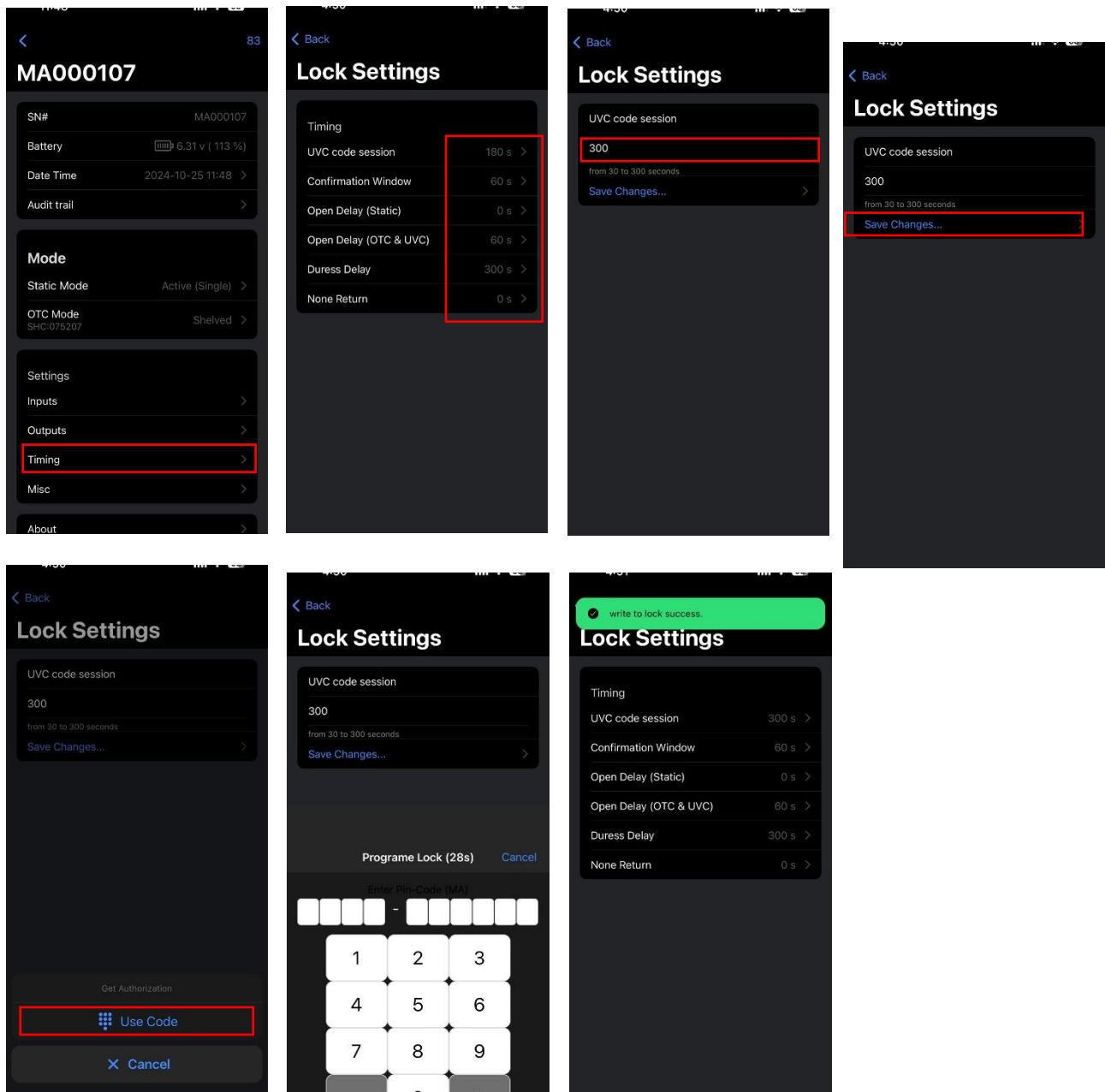
### 33. Program Outputs

1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Outputs” -> turn on/off output 1 or 2 -> “Use code” -> enter master code



## 34. Program Timing

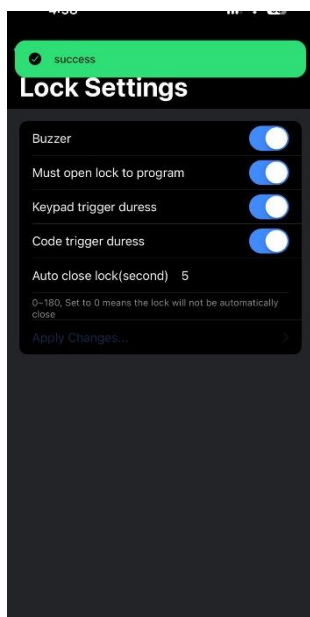
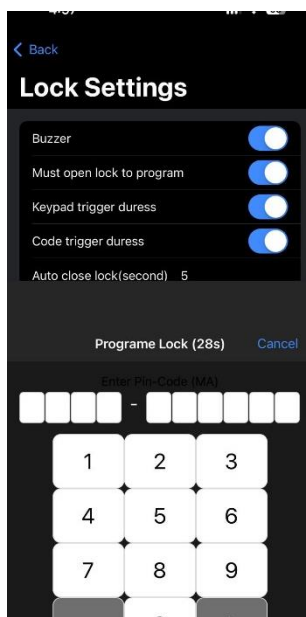
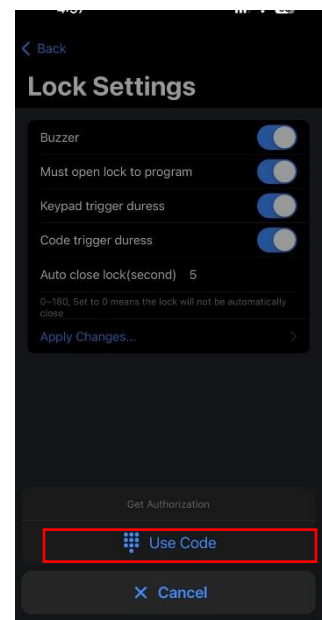
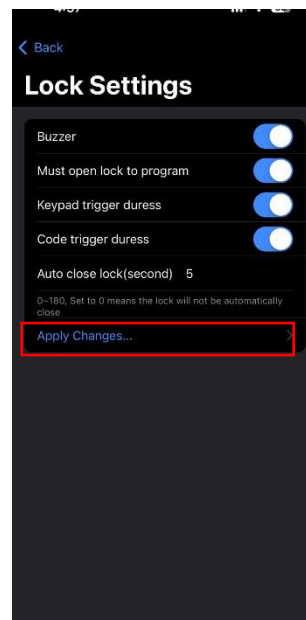
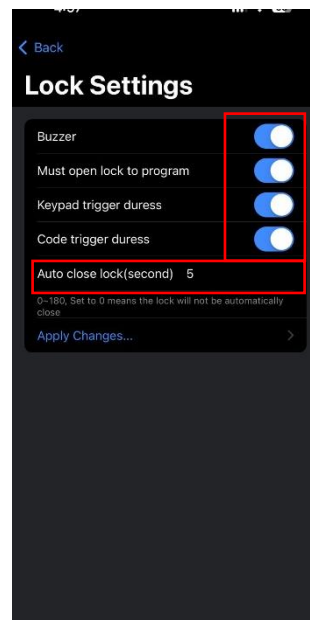
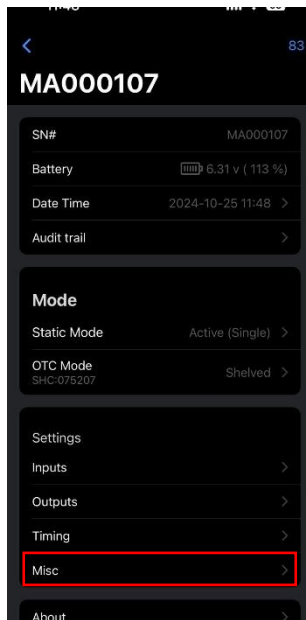
1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “Timing” -> click on item to change timing -> change the value -> “save changes” -> “use code” -> enter master code





## 35. Program MISC

1. Wake up the lock and open the lock using valid user pin and code.
2. Open A1 Toolbox app at mobile phone.
3. Press “C” button at lock keypad and QR code will be displayed.
4. Click “QR” at mobile app and scan the QR code displayed at keypad screen to connect the lock and app.
5. Click “MISC” -> turn on/off settings or change auto close lock time -> “apply changes” -> “use code” -> enter master code





## 36. Change User Code (Keypad Programming)

1. Wake up the lock and open the lock using valid user pin and code.
2. Press “S” button and change code will be displayed.
3. Press yellow “O” button at lock keypad and enter current PIN and code.
4. Enter new 6-digit code and enter same new 6-digit code to confirm and press yellow “O” button.
5. “Success” will be displayed
6. Press yellow “O” button to close the lock.