



DOOR HANDLE SET WITH ACCESS CONTROL

**ELH-60B9
BRASS**

**ELH-70B9
BRASS**

**ELH-60B9
SILVER**

**ELH-70B9
SILVER**



**ELH-80B9
BRASS**

**ELH-80B9
SILVER**



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PRELIMINARY COMMENTS

Please read this instruction manual carefully prior to installation, connection and use of the device. In case of any issues with understanding of its contents please contact the device vendor.

Self-installation and start up of the device is possible under the condition of using appropriate tools. However, it is recommended that installation of the device is performed by a qualified personnel.

The manufacturer bears no liability for damage that can result from improper installation and use of the device and performance of independent repairs and modifications.

1. GENERAL CHARACTERISTICS AND INTENDED USE

Access control door handle sets enable simple restriction of access to unauthorized persons to protected areas. They are intended for both left- and right-hand door wings, and the versatile spacing of fixing screws of 38~40.5 mm in the majority of cases enables use of a lock that has already been installed in the door.

Depending on the model, the body of the door handle set includes:

- ELH-60B9 – proximity card reader (Unique 125 kHz);
- ELH-70B9 – proximity card reader (Unique 125 kHz) and physical numerical keypad;
- ELH-80B9 – proximity card reader (Mifare 13,56 MHz), numerical touchpad with Bluetooth module, application controlled

Upon card approximation, correct PIN code entering or mobile app use, the lock is released.

Door handle sets are intended for indoor installation and are available in two colour variants – silver and antique brass.

2. AVAILABLE DOOR HANDLE SET VERSIONS



Fig. 1. ELH-60B9 brass/ silver door handle set with RFID card reader



Fig. 2. ELH-70B9 brass/ silver door handle set with RFID card reader and code keypad



Fig. 3. ELH-80B9 brass/silver door handle set with touchpad, Bluetooth module and Mifare card reader

3. SET CONTENTS:

- external door handle set with door handle, electronic access control module and built-in cylinder,
- internal door handle set with door handle, battery container and programming module,
- 2 keys for manual opening of the door in case of a failure,
- 3 non-programmed proximity cards*,
- 2 non-programmed proximity pendants*,
- installation elements,
- installation, programming and use guide.

* Elements not included in the ELH-80B9 set

4. PRINCIPLE OF OPERATION

Following an impulse from the electronic access control module, the servomotor unlocks mechanical transmission, thus enabling door opening via normal pressing of the door handle on the external door handle set. Opening is signalled via sound and LED being switched on. The waiting time for handle pressing is set by the factory for a period of approximately 5 seconds, then the transmission is locked again and the lock awaiting another impulse from the electronic access control module.

It is always possible to open the door via normal pressing of the door handle from the internal side (of the room). After the door is closed, the pawl mechanism activates immediately, disabling opening of the door from the outside without the impulse from the electronic access control module.

There is a possibility for emergency lock opening using a normal mechanical key, 2 pieces of which are provided with each door handle set with access control (item 5.4).

5. INSTALLATION OF LOCK IN DOOR

The ELH-60B9/ ELH-70B9/ ELH-80B9 sets include an arbor enabling installation of door handle sets in doors with 30~50 mm thickness.

Warning!

In the case of using ELW-06B9 spacers in doors with thickness in excess of 40 mm one should remember to replace the arbor with a longer unit (approx. 70~80 mm*).

The spacer has identical openings as the one to be performed in the door wing.

In order to increase security, it is recommended that ELH-60B9/ ELH-70B9/ ELH-80B9 control door handle sets are installed in rebated doors.

Warning!

Installation shall be performed with emergency keys at hand, as they might prove indispensable in the case of doors with non-programmed lock being slammed shut.

* Additional arbor not included.

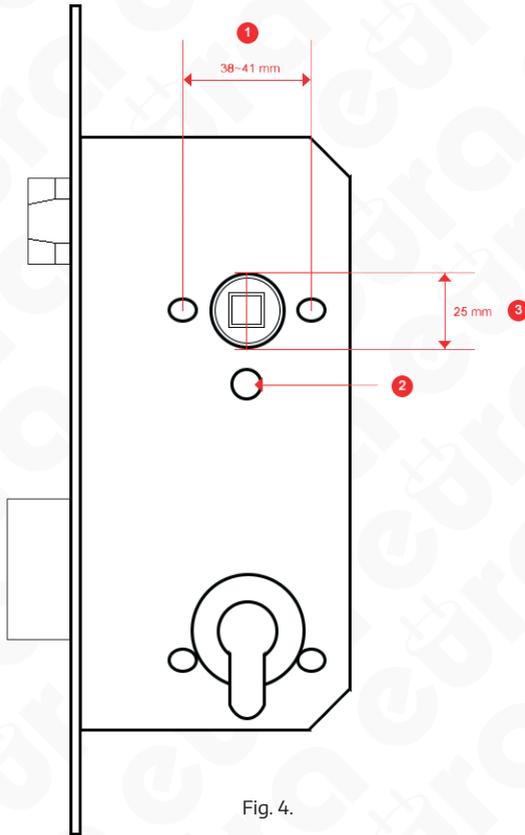


Fig. 4.

5.1. INSTALLATION IN DOOR WITH OPENINGS

In order to install the ELH-60B9/ ELH-70B9 / ELH-80B9 door handle sets, first check whether the door possesses

- a. suitable lock (Fig. 4 and installation openings for screws/ bushings with 38~41 mm spacing (Fig. 4, Item 1)
- b. cut out below the lock arbor (Fig. 4, Item 2) for the wire connecting electronics of the door handle set with the power supply.
- c. opening for the arbor socket with 25 mm diameter (Fig. 4, Item 3).

If suitable openings have been made in the door, the door handle set can be installed immediately (move to item 5.3 of this guide).

5.2. INSTALLATION IN DOOR WITHOUT OPENINGS

If the door possesses no installation openings, the lock shall be removed from the door, make sure that it complies with the standard provided in Fig. 4, and then four openings shall be drilled:

- a. two with diameter approx. 12 mm intended for connection of the internal and external part of the door handle set (Fig. 4, Item 1).
- b. one with 12 mm diameter to conduct the wire connecting the electronics with the power supply (Fig. 4, Item 2)
- c. one with 25 mm diameter intended for masking the arbor socket with locking pin (Fig. 4, Item 3).

Note

1. Template (to be cut out) with the spacing of installation openings in 1:1 scale is provided on page 13 of this guide.
2. In the case of using ELB-06B9 washers (bezels) performance of the 25 mm opening can be omitted (Fig. 4, Item 3).

5.3. SETTING HANDLE ORIENTATION (LEFT-/RIGHT-HAND DOOR)

Subsequently, check the manner of door opening, to set the door handle set handle in a proper manner. All door handle sets are universal and they can be installed on both left- and right-hand doors.

5.3.1. HANDLE ORIENTATION SETTING - FRONT OF THE DOOR HANDLE SET

In order to determine the direction of opening, just unscrew the fixing screws located under the opening plug (Fig. 5, Item 1), next to the cylinder of the door handle set lock (Fig. 5, Item 3). Then remove the handle and rotate and install again using the screw (Fig. 5, Item 2).

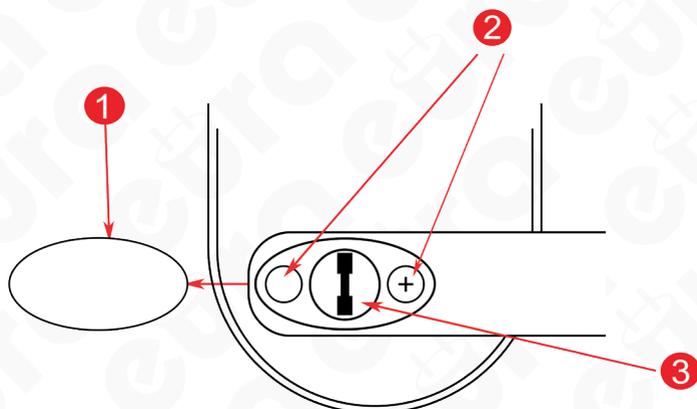


Fig. 5.

5.3.2. HANDLE ORIENTATION SETTING - BACK OF THE DOOR HANDLE SET

In order to determine the direction of handle opening, unscrew the fixing screw located on the internal portion of the door handle set (Fig. 6, Item 1), then change its position and install the handle again using the fixing screw.

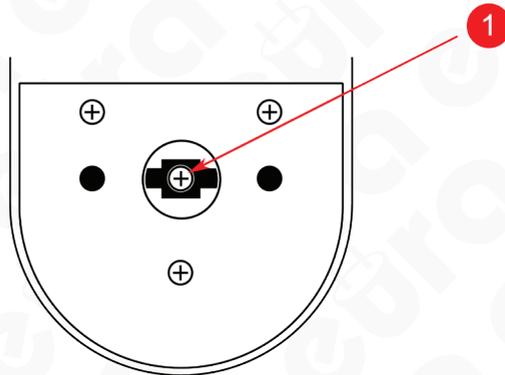


Fig. 6.

5.4. EMERGENCY ENTRANCE

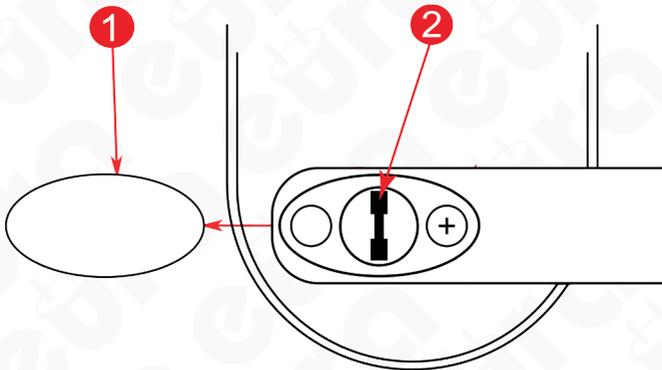


Fig. 7.

In the case of a necessity to enter the room, the following shall be done using the emergency key:

- remove the hole plug (Fig. 7, Item 1),
- insert the emergency key in the patent lock (Fig. 7, Item 2),
- by turning the key 90 degrees to the right unlock the door handle set mechanism,
- by pressing down the handle enter the room.

5.5. SETTING AND INSTALLATION OF THE ARBOR IN THE DOOR HANDLE SET

The arbor shall be placed in the socket located in the device body marked with triangle (Fig. 9, Item 10), and the install the locking pin located in the accessory set.

Warning!

By installing the pin in the arbor remember that the element located on the lock body is directed towards the handle (Fig. 9, Item 10 and item 5.3).

Having placed the pin adjust it so that it fits the prepared opening of the arbor socket.

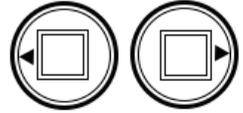


Fig. 8.

5.6. ELECTRIC CONNECTIONS

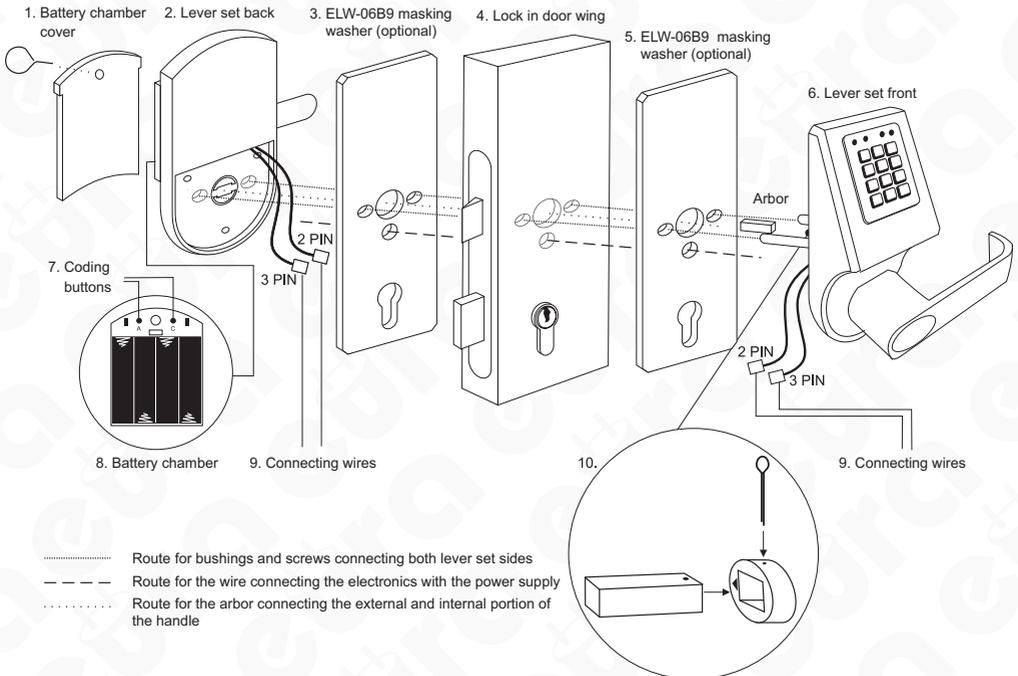


Fig. 9.

The electromechanical lock door handle set is supplied by DC 6 V power (4 x alkaline battery type AA 1.5 V).

To install the lock door handle set in door:

- use the existing one or prepare installation holes in accordance with the template provided on page 13 of this guide,
- screw the installation bushings into the screw union of the internal part of the door handle set,
- insert connection wires from the external portion of the door handle set into the opening made under the arbor opening,
- put the external portion of the door handle set with connecting bushings through the door wing with the lock installed,

- place the internal portion of the door handle set and screw the fixing screws into the openings located next to the handle, into the bushings in the external portion,
- remove the cover of the battery chamber (Fig. 9, Item 1) using a special key included in the set or other sharp tool
- place 4 alkaline 1.5 V batteries type AA into the power supply chamber,
- code the lock (see item 7)
- close the battery chamber.

Warning!

It is recommended that installation and programming of the door handle set is performed with the door wing open, upon check of the operation the door can be closed.

After the first insert of batteries, the door handle set automatically enters the set status, thus it should be remembered to insert batteries only after the door handle set is installed in the door wing. If the batteries have been inserted earlier, to open the door use the emergency key, which is recommended to be at hand during installation.

6. PROGRAMMING AND OPERATING ELH-60B9/ELH-70B9 DOOR HANDLE SETS

The battery chamber is located on the external portion of the door handle set (installed from the side of the room). Prior to the first start up and programming of the lock, place 4 working 1.5V batteries type AA in the battery chamber and connect all plugs in accordance with the chart shown in Fig. 9, Item 9.

Warning!

For the door handle set to operate properly, it is recommended to use alkaline batteries, and not rechargeable batteries.

After the batteries are partially depleted, low power supply status will be signalled through a red LED, yet approximately 100 lock opening cycles will still be possible to perform. The lock programming is simple and secure. Programming buttons are located on the internal side of the door handle set, that is from the room side. These are the buttons marked as 'A' and 'C' in Fig. 9, Item 7.

The lock models with numerical keypad (encoder) have the so called 'transfer function' active, that is after their installation, door can be opened using the default code '88888888'. This function is active only until the first programming of the target code.

6.1. PROXIMITY CARD PROGRAMMING (RFID)

Every set includes 3 non-programmed proximity cards and 2 pendants. Up to 100 user cards can be programmed per one lock. Card programming is done as follows:

- remove the cover of the battery chamber (Fig. 9, Item 1) using a special key included in the set or other sharp tool,
- single pressing of the 'A' button (Fig. 9, Item 7), will result in activation of the coding mode, which will be signalled by blue LED,
- approximate the programmed RFID card within 6 seconds, the speaker will generate a brief sound, the blue LED will be flashing,
- in order to program a larger number of RFID cards, approximate subsequent cards at intervals shorter than 6 seconds (when the blue LED is flashing)

6.2. ACCESS CODE PROGRAMMING

ELH-70B9 door handle set models, apart from the card reader are equipped with numerical keypad, enabling access to the protected zone using a digital code (PIN). After the entire lock is assembled and connected to power supply, the access cards can be programmed to cooperate with the lock (in the manner described in the chapter no. 8.1). A possibility exists to program up to 25 various digital access codes with the length from 6-10 digits. Each code at the moment of programming as well as lock release shall be finished with the '#' button. PIN code programming is done as follows:

- remove the battery chamber cover (Fig. 9, Item 1) using a special key included in the set or other sharp tool,
- single pressing of the 'A' button (Fig. 9, Item 7), will result in activation of the coding mode, which will be signalled by green LED,
- enter a new access code within 6 seconds, finish the code with the '#' button, speaker generates a brief sound, green LED will be flashing,
- repeat the access code enter to confirm the operation, finish by pressing the '#' button, a longer sound in the speaker will mean successful code programming.

When programming RFID cards and digital codes at the same time, a possibility for an alternative access to the room will exist – using a code or a card.

ELH-70B9 door handle sets possess an active lock function. After 3 erroneous attempts to enter an incorrect access code, the set is automatically locked for the period of approx. 3 minutes. This status can be determined by the absence of sound reaction to pressing the '#' button.

Warning!

The access code programmed by factory is '88888888'. Upon programming of a new access code by the user, the factory access code becomes invalid.

6.3. DELETING CARDS AND CODES

In order to delete RFID cards or access codes from the system in any version of the lock, the lock initialization function shall be started, which deletes all previously entered settings. Lock initialization function is performed as follows:

- remove the cover of the battery chamber (Fig. 9, Item 1) using a special key included in the set or other sharp tool,
- press and hold the 'C' button for about 6 seconds (Fig. 9, Item 7), after that the speaker generates a brief sound, and the red LED switches on, and the second sound signal appears in the speaker,
- after the first signal, release the 'C' button, the red and green or blue LEDs (depending on model) will be flashing interchangeably, longer sound in the speaker will mean successful initialization of lock settings.

Warning!

It is not possible to remove a single card or code.

7. PROGRAMMING AND OPERATING ELH-80B9 Door handle SET

Prior to the first start up and programming, place 4 working 1.5 V batteries type AA in the battery chamber and connect all plugs in accordance with the chart shown in Fig. 9.

Note: For the door handle set to operate properly, it is recommended to use alkaline batteries, and not rechargeable batteries.

The battery status will be visible in mobile application after synchronization of the app with the door handle set.

In order to program the ELH-80B9 Door handle set with access control, download the TTLock app from GooglePlay for Android devices or from AppStore for iOS devices, and then follow the below instruction.



7.1. ACCOUNT REGISTRATION IN TTLOCK MOBILE APP

- 7.1.1. in the upper right corner click 'Register';
- 7.1.2. select registration mode by phone/e-mail;
- 7.1.3. enter the phone number/e-mail address;
- 7.1.4. set the password;
- 7.1.5. select the verification code by clicking 'Get code';
- 7.1.6. enter the code provided via text message/e-mail;
- 7.1.7. provide answers to security questions in the case of the password being lost - answer 3 questions selected from the list of suggestions.

7.2. LOGGING IN TO THE TTLOCK APP

After the account is created, log in to the app by entering your phone number/e-mail address and the set password.

7.3. ADDING ELH-80B9 DOOR HANDLE SETS WITH ACCESS CONTROL

First adding

In the case of adding the first device, click in the round field of the start screen with inscription '+Add lock', and then move to the activities described from item 7.3.3

Adding further devices

- 7.3.1. Click the icon with 'user' in the left upper corner of the app, which is followed by the app's main menu appearing;
- 7.3.2. from the main menu select first position '+Add locks';
- 7.3.3. if Bluetooth is not switched on, the app will ask for initiating, agree to add a lock;
- 7.3.4. from the selection menu of device types, select the first position 'Door Lock';
- 7.3.5. in order to introduce electronics into pairing state, hold the door handle set keypad until the illumination appears;
- 7.3.6. After searching is finished, the app will show the list of found devices.
- 7.3.7. select the added device from the list. Note: in order to pass through the pairing process easily, add devices one by one and check if the device's keypad is illuminated;
- 7.3.8. having selected the device, the app will move automatically to the main menu of door handle set management.
- 7.3.9. then, select option Setting(see item 7.4.8) and then Clock, which opens the LOCK CLOCK page, where the time shall be synchronized by clicking Adjust Clock

7.4. OPERATING THE DEVICE

- 7.4.1. The lock icon in the upper portion of the app screen enables releasing the lock that remains in the range of the Bluetooth transmitter in the device with the app installed.
- 7.4.2. „**Send eKey**” - eKeys are access keys, which can be send to other app users, typically dedicated to the personnel operating the protected room. These keys enable opening lock that remains within the range of Bluetooth transmitter, in order to send the eKey:
 - 7.4.2.1. select the eKey icon;
 - 7.4.2.2. select the key type by clicking 'Type' - you can choose between:
 - timed
 - permanent
 - one-time;
 - 7.4.2.3. in the 'Account' field enter the account name of the user, who is provided with the key;
 - 7.4.2.4. in the 'Name' field enter the key name;
 - 7.4.2.5. in the case of a timed key, specify its period of validity
 - 7.4.2.6. send the key by clicking 'Send'.

In order to open door using an eKey, click the lock icon in the app.

- 7.4.3. „**Send Passcode**” - these are access codes sent to door handle set users (guests, employees, visitors), in order to send an access code, click 'Send Passcode' icon, and:
 - 7.4.3.1. select the code type:
 - **permanent** - the code must be used at least once within 24 h from being established, otherwise it loses validity;
 - **timed** - the code must be used at least once within 24 h from being established, otherwise it loses validity;
 - **one-time** - single-use code - the code must be used at least once within 6 h from being established, otherwise it loses validity;
 - **erase** - erasing code, should be used within 24h, otherwise it expires. After its application all codes assigned to the given device are erased. In order for the code list in the app to be cleared, perform app and door handle set synchronization, this is best done using door opening via the lock icon;
 - **customized** - manual code - enables full personalization of code thanks to the possibility to select the operation time and the code number (4-9 signs);
Note: option available only in the case when the mobile device remains within the operating range of the door handle set's Bluetooth module;
 - **cyclic** - cyclic code enables setting access according to the scheme, it is possible to select the day of the week and hours for the code to work - the code must be used at least once within 24 h since being established, otherwise it loses expires.
 - 7.4.3.2. generate code by clicking 'Generate'
 - 7.4.3.3. click the icon of square with arrow in the upper right corner of the app.

7.4.3.4. From the list, select the code transmission method:

- **WeChat** - the code will be sent via WeChat app, under the condition the WeChat app is configured;
- **Text Meg** - the code will be sent via a text message- the text message will contain a template with information on the access code, its expiry date etc. - it is possible to edit any text messages;
- **E-mail** - the message will be sent via e-mail, under the condition of possessing configured e-mail account on the mobile device.

7.4.4. **eKeys** - list of generated and sent access codes - with information on keys - key type, activity status - it is possible to remove the given key from the list, in order to remove press and hold the given key until 'Delete' button appears, upon its clicking the key becomes permanently deleted.

NOTE: Removing an active key from the list in the app prior to its expiration is possible, in order to remove, the device with the app must be connected to the Internet, and the key will be removed only when the person receiving the key is also connected to the Internet. Information on premature key removal will be downloaded from server.

All keys can be deleted from the list at once:

- click the icon with three dots in the upper right corner of the app;
- select reset eKeys;
- confirm that you want to reset keys - enter the password of the app administrator.

7.4.5. **Passcodes** - list of generated and sent access codes - with information on codes - type, activity status - it is possible to remove the given code from the list, in order to remove press and hold the given code until 'Delete' button appears, upon its clicking the key becomes permanently deleted.

NOTE: In order to remove a permanent code, one must remain within the range of the Bluetooth transmitter built in the door handle set.

All codes can be deleted from the list at once:

- click the icon with three dots in the upper right corner of the app;
- select reset passcodes;
- confirm that you want to reset codes - enter the password of the app administrator.

7.4.6. **IC Cards** - door handle sets with access control possess Mifare 13.56 MHz card reader built in. By clicking the IC Cards icon, the card management panel is opened. In order to add the Mifare card:

- click the icon with three dots in the upper right corner;
- select 'add IC Cards' option;
- enter the card name in the 'Name' field;
- select the access type - permanent or timed;
- in the case of a timed access being selected, specify its period of validity;
- click OK and wait for signal from the door handle set;
- after the sound message, place card near the '2' digit in the numerical keypad of the device;

All cards can be deleted from the list at once:

- click the icon with three dots in the upper right corner of the app;
- select 'Clear IC cards';
- confirm that you want to reset cards - enter the password of the app administrator.

7.4.7. **Records** - device logbook.

7.4.8. **Settings** – clicking the Settings icon provides us with information on the device:

- lock id - lock no.;
- MAC - MAC address;
- Battery - battery status;
- Validity - access validity;
- Lock name - here you can enter the lock name, e.g. Room 308;
- Group - lock group- here you can create a group, to which door handle sets can be assigned, e.g. Floor 1;
- Admin passcode - administrator code;

Lock clock - option for synchronization of app and door handle set clocks;

Fault Diagnosis - diagnosis of issues with the lock;

Lock upgrade - software update;

Attendance - attendance;

Unlocking alert - information on the door handle set being unlocked.

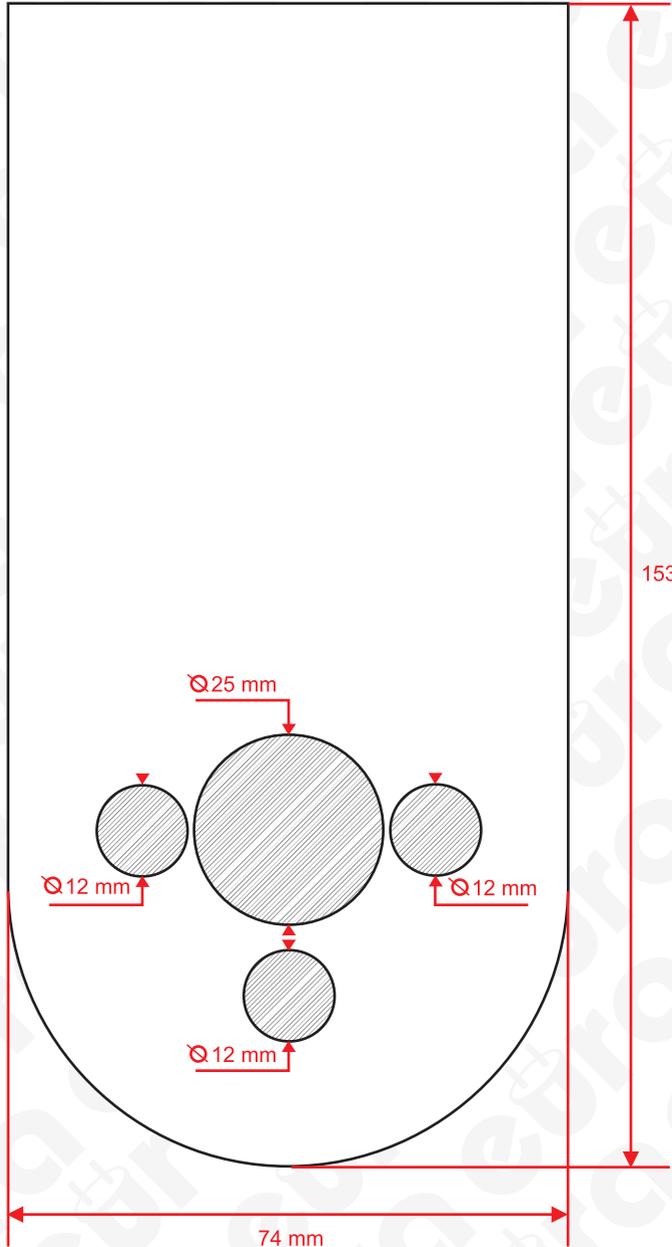
Warning!

Following each battery exchange it is necessary to perform synchronization of the door handle set's clock with the app's clock, if synchronization is not performed the codes may not work correctly.

8. TECHNICAL SPECIFICATION*

PARAMETR	ELH-60B9 SILVER/ BRASS	ELH-70B9 SILVER/ BRASS	ELH-80B9 SILVER/ BRASS
Power supply voltage	6 V DC		
Power supply type	Alkaline batteries (4 x AA 1.5V) or power supply unit.		
Energy consumption - standby / operation	12 μ A / 6.4 mA	16 μ A / 72 mA	<18 μ A / 95 mA
Max. no. of users	100 cards	100 cards + 25 codes	no limit
Permissible relative humidity	<80%		
Intended for	left-/right-winged doors		
Case material	Zinc alloy		
Time of release impulse	Approx. 5 sec.		
Recommended installation site	indoors		
Proximity reader	Unique 125 kHz	Unique 125 kHz	Mifare 13.56 MHz
Encoder	No	Mechanical	Touch
Fingerprint reader	No		
Bluetooth	No	No	Yes
Bluetooth transmitter power output	4dB		
Temperature operating range	-10°C ~ +70°C		
Protection coefficient	IP20		
Dimensions of the external door handle set (H x W x T)	154 x 74 x 77 mm		
Dimensions of the internal door handle set (H x W x T)	152 x 76 x 70 mm		
Net weight	1660 g		

*the manufacturer reserves the right to make changes to the technical parameters without prior notice.



153 mm

Ø 25 mm

Ø 12 mm

Ø 12 mm

Ø 12 mm

74 mm



WARRANTY

As the only distributor of the Eura products, Eura-Tech is obliged to ensure efficient warranty and post-warranty service. In the countries where Eura-Tech has neither its own service network, nor DOOR-TO-DOOR service, the quality claims are dealt with by authorised distributors of the Eura products on the basis of the signed distribution agreements. Within the framework of such agreements, Eura-Tech will ensure financing of the possible repairs and delivery of spare parts.

Eura-Tech Sp. z o.o. hereby declares that the radio equipment type - ELH-80B9 access control door handle set - is in accordance with Directive 2014/53/EU.

Full text of the EU declaration of conformity is available under the following web address:
www.eura-tech.eu



2018/04

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The EU declaration of conformity of the given device is provided on the <http://www.eura-tech.eu> website