Escape route technology

HI-O TECHNOLOGY™

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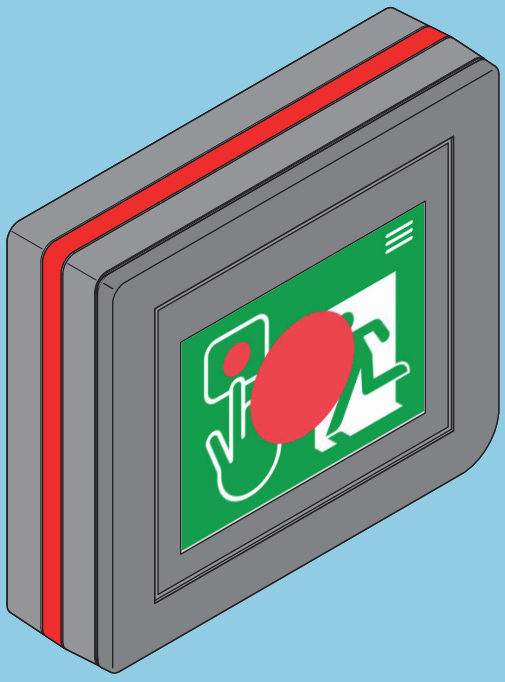

# ePED® display door terminal 1386D10

effeff

ASSA ABLOY

## Installation and Operating Instructions

D0117000

ASSA ABLOY, the global leader in door opening solutions

EN

**Read this manual thoroughly before use and keep it in a safe place for later reference. The manual contains important information about the product, particularly for the intended use, safety, installation, use, maintenance and disposal.**

**Hand the manual over to the user after installation and pass the manual on to the purchaser together with the product if the product is sold.**


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| | | |
|---|---|---|
| **1386D** | **Firmware AP** | Version 3.3.0 |
| | **Firmware SW** | Version 0.1.64 |
| **1386S** | **Firmware AP** | Version 3.3.0 |
| | **Firmware SW** | Version 0.1.64 |

Authorisation codes for user groups

| | |
|---|---|
| **Code for the user group control (must be changed)** | 1 2 3 4 |
| **Code for the user group settings (must be changed)** | 7 7 7 7 |
| **Code for the user group installation (must be changed)** | 7 8 9 0 |

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D0117000 11.2019

# Table of contents

# Notes

## About this manual

**Target group**

The product must be installed and configured by an electrical engineering specialist. Assembly work must be carried out by a specialist in the relevant trade or suitably qualified personnel depending on the type of work.

**Meaning of the symbols**

### Danger!

**Safety notice:** Failure to observe these warnings will lead to death or serious injury.

### Warning!

**Safety notice:** Failure to observe these warnings can lead to death or serious injury.

### Caution!

**Safety notice:** Failure to observe these warnings can lead to injury.

### Attention!

**Note:** Failure to observe these warnings can lead to property damage and impair the function of the product.

### Note!

**Note:** Additional information on operating the product.

## Safety instructions

### Warning!

**Danger arising from modification of the product:** The safety features of this product are an essential requirement for its conformity with EltVTR. No changes which are not described in this manual may be undertaken.

**Danger due to missing Emergency Open button on the escape door:** If the release of the escape door is centrally controlled, it is no longer possible to independently choose to exit the danger area in the case of danger. This always requires an approval from the responsible inspection authority. Normally, a constantly manned station equipped with a central release mechanism is prerequisite for the approval.

**Danger due to faulty commissioning:** In order to ensure the safety of the product, commissioning must be performed by a qualified person. *ASSA ABLOY Sicherheitstechnik GmbH* offers training for qualification in the requisite skills.

**Danger due to faulty maintenance:** The owner is responsible for correct installation and functional inspection of the product and connected components. The safe function must be tested by a trained qualified expert at least once per year. Requirements established by inspection authorities must be complied with. *ASSA ABLOY Sicherheitstechnik GmbH* offers training for qualification in the requisite skills.

**Danger arising from tampering or improperly performed repairs:** If the *ePED® 1386D10 door terminals* or parts of the device cannot resume normal operation after a fault or alarm message, or damage is present, the device may only be repaired by a qualified person. Please contact the customer service of the installation company or the support department of *ASSA ABLOY Sicherheitstechnik GmbH*.

**Danger due to unauthorised tampering:** The authorisation codes (Page 2) set at the factory are publically accessible and can be misused. Change the authorisation codes before the *ePED® 1386D10 door terminal is* freely accessible. Always use different codes for the user groups („Authorisation codes“, Page 13) (between four and eight digits). Keep codes that are written down in a safe place.

## Intended use

Electrical locking devices of doors along escape routes are intended for use in commercial applications.

The product has been designed for the safeguarding of escape routes and has been tested according to the requirements of EltVTR. Deviating uses or device combinations not described in the approval are not permitted.

*ASSA ABLOY Sicherheitstechnik GmbH* can provide the necessary planning information for approved solutions and the device combinations required for your application. The usage must be coordinated with the requirements of the inspection authorities. Please contact the responsible inspection authority for this purpose.

Compliance with all relevant inspection authority requirements is mandatory for the use, particularly with respect to the

- coordination of the safety concept with the responsible inspection authority and
- modifications of door elements.

The device is suitable for installation, configuration and use, according to these instructions. Any use beyond this is deemed as non-intended use; device combinations which are not described are not permitted.

## Fitting

**Prerequisites**

Plan and install the wiring before the *ePED® 1386D10 door terminal* has been mounted (manual *D01021xx ePED® Hi-O Technology™ bus*).

### Note!

**Protection rating IP30 must be achieved:** Switch boxes („Mounting/removing the display“, Seite 10) which achieve a minimum protection rating of IP30 must be used for the installation.

### Attention!

**Limitation of function with incorrect operating voltage at the components:** A mains adapter in accordance with DIN EN 60950-1 SELV must be used. Separate mains adapters must be connected for the supply of devices with power consumption higher than 100 VA. The appropriate mains adapter, cable lengths, and cable cross sections must be chosen according to the local circumstances. Check and ensure that the operating voltage at the connection points is suitable for the components.

**Identification of the cable**

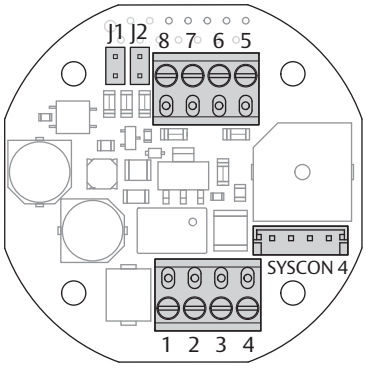
### Note!

**Choose uniform identification for avoidance of errors:** In order to avoid errors and for a clearer overview during installation and maintenance, *ASSA ABLOY Sicherheitstechnik* recommends uniform identification and colour coding of the cable cores Tab. 1 and Fig. 1.

*Tab. 1: Colour coding for wiring*

| | Function | Terminal | Colours | | Typical CAN bus |
|---|---|---|---|---|---|
| | | | Hi-O | J-Y(ST)Y 4x2 | |
| Hi-O | CAN_H | 1 | wt | wt/br | ✓ |
| | CAN_L | 2 | br | br | ✓ |
| | $V_B$+ | 3 | gn | gn | |
| | GND | 4 | ye | wt/gn | ✓ |

*Fig. 1:*
*Connections*




| Terminal strips | | |
|---|---|---|
| 1 | CAN_H | wt |
| 2 | CAN_L | br |
| 3 | $V_B$+ | gn |
| 4 | GND | ye |
| | | |
| 5 | In $V_B$+ | |
| 6 | In $V_B$– | |
| 7 | Fire alarm system $V_B$+ | |
| 8 | Fire alarm system $V_B$– | |

| Syscon 4 plug connection | |
|---|---|
| 1 | GND |
| 2 | CAN_H |
| 3 | CAN_L |
| 4 | $V_B$+ |

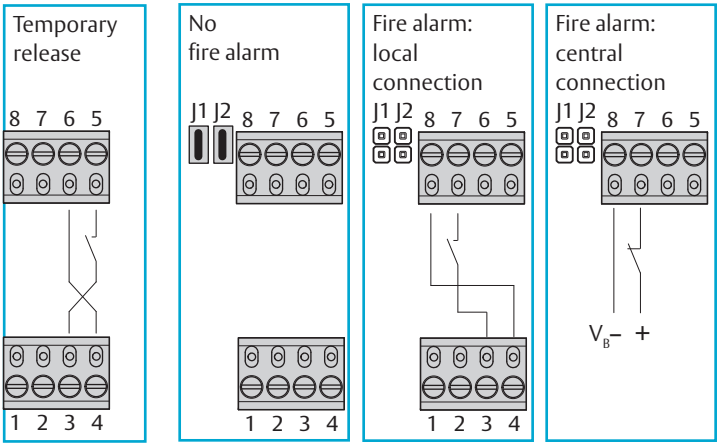
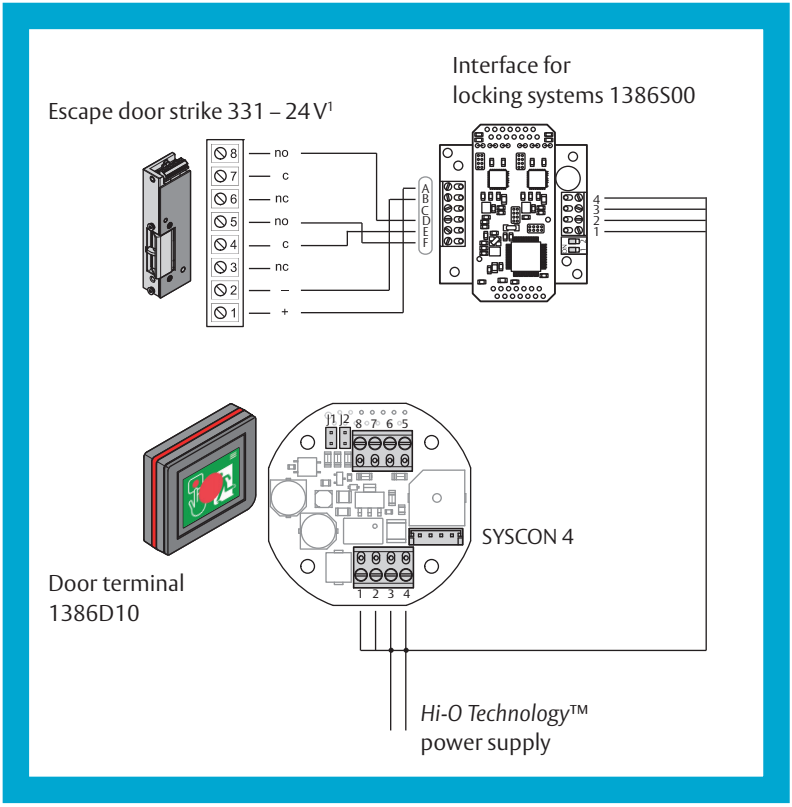
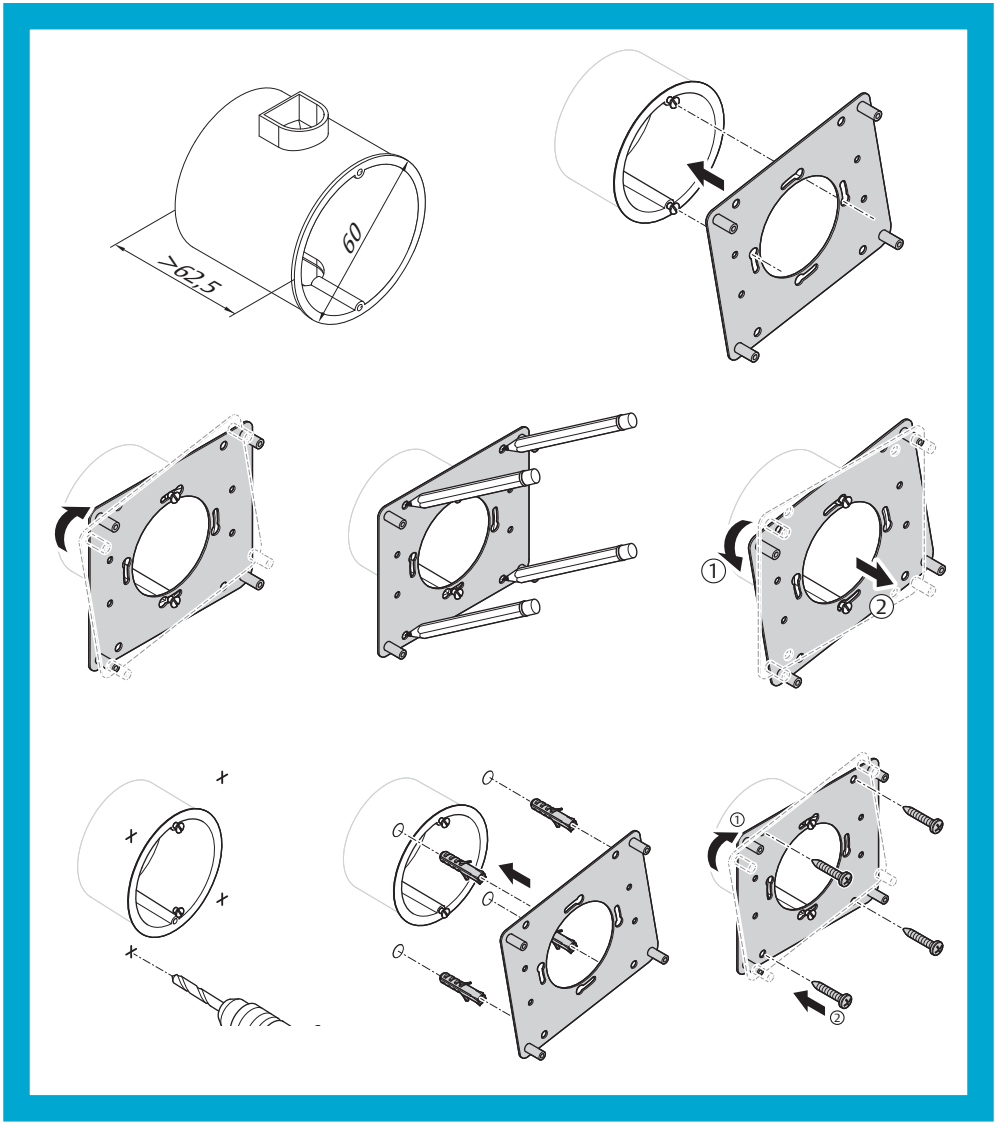


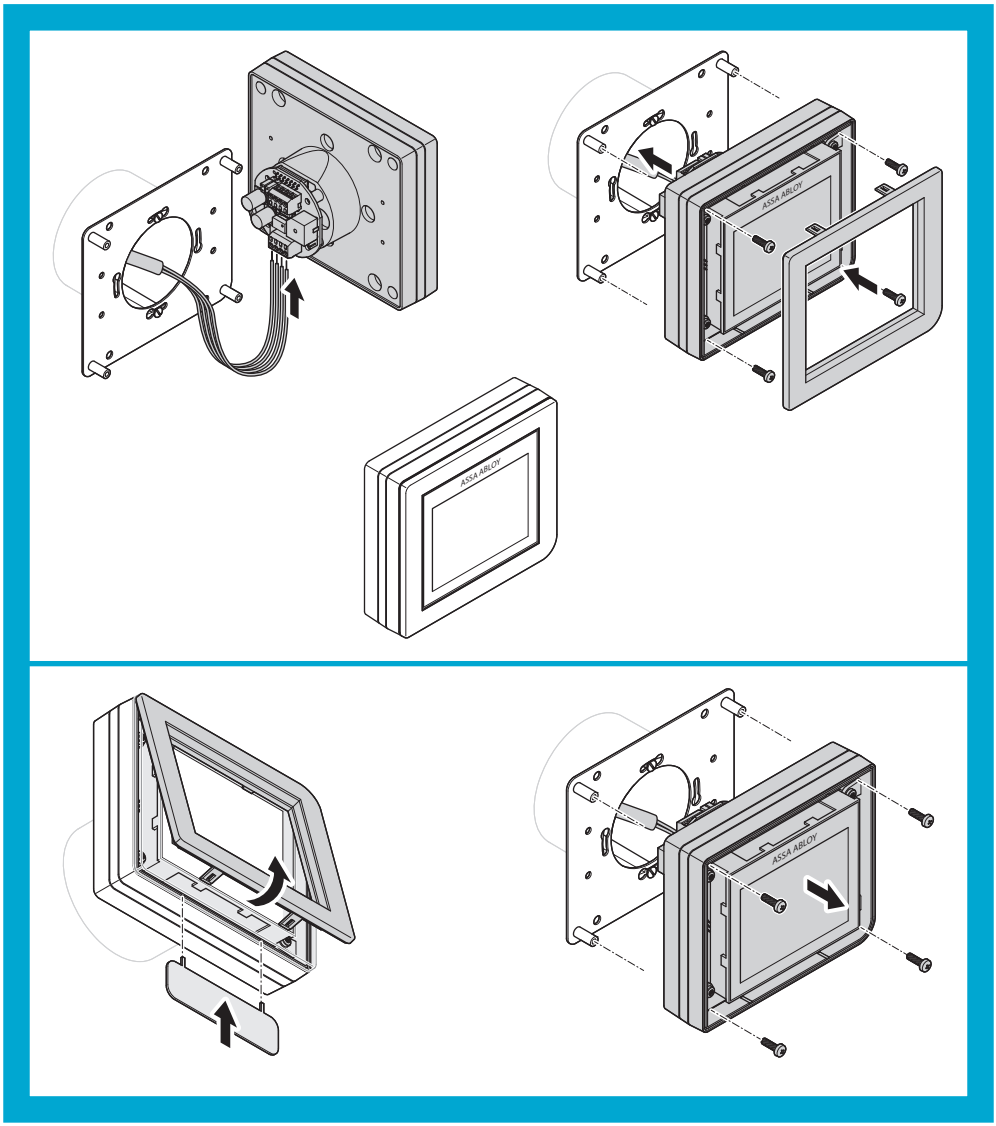
*Fig. 2: Example connection*




[1] Other locking elements can be connected instead of the escape door strike 331 (manual D00470). Only one locking element may be connected.

## Mounting/removing the display

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## Hi-O Technology™ devices

### Note!

**Untested devices may have differing functionality:** Hi-O Technology™ devices not listed in the compatibility list ( ) have not been tested in the device combination and may cause different functional processes.Tab. 2 This applies especially for activators.

**The maximum number of components may not be exceeded:** A maximum of four terminals (*Emergency Open module 1386D00*) and eight *interfaces for locking systems 1386S00* can be connected.

**The maximum power consumption may not be exceeded:** The voltage supply must be sufficient for the power consumption of all connected components.

**Limitation of function with incorrect operating voltage at the components:** A mains adapter in accordance with DIN EN 60950-1 SELV must be used. Separate mains adapters must be connected for the supply of devices with power consumption higher than 100 VA. The appropriate mains adapter, cable lengths, and cable cross sections must be chosen according to the local circumstances. Check and ensure that the operating voltage at the connection points is suitable for the components.

*Tab. 2:*
*Devices which have been tested in a device combination.*
*All devices compatible at the time of the printing of this manual are listed.*

| Hi-O Technology™ device | Type | Version | Number of nodes | Rated operating voltage in accordance with DIN EN 60950-1 SELV | Power consumption at 24 V DC |
|---|---|---|---|---|---|
| Display terminal | 1386D10 | | 2 | 24 V DC | 200 mA |
| Interface for locking systems | 1386S00 | | 1 | 24 VDC | 100 mA |
| *Hi-O Technology*™ IO interface for top-hat rail | 901-IO-20 | | 2 | 24 VDC | 110 mA |
| Panic push bar with integrated emergency switch function | N3140<br>N3640 | | 2 | 24 VDC | 120 mA |

**Note!**

**Commissioning:** All *Hi-O technology*™ devices must be connected to the bus for the configuration. Then the operating voltage is switched on. Subsequently connected devices are only recognised after renewed connection of the operating voltage.

At least one Emergency Open module is always necessary for operation of the RWT locking module.

1 Configure the system via the *ePED® Service Software* (*D01104xx ePED® Service Software*) manual).

## Display

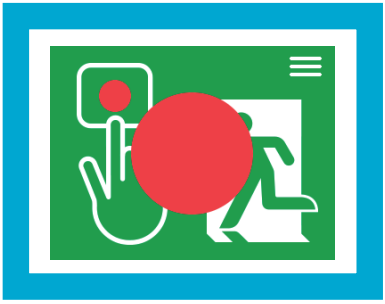


*Fig. 3: The display shows operating symbols and information on the door status or communication*

The *display* shows the current system status. Operation takes place interactively via the touchscreen (Fig. 3).

If no input takes place, the display switches back to status display after 15 seconds.

The display shows operating symbols in the header area and information for interactive communication with the user.

The toolbar is not always completely visible. One or two symbols are shown for operation or navigation, a menu heading can be shown in the centre.

## Authorisation codes

Authorisation levels

There are three authorisation levels:

- Control — Authorisation for calling up information
- Settings — Authorisation for calling up information and restricted configuration
- Installation — Authorisation without restrictions

Each authorisation level is assigned a clear authorisation code in the factory. These authorisation codes must be changed for commissioning. Each authorisation level must be assigned a clear authorisation code once again.

## Login with authorisation code

### Enter authorisation code – lock, unlock, reset

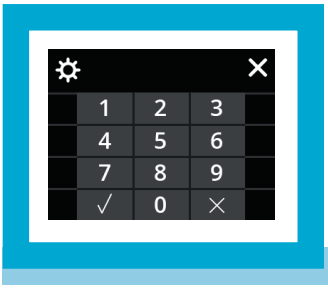



*Fig. 4: Numeric keypad for entering an authorisation code*

2 Press the symbol
3 Enter an authorisation code.
Delete any numbers entered by mistake with the [ ✕ ] key.
4 Confirm the entry with the [ ✓ ] key.

⇨ After entering a valid authorisation code, you can unlock the door.

### Enter an authorisation code – configuration

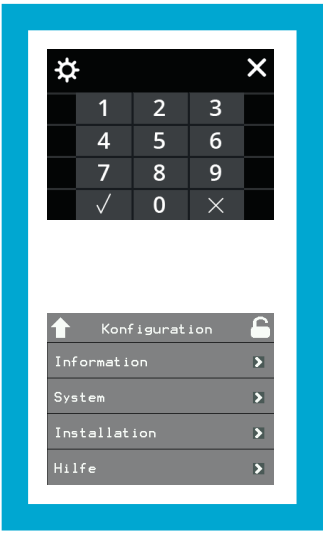



*Fig. 5: Numeric keypad for entering an authorisation code*

Some menus (such as the *System*menu) can only be opened with expanded user rights. An authorisation code for configuration is required for this.

1 Press the symbol.
2 Press the symbol.
⇨ The symbol is no longer shown.
3 Enter an authorisation code.
Delete any numbers entered by mistake with the [ ✕ ] key
4 Confirm the entry with the [ ✓ ] key.

⇨ The menu is displayed after entry of a valid authorisation code.

## Defining authorisation codes for authorisation levels

### Attention!

**Restricted functions if authorisation codes are unclear:** If an authorisation code is used for two user groups, the higher level authorisations are no longer accessible.

· Assign different authorisation codes for all three user groups.

1 Press the symbols in the following order: ☰ ⚙
2 Enter your authorisation code.
3 Press the *System* (Fig. 6) menu item.
4 Press the *User Administration* menu item.
⇨ You are in the *User menu*. The user groups are listed.
5 Press one of the menu items in order to change an authorisation code.
⇨ The keyboard is displayed.
6 Assign a new authorisation code.

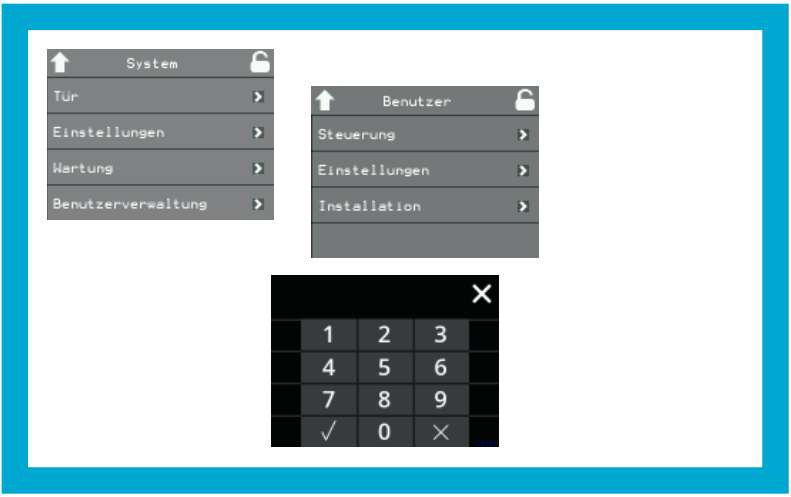



*Fig. 6: The "System–User Administration" menu*

# Commissioning

**Warning!**

**Danger due to faulty commissioning:** In order to ensure the safety of the product, commissioning must be performed by a qualified person. *ASSA ABLOY Sicherheitstechnik GmbH* offers training for qualification in the requisite skills.

Safety requirements during commissioning include:

- The owner has received a confirmation of approval for use from the inspection authorities;
- Conformity of the products with the approval according to EltVTR (Tab. 2, page 12 „Appendix“, Page 26).
- Mounting according to the installation manual;
- Testing of the unimpeded opening and closing function of the doors with the escape route securing system deactivated;
- Bolting of the doors after activation of the escape route securing system.
- Allows the doors to be opened after actuation of the Emergency Open push-button(s).
- The function must be tested when connected to fire alarm system.
- The commissioning must be documented. *ASSA ABLOY Sicherheitstechnik GmbH* offers a test log book for this purpose.

## Initial commissioning

All devices are connected to the *Hi-O-Technology*™ bus for the initial commissioning, but are not configured yet. If the voltage supply is switched on, the system is in plug and play mode and the devices work with the factory settings.

Interface for locking systems

*Interfaces for locking systems* cannot work with factory settings, because they must be logically linked to the corresponding Emergency Open push-buttons. The configuration must be completely finished before the *interfaces for locking systems* can be commissioned.

Any changes which are made necessitate re-configuration (*D01104xx ePED® Service Software* manual).

## Installation wizard

The installation wizard is provided for simple configuration and the system test, particularly for the initial commissioning. A sequence of routines is processed automatically.

Once it has been started, the installation wizard dialogue shows a series of confirmation messages and user prompts.

### Note!

**Process the entire dialogue sequence:** If a dialogue is closed via the *Cancel* key or if the displayed action is not carried out, the installation must be started again from the beginning. The RWT system configuration has not taken place and the system cannot be locked.

### Using the installation wizard

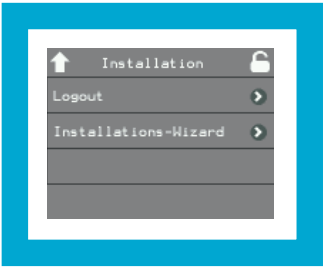



*Fig. 7: Example of a prompt for action*

1 Press the
- *Continue* or *OK* button if the entire dialogue message is correct or if you have taken the necessary action,
- the *Cancel* button if any part of the dialogue message is incorrect or if you have not taken the necessary action.

⇨ The installation is finished if you have been able to exit all messages with the *Continue* or *OK* button.

⇨ Once the installation is complete, the *ePED® 1386D10 door terminal* is in *normal operation* status.

## Emergency switch function

Pressing the red area in the centre initiates a release and a pre-alarm is triggered.
The emergency switch function is triggered if the display is pressed.

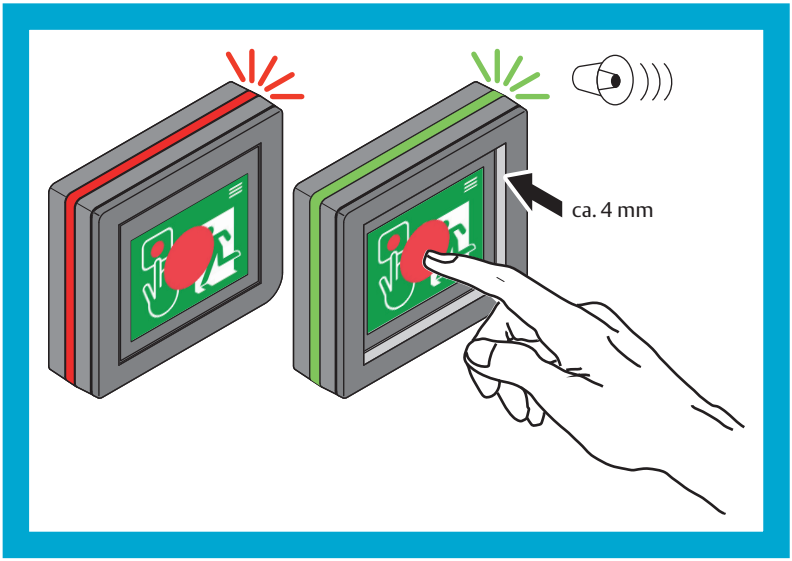
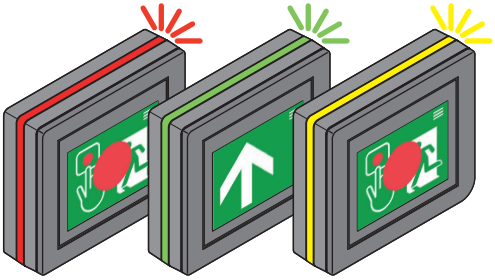


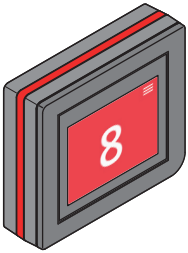

*Fig. 8: Press the Emergency Open switch*

## Display



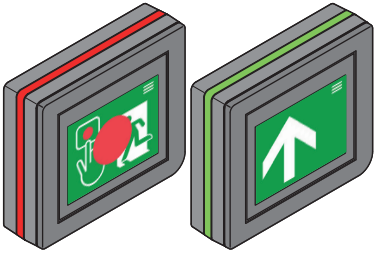
**Illuminated ring with status display**

The integrated illuminated ring enables easy identification of the current status of the escape door even with a large angle of vision.



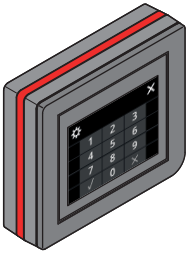

**Release delay display (option)**

If the release delay is activated, the remaining wait time is displayed in seconds.



**Escape route pictogram and status display**

The e*PED® display door terminal 1386D10* shows the relevant pictogram when the escape door is secured and indicates the correct conduct if the door needs to be operated in the event of an emergency.



**Operation and configuration**

Authorised users are identified via an authorisation code and are granted access to the configuration and extended operating functions („Configuration“, Page 13).

## Alarms

### Acoustic alarm

There are alarm statuses where an audible signal is activated, such as a pre-alarm. The acoustic alarm takes place for a configured time span and is automatically switched off again, or can be switched off with a control command. If another alarm should occur, the acoustic alarm is restarted.

### Pre-alarm and alarm

Pre-alarm

The pre-alarm is triggered if the open door is not closed and locked within a configured time span after the temporary release. The pre-alarm is signalled in multiple ways: via the display of the *ePED® 1386D10 door terminal*, acoustically and via the yellow flashing ring.

The pre-alarm is switched off automatically if the door is closed and locked within the pre-alarm time.

If the door is not closed and locked within the pre-alarm time, a tamper alarm is triggered.

### Fire alarm

In the case of a fire alarm, the *Hi-O-Technology*™ components are actuated by a fire alarm system. The escape route locking systems are automatically unlocked and retain this status until actuation by the fire alarm system is lifted again.

If the actuation by the fire alarm system is lifted again, the components lock again if no further release commands are issued.

Fire alarm and/or Emergency unlocking

Other *Hi-O-Technology*™ locking systems respond according to their respective configuration.

### Emergency unlocking

If the Emergency Open push-button is pressed, an Emergency unlocking or release request is issued to the central control. If an Emergency unlock has been triggered with an Emergency Open push-button, the Emergency Open push-button must be unlocked manually, wherein the system is also reset to normal operation.

## Messages

### Tamper message/fault message

Tamper alarm has *Locked* status

The following statuses trigger a tamper message for a locked door:
- The door is open and/or
- the escape route locking system is unlocked.

The door remains in Locked status.

The *tamper* status can be reset centrally or at the door.

### Intrusion alarm system activated

Intrusion alarm system is active

If a block command is issued by an intrusion alarm system, lock commands are transmitted to all *Hi-O-Technology*™ components and all control devices are deactivated.

The escape door can only be opened after the Emergency Open function has been actuated.

The following commands are exceptions and can still be activated:
- Resetting of Emergency unlock,
- Activation of escape route locking systems.

**Warning!**

**Danger due to faulty or improperly performed maintenance:** The owner is responsible for correct installation and functional inspection of the product and connected components.

- The safe function must be tested by a trained qualified expert **at least once per year**.
- Requirements established by inspection authorities must be complied with.

*ASSA ABLOY Sicherheitstechnik GmbH* offers training for qualification in the requisite skills.

**In particular:**

At the time of the initial commissioning

- A test log must be created at the time of the initial commissioning, wherein a description of the installed escape route securing system, configuration parameters, and results of the complete functional testing are recorded („Test log for commissioning“, Page 26).

For each scheduled maintenance

- All further maintenance must be recorded in a suitable test log book (available from *ASSA ABLOY Sicherheitstechnik GmbH*).
- If permissible and officially approved modifications of the escape route securing system should take place at a later time, they must be recorded in the same manner as for an initial commissioning.
- Ensure that all opening and closing functions of the escape door function without limitation when the escape route securing system is deactivated.
- Ensure that the escape door is secured after activation of the escape route securing system.
- Ensure that the escape door can be opened after the Emergency Open buttons(s) is (are) pressed.
- Ensure that the escape door is unlocked on actuation by a connected fire alarm system.
- All components of the escape route securing system must be inspected for damage, changes, and secure mounting and the configuration and safe functionality must be assured.
- It must be ensured that there are no relevant deviations from the recorded initial commissioning with respect to condition, configuration, and functionality. If there are deviations, they must be recorded accordingly and subjected to approval by inspection authorities.

## Performing maintenance with system test wizard

The system test wizard is used during the annual maintenance. It is a support programme for the manual door check (Fig. 9).

1 Press the symbols in the following order:  
2 Enter your authorisation code.
3 Press the *System* menu item.
4 Press the *Maintenance* menu item.
⇨ You are in the *Maintenance* menu.
5 Press the *Maintenance* menu item.
⇨ You have started the system test wizard.
6 Follow the instructions shown.
6.1 Press the *Continue* button to continue to test.
6.2 Press the *Cancel* button to cancel the test incomplete.

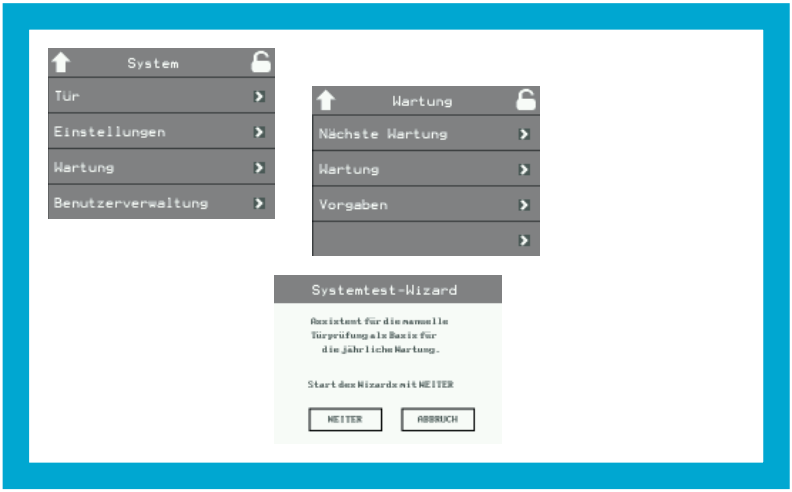



*Fig. 9: The "System – Maintenance– System test" menu*

# Technical data

*Tab. 3: Technical data*

| Feature | Characteristic |
|---|---|
| Power supply | via external mains adapter |
| Power supply $V_B$ | in accordance with<br>DIN EN 60950-1 SELV<br>24 V (+/–10%) |
| Power consumption | 200 mA |
| Maximum release delay after pressing of the Emergency Open button<br>· DIN EN 13637<br>· with local control<br>· with central control<br>· without CE certification (EU export)<br>· with local control<br>· with central control | <br><br>15 s<br>180 s<br><br>120 s<br>300 s |
| Hi-O Technology™<br>· Control function<br>· Bus addresses | <br>Yes<br>2 |
| Width<br>Height<br>Depth | 113 mm<br>99 mm<br>29 mm |
| Application site | for use in indoor areas |
| Protection rating | IP30 (when completely mounted) |
| Operating temperature | –10 °C – +55 °C |
| Certification in accordance with | EltVTR<br>DIN EN 13637:2015 |

# Warranty, disposal

www.assaabloy.de

## Warranty

The statutory warranty periods and Terms and Conditions of Sale and Delivery of *ASSA ABLOY Sicherheitstechnik GmbH* apply (www.assaabloy.de).

## Updated information

Updated information, such as reports on current fire testing, can be found online at: www.assabloy.de

## Disposal

Dispose of lock in accordance with the EPD (Environmental Product Declaration).

Packaging materials must be recycled.

The product must be disposed of as electronic scrap.

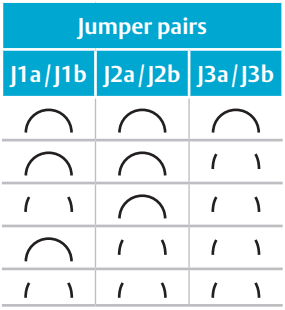
The applicable environmental protection regulations must be observed.

## Test log for commissioning

### Note!

**The test log facilitates subsequent maintenance:** Fill in this test log carefully. Carefully remove and save this test log and present it to the qualified repair technician in case of malfunctions.

*Tab. 4: Assignment of jumpers and safety functions*

| Item to be tested | Test log entry |
|---|---|
| Selected security settings (*D01024xx Interface for locking systems 1386S00* manual)<br><br>· Identify the configuration |  |
| Adjusted delay time (*D01104xx ePED® Service Software* manual) | |
| Connected devices:<br><br>· Display modules<br><br>· Interface for locking systems<br><br>· Hi-O IO-interface for top-hat rail | Quantity/number |

| Item to be tested | Test log entry |
| --- | --- |
| All mains adapters used are approved in accordance with DIN EN 60950-1 SELV. | List of mains adapters which are in use: |
| Locking elements | |

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

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Technische Änderungen vorbehalten.

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