CES OMEGA FLEX
wall terminals WT-I/WT-II

Fitting and Operating Instructions

Translated fitting and operating instructions
version 0, 2017
8 Programming via programming cable .................. 53
9 Programming with the RF-Stick .......................... 58
10 Maintenance ..................................................... 62
11 Care .................................................................. 62
12 Spare Parts ........................................................ 62
13 Trouble-shooting .................................................. 63
14 Disposal .................................................................. 64
15 Technical data .......................................................... 65
   15.1 WT-I/WT-II (CES standard) ......................... 65
   15.2 WT-I/WT-II (Flush installation) .................. 66
   15.3 Appropriate power supply ............................. 68
   15.4 WT-I/WT-II, Siedle BM-611 housing (optional) 68
   15.5 WT-I/WT-II, IP 55, surface installation (optional) 69
   15.6 WT-I/WT-II, IP 55, Flush installation (optional) 69
16 Glossary ................................................................. 70
17 Overview of the signals ........................................... 71
   17.1 Signalling at the locking device ...................... 74
18 Concise Programming Guide ........................................ 76
18.1 Defining the SYSTEM-MASTER .......................... 77
18.2 Authorizing a PROGRAM-MASTER ...................... 78
18.3 Programming with the RF-Stick .......................... 79
18.4 Authorizing a locking medium ............................ 80
18.5 Authorizing optional media ................................. 81
18.6 Enabling and disabling learning mode .................... 82
18.7 Authorizing locking devices ............................... 83
18.8 Enabling and disabling RF mode .......................... 84
18.9 No RF link established .................................... 84
18.10 Enabling and disabling Office mode ..................... 84
18.11 Deleting the authorization of a PROGRAM-
MASTER..................................................................... 85
18.12 Deleting the authorization of a locking medium 86
18.13 Deleting the authorizations of all locking media 87
18.14 Using Emergency Key ..................................... 87
19 Notes on the manufacturer's warranty ..................... 88
20 Index .................................................................... 89
Notes on the layout

In these Fitting and Operating Instructions, various elements are highlighted with defined layout features:

- Additional information on the efficient use of the OMEGA FLEX wall terminal
- Reference to additional information
- Steps in a sequence of actions. Tips with this symbol require you to perform an action
- Notes on the correct disposal
These Fitting and Operating Instructions will help you fit and use the OMEGA FLEX wall terminals WT-I/WT-II (the "wall terminal") as intended, safely and advantageously.

Any person who programs, operates or disposes of this wall terminal must have read and understood the entire contents of these Fitting and Operating Instructions.

These Fitting and Operating Instructions should be kept within reach at all times as long as the wall terminal is used.

These Fitting and Operating Instructions should be handed over to the end users.

Be sure to use the most recent version of these Fitting and Operating Instructions. Updated versions are available free of charge at www.ces.eu.

3.1 Versions

These Fitting and Operating Instructions only apply to:

CES OMEGA FLEX wall terminals WT-I/WT-II, in all variants

3.2 Manufacturer and Service

The manufacturer of the wall terminal is:

C.Ed. Schulte GmbH
Zylinderschlossfabrik
Friedrichstr. 243
42551 Velbert
Tel: +49 (0) 2051-204-0
Fax: +49 (0) 2051-204-229
www.ces.eu

For service support please contact your professional CES partner.
3.3 Target group

These Fitting and Operating Instructions are intended for trained fitting staff, maintenance staff and operators.

As regards the use of these Operating Instructions, it is assumed that the necessary technical knowledge on how to use the product as intended is available.

The necessary product training is provided by your professional CES partner. If this has not yet taken place, please contact your professional CES partner to obtain training on the product.

NOTICE

Unintended condition of your system possible!

If you are not fully familiar with the various possibilities of your system, it may perform unexpected functions.

- If you program the OMEGA FLEX system, you must be clearly aware of the consequences of your programming to prevent undesired results.

- If there are functions of the OMEGA FLEX system you do not understand, contact your professional CES partner to obtain further information.

- Always satisfy yourself that your programming produces the desired result.
4 For your safety

4.1 Explanation of the safety notes

These Fitting and Operating Instructions include safety notes of the following types:

NOTICE

These notes warn against possible property or environmental damage.

CAUTION

CAUTION notes warn against hazards that may result in slight or medium injuries.

WARNING

WARNING notes warn against hazards that may result in medium to fatal injuries.
4.2 Intended use

The wall terminals serve to control door opening mechanisms (actuators). The wall terminals are exclusively intended and may only be used for that purpose.

The wall terminal must not be changed without our written consent.

Any other use is considered to be improper and may result in property damage or even personal injury.

C.Ed. Schulte GmbH Zylinderschlossfabrik does not accept any liability for any damage resulting from improper use.
4.3 Declaration of Conformity

The Declaration of Conformity is available online via www.ces.eu

4.4 Basic safety instructions

Observe all warnings and notes in these Fitting and Operating Instructions when fitting, programming and using the wall terminals.

- To prevent danger to life and limb, the following safety instructions must be observed:

4.4.1 Danger to life

- People may not be able to open the door in emergencies and may be injured or killed. Do not use the wall terminal e.g. for doors with anti-panic function, such as escape doors.
- The wall terminal must be suitable for your door system. In case of doubt, please contact the manufacturer of the door or the door lock and satisfy yourself that the wall terminal is suitable for your door system.

4.4.2 Danger of explosion

Live parts of the wall terminals may cause an explosion. Do not use the wall terminals in potentially explosive atmospheres.

4.4.3 Danger of suffocation

Never allow children to play with packaging material and/or plastic bags. There is a risk that children pull them over their head and suffocate. Keep film and other packaging materials out of the reach of children.
4.4.4 Danger of poisoning

Always keep the wall terminals and parts thereof out of the reach of children. There is a risk that children swallow small parts such as screws.

4.4.5 Danger of property damage

- To prevent property damage, the following safety instructions should be observed:
  - Always have repairs performed by properly qualified personnel.
  - Only use accessories and spare parts recommended by CES.
  - Do not use any drilling machines or cordless screwdrivers when fastening the wall terminal.
  - Only use the recommended tools to open the wall terminal.
  - When fitting the wall terminal, make sure that your door opening system is in perfect condition. Malfunctions of the door opening system may impair the functioning of the wall terminal.
  - Do not use any solvent-containing cleaning agents for the wall terminal.
  - Do not drop the wall terminal on the floor, on hard surfaces or on hard objects.
  - Protect the electronic components of the wall terminal against water and other liquids.
  - The wall terminal may not be used for outdoor application.
  - The wall terminal contains highly sensitive electronic parts that may be damaged or destroyed through static charges. Do not disassemble the wall terminal in rooms with built up static charge. Ensure potential equalization when working on the wall terminals to remove any static charge.
4.4.6 **Danger through environmental conditions**

- Do not use the wall terminals in corrosive atmospheres (chlorine, ammonia, lime water).
- Only use the wall terminals in rooms in which the humidity does not exceed 95%.
- Do not use the wall terminals in rooms with a high level of dust formation.
- Do not use the wall terminals near sources of heat.
- Do not expose the wall terminals to temperatures below -25 °C or above +70 °C.

4.4.7 **Danger of malfunctions**

Do not cover the reader in the wall terminals with metallic material.
5 Introduction

5.1 Description

The wall terminals are part of the OMEGA system. This system component performs the function of physical access control. Wall terminals are used at locations, where a locking cylinder cannot be used for this purpose.

Examples for the use of wall terminals include automatic sliding doors, barrier systems, drive-in controls, rolling and sliding gates, door systems equipped with the CEMO system, etc. The OMEGA system is also suitable for door systems already including a door opener (retrofitting). Also installation in electrical equipment with controlled access (e.g. copying machines) is possible.

All Mifare transponder media and media according to ISO 14443A and DESFire EV-1 can be programmed at the wall terminal and used as authorized locking media. LEGIC-prime and LEGIC-advant transponder media can also be used.

The wall terminals are available in two types for different purposes of use:

- WT-I is designed for indoor use and contains the reader module and the control unit in a single housing.
- WT-II is designed for use in high-security applications. The reader module is fitted in the unprotected outside area, while the control unit is installed in the secured interior. You can decide whether the WT-II only reads outside or both inside and outside.

With the WT-II wall terminal, the control unit can be installed at a maximum distance of 20 metres away from the reader module. The connection between the reader module and the control unit is established with commercial cables.

In all other respects, the functionality of the WT-II is the same as that of the WT-I wall terminal.
The wall terminals can be operated as stand-alone devices or within a wireless system controlled by the OMEGA server. For operation within a wireless system, the wall terminals have a radio frequency (RF) interface for the permanent communication with locking media and Access Points of the OMEGA series.

For stand-alone operation, the wall terminals do not require any additional devices or connections. The wall terminals are not connected to any other devices, either.

In RF mode, the wall terminals receive the programmed authorizations via their RF interface and feed event data such as log files of door opening and closing operations back to the server.

Thanks to its structure, a wireless system combines a high level of operating convenience with low administrative expense. It also reduces personnel expenses since virtually no time is lost by going to the wall terminals for on-site data maintenance and programming.

A wireless system always comprises a PC, the OMEGA software, a number of Access Points for data exchange and at least one locking device.

A cable interface is provided to upload new software into the wall terminals. Connection is easy with the optional programming cable.

While new system software is uploaded via the cable interface, communication over the RF interface is interrupted.

The wall terminals can also be programmed on site using an optional programming cable or a optional RF-Stick and a Windows™ PC (such as a netbook) with the OMEGA software (see also page 23, "Programming with the OMEGA software").

The wall terminals signal their status by one red and one green LED and a piezo-electric beeper.

The wall terminals can be fitted either directly on in-wall switch boxes or using the supplied fitting frame.

The wall terminals may not be fitted directly on metal surfaces because the sending and receiving frequencies of the reader will
be detuned by the magnetic properties of the metals. Depending on the metal material, the reading range of the wall terminal may be reduced to as much as zero.

For fitting on a metal surface, always use the supplied fitting frame.

For further information, please refer to the OMEGA system Programming Instructions which is available free of charge at www.ces.eu.
Other features of the wall terminals:

- Suitable transponder media: Mifare Classic Standard 1k/4K, all media according to ISO 14443, DESFire EV-1.
- LEGIC-prime, LEGIC-advant transponder media
- 868 MHz RF transceiver.
- Integrated evaluation unit with memory for:
  - By default 5,000 transponder keys with access authorizations
  - 2,000 events with date and time (see also page 20)
- Reading range up to 50 mm.
- Programming with optional Master media.
- Different optional Master media available to increase the functionality of the wall terminal (see page 17 ff.).
- Online programming via 868 MHz RF network and additional OMEGA software (option, see also page 23).
- Online programming via programming cable or RF-Stick and additional OMEGA software (option, see also page 23).
- Three separate switching outputs for controlling actuators.
- Two colour LEDs and beeper for status indication and feedback.
5.2 Scope of delivery

- Before fitting and commissioning, please check the contents of the package and the scope of delivery.
- Check new devices for transport damage and inform your dealer promptly if any damage is found.
- Satisfy yourself that you have received the version you ordered.
- Also check that the delivered housing version is correct and undamaged.
- Take the wall terminals out of the package and remove any packaging material such as film, padding and packaging board.

5.2.1 WT-I

Fig. 1 – Scope of delivery WT-I

1. Wall terminal type WT-I (housing: CES Standard)
2. Fitting frame
3. 2 universal screws 2.5 × 20 mm
4. 2 fastening screws 3 × 30 mm with 2 plugs
5.2.2 WT-II

- Only use J-Y(St)-Y 2 × 2 × 0.6 mm² cables for the connection between the control unit and the reader module.
- After the cable has been laid, the connection must be established, see page 37 ff.

Fig. 2 – Scope of delivery WT-II

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reader terminal (outside terminal) for wall terminal type WT-II (housing: CES Standard)</td>
</tr>
<tr>
<td>2</td>
<td>Fitting frame</td>
</tr>
<tr>
<td>3</td>
<td>Controller terminal type WT-II (inside terminal) with cable for permanent connection with the reader terminal (not connected to reader terminal when supplied, housing: CES Standard)</td>
</tr>
<tr>
<td>4</td>
<td>Fitting frame</td>
</tr>
<tr>
<td>5</td>
<td>4 universal screws 2.5 × 20 mm</td>
</tr>
<tr>
<td>6</td>
<td>4 fastening screws 3 × 30 mm with 4 plugs</td>
</tr>
</tbody>
</table>
5.3 System components

You can purchase various locking media and options from a CES partner to match your specific requirements.

Fig. 3 – Possible system components

1 Locking media: You can operate the wall terminal with the following locking media: transponder key, key fob, card.

2 Wall terminals (example figure)

3 SYSTEM-MASTER: The SYSTEM-MASTER is used to authorize the PROGRAM-MASTERS for the system. Each system has one and only one SYSTEM-MASTER.

4 PROGRAM-MASTER: The PROGRAM-MASTERS are used to authorize locking media to operate the wall terminal.
## 5.4 Versions and their functions

Wall terminals are available in the following versions:

<table>
<thead>
<tr>
<th>/N</th>
<th>NoTime, programming with RF-Stick via radio, programming without time zones and events</th>
</tr>
</thead>
<tbody>
<tr>
<td>/T</td>
<td>Time, programming with RF-Stick via radio, programming with time zones and events</td>
</tr>
<tr>
<td>/NET</td>
<td>Online-programming via CEStronics RF-NET radio network, for use within CEStronics RF networks</td>
</tr>
<tr>
<td>/NV</td>
<td>NoTime, for use in CEStronics V-NET virtual network</td>
</tr>
<tr>
<td>/TV</td>
<td>Time, for use in CEStronics V-NET virtual network</td>
</tr>
</tbody>
</table>
5.5 Programming with OMEGA software

You can also manage and program your locking systems online via a radio frequency link and Access Points, or alternatively via the optional programming cable.

The following components are required for this system (see also next page):

- State-of-the-art PC (1, 2) with Windows 7™, Windows 8™, Windows Server 2008™ or Windows Server 2013™ (XP™ and Windows Server™ 2003 are no longer supported).
  1 GHz processor, at least 1 GB RAM, at least 1 GB free hard disk memory
- Network interface card with TCP/IP protocol (for the installation with Access Points)
- CD-ROM drive for installing the software from data media
- One free USB port for the use of the programming cable (optional)
- Existing Internet connection for using OMEGA-Quicksupport
- Monitor with a resolution of 1,024 × 768 pixel or higher, or a resolution of 1,024 × 600 pixel (netbook)
- CEStronics Suite software
- A valid licence for CEStronics Suite software
- OMEGA RF-NET Access Point (No. 3, maximum of ten devices per Access Point)
- At least one locking device (No. 4, locking cylinder, IES, wall terminal).
- Programming cable or RF-Stick (No. 5, optional)
Setting up an online radio network

Setting up a system for manual programming

Fig.4 – Building online and offline systems

For further information, please refer to the User Manual of the CEStronics Suite which is available free of charge at www.ces.eu.
5.6 Master media

For further information, please refer to the programming instructions for the OMEGA system. These are available free of charge at www.ces.eu.

Master media allow you to set additional functions manually without requiring additional aids such as a PC or programmer. You can obtain master media from your CES specialist partner:

5.6.1 SYSTEM-MASTER

The SYSTEM-MASTER grants all authorizations on the highest level. For each locking system, there is one and only one valid SYSTEM-MASTER.

With the SYSTEM-MASTER, you can authorize up to ten PROGRAM-MASTERS. In its basic version, a locking system requires one SYSTEM-MASTER and one PROGRAM-MASTER each to program your locking devices.

5.6.2 PROGRAM-MASTER

The PROGRAM-MASTER is used to authorize and delete the authorization of your locking media.
5.6.3 TIME-MASTER

With the TIME-MASTER, you set the opening time of the locking device. During the opening time, your locking device allows free access.

When the TIME-MASTER is detected, the locking device starts beeping at one-second intervals until the TIME-MASTER is removed out of the reading range.

The number of beeps determines the opening time.

To set the opening time of your locking devices with the TIME-MASTER, proceed as follows:

- Hold the TIME-MASTER in front of the locking device.

When the TIME-MASTER is detected, the locking device starts beeping at one-second intervals until the TIME-MASTER is removed out of the reading range. The number of beeps determines the opening time.
5.6.4 RELEASE-MASTER

With the RELEASE-MASTER, you can set locking devices into enable condition. In enable condition, no locking media are read and the locking devices are permanently open.

- The cylinder or shield allows permanent access.
- The relay of the wall terminal is permanently pulled up.

To set the enable condition:

- Hold the RELEASE-MASTER for about one second in front of your locking device (Confirmation: 1 x short signal).

Deactivate enable condition:

- Hold the RELEASE-MASTER for about five seconds in front of your locking device (Confirmation: 2 x short signal).

In response, your locking cylinder uncouples and/or the relay of the wall terminal drops.
5.6.5 BLOCK-MASTER

With the BLOCK-MASTER, you can set your locking devices permanently into blocked condition. In blocked condition all locking media are rejected.

- The locking cylinder or shield is permanently blocked and prevents access.
- The relay of the wall terminal is permanently dropped.

**To set the blocked condition:**

- Hold the BLOCK-MASTER for about one second in front of your locking device (Confirmation: 1 x short signal).

**Deactivate blocked condition:**

- Hold the BLOCK-MASTER for about five seconds in front of your locking device (Confirmation: 2 x short signal).
5.6.6 RF-INI-MASTER

The RF-INI-MASTER is used to switch your /NET devices into online (RF) mode. Your device must be in this mode to establish a connection with an online RF network.

Also, the stored events at the locking device are transmitted. Programming jobs and events are transmitted cyclically.

To set the RF mode (Online mode) of your locking devices with the RF-INI-MASTER, proceed as follows:

- Keeping the RF INI MASTER about two seconds before your locking device.

As a result, you get a short green signal and a short sound.

To put your locking device in the offline mode, proceed as follows:

- Keeping the RF INI master before the locking device, until the following signalling is finished.

As a result, you get the green signal for about five seconds, as well as an acoustic signal.
5.6.7 RF-TRACE-MASTER

The RF-TRACE-MASTER serves to verify the quality of the radio frequency (RF) link between the OMEGA server and your locking devices.

- Hold the RF-TRACE-MASTER for about two seconds in front of your locking device.

The function is performed immediately.

The RF-TRACE-MASTER triggers the following signals of your locking devices:

- Green LED of your OMEGA FLEX locking device flashes twice: very strong RF link.

- Green LED of your OMEGA FLEX locking device flashes once: adequate RF link.
• Red and green LEDs flash alternately or simultaneously: weak RF link.

• Red LED of your OMEGA FLEX locking device flashes: No RF link established and trouble-shooting required.

During the verification, the Access Point emits the same signals as the locking device.
The emergency key is a master key that is authorized to lock your locking devices *irrespective* of your settings.

The emergency key gives you access at all times to every locking device in your OMEGA FLEX system.

The emergency key is available as a key, a key fob and as an identification card.

The emergency key always has top priority and can also be used to open devices that have been set to blocking state.

---

**NOTICE**

An unauthorised person may be able to acquire the emergency key and gain access.

- Keep the emergency key in a safe place.
- Prevent it getting into the hands of unauthorised persons.

---

Emergency key authorisation is carried out manually via the SYSTEM MASTER or by remote programming.
Use on a cylinder lock:

**Hold in front of the lock** = Locking device activated, signal 1 x green

**Hold in front of the lock again** = Locking device closed, signal 2 x green

The emergency key is suitable for the fire service key safe.

### 5.7 Priorities

1. **EMERGENCY-KEY**
2. **BLOCK-mode (with BLOCK-MASTER)**
3. **Block time (online only)**
4. **RELEASE-mode (with RELEASE-MASTER)**
5. **Release time (online only)**
6. **Office-mode (online only)**
7. **Locking media**

1 = Highest  
7 = Lowest
6 Fitting the wall terminal

**NOTICE**

The wall terminal may be damaged if not fitted properly.

- The wall terminals may only be fitted by skilled persons such as skilled electricians or CES partners trained on the product by CES.

**NOTICE**

The wall terminal may be damaged by static charges.

- Do not fit the wall terminals in rooms with built up static charge.
- Ensure potential equalization when working on the wall terminal to remove any static charge. The wall terminals may only be fitted by skilled persons such as skilled electricians or CES partners trained on the product by CES.

Depending on the version you ordered, the appearance of the boards and housings may differ. The following illustrations show the CES standard housing as an example.

Functioning and fitting are similar for all versions.
Ensure that the distance between any two readers is at least equivalent to twice the reading range to avoid mutual interference.

**Example:**
Reading range = distance between locking medium to reader is 50 mm.
Distance between any two readers must be at least \(2 \times 50 \text{ mm} = 100 \text{ mm}\).

---

**WARNING**

In case of malfunctions, it may not be possible to open the door in emergency situations which could result in personal injury or even death.

- Satisfy yourself that the selected wall terminal is suitable for your door system.
- Contact the manufacturer of the door system in case of doubt.
6.1 Connections WT-I

**CAUTION**

Danger of injury by improper mounting work.

- Ensure that the wall terminals are only wired by skilled electricians or CES partners trained on the product.

*Fig. 5 – Connections WT-I*

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screw terminal for potential free contact (currently not used)</td>
</tr>
<tr>
<td>2</td>
<td>Screw terminal for relay 1</td>
</tr>
<tr>
<td>3</td>
<td>Screw terminal for power supply</td>
</tr>
<tr>
<td>4</td>
<td>Currently not used for WT-I</td>
</tr>
</tbody>
</table>
Fig. 6 – Connections WT-I

1. Screw terminal for power supply 12 ... 24 V AC/DC
2. Screw terminal for power supply 12 ... 24 V AC/DC
7. Screw terminal for potential free contact (not used)
8. Screw terminal for potential free contact (not used)
9. Screw terminal for relay 1, relay contact C
10. Screw terminal for relay 1, NO contact
11. Screw terminal for relay 2, NC contact
12. Screw terminal for relay 2, relay contact NO
13. Screw terminal for relay 2, relay contact C
Ensure that the permissible RF ranges are observed:

![Image of wall terminal]

Max. 50 mm

*Fig. 7 – permissible RF ranges*

As soon as an authorized locking medium grants access, the relays are switched.
6.2 Connections WT-II

Fig. 8 – Connections WT-II
The length of the cable between the control terminal and the reader terminal must not exceed 20 metres. Only the supplied cable may be used. Do not extend the cable!

- Only use J-Y(St)-Y $2 \times 2 \times 0.6$ mm$^2$ cables for the connection between the controller terminal and the reader terminal.

Ensure that the wiring for the WT-II wall terminal is inverted (crossover, like shown):

Controller terminal RxD ➔ TxD Reader terminal
Controller terminal TxD ➔ RxD Reader terminal

**NOTICE**

The wall terminal may be damaged by incorrect power supply.

- Do not connect the reader terminal with any power supply other than the controller terminal.

The reader terminal may only be operated at 12 ... 24 V AC/DC. That voltage is supplied by the controller terminal (VCC).
### 6.2.1 Connections WT-II Controller terminal

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screw terminal for power supply 12 … 24 V AC/DC</td>
</tr>
<tr>
<td>2</td>
<td>Screw terminal for power supply 12 … 24 V AC/DC</td>
</tr>
<tr>
<td>7</td>
<td>Screw terminal for potential free contact (not used)</td>
</tr>
<tr>
<td>8</td>
<td>Screw terminal for potential free contact (not used)</td>
</tr>
<tr>
<td>9</td>
<td>Screw terminal for relay 1, relay contact C</td>
</tr>
<tr>
<td>10</td>
<td>Screw terminal for relay 1, relay contact NO</td>
</tr>
<tr>
<td>11</td>
<td>Screw terminal for relay 2, relay contact NC</td>
</tr>
<tr>
<td>12</td>
<td>Screw terminal for relay 2, relay contact NO</td>
</tr>
<tr>
<td>13</td>
<td>Screw terminal for relay 2, relay contact C</td>
</tr>
</tbody>
</table>

**Fig. 9 – Connections WT-II**
6.2.2 Connections WT-II Reader terminal

3 Screw terminal GnD to control unit terminal 3
4 Screw terminal TxD to control unit terminal 5
5 Screw terminal RxD to control unit terminal 4
6 Screw terminal VCC to control unit terminal 6 (reader module supply voltage)

Fig. 10 – Connections WT-II Reader terminal
Ensure that the permitted RF ranges and cable lengths are not exceeded:

As soon as an authorized locking medium grants access, the relays are switched.

**6.3 Disassembly of the wall terminals**

The wall terminal is supplied preassembled. Before fitting, the wall terminal must first be disassembled.

Disassembly is similar for all versions of the wall terminal. The following describes the disassembly for the wall terminal in the CES standard housing.

For the WT-II wall terminal, you must perform the following steps also for the reader module.

Disassembly may vary depending on the ordered housing version.

The following tool is required:

- Screwdriver with suitable tips / bits for slotted-head screws and recessed head (Phillips) screws

To disassemble the wall terminal, proceed as follows:
1. Lift the wall terminal from the fitting frame.
   You now hold the control module with the cover in your hands.

   *Fig. 12 – lift the wall terminal*

2. Release the cover carefully from the control module using a wide slotted-head screwdriver.
   To do so, insert the slotted-head screwdriver into the recess as shown below.

   *Fig. 13 – release the cover*

3. Lift off the cover.

   *Fig. 14 – lift off the cover*

4. You can now fit the control module through the two oblong holes (1).
   This completes the disassembling.

   *Fig. 15 – fit the wall terminal*
6.4 Fastening the fitting frame of the wall terminals

The wall terminal can be fitted with or without the fitting frame. Whether or not you use the fitting frame depends on the local installation conditions.

If you do not use a fitting frame, a wired in-wall switch box is required.

Fastening the fitting frame is similar for all versions of the wall terminal. The following describes the fastening for the wall terminal in the CES standard housing:

- Follow the steps for disassembling the wall terminal on pages 41.

The selection of the fasteners depends on the material of the wall (or ceiling, etc.) on which the wall terminal is to be installed. For fitting the wall terminal with the fitting frame on mineral walls (stone, concrete) you require the fasteners supplied. On mineral walls, the fitting frame is fastened using plugs and universal screws.

- For fastening the frame on other materials, purchase suitable fasteners from your specialized dealer for fastening engineering.

- Ensure that the mounting holes of the wall terminal are aligned horizontally.
The mounting holes of the wall terminal must always be aligned horizontally, also when the wall terminal is installed on in-wall switch boxes.

- Only use the oblong mounting holes for fastening the fitting frame.
- Ensure that all cables required for the connection are guided through the fitting frame without being damaged or squeezed.

This completes the fastening of the fitting frame.

Now start with the fitting of the wall terminals. The next two chapters describe the procedure (see pages 45, 47).
6.4.1  Fitting the WT-I wall terminal

The wall terminal is supplied preassembled. Before fitting, the wall terminal must first be disassembled.

- Follow the steps for disassembling the WT-I wall terminal on pages 41 ff.

For fitting the wall terminal without the fitting frame, you need already installed and prepared in-wall switch boxes. All required cable connections must already be available in the switch box. The supplied fitting frame is not required in this case.

- If you are using fitting frames, please follow the fastening instructions on page 43 ff.

- Ensure that the in-wall switch box has been installed horizontally.

The mounting holes of the wall terminal must always be aligned horizontally, also when the wall terminal is installed on in-wall switch boxes.

- Ensure that all required cables have been guided through the switch box without being damaged or squeezed.

- Establish all required wire connections as described in the "Connections" chapter on page 34 ff.
1. Fasten the wall terminal with two $2.5 \times 20$ mm universal screws on the in-wall switch box.

Fig. 16 – fasten the wall terminal

2. Ensure that the two LEDs (1) of the wall terminal are at the top when the wall terminal is fastened.

Fig. 17 – aligned horizontally

3. Push the cover on to the control module as shown in the following figures:
   - Insert the cover into the recesses.

Fig. 18 – insert the cover

4. Push the cover onto the control module, exerting only a slight pressure.

Fig. 19 – push the cover on
6.4.2 Fitting the WT-II wall terminal

The WT-II control module and the reader module are supplied preassembled. Before mounting, the control module and the reader module must first be disassembled.

- Follow the steps for disassembling the WT-II wall terminal on pages 41.

For fitting the WT-II control module without the fitting frame, you need already installed and prepared in-wall switch boxes. All required cable connections must already be available in the switch boxes. The supplied fitting frame is not required in this case.

- If you are using fitting frames, please follow the fastening instructions on page 43 ff.

- Ensure that the in-wall switch boxes have been installed horizontally.

The mounting holes of the wall terminal must always be aligned horizontally, also when the wall terminal is installed on in-wall switch boxes.

- Ensure that all required cables have been guided through the switch boxes without being damaged or squeezed.

- Establish all required wire connections as described in the "Connections" chapter on page 37.
The length of the cable between the control module and the reader module must not exceed 20 metres. Only the supplied cable may be used. Do not extend the cable!

- Only use J-Y(St)-Y 2 × 2 × 0.6 mm² cables for the connection between the control unit and the reader module.

The mounting holes of the wall terminal must always be aligned horizontally, also when the wall terminal is installed on in-wall switch boxes.

- Fasten the control module and the reader module with two 2.5 × 20 mm universal screws each on their respective in-wall switch box.

Fig. 20 – Fasten the control module and the reader module
• Ensure that the LEDs (1) are at the top when the reader module is fastened.

![Fig. 21 – aligned horizontally]

• Push the cover on to the control module and the reader module as shown in the following figures:

• Insert the cover into the respective recesses.

![Fig. 22 – insert the cover]

• Push the covers onto the control module and the reader module, exerting only a slight pressure.

![Fig. 23 – push the cover]
Operating the wall terminal

To perform the locking or unlocking operation, hold your authorized locking medium in front of the reader.

Fig. 24 – permitted RF ranges

The green LED in the wall terminal goes on to signal enable status and the connected door system opens.

During the set opening time you can pass through the door.

During this opening time, the wall terminal does not respond to any other locking media.

Fig. 25 - Unauthorised locking media

Unauthorised locking media will be refused (signalling: 4 x red).
7.1 DESFire EV-1 in security mode (optional)

The data transmission between the locking device and the locking medium is encrypted. Only locking media that are authenticated by the device are authorized to lock or unlock.

These locking devices (1) will not accept any foreign transponders (2); they do not respond to any locking or unlocking attempt with other locking media.

A DESFire EV-1 locking medium manufactured by CES operating in the security mode can be used in other systems (3) requiring this type of transponder. This ensures the multi-application capability of the locking medium.

![Fig. 26 – DESFire operating principle](image)

7.2 DESFire EV-1 in standard mode

Locking media operating in the standard mode behave like any other ISO 14443 transponders. For authorization, the UID of the locking medium is used.

If you manage your systems with the CEStronics software, you can use both DESFire EV-1 variants with the CEStronics software.
Move your authorized locking medium into the reading range of the OMEGA FLEX cylinder.

**Fig. 27 - Correct use of a locking medium**

The reader module detects the locking medium. The locking device sends a short signal to signal the enable status. During the enable time you can open the door. During this enable time, the locking device does not respond to any other locking media.

**Fig. 28 - Unauthorised locking media**

Unauthorised locking media will be refused (signalling: 4 x red).
8 Programming via programming cable

You can also program your locking devices via a cable connection (see also figure on page 54).

For this purpose, you require the optional programming cable.

The following components are required:

- State-of-the-art PC (1, 2) with Windows 7™, Windows 8™, Windows Server 2008™ or Windows Server 2013™ (XP™ and Windows Server™ 2003 are no longer supported).
  1 GHz processor, at least 1 GB RAM, at least 1 GB free hard disk memory
- CD-ROM drive for installing the software from data media
- One free USB port for the use of the programming cable (optional)
- Monitor with a resolution of $1,024 \times 768$ pixel or higher, or a resolution of $1,024 \times 600$ pixel (netbook)
- CEStronics Suite software
- A valid licence for CEStronics Suite software
- At least one locking device (4).
- Programming cable (No. 3, optional)

- Satisfy yourself that the OMEGA software has been installed without errors.
- If you have to install drivers manually, follow the directions in the "Help on the software CD" chapter of the Mifare software Operating Instructions.

!! The USB programming cable supports hot plugging, i.e. you can pull the cable without prior de-registration of the device at the USB port.
Further information on the installation and use of the OMEGA software can be found in the OMEGA Software Operating Instructions which are available free of charge at [www.ces.eu](http://www.ces.eu).

**Fig. 29 – programming via programming cable**

To program your wall terminals via the programming cable, you must remove the cover. The following example shows the procedure for the CES standard housing.

Proceed accordingly for the other housing series to gain access to the interface for the programming cable.

Proceed as follows:
1. Release the cover carefully from the control module using a wide slotted-head screwdriver.
   To do so, insert the slotted-head screwdriver into the recess as shown below.

2. Lift off the cover.

For the WT-II, the programming cable must be plugged into the control board. The reader does not have an interface.
Plug the programming cable (1) into the interface (2) on the board of the wall terminal.

Start OMEGA software and log in.

Perform the desired operation (create locking plan, manage devices and media, etc.).

Connect the USB plug of the programming cable with your free USB port.

The status line of OMEGA software displays the message "Waiting for locking device". If this message does not appear within a couple of seconds, no driver for the programming cable has been installed and you must install the driver manually.

For further information, please refer to the User Manual of the CESTronics Suite which is available free of charge at www.ces.eu.
The programming of your wall terminal starts automatically. One after the other, the following messages appear:

<table>
<thead>
<tr>
<th><strong>Read device data</strong></th>
<th>A locking device (wall terminal) has been connected and the device data are being read in.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Read log events</strong></td>
<td>The events of the locking device are being read in.</td>
</tr>
<tr>
<td><strong>Programming</strong></td>
<td>Data are being transmitted.</td>
</tr>
<tr>
<td><strong>Completed</strong></td>
<td>The data transfer to the locking device has been completed. The device can now be removed from the PC.</td>
</tr>
</tbody>
</table>

- After the programming has been completed, separate the connections between your PC and the wall terminal.
- Finally fit the wall terminal again.
The optional RF-Stick permits the wireless manual programming of your locking devices (locking cylinder, IES fitting, wall terminal). The maximum radio range of the RF-Stick is 10 metres.

For further information, please refer to the User Manual of the OMEGA RF-Stick which is available free of charge at www.ces.eu.
The RF-Stick is available in three different packages:

<table>
<thead>
<tr>
<th>Package</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RF-Stick</strong></td>
<td>Includes the RF-Stick and a CD-ROM only, for the functional extension of existing online and offline systems</td>
</tr>
<tr>
<td><strong>RF-Stick Set</strong></td>
<td>Includes the OMEGA ACTIVE RF-Stick, RF-STICK MASTER, OMEGA ACTIVE SYSTEM MASTER, a CD-ROM with the CEStronics software suite as backup medium and a USB stick with program files and licences</td>
</tr>
<tr>
<td><strong>RF-Stick Programming Package</strong></td>
<td>Includes a netbook with pre-installed CEStronics software suite with single-user licence, OMEGA ACTIVE RF-Stick, RF-STICK MASTER, OMEGA ACTIVE SYSTEM MASTER, USB stick with licence file and data files, CD-ROM with the CEStronics software suite as backup medium</td>
</tr>
</tbody>
</table>

To authorize the programming, you always need the RF-STICK-MASTER. To work with the RF-Stick, proceed as follows:

- Authorize the RF-STICK-MASTER at your locking device (i.e. locking cylinder):
Fig. 34 – authorize the RF-STICK-MASTER

- Insert the RF-Stick in a free USB port of your PC (or netbook).
- Launch the OMEGA software and log in.
After a few seconds the two status messages "System ready" and "RF-Stick ready" appear in the status line.

- Edit your locking system as desired.

You will then see a new status message "Programming required".

- Go to the "Other" menu and select "Program changes".
- **OR** select "Programming" in the upper menu bar and click on "Reprogramming all devices".

You will now see two new status messages in the status line "Programming running" and "RF-Stick ready for programming".

- Go with your notebook / netbook near your locking devices (max. 10m).
- Hold the RF-STICK-MASTER within reading range of your locking device.

---

If the distance between the RF-Stick and the locking device is too long (longer than 10 m), the locking device will signal the lacking connection with a long beep and red LEDs.

When the locking device has detected the RF-STICK-MASTER, it signals this with a long beep and the green LEDs will go on for about five seconds.

When the transmission starts, the green LEDs start flashing and continue to flash until the data transmission is finished.

After the data transmission has been finished, the programming job is deleted from the "Programming status" list.
10 Maintenance

- Have your wall terminals serviced and their perfect functioning verified every six months by CES or by a CES partner only.

11 Care

The outer accessible parts of your locking devices such as knobs, knob sleeves, covers, fittings, etc. can be cleaned with a soft, slightly moist wipe.

**NOTICE**

Risk of damage to surfaces of the wall terminal!

- Never use solvent-containing cleaning agents to avoid damage to your locking devices.

12 Spare Parts

The wall terminal does not require any spare parts for you to change.

- If you need service, please contact your professional CES partner.
## 13 Trouble-shooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause and remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The door cannot be opened.</td>
<td><em>You have used an unauthorized locking medium.</em></td>
</tr>
<tr>
<td></td>
<td>▶ Use an authorized locking medium.</td>
</tr>
<tr>
<td></td>
<td><em>The power supply is interrupted.</em></td>
</tr>
<tr>
<td></td>
<td>▶ Re-establish the power supply.</td>
</tr>
<tr>
<td></td>
<td>▶ Verify the perfect functioning of the power circuit of your connected door system.</td>
</tr>
<tr>
<td></td>
<td><em>The locking medium is out of the reading range of the wall terminal.</em></td>
</tr>
<tr>
<td></td>
<td>▶ Reduce the distance to the reader.</td>
</tr>
</tbody>
</table>

▶ If the error still cannot be eliminated, contact your CES partner.
Neither the wall terminal, nor the batteries nor parts of the wall terminal may be discarded with the normal household waste.

- Always observe the applicable national and regional regulations.

Our packaging is made of environmentally friendly, reusable materials. It comprises external packaging and inserts made of cardboard, inserts and protective film made of polypropylene (PE).

- Please dispose of the packaging in an environmentally responsible manner through separate waste streams.

- Ask your local authorities about recycling and/or the proper disposal of the device in line with environmental regulations.

---

**NOTICE**

Risk of environmental pollution by improper disposal!

If you violate the disposal regulations, environmental pollution is possible.

- Adhere to the local disposal regulations.
### 15.1 WT-I/WT-II (CES standard)

#### Dimensions

**Dimensions (WT-I u. WT-II, CES standard housing):**

- **Fitting frame:**
  - Length: approx. 84 mm,
  - Width: approx. 84 mm,
  - Height: approx. 19 mm

- **Length:** approx. 84 mm,
- **Width:** approx. 84 mm,
- **Height:** approx. 20 mm

*Fig. 35 – Dimensions*
## 15.2 WT-I/WT-II (Flush installation)

![Dimensions flush installation](image)

**Fig. 36 – Dimensions flush installation**

<table>
<thead>
<tr>
<th>Dimensions:</th>
<th>Reader terminal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: approx. 66 mm, Width: approx. 66 mm, Height: approx. 35 mm</td>
<td></td>
</tr>
<tr>
<td>Length: approx. 66 mm, Width: approx. 66 mm, Height: approx. 18 mm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power supply:</th>
<th>Power consumption:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12–24V AC/DC</td>
<td></td>
</tr>
<tr>
<td>WT-I: 3 W; WT-II: 5 W</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suitable transponder media:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mifare Classic Standard 1k/4k, all media according to ISO 14443, DESFire EV-1, LEGIC-prime, LEGIC-advant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connections (screw terminals with header):</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 × separate zero-potential switching outputs</td>
</tr>
<tr>
<td>1 × RS 232 interface</td>
</tr>
<tr>
<td>Power supply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relay contact:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 × normally closed contact (NC), 2 × normally open contact (NO)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relay switching capacity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,8 A 30 V DC</td>
</tr>
<tr>
<td><strong>Memory:</strong></td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td><strong>Number of Master media:</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Permissible operating temperatures:</strong></td>
</tr>
<tr>
<td><strong>Humidity:</strong></td>
</tr>
<tr>
<td><strong>Environmental conditions:</strong></td>
</tr>
<tr>
<td><strong>Communication frequency:</strong></td>
</tr>
<tr>
<td><strong>Max. permissible cable length (WT-II, wall terminal and reader module):</strong></td>
</tr>
<tr>
<td><strong>Reading ranges:</strong></td>
</tr>
<tr>
<td><strong>Suitable housings:</strong></td>
</tr>
</tbody>
</table>
15.3 **Appropriate power supply**

The following power packs are recommended as power supplies for the WT-I and WT-II wall terminals:

- Part number 247723 (12 V DC, 1 A)
- Part number 247724 (12 V DC, 800 mA)

![Power Supply Diagram]

*Fig. 37 – Appropriate power supply*

15.4 **WT-I/WT-II, Siedle BM-611 housing (optional)**

![Housing Dimensions]

*Fig. 38 – Dimensions Siedle housing BM 611*
15.5 WT-I/WT-II, IP 55, surface installation (optional)

Fig. 39 - Dimensions IP 55

15.6 WT-I/WT-II, IP 55, Flush installation (optional)

Fig. 40 - Dimensions IP 55 flush

All dimensions in mm.
### Reader
The reader terminal is installed in your wall terminals. It detects locking media. For security reasons, the WT-II wall terminal has a discrete reader module which can be fitted at a distance of up to 20 m away from the Controller terminal.

### Master media
Optional media for programming the wall terminals. The OMEGA system comprises two types of Master media: the SYSTEM-MASTER and the PROGRAM-MASTER. Optional transponder cards also have Master medium status.

### Rx/Tx/Gnd
Connections for linking the wall terminal with the long-range reader.
- **Rx (Receive Data)** = Receive signal
- **Tx (Transmit Data)** = Transmit signal
- **Gnd** = Ground
- **VCC** = Common Connector Voltage terminal

### PROGRAM-MASTER
Optional Master media that are authorized to program locking media.

### Locking medium
Medium enabling you to lock and unlock your wall terminals. Just like keys, locking media are authorized for certain points of entry.

### SYSTEM-MASTER
Optional master medium that enables you to authorize PROGRAM-MASTERS for the system. Each system has one and only one SYSTEM-MASTER.

### Transponder
A transponder is a wireless communication and control device that receives signals and automatically responds to them.
## 17 Overview of the signals

### Normal operation with locking media

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Signal type</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorized access</td>
<td>Beeper</td>
<td>1 × short</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td>1 × short</td>
</tr>
<tr>
<td>Unauthorized access attempt</td>
<td>Beeper</td>
<td>4 × short</td>
</tr>
<tr>
<td></td>
<td>LED red</td>
<td>4 × short</td>
</tr>
</tbody>
</table>

### Programming with Master media

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Signal type</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start of programming</td>
<td>Beeper</td>
<td>1 × short</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td>On as long as medium is within range</td>
</tr>
<tr>
<td>End of programming</td>
<td>Beeper</td>
<td>1 × long</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td>On as long as medium is within range</td>
</tr>
<tr>
<td>Acknowledgement of programming</td>
<td>Beeper</td>
<td>1 × short</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td>On as long as medium is within range</td>
</tr>
<tr>
<td>Acknowledgement of deletion</td>
<td>Beeper</td>
<td>2 × short, after 2 s.</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td>On as long as medium is within range</td>
</tr>
<tr>
<td>Unauthorized programming attempt</td>
<td>Beeper</td>
<td>2 × short</td>
</tr>
<tr>
<td></td>
<td>LED red</td>
<td>2 × short</td>
</tr>
</tbody>
</table>
### Enabling and disabling the Office function

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Signal type</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling with locking medium</td>
<td>Beeper</td>
<td>1 × short, 1 × long</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td></td>
</tr>
<tr>
<td>Disabling with locking medium</td>
<td>Beeper</td>
<td>1 × long, 1 × short</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td></td>
</tr>
</tbody>
</table>

### Programming in radio network

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Signal type</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling RF mode</td>
<td>Beeper</td>
<td>1 × short, after leaving reading range</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On as long as medium is within range</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td></td>
</tr>
<tr>
<td>Disabling RF mode</td>
<td>Beeper</td>
<td>2 × short, after leaving reading range</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On as long as medium is within range</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td></td>
</tr>
<tr>
<td>Acknowledgement of disabling of RF mode</td>
<td>Beeper</td>
<td>1 × long, after leaving reading range</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data transmission (Programming)</td>
<td>LED green</td>
<td>1 × very short</td>
</tr>
<tr>
<td>TRACE signal good</td>
<td>LED green</td>
<td>2 × very short</td>
</tr>
<tr>
<td>TRACE signal still usable</td>
<td>LED green</td>
<td>1 × very short</td>
</tr>
<tr>
<td>TRACE signal bad</td>
<td>LED red</td>
<td>1 × short</td>
</tr>
</tbody>
</table>
### Programming with RF-Master-Set

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Signal type</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling learning mode</td>
<td>Beeper</td>
<td>1 × short, after leaving reading range</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td>On as long as medium is within range</td>
</tr>
<tr>
<td>Disabling learning mode</td>
<td>Beeper</td>
<td>1 × long, after leaving reading range</td>
</tr>
<tr>
<td></td>
<td>LED green</td>
<td>On as long as medium is within range</td>
</tr>
<tr>
<td>Learning mode enabled</td>
<td>LED green</td>
<td>1 × short</td>
</tr>
<tr>
<td>Acknowledgement of learning mode</td>
<td>LED green</td>
<td>1 × long</td>
</tr>
</tbody>
</table>

### Trouble and error messages

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Signal type</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Battery warning after unlocking attempt</td>
<td>Beeper</td>
<td>1 × long</td>
</tr>
<tr>
<td></td>
<td>LED red</td>
<td>1 × long</td>
</tr>
<tr>
<td>Communication error</td>
<td>Beeper</td>
<td>3 × (short/long)</td>
</tr>
<tr>
<td></td>
<td>LED red</td>
<td>3 × (short/long)</td>
</tr>
<tr>
<td>Antenna error</td>
<td>Beeper</td>
<td>1 × long</td>
</tr>
<tr>
<td></td>
<td>LED red</td>
<td>1 × long</td>
</tr>
<tr>
<td>Communication error, error in the locking mechanism</td>
<td>Beeper</td>
<td>3 × (short/long/short)</td>
</tr>
<tr>
<td></td>
<td>LED red</td>
<td>3 × (short/long/short)</td>
</tr>
</tbody>
</table>
17.1 Signalling at the locking device

Signalling is identical for all types of locking devices (example: locking cylinder).

<table>
<thead>
<tr>
<th>Authorized access</th>
<th>Unauthorized access</th>
<th>Blocking times activated</th>
<th>Release times activated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x green</td>
<td>4 x red</td>
<td>4 x red</td>
<td>1 x long, green</td>
</tr>
</tbody>
</table>

(Only in Office mode, Release mode, Block mode)
<table>
<thead>
<tr>
<th>Unauthorized Master media</th>
<th>Unauthorized Master media during learning mode with System-Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x long, red</td>
<td>1 x long, green/red</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Ready</td>
<td></td>
</tr>
<tr>
<td>Red</td>
<td></td>
</tr>
</tbody>
</table>
This programming overview shows all programming procedures.

For further information, please refer to the programming instructions for the OMEGA system. These are available free of charge at www.ces.eu.

Programming is identical for all types of locking media and locking devices.

**NOTICE**

**Danger of accidental deletion of authorizations.**

- Unless stated otherwise, hold the media in front of the reader for approx. one second.
- Only hold the respective media in front of the reader for as long as is indicated in the instructions.
18.1 Defining the SYSTEM-MASTER

1. 

2. 

3. 

4. 

Fig. 41 – Defining the SYSTEM-MASTER
18.2 Authorizing a PROGRAM-MASTER

Fig. 42 – Authorizing a PROGRAM-MASTER
18.3 Programming with the RF-Stick

1. 

2. 

3. 

4. 

5. 

6. 

Fig. 43 - Programming with the RF-Stick
18.4 Authorizing a locking medium

1. ![Diagram of OMEGA FLEX PROGRAM-MASTER]

2. ![Diagram of OMEGA FLEX PROGRAM-MASTER]

3. ![Diagram of a key]

4. ![Diagram of a key]

5. ![Diagram of OMEGA FLEX PROGRAM-MASTER]

6. ![Diagram of OMEGA FLEX PROGRAM-MASTER]

Fig. 44 – Authorizing a locking medium
18.5 Authorizing optional media

Programming is the same for all optional media. The following describes the procedure with a "TIME-MASTER" as an example for all optional media.

<table>
<thead>
<tr>
<th>Step</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><img src="image1" alt="Image" /> OMEGA FLEX SYSTEM-MASTER</td>
</tr>
<tr>
<td>2.</td>
<td><img src="image3" alt="Image" /> OMEGA FLEX SYSTEM-MASTER</td>
</tr>
<tr>
<td>3.</td>
<td><img src="image5" alt="Image" /> OMEGA FLEX TIME-MASTER</td>
</tr>
<tr>
<td>4.</td>
<td><img src="image7" alt="Image" /> OMEGA FLEX TIME-MASTER</td>
</tr>
<tr>
<td>5.</td>
<td><img src="image9" alt="Image" /> OMEGA FLEX SYSTEM-MASTER</td>
</tr>
<tr>
<td>6.</td>
<td><img src="image11" alt="Image" /> OMEGA FLEX SYSTEM-MASTER</td>
</tr>
</tbody>
</table>

Fig. 45 – Authorizing optional Master media
18.6 Enabling and disabling learning mode

1.

2. [Diagram showing the process]
   max. 3 Min.

3. [Diagram showing the process]

Fig. 46 - Enabling and disabling learning mode (RF Switchpoint)
18.7 Authorizing locking devices

1.

2. max. 3 Min.

3. max. 4

4.

Fig. 47 - Authorizing locking devices (RF-Switchpoint)
18.8 Enabling and disabling RF mode

Fig. 48 – RF mode ON/OFF

18.9 No RF link established

Fig. 49 – Checking the RF link

18.10 Enabling and disabling Office mode

Fig. 50 – Office mode ON/OFF
18.11 Deleting the authorization of a PROGRAM-MASTER

When the authorization of the PROGRAM-MASTER is deleted, all the authorizations of locking media that were granted with that PROGRAM-MASTER are deleted as well.
18.12 Deleting the authorization of a locking medium

Fig. 52 – Deleting the authorization of a locking medium
18.13 Deleting the authorizations of all locking media

1. [Diagram showing the process of deleting authorizations]

2. [Diagram showing further steps]

Fig. 53 – Deleting the authorizations of all locking media

18.14 Using Emergency Key

1. [Diagram showing the use of emergency key]

2. [Diagram showing additional actions]

Fig. 54 – Using Emergency Key
As stated in our Standard Terms and Conditions, the manufacturer's warranty does not extend to the following types of damage:

- damage to outer mechanical parts and damage resulting from normal wear and tear
- damage caused by faulty installation
- damage caused by faulty backups
- damage as a consequence of external events or influence
- damage as a consequence of improper operation
- damage as a consequence of excess voltage
- damage as a consequence of fire, water or smoke.

All technical data and features are subject to change without notice.

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## Index

### A
- Addresses · 92
- Authorizing a locking medium · 81
- Authorizing a PROGRAM-MASTER · 79
- Authorizing a SYSTEM-MASTER · 78
- Authorizing locking devices · 84
- Authorizing optional media · 82

### B
- Basic safety instructions · 11

### C
- Care · 63
- CE-Declaration · 10
- CES standard housing · 66
- Connections WT-I · 35
- Connections WT-II · 38
- Connections WT-II Controller · 40
- Connections WT-II Reader · 41

### D
- Danger of explosion · 11
- Danger of malfunctions · 13
- Danger of poisoning · 12
- Danger of property damage · 12
- Danger of suffocation · 11
- Danger to life · 11
- Deleting authorization · 86, 87
- Delivery · 18
- Description · 14
- Disposal · 65
- Disposal regulations · 65

### E
- Emergency Key · 31, 88
- Enabling and disabling RF mode · 83, 85

### F
- Features · 17
- Fitting · 33
- Fitting frame · 44
- Fitting staff · 7
- Flush installation · 67

### G
- Glossary · 71

### H
- Hierachien · 32
- Household waste · 65

### I
- Intended use · 9
- Introduction · 6
- IP 55 Flush installation · 70
- IP 55 surface installation · 70

### M
- Maintenance · 63
- Manual programming · 23
- Manufacturer's warranty · 89

### N
- Notes on the layout · 5

OMEGA FLEX wall terminals WT-I/WT-II
Index

O
OMEGA software · 22
Operating the wall terminal · 51
Operators · 7
Optional Master media · 24

P
Power supply · 69
Prioritäten · 32
Product training · 7
PROGRAM-MASTER · 24
Programming · 77
Programming cable · 54
Programming instructions · 24, 77
Programming overview · 77
Programming procedures · 77
Programming with the RF-Stick · 80

R
Radio network · 23
Recycling · 65
RF mode · 28
RF network · 21
RF-INI-MASTER · 28
RF-Stick · 21, 59

S
Safety notes · 8
Scope of delivery · 18
Siedle BM-611 housing · 69
Signals · 72
Spare Parts · 63
Static charges · 33
SYSTEM-MASTER · 24

T
Target group · 7
Technical data · 66
TIME-MASTER · 25
Trouble-shooting · 64

U
Updated versions · 6

V
Versions · 21
V-NET virtual network · 21
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