CES OMEGA FLEX

Electronic cylinder

Double knob cylinder

Dummy cylinder

Half cylinder

Dual cylinder

Assembly and Operating Instructions

English

Version VA

BRO2264-2
# Contents

1 About this manual ................................................................. 5
   1.1 Design characteristics ...................................................... 5
   1.2 Target group of this manual ............................................... 5
   1.3 Validity of this manual ..................................................... 5
   1.4 Manufacturer and Service ................................................ 6
   1.5 Notes on trademark protection .......................................... 6

2 About the OMEGA FLEX system ............................................. 7
   2.1 What is OMEGA FLEX? ..................................................... 7
   2.2 How does the OMEGA FLEX work? ..................................... 7
   2.3 Which system components are included in the OMEGA FLEX? .... 7
   2.4 About the OMEGA FLEX electronic cylinder ....................... 11

3 For your safety ................................................................. 14
   3.1 Declaration of Conformity ............................................... 14
   3.2 Intended use ..................................................................... 14
   3.3 Safety instructions in this manual ...................................... 14
   3.4 Basic safety instructions ................................................... 14
   3.5 Notes on dealing with batteries ........................................ 16
   3.6 Emergency key for the fire brigade key depot (FKD) ............... 17
   3.7 Manufacturer's warranty .................................................. 17

4 Assembly ........................................................................... 18
   4.1 Important notes on assembly .............................................. 18
   4.2 Preparations for assembly .................................................. 18
   4.3 Overview: Which assembly instruction applies to which electronic cylinder? .... 19
   4.4 Assembling double-knob cylinder (from the outside) .............. 20
   4.5 Assembling double-knob cylinder (from the inside) ................ 27
   4.6 Assembling dummy cylinder (from the outside) .................... 35
   4.7 Assembling dummy cylinder (from the inside) ....................... 42
   4.8 Assembling dual cylinder .................................................. 44
   4.9 Assembling half cylinder ................................................... 53

5 Administration .................................................................... 59
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>OMEGA FLEX system administration basics</td>
<td>59</td>
</tr>
<tr>
<td>5.2</td>
<td>OMEGA FLEX system functions</td>
<td>61</td>
</tr>
<tr>
<td>5.3</td>
<td>Administration with master media</td>
<td>66</td>
</tr>
<tr>
<td>5.4</td>
<td>Administration with an RF-Stick</td>
<td>70</td>
</tr>
<tr>
<td>5.5</td>
<td>Administration via wireless online network</td>
<td>74</td>
</tr>
<tr>
<td>5.6</td>
<td>Administration via V-NET</td>
<td>76</td>
</tr>
<tr>
<td>5.7</td>
<td>Use of the OMEGA Client software</td>
<td>79</td>
</tr>
<tr>
<td>5.8</td>
<td>Opening mode of the locking devices</td>
<td>81</td>
</tr>
<tr>
<td>6</td>
<td>Operation</td>
<td>83</td>
</tr>
<tr>
<td>6.1</td>
<td>Opening doors</td>
<td>83</td>
</tr>
<tr>
<td>6.2</td>
<td>Using the Office function</td>
<td>85</td>
</tr>
<tr>
<td>6.3</td>
<td>Access in emergency situations (Emergency mode)</td>
<td>87</td>
</tr>
<tr>
<td>7</td>
<td>Maintenance</td>
<td>90</td>
</tr>
<tr>
<td>7.1</td>
<td>Routine maintenance work</td>
<td>90</td>
</tr>
<tr>
<td>7.2</td>
<td>Device care</td>
<td>90</td>
</tr>
<tr>
<td>7.3</td>
<td>Service</td>
<td>90</td>
</tr>
<tr>
<td>7.4</td>
<td>Notes on transportation</td>
<td>90</td>
</tr>
<tr>
<td>7.5</td>
<td>Battery management</td>
<td>91</td>
</tr>
<tr>
<td>8</td>
<td>Disposal</td>
<td>97</td>
</tr>
<tr>
<td>8.1</td>
<td>Notes on disposal</td>
<td>97</td>
</tr>
<tr>
<td>9</td>
<td>Technical data</td>
<td>98</td>
</tr>
<tr>
<td>9.1</td>
<td>Equipment features</td>
<td>98</td>
</tr>
<tr>
<td>9.2</td>
<td>Dimensions and extensions</td>
<td>99</td>
</tr>
<tr>
<td>10</td>
<td>Help and troubleshooting</td>
<td>103</td>
</tr>
<tr>
<td>10.1</td>
<td>Loss of a master media</td>
<td>103</td>
</tr>
<tr>
<td>10.2</td>
<td>Loss of a locking media</td>
<td>104</td>
</tr>
<tr>
<td>10.3</td>
<td>Error signalling</td>
<td>108</td>
</tr>
<tr>
<td>11</td>
<td>Overview: Master media usage</td>
<td>110</td>
</tr>
<tr>
<td>11.1</td>
<td>Authorising System-Master</td>
<td>111</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>11.2</td>
<td>Authorising additional master media</td>
<td></td>
</tr>
<tr>
<td>11.3</td>
<td>Deleting master media</td>
<td></td>
</tr>
<tr>
<td>11.4</td>
<td>Deleting System-Master</td>
<td></td>
</tr>
<tr>
<td>11.5</td>
<td>Authorising locking media</td>
<td></td>
</tr>
<tr>
<td>11.6</td>
<td>Deleting locking media authorisations</td>
<td></td>
</tr>
<tr>
<td>11.7</td>
<td>Deleting all locking media authorisations simultaneously</td>
<td></td>
</tr>
<tr>
<td>11.8</td>
<td>Setting opening period</td>
<td></td>
</tr>
<tr>
<td>11.9</td>
<td>Activating release mode</td>
<td></td>
</tr>
<tr>
<td>11.10</td>
<td>Deactivating release mode</td>
<td></td>
</tr>
<tr>
<td>11.11</td>
<td>Activating block mode</td>
<td></td>
</tr>
<tr>
<td>11.12</td>
<td>Deactivating block mode</td>
<td></td>
</tr>
<tr>
<td>11.13</td>
<td>Activating emergency mode</td>
<td></td>
</tr>
<tr>
<td>11.14</td>
<td>Deactivating emergency mode</td>
<td></td>
</tr>
<tr>
<td>11.15</td>
<td>Activating online mode</td>
<td></td>
</tr>
<tr>
<td>11.16</td>
<td>Deactivating online mode</td>
<td></td>
</tr>
<tr>
<td>11.17</td>
<td>Checking quality of wireless connection</td>
<td></td>
</tr>
<tr>
<td>11.18</td>
<td>Transmitting programming jobs using RF-Stick to a locking device</td>
<td></td>
</tr>
</tbody>
</table>

12 Index
1 About this manual

This Assembly and Operating Instructions, hereinafter referred to as "manual", will help you to assemble and use the purchased electronic cylinder safely and conveniently for the intended purpose. Each person, who assembles, administers, maintains, or disposes of electronic cylinders must have read and understood the complete contents of this manual.

If you do not understand the functions of the OMEGA FLEX system, please contact you CES partner for further information.

1.1 Design characteristics

- Refers to other documents
- Marks additional information and tips
- Marks warnings in step-by-step instructions and specially important information

1.2 Target group of this manual

This manual is intended for:

- Trained assembly personnel
- Maintenance personnel
- Operator

The necessary expertise regarding the intended use of the product are presumed for the use of this manual.

The necessary product training is conducted by your CES partner. In case it has not yet been done, please contact your CES partner to get the product training.

1.3 Validity of this manual

This manual applies to all OMEGA FLEX electronic cylinders:

- Double-knob cylinder (Standard, AP and GS)
- Half cylinder
- Dummy cylinder (Standard, AP and GS)
- Dual cylinder

in all variants (see "Variants of OMEGA FLEX locking devices" on page 9).
Always use the latest version of this manual. The version number of this manual is shown on the cover page. You can get the latest version free of cost under www.ces.eu.

1.4 Manufacturer and Service

C.Ed. Schulte GmbH
Zylinderschlossfabrik
Friedrichstr. 243
42551 Velbert

Phone: +49 (0) 2051-204-0
Fax: +49 (0) 2051-204-229

www.ces.eu

For service assistance please contact your CES partner.

1.5 Notes on trademark protection

MIFARE, MIFARE classic, MIFARE Ultralight and MIFARE DESFire are registered trademarks of NXP B.V. and are used under license.
2.1 What is OMEGA FLEX?

OMEGA FLEX is a group of products consisting of various electronic locking devices and locking media, which can be combined arbitrarily with each other. Also a combination with mechanical locking cylinders is possible without problems.

The combination of OMEGA FLEX components chosen by you builds your personal OMEGA FLEX system, which can be extended or altered at any time.

2.2 How does the OMEGA FLEX work?

OMEGA FLEX is based on wireless communication between locking media and battery driven locking devices. Each locking media contains a transponder, which can transmit to and receive information from the locking devices wirelessly.

You can equip your door simply with an electronic locking device (e.g. Electronic cylinder) from the OMEGA FLEX system instead of a mechanical locking cylinder. Thereupon, the doors can be opened with an authorised locking media (e.g. with a key fob or an identity card, which contains a transponder).

If an authorised locking media is held in the reading field of a locking device, it couples and the door can be opened. After an interval (“Opening duration”) the locking device disengages automatically. As a result, the latchbolt and the deadbolt are not retracted when the locking device is actuated, and the door can no longer be opened.

Depending upon the intended purpose, OMEGA FLEX can fulfil a variety of complex tasks. So, e.g. besides the authorisations assigned for the locking media, also time slots can be defined within which these authorisations are valid (see “OMEGA FLEX system functions” on page 61).

2.3 Which system components are included in the OMEGA FLEX?

The OMEGA FLEX system comprises various locking devices, locking media and administration devices.
2.3.1  Locking devices

Locking devices are installed in or close to the door and they control the access there:

Electronic cylinder  Electronic handle sets  Wall terminals  Wireless switch

Locking devices are available in different variants (see “Variants of OMEGAFLEX locking devices” on the facing page).

The electronic handle set Long shield ILS is also available as mechanical locking device (Long shield MLS). This allows you to combine the electronic and mechanical handle sets with each other in a uniform design.

2.3.2  Locking media

The locking media can open the doors equipped with OMEGAFLEX locking devices:

Key fob  Key fob Slim line  Key fob Premium

Identity card  Combination key  Wireless key

A combination key is a mechanical key with integrated transponder to combine mechanical locking cylinder with electronic locking devices in a locking system.
2.3.3 Administration devices

Administration devices serve to manage the OMEGA FLEX system:

- Master media RF-Stick
- Desktop-Reader and Desktop-Writer
- Access-Point and repeater
- PC with OMEGA Suite
- Programming Adaptor
- Programming cable

2.3.4 Update-Terminals

With Update-Terminals, the users can program and validate their locking media in V-Net themselves.

- Key-Point
- Update-Terminals (no locking device function)
- Wall terminals (Wall terminal variant /VA, no programming function)

2.3.5 Variants of OMEGA FLEX locking devices

The different variants of the locking devices differ in the firmware that is located in the device. The variant determines whether a locking device is suitable for a particular purpose or for an administration type. Thus, e.g. only NET and VA locking devices can connect to a wireless online network.
## Variants and their relevance

<table>
<thead>
<tr>
<th>Variant</th>
<th>Meaning</th>
<th>Programming via..</th>
<th>Online/Offline</th>
</tr>
</thead>
<tbody>
<tr>
<td>/N</td>
<td>&quot;NoTime&quot; (No time profiles, no events available)</td>
<td>Master media and an RF-Stick</td>
<td>Offline</td>
</tr>
<tr>
<td>/T</td>
<td>&quot;Time&quot; (Time profiles and events available)</td>
<td>Master media and an RF-Stick</td>
<td>Offline</td>
</tr>
<tr>
<td>/NET</td>
<td>&quot;Net&quot; (Wireless online network, Time profiles and events available)</td>
<td>Master media, RF-Stick and Access-Point</td>
<td>Online</td>
</tr>
</tbody>
</table>

### V NET

<table>
<thead>
<tr>
<th>Variant</th>
<th>Meaning</th>
<th>Programming via..</th>
<th>Online/Offline</th>
</tr>
</thead>
<tbody>
<tr>
<td>/NV</td>
<td>&quot;NoTime&quot; in V-NET (No time profile, no events are available)</td>
<td>RF-Stick</td>
<td>Offline</td>
</tr>
<tr>
<td>/TV</td>
<td>&quot;Time&quot; in V-Net (Time profiles and events available)</td>
<td>RF-Stick</td>
<td>Offline</td>
</tr>
<tr>
<td>/VA</td>
<td>&quot;Validation&quot; (Validation function, wireless online network, time profiles and events available)</td>
<td>RF-Stick and Access-Point</td>
<td>Online</td>
</tr>
</tbody>
</table>

## Availability of variants for different locking devices

<table>
<thead>
<tr>
<th>Variant</th>
<th>Electronic-Electronic cylinder</th>
<th>Electronic-Handle set</th>
<th>Wall terminals</th>
<th>Controls (Wireless switch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>T</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>NET</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>NV</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>TV</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>VA</td>
<td>×</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
</tbody>
</table>

## 2.3.5.1 Altering the variant of a locking device

By extending the license you can upgrade and downgrade the current variant of a locking device with the OMEGA Client and an RF-Stick, provided the new variant for the locking device is available. See "Availability of variants for different locking devices" above. Please contact your CES partner for the required license extension.

A detailed manual is available in the OMEGA Suite Help.
2.4 About the OMEGA FLEX electronic cylinder

2.4.1 Versions

Electronic cylinders are available in three versions:

- Standard
- Anti-panic (AP)
- Gearbox lock (GS)

About the anti-panic cylinder (AP)

Anti-panic electronic cylinders (AP-electronic cylinder) can be used in anti-panic locks and thus in escape and rescue routes. The locking cam of the anti-panic electronic cylinder is always reset to the correct position.

⚠️ Anti-panic electronic cylinder may only be used in anti-panic locks (EN179 or EN1125 conform) for which the electronic cylinder is approved!

About the gearbox lock cylinder (GS)

Gearbox lock cylinders (GS-Cylinders) are suitable for use in gearbox locks and particularly in smooth-running locks.

⚠️ Gearbox lock cylinders may only be used in locks for which the cylinder is approved!

2.4.2 Available electronic cylinders

OMEGA FLEX electronic cylinders are listed under the following article numbers:

### Double knob cylinder

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F815DK-x</td>
<td>F815DK-x-AP</td>
<td>F815DK-x-GS</td>
</tr>
<tr>
<td>yes</td>
<td>F915DK-x</td>
<td>F915DK-x-AP</td>
<td>F915DK-x-GS</td>
</tr>
</tbody>
</table>

### Euro profile cylinder

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F615DK-x</td>
<td>F615DK-x-AP</td>
<td>F615DK-x-GS</td>
</tr>
<tr>
<td>yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Swiss round cylinder

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F615DK-x</td>
<td>F615DK-x-AP</td>
<td>F615DK-x-GS</td>
</tr>
<tr>
<td>yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*FH*=Fire retardant, suitable for fire protection doors up to T90
### Dummy cylinder

#### Euro profile cylinder

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F802/13-x</td>
<td>F802/13-x-AP</td>
<td>F802/13-x-GS</td>
</tr>
<tr>
<td>yes</td>
<td>F902/13-x</td>
<td>F902/13-x-AP</td>
<td>F902/13-x-GS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F602/13-x</td>
<td>F602/13-x-AP</td>
<td>F602/13-x-GS</td>
</tr>
<tr>
<td>yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*FH* = Fire retardant, suitable for fire protection doors up to T90

### Dual cylinder

#### Euro profile cylinder

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F815DK-x-II</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>yes</td>
<td>F915DK-x-II</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F615DK-x-II</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*FH* = Fire retardant, suitable for fire protection doors up to T90

### Half cylinder

#### Euro profile cylinder

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F815DK-x-½</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>yes</td>
<td>F915DK-x-½</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FH*</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F615DK-x-½</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Special version: half cylinder with two backside threaded holes M4 (lift)

<table>
<thead>
<tr>
<th>FH</th>
<th>Standard</th>
<th>AP</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>F815DK-x⅓-51</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>yes</td>
<td>F915DK-x⅓-51</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

\*FH=Fireretardant, suitable for fire protection doors up to T90

2.4.3 Notes on burglary protection

Cylinder with the option "VdS" or "SKG***" (see "About the OMEGA FLEX system" on page 7) are burglar protected (anti-drilling and anti-pulling protection).

In order to maintain the burglar-resistant effect of an electronic cylinder, it must never protrude more than 3 mm above the surface of the handle set. Make sure to use the appropriate electronic cylinder length for your handle set.

2.4.3.1 Option VdS

To maintain the burglar protection, use the following classified handle sets:

Class * (Home):
Burglar resistant security shield, VdS approved or DIN 18257 ES0-ZA with cylinder cover required.

Class ** (A, Electronic cylinder without anti-pulling protection):
Burglar resistant security shield, VdS AZ or DIN 18257 ES1-ZA with cylinder cover required.

Class *** (B, Electronic cylinder without anti-pulling protection):
Burglar resistant security shield, VdS BZ or DIN 18257 ES2-ZA with cylinder cover required.

2.4.3.2 Option SKG***

SKG***:
Burglary resistant security shield SKG** required.
3 For your safety

3.1 Declaration of Conformity

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

3.2 Intended use

The electronic cylinder serves to authorised opening and closing of doors with locks having a latch function. It is exclusively intended this purpose and may only be used for this. Electronic cylinders may never be altered in any way without the written permission from C.Ed. Schulte GmbH Zylinderschlossfabrik.

All other uses are considered as improper use and may lead to material damages or even personal injuries. The C.Ed. Schulte GmbH Zylinderschlossfabrik assumes no liability for damages caused by improper use.

3.3 Safety instructions in this manual

- **NOTICE** “Notice” warns against hazards that may lead to material damages.

- **CAUTION** “Caution” warns against hazards which may result in minor to moderate injuries.

3.4 Basic safety instructions

The electronic cylinder has been built with the state-of-the-art technology and established safety regulations. Nevertheless, its use may constitute function-related hazards for the user or third parties or impairments of the electronic cylinder and other material assets.

Follow the warnings and instructions in this Assembly and Operating Instructions while assembling administering and using the electronic cylinder.

3.4.1 Danger to life

- If you use the electronic cylinder for doors with anti-panic functions (Emergency exits etc.) the electronic cylinder must be approved for this purpose. Otherwise, people may not be able to open the doors in emergency situations and can get injured or killed.
• The electronic cylinder must be suitable for your door system. In case of doubt, contact the manufacturer of the door or door lock to clarify the suitability.

• Special regulations apply to approved doors. Before assembling the electronic cylinder in a fire or smoke resistant door, check the approval of the door and that of the electronic cylinder for your purpose.

• All components required for complete assembly on your door must be CE compliant. Check before the assembly whether all used parts are CE compliant.

3.4.2 Danger of personal injury

Danger of explosion

• Live parts of the electronic cylinder may cause an explosion. Do not use the electronic cylinder in potentially explosive areas.

3.4.3 Danger of damage to material assets

Transportation

• Do not drop the electronic cylinder on the floor, on hard surfaces or objects.

Admissibility of doors and locks

• If you attach seals or, e.g. sealing strips to the door, these must not impair the function of the electronic cylinder.

• Only install electronic Cylinder fitting to your door.

• Installation of the electronic cylinder may impair the functionality of the installed components or that of the door itself.

Assembly

• The electronic cylinder contains highly sensitive electronic components, which can be damaged or destroyed through electrostatic charges. Therefore, do not assemble the electronic cylinder in areas affected by electrostatic charge.

• Do not use electrical drill or battery operated cordless electric screwdriver for assembly.

• For assembly and disassembly, use only the tool specified in the “Assembly” chapter.

• While assembling, make sure that the door and the lock are in perfect condition. Malfunction of the lock may impair the function of the electronic cylinder.

• While assembling, make sure that the electronic cylinder can be assembled without jamming and use of force. If this not possible then align the lock and the handle set with each other to avoid the jamming and deformation of electronic cylinder during assembly.
3.5 Notes on dealing with batteries

- Do not assemble the mechanical knob of the electronic cylinder (if available) on the outside. You could lock-out yourself or give access to everyone.

**Operation**

- Protect the electronic components of the electronic cylinder against ingress of water and other fluids.

**Maintenance**

- Always leave the repairs performed to qualified personnel.
- Use only the accessories and spare parts recommended by CES.
- Do not use any lubricant or oils for the electronic cylinder.

**Danger through climatic influences**

- Do not use the electronic cylinder in corrosive atmosphere (chlorine, Ammonia, Lime water).
- Do not use the electronic cylinder in areas with high dust formation.
- Do not use the electronic cylinder near heat sources.
- Observe the maximum permissible temperatures as well as the air humidity data during the use of the electronic cylinder, see "Technical data" on page 98.

3.5 Notes on dealing with batteries

- Only the batteries specified by CES for the electronic cylinder may be used (Panasonic CR2 Industrial Lithium 3,0 V 850 mAh).
- Before inserting the batteries, check whether the contacts in the device and on the batteries are clean. Otherwise, clean them. Do not touch the contacts after the cleaning process.
- When inserting the batteries, ensure that the polarity is correct (+/-).
- Never try to recharge the batteries. There is a risk of explosion!
- Do not short circuit the batteries.
- Store batteries in a cool and dry place. Direct heat may damage the batteries. Therefore, do not expose batteries to any strong heat source and do not dispose off the batteries into fire.
- If you do not use devices for longer time, take out the batteries.
- Remove the leaking batteries immediately from the device. Clean the contacts before inserting new batteries. There is danger of acid burns from the battery acid!
- Remove the empty batteries from the device.
- Recycle the empty batteries.
3.6 Emergency key for the fire brigade key depot (FKD)

The OMEGA FLEX System offers master media Emergency-Key for use in case of fire and other emergencies (see “Which master media are available?” on page 66). The emergency key is suitable for the fire brigade key depot (FSD).

Independent of the actual programming of a locking device, the emergency-Key opens every locking device. After the emergency key is held in the locking device, it is opened permanently (see “Access in emergency situations (Emergency mode)” on page 87).

⚠️ Prior to its first use, the emergency key must be authorised for each locking device which it is supposed to operate (see “Authorising additional master media” on page 113).

3.7 Manufacturer's warranty

The following damages are not covered by the manufacturer warranty:

- Damages to the exterior mechanical parts as well as subsequent damages arising from normal wear and tear.
- Damages caused by external events or influences
- Damages caused by deficient installation
- Damages caused by deficient maintenance
- Damages caused by false operation
- Damages caused by overvoltage
- Damages caused by fire, water or smoke

All technical data and features are subject to change without prior notice. All information and data contained in this document is subject to change without prior notice. No part of this document may be copied or transmitted for any purposes whatsoever without the express written permission from the C.Ed. Schulte GmbH Zylinderschlossfabrik.

© 2017 C.Ed. Schulte GmbH Zylinderschlossfabrik, Velbert/Germany

VA

BRO2264-2
4 Assembly

4.1 Important notes on assembly

**NOTICE**

*Damage to the electronic cylinder is possible if assembled unprofessionally.*

- If assembled unprofessionally, the electronic cylinder can get damaged.
- The electronic cylinder may only be assembled by competent persons.
- These persons must have been trained on the product by CES or a CES partner.

**NOTICE**

*Lock out possible.*

- The door can slam shut during assembly and you can no longer open the door.
- Secure the door against slamming shut during assembly.
- Ensure that you have an authorised locking media.

4.2 Preparations for assembly

4.2.1 Check the scope of delivery

1. Take out the electronic cylinder from the packaging and remove all packaging materials such as films, filler material and the packing box.
2. Check the contents of delivery, see the corresponding chapter on the respective Wall terminal.
3. Check the new equipment for transport damages and report these to your CES partner immediately.

4.2.2 Remove the existing electronic cylinder

1. If an electronic cylinder is already existent in the door, disassemble it.
4.3 Overview: Which assembly instruction applies to which electronic cylinder?

The pictures in the assembly instructions show an Euro profile cylinder, however, the assembly of Swiss round cylinder is identical.

<table>
<thead>
<tr>
<th>Cylinder Type</th>
<th>Assembly Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual cylinder Knob</td>
<td>Assembling from the outside:</td>
</tr>
<tr>
<td></td>
<td>&quot;Assembling double-knob cylinder (from the outside)&quot; on the next page</td>
</tr>
<tr>
<td></td>
<td>Alternative assembly from the inside:</td>
</tr>
<tr>
<td></td>
<td>&quot;Assembling double-knob cylinder (from the inside)&quot; on page 27</td>
</tr>
<tr>
<td>Dummy cylinder</td>
<td>Assembling from the outside:</td>
</tr>
<tr>
<td></td>
<td>&quot;Assembling dummy cylinder (from the outside)&quot; on page 35</td>
</tr>
<tr>
<td></td>
<td>Alternative assembly from the inside:</td>
</tr>
<tr>
<td></td>
<td>&quot;Assembling dummy cylinder (from the inside)&quot; on page 42</td>
</tr>
<tr>
<td>Dual cylinder</td>
<td>&quot;Assembling dual cylinder&quot; on page 44</td>
</tr>
<tr>
<td>Half cylinder</td>
<td>&quot;Assembling half cylinder&quot; on page 53</td>
</tr>
</tbody>
</table>
4.4 Assembling double-knob cylinder (from the outside)

While assembling from the outside, the **mechanical knob** of electronic cylinder is disassembled. While assembling from the inside, the **electronic knob** of the cylinder is disassembled.

Note on the AP and GS-electronic cylinders: This electronic cylinder may only be used in locks which have an approval for it.

### 4.4.1 Scope of delivery double knob cylinder

<table>
<thead>
<tr>
<th>1</th>
<th>Double knob cylinder</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Cylinder fixing screw</td>
</tr>
<tr>
<td>3</td>
<td>Battery (Panasonic CR2 Industrial Lithium 3,0 V 850 mAh)</td>
</tr>
</tbody>
</table>

### 4.4.2 Parts description

<table>
<thead>
<tr>
<th>1</th>
<th>Knob sleeve</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Electronic knob</td>
</tr>
<tr>
<td>3</td>
<td>Battery holder</td>
</tr>
<tr>
<td>4</td>
<td>Securement ring</td>
</tr>
<tr>
<td>5</td>
<td>Electronic cylinder</td>
</tr>
<tr>
<td>6</td>
<td>Locking cam</td>
</tr>
</tbody>
</table>
4.4.3 Assembling double knob cylinder from the outside

The pictures in the assembly instructions show an Euro profile cylinder, however, the assembly of Swiss round cylinder is identical.

**Tools required:**

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th>Part of the assembly set*</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Torx screwdriver for TX25 with security pin" /></td>
<td>Cylinder fixing screw</td>
<td>✔</td>
</tr>
<tr>
<td><img src="image" alt="CES spanner" /></td>
<td>Knob sleeve</td>
<td>✔</td>
</tr>
</tbody>
</table>

Only for assembling the double-knob cylinder, if the mechanical knob is disassembled:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th>Part of the assembly set*</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="2.5 mm Allen key" /></td>
<td>Grub screw in mechanical knob</td>
<td>❌</td>
</tr>
</tbody>
</table>

*The assembly set is supplied one-off with the first order of a system. You can order additional tools from your CES partner.*
Assembling double-knob cylinder (from the outside)

1. Pull the **KNOB SLEEVE** off from the **ELECTRONIC knob**.

   * If you touch the components of the knob electronic, these may be damaged. Therefore, hold the knob electronics only within the marked area:

2. Insert the **BATTERIES** with correct polarity.

   * Use only Panasonic CR2 Industrial Lithium 3,0 V 850 mAh batteries.
   * Make sure that the battery strap lies below the battery and the end of the battery strap is protruding out.
   * The correct polarity is indicated in the **BATTERY** module.
   * Notes on the meaning of signalling after battery insertion can be found in the section "Maintenance" on page 90.

3. Place the **KNOB SLEEVE** again on the **ELECTRONIC knob**.
4. Tighten the **Knob Sleeve** with the **CES Spanner** and **by hand**.

   - **Do not** use the CES free-running ratchet to tighten the knob sleeve. If you screw the knob sleeve too tightly, you may damage the knob.

5. **Use the Allen-key to loosen the grub screw in the Mechanical Knob.**

6. **Pull off the Mechanical knob.**
7. Insert the electronic cylinder in the door. Thereby, the **ELECTRONIC KNOB** is located on the outside of the door.

8. Place the **MECHANICAL KNOB** on the electronic cylinder.

   Make sure that the grub screw is above the larger of the two holes.

9. Pull the grub screw tight with the **ALLEN KEY**.
10. Insert the CYLINDER FIXING SCREW.

11. Pull the CYLINDER FIXING SCREW slightly tight but do not tighten it completely yet.

12. Check if all parts are working smoothly.

13. Pull the CYLINDER FIXING SCREW tight.

Assembly of the electronic cylinder is now complete.

For AP- and GS-electronic cylinder: Check the anti-panic function

If the lock is an anti-panic lock conforming to EN179 or EN1125 and the electronic cylinder is approved for this lock, you must check the lock function after the assembly is complete.
Through malfunctions, persons in dangerous situations may not be able to open the door and be killed or injured. Therefore, check the emergency exit lock for a fault-free operation.

1. Check the emergency exit lock together with the OMEGA FLEX electronic cylinder for a fault-free operation. For this, pull out the deadbolt up to the end.

2. Operate your emergency exit lock (Lever handle, Bar handle, etc.).

   If the latchbolt and deadbolt are fully retracted by actuating the emergency exit, i.e. the door can be opened, then the assembly is completed

   If you cannot open the door, you must find the fault and rectify it. If necessary, contact the manufacturer of the door lock or the emergency exit lock.
4.5 Assembling double-knob cylinder (from the inside)

While assembling from the outside, the **mechanical knob** of electronic cylinder is disassembled. While assembling from the inside, the **electronic knob** of the cylinder is disassembled.

4.5.1 Scope of delivery double knob cylinder

1. Double knob cylinder
2. Cylinder fixing screw
3. Battery (Panasonic CR2 Industrial Lithium 3.0 V 850 mAh)

4.5.2 Parts description

1. Knob sleeve
2. Electronic knob
3. Battery holder
4. Securement ring
5. Electronic cylinder
6. Locking cam
7. Mechanical knob
4.5.3 Assembling double knob cylinder from the inside

The pictures in the assembly instructions show an Euro profile cylinder, however, the assembly of Swiss round cylinder is identical.

Tools required:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th>Part of the assembly set*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torx screwdriver for</td>
<td>Cylinder fixing screw</td>
<td>✓ (Torx-Bit TX25)</td>
</tr>
<tr>
<td>TX25 with security pin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CES spanner</td>
<td>Knob sleeve</td>
<td>✓</td>
</tr>
</tbody>
</table>

Only for assembling the double-knob cylinder, if the mechanical knob is disassembled:

| 2.5 mm Allen key                      | Grub screw in mechanical knob        | ✗                         |

*The assembly set is supplied one-off with the first order of a system. You can order additional tools from your CES partner.
Assembling double-knob cylinder (from the inside)

1. Pull the **KNOB SLEEVE** off from the **ELECTRONIC knob**.

2. Pull the **ELECTRONIC KNOB** off from the cylinder.
   - If you touch the components of the knob electronic, these may be damaged. Therefore, hold the knob electronics only within the marked area:

3. Pull the **SECUREMENT RING** off from the electronic cylinder.

   - Make sure that the **LOCKING CAM** is flush with the electronic cylinder.
4. Insert the electronic cylinder in the door. Thereby, the MECHANICAL KNOB is on the outside of the door.

5. Insert the CYLINDER FIXING SCREW.

6. Pull the CYLINDER FIXING SCREW slightly tight but do not tighten it completely yet.

7. Place the SECUREMENT RING on the electronic cylinder.
4.5 Assembling double-knob cylinder (from the inside)

- Make sure that the **SECUREMENT RING** is flush with the cylinder. It snaps-in audibly.

8. Place the **ELECTRONIC KNOB on the cylinder**.

- Make sure that the large spring lies over the large groove and the small spring over the small groove.

9. Insert the **BATTERIES with correct polarity**.

- Use only Panasonic CR2 Industrial Lithium 3,0 V 850 mAh batteries.
- Make sure that the battery strap lies below the battery and the end of the battery strap is protruding out.

   - The correct polarity is indicated in the **BATTERY module**.

   - Notes on the meaning of signalling after battery insertion can be found in the section "**Maintenance**" on page 90.
10. Place the KNOB SLEEVE on the ELECTRONIC KNOB.

11. Tighten the KNOB SLEEVE with the CES SPANNER and by hand.

⚠️ Do not use the CES free-running ratchet to tighten the knob sleeve. If you screw the knob sleeve too tightly, you may damage the knob.

⚠️ Make sure that the KNOB SLEEVE is screwed flush!
12. Check if all parts are working smoothly.

13. Pull the CYLINDER FIXING SCREW tight.

Assembly of the electronic cylinder is now complete.

For AP- and GS-electronic cylinder: Check the anti-panic function

If the lock is an anti-panic lock conforming to EN179 or EN1125 and the electronic cylinder is approved for this lock, you must check the lock function after the assembly is complete.

Through malfunctions, persons in dangerous situations may not be able to open the door and be killed or injured. Therefore, check the emergency exit lock for a fault-free operation.

1. Check the emergency exit lock together with the OMEGA FLEX electronic cylinder for a fault-free operation. For this, pull out the deadbolt up to the end.
2. Operate your emergency exit lock (Lever handle, Bar handle, etc.).

*If the latchbolt and deadbolt are fully retracted by actuating the emergency exit, i.e. the door can be opened, then the assembly is completed.*

⚠️ If you cannot open the door, you must find the fault and rectify it. If necessary, contact the manufacturer of the door lock or the emergency exit lock.
4.6 Assembling dummy cylinder (from the outside)

While assembling from the outside, the electronic knob of the electronic cylinder is not disassembled. While assembling from the inside, the electronic knob of the cylinder is disassembled.

4.6.1 Scope of delivery Dummy cylinder

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dummy cylinder</td>
</tr>
<tr>
<td>2</td>
<td>Cylinder fixing screw</td>
</tr>
<tr>
<td>3</td>
<td>Battery (Panasonic CR2 Industrial Lithium 3,0 V 850 mAh)</td>
</tr>
</tbody>
</table>

4.6.2 Parts description

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knob sleeve</td>
</tr>
<tr>
<td>2</td>
<td>Electronic knob</td>
</tr>
<tr>
<td>3</td>
<td>Battery holder</td>
</tr>
<tr>
<td>4</td>
<td>Securement ring</td>
</tr>
<tr>
<td>5</td>
<td>Electronic cylinder</td>
</tr>
<tr>
<td>6</td>
<td>Locking cam</td>
</tr>
</tbody>
</table>
4.6.3 Assembling dummy cylinder from the outside

The pictures in the assembly instructions show an Euro profile cylinder, however, the assembly of Swiss round cylinder is identical.

## Tools required:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th>Part of the assembly set*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torx screwdriver for TX25</td>
<td>Cylinder fixing screw (Torx-Bit TX25)</td>
<td>✓</td>
</tr>
<tr>
<td>CES spanner</td>
<td>Knob sleeve</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Only for assembling the double-knob cylinder, if the mechanical knob is disassembled:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th>Part of the assembly set*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 mm Allen key</td>
<td>Grub screw in mechanical knob</td>
<td>X</td>
</tr>
</tbody>
</table>

*The assembly set is supplied one-off with the first order of a system. You can order additional tools from your CES partner.
Assembling dummy cylinder (from the outside)

1. Pull the **KNOB SLEEVE** off from the **ELECTRONIC knob**.

   ![Diagram](image1)

   If you touch the components of the knob electronic, these may be damaged. Therefore, hold the knob electronics only within the marked area:

2. Insert the **BATTERIES** with correct polarity.

   ![Diagram](image2)

   - Use only Panasonic CR2 Industrial Lithium 3,0 V 850 mAh batteries.
   - Make sure that the battery strap lies below the battery and the end of the battery strap is protruding out.

   ![Diagram](image3)

   - The correct polarity is indicated in the **BATTERY** module.

   ![Diagram](image4)

   - Notes on the meaning of signalling after battery insertion can be found in the section "Maintenance" on page 90.

3. Place the **KNOB SLEEVE** again on the **ELECTRONIC knob**.

   ![Diagram](image5)
4. Tighten the Knob Sleeve with the CES Spanner and by hand.

⚠️ Do not use the CES free-running ratchet to tighten the knob sleeve. If you screw the knob sleeve too tightly, you may damage the knob.

5. Insert the electronic cylinder in the door. Thereby, the Electronic Knob is located on the outside of the door.
6. Insert the CYLINDER FIXING SCREW.

7. Pull the CYLINDER FIXING SCREW slightly tight but do not tighten it completely yet.

8. Authorise a locking media. Proceed as follows:
   - Authorise the System-Master (see "Authorising System-Master" on page 111).
   - Authorise the Program-Master (see "Authorising additional master media" on page 113).
   - Authorise a locking media with the Program-Master (see "Authorising locking media" on page 118).

9. Use the authorised locking media to check that all components are working smoothly.
10. Pull the CYLINDER FIXING SCREW tight.

Assembly of the electronic cylinder is now complete.

For AP- and GS-electronic cylinder: Check the anti-panic function

If the lock is an anti-panic lock conforming to EN179 or EN1125 and the electronic cylinder is approved for this lock, you must check the lock function after the assembly is complete.

Through malfunctions, persons in dangerous situations may not be able to open the door and be killed or injured. Therefore, check the emergency exit lock for a fault-free operation.

1. Check the emergency exit lock together with the OMEGA FLEX electronic cylinder for a fault-free operation. For this, pull out the deadbolt up to the end.

2. Operate your equipment for emergency exit lock (Lever handle, Bar-hold etc.).

If the latchbolt and deadbolt are fully retracted by actuating the emergency exit, i.e. the door can be opened, then the assembly is completed.
If you cannot open the door, you must find the fault and rectify it. If necessary, contact the manufacturer of the door lock or the emergency exit lock.
4.7 Assembling dummy cylinder (from the inside)

While assembling from the outside, the electronic knob of the electronic cylinder is not disassembled. While assembling from the inside, the electronic knob of the cylinder is disassembled.

4.7.1 Scope of delivery Dummy cylinder

1 Dummy cylinder
2 Cylinder fixing screw
3 Battery (Panasonic CR2 Industrial Lithium 3.0 V 850 mAh)

4.7.2 Parts description

1 Knob sleeve
2 Electronic knob
3 Battery holder
4 Securement ring
5 Electronic cylinder
6 Locking cam
4.7.3 Assembling dummy cylinder from the inside

For the dummy cylinder assembly from the inside, please follow the manual "Assembling double knob cylinder from the inside" on page 28. The pictures show a double-knob electronic cylinder, but the assembly is identical.

The pictures in the assembly instructions show an Euro profile cylinder, however, the assembly of Swiss round cylinder is identical.
4.8 Assembling dual cylinder

4.8.1 Scope of delivery dual cylinder

1. Dual cylinder
2. Cylinder fixing screw
3. Battery (Panasonic CR2 Industrial Lithium 3.0 V 850 mAh)

4.8.2 Parts description

1. Knob sleeve
2. Electronic knob
3. Battery holder
4. Securement ring
5. Electronic cylinder
6. Locking cam

4.8.3 About the master and slave knobs

Two types of knobs are available for electronic cylinders: Master knobs and slave knobs. Dual cylinders have one master and one slave knob, all other electronic cylinders have only one master knob.

You can find the Master/Slave marking at two places:
The master knob is marked with one dot on the sticker on the battery strap, the slave knob with two dots.

The sides of the electronic cylinder of a dual cylinder are marked as well. One dot marks the side on which the master knob must be assembled, two dots the side on which the slave must be assembled.

**Difference between master and slave knobs**

**Master knob:**
- stores authorisations
- communicates with the Access-Point (i.e. Radios in the wireless online network)
- controls the blocking mechanism

**Slave knob:**
- does not store any authorisations
- does not communicate with the Access-Point
- passes on the information about locking media read to the master so that the latter can control the locking mechanism

The master knob must be on the outside of the door.

Master media can assign authorisations for both knobs, opening modes etc. can be changed.
4.8.4 Assembling dual cylinder

The pictures in the assembly instructions show an Euro profile cylinder, however, the assembly of Swiss round cylinder is identical.

Tools required:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th>Part of the assembly set*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torx screwdriver for TX25 with security pin</td>
<td>Cylinder fixing screw</td>
<td>✓</td>
</tr>
<tr>
<td>CES spanner</td>
<td>Knob sleeve</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Only for assembling the double-knob cylinder, if the mechanical knob is disassembled:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th>Part of the assembly set*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 mm Allen key</td>
<td>Grub screw in mechanical knob</td>
<td>X</td>
</tr>
</tbody>
</table>

*The assembly set is supplied one-off with the first order of a system. You can order additional tools from your CES partner.
Assembling dual cylinder

1. **Pull the KNOB SLEEVE off from the ELECTRONIC KNOB**.

   If you touch the components of the knob electronic, these may be damaged. Therefore, hold the knob electronics only within the marked area:

2. Check on which side the master and on which the slave knob is located (see "About the master and slave knobs" on page 44).

   The master knob must be located on the **outside** of the door after assembly.

3. Depending on whether you want to assemble the electronic cylinder from outside or from inside, remove either the master or the slave knob.

4. **Pull the SECUREMENT RING off from the electronic cylinder.**
5. Insert in the ELECTRONIC KNOB, which you have not disassembled, the BATTERY with correct polarity.

⚠️ Use only Panasonic CR2 Industrial Lithium 3,0 V 850 mAh batteries.

⚠️ Make sure that the battery strap lies below the battery and the end of the battery strap is protruding out.

ℹ️ The correct polarity is indicated in the BATTERY module.

ℹ️ Notes on the meaning of signalling after battery insertion can be found in the section "Maintenance" on page 90.

6. Place the KNOB SLEEVE on the ELECTRONIC KNOB, which you have not disassembled.

7. Tighten the KNOB SLEEVE with the CES SPANNER and by hand.

⚠️ Do not use the CES free-running ratchet to tighten the knob sleeve. If you screw the knob sleeve too tightly, you may damage the knob.
Make sure that the KNOB SLEEVE is screwed flush!

Make sure that the locking cam is flush with the electronic cylinder.

Insert the electronic cylinder in the door.

The master knob must be on the outside of the door.

8. Insert the CYLINDER FIXING SCREW.
9. Pull the CYLINDER FIXING SCREW slightly tight but do not tighten it completely yet.

10. Place the SECUREMENT RING on the electronic cylinder.

⚠️ Make sure that the SECUREMENT RING is flush with the cylinder. It snaps-in audibly.

11. Place the ELECTRONIC KNOB on the cylinder.

⚠️ Make sure that the large spring lies over the large groove and the small spring over the small groove.
12. Insert the BATTERIES with correct polarity.

⚠️ Use only Panasonic CR2 Industrial Lithium 3,0 V 850 mAh batteries.

⚠️ Make sure that the battery strap lies below the battery and the end of the battery strap is protruding out.

💡 The correct polarity is indicated in the BATTERY module.

*The electronics knob blinks once red and once red-green.*

13. Place the KNOB SLEEVE on the ELECTRONIC KNOB.

14. Tighten the KNOB SLEEVE with the CES SPANNER and by hand.

⚠️ Do not use the CES free-running ratchet to tighten the knob sleeve. If you screw the knob sleeve too tightly, you may damage the knob.
15. Authorise a locking media. Proceed as follows:

- Authorise the System-Master (see “Authorising System-Master” on page 111).
- Authorise the Program-Master (see “Authorising additional master media” on page 113).
- Authorise a locking media with the Program-Master (see “Authorising locking media” on page 118).

16. Use the authorised locking media to check that all components are working smoothly.

17. Pull the CYLINDER FIXING SCREW tight.

Assembly of the electronic cylinder is now complete.
4.9 Assembling half cylinder

4.9.1 Scope of delivery half cylinder

1. Half cylinder
2. Cylinder fixing screw
3. Battery (Panasonic CR2 Industrial Lithium 3.0 V 850 mAh)

4.9.2 Parts description

1. Knob sleeve
2. Electronic knob
3. Battery holder
4. Securement ring
5. Electronic cylinder
6. Locking cam
4.9.3 Assembling half cylinder

The pictures in the assembly instructions show an Euro profile cylinder, however, the assembly of Swiss round cylinder is identical.

Notes on assembling in key switches

Observe the manufacturer’s instructions for assembling the key switches.

For some key switches with smooth running (Micro) switches or push buttons, these can also be operated without locking authorisation. To avoid this, use the half cylinder with the "MS" option.

Tools required:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th>Part of the assembly set*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torx screwdriver for</td>
<td>Cylinder fixing screw</td>
<td>✓</td>
</tr>
<tr>
<td>TX25 with security pin</td>
<td>(Torx-Bit TX25)</td>
<td></td>
</tr>
<tr>
<td>CES spanner</td>
<td>Knob sleeve</td>
<td>✓</td>
</tr>
</tbody>
</table>

Only for assembling the double-knob cylinder, if the mechanical knob is disassembled:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Required for</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 mm Allen key</td>
<td>Grub screw in mechanical knob</td>
<td>✗</td>
</tr>
</tbody>
</table>

"The assembly set is supplied one-off with the first order of a system. You can order additional tools from your CES partner."
**Assembling half cylinder**

1. **Pull the** **KNOB SLEEVE off from the** **ELECTRONIC knob.**
   
   ![](https://via.placeholder.com/150)
   
   If you touch the components of the knob electronic, these may be damaged. Therefore, hold the knob electronics only within the marked area:

2. **Insert the** **BATTERIES with correct polarity.**
   
   ![](https://via.placeholder.com/150)
   
   Use only Panasonic CR2 Industrial Lithium 3,0 V 850 mAh batteries.

   ![](https://via.placeholder.com/150)
   
   Make sure that the battery strap lies below the battery and the end of the battery strap is protruding out.

   ![Battery module](https://via.placeholder.com/150)
   
   The correct polarity is indicated in the BATTERY module.

   ![Maintenance](https://via.placeholder.com/150)
   
   Notes on the meaning of signalling after battery insertion can be found in the section "Maintenance" on page 90.

3. **Place the** **KNOB SLEEVE again on the** **ELECTRONIC knob.**
4. Tighten the **KNOB SLEEVE** with the **CES SPANNER** and by hand.

⚠ **Do not** use the CES free-running ratchet to tighten the knob sleeve. If you screw the knob sleeve too tightly, you may damage the knob.

5. Insert the electronic cylinder in the door.
6. Insert the CYLINDER FIXING SCREW.

7. Pull the CYLINDER FIXING SCREW slightly tight but do not tighten it completely yet.

8. Authorise a locking media. Proceed as follows:
   - Authorise the System-Master (see "Authorising System-Master" on page 111).
   - Authorise the Program-Master (see "Authorising additional master media" on page 113).
   - Authorise a locking media with the Program-Master (see "Authorising locking media" on page 118).

9. Use the authorised locking media to check that all components are working smoothly.
10. Pull the CYLINDER FIXING SCREW tight.

Assembly of the electronic cylinder is now complete.
5 Administration

**NOTICE**

Inadvertent state of your system possible

If you are not fully aware of the capabilities of your system, it may execute unexpected functions.

- If you are administrating a OMEGA FLEX system, you must be well aware of the consequences of programming and settings. Otherwise, unexpected results are possible.
- Always confirm that your programming will achieve the desired results.

5.1 OMEGA FLEX system administration basics

5.1.1 System families

The family of systems is the topmost differentiating level for the OMEGA FLEX systems. It specifies which transponder technology (LEGIC or MIFARE) is used in the system:

- OMEGA FLEX MIFARE
- OMEGA FLEX LEGIC

5.1.2 Operating modes: LINE vs V-NET (only MIFARE)

The operating mode specifies, where the locking media authorisations are stored. There are two operating modes for the OMEGA FLEX MIFARE systems:

- LINE: Authorisations are stored in the locking device
- V-NET: Authorisations are stored in the locking media

5.1.3 Types of administrations (only MIFARE)

Within the two operating modes LINE and V-NET different administration types are possible:
Everything can be combined in one OMEGA FLEX system

**LINE**

| Offline with master media | No software is deployed. Settings are transmitted via master media to the locking devices (see "Administration with master media" on page 66). |
| Offline with an RF-Stick | Settings are specified in the OMEGA Client software and transmitted via an RF-Stick to the locking device (see "Administration with an RF-Stick" on page 70). |
| Online with wireless online network | Settings are specified in the OMEGA Client software and transmitted via wireless online network to the locking device (see "Administration via wireless online network" on page 74). |

**V NET**

| Virtual | Settings are specified in the OMEGA Client software and are not transmitted to the locking device but to the locking media (see "Administration via V-NET" on page 76). |

### 5.1.4 ID-Techniques (only MIFARE)

The ID technology of locking devices and locking media differ in term of the used security technology used. For OMEGAFLEX MIFARE systems, the following ID techniques are distinguished:

**Locking media**

| Classic locking media | MIFARE Classic and ISO Locking media |
| DESFire Locking media | With 3DES encrypted DESFire Locking media |

**Locking devices**

| CS Locking devices (CS = "Classic Support") | Reading Classic and DESFire Locking media |
| D Locking devices (D = "DESFire") | Reading only DESFire Locking media |
Operating mode compatibility of ID techniques in MIFARE systems

<table>
<thead>
<tr>
<th>MIFARE Locking media</th>
<th>LINE</th>
<th>V NET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Classic</td>
<td>DESFire</td>
</tr>
<tr>
<td>LINE /N</td>
<td>CS</td>
<td>✓</td>
</tr>
<tr>
<td>LINE /T</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>LINE /NET</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIFARE-Locking devices V NET /NV</td>
<td>CS</td>
<td></td>
</tr>
<tr>
<td>MIFARE-Locking devices V NET /TV</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>MIFARE-Locking devices V NET /VA</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

5.2 OMEGA FLEX system functions

OMEGA FLEX systems offer many functions which are not possible in the mechanical locking systems, e.g.

- **Specifying opening duration** of locking devices
- **Activating** release mode or **block** mode
- **Creating** time profiles (e.g. specifying that certain locking media lose their authorisation after 19 Hours)
- **Reading** events (e.g. Which locking media was used to get access at which time)
- **Specifying the validation** intervals
- **Specifying** validity of locking media
- **Office function** activation or deactivation (i.e. the users can activate the release mode themselves)

Which functions are possible in your OMEGAFLEX system depends on the license you acquired, the operating mode (LINE or V-NET), and the type of administration (Online, Offline or virtual).
5.2.1 Overview of possible administration jobs by types of administration

<table>
<thead>
<tr>
<th></th>
<th>Master media</th>
<th>RF-Stick</th>
<th>Wireless online network</th>
<th>V NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening duration</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Release and block mode</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Time profiles</td>
<td>×</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Events</td>
<td>×</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Validation (only V-NET)</td>
<td>×</td>
<td>×</td>
<td>×</td>
<td>✔</td>
</tr>
<tr>
<td>Validity</td>
<td>×</td>
<td>×</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Office-function</td>
<td>×</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

5.2.2 Opening duration

The opening duration is the length of time during which the locking device remains coupled, after an authorised locking media was held in the reading field of the locking device.

The longer the opening duration, the more time people have to operate the locking device after the authenticating with a locking media. The maximum opening duration is 180 seconds.

The opening duration can be set via master media (see "Setting opening period" on page 123) and via CESTronics Suite A detailed manual is available in the OMEGA Suite Help.

5.2.3 Release and block mode

A locking device which is in release mode remains permanently coupled, i.e. the door can be opened permanently without necessitating the use of any locking media.

A locking device in block mode remains permanently uncoupled, i.e. the door cannot be opened. An access even with an authorised locking media is no more possible.

Details on this and further opening modes can be found under "Opening mode of the locking devices" on page 81.

The release and block mode is set via master media (see "Activating release mode" on page 124 and "Activating block mode" on page 126).

5.2.4 Time profiles

This function requires the use of the OMEGA Suite software.

There are three types of time profiles:
1. **Release times** (up to three time slots for every weekday and a special day within which the locking device is released, i.e. the door is always open)

2. **Block times** (up to three time slots for every weekday and a special day within which the locking device is blocked, i.e. the door cannot be opened)

3. Up to 29 **individual time profiles** (for each time profile up to three time slots per weekday and an additional special day; the locking media is authorised to open the locking device only at times set there)

Time profiles are set via the CEStronics Suite. A detailed manual is available in the OMEGA Suite Help.

### 5.2.5 Events

This function requires the use of the OMEGA Suite software.

Technical processes in the OMEGA FLEX system are stored as **events** in the locking device (for V-NET in locking media) and are read-out in the OMEGA Client. This, for example includes, which locking media has been authorised when for which locking device; which locking media gained access when to which locking device, battery warnings etc.

If desired, the recording of events can be completely deactivated.

Events are displayed and evaluated in the CEStronics Suite. A detailed manual is available in the OMEGA Suite Help.

### 5.2.6 Validity of the locking media

This function requires the use of the OMEGA Suite software.

With the **validity** you can specify a time period within which the locking media can be used.

**Example:** You want to issue a locking media to a new employee already before the commencement of his work, however, the locking media should only be usable from his first working day.

In addition, the end-date of the validity ensures that from a chosen time onwards, no access can be made.

Locking media must be valid so that they can

- open locking devices
- can be validated
The validity is specified in OMEGA Client. Both, the V-NET and the LINE Locking media can be assigned a validity. However, it is not mandatory to specify the validity for a locking media.

In the V-NET, the validity data can be transmitted through a Desktop-Writer or an Update-Terminal to a locking media. After expiry of validity, a locking media must be reprogrammed so that it can be used again.

In the case of LINE a programming job is automatically created after the validity has expired. If a wireless online network is used, the programming jobs are automatically transmitted to the locking devices.

The validity is set via the CEStronics Suite. A detailed manual is available in the OMEGA Suite Help.

5.2.7 Validation of the locking media

This function requires the use of the OMEGA Suite software.

The validation is a backup function in the V-NET. It specifies an expiry date for the locking media. From this date onwards, the locking media cannot be used any more.

Through the validation devices (Wall terminals, Key-Points and Update-Terminals) the expiry date can be extended. How frequently the expiry date must be extended is determined by you in that you specify the validation interval in the OMEGA Client.

**Example:** Company employees must validate their locking media every day at a Wall terminal at the company entrance, so that their locking media are usable.

Wall terminals and Update-Terminals are connected to the OMEGA Server via wireless online network; Key-Points via LAN. This enables all validation devices to read all events stored in the locking media and transmit it to the OMEGA Server. Key Points additionally transmit all other pending programming jobs to the locking media (e.g. alterations in the locking authorisations) during validation.

A regularly necessary validation ensures that a locking media that has fallen into the hands of unauthorised persons, can be blocked quickly and easily by the validation devices. Blocked locking media are not accepted by the locking devices as a rule.

Only locking media which are in service, can be validated.

**Example:** A locking media is valid for one year, however, it must be validated every day anew.

The validation is done via the CEStronics Suite. A detailed manual is available in the OMEGA Suite Help.
5.2.8 Office-function

This function requires the use of the OMEGA Suite software.

The office function in locking media can put locking devices into office mode. In the office mode, locking devices are released for a certain period of time, i.e. during this time, the door can be opened even without the locking media. After expiry of the time period, the locking device reverts back to normal mode automatically. In V-NET, the office mode is not limited by time, i.e. a locking device remains coupled until the office mode is deactivated by the locking media again.

To be able to use the office function, both locking device and locking media must be set up for the office function in OMEGA Client. The OMEGA Client therefore specifies:

- which locking devices shall command the office function
- which locking media are authorised to invoke the office function
- in which time period these locking media can use the office function, for example, Monday to Friday from 8 to 17 hrs.

The office function is set via the CEStronics Suite. A detailed manual is available in the OMEGA Suite Help.
5.3 Administration with master media

5.3.1 About the master media

Master media serve various purposes

1. You can use master media as a **fully-fledged administration type** (e.g. Authorising locking media). Advanced functions such as specification of time profiles, however, are not possible and require the use of OMEGA Client software.

2. There are master media which are **required for other types of administration** e.g. to establish communication between a locking device and an RF-Stick.

3. The master media Emergency-Key serves as an **Emergency-Key** and always allows the opening of locking devices even though their current programming prohibits an opening.

5.3.2 Which master media are available?

There are three types of master media:

1. **Cross functional master media**
   These master media can be used independent of the chosen administration type.

2. **Master media for the administration with master media**
   These master media facilitate additional functions if you manage your OMEGA FLEX system exclusively with master media. If you use the OMEGA Client software, these functions can be set via the software.

3. **Master media for other types of administration**
   You require these master media for other administration types, e.g. to put the locking devices in the online mode.

The System-Master is always delivered with every OMEGA FLEX system. You may procure further master media through your CES partner.
Cross functional master media

System-Master
The System-Master represents the highest level of master media. All further master media are authorised by the System-Master.

There is always only one valid System-Master for each OMEGA FLEX system.

Emergency-Key
⚠️ The Emergency-Key is a master key, which, independent of all settings on your locking devices, is always authorised to lock. Keep the Emergency-Key at a safe place and do not let it fall into unauthorized person’s hands!

With an Emergency-Key, you can switch your locking device to emergency mode, see "Emergency mode" on page 81.

The Emergency-Key key has always the top most priority and can also open devices that have been put into block mode, see "Hierarchy of the opening modes" on page 82.

Maximum 100 Emergency-Keys per OMEGA FLEX system are possible.

In contrast to all other master media, the Emergency-Key is not only available as master media but also as combination key and key-chain.

Master media for the administration with master media

Program-Master
The Program-Master is used to authorise and delete the authorisation of locking media again.

Maximum ten Program-Masters per OMEGA FLEX system are possible.

Time-Master
With a Time-Master, you can specify the opening period of a locking device (see “Setting opening period” on page 123).

Maximum ten Time-Masters per OMEGA FLEX system are possible.

Release-Master
With the Release Master, you can switch your locking device to release mode (see "Activating release mode" on page 124), (see "Activating release mode" on page 124).

Maximum ten Release-Master per OMEGA FLEX system are possible.

Block-Master
With the Block-Master, you can switch your locking device to block mode (see "Activating block mode" on page 126), (see "Activating block mode" on page 126).

Maximum ten Block-Masters per OMEGA FLEX system are possible.

Master media for other types of administration

RF-Stick-Master
You only need the RF-Stick-Master if you use an RF-Stick for your administration (see "Administration with an RF-Stick" on page 70).
With the RF-Stick-Master you can establish connection between an RF-Stick and a locking device.

Maximum ten RF-Stick-Master per OMEGA FLEX system are possible. Each RF-Stick-Master that has been authorised once is compatible with every RF-Stick of a OMEGA FLEX system.

**RF-Ini-Master**

You require the RF-Ini-Master if you are running a wireless online network for your administration (see "Administration via wireless online network" on page 74). Apart from that, the RF-Ini-Master is required for the use of RF-devices (RF-locking devices or radio switch).

Using the RF-Ini-Master you can activate the online mode of a locking device. (see "Administration via wireless online network" on page 74)

Unlimited number of RF-Ini-Master can be deployed per OMEGA FLEX system to activate the online mode. For an RF-locking device or wireless switch however, only one RF INI master per device can be authorised.

**RF-Trace-Master**

You require the RF-Trace-Master only if you are running a wireless online network (see "Administration via wireless online network" on page 74).

Using the RF-Trace-Master, you can assess the quality of the wireless connection between locking devices and access-points in online mode.

Unlimited number of RF-Trace-Master per OMEGA FLEX system are possible.

### 5.3.3 Principle of administration with master media

Administration with master media is done offline, i.e. no wireless connection is needed. Master media must be authorised individually for each locking device.

**Basic procedure for administration with master media:**

1. You authorise the System-Master of your OMEGA FLEX system on a new locking device (see "Deleting System-Master" on page 117).
2. You authorise one of the other master media using the System-Master (see "Authorising additional master media" on page 113).

3. You do the required settings with an authorised Media master; for example, authorise a locking media with the Program-Master.

All administration tasks that you can fulfil with master media can be found at "Overview: Master media usage" on page 110.
5.4 Administration with an RF-Stick

5.4.1 About RF-Stick

The RF-Stick provides communication between the OMEGA Client software and the locking devices by establishing a wireless link between a PC on which the OMEGA client is installed, and the locking device. For this purpose, the PC with the RF-Stick must be located near the locking device. The wireless range of the RF-Stick is approximately 10 meters.

For detailed information about an RF-Sticks please refer to OMEGA FLEX RF-Stick manual.

5.4.2 Principle of administration with an RF-Stick

Administration with an RF-Stick is done offline, i.e. without a permanent online radio link. An RF-Stick establishes connection between the locking device and OMEGA Client for the duration of the transmission of programming job. For this purpose, the PC with the OMEGA Client must be located close to the locking device. In contrast to the administration with master media, while administering with an RF-Stick, you can use the OMEGA Suite software functions (e.g. Time profile).

You can deploy any number of RF-Sticks for the administration of your OMEGA FLEX system.

If you administer your OMEGA FLEX system with an RF-Stick, you will require at least the following administration devices and master media:

- RF-Stick
- PC with OMEGA Client installed
- System-Master
- RF-Stick-Master

Basic procedure for administration with an RF-Stick:

1. You read all required OMEGA FLEX components in the OMEGA Client. A detailed manual is available in the OMEGA Suite Help.
2. You initialise an RF stick on your PC so that it can work with the OMEGA Client software (see "Installing RF-Stick for the OMEGA client" below).

3. You specify the locking authorisations, time profiles etc. in OMEGA Client. A detailed manual is available in the OMEGA Suite Help.

4. Proceed to a locking device with a PC and an RF-Stick connected to it.

5. You establish the connection between the locking device and the RF-Stick through an RF Stick-Master and transmit the generated programming jobs to the locking device (see "Transmitting programming jobs with an RF-Stick to a locking device" below). The connection between the locking device and an RF-Stick is automatically disconnected thereafter.

5.4.3 Installing RF-Stick for the OMEGA client

Required administration devices:

- RF-Stick
- PC with OMEGA Client installed

Procedure:

1. Insert the RF-Stick into a free USB socket of a PC with OMEGA Client installed on it. The RF-Stick driver will be installed automatically.

2. Start the OMEGA Client and log in with your user name and password. The OMEGA Client detects the RF-Stick automatically. “RF-Stick ready” is displayed now on the lower bar of OMEGA Client. The RF-Stick is now initialised.

Troubleshooting:

<table>
<thead>
<tr>
<th>Problem/Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The OMEGA Client displays “RF-Stick not authorised”.</td>
<td>The RF-Stick belongs to another system and cannot be used for the administration of your OMEGA FLEX system.</td>
<td>Use an RF-Stick with system identification code for your OMEGA FLEX system.</td>
</tr>
</tbody>
</table>

5.4.4 Transmitting programming jobs with an RF-Stick to a locking device

Required master media and administration devices:

- RF-Stick-Master
- RF-Stick
- PC with OMEGA Client installed
The RF-Stick-Master must first be authorised for all locking devices on which it is to be used (see "Authorising additional master media" on page 113). Each RF-Stick-Master that has been authorised once is compatible with every RF-Stick of a OMEGA FLEX system.

Procedure for creating programming jobs:
1. Start the OMEGA Client and log in with your user name and password.
2. Set the desired changes in the OMEGA Client.
3. Start your changes accordingly as a change programming or new programming, e.g. through Programming > Program all changes.

The status display of the OMEGA Client shows now “programming required”. The individual programming jobs are shown under “Programming status”.

Procedure for transmitting programming jobs via an RF-Stick:

1. Proceed with your PC and the RF-Stick connected to it to the locking device into which the programming jobs are to be transmitted.

If you want to transmit the programming jobs into multiple locking devices, you can freely choose the sequence in which you look for the locking devices.
2. Hold the RF-Stick-Master briefly in the reading field of the locking device.

   The following signal appears:
   1x short green and 1x short beep

3. The locking device searches now for an RF-Stick nearby.

   The distance between the locking device and the RF-Stick may not exceed ten meters at the maximum.

   As soon as the RF-Stick has been detected, the transmission begins. During transmission, the locking device flashes green.

   During transmission the following happens:

   - All programming jobs for this locking device are transmitted to this locking device.
   - All events stored in the locking device, which were not available to the OMEGA Client yet, will be copied into the OMEGA Client.
   - The clock is set.

   If no programming jobs are available, only the events are copied and the clock is set. In this case, the locking device does not flash during the transmission.

   After all data has been transmitted, the RF-Stick and the locking device are disconnected automatically. After transmission completion, the programming job is deleted from the “Programming status” list.

   The programming job transmission is completed when the locking device signals 1x long green and 1x long beep.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Signal 1" /> <img src="image2" alt="Signal 2" /></td>
<td>The locking device cannot detect any RF-Stick nearby.</td>
<td>Move with a properly connected RF-Stick closer to the locking device and try to transmit the programming jobs once again.</td>
</tr>
</tbody>
</table>
5.5 Administration via wireless online network

5.5.1 Wireless online networks

A wireless online network provides a permanent connection between locking devices and the OMEGA Server. A wireless online network is established via Access-Points whose range can be extended through repeater or outdoor antenna.

<table>
<thead>
<tr>
<th>Device</th>
<th>Maximum range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access point</td>
<td>25 m</td>
</tr>
<tr>
<td>Access-Point with outdoor antenna</td>
<td>40 m</td>
</tr>
<tr>
<td>Repeater</td>
<td>extends Access-Point range by 25 m.</td>
</tr>
</tbody>
</table>

5.5.2 Principle of administration via wireless online network

The administration via a wireless online network is done through a permanent online connection. The administration is done centrally by the OMEGA Client, i.e. the programming jobs are transmitted automatically via wireless online connection to the online locking devices.

If you administer your OMEGA FLEX system with an RF-Stick, you will need at least the following administration devices and master media:

- PC with OMEGA Client installed
- Access-Point(s)
- System-Master
- RF-Ini-Master

**Basic procedure for administration via V-Net:**

1. You build a wireless online network with Access-Points.
2. You read all required OMEGA FLEX components in the OMEGA Client. A detailed manual is available in the OMEGA Suite Help.
3. You specify the locking authorisations, time profiles etc. in OMEGA Client. A detailed manual is available in the OMEGA Suite Help.

4. The programming jobs are automatically transmitted via the wireless online network to the online locking devices.

5.5.3 Master media for administration via wireless online network

You will require the following master media for administration via wireless online network:

- **RF-Ini-Master**
  - to activate the online mode of the NET locking devices, see “Activating online mode” on page 130
  - to deactivate the online mode of the NET locking devices, see “Deactivating online mode” on page 132

- **RF-Trace-Master**, to check the quality of the radio link, see “Checking quality of wireless connection” on page 133.
5.6 Administration via V-NET

5.6.1 About OMEGA FLEX V-NET

V-NET refers to a virtual network of locking media and locking devices. Locking authorisations thereby are not stored in the locking device but rather in the locking media. Communication between locking devices and locking media also provides for additional information exchange e.g. whether a locking medium is to be blocked or the transmission of events.

Example: An employee loses his locking media. A replacement media will be issued to him that can be used immediately. During each authentication at locking device, the replacement media transmits the information that the lost predecessors media must be blocked if case an access attempt is made at the locking device.

If additional validation devices (Key-points and Wall terminals) are used, the V-Net enables use of the validation of locking media.

5.6.1.1 Replacement media

A replacement media is a locking media in V-NET which contains the data of its predecessor media. If a replacement media is used on locking devices, it transmits information to the locking devices that its predecessor media must be blocked. If the replacement media is used on these locking devices, then the replacement media will be blocked and cannot be used on any locking device.

5.6.2 Principle of administration via V-NET

In the V-NET, the administration takes place via locking media. Authorisations and other settings are not stored in the locking device but rather in the locking media.

The connection between the locking media and the OMEGA Client can be established in two ways:

- Without the validation devices, the connection between the locking media and the OMEGA Client is done exclusively via the Desktop-Writer.
- With validation devices, the connection between the locking media and OMEGA Client can also be established by means of validation devices.

For details on validation see “Validation of the locking media” on page 64.
Without Validation devices

Programming jobs created in OMEGA Client are forwarded via the Desktop-Writer to the locking media.

With validation devices

Validation devices (Wall terminals or Key-Points), which are connected to the OMEGA server via a wireless online network, receive and forward programming jobs to the locking media. Electronic cylinders and handle sets are always offline in V-NET and therefore are not connected to the OMEGA Server.

If you administer your OMEGA FLEX system with an RF-Stick, you will need at least the following administration devices and master media:

- PC with OMEGA Client installed
- System-Master
- Desktop-Writer
- RF-Stick
- For V-NET with validation devices, if exclusively Key-Points are used: Key-Points
- For V-Net with validation devices when exclusively or additionally Wall terminals are deployed: Validation devices, Access-Point(s), RF-Ini-Master
Basic procedure for administration via V-Net:

1. You format the locking media in OMEGA Client using a Desktop-Writer.
2. You read all the other required OMEGAFLEX components into the OMEGA Client. A detailed manual is available in the OMEGA Suite Help.
3. You specify the locking authorisations, time profiles etc. in OMEGA Client. A detailed manual is available in the OMEGA Suite Help.
4. Programming jobs are created automatically from these settings.
5. Transmit the programming jobs with a Desktop-Writer or Key-Point to the locking media.
6. If you have created or altered the time profiles, transmit these with an RF-Stick into the locking devices.

All administrative jobs such as programming the locking media, blocking the locking media etc. are carried out within the OMEGA Client, which is part of the software modules collection OMEGA Suite. A detailed manual is available in the OMEGA Suite Help.
5.7 Use of the OMEGA Client software

OMEGA Suite

The OMEGA Suite is a collection of software modules for the administration and maintenance of your OMEGA FLEX system. Besides the OMEGA Client, the OMEGA Suite includes further tools e.g. for Firmware-Updates, Server configuration etc.

OMEGA Client

The OMEGA Client is the software with which you can administer your entire OMEGA FLEX system.

Each setting in the OMEGA Client (e.g. changes in the locking authorisations, adding time profiles etc.) creates a programming job. Programming jobs must either be transmitted to the locking device or to the locking media (V-NET only). Once the programming jobs have been transmitted, the settings are stored.

The display in OMEGA Client “Programming required”, tells you that programming jobs are pending.

The OMEGA Client is required for all types of administration except for administration with master media.

5.7.1 Client-Server-Principle

In order to be able to use OMEGA Client, you require an OMEGA Server to store the data. The OMEGA Client allows you to access these data and set up all functions of your OMEGA FLEX system.

The OMEGA Server can be installed locally (on the same PC on which the OMEGA Client is also installed) as well as on an external server.

For administration with an RF-Stick, it is sufficient to install the server locally, provided you are the only user of the OMEGA Client. If multiple OMEGA Clients have to have access to the server, you require an external server which can be accessed permanently.

5.7.2 OMEGA Client functions

Administrative jobs can be handled more conveniently with OMEGA Client software than by pure master media based administration.

- Authorising multiple locking media at a time and deleting individual locking media without the locking media being in your possession.
- **Authorising** master media for locking devices (see "Master media while using OMEGA Client" below)
- **Specifying opening duration** of locking devices comfortably

A detailed manual is available in the OMEGA Suite Help.

In addition, OMEGA client offers further functions:

- **Creating** time profiles (see "Time profiles" on page 62)
- **Reading** events (see "Events" on page 63)
- **Using the office function** (see "Office-function" on page 65)
- **Specifying Validation** intervals (for V-NET) (see "Validation of the locking media" on page 64)
- **Specifying** the validity of locking media (see "Validity of the locking media" on page 63)

A detailed manual is available in the OMEGA Suite Help.

### 5.7.3 Master media while using OMEGA Client

#### 5.7.3.1 Authorising master media via OMEGA Client

When you add master media to the OMEGA Client (see "Administration" on page 59), then, along with the **new programming**, these are also transmitted to the locking device and are thus authorised for the locking device.

This applies to **all** master media except the Program-Master. Although this can be read into OMEGA Client, it is not transmitted to the locking device (see "Dispensing with the use of Program-Master" below).

Through the transmission of the master media from OMEGA Client to the locking device, all master media which are **not** known to the software will also be deleted from the locking device. It is therefore advisable to read the master media into OMEGA Client.

#### 5.7.3.2 Dispensing with the use of Program-Master

If you are using the OMEGA Client, you should dispense with the Program-Master, because the OMEGA Client itself acts as "Program-Master" while awarding locking authorisations. Since the locking media can only be authorised and deleted by the same Program-Master, therefore, although the Program-Masters can be read into OMEGA Client but cannot be transmitted to the locking device.

It means that:

1. The authorisations assigned by Program-Master will **not be displayed in** OMEGA Client. As a consequence, the locking plan displayed in OMEGA client is out of sync.
with the actual locking authorisations.

2. Individual or dedicated deletion of authorisations assigned by the Program-Master is not possible via software; instead, to delete you have to use the Program-Master or reprogram the locking device.

3. A reprogramming of locking devices automatically results in deletion of all authorisations created by a Program-Master.

5.8 Opening mode of the locking devices

5.8.1 About the different opening modes of the locking devices

**Block mode**
A locking device in block mode remains permanently uncoupled, i.e. the door cannot be opened. An access even with an authorised locking media is no more possible.

**Release mode**
A locking device which is in release mode remains permanently coupled, i.e. the door can be opened permanently without necessitating the use of any locking media.

**Emergency mode**
The emergency mode is similar to the release mode: The locking device remains permanently coupled so that the door can always be opened without necessitating the use of a locking media.

In contrast to the release mode, the emergency mode cannot be cancelled by the Release-Master, but only through the Emergency-Key and has the highest priority amongst all opening modes. see “Hierarchy of the opening modes” on the next page.

**Office mode**
The office function in locking media can put locking devices into office mode. In the office mode, locking devices are released for a certain period of time, i.e. during this time, the door can be opened even without the locking media. After expiry of the time period, the locking device reverts back to normal mode automatically. In V-NET, the office mode is not limited by time, i.e. a locking device remains coupled until the office mode is deactivated by the locking media again.

**Normal mode**
A locking device in normal mode can be opened with an authorised locking media. Unauthorised locking media are rejected.
5.8.2 Simultaneous activation of multiple opening modes

An opening mode remains activated until it is deactivated with the corresponding master media or until the time set for the time profile has expired. The office mode is activated by the locking media and deactivated automatically when the block mode, release mode or emergency mode or a block time profile or enable time profile is activated.

For the opening modes, which were activated by the master media, applies: the activation of a further opening mode does not deactivate the current mode. Therefore, if hierarchy permits, different opening modes can also overlap (see "Hierarchy of the opening modes" below). In order for an opening mode to be activated in addition to an already active opening mode, the new opening mode must have a higher hierarchical level than the current opening mode.

Example: You put a locking device first in the release mode and then in the block mode - without deactivating the release mode. Thereupon, the block mode is active. If you now deactivate the block mode, the locking device returns to the release mode. If you deactivate the release mode with a Release-Master, the device returns to the normal mode.

5.8.3 Hierarchy of the opening modes

1 = highest priority, 7 = lowest priority

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emergency mode (activated by Emergency-Key)</td>
</tr>
<tr>
<td>2</td>
<td>Block mode (activated by Block-Master)</td>
</tr>
<tr>
<td>3</td>
<td>Block time (activated by time profile in OMEGA Client)</td>
</tr>
<tr>
<td>4</td>
<td>Release mode (activated by Release mode)</td>
</tr>
<tr>
<td>5</td>
<td>Enable time (activated by time profile in OMEGA Client)</td>
</tr>
<tr>
<td>6</td>
<td>Office mode (set in the OMEGA Client, activated by locking media)</td>
</tr>
<tr>
<td>7</td>
<td>Normal mode (opened by locking media)</td>
</tr>
</tbody>
</table>
6 Operation

This chapter is intended for persons who operate the locking devices using locking media.

6.1 Opening doors

6.1.1 Note about correct opening of doors

Incorrect opening of the doors may cause damages to the locking cylinder:

Do not pull the door open by knob.

Do not pull the door open by key.

Use only the lever handle (door handle) for opening and closing of the doors.

6.1.2 Opening the door from the inside.

How the door is opened from the inside depends on the type of locking cylinder:

<table>
<thead>
<tr>
<th>Type of Locking Cylinder</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double knob cylinder</td>
<td>You do not require any locking media. The door can always be opened by pressing the mechanical knob.</td>
</tr>
<tr>
<td>Dummy cylinder</td>
<td>Opening is not possible from the inside.</td>
</tr>
<tr>
<td>Dual cylinder</td>
<td>You require a locking media, see &quot;Opening the door from the outside&quot; on the next page.</td>
</tr>
<tr>
<td>Half cylinder</td>
<td>Opening is not possible from the inside.</td>
</tr>
</tbody>
</table>
6.1.3 Opening the door from the outside

To operate the electronic cylinder from the outside, you require an authorised locking media.

⚠️ Do not cover the reading field of the electronic cylinder with metallic materials. Otherwise, no locking media can be read.

Procedure:

1. Hold an authorised locking media for ca. 1 second in the reading field of the locking device (maximum distance ca. 10 mm).
   The following signal appears:
   1x short green and 1x short beep

   You can open the door by pressing the lever handle for a certain period. The length of the time period depends upon the opening period set.

⚠️ During the opening period no further locking media or master media are read. Only after you hear that the coupling of locking device has disengaged, you can hold another locking media in the reading field of the locking device.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The locking media cannot be read (No signal).</td>
<td>The locking media was not held close enough to the reading field of the locking device.</td>
<td>Hold the locking media longer in the reading field of the locking device.</td>
</tr>
<tr>
<td></td>
<td>The reading field is shielded by metallic materials.</td>
<td>Remove the metallic materials from the reading field of the locking device.</td>
</tr>
<tr>
<td></td>
<td>Shortly before, another authorised locking media was held in the reading field of the locking device and the opening period of the locking device has not yet expired.</td>
<td>You can open the door without having to have your locking media read.</td>
</tr>
<tr>
<td></td>
<td>The battery is empty.</td>
<td>Replace the batteries (see “Maintenance” on page 90).</td>
</tr>
</tbody>
</table>
### 6.2 Using the Office function

**Overview:** Master media usage

#### 6.2.1 Activating the office mode

**Required devices and locking media:**

- Locking media, which is authorised for the office function
- Locking device, which is authorised for the office function

**Procedure:**

1. Activate the office mode by pressing the lock button on the locking media for 2 seconds.
2. The locking device will be released for a specific period of time, allowing the door to be opened even without the locking media.
3. After the time period, the locking device will revert back to normal mode automatically.

**Example:** You can activate the office mode from Monday to Friday from 8 to 17 Hrs. If the office function is activated, it automatically reverts back to its normal mode at 17 Hrs. that is, authorised locking media must be used to open the door.
1. Hold the locking media authorised for the office function for ca 2 seconds in the reading field of the locking device.

As soon as the locking media is in the reading field, the following signal appears:
1x short green

After ca 2 second, another signal appears:
1x short green , 1x long green

The office mode is now active. The door can now be opened until the end of the office hours without locking media. LINE locking device reconnects automatically at the end-time set in the OMEGA Client.

⚠️ Since there are no start and end-times for the Office function in the V-NET, there is no end-time at which the locking device automatically reconnects. Therefore, the office mode in V-NET must be deactivated with an authorised locking media.

Troubleshooting:

<table>
<thead>
<tr>
<th>Problem/Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No signal after ca 2 seconds. The office mode is not active. The coupling of the locking device engages, but disengages again after expiry of the opening duration.</td>
<td>The locking device is not authorised for the office function.</td>
<td>Have the locking device authorised for the office function by the system administrator.</td>
</tr>
<tr>
<td></td>
<td>The office function is not available at this time.</td>
<td>Enquire with the system administrator, when the office function in this locking device can be activated.</td>
</tr>
<tr>
<td></td>
<td>The locking media is not authorised for the office function.</td>
<td>Have the locking media authorised for the office function by the system administrator.</td>
</tr>
</tbody>
</table>

6.2.2 Deactivating the office mode

Required devices and locking media:

- Locking media, which is authorised for the office function
- Locking device, which is authorised for the office function

Procedure:
1. Hold the locking media authorised for the office function for ca 2 seconds in the reading field of the locking device.

As soon as the locking media is in the reading field, the following signal appears:
1x long green and 1x long beep

After ca 2 second, another signal appears:
1x long green and 1x long beep, 1x short green and 1x short beep

The office mode is now deactivated. The door can be opened now only with authorised locking media.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>After 2 seconds</td>
<td>The office mode cannot be deactivated because the locking media is not authorised for the office function.</td>
<td>Have your locking media authorised for the office function by the system administrator.</td>
</tr>
</tbody>
</table>

not shown.

6.3 Access in emergency situations (Emergency mode)

6.3.1 Activating emergency mode

The emergency mode is similar to the release mode: The locking device remains permanently coupled so that the door can always be opened without necessitating the use of a locking media.

In contrast to the release mode, the emergency mode cannot be cancelled by the Release-Master, but only through the Emergency-Key and has the highest priority amongst all opening modes. see "Hierarchy of the opening modes" on page 82.

Required master media:

- Emergency-Key

The Emergency-Key must first be authorised for the locking device with which it is to be used (see "Authorising additional master media" on page 113).
6.3 Access in emergency situations (Emergency mode)

Procedure:

1. Hold the locking media before the reading field of the locking device.
   After ca. 1 second, the following signal appears:
   1x short green and 1x short beep

   If the locking device already lights up green \textbf{while} the Emergency-Key is being read, but no green flashing signal appears after one second, emergency mode is already active.

2. Remove the Emergency-Key from the reading field of the locking device.
   The locking device is now in emergency mode. Permanent access without locking media is now possible because the coupling of the locking device is permanently engaged. The emergency mode can be deactivated by Emergency-Key only.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>📣 🟢</td>
<td>The Emergency-Key could be read but is not authorised for this locking device.</td>
<td>Authorise the Emergency-Key.</td>
</tr>
</tbody>
</table>

6.3.2 Deactivating emergency mode

Required master media:

- Emergency-Key

The Emergency-Key must first be authorised for the locking device with which it is to be used (see "Authorising additional master media" on page 113).
Procedure:

1. Hold the locking media before the reading field of the locking device that is in emergency mode.
   After ca. 2 seconds, the following signal appears:
   2x short green and 2x short beep

2. Remove the Emergency-Key from the reading field of the locking device.
   The emergency mode is now deactivated. To gain access, authorised locking media must now again be held before the locking device.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The Emergency-Key could be read but is not authorised for this locking device.</td>
<td>Authorise the Emergency-Key.</td>
</tr>
</tbody>
</table>
7 Maintenance

7.1 Routine maintenance work

- It is recommended to have the electronic cylinder serviced on a half-yearly basis exclusively through CES or CES partner and check for fault-free operation.
- Replace the batteries in accordance with a predefined maintenance schedule.
- Procure spare batteries in time.

7.2 Device care

Outside
You can clean the exterior, accessible parts of your locking devices such as knobs, knob sleeves, covers, signs, etc. with a soft, slightly damp cloth.

⚠️ Do not use any lubricant or oils for cleaning and maintenance of the locking devices.

⚠️ Solvent-based cleaning agents can damage the surfaces of the locking devices. Therefore, do not use any solvent-based cleaning agent.

Inside
In normal operation, the contact surfaces between the electronic knob and cylinder are maintenance-free. It may happen that the contact surfaces get soiled during assembly or maintenance work. In such cases, clean the contact surface with alcohol or methylated spirit.

⚠️ Hard cleaning accessories, like e.g. glass fibre pens, can destroy the surface refinement of the contact surfaces. Therefore, use only soft cleaning accessories like e.g. cotton swab.

7.3 Service
For service assistance please contact your CES partner.

7.4 Notes on transportation
If the locking devices have the batteries inserted in them, they can get discharged, if

- the locking devices are lying within 10 cm from each other
- the locking devices are lying within 10 cm from the locking media

To prevent mutual interaction between locking devices during transport, please observe the following conditions
- Take out the batteries when the handle set is not in use.
- If possible, transport the locking devices in original packaging.

7.5 Battery management

7.5.1 Battery warning system

When the battery power becomes weak, the locking device displays additional signals if

- authorised or unauthorised locking media were held in the reading field of the locking device or
- the locking device couples, e.g. after the release or emergency mode was activated.

These additional signals are the **battery warnings**.

- If you are using the OMEGA Client software, you can have the battery warnings sent automatically by e-mail notification.

- A detailed manual is available in the **OMEGA Suite Help**.

- The battery capacity always depends upon the discharge hitherto and the current temperature.

**Warning levels of the battery alarms**

<table>
<thead>
<tr>
<th>Warning level</th>
<th>Signalling the battery alarm</th>
<th>Reason</th>
<th>Required action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>![Battery low icon]</td>
<td>Battery capacity low</td>
<td>Replace the battery</td>
</tr>
<tr>
<td>2</td>
<td>![Battery low and caution icons]</td>
<td>Battery capacity is nearly exhausted</td>
<td>Replace the battery immediately</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A device failure is possible now!</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>![Battery low and caution icons]</td>
<td>Battery is empty</td>
<td>Replace the battery immediately</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A device failure is possible now at anytime!</td>
<td></td>
</tr>
</tbody>
</table>
7.5.2 Important notice for battery replacement

**NOTICE** Wrong batteries may cause damages

The use of wrong batteries can cause irreparable damages to the locking device.
- Use only Panasonic CR2 Industrial Lithium 3,0 V 850 mAh batteries
- Insert the batteries only with correct polarity in the locking device.
- In case the batteries were inserted with wrong polarity, have your locking device checked by your CES partner.

**NOTICE** Damages caused by foreign objects used as aid while exchanging the battery.

The battery, the housing of the battery module or the electronic can be damaged if you extract the battery with a foreign object from the battery compartment.
- Remove the battery only by hand, do not use any foreign objects for this.
7.5.3 Replacing the batteries

After the battery is removed, programming is retained in the memory of the locking device.

After removal of the battery, the date and time are maintained for ca ten minutes. If the battery is taken out for longer period, the date and time of the day must be set again.
Replacing battery in electronic cylinder

1. Loosen the **KNOB SLEEVE with the CES SPANNER and by hand.**

   - If the knob sleeve cannot be loosened by hand, you can use **CES FREE-RUNNING RATCHET** to loosen it.
   - You can acquire the CES free-running ratchet through your CES partner.
   - Use the CES free-running ratchet only on the stainless steel sleeve, never on the light ring.
   - Turn the CES free-running ratchet **against the locking direction** while placing it on or taking it off, so as not to scratch the knob sleeve.

2. Pull the **KNOB SLEEVE off from the knob**.
3. Remove the battery by pulling the BATTERY STRAP.

Remove the batteries only by hand. Do not use any foreign objects for this.

4. Insert the new batteries with correct polarity.

Use only Panasonic CR2 Industrial Lithium 3,0 V 850 mAh batteries.

Make sure that the battery strap lies below the battery and the end of the battery strap is protruding out.

The correct polarity is indicated in the BATTERY module.

5. Place the KNOB SLEEVE again on the knob.

6. Tighten the knob sleeve with the CES SPANNER and by hand.

Do not use the CES free-running ratchet for assembly. You could damage the knob by over tightening it.

The battery replacement is completed successfully.
### 7.5.4 Signalling after battery insertion

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Image" /></td>
<td>Start sequence for offline locking devices: No error</td>
</tr>
<tr>
<td><img src="image2" alt="Image" /></td>
<td>Start sequence for online locking devices: Device is online and is connected to the Access-Point</td>
</tr>
<tr>
<td><img src="image3" alt="Image" /></td>
<td>Start sequence for online locking devices: Device is online but no connection to Access-Point is possible</td>
</tr>
<tr>
<td><img src="image4" alt="Image" /></td>
<td>Firmware error. Execute a firmware update. If the problem persists, contact your CES partner.</td>
</tr>
</tbody>
</table>

In case a system error exists, it will be displayed immediately after the start sequence, see "System error" on page 109.
8 Disposal

8.1 Notes on disposal

Electronic cylinder
- Never dispose of the electronic cylinder, batteries or parts of the electronic cylinder in the normal household waste.
- Always observe the applicable national and regional regulations.
- Enquire with your city or municipal administration about the possibilities of recycling and an environmentally friendly and proper way for the disposal of the device and its constituent parts.

Package
The packagings of the OMEGA FLEX components are made of environmentally friendly, reusable materials. Specifically, these are:

- Outer packaging and inlays of cardboard
- Inlays and protective foils of Polyethylene (PE)

- Please dispose of the packaging in an environmentally friendly way through waste separation streams.
9 Technical data

9.1 Equipment features

Suitable locking media

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEGIC</td>
<td>All locking media of type LEGIC prime and LEGIC advant, all locking media ISO 14443, HID iClass, all specified under &quot;MIFARE&quot;</td>
</tr>
<tr>
<td>MIFARE</td>
<td>MIFARE® Classic® (1k/4k), MIFARE® DESFire® EV1 and EV2 (UID conforming to ISO 14443 and application), all ISO 14443 locking media (not MIFARE Ultralight® C)</td>
</tr>
</tbody>
</table>

Reading range | Ca 20 mm
Online radio frequency | 868 MHz
Radio range to Access-Point | Max. 25 m
Encrypted data transmission | 128 bit/AES
Connection values |
Number of locking media | Max. 5,000
Events count | Max. 2,000
Number of master media |
Opening duration | 2 - 180 Seconds, Adjustable (optional) (Standard: 10 Seconds)
Temperature range | -25 °C bis +70 °C at 0...95% rH non-condensing
Prohibited atmospheres |
Service life of the locking cylinder | DIN EN 1303 class 6 conform
Service life of the battery |
Programming |
Finish | Stainless steel.
CE testing | EN 300 220-1, 2; EN 300 330-1, 2; EN 301 489-1, 3; EN 60950-1, EN 62311
Classification |
Fire resistance rating |
Classification conforming to DIN EN 15684:2013-01

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Use-class</th>
<th>Duration-frequency</th>
<th>Fire-/Smoke-resistance</th>
<th>Environment-resistance</th>
<th>Mechanical locking security</th>
<th>Electronic locking security</th>
<th>System-management</th>
<th>Attack-resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification of electronic cylinders</td>
<td>1</td>
<td>6</td>
<td>A/B*</td>
<td>4</td>
<td>A:</td>
<td>F</td>
<td>0/1/3**</td>
<td>0/2***</td>
</tr>
</tbody>
</table>

* (Fire-/Smoke resistance) |
A: Standard version (= with Smoke protection)
B: FH version (T90)

** (System management) |
0: For Notime variants
1: For variants with deactivated storage of access events
3: For Time-, NET- or V-NET-Variants

*** (Attack resistance) |
0: Standard option
2: Options with burglary protection (VdS and SKG***)

(Chlorine, Ammonia, Lime water)
9.2 Dimensions and extensions

9.2.1 Double knob cylinder

Dimensions

Euro profile cylinder

1. Outside (Locking side “S”)
2. Inside (Knob side “K”)

Euro profile cylinders AP and GS

1. Outside (Locking side “S”)
2. Inside (Knob side “K”)

Swiss round cylinder

1. Outside (Locking side “S”)
2. Inside (Knob side “K”)

Swiss round cylinders AP and GS

1. Outside (Locking side “S”)
2. Inside (Knob side “K”)

Extensions

<table>
<thead>
<tr>
<th>Inside (K) / All dimensions in mm</th>
<th>(AP and GS from 32.5)</th>
<th>(FH variants from 32.5)</th>
<th>Outside (S) / All dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>87.5</td>
<td>72.5</td>
<td>62.5</td>
<td>32.5</td>
</tr>
</tbody>
</table>

Max. Axial dimension 87.5 mm. Extension in 5 mm steps.

Max. total length 175 mm.
9.2.2 Dummy cylinder

Dimensions

Euro profile cylinder

1. Outside (Locking side "S")
2. Inside (Knob side "K")

Euro profile cylinders AP and GS

1. Outside (Locking side "S")
2. Inside (Knob side "K")

Swiss round cylinder

1. Outside (Locking side "S")
2. Inside (Knob side "K")

Swiss round cylinders AP and GS

1. Outside (Locking side "S")
2. Inside (Knob side "K")

Extensions

<table>
<thead>
<tr>
<th>Inside (K) / All dimensions in mm</th>
<th>(AP and GS from 32,5)</th>
<th>(FH variants from 32,5)</th>
<th>Outside (S) / All dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>87.5 ... 72.5 ... 62.5 ... 32.5</td>
<td>27.5 ... 32.5 ... 62.5</td>
<td>72.5 ... 87.5</td>
<td></td>
</tr>
</tbody>
</table>

Max. Axial dimension 87.5 mm. Extension in 5 mm steps.

Max. total length 175 mm.
9.2.3 Dual cylinder

Dimensions

Euro profile cylinder

1. Outside (Locking side “S”)
2. Inside (Knob side “K”)

Swiss round cylinder

1. Outside (Locking side “S”)
2. Inside (Knob side “K”)

Extensions

<table>
<thead>
<tr>
<th>Inside (K) / All dimensions in mm</th>
<th>(FH variants from 32.5)</th>
<th>Outside (S) / All dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5</td>
<td>27.5 32.5 37.5 42.5 47.5 52.5 57.5 62.5</td>
<td>Max. Axial dimension 87.5 mm. Extension in 5 mm steps.</td>
</tr>
</tbody>
</table>

Max. total length 175 mm.
9.2.4 Half cylinder

Dimensions

Euro profile cylinder

1. Outside (Locking side “S”)
2. Inside (Knob side “K”)

Swiss round cylinder

1. Outside (Locking side “S”)
2. Inside (Knob side “K”)

Extensions

<table>
<thead>
<tr>
<th>Inside (K) / All dimensions in mm</th>
<th>(FH variants from 32.5)</th>
<th>Outside (S) / All dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>--- --- --- --- --- --- --- ---</td>
<td>27.5 32.5 - 62.5 - 72.5 - 87.5</td>
<td></td>
</tr>
<tr>
<td>Max. Axial dimension 87.5 mm. Extension in 5 mm steps.</td>
<td>Max. Axial dimension 87.5 mm. Extension in 5 mm steps.</td>
<td></td>
</tr>
</tbody>
</table>

Max. total length 175 mm.
10 Help and troubleshooting

10.1 Loss of a master media

**CAUTION** Manipulation of the OMEGA FLEX system possible

If unauthorised persons gain possession of a master media, the OMEGA FLEX system can be manipulated.
- Keep all your master media at a safe place.
- Make sure that these are not accessible to unauthorised persons.

The measures described here to restore the security of your OMEGA FLEX system should only be carried out CES or by CES partner trained on the product.

If you have lost one of the following master media, you must delete that master media from the locking devices:

- Emergency-Key
- Program-Master
- Time-Master
- Release-Master
- Block-Master
- RF-Stick-Master

To be able to delete the System-Master you must have access to it. If you have lost the System-Master of your OMEGA FLEX system, contact your CES partner immediately!

The RF-Trace-Master and the RF-Ini-Master cannot be deleted from a locking device because they are not authorised beforehand.

10.1.1 Deleting master media from a locking device

If you delete one of the master media, which is capable of putting a locking device in a different mode, the mode of the locking device is retained after deletion.

Exception: Deletion of System-Master. Deletion of the System-Master reverts the locking devices back to the normal mode.
Example: The locking device is in block mode. You delete the Block-Master from the locking device. After deletion, the locking device will still be in block mode.

10.1.1 Deleting all master media from a locking device

1. Remove the System-Master from the reading field of the locking device (see "Deleting System-Master" on page 117).

   By deleting the System-Master all master media authorisations are deleted from this locking device. The locking device automatically reverts back to the normal mode, if it was in a different mode (e.g. block mode).

10.1.1.2 Deleting individual master media from locking devices using OMEGA Client software.

1. Delete the master media from the OMEGA Client software (see "Deleting master media" on page 115).

2. Carry out a new programming of the desired locking devices.

   The master media is now deleted from all newly programmed locking devices.

   Note that the programming jobs are transmitted automatically only to the locking devices in the online mode. You must transmit the programming jobs to the offline locking devices individually with an RF-Stick.

10.2 Loss of a locking media

If a locking media has been lost, then depending on the operating mode (Line or V-NET), you can restore the security of your OMEGA FLEX system in various ways. For procuring new locking media, please contact your CES partner.

10.2.1 Loss of a locking media for administration via master media

If you are administering your OMEGA FLEX system exclusively with master media, then in case of loss of a locking media you must delete at each locking device all locking authorisations, because without the OMEGA Client software you cannot delete locking authorisations individually, if you do not have the corresponding locking media any more.

There are two ways to delete the locking media authorisations from a locking device:

1) You delete all locking media authorisations using the Program-Master (see "Deleting all locking media authorisations simultaneously" on page 122)
2) You delete the **Program-Master** (see "Deleting master media" on page 115) from the locking device. This automatically deletes all locking media authorisations which were added with this Program-Master.

⚠️ Note that in case you are using multiple Program-Masters: in both cases only those locking media authorisations are deleted, which were added by the **same** Program-Master, which is used for deletion!

### 10.2.2 Loss of a locking media for administration with an RF-Stick

A detailed manual is available in the **OMEGA Suite Help**.

1. **Delete the locking media from the OMEGA Client.**  
   *Programming jobs are created automatically which remove the authorisations from the relevant locking devices.*

2. **Go to the affected locking devices and transmit the programming jobs via the RF-Stick to the locking devices.**  
   *The locking media cannot be used now on the affected locking devices any more.*

⚠️ If you have additionally authorised the locking media by means of a Program-Master for locking devices, these authorisations were not deleted. Carry out a reprogramming of all locking devices, for which you have authorised the locking media with a Program-Master.

### 10.2.3 Loss of a locking media for administration via wireless online network

A detailed manual is available in the **OMEGA Suite Help**.

1. **Delete the locking media from the OMEGA Client.**  
   *Programming jobs are created automatically which remove the authorisations from the relevant locking devices.*

   *The relevant locking devices are programmed via the wireless online network. The locking media cannot be used now on the affected locking devices any more.*

⚠️ If you have authorised the locking media additionally by means of a Program-Master for locking devices, these authorisations were not deleted. Carry out a reprogramming of all locking devices, for which you have authorised the locking media with a Program-Master.

### 10.2.4 Loss of a locking media for administration via V-NET

In V-NET, the locking media which are not supposed to be in use are not deleted but rather **blocked**. The information that a locking media is blocked is stored in the locking media. Locking
devices have **block lists**, which contain the blocked locking media. Each authorisation attempt triggers the following:

- The locking device checks whether the locking media is blocked. Only unblocked locking media are accepted.
- If a locking media is unblocked but is on the block list, the locking device transmits information to the locking media that this locking media is blocked.

There are two ways to block a lost locking media:

1) via the **block lists** in the locking devices (for administration without validation devices)

2) via blocking through **Wall terminals**

### 10.2.4.1 Loss of a locking media for V-NET without validation devices

A detailed manual is available in the **OMEGA Suite Help**.

1. **Put the lost locking media on the block list.**
2. ** Transmit the block list to the locking devices, at which the lost locking media must get authorisation, e.g. all locking devices on the outer shell of the building.** You have three options to choose from:

   - **Option A**
     Create a **replacement media**. By using the replacement media at locking devices, the information that the predecessor media must be blocked will be transmitted to the locking device (see “Replacement media” on page 76).

   - **Option B**
     Create from a blank locking media a **block list media**, containing the block list. Go with the block list media to the locking devices and transmit the block list into the locking devices by holding the block list media in front of it. Read the block list media after that into OMEGA Client again, so that the OMEGA FLEX system synchronises itself, i.e. the information that the programming jobs were executed is transmitted to the OMEGA Client.

   - **Option C**
     Transmit the block list by means of the RF-Stick to the locking devices

*All locking devices, to which the block list was transmitted, now block the locking media as soon as it is held within its reading range. Hereafter, the locking media cannot be used on any locking device of the OMEGA FLEX system any more.*
10.2.4.2 Loss of a locking media for V-NET with validation devices

A detailed manual is available in the **OMEGA Suite Help**.

1. Put the lost locking media on the block list.
   
   *Programming jobs for the validation devices will be created automatically.*

2. As soon as the locking media is held within the reading range of the validation devices, the locking media will be blocked by the validation device.
   
   *The information that the locking media is blocked is now in the locking media.*

   *Thus, the locking media cannot be used on any locking device of the OMEGA FLEX system any more.*
## 10.3 Error signalling

### After reading a master media:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
</table>
| ![Icon](image1) ![Icon](image2) | Master media error:  
  a) The master media is not authorised.  
  b) For master media, which control the opening modes: An opening mode with higher priority is active (see "Hierarchy of the opening modes" on page 82).  
  c) The master media cannot be read because of the locking device variant (e.g. Program-Master for V-NET devices). | a) Authorise the master media.  
  b) Deactivate the opening mode with the higher priority.  
  c) Check whether the master media can be used with the concerned device types. |

### After reading a master media or locking media:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
</table>
| ![Icon](image1) ![Icon](image2) | 1. The media is not authorised for this device.  
  or  
  2. The media could not be read completely because:  
    a) it was not held long enough in the reading field.  
    b) The master media or the V-NET locking media has wrong system identification code.  
    c) a LINE locking media was held in the reading field of a V-NET device. | 1. Authorise the media for this device.  
  or  
  2a) Keep the media for a longer period in the reading field of the locking device.  
  2b) Use a master media or V-NET locking media with the right system identification code.  
  2c) LINE locking media could not be read by V-NET devices. |

### Additionally after reading the authorised or unauthorised locking media:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Icon" /> <img src="image2" alt="Icon" /></td>
<td>The battery alarm indicates that the batteries are going to be empty soon (see &quot;Maintenance&quot; on page 90).</td>
<td>Replace the batteries (see &quot;Maintenance&quot; on page 90).</td>
</tr>
</tbody>
</table>

or

| ![Icon](image2) ![Icon](image2) ![Icon](image2) | |
|--------------------------------------------------| |
**System error**

If system errors are present, they are signalled after to the following actions:

- after reading the authorised locking media
- after attempting to put handle set in release mode or emergency mode
- after the start sequence (insertion/connecting the batteries)

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Icon]</td>
<td>System error: Communication with the actuator is not possible.</td>
<td>Check the wiring and contacts. If you cannot fix the error by yourself, contact your CES partner.</td>
</tr>
<tr>
<td>![Icon]</td>
<td>System error: The actuator of the locking device is malfunctioning.</td>
<td>Check if the actuator has jammed. If you cannot fix the error by yourself, contact your CES partner.</td>
</tr>
<tr>
<td>![Icon]</td>
<td>System error: Communication could be established but was not successful.</td>
<td>In the case of electronic cylinders, check whether the knob and the blocking mechanism have the same UID or system identification. If you cannot fix the error by yourself, contact your CES partner.</td>
</tr>
</tbody>
</table>
11 Overview: Master media usage

11.1 Authorising System-Master .............................................. 111
11.2 Authorising additional master media ................................... 113
11.3 Deleting master media ................................................... 115
11.4 Deleting System-Master .................................................. 117
11.5 Authorising locking media ............................................... 118
11.6 Deleting locking media authorisations ................................. 120
11.7 Deleting all locking media authorisations simultaneously ......... 122
11.8 Setting opening period ................................................... 123
11.9 Activating release mode .................................................. 124
11.10 Deactivating release mode .............................................. 125
11.11 Activating block mode .................................................. 126
11.12 Deactivating block mode ............................................... 127
11.13 Activating emergency mode ............................................ 128
11.14 Deactivating emergency mode ........................................ 129
11.15 Activating online mode ................................................ 130
11.16 Deactivating online mode .............................................. 132
11.17 Checking quality of wireless connection .............................. 133
11.18 Transmitting programming jobs using RF-Stick to a locking device 135
11.1  Authorising System-Master

Each locking device of an OMEGAFLEX system must first become familiar with the System-Master of the system so that the System-Master is authorised to authorise additional master media for this locking device.

Each OMEGA FLEX system has only one System-Master. Through the system identification code which is stored in the locking device and in the System-Master, it is ensured that only the System-Master belonging to a given system can be authorised for the locking devices of that system.

⚠️ For security reasons, you should authorise the System-Master on all locking devices.

ℹ️ If you are using the OMEGA Suite: Ensure that the System-Master has been read into the OMEGA Client. As a result, it is automatically authorised for the locking device during the initial reprogramming of the locking device.

**Required master media:**
- System-Master

**Procedure:**

1. Hold the System-Master for ca 1 second in the reading field of the locking device and then remove it from the reading field.

   The following signal appears:
   - 1x short green and 1x short beep

   ![Diagram showing steps of procedure](image)
2. Hold the System-Master again for ca 1 second in the reading field of the locking device and then remove it from the reading field.

The following signal appears:
1x long green and 1x long beep

The System-Master is now authorised for this locking device.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>During step 1:</td>
<td></td>
</tr>
<tr>
<td>🌘 🌘 🌘 🌘</td>
<td>The System-Master does not have the correct system identification code.</td>
<td>Use the System-Master with correct system identification code.</td>
</tr>
<tr>
<td>🌘 🌘 🌘 🌘</td>
<td>Another System-Master has already been authorised for this locking device.</td>
<td>Since, at any given time only one System-Master exists which can be authorised on the basis of individual system identification code for a locking device, there is reason to suspect manipulation. Contact your CES partner immediately!</td>
</tr>
</tbody>
</table>
11.2 Authorising additional master media

All master media must be authorised prior to their first use. The only exceptions are the RF-Init-Master (in NET and VA devices) and the RF-Trace-Master.

- If you are administering your OMEGA FLEX system exclusively with master media, you must authorise each master media for each locking device for which you wish to use the master media.
- If you use OMEGA Client software, you can also conveniently authorise master media via OMEGA Client. A detailed manual is available in the OMEGA Suite Help.

Required master media:

- System-Master
- Any master media that needs to be authorised

Procedure:

1. Hold the System-Master for ca 1 second in the reading field of the locking device to start the “authorise mode” of the locking device.

   The following signal appears:

   1x short green and 1x short beep
2. Now you can authorise any number of master media one after the other by holding each master media for ca 1 second in the reading field of the locking device.

   The following signal appears for each master media:
   1x short green and 1x short beep

3. Hold the System-Master for ca 1 second in the reading field of the locking device to end the “authorise mode.

   The following signal appears:
   1x long green and 1x long beep

   The “authorise mode” will end automatically after 5 seconds. Die new authorisations remain stored.

   All master media, which were held before reading field, are now authorised to make settings for this locking device.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔄 🔄</td>
<td>a) You have tried to authorise a Program-Master for a V-NET locking device.</td>
<td>a) Program-Master cannot be authorised for V-NET devices.</td>
</tr>
<tr>
<td>🔄 🔄</td>
<td>b) The master media has the wrong system identity code</td>
<td>b) Use a master media with the correct system identification code.</td>
</tr>
<tr>
<td>🔄 🔄</td>
<td>c) You have used a locking media instead of a master-media.</td>
<td>c) Use a master media.</td>
</tr>
<tr>
<td>🔄 🔄</td>
<td>d) you have tried to authorise an RF-Trace-Master or an RF-Ini-Master.</td>
<td>d) RF-Trace-Master and RF-Ini-Master cannot be authorised.</td>
</tr>
</tbody>
</table>
11.3 Deleting master media

The deletion of a Program-Master deletes all locking authorisations which were assigned with this Program-Master.

The opening duration set with the Time-Master remains intact even after deletion of the Time-Master.

Required master media:

- System-Master
- Any master media, that needs to be deleted

Procedure:

1. Hold the System-Master for ca 1 second in the reading field of the locking device to start the “delete master media” mode of the locking device.

   The following signal appears:

   1x short green and 1x short beep
2. Now you can delete any number of master media one after the other by holding each master media for ca 5 second in the reading field of the locking device.

The following signal appears for each master media:

2x short green and 2x short beep

3. Hold the System-Master for ca 1 second in the reading field of the locking device to end the “delete master media” mode.

The following signal appears:

1x long green and 1x long beep

The “delete master media mode” will end automatically after ca 5 seconds. The master media which were previously held before the locking device will be deleted.

All master media, which were held in the reading field, are now no longer authorised to make settings for this locking device.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The master media cannot be deleted because it does not belong to the master media, which must be authorised.</td>
<td>The RF-Ini-Master (for NET and VA devices) and the RF-Trace-Master do not have to be authorised and therefore cannot be deleted.</td>
</tr>
<tr>
<td></td>
<td>The master media was held too short in the reading field of the locking device.</td>
<td>Keep the master media longer in the reading field of the locking device.</td>
</tr>
<tr>
<td></td>
<td>The authorisation was not deleted.</td>
<td></td>
</tr>
</tbody>
</table>
11.4 Deleting System-Master

Deletion of System-Master serves to restore the security of OMEGA FLEX system and is not necessary under normal use, see also "Help and troubleshooting" on page 103.

Effects of deletion of System-Master

- Deletion of the System-Master results in deletion of all master media and locking authorisations from a locking device.
- All settings in the locking device, which were made with the OMEGA Client software (e.g. Time profiles, locking media authorisations etc.), remain intact after deletion of the System-Master.
- Deletion of the System-Master deactivates all active opening modes of a locking device. Online devices remain in online mode though.
- The opening period set with the Time-Master remains intact after deletion of the Time-Master.

Required master media:

- System-Master

Procedure:

1. Hold the System-Master for ca. 5 seconds in the reading field of the locking device.

   The following signal appears:
   
   2x short green and 2x short beep

2. Remove the System-Master from the reading field of the locking device.

   It is automatically ensured that no access is possible in that if the coupling of the locking device was engaged, disengages.

   The System-Master is now deleted from this locking device.
11.5 Authorising locking media

Required media:

- Program-Master
- Any locking media that needs to be authorised

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 113

Procedure:

1. Hold the Program-Master for ca 1 second in the reading field of the locking device to start the "authorise mode.

   The following signal appears:

   1x short green and 1x short beep

2. Now you can authorise any number of locking media one after the other by holding each locking media for ca 1 second in the reading field of the locking device.

   The following signal appears for each locking media:

   1x short green and 1x short beep
3. Hold the Program-Master for ca 1 second in the reading field of the locking device to end the “authorise mode.

The following signal appears:
1x long green and 1x long beep

The “authorise mode” will end automatically after 5 seconds. The new authorisations remain stored.

All locking media, which were held in the reading field, are now authorised to open this locking device.

A locking media can be deleted from a locking device only with the same Program-Master with which it was authorised.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>During step 1:</td>
<td></td>
</tr>
<tr>
<td>⚠️</td>
<td>The program-Master could be read but is not authorised for this locking device.</td>
<td>Authorise the Program-Master. Note that you cannot authorise any Program-Master for the V-NET devices.</td>
</tr>
<tr>
<td>⚠️</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|            | During step 2:                  |                                               |
|            | a) The locking media was already authorised with another Program-Master or via the OMEGA Client software. | a) Locking media can only be authorised with a Program-Master or via the software. |
| ⚠️          | b) Instead of a locking media, a master media was held in the reading field. | b) Use a locking media. |
11.6 Deleting locking media authorisations

If you are administering your OMEGA FLEX system exclusively with master media, you can only delete individually authorised locking media if you own the corresponding Locking media. If the locking media no longer exists, you must delete the authorisations for all locking media, see "Loss of a locking media" on page 104.

A locking media can be deleted from a locking device only with the same Program-Master with which it was authorised.

Required media:

- Program-Master with which the locking media was authorised
- Authorised locking media, whose authorisation is to be deleted.

Procedure:

1. Hold the Program-Master for ca 1 second in the reading field of the locking device to start the “delete locking media” mode.

   The following signal appears:
   - 1x short green and 1x short beep
2. Now you can delete any number of locking media one after the other by holding each locking media for ca 2 second in front of the reading field of the locking device. 

The following signal appears for each locking media:
2x short green and 2x short beep

3. Hold the Program-Master for ca 1 second in the reading field of the locking device to end the “delete locking media” mode

The following signal appears:
1x long green and 1x long beep

The “delete locking media mode” will end automatically after 5 seconds. The locking media which were previously held before the locking device will thereby be deleted from the locking device.

All locking media, which were held in the reading field, are now no more authorised to open this locking device.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>During step 1: The program-Master was not yet authorised for this locking device.</td>
<td>Authorise the Program-Master.</td>
</tr>
<tr>
<td><img src="signal1.png" alt="Signal" /></td>
<td><img src="signal2.png" alt="Signal" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>During step 2: The locking media was not authorised with the Program-Master used</td>
<td>Use Program-Master with which the locking media was authorised</td>
</tr>
<tr>
<td><img src="signal1.png" alt="Signal" /></td>
<td><img src="signal2.png" alt="Signal" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The locking media was held for too short a period in the reading field of the locking device. The authorisation was not deleted.</td>
<td>Hold the locking media longer in the reading field of the locking device.</td>
</tr>
<tr>
<td><img src="signal1.png" alt="Signal" /></td>
<td><img src="signal2.png" alt="Signal" /></td>
<td></td>
</tr>
</tbody>
</table>
11.7 Deleting all locking media authorisations simultaneously

Only those locking media authorisations are deleted, which were added by the same Program-Master, which is also used for deletion.

This step by step instruction shows how to delete all locking media authorisations, the Program-Master itself however remains stored in the locking device. As an alternative, you can also delete the Program-Master from the locking device, this also deletes all locking media authorisations which were added by this Program-Master (see “Deleting master media” on page 115

Procedure:

1. Hold the Program-Master before the reading field of the locking device.

   After ca. 5 second, the following signal appears:
   2x short green and 2x short beep

1. Remove the Program-Master from the reading field of the locking device.

   All locking media authorisations from this locking device are now deleted, which were added with this Program-Master.
11.8 Setting opening period

The opening duration is the length of time during which the locking device remains coupled, after an authorised locking media was held in the reading field of the locking device.

The longer the opening duration, the more time people have to operate the locking device after the authenticating with a locking media. The maximum opening duration is 180 seconds.

Required master media:

- Time-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 113

Procedure:

1. Hold the Time-Master before the reading field of the locking device.
   
   The locking device starts to transmit flashing signals. Each flashing signal represents 1 second opening period.

2. Hold the Time-Master before the locking device until the desired opening period is reached. If, for example, you desire an opening period of 20 seconds, wait for 20 flash signals

3. Remove the Time-Master from the reading field.
   
   A signal confirming the setting follows:
   1x long green and 1x long beep

   The opening period is now set

- The minimum opening period is 2 seconds. If you remove the Time-Master after 1 second from the reading field, the opening period will be set to 2 seconds.

- The maximum opening duration is 180 seconds. Even if you hold the Time-Master longer in the reading field, the opening period will be set to 180 seconds.
11.9 Activating release mode

A locking device which is in release mode remains permanently coupled, i.e. the door can be opened permanently without necessitating the use of any locking media.

Required master media:

- Release-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 113

Procedure:

1. Hold the Release-Master before the reading field of the locking device.
   After ca. 1 second, the following signal appears:
   1x short green and 1x short beep
   If the locking device already lights up green while the Release-Master is being read, but no green flashing signal appears after one second, release mode is already active.

2. Remove the Release-Master from the reading field of the locking device.
   The release mode is now active. Permanent access without locking media is now possible because the coupling of the locking device is permanently engaged. The release mode has no time limit.

   Altered signalling in release mode: In release mode, the locking device signals 1x long green (instead of 1x short green) after reading from an authorised locking media.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A higher-priority opening mode is currently active (see &quot;Hierarchy of the opening modes&quot; on page 82).</td>
<td>b) Deactivate the opening mode with the higher priority.</td>
</tr>
<tr>
<td></td>
<td>The Release-Master is not authorised.</td>
<td>Authorise the Release-Master.</td>
</tr>
</tbody>
</table>
11.10 Deactivating release mode

Required master media:

- Release-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 113

Procedure:

1. Hold the Release-Master before the reading field of the locking device.

   After ca. 2 second, the following signal appears:
   
   2x short green and 2x short beep

   The release mode is now deactivated. To gain access, authorised locking media must now again be held before the locking device.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>A higher-priority opening mode is currently active (see &quot;Hierarchy of the opening modes&quot; on page 82).</td>
<td>Deactivate the opening mode with higher priority.</td>
</tr>
<tr>
<td>☐</td>
<td>The Release-Master is not authorised.</td>
<td>Authorise the Release-Master</td>
</tr>
</tbody>
</table>
### 11.11 Activating block mode

A locking device in block mode remains permanently uncoupled, i.e. the door cannot be opened. An access even with an authorised locking media is no more possible.

**Required master media:**

- Block-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 113

**Procedure:**

1. Hold the Block-Master before the reading field of the locking device. After ca. 1 second, the following signal appears:

   1x short green and 1x short beep

   If the locking device already lights up green while the Block-Master is being read, but no green flashing signal appears after one second, block mode is already active.

2. Remove the Block-Master from the reading field of the locking device.

   The block mode is now active. An access is not possible now even with an authorised locking media because the coupling of the locking devise is permanently disengaged. The block mode has no time limit.

   Using an Emergency-Key, a locking device can still be opened in block mode.

**Troubleshooting:**

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Signal Icon]</td>
<td>A higher-priority opening mode is currently active (see &quot;Hierarchy of the opening modes&quot; on page 82).</td>
<td>b) Deactivate the opening mode with the higher priority.</td>
</tr>
<tr>
<td>![Signal Icon]</td>
<td>The Block-Master is not authorised.</td>
<td>Authorise the Block-Master</td>
</tr>
</tbody>
</table>
11.12 Deactivating block mode

Required master media:

- Block-Master

The Program-Master must first be authorised for the locking device on which it is to be used, see "Authorising additional master media" on page 113

Procedure:

1. Hold the Block-Master before the reading field of the locking device.
   
   After ca. 2 second, the following signal appears:
   
   2x short green and 2x short beep

2. Remove the Block-Master from the reading field of the locking device.
   
   The blocking mode is now deactivated. An access with an authorised locking media is now possible again.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔄 2 s 🔄</td>
<td>A higher-priority opening mode is currently active (see &quot;Hierarchy of the opening modes&quot; on page 82).</td>
<td>Deactivate the opening mode with higher priority.</td>
</tr>
<tr>
<td>🔄 2 s 🔄</td>
<td>The Block-Master is not authorised.</td>
<td>Authorise the Block-Master</td>
</tr>
</tbody>
</table>
11.13 Activating emergency mode

Required master media:

- Emergency-Key

The Emergency-Key must first be authorised for the locking device with which it is to be used (see "Authorising additional master media" on page 113).

Procedure:

1. Hold the locking media before the reading field of the locking device.
   After ca. 1 second, the following signal appears:
   1x short green and 1x short beep

   If the locking device already lights up green while the Emergency-Key is being read, but no green flashing signal appears after one second, emergency mode is already active.

2. Remove the Emergency-Key from the reading field of the locking device.
   The locking device is now in emergency mode. Permanent access without locking media is now possible because the coupling of the locking device is permanently engaged. The emergency mode can be deactivated by Emergency-Key only.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Emergency-Key reading" /></td>
<td>The Emergency-Key could be read but is not authorised for this locking device.</td>
<td>Authorise the Emergency-Key.</td>
</tr>
</tbody>
</table>
11.14 Deactivating emergency mode

Required master media:

- Emergency-Key

The Emergency-Key must first be authorised for the locking device with which it is to be used (see "Authorising additional master media" on page 113).

Procedure:

1. Hold the locking media before the reading field of the locking device that is in emergency mode.

   After ca. 2 second, the following signal appears:
   2x short green and 2x short beep

2. Remove the Emergency-Key from the reading field of the locking device.

   The emergency mode is now deactivated. To gain access, authorised locking media must now again be held before the locking device.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>☢️</td>
<td>The Emergency-Key could be read but is not authorised for this locking device.</td>
<td>Authorise the Emergency-Key.</td>
</tr>
</tbody>
</table>
11.15 Activating online mode

The online mode can only be activated for variant NET and VA locking devices (see “Variants of OMEGA FLEX locking devices” on page 9).

Required master media:

- RF-Ini-Master

For the activation of online mode it is not necessary to authorise the RF-Ini-Master in advance.

Procedure:

1. Hold the RF-Ini-Master for ca 1 second in the reading field of the locking device.

   Following signals appear:
   
   **A:** 1x short green and 1x short beep
   = successfully connected to the Access-Point
   
   **B:** 1x long red and 1x long beep
   = no connection to the Access-Point possible
   
   **C:** 1x long green and 1x long beep
   = Connection to the Access-Point existed already

2. Remove the RF-Ini-Master from the reading field.

   The online mode is now deactivated.
Even if no connection to the Access-Point was possible, the locking device is now in online mode. Once an Access-Point is found, it will connect itself automatically.

**Troubleshooting:**

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Green square with white circle] ![Red square]</td>
<td>The locking device does not belong to the variant NET or VA.</td>
<td>The online mode is not available for this locking device.</td>
</tr>
<tr>
<td>![Green square with white circle] ![Gray square]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While the RF-Ini-Master is held in the reading field:
11.16 Deactivating online mode

Required master media:

- RF-Ini-Master

For the deactivation of the online mode it is not necessary to authorise the RF-Ini-Master in advance.

Procedure:

1. Halten Sie den RF-Ini-Master ca. zwei Sekunden lang vor das Lesefeld des Schließgeräts.
   
   The following signal appears:

   2x short green and 2x short beep

2. Remove the RF-Ini-Master from the reading field.

   The online mode is now deactivated.
11.17 Checking quality of wireless connection

Required master media:

- RF-Trace-Master

The RF-Trace-Master is ready for immediate use and does not have to authorise first.

Procedure:

1. Hold the RF-Ini-Master for ca 1 second in the reading field of the locking device.

   The following signal appears:
   
   1 x short green and 1 x short beep

   1. Hold the RF-Ini-Master for ca 1 second in the reading field of the locking device.

   The following signal appears:

   1 x short green and 1 x short beep
2. The locking device shows now the quality of the wireless connection:

- ••• Very good
- ••• sufficient
- •• weak
- ••• No wireless connection

The Access-Point associated with the Update-Terminal shows during wireless connection test the quality of the wireless connection with the same signalling as the locking device.

3. Hold the RF-Trace-Master ca 1 second in the reading field to end the wireless connection quality display.

The following signal appears:

1x long green and 1x long beep

The testing of the wireless connection quality is finished herewith.

After 3 minutes, the wireless connection quality display will end automatically.

Troubleshooting:

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔄</td>
<td>The locking device does not belong to the variant NET or VA.</td>
<td>Der RF-Trace-Master kann nur an NET- und VA-Geräte verwendet werden.</td>
</tr>
</tbody>
</table>
11.18 Transmitting programming jobs using RF-Stick to a locking device

Required master media and administration devices:

- RF-Stick-Master
- RF-Stick
- PC with OMEGA Client installed

The RF-Stick-Master must first be authorised for all locking devices on which it is to be used (see "Authorising additional master media" on page 113). Each RF-Stick-Master that has been authorised once is compatible with every RF-Stick of a OMEGA FLEX system.

Procedure for creating programming jobs:

1. Start the OMEGA Client and log in with your user name and password.
2. Set the desired changes in the OMEGA Client.
3. Start your changes accordingly as a change programming or new programming, e.g. through PROGRAMMING > PROGRAM ALL CHANGES.

The status display of the OMEGA Client shows now "programming required". The individual programming jobs are shown under "Programming status".
Procedure for transmitting programming jobs via an RF-Stick:

1. Proceed with your PC and the RF-Stick connected to it to the locking device into which the programming jobs are to be transmitted.

   If you want to transmit the programming jobs into multiple locking devices, you can freely choose the sequence in which you look for the locking devices.

2. Hold the RF-Stick-Master briefly in the reading field of the locking device.

   The following signal appears:
   1x short green and 1x short beep

3. The locking device searches now for an RF-Stick nearby.

   The distance between the locking device and the RF-Stick may not exceed ten meters at the maximum.

   As soon as the RF-Stick has been detected, the transmission begins. During transmission, the locking device flashes green.

   During transmission the following happens:
- All programming jobs for this locking device are transmitted to this locking device. During programming, the programming status display shows the progress in percentage.

- All events stored in the locking device, which were not available to the OMEGA Client yet, will be copied into the OMEGA Client.

- The clock is set.

If no programming jobs are available, only the events are copied and the clock is set. In this case, the locking device does not flash during the transmission.

After all data has been transmitted, the RF-Stick and the locking device are disconnected automatically. After transmission completion, the programming job is deleted from the “Programming status” list.

The programming job transmission is completed when the locking device signals 1x long green and 1x long beep.

**Troubleshooting:**

<table>
<thead>
<tr>
<th>Signalling</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>The locking device cannot detect any RF-Stick nearby.</td>
<td>Move with a properly connected RF-Stick closer to the locking device and try to transmit the programming jobs once again.</td>
</tr>
</tbody>
</table>
A

Access point 74
Administration
    Master media 68
    RF-Stick 70
    V NET 76
    Wireless online network 74
Administration device 9

B

Block-Master 67
Block mode 62, 81, 126
    Activating 126
    deactivating 127

C

Client-Server-Principle 79
Coupled 7

D

Decoupled 7
E

Emergency-Key 67

Events 63

H

Hierarchy of the opening modes 82

L

Locking device 7-8

Variants 9

Locking media 7-8

Authorising with Program-Master 118

deleting with Program-Master 120

M

Master media 66

authorising via OMEGA Client 80

authorising with System-Master 113

when using OMEGA Client 80

O

Office-function 65

Office mode 65, 81, 85
OMEGA Client 79
  Functions 79
OMEGA FLEX system 7
OMEGA Suite 79
Online mode
  Activating 130
  deactivating 132
Opening duration 7, 62, 123
  setting 123
Opening mode (Hierarchy) 82
Outdoor antenna 74

P

Previous media 76
Priority of opening modes 82
Program-Master 67
  when using OMEGA Client 80
Programming jobs 79

Q

Quality of wireless connection 133

R

Release-Master 67
Release mode  62, 81, 124
   activate with master media  124
Repeater  74
Replacement media  76
RF-Ini-Master  68
RF-Stick  70
   initialising  71
   Transmitting programming jobs  71
RF-Stick-Master  67
RF-Trace-Master  68

S

Software OMEGA Client  79
   Functions  79
System-Master  67
   authorise  111

T

Target group of the manual  5
Time-Master  67
Time profiles  62, 70
Transponder  7

V

VNET  76
Validation 64
Validity 63
Variants (locking devices) 9
    changing 10

W

Wireless online network 74
C. Ed. Schulte GmbH
Zylinderschlossfabrik
Friedrichstraße 243
D-42551 Velbert
☎ +49 2051 204 0
📞 +49 2051 204 229
✉ info@ces.eu

United Kingdom
CES Security Solutions Ltd.
Unit 4 Kendon Business Park
Maritime Close, Medway City Estate
Rochester, Kent ME2 4JF
☎ +44 1 634713369
📞 +44 1 634786833
✉ info@uk.ces.eu

Middle East
A.G.P Advanced German Products LLC
PO Box 102761
UAE Dubai
☎ +971 4 885 7050
📞 +971 4 369 7051
✆ +971 4 390 8935
✉ info@agp-dubai.com

Austria
César A. Cárcamo
Büro: Wiener Bundesstrasse 33
A-4050 Traun
☎ +43 660-73 20 311
📞 +43 732-21 00 22 2681
✉ office@ces.at

Spain
Benidorm Locks S.L.
Av. Marina Baixa s/n
Partida Torrent
ES-03530 La Nucia, Alicante
☎ +34 96 689 79 79
📞 +34 96 689 79 78
✉ info@benidormlocks.com