Programming Instructions for the OMEGA ACTIVE System

- For Offline-Programming -

Translated programming instructions
version 1.41, 11/2014
These Programming Instructions will help you programming the OMEGA ACTIVE system and using it
• as intended,
• safely, and
• advantageously.

Any person who
• programs,
• operates, or
• disposes of

the OMEGA ACTIVE system must have read and understood the entire contents of these Programming Instructions and other required user manuals, operating and fitting instructions.

Depending on the configuration of your locking system, you may require other user manuals, operating or fitting instructions for an overall understanding of the system.

These Programming Instructions should always be kept within your reach. Always keep these Programming Instructions within reach for reference during the entire service life.
Notes on the layout

In these Programming Instructions, a number of elements are highlighted with defined layout features so you can identify at a glance whether a passage contains

- standard text,
- a list, or
- individual steps in a sequence of actions.

Notes highlighted with this symbol contain additional information on the efficient use.
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For your safety

⚠️ Basic safety instructions

Observe all warnings and notes in these Programming Instructions when you
- assemble,
- program, and
- use
components of the system.

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

Danger to life
- Do not use the ACTIVE-locking cylinder for doors with anti-panic function, such as escape doors, for which a knob cylinder is not permitted. People may not be able to open the door in emergencies and may be injured or killed.
- Only use the ACTIVE-locking cylinder for door locks for which knob systems are permitted. In case of doubt, please contact the manufacturer of the door or the door lock and satisfy yourself that the locking cylinder is suitable for your door system.
- Make sure that the effects of your programming do not expose any persons to any risk of injury or other hazards.
- Satisfy yourself that your programming translates into the desired function.
- Make sure that all required system components work perfectly.
For your safety

Danger of explosion

- Live parts of the system components may cause an explosion. Do not use any components of the system in potentially explosive atmospheres.

Danger of suffocation

- Never allow children to play with packaging material and/or plastic bags. There is a risk that children pull them over their head and suffocate.

Danger of poisoning

- Always keep the system components out of reach of children. There is a risk that children swallow small parts such as batteries or screws.

Danger of property damage

To prevent property damage, the following safety instructions should be observed:

- Always have repairs performed by properly qualified personnel.
- Only use accessories and spare parts recommended by CEStronics.
- Only use the proper or described tools for the system components.
- Do not drop any system components on the floor, on hard surfaces or on hard objects.
- Protect the electronic parts of your system components against water and other liquids.
- The system components contain highly sensitive electronic parts that may be damaged or destroyed through static charges. Do not disassemble any system components in rooms with built up static charge.
• Do not store the locking cylinder without inserting a charged battery.

Danger through environmental conditions
• Do not use the system components in corrosive atmospheres (chlorine, ammonia, lime water).
• Only use the system components in rooms in which the humidity does not exceed 95%.
• Do not use the system components in rooms with a high level of dust formation.
• Do not use the system components near sources of heat.
• The outside knob may only be exposed to temperatures between –25 °C and +70 °C.
• The inside knob may only be exposed to temperatures between 0 °C and +50 °C.

Danger of malfunctions
• The reading units of the system components must not be covered with metallic material.
• Satisfy yourself when installing the Access Point that both the Access Point and all other system components are in perfect working order. Malfunctions of the Access Point and other system components may compromise the functioning of the entire system.
• If necessary, use uninterrupted power supply (UPS) systems to ensure an uninterrupted operation of your locking system.
Notes on the handling of batteries

- Keep batteries out of reach of children. If a battery was swallowed, consult a physician without delay.
- Always insert new batteries. Never insert old and new batteries at the same time.
- Never mix the battery types. Always replace batteries by batteries of the same or an equivalent type.
- Before inserting the batteries, check that the terminals in the device and at the batteries are clean. Clean them if necessary.
- Observe the correct polarity (+/-) when inserting the batteries.
- Never attempt to recharge non-rechargeable batteries. There is a risk of explosion!
- Never short-circuit the batteries.
- Always store new batteries at a cool, dry place. Direct heat may damage the batteries. Do not expose any battery-powered devices to strong sources of heat.
- Never throw any batteries into a fire.
- Always remove leaked batteries immediately from the device.
- Clean the terminals before inserting new batteries. There is a danger of acid burns!
- Remove flat batteries from the device.
- Replace flat batteries by new batteries within one hour.
- Be sure to send back the batteries to orderly disposal.
Explanation of the safety notes

These Programming Instructions include safety notes of the following types:

**ATTENTION**

ATTENTION notes warn against possible property or environmental damage.
Intended use

The individual components of the OMEGA ACTIVE system serve to unlock and lock doors with locks for which the use of knob systems are permitted. These system components are exclusively intended and may only be used for that purpose.

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

CEStronics GmbH does not accept any liability for any damage resulting from improper use.

Remarks

This Programming instructions are only valid for:

CEStronics OMEGA ACTIVE-System

Manufacturer

The manufacturer of the OMEGA ACTIVE-System is:

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Friedrichstr. 243
42551 Velbert
Tel: +49 (0) 2051-204-0
Fax: +49 (0) 2051-204-105
www.ces.eu

Service

For support in case of service please contact your CEStronics partner.
Description

The OMEGA ACTIVE system is a system for securing buildings and inner rooms using state-of-the-art technologies.

The system operation is simple, safe and intuitive, irrespective of the level of implementation.

Equipment variants

Depending on the equipment of your locking system, the system comprises:

- wall terminals, shields and locking cylinders. These components are the locking devices that grant or refuse access through your doors.
- the optional CP100 programmer. This accessory provides an alternative means of programming your locking devices.
- With the optional RF-stick, you can manually program your access devices (locking cylinder, IES shield, wall terminal) by radio transmission.
- Access Points. These are optional interfaces between your PC with the OMEGA software and your locking devices.
- an optional PC with OMEGA ACTIVE software. This software allows you to manage and program the entire wireless locking system.
Scope

The system is suitable for scaling over a wide range:

- as a manual system with simple manual programming via Master media at the locking device;
- as a medium-scale locking system with the entire programming being performed at your PC with the OMEGA software and transmission of the data to the individual locking devices via the RF-Stick by radio transmission;
- as a large-scale locking system with the entire programming being performed at your PC with the OMEGA software and immediate transmission of the data via the linked Access Points. Virtually no time is lost by going to the individual devices for manual programming.
- You can additionally use the CP100 programmer to program locking devices without a wireless link. In this case, the CP100 serves as your data communicator between your PC and the locking device.

The OMEGA ACTIVE system is based on active transponders. Unlike passive transponders such as are used in the 125 kHz series, this allows reading distances of about 70 cm in all three dimensions.

This means that it is no longer necessary for you to take the locking medium into your hand.

All OMEGA ACTIVE transponder media can be used as authorized locking media for your locking devices.

The OMEGA ACTIVE locking devices additionally comprise a reader for 125 kHz locking media, such as Hitag and EM 4102, so that also your locking media of the OMEGA 125 kHz series can be read.

Your locking devices can only be operated with authorized locking media.
You can authorize a locking medium for your locking devices with Master media, with RF-Stick, the CP100 programmer or the OMEGA software and radio transmission.

Access is granted if you move with an authorized locking medium into the reading range of your locking devices. The reader modules in the locking devices detect an authorized locking medium and

- if the locking device is a locking cylinder, the outside knob is coupled with the follower and the door can be opened by rotating the outside knob;
- if the locking device is a WT-A-I or WT-A-II wall terminal, the relay is pulled up and the connected door can be opened.

**Further features of the system:**

- Convenient operation
- Reliable function
- Protection against sabotage
- Logging of all relevant events
- Communication protected against interception
- Fast reaction
- Control of special functions
- Diagnostic functions for trouble-shooting
- Integration in existing third-party systems possible.
Correct door operation

NOTICE

Damaging the double knob cylinder by false door operation possible.

- Use only the door handle for opening and closing the door, like shown in the illustration.

- Don’t open the door with the key:

- Don’t open the door with the knob:
Transport notes

For locking cylinder

Locking cylinders may interact if they are placed too close to one another or too close to locking media. This will discharge the battery.

To prevent interaction between cylinders during transport, please observe the following notes:

- Always keep locking cylinders at least 5 cm apart.
- Do not transport locking cylinders together with ID cards or locking media.
- Only transport locking cylinders with the reader fitted.
For electronic shields

Electronic shields may interact if they are placed too close to one another or too close to locking media. This will discharge the battery.

To prevent interaction between shields during transport, please observe the following notes:

- Always keep electronic shields at least 5 cm apart.
- Do not transport electronic shields together with ID cards or locking media.
- Only transport electronic shields with the reader fitted.
Prepare an overview or a locking plan for your programming. This will enable you to determine at any time which PROGRAM-MASTER you used to authorize which locking medium.
In the above example, the SYSTEM-MASTER was used to authorize the PROGRAM-MASTERS no. 1, no. 2 and no. 3.

The PROGRAM-MASTER no. 1 was used to authorize the locking media no. 1 and no. 2. The locking medium no. 1 was authorized for the wall terminal no. 1 and the locking cylinder no. 2. The locking medium no. 2 was authorized for the wall terminal no. 3.

The PROGRAM-MASTER no. 2 was used to authorize the locking media no. 3 and no. 4. The locking medium no. 3 was authorized for the wall terminal no. 3. The locking medium no. 4 was authorized for the locking devices no. 4, no. 5 and no. 6.

The PROGRAM-MASTER no. 3 was used to authorize the locking media no. 5 and no. 6. The locking medium no. 5 was authorized for the locking cylinder no. 6. The locking medium no. 6 was authorized for the shield no. 7.

**ATTENTION**

Danger of abuse in case of a lost Master medium.

- If a Master medium is lost, have the locking cylinder and/or the access terminal initialized by properly skilled personnel.
- Always keep all Master media at a safe place.
- Prevent manipulation of the locking system by a potential finder.

During an initialization, all authorizations for the locking cylinder or access terminal are deleted.
For manual programming, you require the following components:

1. your locking medium of choice
2. your locking device of choice (locking cylinder, shield or wall terminal)
3. SYSTEM-MASTER
4. PROGRAM-MASTER
The locking media (1) allow you to operate OMEGA ACTIVE locking devices (2). In addition to OMEGA ACTIVE locking media, you can also use 125 kHz locking media.

The locking devices (2) grant or refuse the free access.

The SYSTEM-MASTER (3) is used to authorize the PROGRAM-MASTER (4) for the locking system. Each system has one and only one SYSTEM-MASTER and a maximum of ten PROGRAM-MASTERS. The PROGRAM-MASTER (4) serves to authorize locking media (1) for your locking device.

Programming is the same for wall terminals and locking cylinders. In these Programming Instructions, the locking cylinder is taken as an example for the description of the programming.
Basic programming routine

The programming of the various authorizations is based on the following routine:

1. First, you authorize the SYSTEM-MASTER for your locking device. You can subsequently also authorize the SYSTEM-MASTER for further locking devices.

2. You then authorize one or several PROGRAM-MASTER for your locking device.

3. Finally, you authorize the locking media for one or several locking devices.

During the programming, various acoustic and visual signals are given.

The SYSTEM-MASTER allows you to authorize up to ten PROGRAM-MASTERS for your locking system.

The SYSTEM-MASTER cannot be used to authorize locking media but only to authorize PROGRAM-MASTERS and optional Master media (see also page 23).

The locking media for a locking device can only be authorized with a PROGRAM-MASTER.

One locking medium can also be authorized for several locking devices.

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**ATTENTION**

*If a Master medium is damaged, it may no longer work.*

- Make sure that your Master media are not damaged.
Granting authorizations

ATTENTION
Danger of accidental deletion of authorizations.

- Only hold the respective media in front of the reader for as long as is indicated in the instructions.

Defining the SYSTEM-MASTER

To define the SYSTEM-MASTER for the locking device, proceed as follows:

- Hold the SYSTEM-MASTER in front of the reader.
- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.

The LED signals green as long as the SYSTEM-MASTER is within reading range.

- Remove the SYSTEM-MASTER for a short moment.

When the SYSTEM-MASTER has left the reading range, this is signalled with a short beep.

- To confirm, hold the SYSTEM-MASTER again in front of the reader for a short moment.
- Remove the SYSTEM-MASTER.

The LED signals green as long as the SYSTEM-MASTER is again within the range of the reader. When you leave this range, this is signalled with a long beep. This completes the programming of the SYSTEM-MASTER.

You can only define one SYSTEM-MASTER for a locking cylinder and/or access terminal. If you hold another SYSTEM-MASTER in front of the reader, you will hear four short beeps and the LED will flash red four times.
Authorizing a PROGRAM-MASTER

With this SYSTEM-MASTER, you can now authorize up to ten PROGRAM-MASTERS. Proceed as follows:

› Hold the SYSTEM-MASTER in front of the reader.

› Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.

The LED signals green as long as the SYSTEM-MASTER is within reading range. When you leave this range, this is signalled with a short beep.

› Hold the PROGRAM-MASTER in front of the reader for a short moment.

The LED signals green as long as the PROGRAM-MASTER is within reading range. When you leave the range, this is signalled with a short beep.

› If you wish to authorize additional PROGRAM-MASTERS, hold them successively in front of the reader, proceeding as described above.

› To complete the process, hold the SYSTEM-MASTER in front of the reader for a short moment.

The LED signals green as long as the SYSTEM-MASTER is again within the range of the reader. When you leave the range, this is signalled with a long beep. This completes the authorization of the PROGRAM-MASTER(S).
Authorizing a locking medium

Any authorized PROGRAM-MASTER can be used to authorize locking media. Proceed as follows:

- Hold the PROGRAM-MASTER in front of the reader.
- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.

The LED signals green as long as the PROGRAM-MASTER is within reading range. When you leave the range, this is signalled with a short beep.

- Hold the locking medium in front of the reader for a short moment.

The LED signals green as long as the locking medium is within reading range. When you leave the range, this is signalled with a short beep.

- If you want to authorize additional locking media, hold them successively in front of the reader, proceeding as described above.

- To complete the programming, again hold the PROGRAM-MASTER in front of the reader.

The LED signals green as long as the PROGRAM-MASTER is again within reading range. When you leave the reading range, you hear a long beep and the programming is complete. You can now use any authorized locking medium to unlock the locking device.
Authorizing optional Master media

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the SYSTEM-MASTER in front of the reader.

The LED signals green as long as the SYSTEM-MASTER is within reading range. When you leave this range, this is signalled with a short beep.

- Hold the Master media in front of the reader for a short moment.

The LED signals green as long as the PROGRAM-MASTER is within reading range. When you leave the range, this is signalled with a short beep.

- If you wish to authorize additional Master media, hold them successively in front of the reader, proceeding as described above.

- To complete the process, hold the System-Master in front of the reader for a short moment.

The LED signals green as long as the System-Master is again within the range of the reader. When you leave the range, this is signalled with a long beep. This completes the authorization of the optional Master media(s).
Deleting authorizations

Deleting the authorization of a PROGRAM-MASTER

To delete the authorization of a PROGRAM-MASTER, you require the SYSTEM-MASTER. When you delete the authorization of the PROGRAM-MASTER, all the authorizations of locking media that were granted with that PROGRAM-MASTER are deleted as well. Proceed as follows:

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the SYSTEM-MASTER in front of the reader.

The LED signals green as long as the SYSTEM-MASTER is within reading range. When you leave the range, this is signalled with a short beep.

- Now hold the PROGRAM-MASTER in front of the reader.

The LED signals green as long as the PROGRAM-MASTER is within reading range. After about ten seconds you hear two short beeps.

- Now remove the PROGRAM-MASTER from the reader.

- To complete the deletion process, hold the SYSTEM-MASTER in front of the reader again.

The LED signals green as long as the SYSTEM-MASTER is again within the range of the reader. When you leave the range, this is signalled with a long beep. The authorization of the PROGRAM-MASTER has now been deleted.
Deleting the authorization of a locking medium

You can delete the authorization of individual locking media or of all locking media. For this purpose, you require the PROGRAM-MASTER that was originally used to grant the authorization.

To delete the authorization of individual locking media, proceed as follows:

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the PROGRAM-MASTER in front of the reader. The LED signals green as long as the PROGRAM-MASTER is within reading range. When you leave the range, this is signalled with a short beep.
- Hold the locking medium the authorization of which you want to delete in front of the reader until you hear two short beeps. The LED signals green as long as the locking medium is within reading range.
- After you have heard the signal, remove the locking medium from the reader.
- If you want to delete the authorization of additional locking media, hold them successively in front of the reader.
- To complete the deletion process, again hold the PROGRAM-MASTER in front of the reader for a short moment. The LED signals green as long as the PROGRAM-MASTER is again within reading range. When you leave the reading range you hear a long beep and the authorization of the locking medium or media has been deleted.
You can also delete all authorizations of locking media that were granted with a given PROGRAM-MASTER.

Proceed as follows:

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the PROGRAM-MASTER in front of the reader.

The LED signals green as long as the PROGRAM-MASTER is within reading range. After about ten seconds you hear two short beeps. Now all authorizations granted by this PROGRAM-MASTER for this locking cylinder and/or access terminal have been deleted.

- Remove the PROGRAM-MASTER from the reader.

**Deleting the authorization of optional Master media**

In the deletion process, the authorizations of the Master medium are deleted.

Proceed as follows:

- Hold the SYSTEM-MASTER in front of the reader.

The LED signals green as long as the SYSTEM-MASTER is within reading range. When you leave the range, this is signalled with a short beep.

- Now hold the optional master media in front of the reader.

The LED signals green as long as the PROGRAM-MASTER is within reading range. After about some seconds you hear two short beeps.

- Now remove the optional master media from the reader.

When you leave the reading range you hear two short beeps and the authorization of the optional master media has been deleted.
Optional Master media

Optional Master media allow you to set additional functions manually without requiring additional aids such as a PC or programmer.

Each optional Master medium only performs one defined additional function.

SYSTEM-MASTER

With the SYSTEM-MASTER, you define the allocation to a locking system. The SYSTEM-MASTER grants all authorizations on the highest level. For each locking system, there is one and only one valid SYSTEM-MASTER.

With the SYSTEM-MASTER, you can authorize up to ten PROGRAM-MASTERS. In its basic version, a locking system requires one SYSTEM-MASTER and one PROGRAM-MASTER each to program your locking devices. The SYSTEM-MASTER is also used to authorize the following additional Master media for your locking cylinders and wall terminals:

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

For further information on the programming of the SYSTEM-MASTER and PROGRAM-MASTER, please refer to page 23.

For further information on the programming of the optional Master media, please refer also to the "Concise programming guide" as from page 26.
With the TIME-MASTER, you set the opening time of the locking cylinder or access terminal. During the opening time, your locking device allows free access.

- For locking cylinders or shields, this is the period during which the knob is coupled with the follower time.
- For wall terminals, this is the period during which the relay is pulled up.

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

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the TIME-MASTER in front of the locking cylinder, the IES shield or the wall terminal.

When the locking device detects the TIME-MASTER, it starts beeping at one-second intervals. The number of beeps determines the opening time.

**Example:**

5 x Beeper = 5 seconds opening time
With the RELEASE-MASTER, you can set locking cylinders, shields or wall terminals into enable condition. In enable condition, no locking media are read and the locking devices are permanently open.

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

**To set the enable condition:**

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the RELEASE-MASTER for about two seconds in front of your locking device (Confirmation: 1 x short signal).

**Deactivate enable condition:**

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the RELEASE-MASTER for about five seconds in front of your locking device (Confirmation: 2 x short signal).

In response, your locking cylinder uncouples and/or the relay of the wall terminal drops. The enable condition is also terminated when you hold the BLOCK-MASTER in front of your locking cylinder or wall terminal as described below.
BLOCK-MASTER

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

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

**To set the blocked condition:**

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the BLOCK-MASTER for about two seconds in front of your locking device (Confirmation: 1 x short signal).

**Deactivate blocked condition:**

- Rotate the outside knob of the locking cylinder by at least one notch or touch the proximity sensor.
- Hold the BLOCK-MASTER for about five seconds in front of your locking device (Confirmation: 2 x short signal).

The optional transponder cards RF-INI-MASTER and RF-TRACE-MASTER do not require authorization with a SYSTEM-MASTER. Their function is performed immediately when they are within range of a reader. The function is deleted by holding the respective card again within range of the reader.
The RF-INI-MASTER is used to switch your locking cylinder or wall terminal into RF (radio) mode. In this mode, the locking device attempts to establish a connection with the OMEGA server to receive new programming jobs. Also, the stored events at the locking device are transmitted. Programming jobs and events are transmitted cyclically.

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

- Turning the outer knob of the cylinder to at least a notch point or touch the proximity sensor.
- Keeping the RF INI MASTER about two seconds before your locking device.

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

- Turning the outer knob of the cylinder to at least a notch point or touch the proximity sensor.
- Keeping the RF INI MASTER again longer before your locking device.
- As result you get the green signal for about five seconds, as well as an acoustic signal.

The online mode is now turned on.
To put your locking device in the **offline mode**, proceed as follows:

- Turning the outer knob of the cylinder to at least a notch point or touch the proximity sensor.
- Keeping the RF INI master before the locking device, until the following signaling is finished.

As a result, you get the green signal for about five seconds, as well as an acoustic signal. After a brief pause given again two short acoustic signals. Then the green signal goes out and the acoustic signal is terminated.

The offline mode is now turned on.
RF-TRACE-MASTER

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

- Flashing green LED: strong RF link
- Flashing red LED: faulty RF link
- Alternately or simultaneously flashing red and green LEDs: weak RF link.

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

To verify the quality of the RF link to your locking devices, proceed as follows:

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

The function is performed immediately.

- If the green LED of your locking cylinder or wall terminal flashes, the RF link is OK.
- If the red LED of your locking cylinder or wall terminal flashes, the RF link is not OK and must be checked.
- If the red and the green LEDs flash alternately or simultaneously, the RF link is weak and should be checked to ensure full functionality and reliability.

Further information on trouble-shooting with radio transmissions can be found on page 55.
Online programming

You can also control and manage your locking systems via a radio frequency link. This allows a convenient management and programming of the entire locking system.

The following components are required for wireless programming (see also next page):

- State-of-the-art PC (1, 2) with Windows 7™, Windows 8™, Windows Server 2008™ or Windows Server 2013™ (XP™ and Windows Server™ 2003 are no longer supported).
  1 GHz processor, at least 1 GB RAM, at least 1 GB free hard disk memory
- Network card (TCP/IP)
- CD-ROM drive for software installation
- One free USB port to use the RF-Stick (optional)
- An existing Internet connection to use the OMEGA Quicksupport
- Monitor with a resolution of 1024 x 768 pixel
- OMEGA ACTIVE Access Points (No. 3, maximum ten locking devices per Access Point).
- OMEGA Software
- At least one locking device (No. 4).
- A valid license for the ACTIVE client.
- The RF-Stick (5) can be used either instead of Access Points (3) or in addition to Access Points.
Setting up a Online radio network

For further information, please refer to the User Manual of the CEStronics Suite which is available free of charge at www.ces.eu.
To **set the RF mode (Online mode)** of your locking devices with the RF-INI-MASTER, proceed as follows (see also page 62):

- Turning the outer knob of the cylinder to at least a notch point or touch the proximity sensor.
- Keeping the RF INI MASTER about two seconds before your locking device.

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

- Turning the outer knob of the cylinder to at least a notch point or touch the proximity sensor.
- Keeping the RF INI MASTER again longer before your locking device.
- As result you get the green signal for about five seconds, as well as an acoustic signal.

The online mode is now turned on.

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

- Turning the outer knob of the cylinder to at least a notch point or touch the proximity sensor.
- Keeping the RF INI master before the locking device, until the following signaling is finished.

As a result, you get the green signal for about five seconds, as well as an acoustic signal. After a brief pause given again two short acoustic signals. Then the green signal goes out and the acoustic signal is terminated.

The offline mode is now turned on.
Opening locking devices

Opening locking cylinder

Passive locking media (125 kHz series)

- Rotate the outside knob by some notches.
- Within two seconds, hold your authorized locking medium (1) in front of the outside knob (2) of the locking cylinder.

The reader module in the outside knob identifies the locking medium. Green LEDs in the light ring of the locking cylinder signal the enabled status.

The outside knob is coupled with the follower.

- Rotate the outside knob to open the door.
- Release the knob immediately after the door has been opened. You do not have to turn the knob back into its original position.
Active locking media (OMEGA ACTIVE series)

- Move with your authorized locking system (1) into the reading range of the locking cylinder. This range is about 70 cm. You do not have to hold your locking medium in your hand.

The reader module in the outside knob identifies the locking medium.

- Rotate the outside knob by some notches.

The locking cylinder sends a short signal to signal the enable status. During the opening time you can open the door. During this opening time, the locking cylinder does not respond to any other locking media.

- To open the door lock, rotate the outside knob in the corresponding direction (2).

- Release the knob immediately after the door has been opened. You do not have to turn the knob back into its original position.

If you are using a locking medium that is not authorized to enable this locking cylinder, the light ring of the locking cylinder flashes red four times and you hear four successive beeps. In this case, the outside knob is not coupled with the follower. The outside knob rotates freely but the door lock cannot be operated.
Opening wall terminals

Passive locking media (125 kHz series)

- To perform the locking or unlocking operation, hold your authorized locking medium (1) in front of the reader (2) for about one second.

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

During the set opening time you can pass through the door. During this opening time, the wall terminal and/or long-range reader does not respond to any other locking media.
Active locking media (OMEGA ACTIVE series)

- Move with your authorized locking medium (1) into the reading range. This range is about 60 – 150 cm for the wall terminals (2).

![Diagram showing the range between locking medium (1) and wall terminal (2)]

The green LED of the wall terminal or the long-range reader goes on to signal enable status and the connected door system opens.

During the set opening time you can pass through the door. During this opening time, the wall terminal and/or long-range reader does not respond to any other locking media.

If you are using a locking medium that is not authorized to enable the wall terminal and/or long-range reader, the red LED of the wall terminal or the long-range reader flashes four times and you hear four successive beeps. In this case, no coupling is established with your connected door system and you do not have access.
Opening electronic shields

Passive locking media (125 kHz series)

1. Touch the proximity sensor (1).

2. Within two seconds, hold your authorized locking medium (2) in front of the outside shield (3) of the IES.

The reader module in the outside shield detects the locking medium. The green LED and a short beep of the reader module signal the enabled status.

The handle is coupled with the lock.

Use the handle of the outside shield to open the door.

If you are using a locking medium that is not authorized to enable the IES, the light at the IES flashes red four times and you hear four successive beeps. In this case, the handle is not coupled with the lock. You can operate the handle but this will not unlock the lock.
Active locking media (OMEGA ACTIVE series)

- Move with your authorized locking medium (2) into the reading range of the IES. This range is about 70 cm. You do not have to hold your locking medium in your hand.

- Touch the proximity sensor (1).

The reader module in the outside shield identifies the locking medium. The green LED and a short beep of the reader module signal the enabled status.

The handle is coupled with the lock.

- Use the handle of the outside shield to open the door.
Programming with the RF-Stick

The optional RF-Stick permits the wireless manual programming of your locking devices (locking cylinder, IES fitting, wall terminal). The maximum radio range of the RF-Stick is 10 metres.

The RF-Stick is available in three different packages:

<table>
<thead>
<tr>
<th>Package</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF-Stick (Part no. 248601V)</td>
<td>Includes the RF-Stick and a CD-ROM only, for the functional extension of existing online and offline systems</td>
</tr>
<tr>
<td>RF-Stick Set (Part no. 248605V)</td>
<td>Includes the OMEGA ACTIVE RF-Stick, RF-STICK MASTER, OMEGA ACTIVE SYSTEM MASTER, a CD-ROM with the CEStronics software suite as backup medium and a USB stick with program files and licences</td>
</tr>
<tr>
<td>RF-Stick Programming Package (Part no. 248604V)</td>
<td>Includes a netbook with pre-installed CEStronics software suite with single-user licence, OMEGA ACTIVE RF-Stick, RF-STICK MASTER, OMEGA ACTIVE SYSTEM MASTER, USB stick with licence file and data files, CD-ROM with the CEStronics software suite as backup medium</td>
</tr>
</tbody>
</table>
The RF-Stick is an advancement of the CP 100 programmer (which can still be used).

The RF-Stick is used to trigger the programming process. For this purpose, your locking device must know the RF-Stick, i.e. the RF-Stick must have been authorized for the programming at your locking device.

To authorize the programming, you always need the RF-STICK-MASTER.

An RF-STICK-MASTER authorizes RF-Sticks.
The RF-Stick is always tied to your system licence.

One locking device can manage up to ten RF-STICK-MASTERs.

The maximum number of RF-STICK-MASTERs is limited to ten per system.

The RF-Stick is inserted in your PC. To use it, you must install it with the supplied drivers of the OMEGA software.

As an alternative, you can also install the RF-Stick on a netbook which will make you independent of your office PC and will allow you to program your locking devices locally, provided the OMEGA software has been installed without errors.
Loading new data files from the USB stick

The commissioning process differs depending on the package supplied:

- In case of the **RF-Stick** package (Part no. 248601V), you continue using your existing system and your existing software installation. You may only have to install the drivers for the RF-Stick, see also page 52.

- In case of the **RF-Stick Set** package (Part no. 248605V), you receive a complete set for a new installation of the software suite with licences and data files as well as all required authorization Masters.

- In case of the **RF-Stick Programming Package** (Part no. 248604V), you receive a netbook with the pre-installed CEStronics software suite and a single-user licence as well as all required authorization Masters.
Before you can work with the RF-Stick and the OMEGA Software Suite, your data files (= system data; database) must be loaded. The data files are delivered to you together with the licence file on the supplied USB stick.

If you have purchased an RF-Stick Set package or an RF-Stick Programming Package, these data files must be imported.

If you have purchased a RF-Stick package, you continue using your already existing data and you do not have to import anything.

The procedure described below only applies to new first-time software installations.

Please refer also to the chapter on importing locking systems in the OMEGA ACTIVE software operating instructions. These are available free of charge at www.ces.eu.

To import the data files for the first time, proceed as follows:

- Start OMEGA ACTIVE Client until the login window appears.
- Do not log in.
- Insert the USB stick into a free USB port.

The data files are loaded automatically.

- Wait until the loading process has been completed, which is signalled with "Finished".
- Now log in at OMEGA Software-Suite.
- Continue with your desired editing.

If you insert the RF-Stick again, the loading process will not be repeated. The loading process is only executed once.
To work with the RF-Stick, proceed as follows:

- Authorize the RF-STICK-MASTER at your locking device:

1. [Diagram showing the first step]

2. [Diagram showing the second step]

3. [Diagram showing the third step]

4. [Diagram showing the fourth step]

5. [Diagram showing the fifth step]

6. [Diagram showing the sixth step]
Insert the RF-Stick in a free USB port of your PC (or netbook).

The driver should be installed automatically. If it is not, install the driver manually (you will need administrator rights for your PC):

- Start the hardware recognition of your operating system to install the driver from this path.
- To do so, select "Control Panel" ➔ "Devices and Printers" ➔ "Add device".
- For the hardware installation open the following file path:

  C:\Programs\Omega\Driver\Active\RfStick\n
- Follow the instructions of your operating system for the installation.

The installation is now complete and you can start using the RF-Stick.

- Launch the OMEGA ACTIVE software and log in.

After a few seconds the two status messages "System ready" and "RF-Stick ready" appear in the status line.

- If these two status messages do not appear, repeat the driver installation or call your system administrator for trouble-shooting.

After the two status messages have appeared:

- Edit your locking system as desired.

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

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

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

- Hold the RF-STICK-MASTER within reading range of your locking device.
- If required, wake up your locking device by slightly turning the outside knob (for IES fittings: put your finger on the reading sensor).

To ensure a fault-free data transmission, there must not be any obstacles interfering with the radio transmission between your locking device and the RF-Stick, otherwise the transmission will be aborted.

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

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

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

The progress of the data transmission can be observed in the "Programming status" window.

After the data transmission has been finished, the programming job is deleted from the "Programming status" list.
### Signals of the locking cylinder with inserted RF-Stick

<table>
<thead>
<tr>
<th>Signal</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LEDs (about 2 sec.) + Short beep</td>
<td>RF-STICK-MASTER held within range: authorization successful</td>
</tr>
<tr>
<td>Long beep</td>
<td>RF-STICK-MASTER held again within range: authorization cancelled</td>
</tr>
<tr>
<td>Green LEDs (about 5 sec.) + Long beep</td>
<td>Transmission cancelled</td>
</tr>
<tr>
<td>Green LEDs, short flashing + Green LEDs (about 2 sec.) + Short beep</td>
<td>Data transmission in progress + Acknowledgement of the end of the data transmission</td>
</tr>
<tr>
<td>Red LEDs (about 5 sec.) + Long beep</td>
<td>Connection lost, data transmission cancelled</td>
</tr>
</tbody>
</table>

### Signalling of the RF-Stick

<table>
<thead>
<tr>
<th>Signal</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED</td>
<td>Connection with OMEGA-Server established</td>
</tr>
<tr>
<td>Red LED, flashing</td>
<td>No connection with OMEGA-Server established</td>
</tr>
<tr>
<td>Red LED, flashing + Green LED, flashing</td>
<td>Data transmission in progress</td>
</tr>
</tbody>
</table>
## Trouble-shooting

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible cause and remedy</th>
</tr>
</thead>
</table>
| No RF connection can be established. | The OMEGA Software Suite has not been installed completely.  
  - Check the functioning of the OMEGA server.  
  - The network configuration is not set correctly.  
  - Check the network settings of your PC.  
  - The power supply of Access Points is interrupted.  
  - Check the power supply of your Access Points.  
| |  
| |  
| Locking devices are outside the radio frequency range of Access Points. |  
  - Check the permitted distance.  
  - Limit the trouble-shooting with the optional RF-TRACE-MASTER (see page 37):  
    - Is there a fault at the locking devices  
    - or at your PC network?  
| The locking devices do not open when a locking medium is placed in front of them. | You have used an unauthorized locking medium.  
  - Use an authorized locking medium.  

<table>
<thead>
<tr>
<th><strong>Symptom</strong></th>
<th><strong>Possible cause and remedy</strong></th>
</tr>
</thead>
</table>
| The locking devices do not open when a locking medium is placed in front of them. | The battery is empty.  
- Replace the battery of the locking cylinder or the locking medium by a new battery.  
- Check the power supply to the wall terminal. |
| | The locking medium is too far away from the locking device.  
- Hold the locking medium in the reading range of the locking devices. |
| | The locking cylinder is not programmed.  
- Program the authorizations for the respective locking device (see page 57). |
| | There is an interruption in the output of the wall terminal.  
- Check the output and the connected devices of the wall terminal. |
| | The reading units are shielded by metallic objects or materials.  
- Remove metallic objects or material from the reading units. |

If the trouble still cannot be eliminated, please contact your CEStronics partner.
Concise programming guide

This programming overview again shows all programming procedures.

**Defining the SYSTEM-MASTER**

1. ![Diagram](image1)

2. ![Diagram](image2)

3. ![Diagram](image3)

4. ![Diagram](image4)
Authorizing a PROGRAM-MASTER

1. 

2. 

3. 

4. 

5. 

6. 

OMEGA ACTIVE Programming Instructions
### Authorizing a locking medium

1. ![Diagram 1](image1.png)

2. ![Diagram 2](image2.png)

3. ![Diagram 3](image3.png)

4. ![Diagram 4](image4.png)

5. ![Diagram 5](image5.png)

6. ![Diagram 6](image6.png)
Deleting the authorization of a PROGRAM-MASTER

When the authorization of the PROGRAM-MASTER is deleted, all the authorizations of locking media that were granted with that PROGRAM-MASTER are deleted as well.
Programming of optional media

The programming sequence is the same for all optional media. The medium "XY-MASTER" is used below as an example for all optional media.
Turn on Online mode (RF-INI-MASTER)

1. 

2. 

Turn on and off Online mode (RF-INI-MASTER)

No Connection found
### Deleting the authorization of a locking medium

1. ![Image](image1)

2. ![Image](image2)

3. ![Image](image3)  
   - 2 s

4. ![Image](image4)

5. ![Image](image5)

6. ![Image](image6)
Deleting the authorization of all locking media

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