# HomeMatic Central Control Unit CCU2

## Installation and User Guide

Product Code EHC-HM01

# 1. Notes on this Manual

Read these instructions carefully before you power up your HomeMatic components.
Retain the instructions for future reference!
If you give the device to other people, pass them these instructions too.

# 2. HomeMatic General System Information

This unit is part of the HomeMatic home control system and works with the bidirectional BidCoS® Wireless protocol.
All units are shipped with the default configuration.
In addition to the default configuration, the functionality of the device can be changed through the provided software. The additional functions of the device and of the HomeMatic System interaction with other components are driven by the software configuration - please refer to the HomeMatic System Guide. For the latest version of the technical documentations and latest updates, please refer to www.homematic.com.

# 3. General Notes on Radio Operation

The radio transmission is performed on a non-exclusive transmission path, so transmission faults can not be excluded; interferences can also be caused by switching operations, electrical motors or defective electrical appliances. Therefore, the indoor range may substantially differ from that in free field. In addition to the transmitting power of the sender and receiving properties of the receiver, environmental influences such as humidity and on-site structural conditions play an important role to the overall range.

eQ-3 Entwicklung GmbH hereby declares that this device in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The complete Declaration of Conformity can be found at www.homematic.com.
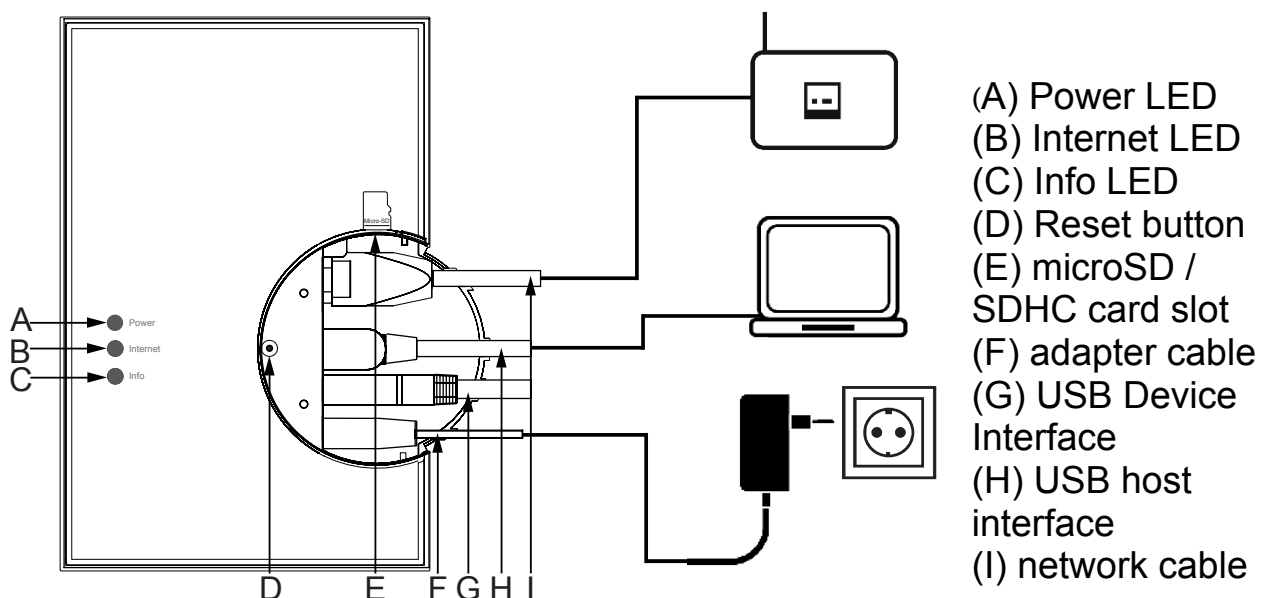
# 4. Function

The HomeMatic Central Control Unit V2 (CCU2) is the central element of the HomeMatic controls automation and is used for the control and configuration of all the devices in your installation.
The operation of the control panel is accessed from a personal computer via the HomeMatic WebUI user interface; you can use any standard web browser to access it.

Advantages of the HomeMatic WebUI interface:
• Automatic configuration and control of home appliances;
• Status information of all HomeMatic devices in house;
• Direct links between HomeMatic devices remain active even if the CCU2 unit is disconnected;
• Complex control tasks and individual functions logic for centralised programs' setup.

# 5. Overview and Connections



(A) Power LED
(B) Internet LED
(C) Info LED
(D) Reset button
(E) microSD / SDHC card slot
(F) adapter cable
(G) USB Device Interface
(H) USB host interface
(I) network cable

# 6. Installation

## 6.1. Wall Mounting

For wall mounting, please use the two screws and dowels supplied.

When selecting a mounting location, make sure that you will not have to drill in the vicinity of existing switches or sockets, and ensure that you have room enough to extend all cables along the wall.

Do not mount the control panel in the vicinity of other radio sources (eg WLAN or DSL router). For Troubleshooting, refer to Section 10.

• Hold the drilling template (from the box, or download from our website) to the designated location while aligning it vertically or horizontally.
• Pin through the template to mark holes A and B on the wall.
• Use a 6mm drill for drilling the two marked holes in the wall. Insert the dowel s provided into the holes. Screw in the anchors until the stand out approx 1.5 mm from the wall. Hang the device using the rear brackets (J) from above.
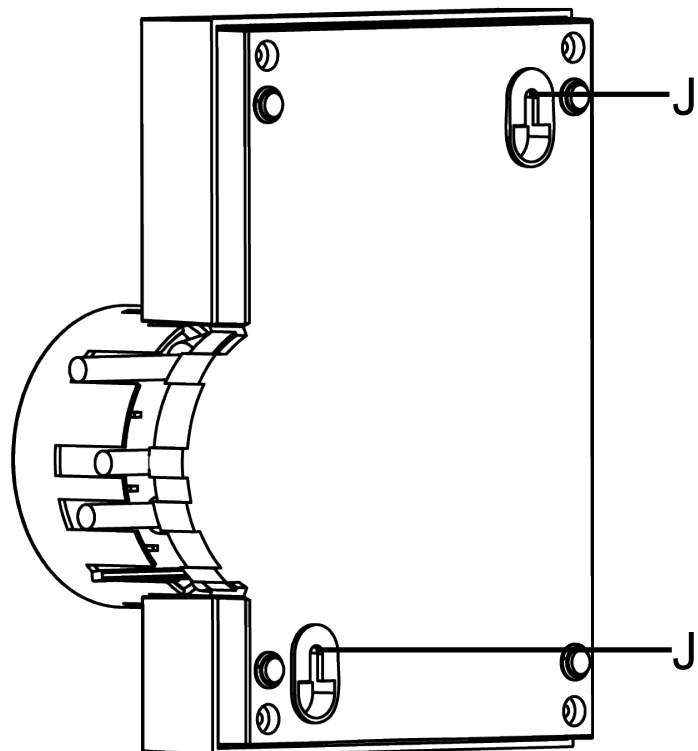


## 6.2. Connection to the Central Control Unit

• First, pull the cap off the top of the head piece
• Connect the unit with the supplied network cable (I) to your DSL router or to your cable modem.
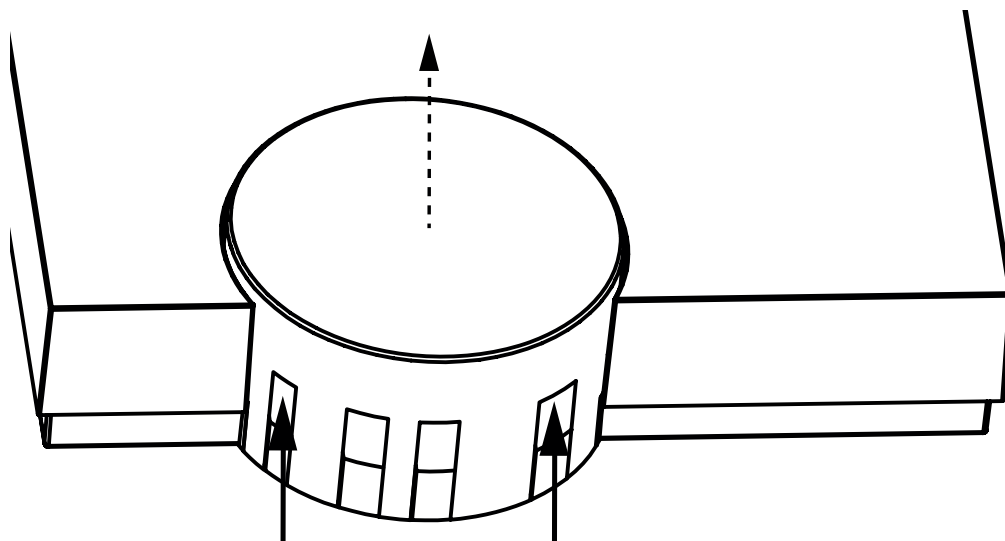
## 6.3. Connection to the Power Supply

Warning: To avoid damage to the unit, only use the original power supply (5VDC / 1500 mA) of the CCU2

Connect the supplied AC adapter (F) to the CCU2 and at plug it into the socket. The device may only be connected to an easily accessible power outlet. In case of danger, the plug must be easily drawn out, or socket switched off. The CCU2 is now ready for the first boot.

# 7. System Requirements

Current version of one of the following Web browsers:
Mozilla Firefox®, Microsoft® Internet Explorer, Google Chrome, Safari.

Data link:
Ethernet (TCP / IP and DHCP) USB 1.1 or higher (only with Microsoft Windows ® XP / Vista ™ / 7)

Screen resolution:
1024 x 768 (user-websites)
1280 x 1024 (Administrator websites)

# 8. First start of the WebUI user interface

## 8.1. Calling the WebUI

You need the HomeMatic user interface WebUI to be installed on your machine and all HomeMatic devices powered and running. In the WebUI you:

• Control and configure the CCU2;
• Link the CCU2 directly with other devices and link the other devices between them;
• Use the WebUI to access the control panel programs.

The access to the user interface is done via a Web browser (see section 7 for supported browsers).

INFO: If you do not have a network with a DHCP server, you can use the IP address of the USB port setting. Note that the CCU2 cannot connect to the network only via the USB port . For more information on setting up a USB connection, see Section 10 "Troubleshooting Guide".

• When the CCU2 is connected to the PC, the router and the power supply, open your web browser.
• Enter the following URL in your browser: http://homematic-ccu2, to go to the home page of your WebUI.



INFO: If after entering the URL http://homematic-ccu2 the WebUI doesn't start, please follow the instructions from Section 10.

## 8.2. Set Date and Time

Once the CCU2 is connected to the network, the date and time are automatically detected and set.



| | | |
|---|---|---|
| | Alarmmeldungen (0) | Abmelden |
| | Servicemeldungen (0) | |
| | | Geräte anlernen   Hilfe |

| | |
|---|---|
| Uhrzeit: | 08:23 |
| Datum: | 20.02.2013 |
| Sonnenaufgang: | 07:12 |
| Sonnenuntergang: | 17:27 |
| Aktuelle Firmwareversion: | 2.2.89 |
| Anmeldung: | Kennwort nicht gesetzt! |

If you do not have Internet connection, you can set the date and time manually. To do this, proceed as follows:

• Click on *Settings* (*Systemsteuerung*) in the user interface *Control Panel* (*Einstellungen*).



Admin
Startseite

Startseite   Status und Bedienung   Programme und Verknüpfungen   Einstellungen

keine Favoriten vorhanden

Geräte - Posteingang
Geräte
Räume
Gewerke
Benutzerverwaltung
Systemvariable
Favoriten
Systemsteuerung

then click on *Time and position adjustment* (*Zeit- und Positionseinstellung*):

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Enter the date and time and click *Apply Time* (*Uhrzeit ubernehmen*).

INFO: Alternatively, you can take the time from the PC, by clicking *Take time from PC* (*Zeit vom PC ubernehmen*), then click on *Back* (*Zuruck*):



## 8.3. Installing Updates

Before you start using your WebUI, check if there are any available updates for your system and, if so, install them. After connecting to the Internet, you see on the main page of your WebUI the system update(s) available to install:

9

| | |
|---|---|
| Uhrzeit: | 07:54 |
| Datum: | 21.02.2013 |
| Sonnenaufgang: | 07:10 |
| Sonnenuntergang: | 17:28 |
| Aktuelle Firmwareversion: | 2.2.89 |
| Update: | Firmware 2.2.91 ist verfügbar |
| Anmeldung: | Kennwort nicht gesetzt! |

To install an update, proceed as follows:

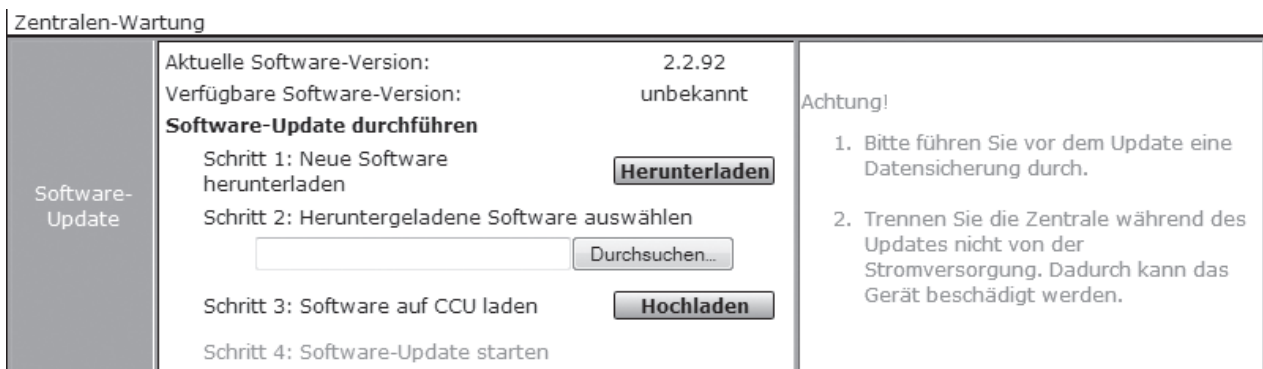• Click on *Settings* (*Systemsteuerung*) in the user interface Control Panel:



• Then click on *Central Maintenance* (*Zentralen-Wartung*):

• Run in the "Software Update" steps 1-4:



Step 1: Click on the button *Download* (*Herunterladen*) of the software installation files and save them on your PC.

Step 2: Select the downloaded software.

Step 3: Click *Upload* (Hochladen*)* to install the software on your computer. This process can take several minutes.

Step 4: Once the software installation file has downloaded to your computer, confirm the update by clicking the button *Start update* (*Update starten*):
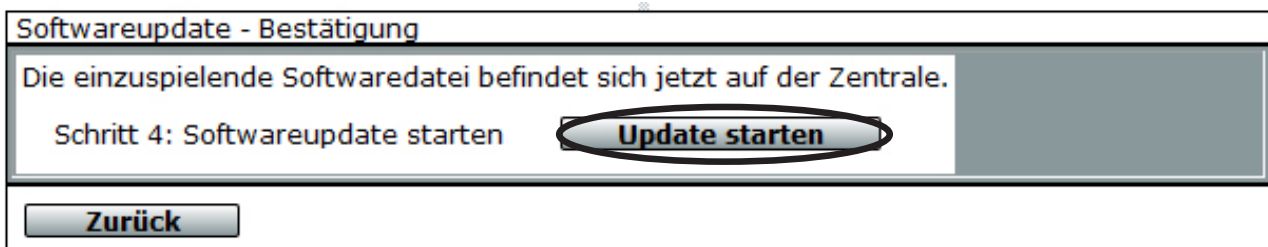


The software update is now completed. Once the software update has been performed, you must log in the CCU2 again to access the full, updated functionality.

INFO: If you use the CCU2 without an Internet connection, the homepage of your WebUI displays the latest version stored in the CCU2.

## 8.4. Teach devices and Configure system

The CCU2 control panel is now ready for teaching-in devices. Once this is done, you will be able to control your devices via the WebUI and configure, connect directly with other devices or use centralised programs. For details, refer to the WebUI Manual (available in the download section of the website www.homematic.com).

# 9. Feedback / error messages through Device LED
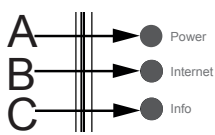
The Power, Internet and Information Center LED can display, in different combinations, various error messages of the CCU2:

| Condition | Power LED | Internet LED | Info LED | Fault Rectification |
|---|---|---|---|---|
| Starting the Hardware | On | On | On | If this condition is not stable, start the recovery system (see section 10.2) |
| Starting the System | On | Off | Fast blink | If this condition is not stable, start the recovery system (see section 10.2) |
| Internet Connection | On | On | -- | -- |
| Service announcements or updates | On | -- | Blink | Check the system messages in the WebUI or perform an update |
| Update will be recorded | Fast blink | -- | Fast blink | Please wait until the update has been recorded |
| Alarm messages | On | -- | Fast blink | Check the system messages in the WebUI |

| Condition | Power LED | Internet LED | Info LED | Fault Rectification |
|---|---|---|---|---|
| No network connection | On | Off | -- | Check your network cable and the connection between CCU2 and the router / switch |
| No IP address | On | Fast Blink | -- | Check your network configuration. If no DHCP server possible, proceed as described in Section 10.1.2 |
| No IP address, no internet access | On | Blink | -- | Check the network configuration of your router |
| Started Recovery System | Blink | Blink | Blink | Wait until the system has gone through recovery |

# 10. Troubleshooting Guide

## 10.1. WebUI will not load after entering the URL http://homematic-ccu2

If after entering the URL in your web browser http://homematic-ccu2 you do not get on the WebUI user interface, follow the following solutions for troubleshooting.

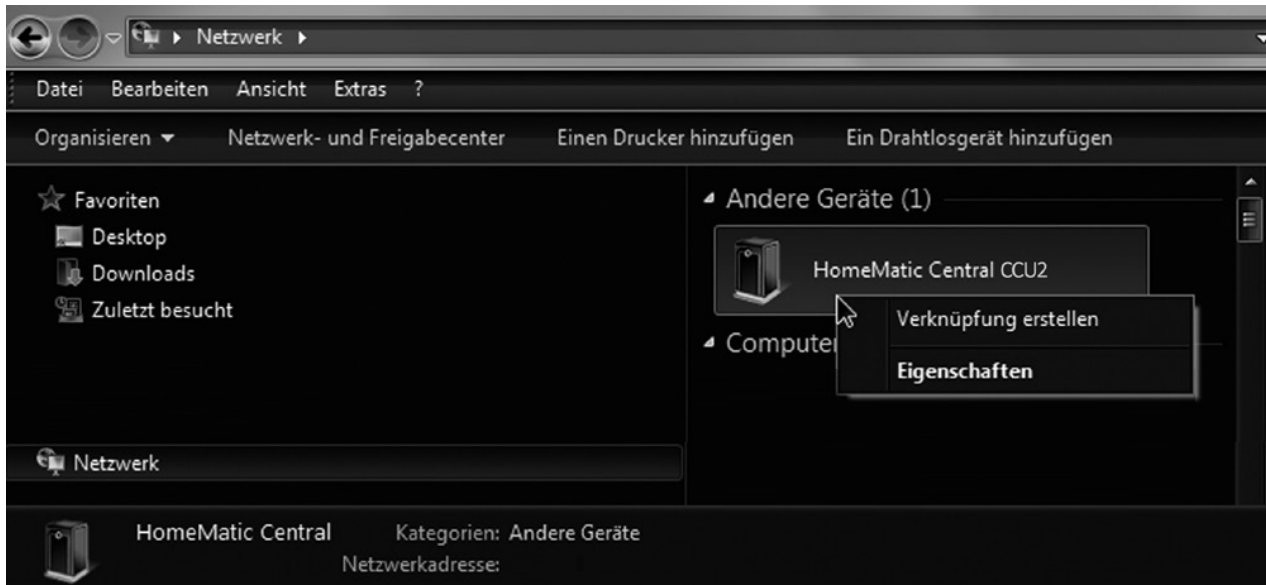## 10.1.1.　Enter the IP address of your CCU

You can also type your IP address in your web browser to access the WebUI, instead of the URL http://homematic-ccu2. You have two ways of finding out the IP address of your home:

a) Display the IP address from network settings:

Check the CCU properties to find your IP address. Proceed as follows:

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• Open your Windows Explorer. Click the network input settings.
• Choose your CCU and then right click and select *Properties* (*Eigenschaften*).



• From the next window, copy the IP address of your CCU:

• Enter the IP address into your browser and then go to the WebUI interface.

b) Display the IP address using additional software:

You can view the IP address of your location using an additional HomeMatic software. To download the software, proceed as follows:

• Open www.homematic.com the site.
• Download the installation file from the download area of the Tools "Home LAN Automatic Configuration".
• Install the software on your PC and open the Program.
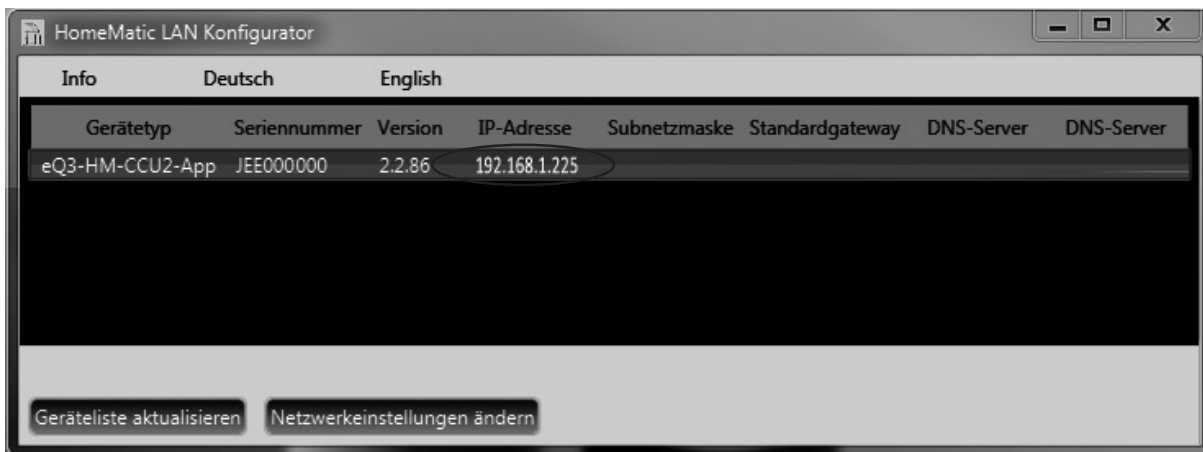


• Copy the IP address of your location.
• Enter the IP address in your browser then go to the WebUI interface.

## 10.1.2.   Connection via USB cable

If you use your CCU without a network connection, you can connect the device via a USB cable to your PC. You will need additional device drivers that you can install as follows:

• First connect your CCU2 via the included USB cable to your PC:
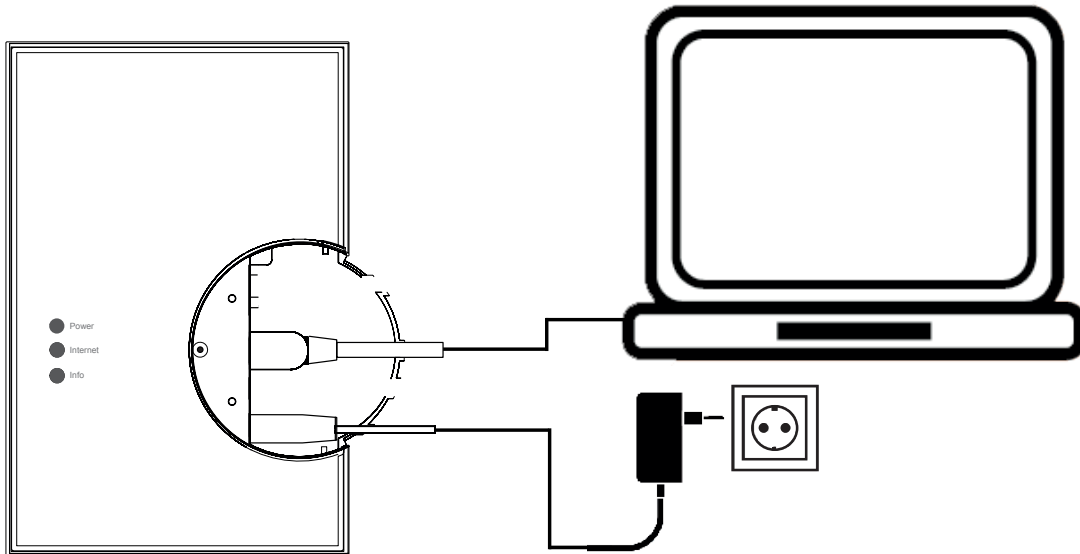
• The CCU automatically opens as a drive in Explorer:
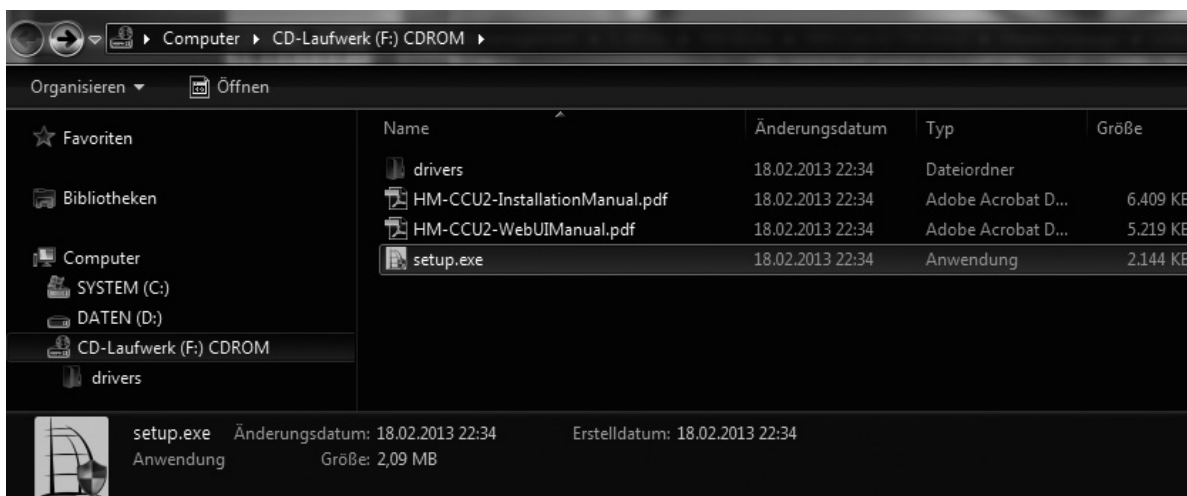


• Open the installation file "setup.exe" and install it.
• Then enter the URL "10.101.82.51" in your Internet browser; this will take you to the WebUI user interface.

## 10.2. Recovery System

The System Recovery is only required if the HomeMatic control panel software is damaged. This can occur, for example, when the power supply is interrupted during a software update.

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If the CCU's LEDs indicate that the normal operating system can not be started, a software update on the Recovery System must be performed.

To start the rescue system, proceed as follows:

• First, remove the cap from your CCU device.

• Disconnect the power by pulling out the power supply cable (F). Wait 5 seconds.

• Press and hold the emergency button (D), while plugging in the power supply cable again,  then release.

Power

Internet

Info

Micro-SD

D

D
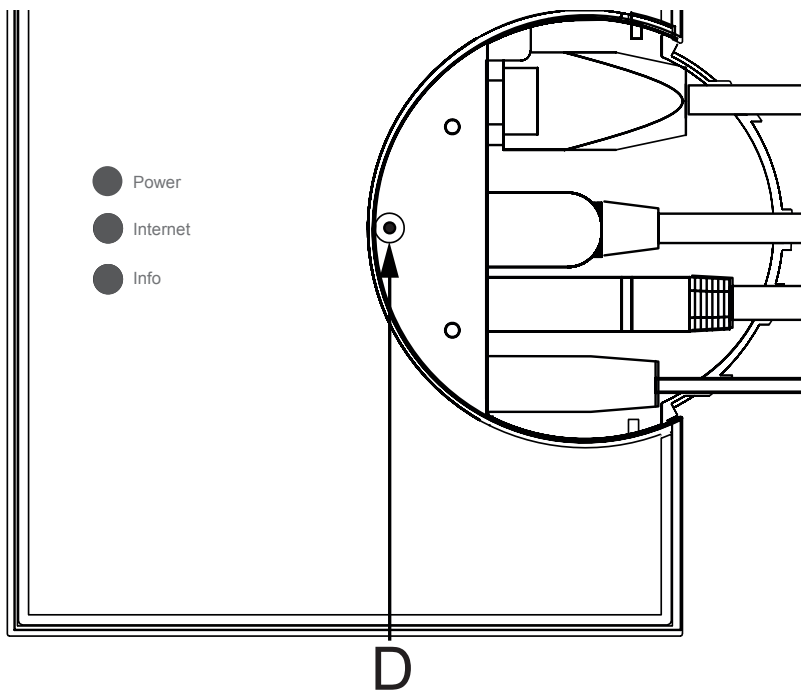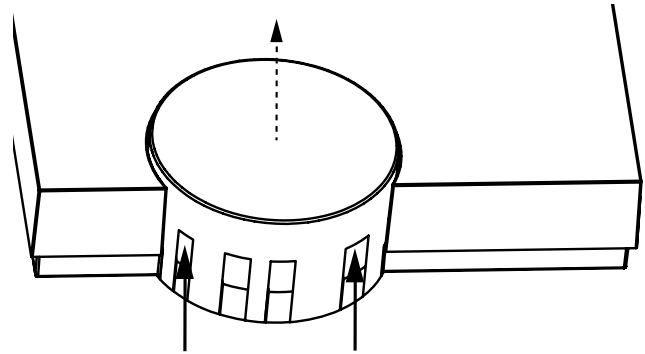
• The control panel now starts the recovery system. At first, all device LEDs remain off for 10 seconds. After the system recovery is started, all the LEDs flash simultaneously.

• Enter address "http://homematic-ccu2" in your Web browser to go to the start of the recovery system.
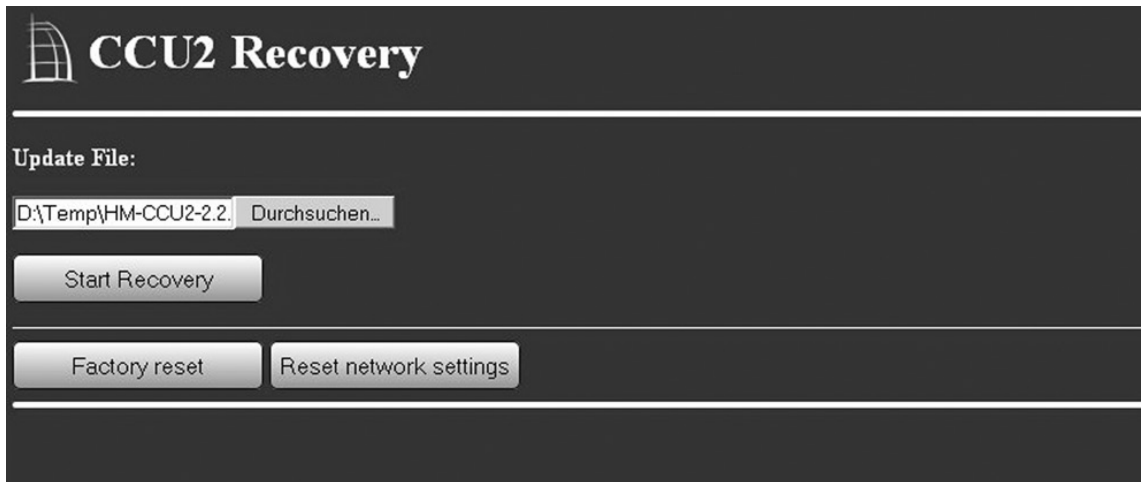
• First download the latest installation file of the software from the site www.homematic.com (in the download area).

• On the System Recovery to "Select File" and select the installation file.

• Then click on "Start Recovery" to restore the software.

After the software is restored, you must log into CCU2 again to gain access to full functionality.

INFO: using the *Factory reset* button will reset your CCU to the factory defaults. All configurations, settings and programming will be erased.

INFO: using the "Reset network settings" button will only reset the network settings to the CCU's factory defaults.

## 10.3. Achieving Duty Cycle limit

The duty cycle describes a statutory limitation of transmission time of devices in the 868 MHz range. The aim of this regulation is to ensure the functioning of all the 868 MHz band working devices.

When using the frequency range 868 MHz, the maximum transmission time of each unit is 1% of an hour (or 36 seconds in an hour); if the units reach the 1% limits, they will not send radio signals until this time limit is over. According to this directive, HomeMatic devices are designed and manufactured to 100% standard-compliant.

In normal operation, the duty cycle rule is not fully utilised. However, there may be cases (on the start-up or initial system installation) where there may be a radio trafic increased or an intensity spike due to the processes. Exceeding the duty cycle limit is indicated by flashing of your HomeMatic device LEDs and can be expressed by a temporary lack of device function. If this is the case, the normal function of the device is restored after a short period (within 1 hour).

# 11. Additional memory

By using the microSD memory cards,  the control of the CCU can be increased. This storage expansion serves for storing future extensions (such as measurement data). To expand the memory capacity, slide in a microSD card into the slot (E) available in the control panel.



E
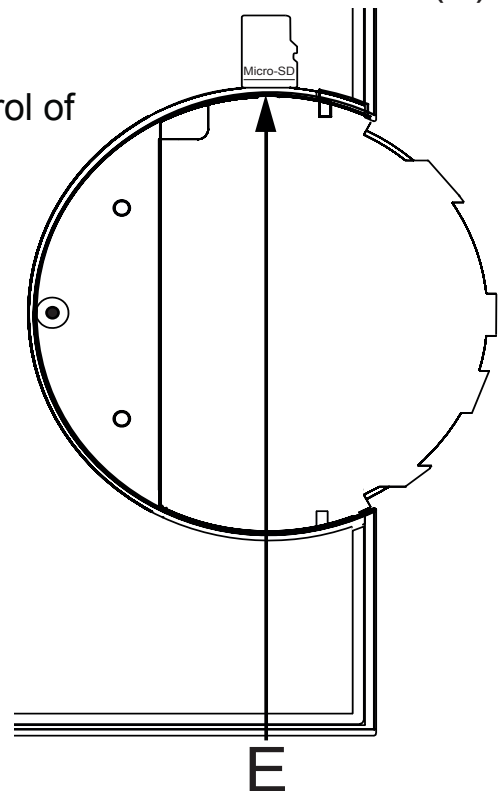
# 12. Maintenance and Cleaning

The product is maintenance free. Maintenance or repair should be done by trained professionals. Clean the product with a soft, clean, dry, lint-free cloth.

For the removal of heavy soiling the cloth slightly moistened with lukewarm water. Do not use solvent-based cleaning agents, as the plastic housing and the labels can be attacked.

# 13. Scope of delivery

• HomeMatic CCU2 unit;
• AC adapter (Output 5VDC, 1500 mA) - European plug, <u>no adapter supplied</u>;
• Mounting hardware (2x screws, 2 plugs);
• USB cable
• Ethernet cable;
• Drilling template;
• User Guide.

# 14. Specifications

Supply voltage..........................................................Power Supply (5V)

    Input............................................................100 - 240 V, 50/60 Hz, 0.5 A

    Output .........................................................5V DC, 1500 mA

Protection class.............................................................III (Low voltage)

Protection ........................................................................................IP20

Ambient temperature..............................................................5 bis 35 °C

Storage temperature.........................................................-20 bis +60 °C

Dimensions (W x H x D):...............................................116 x 150 x 34 mm

Weight ..................................................................................165 g

Radio frequency..........................................................868.35 MHz

Reception class...............................................................SRD Class 2

Outdoor range................................................................typ. 250 m

Duty Cycle........................................................................< 1 % per h

Dimensions (W x H x D):...............................................116 x 150 x 34 mm

Memory ...............................................can be increased via microSD card

USB...............................................1 USB Host Port 1 USB Device Port

Network...........................................................10/100 MBit/s, Auto-MDIX

WebUI Language............................................................English / German