

Comfort, the Intelligent Home System

Comfort
to Z-Wave
Interface

Comfort to Z-Wave Interface

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Introduction to the Z-Wave Interface

The Comfort system supports integration to Z-Wave devices via the UCM/ZWAVE module. The UCM/ZWAVE provides a connection to the Z-Wave network, enabling control of Z-Wave devices, providing the following benefits:

- telecontrol and status monitoring through any telephone inside or outside the premises to control devices on the Z-Wave Network.
- allows control from Comfort's keypads
- allows control by Time Programs.
- allows alarm inputs and alarm conditions to be linked to Z-Wave switches for integration of alarm and lighting.

Note that the UCM/ZWAVE is a one-way interface i.e. it allows Comfort to send commands to the Z-Wave network (up to 232 addresses), and also gets feedback on the state of Z-wave devices it controls but it does not receive commands from the Z-Wave remote control, because of limitations to the Z-Wave communications protocol. The UCM/ZWAVE is a Secondary Controller in the Z-Wave network.

Note that products from different Z-Wave manufacturers can coexist on the same network, and Z-Wave nodes can act as repeaters regardless of manufacturer.

Z-wave Configurator for UCM/ZWAVE 5.180

- 1 The UCM/ZWAVE is configured using the Z-wave Configurator which is part of Configurator 3. This tool allows the Z-wave network to be learned or copied from the Z-Wave Primary controller. The configuration settings are saved in the U2 EEPROM on the UCM/ZWAVE.
- 2 The Z-Wave Ids in the network are shown in the Z-wave configurator after the learning process. In older versions before 5.180, the Z-wave ID could not be discovered and had to be known beforehand.
- 3 The Base Counter settings on SW8 are not used anymore. The Comfort Counters are assigned in the Z-wave Configurator.
- 4 The Z-wave Configurator allows the direct control of the Z-wave Ids by clicking on the learned Ids after the learning process.
- 5 Supports multi-channel of up to 8 channels command class for devices with more than 1 output (from Z-wave 5.218 onwards). **Note:** all multi-channel devices must be powered on during the learning process, otherwise the UCM/ZWAVE module will not provide multi-channel class commands to them.

Specifications

- Size 108 x 88 mm baseboard with 72 x 44 mm daughterboard
- Power Supply: 12V 30 mA (supplied from Comfort)
- Frequency 868 MHz (European Frequency band)
- Sends commands to Z-Wave network

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- UCM/ZWAVE 5.218 and above supports multi-channel devices like MK Astral.
- Polls for status from Z-Wave according to poll time

Contents

The UCM/ZWAVE consists of the following;

- UCM/ZWAVE Module with firmware version “Z-WAVE 5.180” or above. Firmware can be upgraded using UCM/232 and Comfigurator
- 900 MHz antenna with MMCX connector
- 4 way white RS485 cable assembly



System Requirements

- UCM/ZWAVE 5.180 and above
- Comfort II Ultra firmware 5.164 and above
- UCM 5.178 and above with RS232, Ethernet or USB interface
- Comfigurator version 3.2.3 and above

Settings

Connections

- JP3 - 12V/COM terminal block. Connect to 12V/COM on Comfort if JP2/2A not used. Do not connect if JP2/2A is used to connect back to Comfort Controller.
- JP4 - KA/KB terminal block. Connect to KA/KB on Comfort if JP2/2A not used. Do not connect if JP2/2A is used to connect back to Comfort Controller.
- JP2 and JP2A - 4 way headers (12V/COM/KA/KB). Either connector can be connected to Comfort's J6 connector via the supplied cable when JP3 and JP4 are not used. This plug-in cable connection is used when the distance between the controller and Z-Wave interface is less than 30 cm. For longer distances, use the JP3 and JP4 terminal blocks.

Jumper Settings

- SW7 (RS485 ID Primary) – set according to ID of the UCM/ZWAVE (see “UCM ID Switch” settings)

Buttons

- SW1 - RESET. This button reinitializes the UCM/ZWAVE module. It does not change any parameters in Comfort or Z-Wave.

LED Indicator on Daughterboard

- D1 (Red) – power indicator for Z-wave daughterboard

LED Indicators on Baseboard

- D1 “RDY” (Green) – should be on at all times
- D2 “BUSY1” (Red) – indicates when processing incoming data string
- D3 “BUSY2” (Red) – acknowledgment indicator
- D4 “ERR” (Red) – error indicator
- D9 (Red) – RS485 Transmit to Comfort
- D10 (Green) – RS485 Receive from Comfort

For LED status D1 to D4 in the various modes, refer to tables in Setup (page 8), Copying Z-Wave Network (page 11), and Normal Z-Wave Operation (page 17).

ICs on UCM Baseboard

- U1 - Microcontroller IC. Label indicates the firmware version number “Z-Wave 5.XXX”

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- U5 - RS485 Interface to Comfort
- U2 - EEPROM for Configuration settings (new in Z-wave 5.180+)

UCM ID Switch

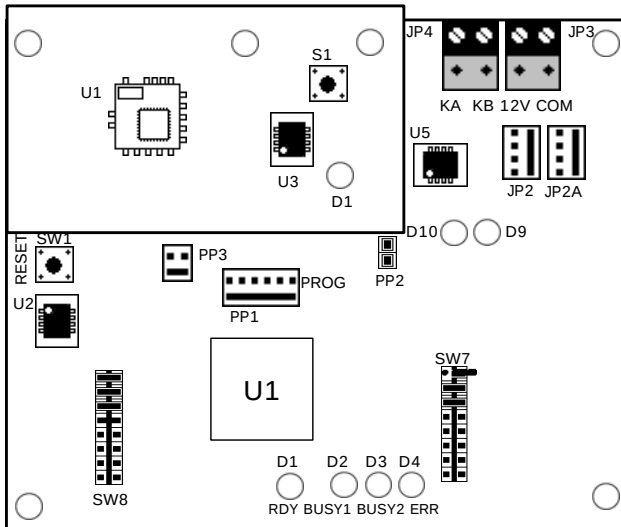
Comfort is able to support up to 8 UCMs. SW7 is a set of 3 headers which determines the UCM ID, according to the table below:

ID	SW7- A	SW7- B	SW7- C
1	Short	Short	Short
2	Open	Short	Short
3	Short	Open	Short
4	Open	Open	Short
5	Short	Short	Open
6	Open	Short	Open
7	Short	Open	Open
8	Open	Open	Open

By convention, ID=1 is reserved for UCM reading/writing configuration file. The UCM/ZWAVE should be set to ID 2 or above so that any RS485 communications failure can be reported by Comfort.

Press RESET button on the UCM/ZWAVE after changing the ID settings.
Number of UCMs in Configurator > Modules tab must be programmed according to the number of UCMs connected and the correct UCM type (Z-wave) selected.

Setup



- 1 Ensure that the Z-Wave network is already set up using the Primary Controller (remote control). Refer to Z-Wave equipment installation and setup instructions.

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- 2 Connect the supplied antenna to the Z-Wave module by pushing the connector end into the mating connector on the Z-Wave module.
- 3 Before connecting to Comfort, set the ID on SW7 to the ID of the UCM/ZWAVE according to the table in the previous section and according to the number of other UCMs in the RS485 network. If there is only 1, set the ID to 2 (factory setting). By convention, ID 1 is reserved for UCM/232 to write/read configuration file from Comfort. Communications Failure is not reported for ID=1. Up to 8 UCMs of different types (e.g. C-Bus, KNX, KT01, etc.) can be connected to the Comfort network.
- 4 The UCM/ZWAVE is connected to Comfort via the supplied 4 way white cable from the 4 pin header JP2/JP2A to Comfort's header J6, or Comfort II RS485 header. This supplies power to the UCM, as well as allowing communications between Comfort and the UCM/ZWAVE. It is not necessary to switch off power to Comfort before plugging in this connection.
- 5 Upon plugging in the 4 way cable, the red ERR LED will be lit temporary for a few seconds even when everything is okay. After that the Green RDY LED on the UCM (D1) will flash; red Busy1 LED (D2) and red ERR LED (D4) will light up and remain on indicating no/invalid data in EEPROM.
- 6 If there is only ERR LED turns on and fails to clear after a few seconds, it would indicate that the UCM baseboard has failed to communicate with Z-wave daughterboard; check the connection. If the RDY LED flashes, it would indicate that the UCM/ZWAVE has no data of any Z-Wave network yet. In such a case, please refer to the section on "Copying Z-Wave Network Data". The following table shows the various state of the LEDs during start-up :

LED				Explanation
Ready (D1)	Busy1 (D2)	Busy2 (D3)	Error (D4)	
On	X	X	X	Module is already in a Z-Wave network.
Flash	X	X	X	Module has no data of any Z-Wave network yet.
Off	Off	Off	On	Communication error between UCM baseboard and Z-wave daughterboard. Check connection.
On/Flash	Off	Off	On	EEPROM is missing or faulty.
On/Flash	On	Off	On	Data in EEPROM is invalid

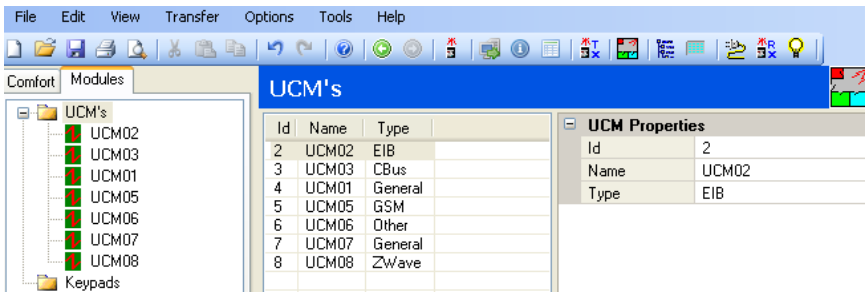
'X' = don't care

The LEDs D9 (red) and D10 (green) should blink rapidly showing that RS485 communications has been established between Comfort and the UCM. D10 (green) flashing shows that it is receiving communications from Comfort (poll). D9 (red) comes on when the UCM responds to a poll from Comfort.

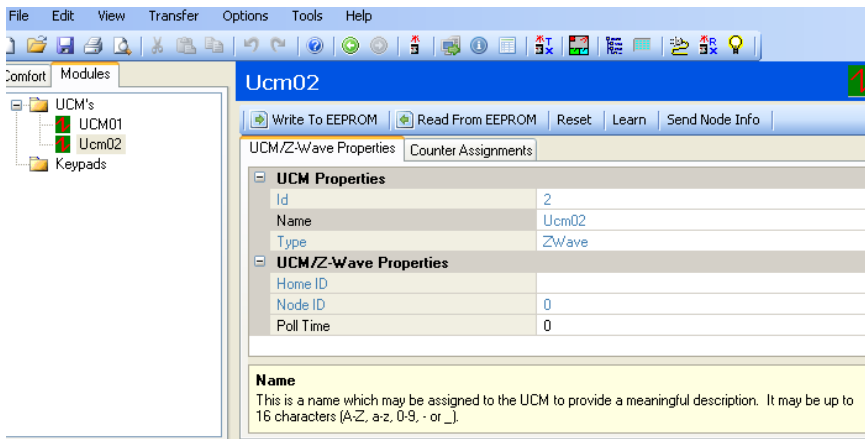
Configuring UCM/ZWAVE with Comfigurator 3

In the Modules tab right-click on UCM. For Comfort Firmware ≥ 5.164 and UCM/232 firmware ≥ 5.178 select SCAN for UCMs. Enter your user code in the login box. The Scan results are shown below (typical). The Z-Wave UCM should be shown in the UCMs list.

If the Comfort or UCM firmware are lower than that required for the Scan function right click the Modules Tab and select Add UCM. Select UCM Type on the UCM Properties window as Z-Wave.



Clicking on the UCM icon on the left Panel corresponding to Z-Wave (UCM08 in the above example) will show the Z-Wave Configuration screen.



The tabs on the top of the screen are explained as follows;

Write to EEPROM

Write the Counter Assignments to the UCM/ZWAVE EEPROM (U2 IC). This is necessary after changing the counter assignments. A Reset of the UCM/ZWAVE is also needed. Note that READ from EEPROM or LEARN operation is required before assigning counters and writing to EEPROM.

Write to EEPROM does NOT change the Z-wave properties, it affects only the Counter assignments.

Read From EEPROM

This reads the Z-wave configuration and Counters assignment from the UCM/ZWAVE EEPROM (U2). Read from EEPROM is automatically performed after a Learn operation

Reset (Reset to Factory Default)

This resets the UCM/ZWAVE to Factory Default including the Z-wave properties and Counter assignments.

- ❖ **This does not remove the UCM/ZWAVE from the Z-wave network - that can only be done by the Primary controller. AVOID THIS UNLESS THE UCM/ZWAVE IS NOT TO BE USED FOR THE CURRENT Z-WAVE NETWORK, OTHERWISE A NEW LEARN OPERATION WILL ADD A DUPLICATE NODE FOR THE UCM/ZWAVE NETWORK**

Learn (Learn Z-Wave Network)

This button learns or copies the Z-wave network configuration from a Primary Controller. The detailed instructions are in the next section "Copying/Learning Z-wave Configuration"

Send Node Info

This is for future use. Do not use.

Copying/Learning Z-Wave Network

The UCM/ZWAVE acts as a Secondary Controller in the Z-Wave network. This means that it must learn or copy the Z-wave network from an existing primary controller (usually a remote control e.g. ZTH200) which has been used to set up the Z-Wave Network.

- 1 Ensure that the Z-Wave network is already set up and functioning correctly before including the UCM/ZWAVE into the network. The UCM/ZWAVE acts as a Secondary Controller in the Z-Wave network. It needs to learn the Z-Wave network from the Primary Controller (remote control) which was used initially to set up the network.
- 2 Ensure the UCM/ZWAVE is at factory default setting i.e. green RDY LED is flashing and red BUSY1 and ERR LEDs are on. Otherwise, reset the UCM/ZWAVE using Configurator > Modules Tab, UCM and click on the UCM icon corresponding to the UCM/ZWAVE. The Z-Wave Configuration Screen is shown in previous page.
- 3 Press 'Reset' button on the top row, select 'Yes' to continue and login with the user code (default: 1234).
- 4 Press the 'Learn' button. Press 'Yes' to continue. The red Busy2 LED on UCM/ZWAVE will turn on while green RDY LED should be OFF.
- 5 This indicates that the UCM/ZWAVE is awaiting data to be transferred to it from the Z-Wave controller. Activate the sending of only system information from the controller using the procedures given by the Z-Wave device manufacturer. The section below called "Copying Z-Wave Network for various Manufacturers" shows examples of how to do this.

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- 6 During the transfer, red Busy1 LED will turn on and RDY LED flashes in addition with existing Busy2 LED on.
- 7 Upon completion, the RDY LED will turn steady on and both Busy1 and Busy2 will be turned off. In the event of an error, BUSY2 and ERR will both be lit.
- 8 When completed, Configurator will automatically start reading the data from EEPROM. Wait for the process to complete. The Z-wave Configuration screen will show the Z-wave Ids in the network.

A summary of the LED indicators during the copying process is shown in the following table

LED				Explanation
Ready	Busy1	Busy2	Error	
Off	Off	On	Off	Waiting to receive new Z-Wave network data.
Flash	Off	On	Off	Receiving network data.
Flash	On	On	Off	Writing EEPROM.
On	Off	Off	Off	Process completed successfully.
Off	Off	On	On	Process completed with error.

The screenshot below shows what the configuration screen looks like after the learning and read process. The Home ID of the Z-Wave network and the Node ID of the UCM/ZWAVE is shown

Ucm01

Write To EEPROM

Read From EEPROM

Reset

Learn

Send Node Info

UCM/Z-Wave Properties

Counter Assignments

UCM Properties

Id	8
Name	Ucm01
Type	ZWave

UCM/Z-Wave Properties

Home ID	00,00,5E,4C
Node ID	5
Poll Time	255

UCM Properties

Click on the Counter Assignment Tab

Ucm02

Write To EEPROM

Read From EEPROM

Reset

Learn

Send Node Info

UCM/Z-Wave Properties

Counter Assignments

Device ID	Description	Ch 1 Counter Name	Ch 2 Counter Name	Ch 3
1	Generic_Controller - Portable Remote Controller			
2	Switch_Multilevel - Power_Switch_Multilevel	Counter010	Counter120	
3	Switch_Binary - Power_Switch_Binary	Counter222	Counter099	
4	Switch_Multilevel - Power_Switch_Multilevel	Counter070		
5	Switch_Remote			
6	Switch_Remote			
7	Static_Controller			
8	Static_Controller - PC_Controller			
9	Generic_Controller			
10	Static_Controller - PC_Controller			
11	Static_Controller			

Z-Wave Counter Properties

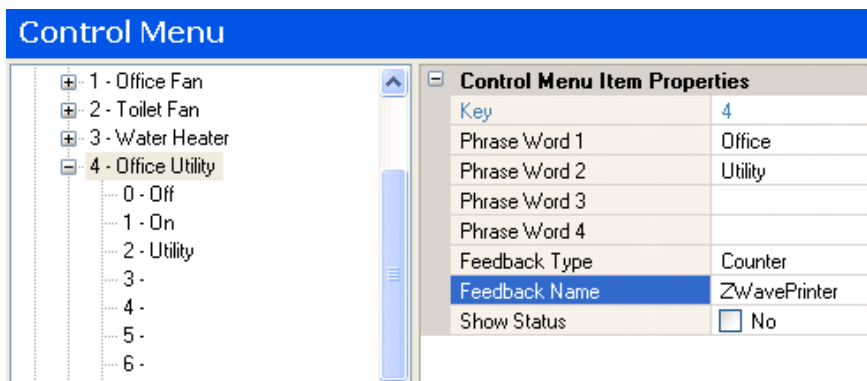
Device ID	2
Description	Switch_Multilevel
MultiChannelCommandSupported	Yes
Ch1 Counter Number	10
Ch1 Counter Name	Counter010
Ch2 Counter Number	120
Ch2 Counter Name	Counter120
Switch Device On	On
Switch Device Off	Off

This shows Node Ids of the Z-wave modules on the network and the counters which are assigned to each. The new UCM/ZWAVE 5.218 or above supports multi-channel (up to 8 channels) command class for devices with more than 1 output. Unassigned counters are set to 255 by default. Selecting any Device ID will bring up the properties of the device on the right pane.

The buttons Switch Device On and Switch Device Off can be used to control the device for testing purposes.

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A counter can be assigned to the device by selecting Counter Name to show a drop-down menu of Counters in the system. Select a counter to be assigned to the Z-wave device for monitoring. The assigned counter will be updated with the value 0 to 255 of the Z-wave device, where 0 means off, 255 means ON, and 1 to 99 means a dimming level for lighting devices. The Control Menu can be used to monitor the status of the Z-wave device by selecting Feedback Type= Counter and selecting the Counter assigned, as shown below



The parameter “Poll Time” in the UCM/ZWAVE Properties window is the time interval which the UCM/ZWAVE polls for the status of the assigned Z-wave Ids to update its counters. The minimum value is 10 seconds. Polling the network too frequently may cause the network to slow down due to collisions, hence the minimum poll time limitation.

❖ **After the Counters have been assigned, remember to press the button “Write to EEPROM”. After the Write operation is completed, the UCM/ZWAVE will automatically reset itself.**

Copying Z-Wave Network for Various Manufacturers

The procedures below are to be carried out when the Z-wave Configurator is in the Learn Mode, waiting for information to be transferred from the Z-Wave primary remote control.

ACT HomePro ZTH200

- 1 Press Menu > Setup > Copy Remote Control > Send Information > Only System Information.
- 2 Press the OK key.
- 3 The UCM/ZWAVE green RDY LED will flash followed by the red BUSY1 LED turns on. Once completed, both red BUSY1 and BUSY2 LEDs will turn off leaving only the green RDY LED turns steady on.

Logitech Harmony 890

- 1 From the welcome screen, press OK until the Activities Menu is seen.
- 2 Press System Options, RF Network Tools -> to view more options.

- 3 Press Add a Secondary Controller. If you do not see this option, it means you are not using the primary controller/remote.
- 4 When the process is completed, press OK.

Logitech Harmony 895

The procedure differs from that of Harmony 890. There is no procedure to add a secondary remote. The following is a workaround;

- 1 Set up a new Z-Wave device on the web interface as the UCM/ZWAVE.
- 2 Pair the remote control with the new device (UCM/ZWAVE). This transfers the system information about the Z-Wave ids to the UCM/ZWAVE.

MK Electric Astral LRC14S

For information on the MK Electric Astral system (see <http://www.mkelectric.co.uk/en-GB/Products/WD/New/astral>)

- 1 On the back side of the remote control, hold down the **Exc** and **Asc** buttons together for 2 seconds until the indicator turn yellow and release.
- 2 Both indicators will be flashing when the transfer is in progress and will turn off when the process is completed.

Merten CONNECT Radio system (Up to 5 devices)

For information on the Merten Connect Radio (Z-Wave) system (see <http://www.merten.de/html/en/9055.html>)

- 1 Press the button on the radio transmitter (e.g. Radio Push Button 502619) three times consecutively within 1.5 seconds. The LED on the button will turn red indicating the data is being sent and when finished it will turn green and eventually off.
- 2 At UCM/ZWAVE, green RDY LED will flash followed by the red BUSY1 LED turns on. Once completed, both red BUSY1 and BUSY2 LEDs will turn off leaving only the green RDY LED turns steady on.

Merten remote control configured with Easy Connect

- 1 For remote control (e.g. Funk-System CONNECT 506923) configured with Easy Connect,
- 2 Switch to configuration mode by pressing SETUP key on the remote control for three seconds. Wait until the status display . . . goes out again.
- 3 The display now shows EASY CONNECT? And the upper left corner shows SETUP. Activate EASY CONNECT? by clicking the OK key on remote control. The display shows ROOM 1? (assuming other Z-wave receivers are programmed in ROOM 1).
- 4 Activate ROOM 1? Activate CONNECT KEY? Activate PRESS 1TO9/SCENE? Press any number from 1 to 9 or scene 1 to 3. The display shows WAIT RCV. If the connection is established successfully STARTED appears on the display followed by OK.
- 5 At UCM/ZWAVE, green RDY LED will flash followed by the red BUSY1 LED turns on. Once completed, both red BUSY1 and BUSY2 LEDs will turn off leaving only the green RDY LED turns steady on.
- 6 If the connection is not established successfully, repeat step 2.
- 7 Exit the configuration mode by pressing SETUP key for 3 seconds.

Merten remote control configured with Easy Link

- 1 Switch to configuration mode by pressing SETUP key on the remote control for three seconds. Wait until the status display . . . goes out again.
- 2 Activate EASY LINK? Activate ADD? Activate WRITE PB? The display shows WAIT PB. If the connection is established successfully STARTED appears on the display followed by OK.
- 3 At UCM/ZWAVE, green RDY LED will flash followed by the red BUSY1 LED turns on. Once completed, both red BUSY1 and BUSY2 LEDs will turn off leaving only the green RDY LED turns steady on.
- 4 If the connection is not established successfully, repeat step 2.
- 5 Exit the configuration mode by pressing SETUP key for 3 seconds.

Merten remote control configured with Easy Tool

- 1 Switch to configuration mode by pressing SETUP key on the remote control for three seconds. Wait until the status display . . . goes out again.
- 2 Activate EASY TOOL? Activate PROG MODE? The display shows WAIT TOOL. If the connection is established successfully STARTED appears on the display followed by OK.
- 3 At UCM/ZWAVE, green RDY LED will flash followed by the red BUSY1 LED turns on. Once completed, both red BUSY1 and BUSY2 LEDs will turn off leaving only the green RDY LED turns steady on.
- 4 If the connection is not established successfully, repeat step 2.
- 5 Exit the configuration mode by pressing SETUP key for 3 seconds

Merten remote control configured with Advanced

- 1 Switch to configuration mode by pressing SETUP key on the remote control for three seconds. Wait until the status display . . . goes out again.
- 2 Activate ADVANCED? Activate COPY REMOTE? The display shows WAIT REMOTE? If the connection is established successfully STARTED appears on the display followed by OK.
- 3 At UCM/ZWAVE, green RDY LED will flash followed by the red BUSY1 LED turns on. Once completed, both red BUSY1 and BUSY2 LEDs will turn off leaving only the green RDY LED turns steady on.
- 4 If the connection is not established successfully, repeat step 2.
- 5 Exit the configuration mode by pressing SETUP key for 3 seconds.

Merten CONNECT Radio USB data interface

- 1 For radio USB data interface (e.g. 506801) with CONNECT radio configurator,
- 2 Run CONNECT radio configurator software. Connect the radio USB data interface to the computer.
- 3 In radio configurator software, create a new project and the building structure.
- 4 Go to Actions > Capture devices to enable capturing of the device which will receive system administration function. Activate the learning mode on the device.
- 5 Always do the capturing of UCM/ZWAVE after all other devices (the last device to be captured) using Configurator, select Modules Tab > UCM's and the UCM which corresponds to the Z-Wave interface. The Z-Wave panel will be shown. Press 'Reset' button, select 'Yes' to continue and login with the

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user code (default: 1234). Press 'Learn' button. Press 'Yes' to continue. The red Busy2 LED on UCM/ZWAVE will turn on while green RDY LED remains flashing.

- 6 Once completed only green RDY LED turns steady on. Configurator will automatically start reading the EEPROM. Wait for the process to complete.
- 7 In radio configurator software, all the Z-Wave devices will be shown under Devices view. Drag devices to their corresponding room. Go to View > Current View > Connections to make the necessary connections between controllers and devices.
- 8 After the connections have been set up, program all the devices through Actions > Program devices. Activate the learning mode on each device in which the radio configurator requests for. For UCM/ZWAVE click on 'Learn' in Configurator software.
- 9 When completed, exit from radio configurator software through Actions > Disconnect from radio system.

Normal Z-Wave Operations

The following table indicates the status of the various LEDs during the normal Z-Wave operations:

LED				Explanation
Ready	Busy1	Busy2	Error	
On	Off	Off	Off	Normal (Idle) / No error.
On	Off	On	Off	Busy2 from off to on. Command transmitted.
On	Off	On	Off	Busy2 remains on. Transmitted without ACK.
On	Off	On	On	Network busy/jammed (RF transmit error).
Off	Off	On	On	Unknown transmit error.

Sending Z-Wave Commands

For an understanding of the Z-Wave concepts, please refer to the appropriate Z-Wave documentation. It is beyond the scope of this manual to provide details of Z-wave's operation and programming. Comfort can be programmed to communicate with the Z-Wave devices via action codes using the keypad or through Comfigurator software programming tool.

The Response Wizard

The Configurator Response Wizard helps to program the Actions which make up a Response to control Z-Wave devices. Select Events -> Responses, Add Response to create a new Response, as shown in the following diagram:

Add New Response

Response Properties

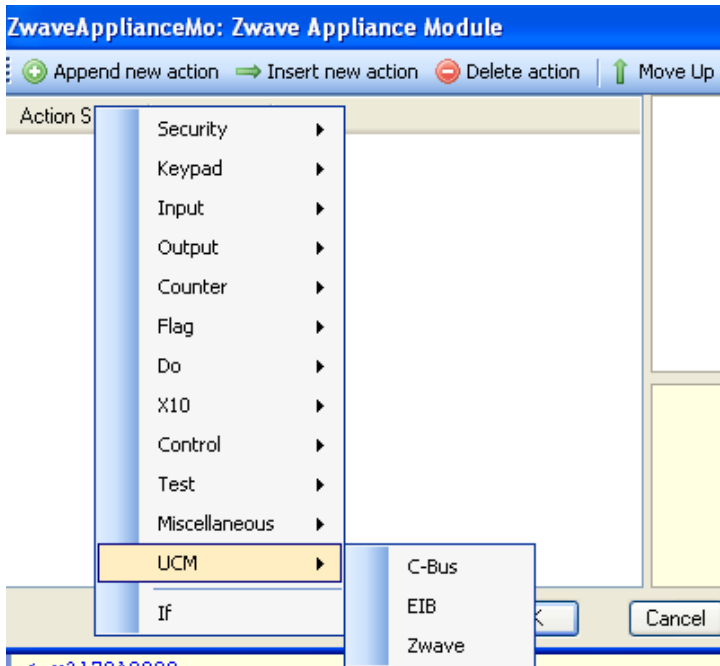
Number	26
Description	Zwave Appliance Module
Name	ZwaveApplianceMo

Name

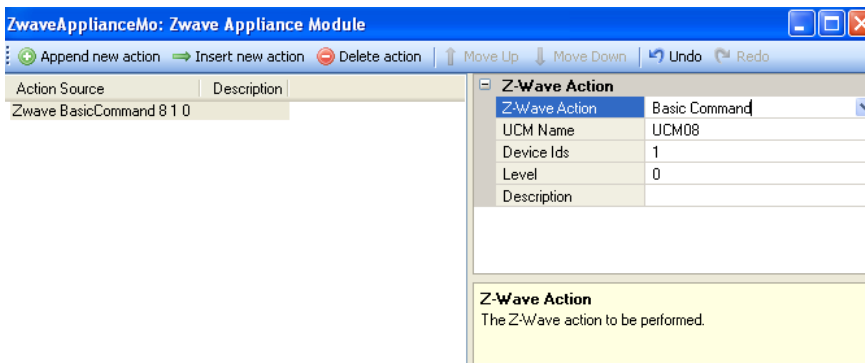
This is a name which may be assigned to the Response to provide a meaningful description. It may be up to 16 characters (A-Z, a-z, 0-9, - or _). You can see where a Responder is referenced by right-clicking on the Name and selecting Show References. This will display a list of references identified by type and name.

OK Cancel

Enter the Description of the new Response. The Name is automatically created from the Description, although you can change it. Click OK. The Response Wizard dialogue will appear. Click Append New Action and select UCM > Z-Wave.



The Z-Wave action dialogue appears as shown below



You can select the Z-Wave ids and the Level (0 to 255) to which the Ids will be set. Level 0 is disable/turn off and level 255 is enable/turn on. The value 255 will cause the device to change to the level when the device was last turned on. Level 1 to 99 correspond to the percentage brightness for dimmable devices.

Programming using Action Code 197

Action 197 ("Send RS232" in Configurator Response Wizard) is used to send commands to the Z-Wave Network. This action sends a string of data to the ID addressed.

Command Format for Z-Wave

Format: 197, <ID>, <Command Type>, <Parameters>

ID

This is the RS485 ID of the UCM/ZWAVE, e.g. UCM1 = 17, UCM2 = 18, etc

Command Type and Parameters

There are 6 commands that can be sent to the UCM/ZWAVE. They can be split into Single-cast and Multi-cast commands.

The list of commands can be seen in the following table.

Note: The counters are not automatically updated following a change in the Z-Wave controlled lights or appliances, unless sent from Comfort. The Status Request must be sent to update the counter accordingly.

	Single-cast	Multi-cast	Description
	Command Type & Parameters	Command Type and Parameters	
Basic Command	00, ID, Level	01, Number of IDs, ID List, Level	ID: Z-Wave device ID Level: 0 (disable/off), 255 (enable/on), 1 to 99 (1% to 99%)
Status Request	02, ID	03, Number of IDs, ID List	ID: Z-Wave device ID *Status Request updates Comfort counters
Device Command	04, ID, Data Length, Data List	05, Number of IDs, ID List, Data Length, Data List	ID: Z-Wave device ID Data List: Data string for devices. *This is used in cases where basic Z-Wave basic command class is not supported

"Escape" Character 15

There is a special "escape" character 15.

15 followed by 254 terminates the Action 197. This allows other actions to be carried out after ending Action 197. If no other actions are to be performed after Action 197, 255 can be used instead.

For instance, to switch on IDs 2 and 3 to 25%, followed by Response 1,

one has to input: 197, 18, 1, 2, 2, 3, 25, 15, 254, 74, 1, 255.

15, 253 sends 255 (FF in hexadecimal) as part of the string to be sent out without terminating the response. This is because entering 255 will be taken by Comfort to be the terminator.

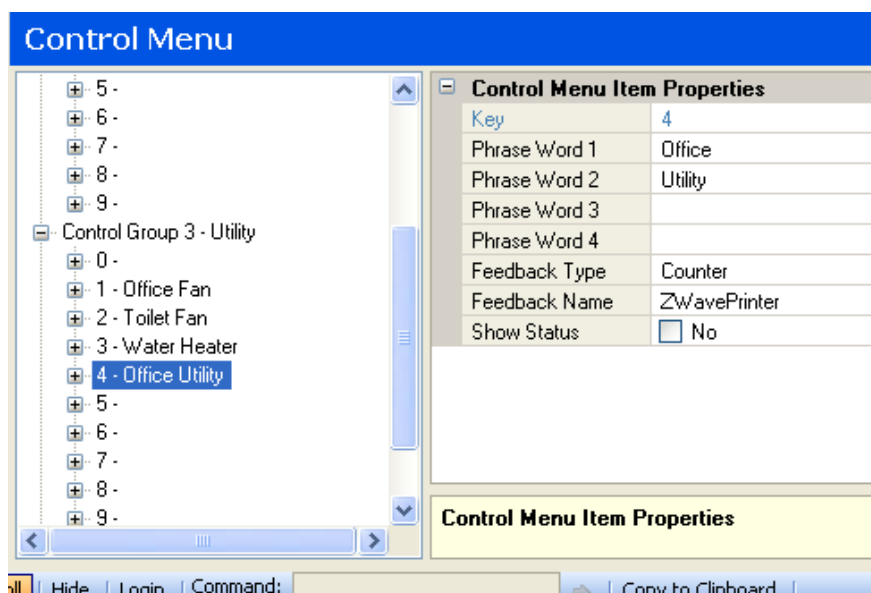
For instance, to switch on ID 5, the response needed would be: 197, 18, 0, 5, 15, 253, 255.

15, 15 is used when the value to be sent is 15, such that it is not treated as an escape character.

For example, to set ID 4 to 15%, the response would have to be: 197, 18, 0, 4, 15, 15, 255.

Z-Wave Status

The Z-Wave lights and appliances status can be requested and stored into Comfort's counters.



This may be used in the Control Menu to announce the status of the device. To do so, in Configurator, select Control -> Control Menu as shown in the following figure. Select one of the Control Keys and set the Feedback Type to "Counter" and the Feedback Name to the counter where the status is stored.

This will allow the status to be announced when the Control Key is selected on the keypad. For example, if the Office Utility is On, pressing "4 for Office Utility" will announce "Office Utility is On".

Troubleshooting

Error Message “No Response from Z-wave Network”

This message may be seen if there is a duplicate UCM with the same ID as the UCM/ZWAVE. Check that the UCM ID (SW7) is not the same as any other UCM in the system

Firmware History

Z-wave 5.218 (22 July 2010)

- 1 Slow down node polling speed to allow Z-wave Modules to cope
- 2 Sync string ID after timeout, in case of errors. Initialises polling parameters during reset.
- 3 Skip polling controllers for multi-channel support (unnecessary)
- 4 Stop polling devices during learn mode so led status is correct.
- 5 Fixed bug for multichannel polling
- 6 Supports Z-wave Multi-channel Command Class (MK Astral)

Z-wave 5.184 (13 May 2009)

- 1 Fixed problem of counter update even if value is not changed.

Z-wave 5.180 (5 March 2009)

- 1 Supports Z-wave Configurator with EEPROM in UCM/ZWAVE. Requires Configurator 3.2.3
- 2 AUX 'H' shunt no longer needed for copy operation.
- 3 New commands activated from Z-wave Configurator software : Abort, factory default, learn, node info.
- 4 Fixed wrong LED indication showing receiving information in learn mode when it is not (Only happens for modules which are not learnt previously)
- 5 Supports Scanning of Modules by Configurator

Document Version History

- Version 1.2.0 (24 August 2011) Warnings on Reset to Default. Error message "No Response top Z-wave Request"
- Version 1.1.8 (31 December 2010) Added Firmware History
- Version 1.1.7 (30 July 2010): Added instructions for MK Electric Astral and new feature of multi-channel command class.
- Version 1.1.6 (24 May 2009) - Current firmware Z-wave 5.184 sends counter updates to Comfort only when the Counters associated with Z-wave is changed.
- Version 1.1.5 (31 March 2009): Updated instructions and photo for new firmware version 5.180 which uses Configurator 3 for Z-Wave configuration applicable to UCM/ZWAVE 5.180 and above. Added D1 LED indicator on Z-wave daughterboard. Added Counter assignment screens and instructions. Added note to WRITE to EEPROM and RESET after counter assignment. Added section on buttons of UCM/ZWAVE configuration screen. Update table on LEDs status upon powered up.
- Version 1.0.6 (25 August 2008): Added instructions for Merten, and commands for Configurator 3
- Version 1.0.5 (14 July 2008): Added instructions for copying Primary controllers
- Version 1.0.3 (20 April 2008): Initial Release



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