



# Creating a UFH Heat and Pump Control Program in HomeMatic WebUI

**Programming Instructions** 

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- 3. Teach-In Wireless 4 Channel Switch
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### 1. Installation

To create a program that controls the heating zones and switches off the recirculation pump when the pre-set temperature is achieved, you will need the following:

- One HomeMatic CCU2 (s.k.u. EHC-HM01);
- One HomeMatic Radiator Thermostat per zone (s.k.u. EHC-HM02);
- One HomeMatic Wireless 4 Channel Switch (s.k.u. EHC-HM07).

Connect the Radiator Thermostats to the return manifold:



Then, connect Channel 1 of the HomeMatic Wireless 4 Channel Switch to the recirculation pump. You can connect the Channel 1 to replace the old room thermostat connectors – if in doubt, please seek professional advice from a qualified electrician.

### 2. Teach-In the Radiator Thermostats (registering them with the CCU2)

First insert the batteries into the Radiator Thermostat housing. The display shows INS and a rotating sun - wait until the pin fully retracts into

the housing (the rotating sun symbol disappears); screw in the Radiator Thermostat onto the valve and press the middle button - the display shows ADJ, meaning the device is memorising the closing point (0% valve opening). Once completed, the display reverts to normal state.

You are now ready to teach-in your device:

a. Go to the WebUI and press the Teach-In button. The following screen appears

Teach-i	n devices	
	BidCoS-RF - Variant 1: Direct teaching-in Teach-in mode 55 s active Start	BidCoS-RF - Variant 2: Teaching-in with serial number Serial number
BidCoS -RF (Radio)	To activate teach-in mode, click "Start teach-in mode". Teach-in mode remains activated for 60 seconds. Meanwhile, please activate the teach-in mode of the HomeMatic device you want to teach-in as well. The remaining time for teaching-in will be displayed. You will find further information in the operating manual of the corresponding devices.	Teach-in device Please enter the serial number and click on the button "Teach-in device". Please note: Not every BidCoS-RF device does support teaching-in via serial number.
BidCoS -Wired	BidCoS-Wired - Variant 1: Automatic teaching-in Please start the teach-in mode directly on the device. The device will then be taught-in to the CCU automatically. Further information on the teach-in mode is provided in the respective operating instructions.	BidCoS-Wired - Variant 2: Search devices  Search devices  Please click on the button "Search devices" The CCU will then automatically teach-in all new HomeMatic Wired devices.
B	ack Inbox (0)	

b. Go to the Radiator Thermostat and press-and-hold (for more than 3 sec) the central button (with radiator symbol). The display changes to show a countdown from 30; once a connection is made with the CCU2, the countdown disappears and the normal screen is restored to the Radiator Thermostat screen. In the WebUI, the Inbox button changes to show you have a new device discovered:

Teach-i	n devices												
	BidCoS-RF - Variant 1: Direct teaching-in	BidCoS-RF - Variant 2: Teaching-in with serial number											
BidCoS -RF (Radio)	Teach-in mode 21 s active         Start teach-in mode           To activate teach-in mode, click "Start teach-in mode".         Teach-in mode remains activated for 60 seconds.           Meanwhile, please activate the teach-in mode of the HomeMatic device you want to teach-in as well. The remaining time for teaching-in will be displayed. You will find further information in the operating manual of the corresponding devices.	Serial number Teach-in device Please enter the serial number and click on the button "Teach-in device". Please note: Not every BidCoS-RF device does support teaching-in via serial number.											
BidCoS -Wired	BidCoS-Wired - Variant 1: Automatic teaching-in Please start the teach-in mode directly on the device. The device will then be taught-in to the CCU automatically. Further information on the teach-in mode is provided in the respective operating instructions.	BidCoS-Wired - Variant 2: Search devices Search devices Please click on the button "Search devices" The CCU will then automatically teach-in all new HomeMatic Wired devices.											
E	Back Inbox (1)												

Go to your Inbox and click "Done" on the device line. In your Menu, go

E	C http://192.168.0.11/pages/in	dex.htm?sid=@v8vLsYVDo	q@&icli 🔎 +	2 C × B HomeMatic W	ebUI ×	Same SP							លដ
ŧ	Admin							• A	larm messages (0)	-		Γ	Logout
Ł	Home page > Settings >	Set	ervice messages (0)										
Ho	me page Status and contro	Programs and c	onnection	Settings								Те	ach-in devices Help
				Device inbox						_	_	_	
	Name	Туре	Picture	Booms	Serial number	Interface	Transmission mode	Functions	Rooms	•	8	b	Actions
		description		Functions		category						~	
	Filter	Filter		Diagrams	Filter	Filter	Filter	Filter	Filter				
			0	Groups		BidCos-RF	Standard			2			Set
÷	HM-CC-RT-DN KEQ0432382	HM-CC-RT-DN	S	User management	KEQ0432382								Direct
				System variable	-								Programs
				Control panel	-								Set
Ŧ	HM-RCV-50 BidCoS-RF	HM-RCV-50		Virtual remote	BidCoS-RF	BidCos-RF	Standard	Central control unit			$\overline{\mathbf{v}}$		Delete
		HM-RCV-50	Ľ9	control (wireless)									Direct
													Programs

to Settings --> Devices to display all devices;

c. Enter your Heating Program: Click on the Set button to enter your daily heating program for the zone:

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Ħ	Гн	iome page > Settin	gs > Devices > Set dev	vice / channe	el parameter			Service me	ssages (0)	-
Home	page	Status and cont	rol Programs and o	connection	sSettings					
		Na	me		Type description	Picture	Description	Serial number	Interface	
HM-CC-	RT-DN H	KEQ0432382			HM-CC-RT-DN	Ð	HM-CC-RT-DN	KEQ0432382	BidCos-RF	Version Availat
Device	parame	ter								
							Parameter			
Temp	perature	e profile Saturday:								
			Start time	End tim	e Temperature					
۲	0	1. Time period	00:00 o'clock	06:00	clock 17.0 °C					
۲	0	2. Time period	06:00 o'clock	22:00	clock 21.0 °C					
1.00	0	3. Time period	22:00 o'clock	24:00 0	clock 17.0 °C					
Temp	perature	e profile Sunday:	apply from previou	s day						
Temp	perature	e profile Monday:	apply from previou	s day						
_	0.11	1 -							_	
-	OK	Canc	el							

Note: once done, click OK to return to the Devices Screen. Expand the Radiator Thermostat device by clicking the + sign. The following channels are available:

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nome page > Sectings > De							Serv	ice messages (0)	1		
age Status and control Pr	ograms and conn	ections	Settings							l	Feach-in devi
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HM-CC-RT-DN KE00432382	HM-CC-RT-DN	S	Wireless Heating	KE00432382	BidCos-RF	Standard	Heating	Kitchen	1	1	Dele
		a	Thermostat	Saturday Services			1.0000000	00000000	1	<u> </u>	Dire
2 ×	5	0.00									Progr
HM-CC-RT-DN KEQ0432382:1		0	Window Masting	transfer of the second				3			Se
Connection partner	HM-CC-RT-DN	SV.	Thermostat	KEQ0432382:1	Receiver	Standard			I	0	Dire
temperature sensor		9									Progr
HM-CC-RT-DN KEQ0432382:2		0	1.5.08								Se
Connection partner	HM-CC-RT-DN	S)	Wireless Heating Thermostat	KEQ0432382:2	Receiver	Standard			1		Dire
wall thermostat		9									Progr
HM-CC-RT-DN KEQ0432382:3		00	-			Communities and					Se
Connection partner	HM-CC-RT-DN	S)	Wireless Heating Thermostat	KEQ0432382:3	Receiver	Standard			1		Dire
shutter contact		Sr.									Progr
Kitchen UFH Zone 1	10-5	80	Looper starsperie			1					Se
Connection partner	HM-CC-RT-DN	S)	Wireless Heating	KEQ0432382:4	Transmitter	Standard	Heating	Kitchen	1	1	J Dire
radiator thermostat transmitter		Sr	mannoscac								Progr
HM-CC-RT-DN KEQ0432382:5	2				1	1				H	Se
P		Ra	Wireless Heating	WEAR 433303.5	Bernham	Para 44	1	1	1		

We will use Channel 4 = Connection Partner for Radiator Thermostat Transmitter for our program. Double-click the channel to rename it to *Kitchen UFH Zone 1*, assign it to one/many room(s) and to one/many function(s).

#### 3. Teach-In the Wireless 4 Channel Switch.

Repeat the same with the Wireless 4 Channel Switch: after clicking Teach-In button in WebUI, press and hold first button on the Wireless 4 Channel Switch. The LED flashes red twice to confirm connection with the CCU2:

	Admin Home page > Settings	> Devices						Ala Ser	rm messages (0) vice messages (0)				Logout
но													
	Name	Type description	Picture	Description	Serial number	Interface category	Transmission mode	Functions	Rooms	•	<b>7</b>	1	Actions
	Filter	Filter		Filter	Filter	Filter	Filter	Filter	Filter				
													Set
+	HM-CC-RT-DN KEQ0432382	HM-CC-RT-DN	Ð	Wireless Heating Thermostat	KEQ0432382	BidCos-RF	Cos-RF Standard	Heating	Kitchen	1	1	1	Delete
													Direct
			1						Oathasan			$\vdash$	Programs
					FORFAFFA				Bed room				Set
			-	Wireless Switch		BidCos-RF	BidCos-RF Standard	Heating	Children's room 1 Children's room 2	d	a		Delete
-	HM-FC-2M4-FCB JEQ0203233	HM-LC-SW4-PCB		PCB	1560203223			Light	Utility room Kitchen	2		-	Direct
									Living room Home office				Programs
			J										Set
÷	HM-RCV-50 BidCoS-RF	HM-RCV-50		Virtual remote	BidCoS-RF	BidCos-RF	Standard	Central control unit		1	13	0	Delete
			2	control (wireless)	UNUCUS-NP	BIOCUS-RP	Juniard	Control Control Cinc					Direct
			-								L		Programs

# 4. Teach-Out the devices (deregistering them with the CCU2)

In the event you need to deregister a device, proceed as follows: in WebUI, go to the device and press the "Delete" button – you will get a window like this:

Delete a	nd reset device	
	Do you really want LC-Sw4-PCB JEQ05	to delete the device 'HM- 69559'?
Delete o	options	
Теа	ch-out device	*
The Dire	device will be deleted fro ct connections will be ke	om the HomeMatic CCU. ept.
Attenti	on: The device is still tions!	linked to programs or direct
	Cancel	Delete

Press the Delete button, and then briefly press the button of the device: the RED & YELLOW will flash quickly, then the GREEN one will flash once to confirm deletion. The device is now deleted from your system.

### 5. Devices' functions

The Radiator Thermostat actuator has the following channels / functions available:

- a. Channel 1: Connection Partner temperature sensor (receiver) used for linking the actuator to an external HomeMatic sensor (like HomeMatic Differential Temperature Sensor SKU EHC-HM06);
- b. Channel 2: Connection Partner Wall Thermostat (receiver) for use with the HomeMatic Wall Thermostat SKU-HM03;
- c. Channel 3: Connection Partner Shutter (receiver) future function;
- d. Channel 4: Connection Partner radiator thermostat transmitter (transmitter) used with CCU2 to create this program.
- e. Channel 5: Connection Partner radiator thermostat receiver (receiver) used with other devices / programs where the device is used as an actuator.Device Interface (used by the system).
- f. Channel 6: Connection Partner Button (receiver) additional tasks.

The Wireless 4 Channel Switch has four channels available for switching ON / OFF. Rename Channel 1 to *Kitchen UFH Pump Relay*:

Þ	Admin	0.445 (0.11)					Î	Ali	arm messages (0)				Logout
E	Home page > Settings > De	evices						Ser	vice messages (0)				
Hom	e page Status and control P	rograms and conn	ections	Settings								Teac	ch-in devices Help
	HM-LC-Sw4-PCB JE00569559	HM-LC-Sw4-PCB	-	Wireless Switch Actuator 4-channel.	JE00569559	BidCos-RF	Standard	Heating	Bed room Children's room 1 Children's room 2	1	1		Set Delete
		4		PCB				Light	Utility room Kitchen Living room Home office				Direct Programs
	Kitchen UEH Rump Relay	HM-LC-Sw4-PCB	-	Wireless Switch	1000560550+1	Pacaluar	Standard	Hasting	Kitchen		a.		Set
	Kitchen OFH Pump Kelay			PCB	1200000000	Necerver		Heating	Kitchen				Programs
	Boiler Heating Relay	HM-LC-Sw4-PCB	4	Wireless Switch Actuator 4-channel, PCB	JEQ0569559:2	Receiver	Standard	Heating Light	Bathroom Bed room Children's room 1 Children's room 2 Utility room Kitchen Living room Home office	Y	2	0	Set Direct Programs
	HM-LC-Sw4-PCB JEQ0569559:3	HM-LC-Sw4-PCB		Wireless Switch Actuator 4-channel, PCB	JEQ0569559:3	Receiver	Standard	Light		3	2	0	Set Direct Programs
	HM-LC-Sw4-PCB JEQ0569559:4	HM-LC-Sw4-PCB		Wireless Switch Actuator 4-channel, PCB	JEQ0569559:4	Receiver	Standard	Light		I	Z	0	Set Direct Programs
	Back Reset filter	Open tree structure											

### 6. Creating the Under Floor Heating Pump ON Program in WebUI

In the UFH, because of the long pipe length, the heating zones have a separate re-circulation pump. We have created our heating program so now we want to create a program which will start the recirculation pump if there is a heating demand. To do this, press button *Programs and Connections*  $\rightarrow$  *Programs and CCU Connections* and make the following settings:

• In the **IF** section, when Radiator Thermostat has the Valve opened to more than 7% **AND** Channel 1 of the Wireless 4 Channel Switch is OFF;

• In the **THEN** section, select the action for the Wireless 4 Channel Switch Channel to switch immediately to ON;

• Leave the **ELSE** section empty; we will create a separate program for switching off the pump;

• Save your work by pressing OK. You can edit the program at a later time is needed.

	dmin ome page > 1	Programs and connections > Programs > Programming										
Home page	Status and	a control Programs and connections Settings										
Name	Description	Condition (if)										
UFH Pump ON		Channel status: Kitchen UFH Zone 1 when Valve position within value range more than 7 % trigger when changed	Channel select									
Device se	election 🛟 ]	Kitchen UFH Zone 1 when       Valve position       # within value range more than 7 %       trigger when         Kitchen UFH Pump Relay       when       Switching status: off +       trigger when changed +       *	changed 🛟 🍛									
CR ÷	Image: Solution of the selection of the sel											
Activity: Els	;e †	Stop all current delays before performing the activity (e.g. retriggering).										

### 7. Creating the Under Floor Heating Pump OFF Program in WebUI

The previous program switched the UFH recirculation pump ON when valve openings were more than 7% (i.e. there was a demand for heating, so the actuators opened the valves). Once the temperature in the room

is achieved, the valves will close and the recirculation pump works needlessly. We now create a program to switch the pump OFF. To do this, press button *Programs and Connections*  $\rightarrow$  *Programs and CCU Connections* and make the following settings:

• In the **IF** section, when Radiator Thermostat has the Valve opened to less of equal to 7% **AND** Channel 1 of the Wireless 4 Channel Switch is OON;

• In the **THEN** section, select the action for the Wireless 4 Channel Switch Channel to switch immediately to OFF;

• Leave the **ELSE** section empty;

• Save your work by pressing OK. You can edit the program at a later time is needed.

Þ	Admin							Al	arm messages (0)				Logout
E	Home page > Settings > D	evices						Sei	vice messages (0)				
Home	e page Status and control	Programs and conn	ections	Settings							Teac	ch-in devices Help	
-	HM-LC-Sw4-PCB JEQ0569559	HM-LC-Sw4-PCB	Ĩ	Wireless Switch Actuator 4-channel, PCB	JEQ0569559	BidCos-RF	Standard	Heating Light	Bed room Children's room 1 Children's room 2 Utility room Kitchen Living room Home office	×.	V	0	Set Delete Direct Programs
	Kitchen UFH Pump Relay	HM-LC-Sw4-PCB	i	Wireless Switch Actuator 4-channel, PCB	JEQ0569559:1	Receiver	Standard	Heating	Kitchen	3	1	0	Set Direct Programs
	Boiler Heating Relay	HM-LC-Sw4-PCB	1	Wireless Switch Actuator 4-channel, PCB	JEQ0569559:2	Receiver	Standard	Heating Light	Bathroom Bed room Children's room 1 Children's room 2 Utility room Kitchen Living room Home office	8	S	0	Set Direct Programs
	HM-LC-Sw4-PCB JEQ0569559:3	HM-LC-Sw4-PCB		Wireless Switch Actuator 4-channel, PCB	JEQ0569559:3	Receiver	Standard	Light	12 County (12) County (12) C	8	I	0	Set Direct Programs
	HM-LC-Sw4-PCB JEQ0569559:4	HM-LC-Sw4-PCB		Wireless Switch Actuator 4-channel, PCB	JEQ0569559:4	Receiver	Standard	Light		Z	2	0	Set Direct Programs
	Back Reset filter	Open tree structure		, ,				1	1		1		