

CoolAutomation Integration Guide



CoolAutomation Integration Guide





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Overview

This Integration Guide covers the set-up of CoolAutomation product range (CoolMaster/CoolMasterPRO/CooLinkBridge/CoolPlugs\$CooLinkHub) two-way module in the URC Accelerator software. It assumes that you have already completed training in the URC software and that the CoolAutomation HVAC Bridge (<u>https://coolautomation.com/partners/URC/</u>) is already installed and working.

Requirements

- The CoolAutomation device must be fully configured and operational prior to integrating with Total Control.
- URC requires assigning a static IP address to all devices for optimum speed in communicating. Alternatively, a DHCP/MAC Reservation can be set within the system's local router.
- Ensure that the .TCM module has been downloaded and imported onto the programming computer.

For more information on how to import a two-way module, please refer to the <u>Working with Two-way Modules</u> document.

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General Information

Module:	CoolMasterNet HVAC TCM
Developer:	URC
File Type:	*.tcm
Communication:	IP
Category:	AUX
Module Type:	Standard
Unified:	No
URC Compatibility:	Accelerator 1
Device Events:	Yes
Two-way Module Commands:	Yes



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Frequently Asked Questions & Quick Tips

- What Cool Automation models are supported? The CoolMaster/CoolMasterPRO/CooLinkBridge/ CoolPlugs&CooLinkHub HVAC Bridge
- How many HVAC units can I put into a system? CoolAutomation bridges can support from single units to 255 AC units (depends on HVAC manufacture and type of the CoolAutomation device)
- What kind of HVAC unit can I use in Total Control? Compatible companies that provide HVAC units. Popular brands include: Daikin, Mitsubishi, Samsung, Toshiba, Fujitsu, LG, Hitachi, Gree and similar. Click the following link for a full list of compatible units: <u>www.coolautomation.com/partners/URC/</u>
- How is the CoolMaster URC Module communicating with the Thermostat(s) or HVAC system?

The URC Total Control system communicates with the The CoolAutomation HVAC Bridges via IP (LAN).

Preparing the CoolAutomation System for URC Integration

Facts to know BEFORE attempting integration:

- Preparing the CoolAutomation system for integration with a Total Control system requires knowledge in installing HVAC and thermostat systems as there are additions and configurations that must be performed to enable communication.
- Please consult with a certified HVAC contractor or CoolAutomation if you are unsure about the proper system configuration!
- URC Technical Support will offer assistance, if required, for the IP connection to the URC control system or configuring the module with the correct parameters within the URC software.
- URC is not responsible, or able to assist with, programming of the CoolAutomation devices or the addition of parts required to enable integration.
- For details and help with the CoolAutomation portion of the install, please contact the CoolAutomation technical support team via phone or at <u>Cool Automation Support Request</u>
- Prior to programming the URC portion of CoolAutomation integration, please make sure the CoolAutomation portion is complete and operational.



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Downloading & Importing the Module

Download the COOLMASTERNET HVAC two-way module from the URC Dealer Portal: (*Please note, that this module will work with all CoolAutomation bridges)

Once the module has been downloaded, perform the following:

- 1. Select the File tab.
- 2. Select Import TCM Files.
- 3. Locate the ".tcm" file and Click Open.

1	Fil	e	My D	atabase	Pr	ogram	Tools	Communications	Help
	0122 0	New Ope Save Save Man Expo	n As age Roc ort Driver	Ctrl+N Ctrl+C Ctrl+S Ctrl+Alt+S om Names r Files	1	Recent 1 Unifi 2 Sono 3 BluO 4 HEO 5 Conv	Documents ied Module: is S verging Syst	s s iems	
2	3 ලම	Convert File Accelerator Options Exit		<u>o</u> Alsp <u>7</u> Sond <u>8</u> The <u>9</u> Ring	ne Adicus os Aillers_0313	2023			

Total Control	Module Library I	import			23	
Look in:	ТСМ		· 🧿 💋	i 📂 🛄		
-	Name 🔺		Date	Туре	S	
Quick access	CoolMast	erNet_1.0.2020.0306.1	10/24/2023 9:	TCM File	1,544	3
Desktop						
Libraries						
This PC						
I						
Network	•					
	File name:	coolMasterNet_1.0.2020	0.0306.1	*	Open	
	Files of type: Total Control Module Library (*tcm3;*tcm2;*tcr * Cancel			Cancel		



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Total Control

Downloading & Importing the Module (cont'd)

- 4. Select Import.
- 5. Click OK

Save any work and restart the software.



For more information on two-way modules, what they are, where to find them, and how to import them, please review <u>this guide</u>.

Import Total Control Module		Σ
Module Title: Vi coolMasterNet 1	ersion:	Import Cancel
Developer: URC		
Description:		
Control CoolMasterNet System		
Core Files:		
Drivers		
Base Station Files		
Included Interfaces:		
TKP-2000 TRC-1280 TKP-7000 TRC-820 TRC-820 TRC-1480 Android Phone iPhone Mobile TKP-5500 TKP-5600 Android Tablet iPad Mobile TDC-5100		
TDC-7100 TKP-7600	Import 🖾	3
	Import Succeeded	
	5 ОК	

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Adding & Configuring the Module

The CoolMaster module can be added to any new or pre-existing system.

Adding the Module:

The file contains all the system data that runs and operates the module.

- 1. Select Step 4. Add Other Devices
- 2. Perform the following:
 - A. Select Room: Choose a room to add the module.
 - B. Select Database: My
 - C. Select Module Type: IP Database
 - D. Select Category: AUX
 - E. Select Brand: COOL AUTOMATION
 - F. Select Model: COOLMASTERNET
 - G. Double-click the model or select a. Add Selected Modules









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Total Control

Adding & Configuring the Module (cont'd)

Network Configuration:

- 3. Select Step 6. Network Setup
- 4. On the Network Settings page:
 - A. Select c. Non URC Device
 - **B.** Enter the IP Address of the CoolMaster Device. The CoolMaster Device must be configured to a Static IP address or a DHCP/MAC reservation within the local router.



ep 6 Network Se	ttings: Other Devices		
Room		IP Address	Port
Office	COOLMASTERNET	192.168.0.1	10102
	ep 6 Network Se a.LAN & Wifi Room Office	ep 6 Network Settings: Other Devices	a.LAN & Wifi Device Image: c.Non URC Device Room Device IP Address Office COOLMASTERNET 192.168.0.1



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Total Control

Adding & Configuring the Module (cont'd)

Two-way Module Setup:

- 5. Select Step 7. Properties Manager
- 6. On the Properties page:
 - A. Select COOLMASTERNET from the Project Tree
 - B. Select Module Parameters from the Available Property list.
 - **C.** In the **Parameter** field, enter the Device ID for the default thermostat to be displayed in that room (i.e.: Default Thermostat:L1.100, Where "L1.00" is the desired thermostat at launch) as shown in the picture.









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Total Control

Adding & Configuring the Module (cont'd)

Two-way Module Setup (cont'd):

- **D.** When launching the COOLMASTER module:
 - 1. When no Default Thermostat is set in the Parameter field.
 - **2.** You will be given a list of all the available thermostats to choose from.



- E. When launching the COOLMASTER module:
 - 1. When a Default Thermostat is set in the Parameter field.
 - 2. The default thermostat will be displayed.



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Adding & Configuring the Module (cont'd)

Creating User Interfaces:

7. Select Step 11. Edit User Interfaces



8. Accelerate!

1.		10		
enerate Menus &	Devices b	Edit Menus by	Room c.Edit Device Layouts	
menu System Opti	ons —]
Induded Submenus	O Yes	O No	Submenus are only created if there will be buttons present. Empty submenus are not generated.	
Music :	Yes	© No	If a submenu is set "No", any button that would normally be there will instead be generated on the	
ights :	O Yes	No	main menu.	
Comfort :	O Yes	No	Timers Items	
Security :	O Yes	No	Select an item and a jump to it will be created in the appropriate menu for each room	
info :	O Yes	No	✓ Sleep Timer	
Settings :	Yes	© No		
Multiple Displays :	O Yes	◎ No ?		
limer :	O Yes	No		
usic Menu Options				
OUse dedicated N	/ulti-Room N	Ausic submenu		Choose the setup options for the User Interfaces in the
This option will on a room, as well	reate a ded as a Music s	licated sub menu submenu for loca	u for the URC Audio Multi-Room Music available to I music sources available only to that room.	system. When ready press the Accelerate Button
Edits made to the this should redu	nis URC Aud	io submenu are o spent editing thi	duplicated in every room's URC Audio submenu	Accelerate!
However it is NO non-URC Audio	OT possible source to th	to remove a URO	C Audio source from the submenu, or add a	
O Use combined M	lusic submer	nu		
This option will o	reate a sing C Audio sou	gle Music submer urces AND local s	u in all applicable rooms. This submenu will ources available to that room.	
Edits must be m	ade on a pe	r-room basis. Th	ere are no GLOBAL changes.	
			/	

1. Selected Room : Office Previous	: COOLMAS Settings Sleep Time	
2. Select View : TC Model	Hidden Hidden	
	Hide Main Menu	
	Previous Page Next Page	
	Hidden Hidden	
	Previous Page Next Page	
		_
	By default, access to the CoolMaster module is placed on the Main	



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Adding & Configuring the Module (cont'd)

Macro Creation:

9. Select Step 12. Macro Editing



10. Accelerate!

Step 12 Macros: Macro Generat	ion Options				
a Auto Marro Generation	Marro By Room		d Automation Ma	TTOS & TKP-100 Marros	
- Macro Programming Options -	Simucro by Room	cispectar macros	d.Adcontactorr Ma	cros critici roo macros	
- Macro Acceleration Option					
Macio Acceleration Option	15]		
Preserve user editer	d macros while gene	erating macros.	.		
This option will r that appear to	not erase and gene have been previous	rate new versions o lv edited. Other ma	macros cros will		
be erased rege	nerated.				
Universal Macro	is will not be affecte	ed.			
ERASE ALL existing these options.	macros and create	new ones using			
This will erase a	ll existing macros, ii	ncluding those on th	e main		
menu and devic	e layout pages of t	he user interfaces.			
	o minor be arreed				
TV Off Command					
TV Device Power OF	F command is gene	rated only for the			
ROOM OFF macro					
TV Device Power OF	F command is gene	rated for ROOM OF	=		
- and MUSIC macros					
C Source Device Power					
Devices are burned	ON when readed as	ad burned OEE only.		Choose the setup options for auto	
when a ROOM OFF	command is issued.	id turned or r only		generation of macros in the syste When ready press the accelerate	m.
Devices are turned	ON as needed and t	turned OFF		button	
when NOT NEEDED,	or a ROOM OFF co	mmands is issued.	10	Accelerate	





11. Download

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Adding & Configuring the Module (cont'd)

Module Operation: Events/Commands/Queries

Two-way Module Commands (TCL Commands)

Two-way module commands are special functions that are derived from the two-way module and is a way to send discrete commands to the CoolMaster system.

1. Select Step 12. Macro Editing



- 2. After selecting Step. 12:
 - A. Select sub-step b. Macro By Room
 - **B.** Select 🖄 (**TCL Command**).
- 3. On the 2-Way Module Command page:
 - A. Enter a Name for the command being created.
 - B. Choose an Available Device COOLMASTERNET [Room].
 - **C.** Choose the Custom Control Protocol Command option from the **Available Command** drop-down.
 - This command sends any command properly formatted using the Control Protocol format to the assigned room/zone.

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2-Way Module Command		Parameters DeviceID
Available Devices : B COOLMASTERNET [Office]		Description Return current temperature
Available Command : Current Temperature? Current Setpoint? Current Status? Current Fan Speed? Error? Filter? Set Target Temperature Set Thermostat Mode		Prev Next
locit di opeca	ОК	Cancel



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Total Control

Adding & Configuring the Module (cont'd)

Two-way Module Commands (TCL Commands) (cont'd)

• Available Queries and Commands

Query Name	Query Description	Query Parameters	Return Type
Current Temperature?	Returns ambient temperature (temperature)	Device ID	Integer
Current Setpoint?	Returns the setpoint (setpoint)	Device ID	Integer
Current Mode?	Returns the units mode (Heat/Cool/Auto/Off)	Device ID	String
Current Status?	Returns the current unit status (Heating/Cooling/Idle/Off)	Device ID	String
Fan Speed?	Returns the fan speed (Low/Med/High/Auto)	Device ID	String
Filter Status?	Returns "#" if filter needs to be changed/Returns "-" if filter is okay	Device ID	String
Error Status?	Returns the error status. Returns "OK" if there is no error/Returns error code is there is an error	Device ID	Sting
	Note: If inputted Device does not exist, -1 is returned		

D. Click OK.

Command Name	Command Description	Command Parameters	Command
Setpoint	Set the setpoint to the desired level	Device ID	$F^{\circ} \text{ low setpoint} = 34^{\circ} / F^{\circ} \text{ high}$ setpoint = 99° / C° low setpoint = 1° / C° high setpoint = 37°
Thermostat Mode	Set the thermostat to the desired mode	Device ID	Heat/Cool/Auto/Off (via dropdown)
Fan Speed	Set the fan to the desired mode	Device ID	Low/Med/High/Auto (via dropdown)

Name :	Parameters DeviceID
Available Devices : COOLMASTERNET [Office]	Description Return current temperature
Available Command : Current Temperature? * Current Setpoint? Current Status? Current Fan Speed? Error? Filter? Set Target Temperature Set Thermostat Mode Set Fan Speed	Prev Next
Ок	Cancel

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Adding & Configuring the Module (cont'd)

Module Operation: Events/Commands/Queries

Device Events

The CoolMaster module has the ability to trigger custom macros based on events or changes in the subsystem

1. Select Step 12. Macro Editing



- 2. After selecting Step. 12:
 - A. Select sub-step d. Automation Macros
 - B. Select Add Macro.
- 3. On the Set Name window:
 - A. Enter a Name for your Event.
 - B. Click OK.
- 4. On the Edit Automated Setting page:
 - A. Select COOLMASTERNET [Room Name] from the Available Devices list.
 - B. Select an Available Event.
 - **C.** In the **Parameters** section, choose an **Event** to trigger when the status has changed. <u>Please see the following page for a list of Parameter Events and their descriptions</u>.

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12 Macros: Event & Scheduling 19 Ê A 📕 a.Auto Macro Generation b.Macro By Room c.Special Macros d.Automation Macros e.TKP-100 Macros Select Type of Automation Macro : Automated Macro : ▶ | ● ■ | X | 聖 ↔ | 偽 🗉 🖾 恐 冬 🗣 超 Device Event Select Group : Power On/Start Power Off/Stop General Add/Delete Automated Macros : В Delete Add Macro Set Name Enable Name Name Group General Delete New В OK Cancel , Edit Automated Settings -Parameters Name : Event CoolMaster Temperature Temperature С Mode Available Devices : Status Error COOLMASTERNET [Office] Α Filter Description Available Event : В Enter Device name (ex L1, 100) or ANY for Device Status Change Option : + Prev Next D OK Cancel

D. Click OK.



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Total Control

Adding & Configuring the Module (cont'd)

Module Operation: Events/Commands/Queries

Device Events (cont'd)

Available Events and their associated Parameter Event.

- **Error:** Triggers when there is a change in error status
- **Filter:** Triggers when there is a change in filter status
- Mode: Triggers when there is a change in mode
- **Status:** Triggers when there is a change in mode status
- Temperature: Change in ambient temperature

Edit Automated Settings	
Name :	Event
CoolMaster	Temperature *
Available Devices : COOLMASTERNET [Office]	Temperature Mode Status Error Filter
Available Event : Status Change *	Description Enter Device name (ex L1. 100) or ANY for Device
Option :	
	Prev Next
OK	Cancel



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