

INSTALLATION MANUAL

TIS TRV

(THERMOSTATIC RADIATOR VALVE)

Model: TIS-TRV, TIS-TRV-16CNV



CONTROL EVERYTHING



i PRODUCT INFORMATION

Thermostatic Radiator Valves (TRVs) sense the air temperature around them and regulate the flow of water through the radiator that they are fitted to. They do not control the boiler.

They should be set at a level that gives you the room temperature you want. These settings may need to be different in each room. You should set the TRVs to suit each room and then leave them to do their job.

Turning a TRV to a higher setting will not make the room heat up any faster. How quickly the room heats up depends on the boiler size and setting, as well as the radiator size. Turning a TRV to a lower setting will result in the room being controlled at a lower temperature, which saves energy.

TRVs require a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture.





Read Instructions

We recommend that you read this Instruction Manual before installation.



Mounting Location

Connected directly to the radiator valve or with adaptors accessories.



Safety instructions

Electrical equipment should only be installed and fitted by electrically skilled persons. Failure to observe the instructions may cause damage to the device and other hazards. These instructions are an integral part of the product and must remain with the end customer.



Data Cable

Connect TIS-TRV-16CNV gateway by stranded RS485 data cable with four twisted pairs. Connect devices in a “daisy chain.”

Do not cut or terminate live data cables.



Warranty

We provide a warranty as required by law. Please send the description of the defect with Product S/N to our dealer network.



Programming

This device can be tested and programmed manually. Advanced programming requires TIS’s Device Search software. Advanced software programming knowledge should be obtained in TIS’s advanced training courses.



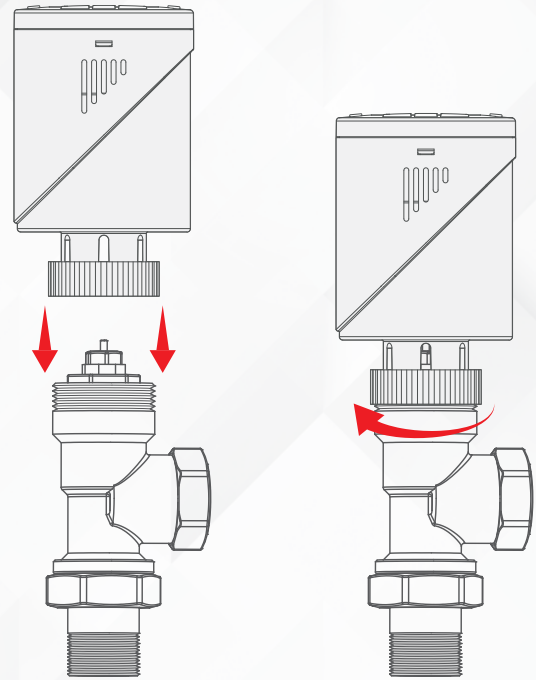
Simple Installation

TIS-TRV has an M30 x 1.5 universal type head-to-body connection.



INSTALLATION STEPS

1 >> Replace your Radiator valve by TIS TRV, in case your valve size or type not fit with TIS TRV you can use the adaptor accessories inside the TIS TRV package.



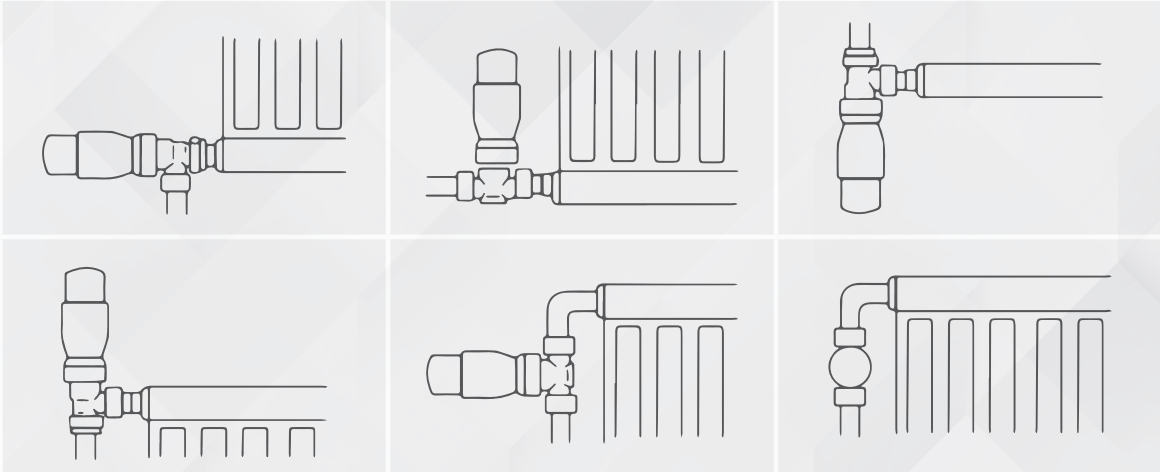
▶ Valve installation (with M30 adaptor as an example)

ADAPTERS	Thread-measure dimension of M30× 1.5 (Heimeier, Junkers Landys+Gyr, MNG, Honeywell, Braukmann,)	NO ADAPTER REQUIRED
	Danfoss RAV (accompanying pin must be plugged on the valve tapped)	
	Danfoss RA	
	Danfoss RAVL	

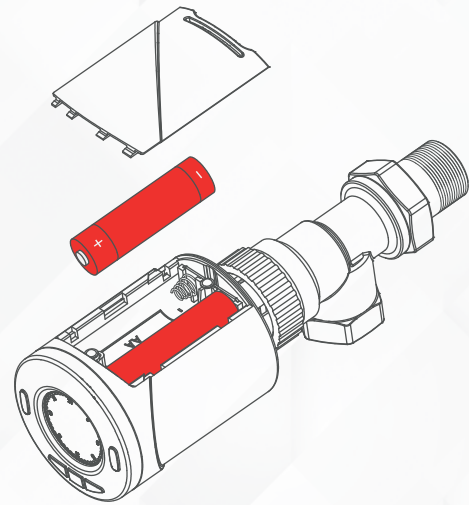


INSTALLATION STEPS

MOUNTING POSITIONS



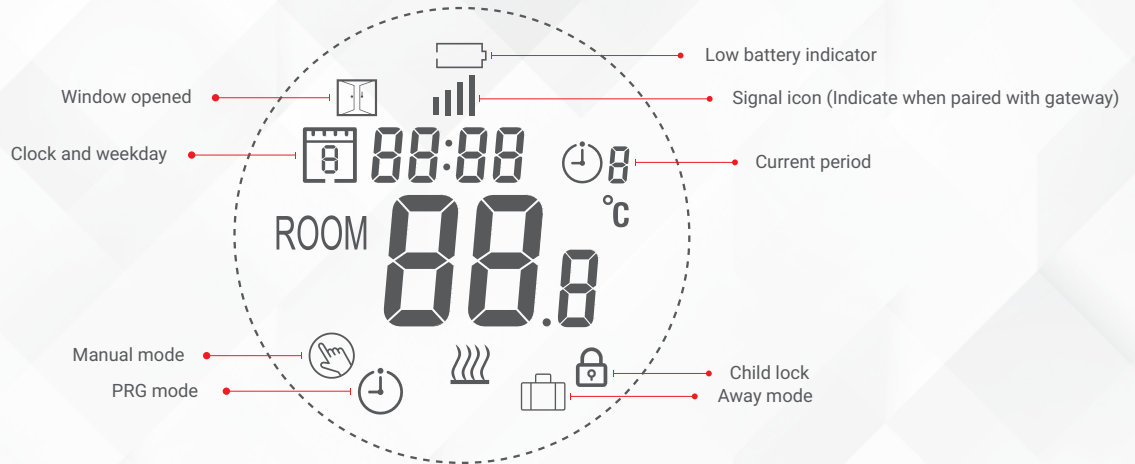
2 Insert 2xAA batteries into the device. Once the batteries are installed, the TRV will display **INIL**, which means initialization.



3 When the TRV displays **AdAP**, press the **UP** button (change 0 to 1), which means the TRV will adapt itself to the stroke of your valve body. To do so, the TRV will open and close twice to store the end points.

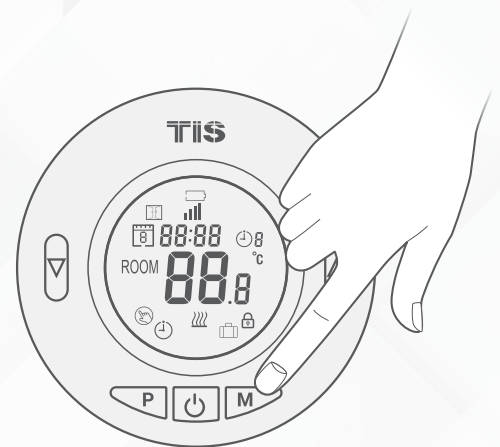


DISPLAY & BUTTONS



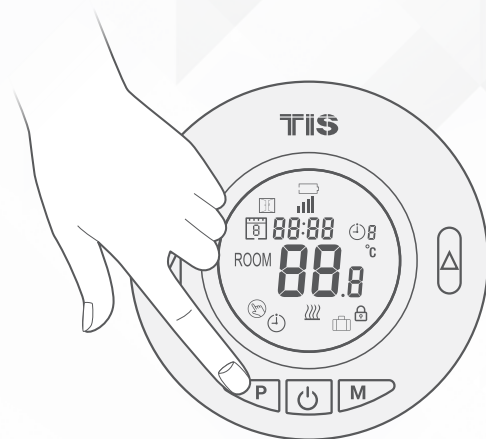
MODE SETTING

Press the **M** button to choose between Manual mode / Away mode / PRG mode.



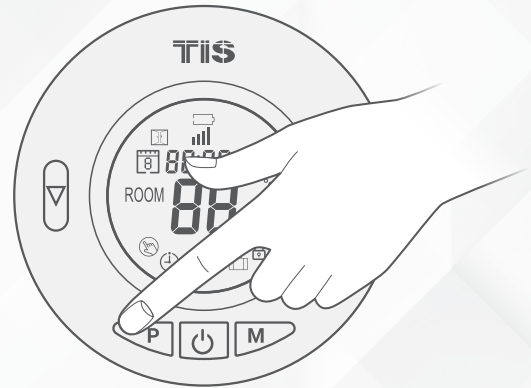
CLOCK & WEEKDAY SETTING

Press and hold the **P** button for 5s, and set the clock (Min-Hour-Weekday) by pressing the UP and DOWN buttons. Each press of the **P** button will go to next item setting.



7-DAY PROGRAMMABLE SETTING

1 » After completing the clock settings, press P to go to PRG schedule settings.



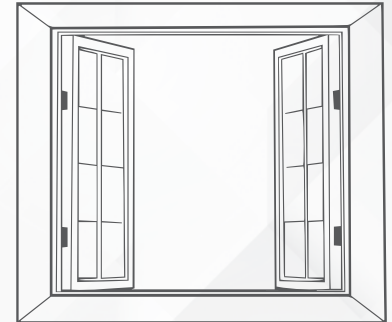
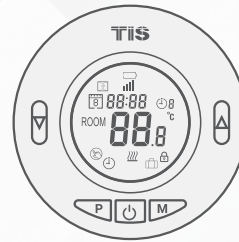
2 » Set the schedule (Weekday-Period-Start time-Temp.) by pressing the UP and DOWN buttons. Each press of the P button will go to next item setting.



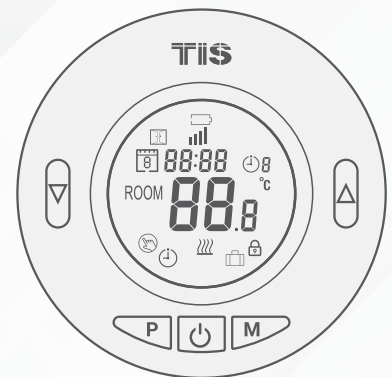
PERIOD	1		2		3		4	
	Time	Temp	Time	Temp	Time	Temp	Time	Temp
12345 (Mon.~Fri.)	7:00	22°C	8:30	19°C	17:00	22°C	22:00	19°C
6 (Sat.)	8:00	22°C	8:30	22°C	17:00	22°C	22:00	19°C
7 (Sun.)	8:00	22°C	8:30	22°C	17:00	22°C	22:00	19°C

OPEN WINDOW DETECT FUNCTION (OWD FUNCTION)

» When the Open Window mode is enabled in the parameter settings, the system will automatically stop heating when it detects a sudden drop of room temperature (2°C in 15 minutes as default). This is normally caused when a window or door is opened without turning off the heating device.

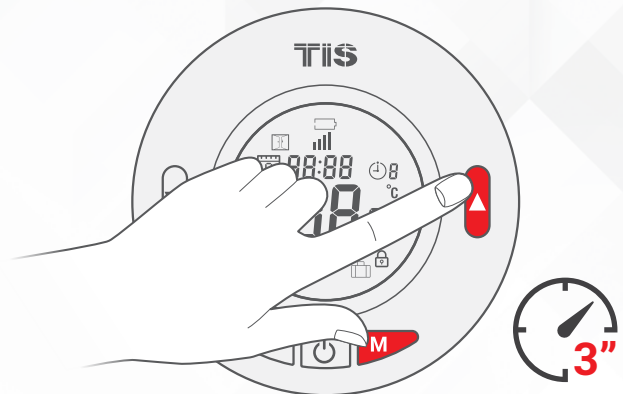


» The device will return to the previous mode of operation after 30 minutes. At that time, the OP indicator will disappear. Pressing any button will exit the OWD function during the heating off period.



PARAMETER SETTINGS

» To configure your TRV, you need to turn off the thermostat first and then press and hold the **M** and **UP** buttons for 3s, until it displays 01. Each press of the **M** button will go to the next item setting. Adjust the range by using the **UP** and **DOWN** buttons.





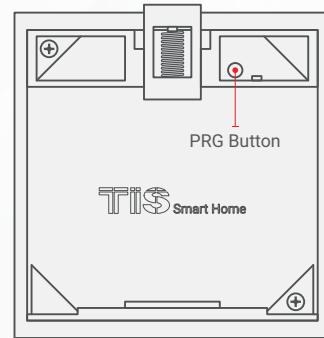
PARAMETER SETTINGS

MENU	DESCRIPTION	RANGE	DEFAULT VALUE
01	Temp. calibration for internal sensor	-8 °C ~8 °C	0°C
02	Set Point Max.	5 °C ~35°C	35 °C
03	Set Point Min.	5 °C ~35°C	5 °C
05	Frost Protection Temp.	5 °C ~15°C	5 °C
10	Display	0: Room temp. 1: SET temp.	0
12	Open window detect function	1: ON 0: OFF	0
13	OWD Detect Time	2~30mins	15mins
14	OWD Drop temp. select (within detect time)	2.3.4°C	2 °C
15	OWD Delay time select (Return to previous working status)	10~60min	30mins
17	Factory reset	0: No 1: Yes, and then press On/off button for 5s, wait until thermostat restarts	0
18	Software version		
19	Software version		
31	Battery voltage	Unit: 10mv	
32	PID P-band select	2 °C ~10°C	7°C
33	PID I-time select	30~90min	30min

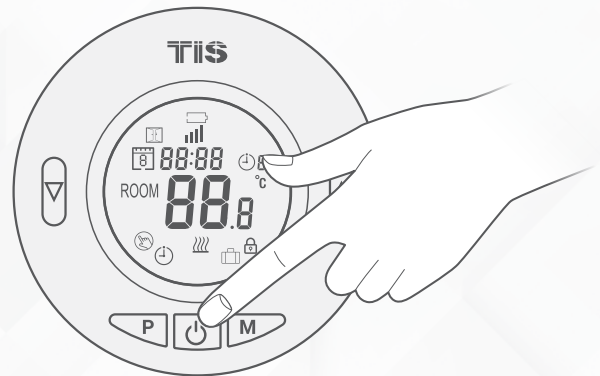
CONFIGURATION STEPS (Pairing TRV with Gateway)

You can pair up to 16 TIS TRVs to the TIS-TRV-16CNV Gateway. To do so, follow these instructions:

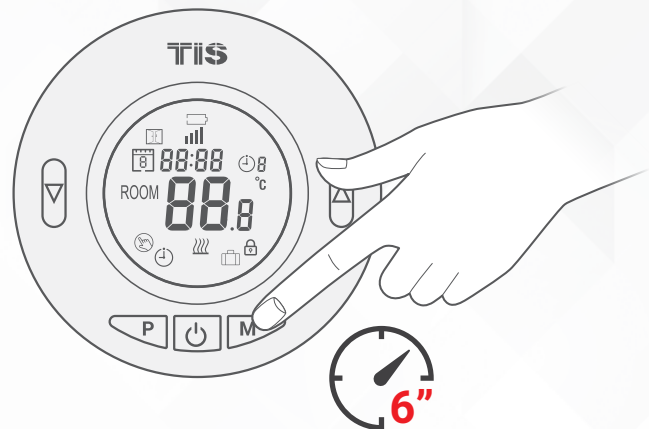
1 Press the Gateway's (TIS-TRV-16CNV) PRG button 3 times. The PRG green LED will turn steady ON.



2 Turn the TRV module OFF by pressing the power button.

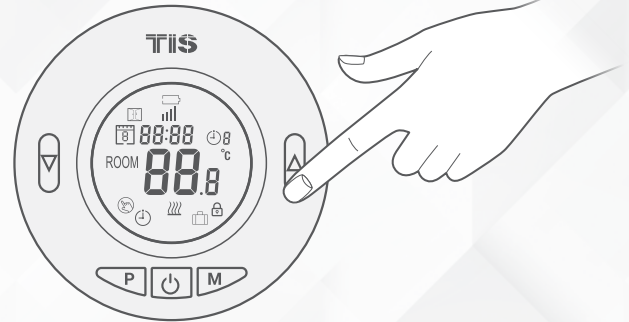


3 Long press the M button on the TRV for 6 seconds. The graph on the TRV's LCD will change.

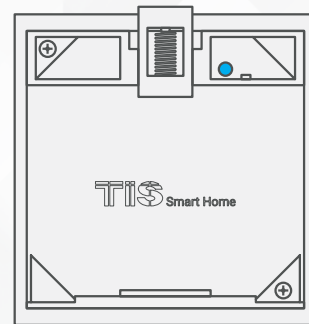


CONFIGURATION STEPS (Pairing TRV with Gateway)

4 » Press the UP button on the TRV.



5 » Wait for the Gateway's (TIS-TRV-16CNV) PRG LED to change to normal. The pairing is done.



» Do the same steps for other TRVs. You can pair a maximum of 16 TRVs.

» You can see each TRV number and edit its name in the Device Search software by double clicking on the TRV.

» You can also delete all info and remove TRV from network.

» From Luna or another TIS panel's Slave AC, you can add the Subnet Device ID and slave number for the TRV.

» From the TIS app, you can control the TRV by selecting Panel Control > AC and adding the address of the TRV Gateway and AC number as TRV numbers.



TROUBLESHOOTING



PRG button blinks purple color rapidly.

Reason: The plug address conflicts with another device in the TIS network. You need to press and hold the PRG button for 6 seconds so that the module can get a new address.



No display turned on in the TRV LCD

Reason: The battery is low. Replace it with a new one.



TRV cannot link to Gateway.

Reason 1: The Gateway is full. Use the Device Search software to format it or delete the programmed TRV.

Reason 2: TRV is too far from the Gateway.



“OP” signal displayed and heating not turning on.

Reason: Door opening detection is enabled, and there were sudden changes in temperature. Press any button to turn the heat on again.



The wall panels can't control the TRV.

Reason 1: The TIS-BUS connection is not linked to the TRV Gateway.

Reason 2: The programming address is wrong.