Controls offering for UniTrane™ fan coils

Unit-mounted and wall controls compatible with UniTrane™ models:

Harmony FxAS/FxAE
Ducted DFS/DFE
Ducted BFS
1-way cassette CFAS/CFAE
4-way cassette CWS/CWE
High wall WFS/WFE

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Introduction

The UniTrane™ portfolio offers a wide range of electronic thermostats mounted on the unit or for wall mounting, allowing control of the room temperature with different solutions according to every ambient condition.

The control range includes manual or automatic speed switch control, thermostatic control of the water valves or of the electric heater, manual, automatic or centralized summer/winter switch.

With the suitable speed switches, it is also possible to control up to 8 units with one thermostat.

Compatibility Overview

Table 1 – UniTrane™ unit/control compatibility chart

THERMOSTAT		COMPATIBILITY										
		Ductable			Fan coil		Cassette				High wall	
		DFS	DFE	BFS	FxAS	FxAE	CFAS	CFAE	CWS	CWE	WFS	WFE
	COM			X								
	M-2T	X			X		X		X		X	
	M-3V	X		X	X		X		X		X	
	T-ECM		X			X		X		X		X
	CB				X							
	CB-T				X							
	CB-C				X							
	CB-IAQ				X							
	CB-R-IAQ				X							
	CB-AU-IAQ				X							
	CB-T-ECM-IAQ					X						
	CB-AUT				X							
	CB-T-ECM					X						
	IR-MB	X	X		X	X	X	X	X	X	X	X
	T-TMO	X		X	X		X		X		X	
	T-REM	X		X	X		X		X		X	
	T-AUTO	X	X		X	X	X	X	X	X		

AC fan motor fancoils

Unit-mounted controls

To be used with:
Harmony FxAS

Table 2 – Unit-mounted control functions

	CB	CB-T	CB-C	CB-AUT	CB-IAQ	CB-R-IAQ
	9066300T	9066301T	9066302T	9066318T	9066305T	9066306T
ON-OFF switch	X	X	X	X	X	X
Electric heater/IAQ filter activation button					X	X
Manual 3 speed switch without thermostatic control	X			X		
Manual 3 speed switch		X	X	X		X
Automatic 3 speed progressive push button				X		
Electronic room thermostat for fan control (ON-OFF)		X	X	X		X
Electronic room thermostat for one water valve control (2 pipe system)		X	X	X		X
Electronic room thermostat for two water valve control (4 pipe system)		X	X	X		X
Simultaneous thermostatic control of the valve and fan				X		
Manual Summer/Winter switch		X		X		X
Summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe (for 2 pipe system)			X	X		X
Thermostatic control of the chilled water valve (ON-OFF) and the electric heater (BEL)		X	X	X		X
Automatic Summer/Winter switch and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature -1°C = Winter, +1°C = Summer, Neutral Zone 2°C (4 pipe installations with 2 valve)				X		
Thermostatic control of the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element (4 pipe system + electric heater)				X		X
Possibility to use a low temperature cut-out thermostat (optional)	X	X	X	X	X	X

Wall-mounted controls

To be used with:
Harmony FxAS
Ducted DFS
1-way cassette CFAS
4-way cassette CWS

Table 3 – Wall control functions

	WALL (1)					
	M-3V	**T-TMO**	**T-REM**	**T-AUTO**	**IR-MB**	**M-2T**
	9066642	**9066630T**	**9066631T**	**9066632T**	**9066331E**	**9060174**
ON-OFF switch	X	X	X	X	X	X
Electric heater/IAQ filter activation button			X	X	X	
Manual 3 speed switch without thermostatic control	X					
Manual 3 speed switch		X	X	X	X	X
Automatic 3 speed progressive push button						
Electronic room thermostat for fan control (ON-OFF)				X	X	
Electronic room thermostat for one water valve control (2 pipe system)		X	X	X	X	X
Electronic room thermostat for two water valve control (4 pipe system)		X	X	X	X	X
Simultaneous thermostatic control of the valve and fan		X	X	X	X	
Manual Summer/Winter switch		X	X	X	X	X
Summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe (for 2 pipe system)		X	X	X	X	X
Thermostatic control of the chilled water valve (ON-OFF) and the electric heater (BEL)			X	X	X	
Automatic Summer/Winter switch and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature -1°C = Winter, +1°C = Summer, Neutral Zone 2°C (4 pipe installations with 2 valve)		X	X	X	X	
Thermostatic control of the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element (4 pipe system + electric heater)				X	X	
Button lock controller					X	
Energy saving function			X	X		
Possibility to use a low temperature cut-out thermostat (optional)	X	X	X	X	X	X

(1) The wall controls are in compliance with the standard reference CEI EN 60730

EC fan motor fancoil

Unit-mounted controls and Wall-mounted controls

For fancoils with EC electronic fan motor and inverter board

To be used with:
Harmony FxAE
Ducted DFE
1-way cassette CFAE
4-way cassette CWE

Table 4 – Unit-mounted and Wall control functions

	UNIT-MOUNTED		WALL (1)		
	CB-T-ECM	**CB-T-ECM-IAQ**	**T-AUTO**	**IR-MB**	**T-ECM**
	9066320T	**9066308T**	**9066632T**	**9066331E**	**9066644**
ON-OFF switch	X	X	X	X	X
Electric heater/IAQ filter activation button		X	X	X	
Manual 3 speed switch	X	X	X	X	X
Automatic 3 speed progressive push button			X	X	
Automatic continuous speed control	X	X			X
Electronic room thermostat for fan control (ON-OFF)	X	X	X	X	X
Electronic room thermostat for one water valve control (2 pipe system)	X	X	X	X	X
Electronic room thermostat for two water valve control (4 pipe system)	X	X	X	X	X
Simultaneous thermostatic control of the valve and fan	X	X	X	X	X
Manual Summer/Winter switch	X	X	X	X	X
Summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe (for 2 pipe system)		X	X	X	
Thermostatic control of the chilled water valve (ON-OFF) and the electric heater (BEL)			X	X	
Automatic Summer/Winter switch and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature -1°C = Winter, +1°C = Summer, Neutral Zone 2°C (4 pipe installations with 2 valve)			X	X	
Thermostatic control of the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element (4 pipe system + electric heater)			X	X	
Button lock controller				X	
Energy saving function			X		
Possibility to use a low temperature cut-out thermostat (optional)	X	X	X	X	X

(1) The wall controls are in compliance with the standard reference CEI EN 60730

Detailed descriptions - Unit-mounted controls

For fan coils with AC fan motor:

CB (code 9066300T)

Compatible with FxAS

- Manual 3 speed switch, without thermostatic control.
- It allows to control the low temperature cut-out thermostat (TMM).

CB-T (code 9066301T)

Compatible with FxAS

- Manual 3 speed switch.
- Manual Summer/Winter switch.
- Electronic room thermostat for fan control (ON-OFF).
- Electronic room thermostat for valve control (ON-OFF) (the fan keeps working).
- It allows to control the low temperature cut-out thermostat (TMM).
- It allows to control the chilled water valve (ON-OFF) and the electric heater (BEL).
- Presence of a LED signal when the thermostat is on. Control power absorption: 1,5 VA

CB-C (code 9066302T)

Compatible with FxAS

- Manual 3 speed switch.
- Manual, automatic or centralized Summer/Winter switch.
- Electronic room thermostat for fan control (ON-OFF).
- Electronic room thermostat for valve control (ON-OFF) (the fan keeps working).
- It allows to control the low temperature cut-out thermostat (TME).
- It allows to control the chilled water valve (ON-OFF) and the electric heater (BEL).
- Presence of a LED signal when the thermostat is on. Control power absorption: 1,5 VA

CB-AUT (code 9066318T)

Compatible with FxAS

- Manual/automatic 3 speed switch.
- Manual, automatic or centralized Summer/Winter switch.
- Automatic speed switch: on Auto Mode there is the automatic speed selection in accordance to the difference between room temperature and setpoint. When the setpoint is reached the fan goes on OFF.
- Electronic room thermostat for valve control (ON-OFF) (the fan keeps working).
- Simultaneous thermostatic control of the valves and fan.
- It allows to control the low temperature cut-out thermostat (LTCO).
- It allows to control the chilled water valve (ON-OFF) and the electric heater (BEL).
- It allows to control the summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe (for 2-tube installations only).
- Presence of a LED signal when the thermostat is on.

N.B.: with 4 pipe installations and continuous chilled and hot water supply, it allows the automatic summer/winter change-over in accordance to the room temperature (-1°C = Winter, +1°C = Summer, Neutral Zone 2°C).

Control power absorption: 1,5 VA

For fan coils with AC fan motor and electric heater

CB-IAQ (code 9066305T)

Compatible with FxAS

- Manual 3 speed switch.
- IAQ filter activation button.
- Without thermostatic control.
- It allows to control the low temperature cut-out thermostat (TMM).

CB-R-IAQ (code 9066306T)

Compatible with FxAS

- Manual 3 speed switch.
- Manual, automatic or centralized Summer/Winter switch.
- Electric heater/IAQ filter activation button.
- Electronic room thermostat for fan control (ON-OFF).
- Electronic room thermostat for valve control (ON-OFF) (the fan keeps working).
- It allows to control the low temperature cut-out thermostat (TME).
- It allows to control the chilled water valve (ON-OFF) and the electric heater (BEL).
- Presence of a LED signal when the thermostat is on. Control power absorption: 1,5 VA

For fan coils with EC electronic fan motor and inverter board

CB-T-ECM (code 9066320T)

Compatible with FxAE

- Manual 3 speed switch or automatic continuous speed control.
- Manual Summer/Winter switch.
- Continuous speed control based on the difference between ambient temperature and Set temperature (speed switch in Auto position).
- Electronic room thermostat for fan and water valve control (ON-OFF).
- Simultaneous thermostatic control of the valves and fan.
- It allows to control the temperature cut-out (LTCO).
- Presence of a LED signal when the thermostat is on. Control power absorption: 1,5 VA

CB-T-ECM-IAQ (code 9066308T)

Compatible with FxAE

- Manual 3 speed switch or automatic continuous speed control.
- Manual, automatic or centralized Summer/Winter switch.
- Continuous speed control based on the difference between ambient temperature and Set temperature (speed switch in Auto position).
- Electric heater/IAQ filter activation button.
- Automatic speed switch: on Auto Mode there is the automatic speed selection in accordance to the difference between room temperature and setpoint. When the setpoint is reached the fan goes on OFF.
- Electronic room thermostat for fan control (ON-OFF).
- Electronic room thermostat for valve control (ON-OFF) (the fan keeps working).
- Simultaneous thermostatic control of the valves and fan.
- It allows to control the temperature cut-out (LTCO).
- Presence of a LED signal when the thermostat is on. Control power absorption: 1,5 VA

Detailed desciptions - Wall mounted controls

M-3V (code 9066642)

Compatiblewith:DFS,BFS,FxAS,CFAS,CWS,WFS

Dimensions: 75x75x30 mm

- Manual 3 speed switch.
- Without thermostatic control.

T-TMO (code 9066630T)

Compatiblewith:DFS,BFS,FxAS,CFAS,CWS,WFS

Dimensions: 135x86x31 mm

- ON-OFF switch.
- Manual 3 speed switch.
- Manual Summer/Winter switch.
- Electronic room thermostat for fan control (ON-OFF).
- Electronic room thermostat for valve control (ON-OFF) (the fan keeps working).
- It allows to control the low temperature cut-out thermostat (TMM).
- It allows to control the chilled water valve (ON-OFF) and the electric heater (BEL) only in case that hot water is not used in winter (otherwise please use T-REM control with on/off switch for the electric heater).
- Presence of a LED signal when the thermostat is on. Control power absorption: 0,25 VA

T-REM (code 9066631T)

Compatible with: DFS, BFS, FxAS, CFAS, CWS, WFS

Control power absorption: 1 VA

Dimensions: 135x86x31 mm

- ON-OFF switch.
- Manual 3 speed switch.
- Manual, automatic or centralized Summer/Winter switch.
- Electric heater/IAQ filter activation button.
- Electronic room thermostat for fan control (ON-OFF).
- Electronic room thermostat for valve control (ON-OFF).
- Simultaneous thermostatic control of the valves and fan.
- It allows to control the low temperature cut-out thermostat (LTCO).
- It allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element.
- Energy saving function.
- Presence of a LED signal when the thermostat is on.

Wall-mounted controls

T-AUTO (code 9066632T)

Compatible with: DFS/DFE, FxAS/FxAE, CFAS/CFAE, CWS/CWE

The control must always be connected with T-POWER-M power unit (fitted on the unit) or with T- POWER-A power unit (with separate packaging).

Dimensions: 135x86x24 mm

- ON-OFF push button.
- Manual or automatic 3 speed progressive push button.
- Manual, automatic or centralized Summer/Winter switch.
- Summer/Winter/Fan/Auto mode push button.
- Electric heater/IAQ filter activation button.
- Electronic room thermostat for fan and water valves control (ON-OFF).
- Simultaneous thermostatic control of the valves and fan.
- It allows to use the low temperature cut-out thermostat (LTCO) mounted on the T-POWER-A power unit.
- It allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element.
- Energy saving push button.
- Presence of a LED signal with the thermostat is on.

Note: with 4-pipe installations and continuous chilled and hot water supply, it allows the automatic summer/winter change-over in accordance to the room temperature (-1°C = Winter, +1°C = Summer, Neutral Zone 2°C).

Control power absorption: see the T-POWER-A power unit

IR-MB (code 9066331E)

Compatible with: DFS/DFE, FxAS/FxAE, CFAS/CFAE, CWS/CWE,WFS/WFE

The control must always be connected with UPM-AU power unit (fitted on the unit) or with T-POWER-A power unit (with separate packaging).

Wall control with display that allows controlling one or more units in Master/Slave mode. The control is equipped with internal sensor to detect the room temperature, which can be defined as a priority compared to the return air sensor on the fan coil.

The IR-MB control features the following functions:

Dimensions: 110x72x25 mm

- Switch the unit ON and OFF.
- Temperature set.
- Manual, automatic or centralized Summer/Winter switch.
- Set the fan speed (low, medium, high or auto fan).
- Set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature).
- Possibility of use of the low temperature cut-out thermostat (LTCO) mounted on the T-POWER-A power unit.
- It allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element.
- Time setting
- Weekly ON/OFF program.

Control power absorption: see the T-POWER-A power unit

M-2T (code 9060174)

Compatible with: DFS, FxAS, CFAS, CWS, WFS

Dimensions: 128x75x25 mm

For 2 pipe units only.

- ON-OFF switch.
- Manual 3 speed switch.
- Manual Summer/Winter switch.
- Thermostatic control on the fan.
- Thermostatic control on the valve and continuous fan operation.
- Simultaneous thermostatic control of the valve and fan. Control power absorption: 1,5 VA

T-ECM (code 9066644)

Compatible with: DFE, FxAE, CFAE, CWE, WFE

Dimensions: 132x87x23,6 mm

0-10V control with display designed to be mounted on the wall or to be installed on a 503 wall box.

- ON-OFF switch.
- Manual 3 speed switch or automatic continuous speed control.
- Manual Summer/Winter switch.
- Summer/Winter/Fan/Auto mode push button.
- Electronic room thermostat for fan control (ON-OFF).
- Electronic room thermostat for valve control (ON-OFF).
- Simultaneous thermostatic control of the valves and fan.
- It allows to control the low temperature cut-out thermostat (LTCO). Control power absorption: 1,2 VA

Power unit and speed switches

T-POWER-M (mounted) (code 9066641)
T-POWER-A (not mounted) (code 9066640)

Compatible with: DFS/DFE, FxAS/FxAE, CFAS/CFAE, CWS/CWE

For T-AUTO and IR-MB controls

Power unit to be installed on the fan coil (fan coil interface).

- It controls the fan and the valves of the fan coil.
- It is connected to the electric supply.
- It receives the information required from the control.
- Possibility to use the low temperature cut-out thermostat (optional) for the T1 function which allows the return air control.
- Possibility to use the low temperature cut-out thermostat (optional) for the T2 function which controls the summer/winter switch.
- Possibility to use the low temperature cut-out thermostat (optional) for the T3 function as low temperature cut-out thermostat.

Power unit absorption:
2,3 VA

REL-1D (code 9066311)

Compatible with DFS

For T-AUTO, T-REM and T-type controls

- Speed switch (Slave).
- It allows to control up to 8 units with only one centralized wall control (1 speed switch for each unit).

Power unit and speed switches

REL-1B (code 9079110)

Compatible with BFS

For T-TMO, T-REM and T-type controls

- Speed switch (Slave).
- It allows to control up to 8 units with only one centralized wall control (1 speed switch for each unit).

REL-3

(code 9025302 compatible with WFS)

(code 3021182T compatible with FxAS, CFAS, CWS)

For T-TMO, T-REM and T-type controls

- Speed switch (Slave).
- It allows to control up to 8 units with only one centralized wall control (1 speed switch for each unit).

TMM (code 9053048)

Compatible with DFS, BFS, FxAS, CFAS, CWS

For CB, CB-T, CB-IAQ and T-TMO controls

Low temperature cut-out thermostat

- To be installed in contact with the hot water circuit.
- For units working on heating only.
- It stops the fan when the water temperature is lower than 30°C and it starts the fan when is higher than 38°C.

LTCO (code 3021090)

Compatible with DFS/DFE, BFS, FxAS/FxAE, CFAS/ CFAE, CWS/CWE, WFS

For CB-AUT, T-REM controls and the T-POWER A/M power unit

Low temperature cut-out thermostat

- To be fitted between the coil fins.
- When connecting the control, the LTCO probe cable must be separated from the power supply wires.
- It stops the fan when the water temperature is lower than 28°C and it starts the fan when is higher than 33°C.

To use as:

- T1 function for the return air control.
- T2 function which controls the summer/winter switch.
- T3 function as low temperature cut-out thermostat.

Accessories

CH-15-25 (code 9053049)

Compatible with DFS/DFE, BFS, FxAS/FxAE, CFAS/ CFAE, CWS/CWE, WFS/WFE

Change-over

For CB-C, CB-R-IAQ, CB-AUT, and T-REM, MB BOARDS AND T-POWER-M/A controls

- Automatic summer/winter switch to be installed in contact with the water circuit.
- For 2 tube installations only (not to be used with 2 way valve).

T2 (code 9025310)

Compatible with DFS/DFE, BFS, FxAS/FxAE, CFAS/ CFAE, CWS/CWE, WFS/WFE

Power unit

For T-POWER-M/A POWER UNIT, T-REM AND MB BOARDS

To be placed on the water supply pipe upstream 3 way valves (not to be used with 2 way valve).

- The T2 sensor must be used as described below:

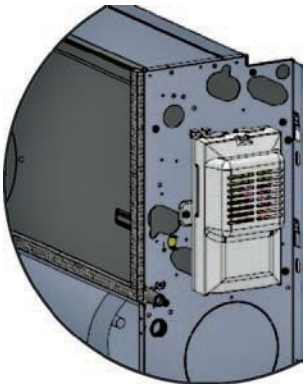
- Change-Over for the automatic switch of the operating mode.
  If water temperature is lower than 20°C, cooling mode is set; on the other hand, if water temperature exceeds 30°C, heating mode is set.
- It can be used on units with electric heater and hot water supply
  The T2 priority probe activates the electric heater or water valve, depending on the water temperature detected.
  If water temperature exceeds 34°C, the water valve ON-OFF control is activated; on the other hand, if water temperature is lower than 30°C, the electric heater is activated.

MB controls and units

Units can be supplied with a wide range of controls, which allows managing one single unit or several units by using the Modbus RTU - RS 485 communication protocol. Units can be managed according to the Master/Slave logic (up to 20 units) or by supervisory component.
The system consists in a MB board and a series of controls, such as the T-MB control, the RT03 infra-red remote control, the TODS multifunction control.

For AC fan motor
MB-M (mounted) (code 9066332)
MB-A (not mounted) (code 9066333)

For EC fan motor
MB-ECM-M (mounted) (code 9066334)
MB(ECM-A (not mounted) (code 9066335)



Compatible with DFS/DFE, FxAS/FxAE, CFAS/CFAE
To be mounted on the fan coil internal unit

MB board

The MB electronic board is set to carry out different functions and adjustment modes, in order to meet the installation requirements. These modes are selected by setting the configuration dip switches on the board.

- 2/4 pipe system.
- Fan ON/OFF thermostatic control.
- Valve ON/OFF thermostatic control and continuous ventilation.
- Valve and simultaneous ventilation ON/OFF thermostatic control.
- Fan operation control depending on the coil temperature (cut-out T3 probe fitted), which can be activated only in heating mode or heating and cooling mode.
- Automatic switch of the operating mode by means of T2 water probe (optional) applied on the 2 pipe system.
- Seasonal switch by means of remote contact.
- ON/OFF of the fan coil by means of the remote contact (window or clock contact).
- Electric heater control (the simultaneous control of the heater is not possible).

By activating the cut-out T3 probe function, the fan is stopped in winter when the coil temperature is lower than 32°C and started when the temperature reaches 36°C. In summer mode, the fan stops when the temperature inside the coil exceeds 22°C and starts when it drops below 18°C.

The following connections are located on the power board:

- Receiver for infra-red remote control.
- T-MB control.
- RS 485 serial connection to manage several fan coils in Master/Slave configuration or to create a supervisory network.

LTCO sensor included for T1 function (return air control).
LTCO sensor included for T3 function (low temperature cut-out thermostat).
LTCO sensor (option) for T2 function (summer/winter switch).

IR-MB (code 9066331E)
Compatible with DFS/DFE, BFS, FxAS/FxAE, CFAS/ CFAE, CWS/CWE, WFS/WFE

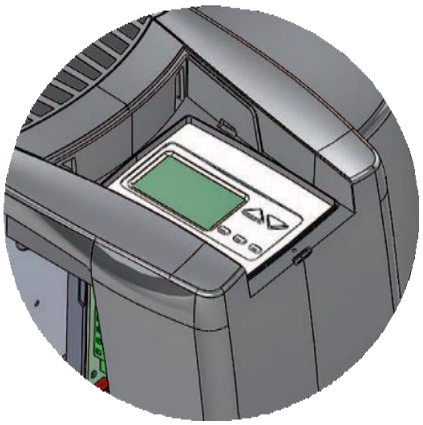
Dimensions: 110x72x25 mm

IR-MB wall control

Wall control with display that allows controlling one or more units in Master/Slave mode. The control is equipped with internal sensor to detect the room temperature, which can be defined as a priority compared to the return air sensor on the fan coil.

The T-MB control features the following functions:

- Switch the unit ON and OFF.
- Temperature set.
- Set the fan speed (low, medium, high or auto fan).
- Set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature).
- Time setting.
- Weekly ON/OFF program.
- Display and change of the fan coil operation parameters.



IR-MB version fitted on fan coils with casing only

Description	Identification	Code
Control fitted on the unit, for cabinet units with **left** connections *	**IR-MB-M**	**9066344**
Control fitted on the unit, supplied with separate packaging, for cabinet units with **left** connections *	**IR-MB-A**	**9066343**
Control fitted on the unit, for cabinet units with **right** connections *	**IR-MB-M-DX**	**9066346**
Control fitted on the unit, supplied with separate packaging, for cabinet units with **right** connections *	**IR-MB-A-DX**	**9066345**

* = to combine with MB board only

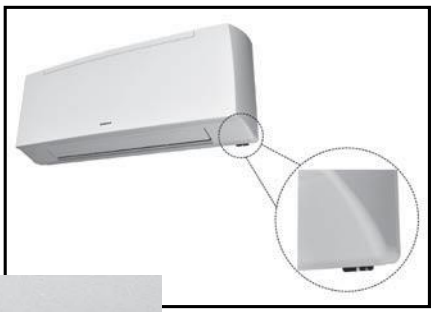
RT-03

Compatible with DFS/DFE, FxAS/FxAE, CFAS/ CFAE, WFS/WFE

Description	Identification	Code	Compatible with
RT03 infra-red remote control with receiver supplied with separate packaging*	**RT03-REC-A**	**9066337**	**DFS/DFE FxAS/FxAE CFAS/CFAE**
RT03 infra-red remote control supplied with separate packaging*	**RT03-A**	**3021203**	**DFS/DFE FxAS/FxAE CFAS/CFAE**
Receiver for RT03 infra-red remote control supplied with separate packaging*	**REC-A**	**9066338**	**DFS/DFE FxAS/FxAE CFAS/CFAE**
Receiver for RT03 infra-red remote control supplied with separate packaging	**RT03-REC-A**	**9025301**	**WFS/WFE**
Receiver for RT03 infra-red remote control supplied with separate packaging	**REC-A**	**9025300**	**WFS/WFE**

* = to combine with MB board only

Installation examples



RT03 infra-red remote control

The infra-red remote control allows setting by a remote position the fan coil operation parameters. The

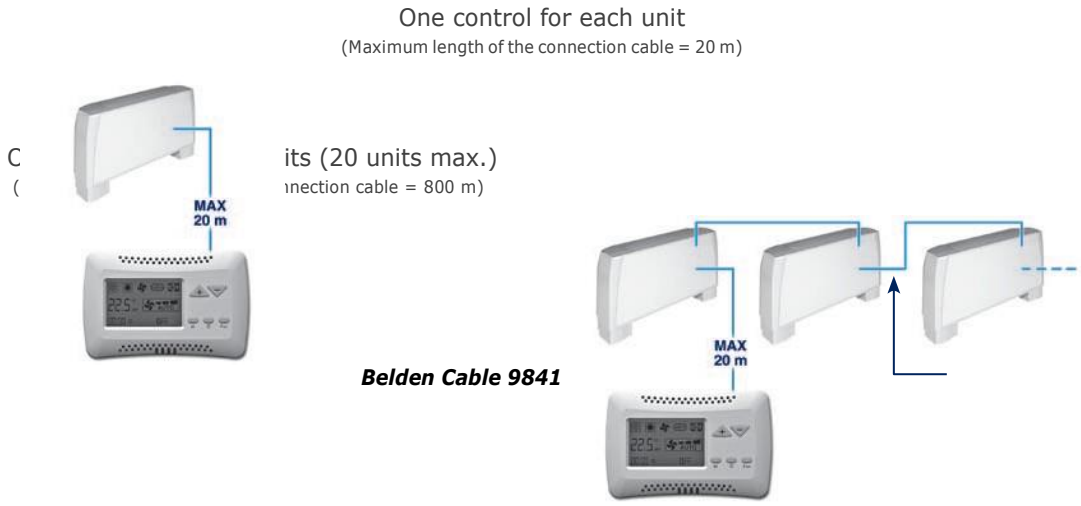
RT03 infra-red remote control features the following functions:

- Switch the appliance ON and OFF.
- Temperature set.
- Set the fan speed (low, medium, high or autofan).
- Set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature).
- Time setting.
- 24 hours ON/OFF program.
- Vertical air flow function (FLAP)

Compatible with DFS/DFE, FxAS/FxAE, CFAS/ CFAE, WFS/WFE

A group of units with MB electronic board can be connected via a serial link and can consequently be managed at the same time by just one IR-MB control or RT03 infra-red remote control. Using the special jumper present on the MB board, one unit must be configured as the master, and all the others as slaves. The remote control must be pointed at the receiver on the master unit. It is recommended to install and connect the receiver only on the master unit.

With IR-MB control

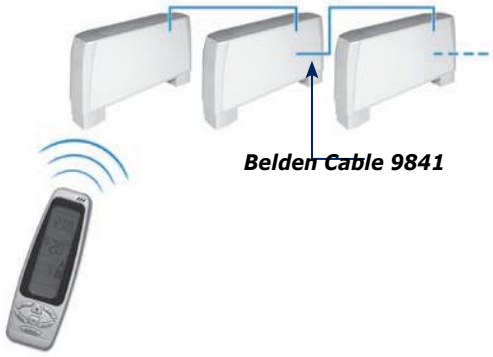


With RT03 infra-red remote control

One control for each unit

One control for more units (20 units max.)

(Maximum total length of the connection cable = 800 m)



T2 (code 9025310)

T2 accessory for units with MB electronic board

The T2 sensor can be combined with MB boards to be placed on the water supply pipe upstream 3 way valves (not to be used with 2 way valve).

The T2 sensor must be used as described below:

- Change-Over for 2-pipe system for the automatic switch of the operating mode. If water temperature is lower than 20°C, cooling mode is set; on the other hand, if water temperature exceeds 30°C, heating mode is set.
- It can be used on units with electric heater and hot water supply. The T2 priority probe activates the electric heater or water valve, depending on the water temperature detected. If water temperature exceeds 34°C, the water valve ON-OFF control is activated; on the other hand, if water temperature is lower than 30°C, the electric heater is activated.

TODS multifunction control (code 3021293T)

Compatible with DFS/DFE, BSE, FxAS/FxAE, CFAS/CFAE, CWS/CWE, WFS/WFE

TODS multifunction control panel

Another option available for the serial communication between the units is the possibility to connect up to 60 Cassette units in series and manage them with just one wall mounted TODS controller.
The wall mounted controller can be used to set the operating mode for each individual unit connected, display the operating conditions of each individual unit, and set the ON/OFF time sets for each day of the week (the program can be set for all the units and for a maximum of ten groups of units). If more than 60 units need to be connected, two or more TODS control panels must be used. Each unit must have a MB board.
The TODS control is used to manage a series of fan coils, up to a maximum of 60 units (the maximum length of the RS 485 connection cable must not exceed 800 m), from one single control point.

The TODS control communicates via a serial line with all the units connected, with the possibility of controlling them all together or individually. In fact, the unique address of each individual fan coil means that all the units can be called at the same time, or the individual unit called, to perform the following functions:

- display the current operating mode, the fan speed, the set point;
- display the room temperature measured on the individual unit;
- turn all the units ON and OFF at the same time or alternatively each unit individually;
- change the operating mode (fan only, heating, cooling, automatic changeover);
- change the set point;
- modify the values and operation parameters of the fan speed.

Each function can then be sent to all the units connected, or alternatively to each individual unit. Different set points or operating modes can be set for each individual unit.
The TODS panel can also be used for the time management of the units over the week. Four ON times and four OFF times can be set on the units for each day of the week. A different temperature set that will be considered as Operation set for all connected appliances, can be set for each event. If the temperature set is not entered for the individual event, it must be set during programming for each individual unit or for the entire network.

Units without receiver or with receiver can be connected within the network: the former can receive instructions only from the TODS wall mounted panel; while the latter can receive information from both the wall mounted panel (TODS) and infra-red remote control. Use the infra-red remote control to force ON mode of the individual unit, if ON/OFF daily time programming has been set. The unit will regain the settings from the TODS panel during execution of successive start-up program.

Notes:
- set the Dip Switches of each fan coil as illustrated in the remote control installation manual, based on the required solutions.
- only one SIOS board is allowed to be used per each TODS control panel.
- the RS 485 network's overall length must not exceed 700/800 meters.

Accessories for BMS systems

Router-BMS (code 3021340)

Compatible with: DFS/DFE, BFS, FxAS/FxAE, CFAS/CFAE, CWS/CWE, WFS/WFE

Router BMS

The Router-BMS (ModBus) is an electronic board to use with BMS systems not supplied by Trane:

- it allows to set-up a Master/Slave sub-network to check as an independent network.

The number of Router-BMS (ModBus) to use is:

- maximum 14 Router-BMS.
- maximum 15 fan coils per Router-BMS.

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