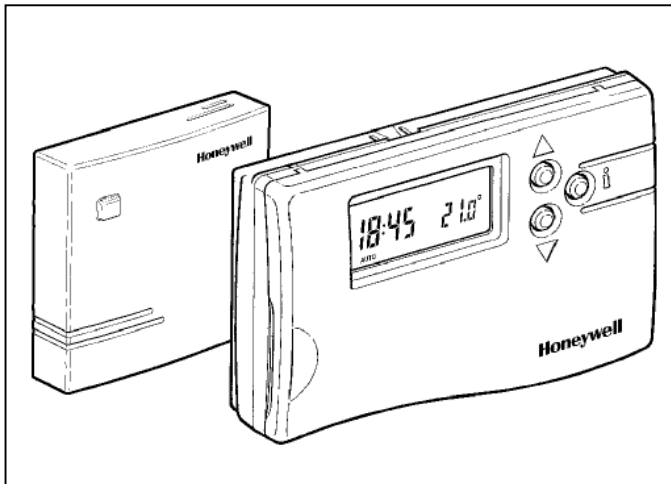


CM67RF WIREFREE CHRONOTHERM

PRODUCT SPECIFICATION SHEET



The *CM67RF* Chronotherm is designed to provide automatic time and temperature control of heating or cooling systems in villas and apartments. It can be used as part of a system in conjunction with gas and oil boilers, circulation pumps, variety of valves and actuators or electric heating systems (<10A).

The radio frequency controlled *CM67RF* system consists of a room unit T6667C and relay box R6660C (HC60). No wiring to the room unit is required. Installer needs to wire only the relay box to a controlled device (e.g. boiler) and mount the room unit in a suitable location where the RF communication is reliable.

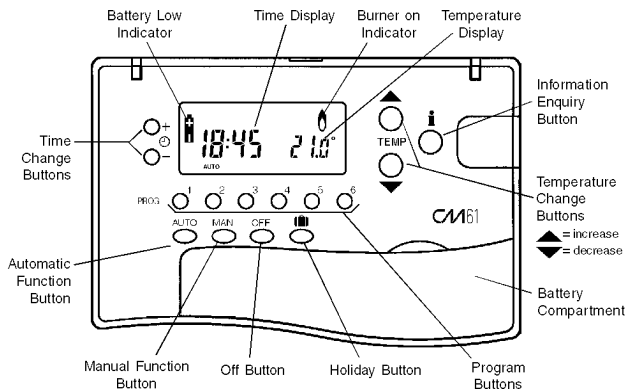
The *CM67RF* display, buttons and slider layout are identical to *CM67* 'wired' chronotherm. The unit is ideal for consumers who want reliable precise temperature control from a simple to program easy to use product.

FEATURES

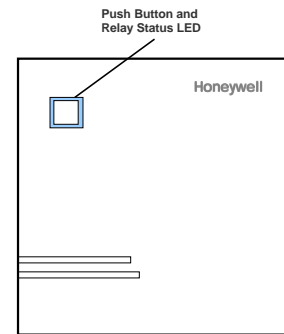
- Attractive slim styling makes it ideal for location in any home.
- Proven narrow band, multi-frequency synthesiser based technology for communication jamming avoidance
- As no wired connection needs to be provided between room unit and boiler, *CM67RF* can be installed without disrupting your room decor
- 7-day program
- 6 daily independent time and temperature level changes let you set 6 time and temperatures pairs to suit your life style.
- Temporary setpoint temperature change overrides the programmed temperature till the next switch point.
- ☕ Party button to temporarily maintain (or adjust) the current temperature for 1-23 hours.
- 🏠 Day Off button copies Sunday's program into tomorrow or today to allow a rest day program without having to re-program the *CM67*.
- 🏖️ Holiday button provides energy savings by reducing the temperature for 1 to 99 days when homeowner is on holiday, returning to normal operation (AUTO or MANUAL) on the day of return.
- EEPROM memory holds the user program permanently even when batteries are removed.
- 24...230V 10A resistive, 3A inductive SPDT relay provides compatibility with most domestic central heating systems without stocking many different models.
- The wall-mounted holster allows removal of the *CM67RF* from the wall for armchair programming.
- The HC60 may be surface or wallbox mounted.
- Frost protection is ensured when the slider is in the OFF position. Frost protection setpoint may be adjusted by installer (minimum setting 5°C).
- Installer Set-Up Mode allows extra functions to be set at the discretion of the installer to match the application :
 - Optimisation
 - Pump Exercise
 - Upper / Lower Setpoint Limit Adjust
 - Temperature offset
 - Minimum ON time
 - Cycle rate
 - Heat / Cool Operation
 - Proportional Band Width
 - Fail-safe mode for communication loss
- Every room unit can be bound with several relay boxes (e.g. to control several electric heating panels)
- *CM67RF* can be used with Automatic Time Setting module (Q6667B1007)

CM67RF CONTROLS/DISPLAY LAYOUT

Room Unit T6667C



Relay Box R6660C



SPECIFICATIONS

T6667C Room unit

Batteries	: 2 x 1.5 V IEC LR6 (AA) Alkaline cells
Battery life	: 2 years typical (Duracell MN1500)
Battery replacement	: Program retained in EEPROM
RF operation band	: ISM (433.05-434.79 MHz)/Transmitter band
RF communication technology	: Narrow band, multi-frequency synthesiser based for jamming avoidance
RF communication range	: 30 m in a residential building environment
Time display	: 24 hour or 12 hour AM/PM format
Time keeping accuracy	: Typically better than 10 minutes per year
Program	: 7-day with 6 daily time and temperature level changes
Time setting resolution	: Time of day - 1 minute - 10 minute steps
Sensing element	: 100K (@ 25 °C) NTC thermistor
Temperature control accuracy	: ±0.5 K (nominal) @ 20°C, 50% load 3K Δ/hour

Temperature setting range	: Program : 5 to 30°C in 0.5 °C steps Frost : 5 °C or equal to lower limit (5 °C to 16 °C). Frost protection does not work in cooling mode
Room Temperature display range	: From 0 °C to 40 °C (Display resolution 0.5°C)
Control form	: Proportional + Integral (PI)
Minimum ON time	: 10% of cycle time (min one minute), adjustable to 2 to 5 min (see installer set up)
Cycle rate	: 3, 6 (default), 9, 12. Selectable through the installer set up mode.
Environmental	: Operating temperature range 0 to 40°C Shipping and storage temperature range -20 to 55°C Humidity range 0 to 90% rh, non-condensing
Approvals	: Designed to meet European EN approvals EN60730-1(1995), EN55014-1 (1997), EN55014-2 (1996) : Radio type Approval to EN300 220

R6660C Relay box

Power supply	: 230V AC +10% - 15%, 50Hz
Switch type	: SPDT potential free
Electrical rating	: 24-230 V AC, 10 A resistive, 3 A inductive 0.6 p.f.
Electrical life	: 300 000 operations at specified load
RF operation band	: ISM (433.05-434.79 MHz)/Receiver band
RF binding method	: TEACH-IN procedure initiated during system installation, room unit ID data stored in EEPROM
Wire access	: from the rear (wall box mounting) : side wiring using wiring frame Unit available for fixed wiring only!

Wiring	: Cable terminals for mains and relay wiring for max 2.5 mm ² wire
Fail-safe mode	: Off or cycling depending on the CM67RF system set-up
Environmental	: Operating temperature range 0 to 50°C Shipping and storage temperature range -20 to 55°C Humidity range 0 to 90% rh, non-condensing IP30
Approvals	: Designed to meet European EN approvals EN60730-1(1995), EN55014-1 (1997), EN55014-2 (1996)

INSTALLER SET-UP

This feature allows you to adjust CM67RF system to match the specific requirements of the application. Installer Set-up allows to:

- Set-up specific applications parameters
- Enable special features
- Establish support for ATS module

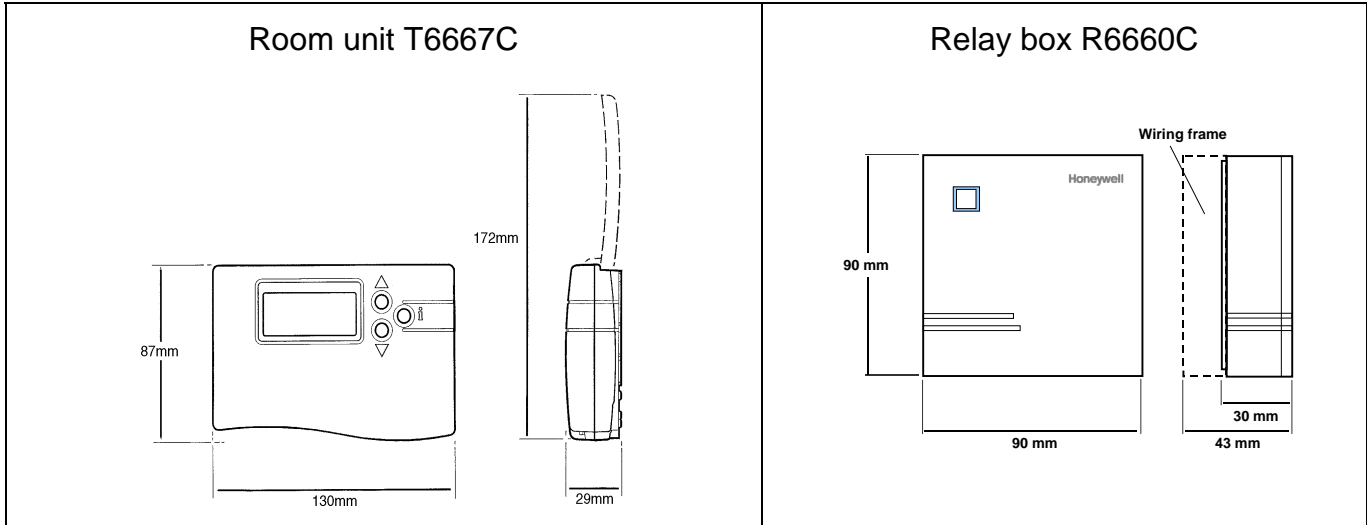
Specific Applications		Setting		Description
		Cycle/ Hour	Minimum ON time (in minutes)	
Heating	Gas Boilers (<30kW)	6	1	Number of cycles per hour and minimum ON time are the key parameters which allow the adjustment of the control algorithm to meet specific application requirements. Cycles/Hour – Parameter n.9; settings range: 3, 6* , 9,12 cph Minimum ON time – Parameter n.2, setting range: 1* ,2,3,4,5 min
	Oil Boiler	3	4	
	Thermal Actuator	12	1	
	Zone valve	6	1	
	Electric heating	12	1	
Air conditioning	Heat Pump/ Air conditioner	3	4	CM67RF is designed to perform heating or cooling operation. To switch from heating to cooling set parameter n.6 in the installer set-up mode to 0. If you switch between heating and cooling the user program will revert to factory set program for heating or cooling Heat/Cool change over – Parameter n.6, settings range: 1* – heating,, 0 -cooling
	Fan coil	6	1	

Special Features	Description	Setting
Adaptive Intelligent Recovery TM	The CM67RF will adjust the start time at upward setpoint changes so the desired temperature is reached at the programmed time e.g 7:00 temperature 21°C.The chronotherm will monitor the start-up period and use this information to modify the start time calculation for the next upward setpoint change. The system will restrict the start time to a max of 3 hours before the programmed comfort time AIR does not function in cooling mode.	0* – disabled 1 – enabled
AM-PM/ 24hr Display	Change display format (default 24hr)	0* – 24 hr display 1 – AM/PM display
Pump exercise	When enabled the Pump Exercise will switch the relay on for 1 minute at 12:00 a.m. if the relay has not been switched on since 12:00 the previous day.	0* - disabled 1 – enabled
Upper Temperature Limit	The normal upper temperature limit of 30 °C can be reduced to 21 °C to save energy. Useful for small commercial premises.	21-30°C Factory setting 30°C*
Lower Temperature Limit	The normal lower temperature limit of 5 °C can be increased up to 16 °C to protect the inhabitants from cold. Useful for nursing homes.	5-16°C Factory setting 5°C*
Temperature Offset	If the Chronotherm is located in a hot/cold location and cannot be moved then the measured/ displayed temperature can be adjusted by +/- 3 °C.	-3 - +3°C Factory setting 0°C*
Proportional Band Width (PB)	The PB can be adjusted up to 3 °C (default is 1.5 °C) to provide better temperature control (less overshoot). Useful for: a. Well insulated homes with over-sized heating systems b. Air systems with fast response	1.5-3.0 K (adjustment step 0.1 K) Factory setting 1.5 K*
Fail-safe mode	The CM67RF allows you to set the fail-safe mode of operation of the heating system when radio communication is lost. By default HC60 output relay will be switched OFF in case of communication loss. Alternatively you may choose to cycle the boiler at 2 min ON and 8min OFF. Useful when the building is not occupied for long periods of time and there is a high risk of frost damage.	0* – relay OFF 1 – relay cycles

Accessory	Description	Setting
Automatic Time Setting (ATS) Module	The ATS module picks up a time signal daily from a European transmitter, so you never need to set or adjust the time.	0 – no accessory 1 – ATS module

*Factory settings indicated with **bold** font.

DIMENSIONS

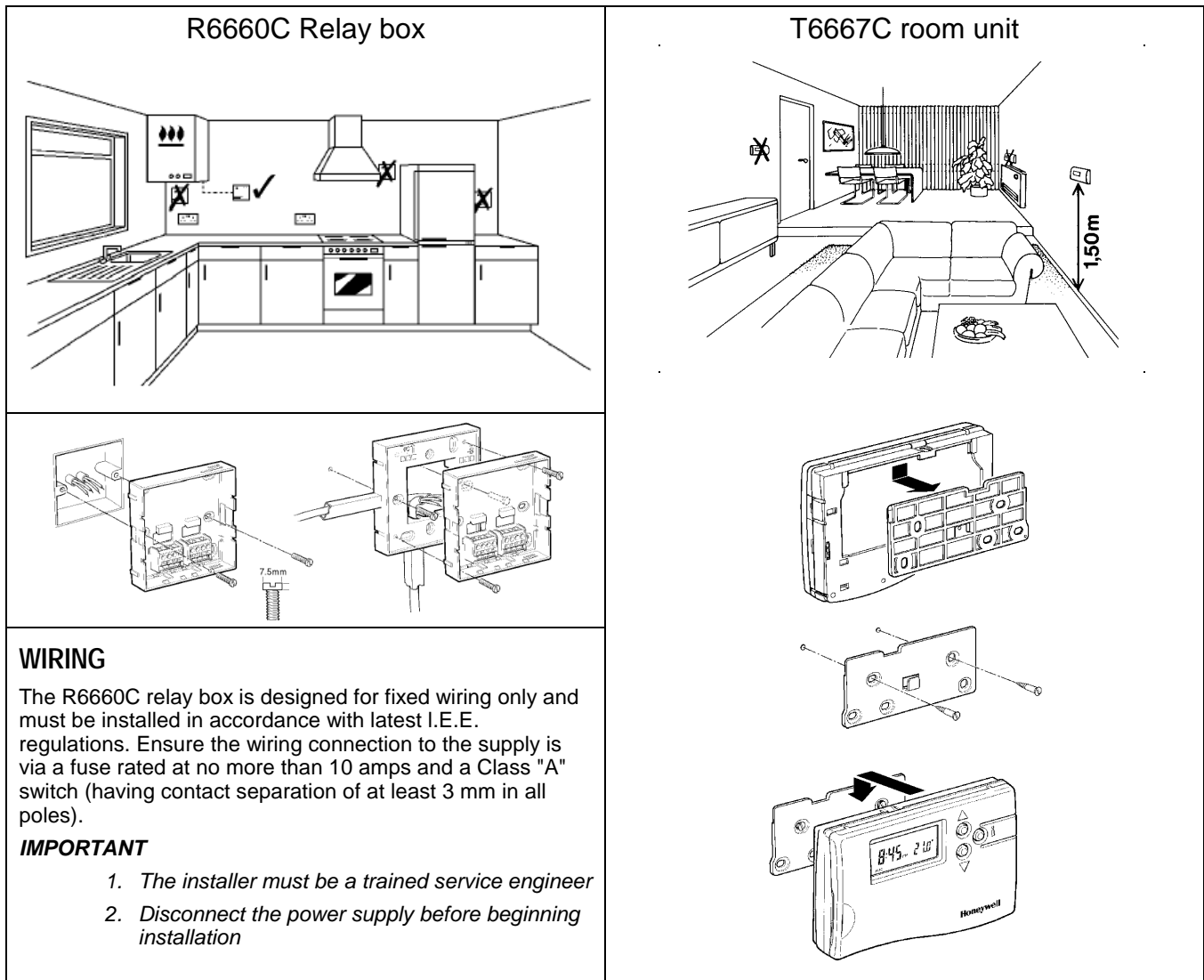


INSTALLATION

The CM67RF is a radio frequency device and for the best performance should be installed in an open space. Leave at least 30cm distance from any metal objects including wall boxes and at least 1 metre from any other electrical equipment e.g. radio, TV, PC etc.

Do not mount on metal wall boxes.

It is recommended that the R6660C relay box is installed before commencing with the room unit installation (refer to appropriate Installation Guide).



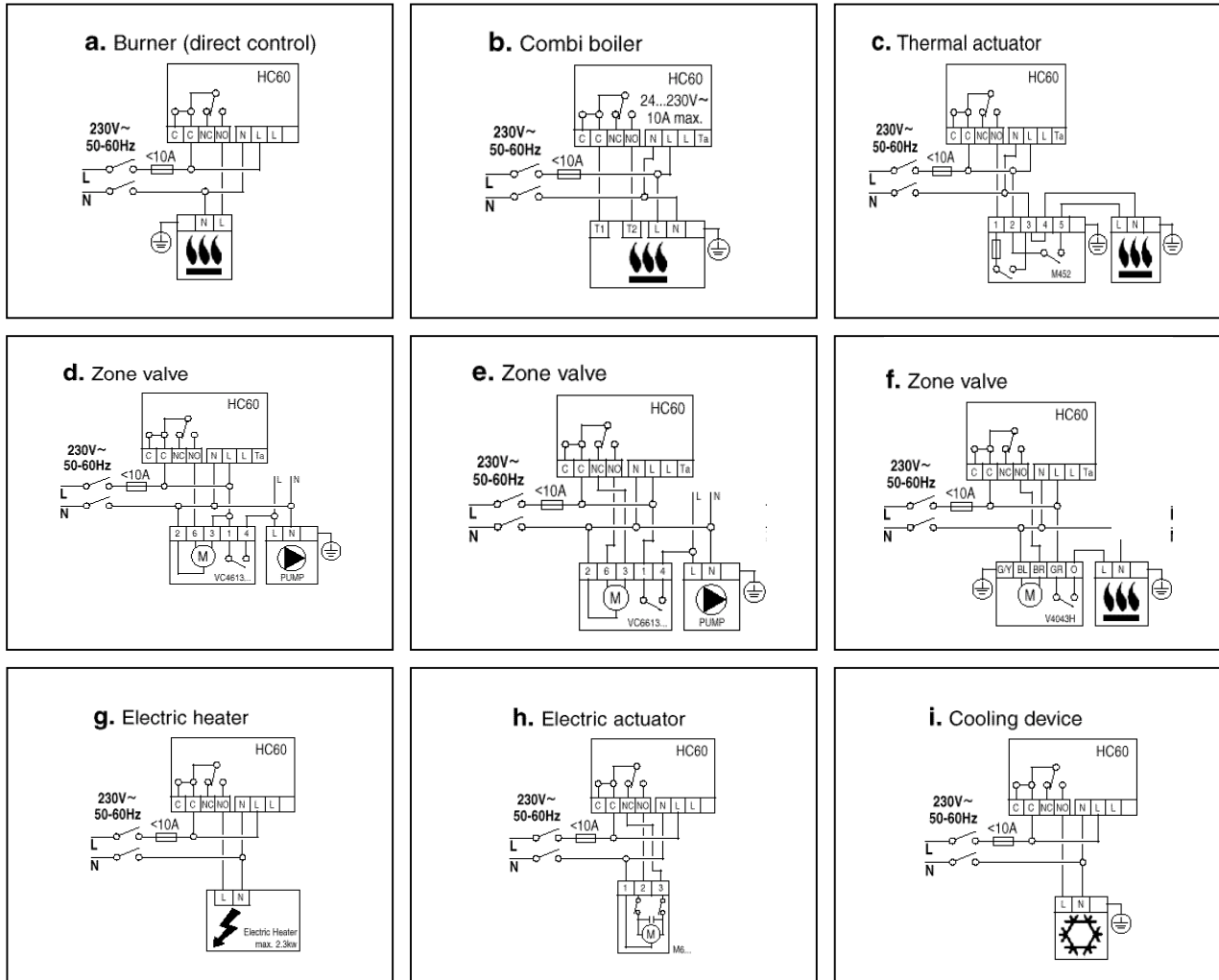
WIRING

The R6660C relay box is designed for fixed wiring only and must be installed in accordance with latest I.E.E. regulations. Ensure the wiring connection to the supply is via a fuse rated at no more than 10 amps and a Class "A" switch (having contact separation of at least 3 mm in all poles).

IMPORTANT

1. The installer must be a trained service engineer
2. Disconnect the power supply before beginning installation

WIRING



ORDERING SPECIFICATION

Description	Model	Logo	Literature	Spec Sheet
Radio Frequency Chronotherm (7 day) System Pack	Y6667C1005	Honeywell	English	ENOR8507
RF Chronotherm room unit (7 day)	T6667C1000	Honeywell	English	ENOR8507
RF Chronotherm relay box (HC60)	R6660C1001	Honeywell	English	ENOR8507
Automatic Time Setting Module Europe	Q6667B1007	-	Multi-Language	ENOR8501

Honeywell

Honeywell Control Systems Limited
 Newhouse Industrial Estate
 Motherwell ML1 5SB
 United Kingdom

<http://europe.hbc.honeywell.com>