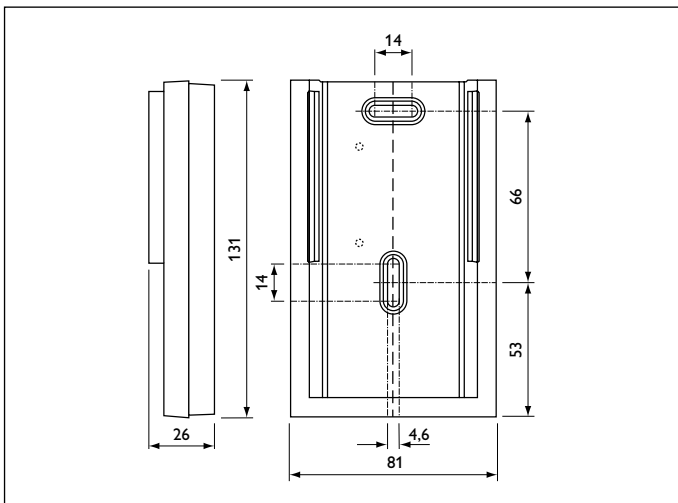
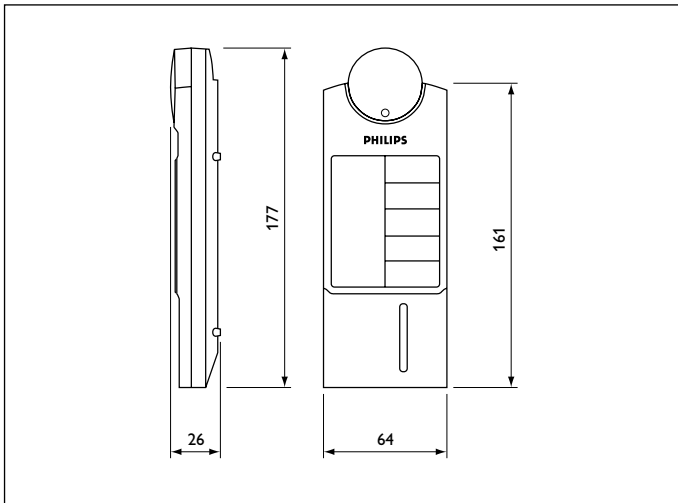
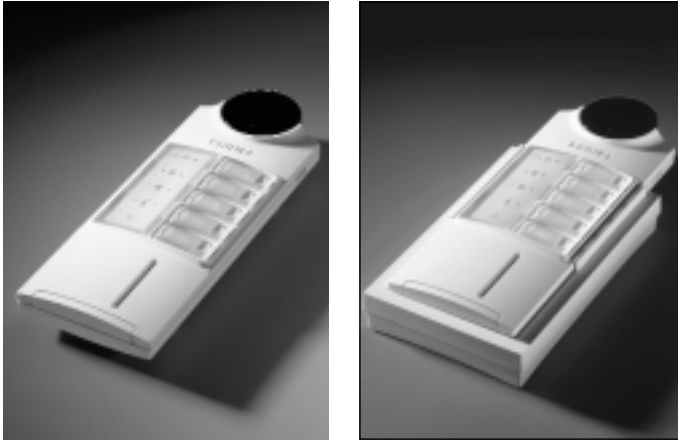


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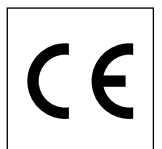
Dimensions

Product details

- The IRT8040 is a hand-held transmitter complete with wall holder, suitable for the infrared remote control of Helio or Trios lighting control systems combined with HVAC (heating ventilation and air-conditioning) and window blinds.
- Five large double sided keys at the top are used for the main control functions. Less frequently used functions are located under a hinged cover at the bottom of the unit.
- The transmitter has an integrated "teach mode" so it can be used as a programming tool for group and channel addresses and operational modes of TRIOS controllers.
- The group address of the transmitter (itself) can be selected with DIP switches (behind the text plate under the hinged cover)
- A red LED on the front of the unit indicates the transmission of infrared signals and gives a warning when the unit is in "teach mode".
- Battery lifetime (with Philips Power Life batteries – 1050 mAh) is at least 4 years, when used 50 times per day as an average.
- The unit is delivered complete with wall holder, batteries and installation instructions.

Applications

- The IRT8040 can be used with TRIOS and HELIO in combination with building management systems. In these applications it replaces the IRT8070.
- Programming functions for Trios are incorporated as well, omitting the need for separate programming tools such as the IRT1090.
- Although designed for handheld or tabletop operation, the unit will frequently be used from a fixed position, i.e. in the wall holder. The Infrared radiation pattern has been optimised for this application.



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Functionality

The IRT8040 can be used to switch and/or regulate 2 individual lighting control circuits, and to program and select 3 lighting presets (scenes). Additional keys are provided to control the setpoint of HVAC installations and window blinds. A combined "all off" and "absent" command allows project specific interpretation.

For incidental changes of Trios system parameters, the transmitter can be switched temporarily into a "teach mode". The IRT8040 can then be used as TRIOS programming tool, thus offering the same (programming) functionality as the TRIOS programming tool IRT1090 and as included in the remote control transmitter IRT8050.

The following remote control functions are available:

Control lights: switch and dim 2 individual control circuits
call 3 presets
switch off all lights
program presets
recall installer presets

Control BMS: control HVAC (switch to "comfort" mode and adjust setpoint)
control blinds (up / down and tilting)

Generic commands: absent
switch to "teach mode" (for temporary use as programming tool)

With the transmitter in "teach mode" the following functions can be executed:

set infrared group address
set infrared channel address
set controller mode
recall factory presets
copy user presets to installer presets
revert to normal operation

For an overview of the key allocation refer to figure 1: key functions of the IRT8040

For an overview of the key allocation in "teach mode" refer to figure 2: key functions of the IRT8040 in "teach mode".

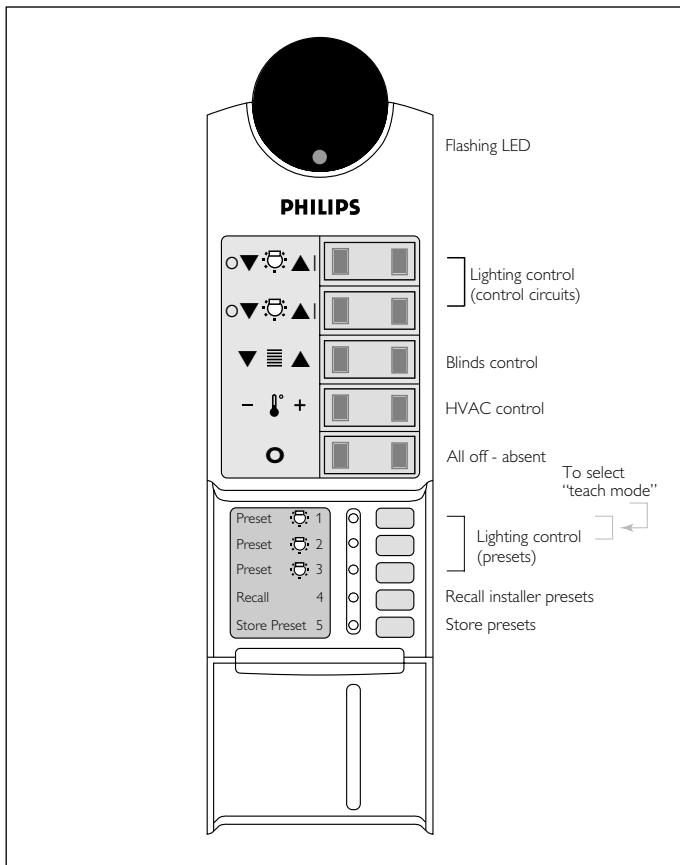


Figure 1: Key functions of the IRT8040

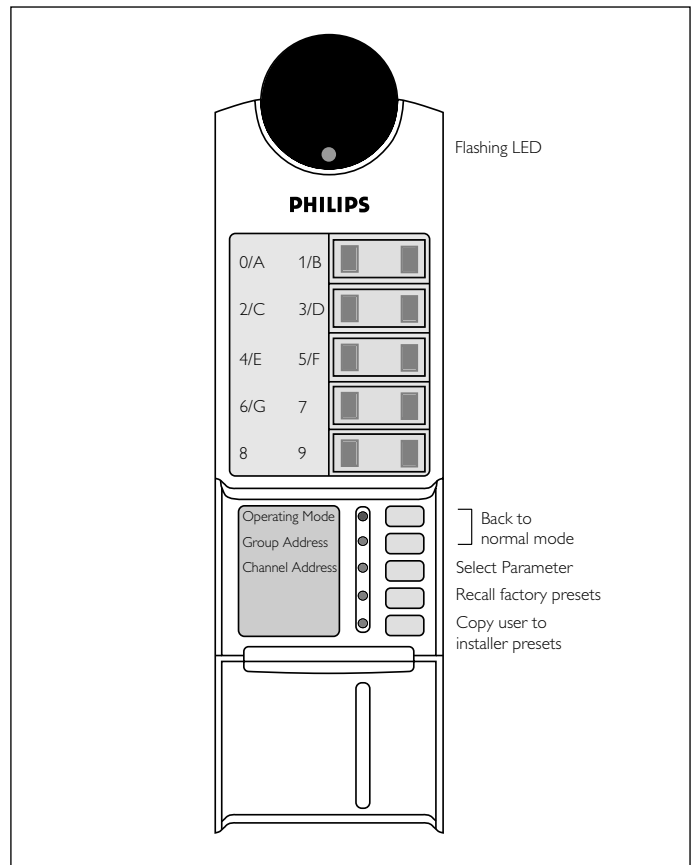


Figure 2: Key functions of the IRT8040 in "teach mode" (Trios Programming Tool)

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Operating instructions

General information

The most common functions can be operated with the large upper keys and the less frequently used functions with the keys under the hinged cover.

The programming functions in "teach mode" require a "two-step" operation: First the required channel or parameter must be selected, then the required operation can be executed or the selected value entered.

The following paragraphs give a short description of the various control functions. Obviously these descriptions are only relevant provided that this function is supported by the corresponding control system. For details on specific functions please refer to the documentation on the relevant control system.

Controlling individual lighting control circuits in Helio and Trios

Individual lighting control circuits can be switched on or off and dimmed up or down using the "▲ I" and "▼ O" keys. A short key press will switch the circuit on or off. When the key is pressed longer the controller will start dimming up or down. Lights can also be switched off with the "O" key.

Selecting presets (light scenes)

One of 3 presets can be selected directly using one of the three small keys under the hinged cover. Lights can be switched off with the "O" key.

Programming presets

A preferred setting of the light levels can be stored in the memory of the controller. The procedure is as follows:

1. adjust individual control circuits with the "▲ I" and "O ▼" keys
2. press the "store" key
3. then press the selected preset key

Recall installer presets (Trios only)

At any time the user can revert to the pre-programmed presets as set by the installer, by pressing the "Recall" key.

Controlling HVAC

When a HVAC key is pressed for a short time, an LED bar will show the last selected setpoint and the transmitter will send the codes to activate this setpoint in the HVAC system. When the "+" or "-" key is pressed longer than 1/2 sec., the setpoint will be changed into a higher or lower position and, after key release, the codes to change the setting of the HVAC system are transmitted. When the HVAC system was in "stand-by mode" it will switch to "comfort mode". The mid position of the range is automatically selected as initial setpoint. The HVAC system can be brought back into the "stand-by mode" by pressing the "O" key (absent + all off).

Controlling blinds

The control of sunblind depends on the type of blinds and control system. In advanced systems the blinds can be raised and lowered and tilted forwards and backwards. In a common method of implementation a short press on the "▲" or "▼" key will tilt the blinds forwards or backwards (if applicable) over a certain angle. The blinds will be raised or lowered completely after a longer press. A short or long press on any key will stop the blinds.

Generic commands

The "O" key includes both the "all off" and the "absent" command. The "absent" command can be interpreted by the building management system as appropriate. A vertical "LED sweep" indicates that the "absent" command has been sent.

Programming Operational Mode, Group Address and Channel Address (Trios only).

For programming the group or channel addresses or the operational mode of a controller, the transmitter must be set in the "teach mode". This is done by pressing the "Preset 1" and "Preset 2" keys (under the cover) simultaneously until (after about 3 seconds) a flashing LED (2 flashes per second) indicates the "teach mode". The functions of the keys in "teach mode" are shown in figure 2.

First the parameter to be programmed (group, channel or mode) must be selected, and then the required value can be entered.

Parameter selection is achieved with the "Select" key. An LED indicates the selected parameter. When the "Select" key is pressed momentarily (less than 1/2 sec.) the led shows the (last) selected parameter. When the key is pressed continuously or repeatedly, the next parameters are selected. This action can be continued or repeated until the required parameter has been selected. If no further keys are pressed the LED's stay "on", 5 seconds after the last key release.

The required value is programmed by pressing the appropriate upper key (0-9 / A-G). The transmitter sends the codes that set the appropriate address or mode to the controller.

During the transmission of the programming instructions, the infrared indicator LED will flash rapidly. When finished it will return to slow flashing. Also the function indicator LED will flash, thus showing the actual function. After programming is completed, the transmitter can be reset to normal operation by pressing the "Preset 1" and "Preset 2" keys again until the LED's will switch off.

The transmitter will revert to normal operation automatically 1 minute after the last key press.

Notes:

1. When transmitting in "teach mode", the infrared radiation pattern of the IRT8040 is reduced to a narrow beam, in order to achieve selective programming of luminaires or controllers. Therefore the transmitter must be pointed at the receiver and the distance from transmitter to receiver must be less than 3 meters. (See figure 3)
2. All commands of the Trios programming tool are transmitted in the "general" group, in order to assure proper reaction regardless of the group address of Trios.

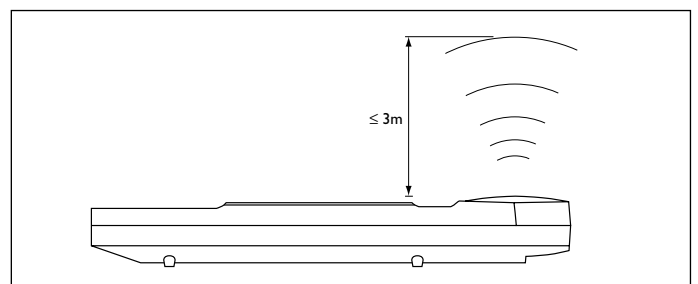


Figure 3: Radiation pattern in "teach mode"

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Related equipment

Lighting Management Systems

Helio	Room controllers:	LRC5040	LRC5042	LRC5048
	Multisensor	LRI5133		

Stand-alone controls

Trios installer	Room controllers:	LRC1010	LRC1015	
		LRC1020	LRC1025	
		LRC1030	LRC1035	LRC1620

Trios infrasense Luminaire controller LLC1120

Trios multisense Luminaire controller LLC1130

Multisensor LRI 1110

General Purpose Components

IR receivers IRR1224 IRR8124 IRR8125

Multisensor LRI8133 LRI8134

Technical data

Number of keys : 15
 LED indicators : 1 Red LED for indication of IR transmission and "teach mode"
 7 Red LED's for indication of the HVAC setpoint
 5 of those are also used for indication of the selected channel or parameter

Number of IR-LED's : 5
 Carrier frequency : 36 kHz. (RC5 standard)
 Supply voltage : 6.0 V nominal
 Number of batteries : 4 each 1.5 V nominal
 Battery type : LR03, AAA, alkaline, capacity at least 1000 mAh

Battery life : over 4 years (calculated with Philips Powerlife batteries -1050mAh- and 50 commands per day)

Environmental conditions

- Operating
 Temperature : 5...50°C
 Relative humidity : 20...85 %
 Condensation not allowed
 The IRT8040 should not be exposed to direct sunlight or to high temperatures and should not be used in damp rooms such as bathrooms

- Storage conditions

Temperature : -25...85°C
 Relative humidity : 5...95 %

Dimensions

: transmitter: 177x 64 x 26 mm
 (max. height x width x depth)
 Wall holder: 131 x 81-x 26 mm

Weight :

0.119 Kg (without batteries)
 0.164 Kg (with batteries)
 0.212 Kg (with batteries and wall holder)

Housing transmitter

- Material : ABS
 - Colour : White (Bayer 0177 - close to RAL 9010)
 - Mounting : in wall holder (loose or fixed)
 - Fixation in wall holder : two Parker screws in battery compartment. (see figure 5b)

Housing wall holder

- Material : ABS
 - Colour : White (Bayer 0177 - close to RAL 9010)
 - Mounting : with screws or double-sided tape (see figure 5a)

EMC

- Immunity : in accordance with EN 50082-1
 - Radiated interference : in accordance with EN 50081-1

Reliability

- Call rate : 0.2 - 0.5% per year (estimated)
 - Lifetime : 10 years (estimated)

Installation

Positioning

The transmitter IRT8040 is suitable for wall mounted operation, handheld operation and for tabletop operation. For details see figure 4: positioning.

Mounting

The transmitter can be placed in a wall holder. If necessary the transmitter can be locked in the wall holder. For details see figure 5a and 5b: mounting the transmitter.

Battery handling

The transmitter is powered by 4 batteries, type LR03 or AAA. Batteries must be replaced simultaneously. Always use a set of 4 batteries from the same brand with the same production date. Please make sure that batteries are inserted with the correct polarity. Inverted batteries may cause damage to the transmitter! For details see installation instructions.

Disposal of batteries must be in accordance to local regulations.

Note: it is recommended not to use rechargeable nickel cadmium batteries, in view of their limited performance.

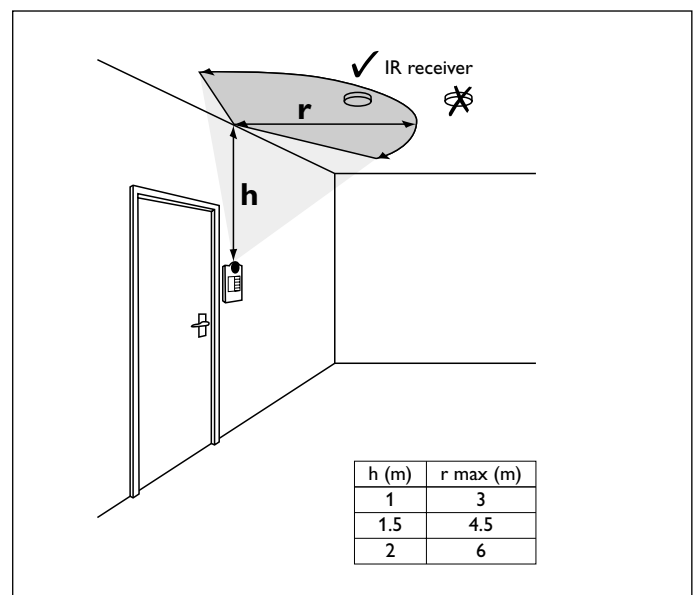


Figure 4: positioning

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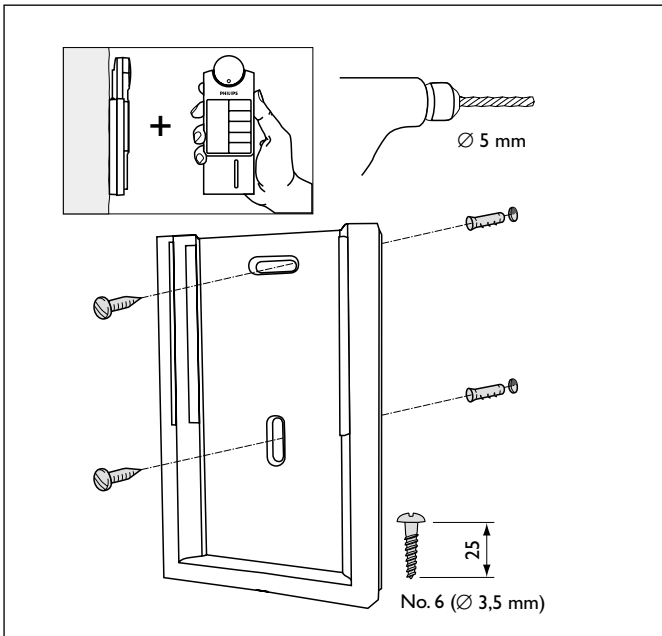


Figure 5a: mounting the wall holder

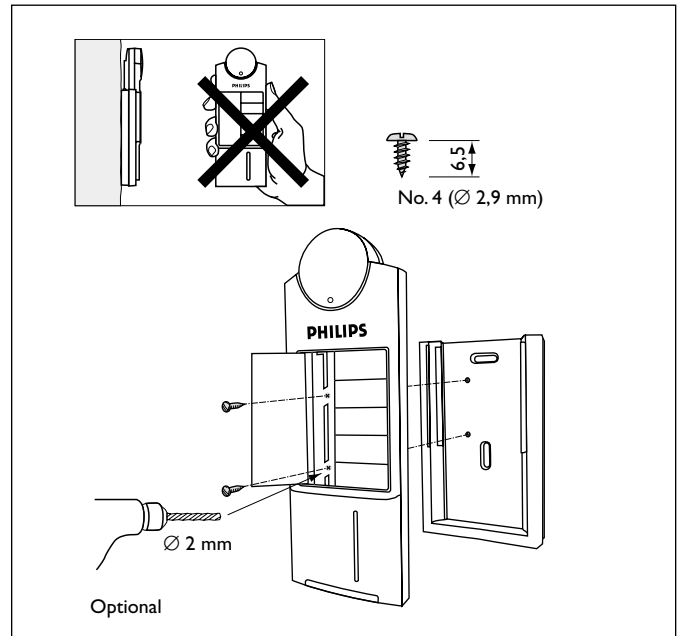


Figure 5b: locking the transmitter in the wall holder

Setting of group address

The infrared group address of the transmitter (itself) can be set by DIP switches located behind the text plate under the hinged cover. The DIP must be operated carefully using a pencil, a paperclip or other pointed device. For the exact settings see figure 6: DIP switch settings, and refer to installation instructions.

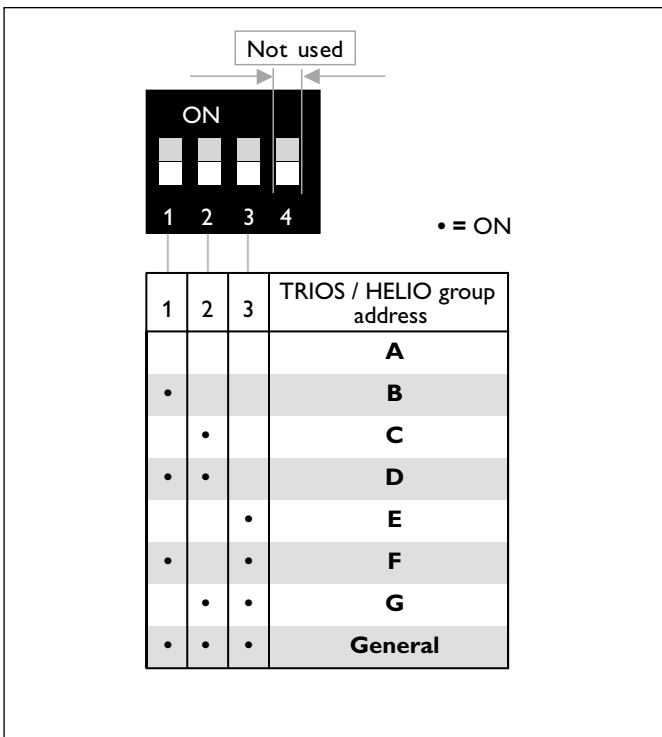


Figure 6: setting of infrared group address

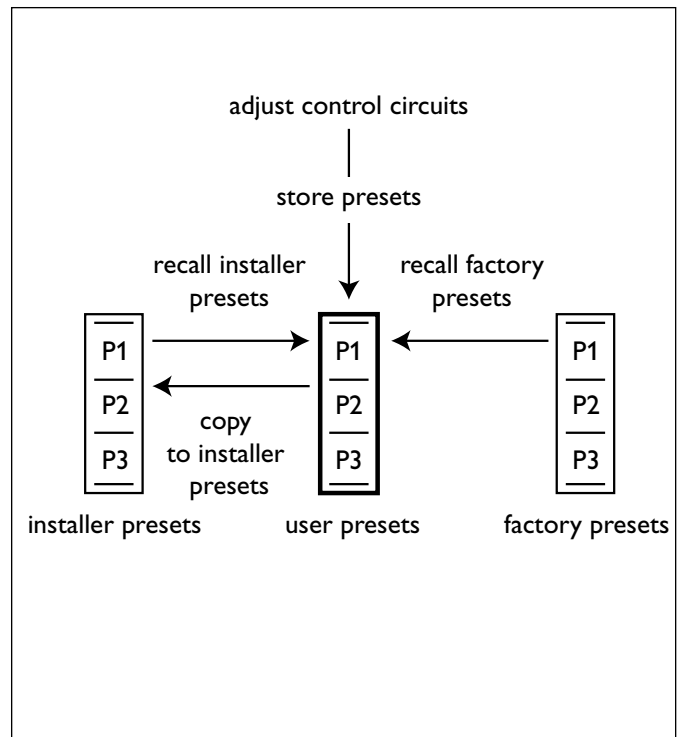


Figure 7: relationship between categories of presets

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Miscellaneous

Special features

In many controllers three categories of presets are available:

User presets: can be adjusted, stored and recalled by the user, as described before.

Installer presets: can be stored (e.g. by the installer) with the "Prog" key on the IRT8040 in "teach mode" as a back-up copy of the user presets. By pressing the "Recall" on the remote control transmitter, the user can revert to these "original" settings by replacing the user presets by the installer presets (i.e. the back-up copy) again.

Factory presets: are programmed in the factory and cannot be changed by the user or by the installer. With the "recall" key on the IRT8040 in "teach mode" the installer can replace the settings of the user presets by those of the factory presets.

"Prog" and "recall" are commands intended for use by installers only.

Figure 7 illustrates the relation between the various categories of presets.

Indications and diagnostics

1 Red LED, located in the infrared window, indicating:

- OFF : transmitter not used
- fast flashing : infrared transmission takes place
- slow flashing : transmitter in "teach mode"

7 Red LED's, located behind a window in the hinged cover of the transmitter, indicating:

- steady indication : Selected setpoint for HVAC applications (during max. 0.5 sec)
- vertical LED flash : HVAC switched to stand-by mode

5 of these 7 LED's are used to indicate:

- fast flashing:
 - in normal mode : channel for which control commands are being transmitted
 - in "teach mode" : parameters for which programming commands are being transmitted
- slow flashing:
 - in normal mode : selected channel
 - in "teach mode" : selected parameter (programming function)

Packing data

Type	Box dimensions (mm)	Quantity	Material	Weight (Kg)	
				net	gross
Unit box	220 × 95 × 50	1	card board	0.215	0.285
Outer box	230 × 200 × 210	8	card board	1.720	2.580

Ordering Data

Type	MOQ	Ordering number	EAN code level 1	EAN code level 3
IRT8040/00	8	9137 003 14503	87 11559 517650	87 11559 517667

Related documentation

Installation Instructions	3222 636 40081
Helio Handbook (English)	3222 636 49000
UNILON Handbook (English)	3222 636 49010
Trios system handbook (English)	3222 636 49030
Trios luminaires handbook (English)	3222 636 49040