

Cleva remote control



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1. Introduction

This document aims to comprehensively describe the operation of CLEVA remote control.



Warning

Installation, mounting and maintenance operations must be carried out by qualified, authorised and trained operators according to local regulations in each country.



Warning

- This remote control is an electronic device and must be discarded according to applying European Directives and not as domestic waste.
- Exclusively use the approved means.
- Properly meet all applicable local regulations.

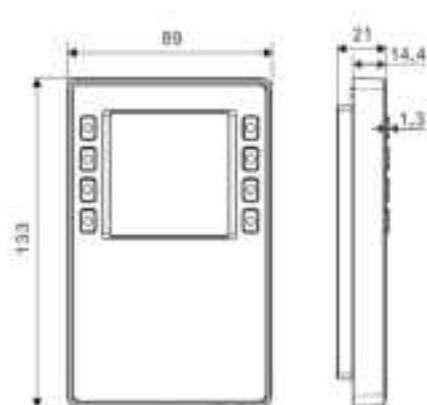
2. Specs

This remote control features:

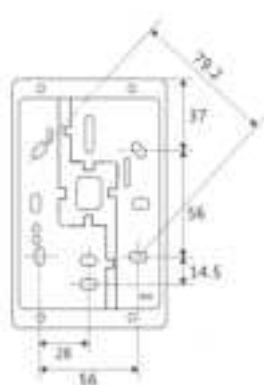
- Room temperature measurement.
- Temperature, ventilation, DHW and control configuration buttons.
- Backlit LCD screen displaying: room temperature, operation mode, scheduler, notifications, alarms and clock configuration.
- All 8 buttons allow a friendly use of the remote control.
- 2-wire connection to the main board through KNX PL-Link (PL+ / PL-), allowing both communication and power supply. No need for screened cable although it must run separated from the main power supply cable to avoid EMC issues.
- Communication/ power supply cable max length between remote control and main board: 1000 m.
- Cable type: 2-thread twisted. Cross section: 0.5 – 1.5 mm².

3. Design

3.1 Dimensions



Case dimensions



Mounting dimensions

3.2 Mounting and installation

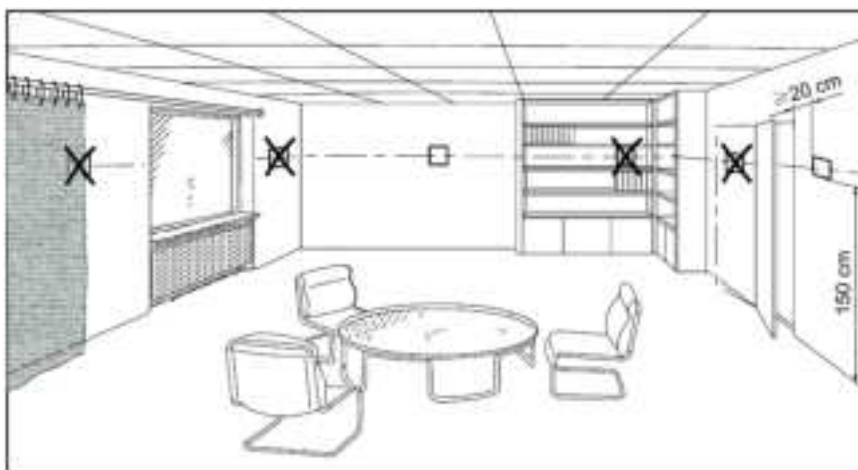
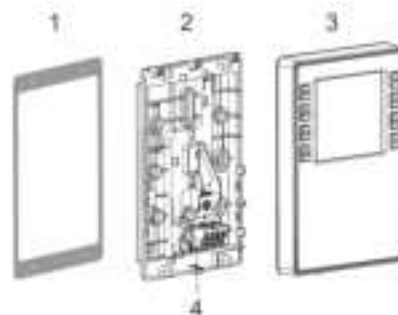
The remote control fits both wall or standard junction box mounting. In the second case, check out box dimensions to secure compatibility.

Main components:

1. Wall mounting gasket.
2. Base frame including:
 - Holes for junction box mounting screwing.
 - Guiding channels for cables.
3. Remote control.
4. KNX bus connector between remote control and main board.

Before mounting and installation of this remote control please beware of the following:

- Recommended installation height: 1,50 m.
- Avoid voids, close curtains, doors or heat sources.
- Avoid direct sunbeams and air currents.
- Properly seal wall mounting or junction box cable pipes to avoid wrong sensor readings.
- Respect the local regulations concerning admitted room conditions.
- Follow the instructions included in the supplied remote control box.



4. Wiring

The unit's electrical drawing together with the remote control supplied instructions manual are necessary for proper wiring.

Use 2-wire, twisted cable with cross section between 0.5 and 1.5 mm² (depending on cable length). No need for screened cable although .

No need for screened cable although it must run separated from the main power supply cable to avoid EMC issues.

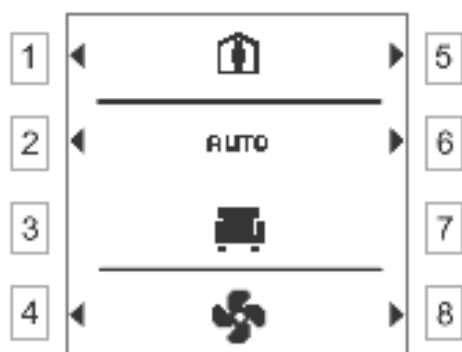
Conector	Pin	Description
	+	KNX PL-Link (positive)
	-	KNX PL-Link (negative)



Warning

Cables are not interchangeable!
The device is protected against wrong wiring but communication would be affected.
Connection can be carried out to any (+)/(-) pin pairs.

5. Main functions



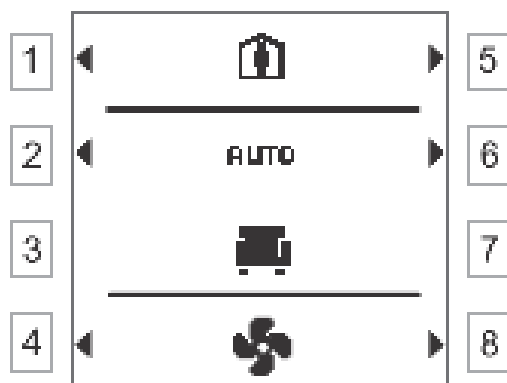
Element	Description
	Occupied mode (hourly program) / unoccupied / temporary.
	Temporary mode: ventilation boost.
	Operation modes: Comfort / ECO / Unoccupied / STOP.
AUTO / MAN	Operation mode: automatic/ manual.
	Manual mode.
	Ventilation screen.
	Temperature screen.
	Notifications/ alarms screen.
	Clock screen.
	Means that elements are available.
	System processing.
	On.
	Notifications/ alarms list.
	Alarm type 1 (major). Active alarm. Present alarm.
	Alarm type 1 (major). Inactive alarm. Unacknowledged alarm. It is necessary to acknowledge the alarm before reset it.
	Alarm type 1 (major). Active and confirmed alarm. Present alarm.
	Alarm type 1 (major). Inactive and confirmed alarm. Alarm not present. Reset possible.

Element	Description
	Alarm type 2 (maintenance, light). Active alarm. Present alarm.
	Alarm type 2 (maintenance, light). Active alarm. Deactivated alarm yet not confirmed. Alarm not present.
	Alarm type 2 (maintenance, light). Deactivated and confirmed alarm. Alarm not present. Reset possible.
	All alarm notifications confirmed.
	Alarm reset once confirmed.
	Confirm.
	Cancel.
	Back.
	Exit / next.
	Up / down.
	Add hourly program interval.
	Edit.
	Erase.
1 2 3 4 5 6 7	1= Monday, 2= Tuesday, 3= Wednesday, 4= Thursday, 5= Friday, 6= Saturday, 7= Sunday.
00 06 12 18 24	Time.
	Hourly program set.
	Hourly program.
	Outdoor temperature.
	Room temperature.
	Comfort mode active through digital input. Remote control in manual mode.
	ECO mode active through digital input. Remote control in manual mode.
	Unoccupied mode active through digital input. Remote control in manual mode.

6. Operation

6.1 Operation mode/ ventilation screen

Once the remote control is switched on a welcome screen shows basic unit information, including software version and serial number. After 3s the main screen is shown as below:

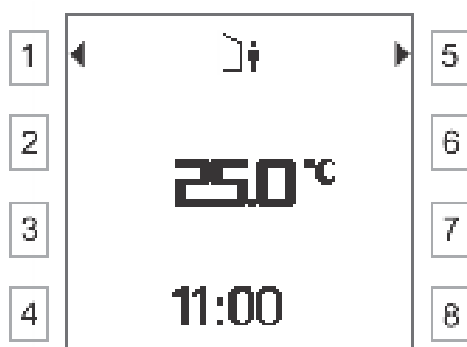


Button	Description
1/5	Mode selection: occupied/ unoccupied/ temporary. - Occupied mode : The unit will assume the temperature/ airflow set points corresponding to the hourly program set. - Unoccupied mode : The unit will assume the temperature/ airflow set points corresponding to the unoccupied function . - Temporary mode : allows fan boost for limited time only.
2/6	Mode selection: automatic AUTO /manual 
3/7	- Automatic mode: no function. - Manual mode: allow to select temperature and airflow set points for comfort , ECO , unoccupied  and unit stop .
4 / 8	Allow access to: - Ventilation  - Temperature  - Notifications/alarms  - Clock 

6.1.1 Occupied/ unoccupied/ temporary modes

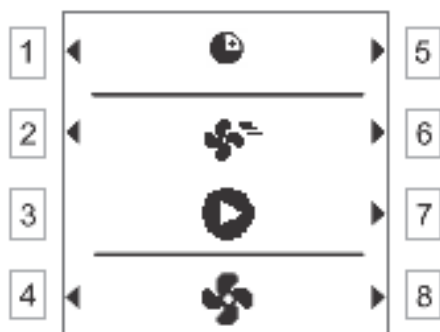
Buttons 1 and 5 allow to switch among the following modes:

- Occupied mode** . The unit will assume the temperature/ airflow set points corresponding to the hourly program set only if the unit is running in **AUTO** mode. Temperature set points can be selected through the remote control. Airflow set points are factory-fixed to avoid any damage to the unit. Go to hourly program screen to it set up.
- Unoccupied mode** . The unit will assume the temperature/ airflow set points corresponding to the unoccupied function . The unit will run this mode unless the user changes it.



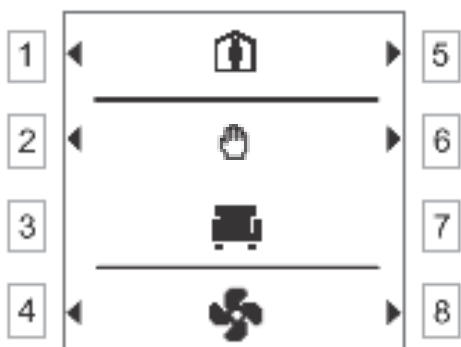
Button	Description
1/5	Mode selection: occupied/ unoccupied/ temporary. - Occupied mode : The unit will assume the temperature/ airflow set points corresponding to the hourly program set. - Unoccupied mode : The unit will assume the temperature/ airflow set points corresponding to the unoccupied function. - Temporary mode : Allows fan boost for limited time only.
2/3/4/5/6/7/8	No function.

- Temporary mode** : Allow fan max speed for up to 30 min. After up to 30 min the unit will go back the former operation mode.



Button	Description
1/5	Mode selection: occupied/ unoccupied/ temporary. - Occupied mode : The unit will assume the temperature/ airflow set points corresponding to the hourly program set. - Unoccupied mode : The unit will assume the temperature/ airflow set points corresponding to the unoccupied function . - Temporary mode : allows fan boost for limited time only.
2/6	No function.
3/7	Allows BOOST mode for up to 30 min (max fan speed).
4 / 8	Allow access to: - Ventilation  - Temperature  - Notifications/alarms  - Clock 

- AUTO mode.** The unit will run in automatic mode according to the hourly program set
- Manual mode** . This screen allows to select the different temperature/ airflow set points together with the temperature setting for each of them.



Button	Description
1/5	Mode selection: occupied/ unoccupied/ temporary. - Occupied mode : The unit will assume the temperature/ airflow set points corresponding to the hourly program set. - Unoccupied mode : The unit will assume the temperature/ airflow set points corresponding to the unoccupied function . - Temporary mode : allows fan boost for limited time only.
2/6	Mode selection: automatic AUTO / manual 
3/7	This screen allows to select the different temperature/ airflow set points together with the temperature setting for each of them. - Comfort  - ECO  - Unoccupied  - Stop 
4/8	Allow access to: - Ventilation  - Temperature  - Notifications/alarms  - Clock 

6.1.2 Temperature screen

Allows to modify the set point for every operation mode: comfort, ECO and unoccupied.



Button	Description
1/5	Mode selection: occupied/ unoccupied/ temporary. - Occupied mode : The unit will assume the temperature/ airflow set points corresponding to the hourly program set. - Unoccupied mode : The unit will assume the temperature/ airflow set points corresponding to the unoccupied function . - Temporary mode : allows fan boost for limited time only.
2/6	No function.
3/7	Temperature set up.
4/8	Allow access to: - Ventilation  - Temperature  - Notifications/alarms  - Clock 

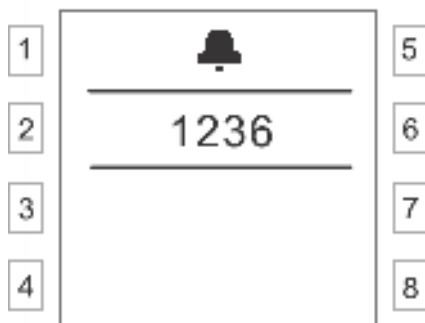
6.1.3 Alarm notifications and maintenance notifications screen

Press 4 & 8 in the default screen to access the notification one. If no pending notifications/ alarms, the next screen is shown:

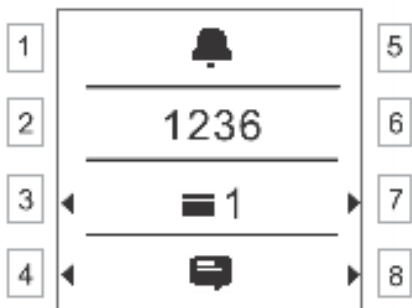


Alarm notification

If an alarm  is displayed , for example 1236, the following information is shown. The screen will blink until the alarm is acknowledged.



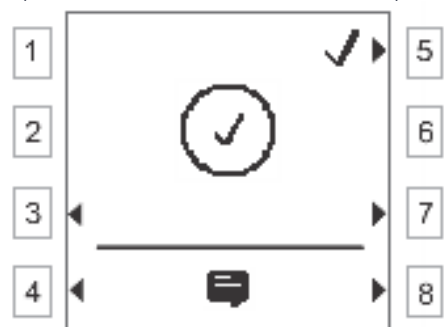
Press any button to access the following screen:



Note

 represents the notification type: type 1 - alarm. If a new alarm happens, the former one is overwritten. The screen will keep on showing notification type 1

Press buttons 3 & 7 to access the next screen to permit alarm confirmation (it consists of a confirmation to the system that the alarm has been only acknowledged):



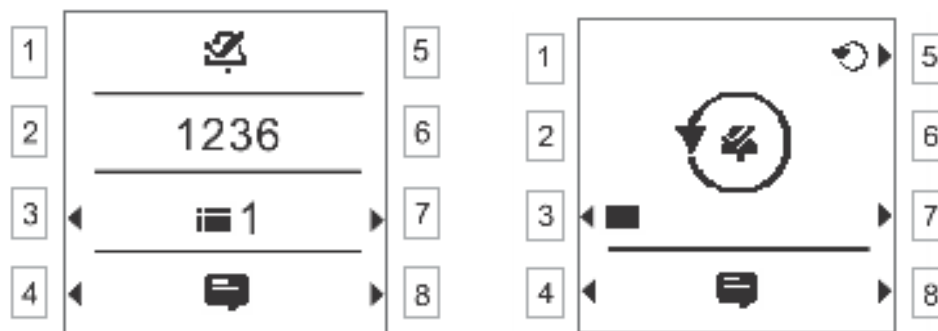
Press button 5 to request the system a batch confirmation of all alarms. While the system response comes the display shows:



The next screens pops up automatically upon all alarms confirmation. Through the system shows alarms user confirmation but remain active (root cause not solved).



Once upon an alarm root cause is solved, the display will show . Then a reset can be performed. When confirmed and deactivated alarms , press button 7 to go to the notification reset screen. In the reset screen , press 3 or 7 to switch between notifications/ alarms and reset screens.



Alarms will be deleted after reset and the screen will set back to notifications.



Maintenance notifications

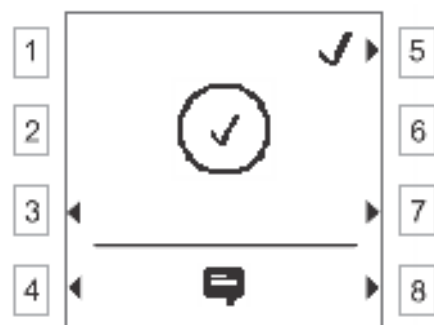
For notifications     no pop-up screens are available. To check notifications, press 4 or 8 as shown in the next screen



Note

 2 shows the notification type: type 2 - maintenance. If a new notification happens, the former one is overwritten. The screen will keep on showing notification type 2.

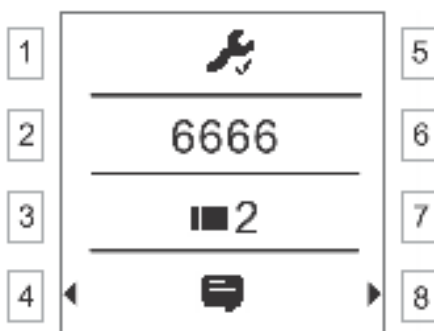
Upon confirmed notifications, press button 7 to access the next screen:



Press button 5 to request the system a batch confirmation of all notifications as long as they are properly managed. Whilst system response comes the display shows:



The next screens pops up automatically upon all alarms confirmation.



Maintenance notifications will be deleted after proper maintenance works execution. The main board will send confirmation to the remote control once the maintenance works have concluded.



6.1.4 Clock screen

Allows time and date set up.



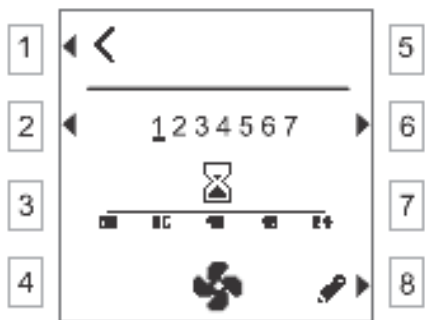
Button	Description
1/2/3/6/7	No function.
5	Allows time and date set up.+
4/8	Allow access to: • Ventilation  • Temperature  • Notifications/alarms  • Clock 

6.1.5 Hourly program configuration

Hourly program permits set up of up to 15 different time intervals per day, for each 7 days of the week.

Three different set points can be selected for each interval: comfort , ECO  and unoccupied . Each of these modes has to be previously set up in the temperature set up screen.

In the main screen, press button 2 for 2 s to access the hourly program screen:



Button	Description
1	Save changes.
2 / 6	Day of the week.
3 / 4 / 5 / 7	No function.
8	Hourly program editing for the specific day of the week.

In the former screen, press button 8 to access the hourly program screen:



Button	Description
1	Save changes.
2 / 4 / 6	No function.
3 / 7	Access to time intervals within a specific day of the week.
5	New time interval.
8	Edit time interval.

7. Alarms

Alarm codes breakdown below:

Alarm code	Alarm source
1000...1999	Hardware.
2000...2999	Software (application).
3000...3999	Communication.
9000...9999	Others.

Code	Description	Unit status	Comments
1001	Temperature sensor failure.	Stop	The unit stops. Check electric connection and sensor status.
1003	Extract air temperature sensor failure.	On	The unit is controlled through the extract air sensor. Check electric connection and sensor status.
1004	Outdoor air temperature sensor failure.	Stop	The unit stops. Check electric connection and sensor status.
1005	Anti-freeze air temperature sensor failure (heating coil)	Stop	The unit stops. Anti-freeze alarm. Check electric connection and sensor status.

Code	Description	Unit status	Comments
1012	Room air temperature sensor failure.	On	The unit is controlled through the extract air sensor. Check electric connection and sensor status.
1013	Indoor air quality (IAQ) sensor failure.	On	IAQ management is cancelled. Check electric connection and sensor status.
1014	Extract indoor air quality (IAQ) sensor failure.	On	IAQ management is cancelled. Check electric connection and sensor status.
1017	Room air humidity sensor failure.	On	Humidity management is cancelled. Check electric connection and sensor status.
1020	Clogged filters.	On	The unit keeps running. Replace filters.
1032	Supply air pressure sensor failure. Constant pressure control.	On	Control switches to extract air pressure sensor. If both sensors fail a linear speed control is set. Check electric connections and sensor status.
1033	Extract air pressure sensor failure. Constant pressure control.	On	Control switches to supply air pressure sensor. If both sensors fail the fans speed will be operation mode selected ones. Check electric connections and sensor status.
1034	Supply air pressure sensor failure. Constant airflow control.	On	Control switches to extract air pressure sensor. If both sensors fail the fans speed will be operation mode selected ones. Check electric connections and sensor status.
1035	Extract air pressure sensor failure. Constant airflow control.	On	Control switches to supply air pressure sensor. If both sensors fail a linear speed control is set. Check electric connections and sensor status.
1041	Anti-freeze air temperature sensor failure (combined coil).	Stop	The unit stops. Hot water valve opened. Check electrical connections and sensor status.
2001	Fire Alarm.	Stop	The unit stops because the fire alarm digital input is open.
2005	Supply air temperature exceeds limit values.	On	Check the read value is correct and the sensor status.
2007	Anti-freeze warning (heating coil).	Stop	The unit stops. Hot water valve opened. Check electrical connections and sensor status.
2010	Overheating (heating coil).	Stop	The unit stops. Temperature exceeds limit values. Check the read value is correct and the sensor status.
2020	Combined coil, frost warning.	Stop	The unit stops. Hot water valve opened. Check electrical connections and sensor status.
3011	Pressure sensor Modbus communication failure.	On	Fans speed will be operation mode selected ones.
3101	Room sensor KNX PL-Link communication failure.	On	Check connections and sensor status.

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