

Operating instructions RCD flat 4-fold, 6-fold



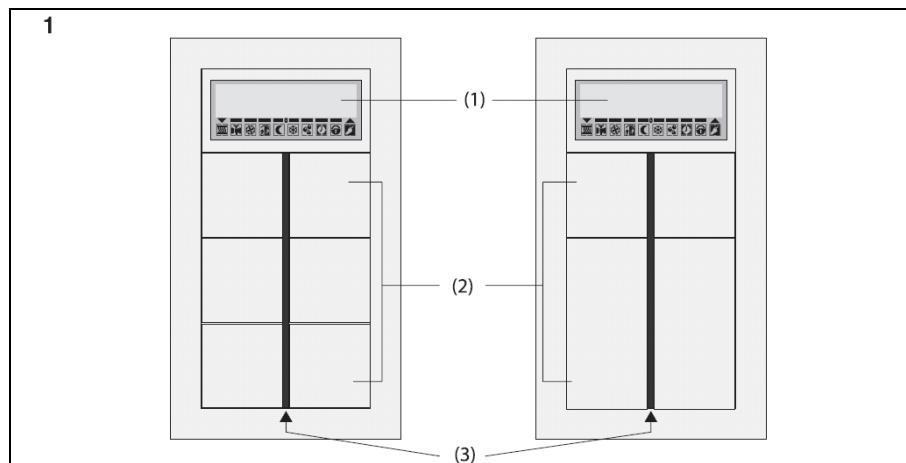
1. Safety instructions

Electrical equipment must be installed and fitted by qualified electricians only. Observe the current accident prevention regulations.

Failure to observe the instructions may cause damage to the device and result in fire or other hazards.

These operating instructions are part of the product and must be left with the final customer.

2. Device layout



- (1) LC-display
- (2) Control keys
- (3) Status LED (red) and operation LED (blue)

3. Function

System information

This device is a product of the KNX system and complies with KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.

The functionality of this device depends on the software. Detailed information on software versions and attainable functionality as well as the software itself can be obtained from the manufacturer's product database.

Planning, installation and commissioning of the unit is effected by means of KNX-certified software.

The product database, technical descriptions, conversion programs and other utilities are available in their latest version in the Internet under www.jung.de.

Designated use

- operation of consumers and visualization of system states, e.g. lights on/off, dimming, blinds/shutters up/down, brightness values, temperatures, etc..
- room temperature control
- in combination with Facility Pilot „Multi-Room Control“ and Squeezebox® from Slim Devices, Inc.: music
- play control, display of music titles, artists, etc..
- display unit for the KNX central alarm unit
- installation in mounting box as per DIN 49073.

Product features

- touch sensor functions switching, dimming, blind/shutter control, value transmitter, scene recall etc.
- vertical and horizontal key/rocker functions
- two red LEDs per control key as status or key-press indicators
- display of values and texts
- integrated room temperature controller
- room temperature control with setpoint value preset
- display of room temperature and setpoint temperature
- indication of outside temperature with external sensor, e.g. Jung Weather Station, Art. no.: 2224 REGW
- integrated bus coupling unit

4. Operation

Each control key is divided into two halves with one function per key. The operation is dependent on the nature of the corresponding function.

- Switching: press the corresponding key briefly.

- Dimming: press the corresponding key for a prolonged period. The dimming cycle stops when the key is released.
- Moving blinds and shutters: press the corresponding key for a prolonged period.
- Stopping or adjusting the blind: press the corresponding key briefly.
- Recalling a light-scene: press the corresponding key briefly.
- Setting a value, e.g. brightness or temperature setpoint value: press the corresponding key briefly.

In combination with Facility Pilot „Multi-Room Control“ and Squeezebox® from Slim Devices, Inc.:

- Playing music: start, stop, skip: press the corresponding briefly.
- Volume: press the corresponding key for a prolonged period until the desired volume is reached.

Modes of operation and LCD symbols

The device compares the actual room temperature to the preset setpoint temperature and controls heating or cooling appliances accordingly. The temperature setpoint value depends on the active mode of operation and can be varied by the user depending on programming. The modes of operation and the current controller status are shown on the LC-display.

	Comfort mode
	Standby mode
	Night mode
	Frost and heat protection mode
	Dew-point mode; controller is disabled
	Night comfort extension
	Frost / heat protection comfort extension
	Hand symbol: Info-mode is active.
	Fan control with fan intensity level indicator:
	Heating with heating intensity level indicator:
	Cooling with cooling intensity level indicator:
	Valve symbol: energy supply; heating or cooling in progress.
	Lock symbol: keys locked
0	No setpoint value shift
0---0	Setpoint value shift towards warmer active
----0	Setpoint value shift towards colder active
	Symbol for shut-off, dimming, blind lowering, value reduction
	Symbol for switch-on, brightness increase, blind raising,

value increase aufwärts



Symbol for switching channels 1...4 active:

① The key-press indicator symbols ▼ / ▲ are shown for ca. 3 s in conjunction with switching, dimming, blind operation and value adjustment.

LCD text display

The text window of the LC-display shows texts, e.g. music titles, values, time of day, date, temperatures, etc. The text window comprises 12 lines on 4 pages.

Depending on programming, the display switches over between the pages.

- automatically,
- after key-press,
- controlled by other devices, e.g. clock timer.

① Time of day and date must be received via the bus from a 'time server', e.g. Art. nos.: MT701, FP701CT or 2154 REG, and can only be changed there.



① If programmed, further states and conditions can be displayed with additional symbols, e.g.:

 Cloudy	 Rain
 Wind	 Storm
 Night	 Sun (day)
 Sun north	 Sun east
 Sun south	 Sun west
 Inside temperature 1	 Inside temperature 2
 Outside temperature	 Setpoint temperature
 Actual temperature	 Presence
 Party	 Holidays
 Blind / shutter OPEN	 Blind / shutter CLOSED
 Blind / shutter in motion	 Awning extended
 Tank empty	 Tank full
 Request pages	 Multimedia
 Music title playing	 New music title
 OK	 Adjust

1st control level

Switching, momentary-contact control, dimming, blinds, scenes, multi-room control, etc. (functions of a universal touch sensor).

2nd control level

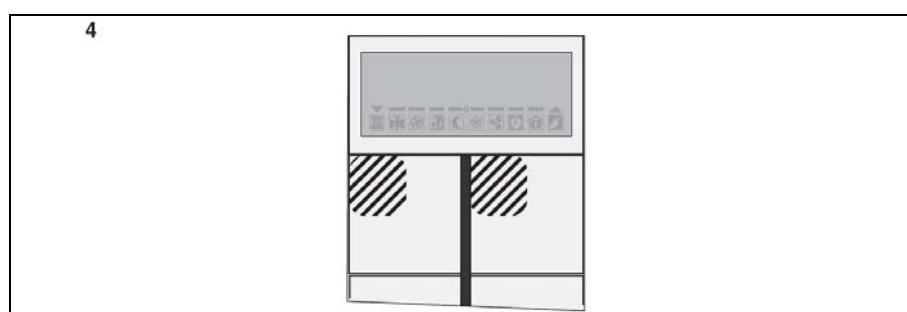
The 2nd control level contains functions for adjusting the room temperature controller, for operation of a central alarm unit, if installed, etc.

- ① The structure of the 2nd control level is shown in fig. 5.
- ① Depending on programming of the device, some items may not be visible.

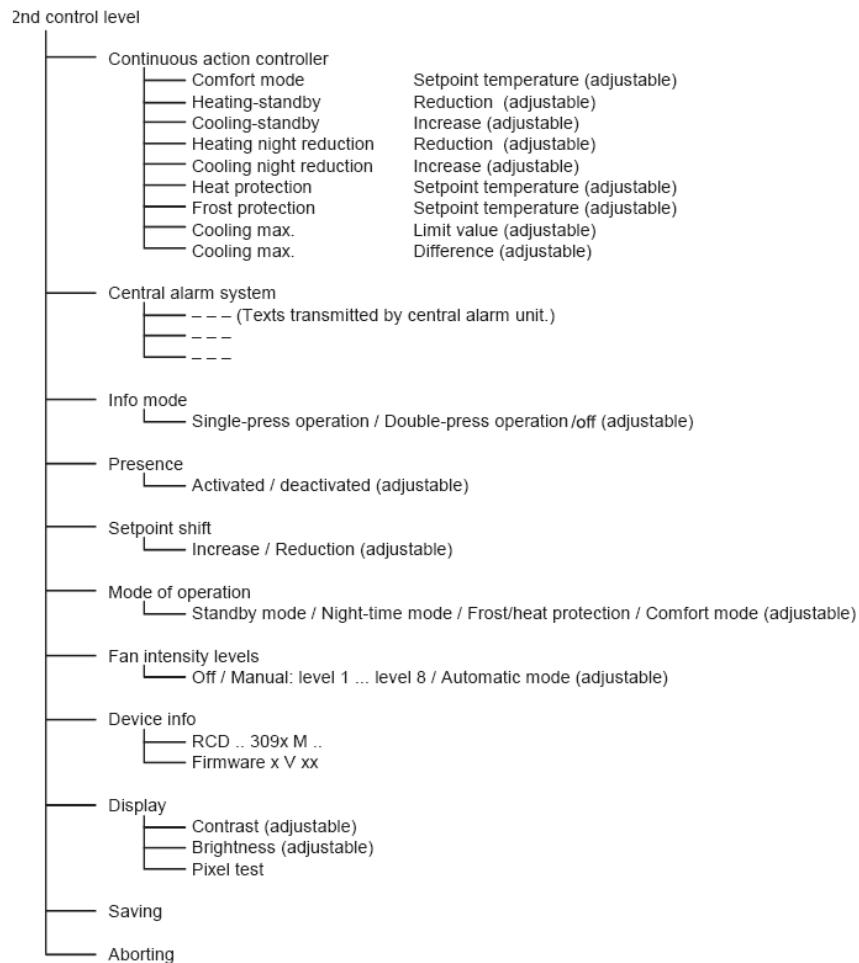
2. Accessing the 2nd control level

Press the keys as shown in fig. 4 simultaneously.

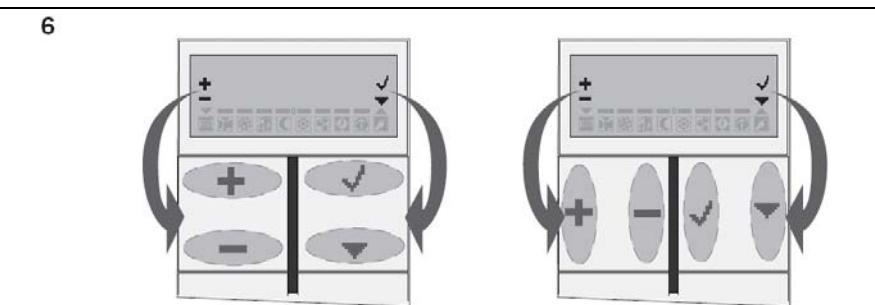
The menu of the 2nd control level is displayed.



5

**Navigating in the 2nd control level**

In the 2nd control level, the two keys at the top are available for operation. Available operations are displayed on the screen (fig. 6); values that can be varied are blinking.



- Press the + key.

The current setting is changed or the indicated value is increased.

- Press the – key.

The current setting is changed or the indicated value is reduced.

- Press the **✓** key.

Jump to the selected menu (selected menu item) and return to the higher menu.

- Press the **▼** key.

The next menu item is shown.

① Depending on programming, changed settings will not be adopted unless the user quits the 2nd control level with Save. Quitting with Abort will not save the changed settings.

Changing the room temperature

To change the setpoint value temporarily:

The 2nd control level must be enabled and active.

- Press the **▼** key to select the menu item Setpoint shift. and press the **✓** key
- Press the **+** key.

The setpoint temperature is increased.

- Press the **-** key.

The setpoint temperature is lowered.

- Press the **✓** key.

The main menu is displayed.

- Select Save in the main menu and press the **✓** key drücken.

The setting is saved instantly.

① The setpoint value shift is indicated with bars above the symbols ... -- 0 -- ... A setpoint temperature higher than programmed is indicated as 0 -- ... whereas a setpoint temperature lower than programmed is indicated with ... -- 0. Without setpoint value shift, 0 is displayed.

Setting the mode of operation

The keys must be programmed for setting the mode of operation or otherwise corresponding external control elements such as touch sensors, control panels, etc. must be available.

Activate the desired mode of operation by pressing the corresponding key or control element.

The new mode of operation is now indicated by the LCD symbols.

The setpoint temperature for the room is set in accordance with the new mode of operation.

- or -

The 2nd control level must be enabled and active.

- Press the **▼** key to select the menu item Presence. and press the **✓** key drücken.

- Select the desired mode of operation with the ▼ key.
- Press the ✓ key.
The main menu is displayed.
- Select Save in the main menu and press the ✓ key .
The setting is saved.
The new mode of operation is now indicated by the LCD symbols.
The setpoint temperature for the room is set in accordance with the new mode of operation.

Activating the comfort prolongation mode

The comfort mode can be continued for some time even if the modes of operation are switched over automatically, e.g. by a clock timer. This can be achieved with the comfort prolongation mode. The time for which the comfort prolongation mode can be prolonged is limited.

The device is in the night-time mode or in the frost/heat protection mode.

- Press the presence key on the device or on other control elements installed.
- or -
- Press the ▼ key to select the menu item Presence. and press the ✓ key
- Select the setting ON with the + key and press the .✓ key .

The symbols  or  are displayed.

The setpoint temperature of the comfort mode is now active for the pre-programmed time.

After the end of the programmed time span, the originally set night-time or frost/heat protection mode is resumed.

① The comfort prolongation can also be activated automatically, e.g. via a presence detector.

Changing the setpoint temperature

The 2nd control level must be enabled and active.

- Press the ▼ key to select the menu item C. - action controller.. and press the ✓ key.
- Press the ▼ key to select the mode of operation for which the setpoint temperature is to be changed.
- With the + / – keys change the setting for the setpoint temperature.
- ① Repeat the above steps if the setpoint temperature is to be changed also for other modes of operation.
- Press the ✓ key.
The main menu is displayed.
- Select Save in the main menu and press the key. ✓.

- The setting is saved.

Operating the central alarm system

In order to use the function of a central alarm system, a KNX alarm system must be installed.

The 2nd control level must be enabled and active.

- Press the ▼ key to select the menu item Central alarm system. and press the ✓ key.

The message window of the KNX alarm system opens and displays a status message.

- Press the ▼ key to go to the next message.

- Press the ✓ key.

The main menu is displayed.

① If “— —” are displayed, there is no message for the corresponding line.

② For further details concerning the operation of the KNX alarm system refer to the instructions supplied with the system.

Setting LCD brightness and contrast

The 2nd control level must be enabled and active.

- Press the ▼ key to select the menu item Display.. and press the ✓ key.

Changing the contrast setting:

- Press the ▼ key to go to the menu item Contrast.
- Press the + / – keys to change the setting.

Changing the brightness setting:

- Press the ▼ key to go to the menu item Brightness.
- Press the + / – keys to change the setting.
- Press the ✓ key.

The main menu is displayed.

- Select Save in the main menu and press the key.
The setting is saved.✓ key.
- Press the ✓ key.

The main menu is displayed.

Checking the LCD function

The 2nd control level must be enabled and active.

- Press the ▼ key to select the menu item Display. and press the ✓ key.
- Press the ▼ key to go to the menu item Pixel test and press the ✓ key.

For 3 s all picture elements and symbols of the LCD screen are displayed.

The main menu is displayed.

Controlling the fan – Automatic or manual operation

The 2nd control level must be enabled and active.

- Press the ▼ key to select the menu item Fan intensity levels.. and press the ✓ key.
- Press the + / – keys to change the setting.

The selected fan intensity is displayed with the symbols.

:         and  .

① The settings available are Automatic, OFF and Manual: Level.. indicating the fan intensity level. The number of fan levels depends on the actual system.

- Press the ✓ key.

The main menu is displayed.

- Select Save in the main menu and press the ✓ key.

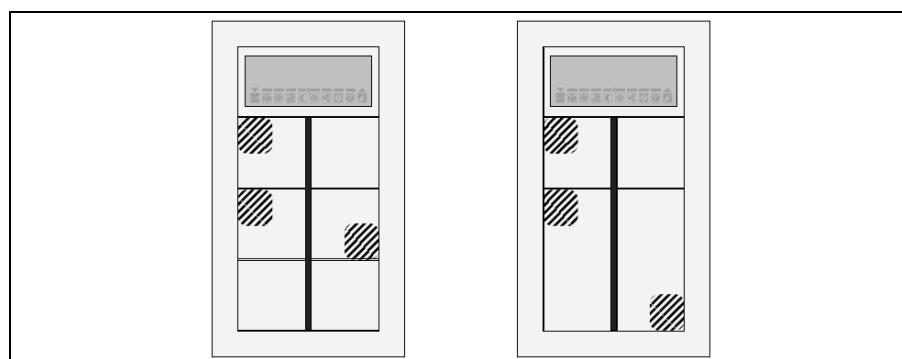
The setting is saved.

Key-lock on / off

The key functions of the device can be locked partially or completely. The locking function can be activated from an external device or by local control on the device itself. The locking function can be made to act on all keys or only on individual keys. When locked, the keys can perform another function or no function at all.

- Press the keys shown in fig. 7 at the same time for 5 s.

The locked condition is indicated by the  symbol.



Info mode on / off

When the info mode is active, the display shows the function triggered after a key-press, e.g. Switching on the lights in the hallway.

- Press the ▼ key to select the menu item Info mode. and press the ✓ key.
- Press the + / – keys to change the setting.

① Double-press operat.: After the first press, the corresponding help text is displayed. The function is triggered only after the second press. Single-press operat.: A press triggers the function and the help text display at the same time. OFF: The info mode is off.

- Press the ✓ key.

The main menu is displayed.

- Select Save in the main menu and press the ✓ key.

The setting is saved.

Device info

The 2nd control level must be enabled and active.

- Press the ▼ key to select the menu item Device info. and press the ✓ key.

The screen displays the device type and the software version.

- Press the ✓ key.

The main menu is displayed.

Information for qualified electricians

- └ **DANGER!**
Risk of electric shock on accidental contact with live parts in the fitting environment. Electric shocks can be fatal.
Before working on the device, disconnect the supply voltage and cover up live parts in the working environment.

5. Fitting and electrical connection

Fitting and connecting the device

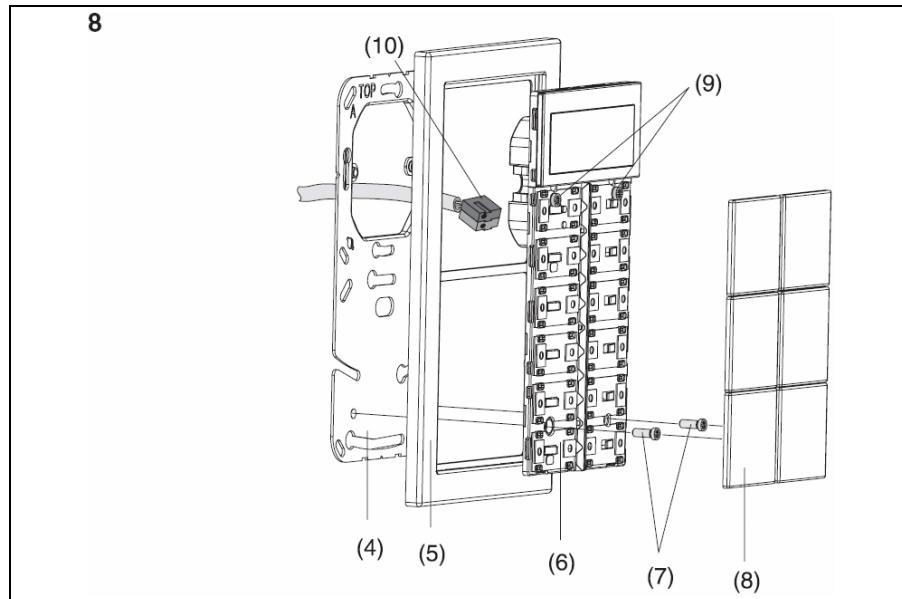


Fig. 8, Fitting FD design

- (4) supporting ring
- (5) cover frame FD design
- (6) user module
- (7) fastening screws
- (8) key covers
- (9) security screws
- (10) KNX connecting terminal

Suitable for switch programs FD-Design and LS-Design: Supporting frame side A for FD-Design, frame height 6 mm. Supporting frame side B for LS-Design, frame height 11 mm.

If the device is fitted only on a flush-mounting box, the screws (7) must be sunk in the wall, e.g. by providing a borehole of \varnothing 6 x10 mm. Use the supporting ring as a template.

DANGER

Risk of electric shock! Risk of electric shock in the event of malfunction, if the device is fitted in combination with 230 V socket outlets under one cover.

For fastening to the supporting ring, use only the plastic screws supplied with the device.!

CAUTION!

Risk of damage to the device due to electrostatic discharge. Use only the plastic screws supplied with the device.

- Install supporting ring (4) in correct position on a flush-mounting box (DIN 49073). Observe the TOP marking and the A and B front markings. Use the screws supplied with the box.
- Place the cover frame (5) over the supporting ring.
- Connect the touch sensor module (6) with the KNX connecting terminal (10) to the KNX and plug into supporting ring (lead bus wires out at the bottom).
- Fasten the touch sensor module with the plastic screws supplied (7 and 9) on the supporting ring (protection against removal or theft). Tighten the plastic screws without using force.

① Before fitting the covers (8) load the physical address into the device (commissioning).

Fitting the key covers

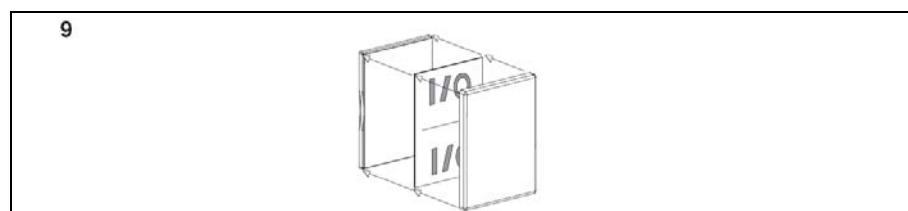
The physical address must have been loaded into the device.

- Place the covers one by one on the touch sensor module. Position of the covers: see fig. 1.
- When the cover is in the correct position, snap it on with a brief press.

① The correct position of the key covers is indicated by the TOP mark on the inside.

Fitting the label covers

Label covers can be provided with inscriptions in acc. with customer requirements.



- For labelling, commercial-grade foils can be printed with the JUNG inscription software and inserted into the keys.
- Fit the label covers (fig. 8).

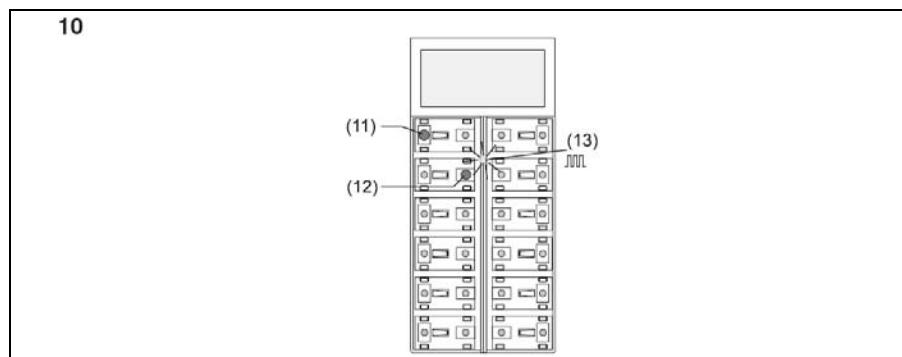
6. Commissioning

Loading the physical address and the application software.

Project design and commissioning with ETS3.0d with patch A.

The device must be connected and ready for operation.

The covers must not yet be in place.



- Activate the programming mode: Press button (11) and hold depressed. Thereafter, press button (12).
The operation LED blinks at a fast rate.
The screen displays the message Programming mode followed by the device type and the software version.
- Assign the physical address.
The operation LED (13) returns to its previous state, i.e. the LED is on or blinking slowly.
- Note the physical address on the device.
- Download the application software into the device.

Annex

7. Technical data

KNX mediumTP1	
Commissioning mode	S mode
KNX supply	21...32 V DC
KNX current rating	max. 20 mA
KNX connection	connection block
Type of protection	IP 20
Safety class	III
Umgebungstemperatur	-5 °C ... +45 °C
Ambient temperature	-20 °C ... +75 °C
Storage temperature.	

8. Help in case of trouble

The screen displays --:-- instead of the time of day, colon symbol not blinking..

No synchronization of the time of day during the last 24 hours.

Check the central clock, e.g. DCF 77.

The date is displayed incorrectly or not at all..

No synchronization of the date during the last 24 hours.

Check the central clock, e.g. DCF 77.

The screen displays ##### instead of a value.

The value received is too big and cannot be displayed on the screen.

Check the settings on the transmitting device. If needed, have the programming checked and corrected

by a qualified electrician.

The screen displays --- instead of a value.

The device has not yet received a value.

Check the settings on the transmitting device. Check the bus voltage If needed, have the programming checked and corrected by a qualified electrician.

In the Central alarm system menu, the screen displays bars --- instead of text.

The central alarm system has not transmitted a value for this display.

Check the central alarm system. Check the bus voltage If needed, have the programming checked and

corrected by a qualified electrician.

No central alarm system installed.

If desired, have the menu item Central alarm system removed by the a qualified electrician.

The keys cannot be operated.

Key-lock is active.

Deactive the key-lock function (Key-lock on / off).

The 2nd control level cannot be selected..

The 2nd control level is deactivated.

Reactivate the 2nd control level...

The fan control is not operational..

The fan operates in the so-called forcing mode and is controlled from another device with a higher priority.

Deactivate the forcing mode at the corresponding device..

The fan is in operation without having been switched on..

The fan protection mode is active. In the fan protection mode, the fan is activated briefly at intervals to keep the fan and the ventilation ducts operational and to prevent contamination in periods of reduced operation, e.g. in summer.

The heating or cooling valves open although the heating or cooling is not active.

The valve protection mode is active. In the valve protection mode, the valves are briefly opened to prevent seizing due to corrosion..

The heating or cooling valves are closed although heating or cooling is in progress.

On-off valves are opened and closed in alternating order to keep the temperature at an average value.

9. Accessories

Key covers

4-fold RCD..3094 M.. .. 2 x FD..902 TSA.. und 2 x FD..904 TSA..

6-fold RCD..3096 M.. .. 6 x FD..904 TSA..

① The covers with article nos. FD..90.. TSA NA.. can be provided with inscriptions. Commercial-grade foils can be provided with an inscription using the labelling software from JUNG www.jung-beschriftungsservice.de.

10. Guarantee

Technical specifications subject to change.

Please return the unit postage paid to our central service department giving a brief description of the fault:

ALBRECHT JUNG GMBH & CO. KG

Service-Center

Kupferstr. 17-19

D-44532 Lünen

Service-Line: 0 23 55 . 80 65 51

Telefax: 0 23 55 . 80 61 89

E-Mail: mail.vki@jung.de

General equipment

Service-Line: 0 23 55 . 80 65 55

Telefax: 0 23 55 . 80 62 55

E-Mail: mail.vkm@jung.de

KNX equipment

Service-Line: 0 23 55 . 80 65 56

Telefax: 0 23 55 . 80 62 55

E-Mail: mail.vkm@jung.de



The CE-sign is a free trade sign addressed exclusively to the authorities and does not include any warranty of any properties.