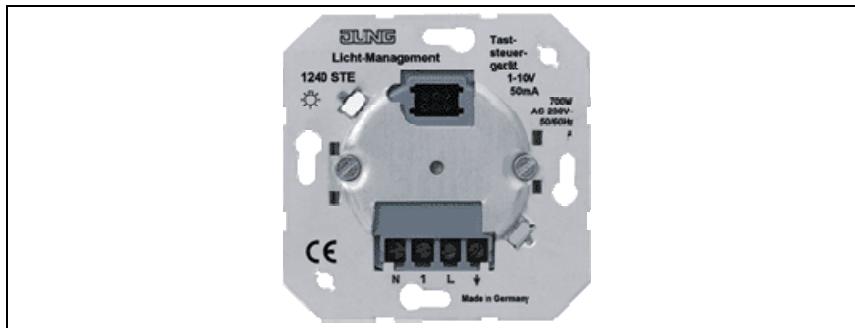


## Operating Instructions Pushbutton control unit



### 1. Safety instructions



Attention: Electrical equipment must be installed and fitted by qualified electricians only. Not suitable for safety disconnection. Switching off the device does not isolate the load electrically from the mains. To prevent electric shocks, always shut off the mains supply before working on the pushbutton control unit or before replacing the lamp. The settings of the device may only be changed by qualified electricians. Unqualified work involves the risk of electric shocks. Non-observance of the safety instructions may cause fire or other hazards.

### 2. Function

Pushbutton control unit for switching and dimming of electronic ballasts or TRONIC transformers with 1-10V interface. Switching and dimming commands are given by actuating the attachments for the pushbutton control units, extension units or radio-control transmitters. The pushbutton control unit works with the double-button principle, i.e. the pushbutton surface has an upper contact („brighter“) and a lower contact („darker“). The lamp is switched on and off via the load line and dimmed via the 1-10V interface. The present instructions describe the functions for use with the manual short-stroke key. The functions available with other attachments or radio-control devices are set out in the corresponding operating instructions.

#### Operation when the device is off:

*Brief depression (less than 400 ms):*

UPPER pushbutton or LOWER pushbutton or both: ON.

*Long depression (longer than 400 ms):*

UPPER pushbutton: dimming from minimum to maximum brightness.

LOWER pushbutton: switching on at minimum brightness.

**Operation when the device is on:**

*Brief depression (less than 400 ms):*

UPPER pushbutton or LOWER pushbutton or both: OFF.

*Long depression (longer than 400 ms):*

UPPER pushbutton: increasing the brightness up to maximum.

LOWER pushbutton: reducing the brightness down to minimum.

*Both pushbutton faces (at least 3 seconds):*

The current brightness level is stored in an NV memory and recalled when the device is switched on again (brief press). Storage is confirmed by cutting out the lamp for 1 second and by subsequent restarting with the stored brightness value.

**Storing a memory value**

When an automatic-switch 'Universal' is used, a memory value can be saved via an extension. The saving procedure is described at length in the operating instructions of the attachment.

**Adjustment of basic brightness**

**Important:** When using the multifunction pushbutton 'Universal' as a time switch, the basic brightness is stored only in the pushbutton.

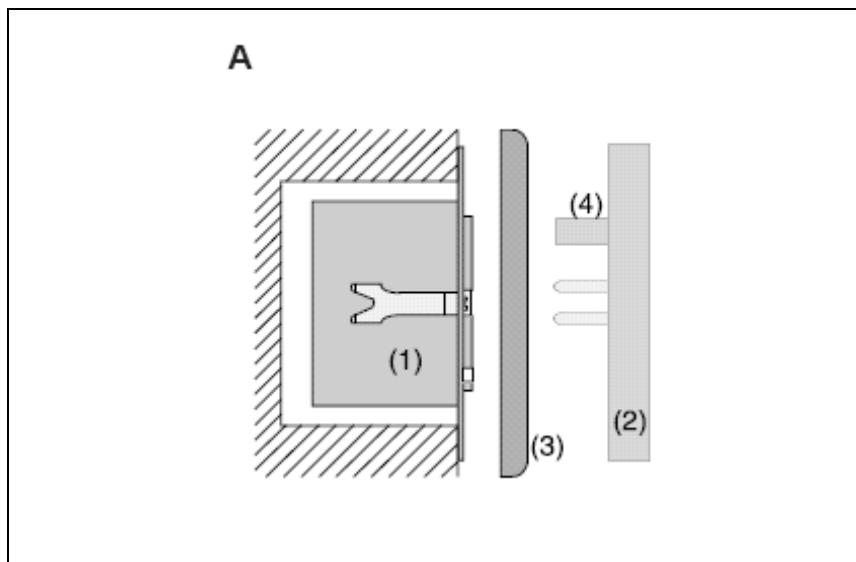
The basic brightness value is saved in a non-volatile memory. The adjustment as such can only be made directly on the pushbutton control unit itself. For storing, press the center of the button (not multifunction pushbutton with radio-control receiver and multifunction pushbutton 'Universal') for at least 20 seconds when off. The lights are at first set to maximum brightness. After ca. 20 seconds, the device switches to 50% brightness to confirm that it is ready for programming. Now dim the lights until the desired basic brightness is reached. Release the key. After ca. 20 seconds, the basic brightness is saved and the load switched off for confirmation. If the basic brightness is to be stored during operation of the pushbutton control unit with a presence detector, an automatic switch, a multifunction pushbutton or a multifunction pushbutton with radio-control receiver, proceed as follows:

**Attention: Observe the safety warnings.**

1. **Disconnect the mains voltage.**
2. **Withdraw the presence detector, automatic switch, multifunction pushbutton or multifunction pushbutton with radio-control receiver from the insert.**
3. **Plug a pushbutton on the insert.**
4. **Switch on the mains supply.**
5. **Adjust the basic brightness (see above).**
6. **Disconnect the mains voltage.**
7. **Withdraw the pushbutton from the insert.**
8. **Plug the presence detector, automatic switch, multifunction pushbutton or multifunction pushbutton with radio-control receiver on the insert.**
9. **Switch on the mains voltage.**

### 3. Fitting instructions

Install the pushbutton control unit (1) in a flush-mounting box in acc. with DIN 49073 (fig A). The connecting terminals of the insert must be at the bottom (wall mounting). Use the pushbutton control unit only in combination with an attachment. Plug the attachment (2) together with frame (3) into the insert. The electrical contact is ensured by connector (4). The overall power consumption of the lamps connected must not exceed 700 W.



Depending on the type of installation, the max. load connected must be reduced:

- 10 % for every 5 °C above the ambient temperature of 25 °C
- 15 % for installations in wooden, gypsum plasterboard or hollow walls,
- 20 % for installations in multi-device combinations.

**Observe the technical connection requirements of the power supply companies.**

### 4. Short-circuit protection

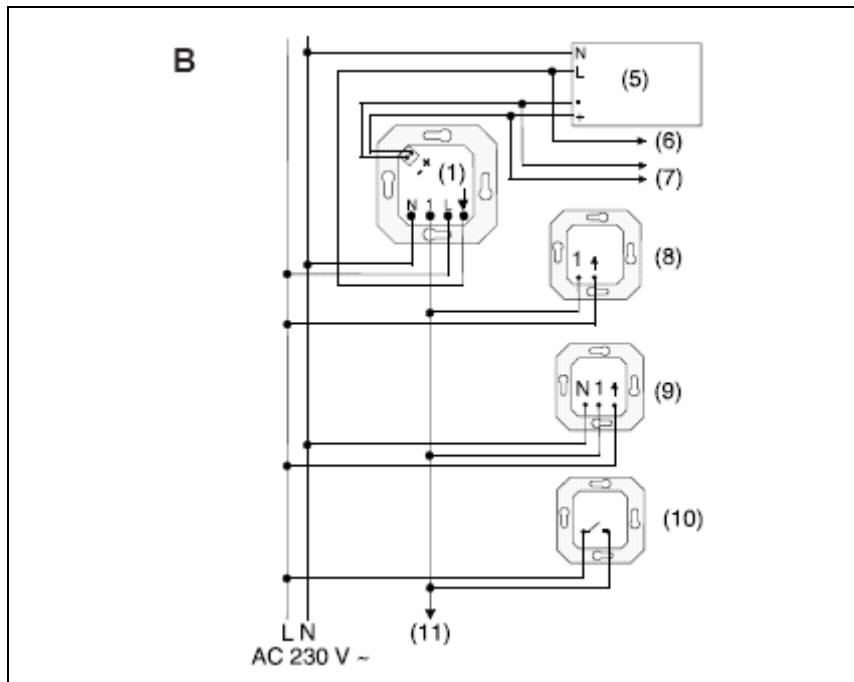
The load output has no internal protection. For protection install a circuit-breaker of 10 A ahead of the device. The 1-10 V control output is protected against shortcircuiting of the control current.



**Do not connect the control output to 230 V ~. The pushbutton control unit will be irreparably damaged.**

#### Connection without extension units

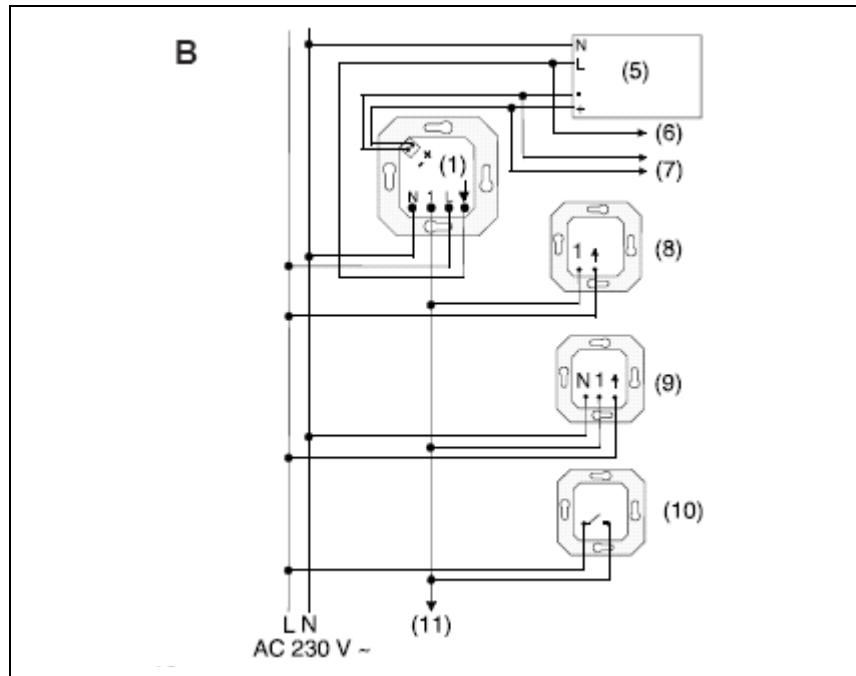
The insert is connected as shown in fig B. The extension unit input „1“ remains open.



- (1) pushbutton control unit
- (5) load
- (6) switched phase to other loads
- (7) 1-10 V control lines to other loads
- (8) "2-wire" extension unit (art. no. 1220 NE)
- (9) "3-wire" extension insert (art. no. 1223 NE)
- (10) mechanical pushbutton
- (11) other extension units

## 5. Connection of extension units

Switching / dimming from several places with the "2-wire" extension unit (8), the "3-wire" extension unit (9) or a mechanical pushbutton (10), see fig. B.



Contrary to the "2-wire" extension unit, the N conductor in the "3-wire" extension unit must be connected, too.

The "2-wire" extension unit, the "3-wire" extension unit and the mechanical pushbuttons can be used together in combination with each other.

"3-wire" extension unit used with the presence detector (art. no. PMS360WW) or the automatic switch attachment (art. no. ..1180-1.., ..1280-1..): available functions see operating instructions of the respective attachment

**Functions available only if an automatic switch or a presence detector attachment is used also on the main unit.**

Extension unit "2-wire" :

with short-stroke key. Same functions as with the pushbutton control unit, adjustment of basic brightness not possible.

Mechanical pushbutton (make contact):

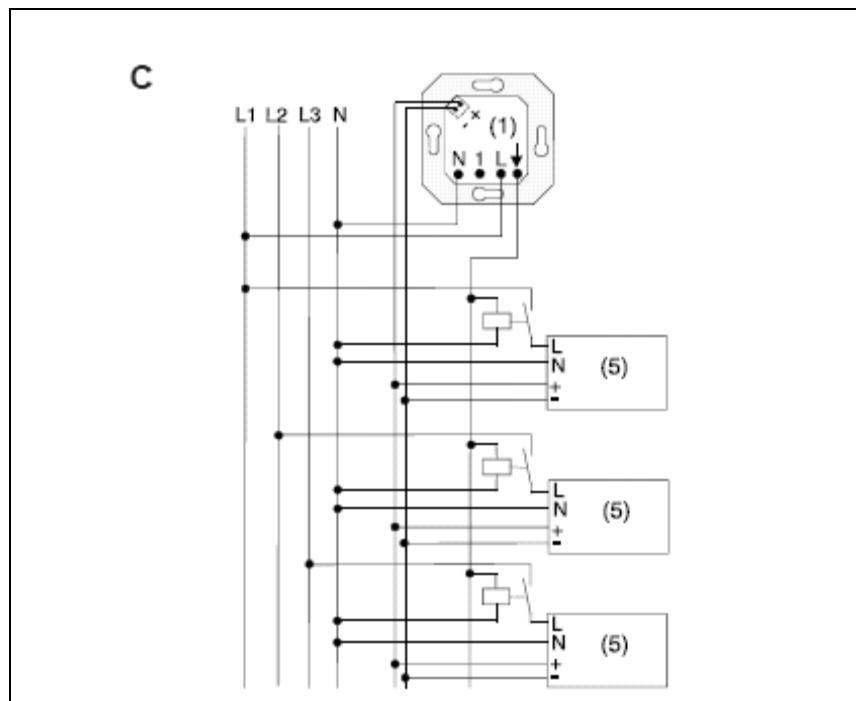
short depression : ON / OFF

long depression : dimming

Illuminated mechanical pushbuttons must have a separate N terminal. A short depression in the off-state switches the load on with the memory value. A long depression in the off-state increases first the brightness to maximum, the lamp remains at maximum for about 1 second and is then reduced to minimum brightness. The lamp remains at minimum for about 1 second and is then increased again to maximum brightness. The cycle is continuously repeated. Storing of a desired brightness is not possible with the mechanical pushbutton (make contact).

**Connection of loads to different phase conductors.**

This configuration permits switching / dimming of a greater number of electronic ballasts or TRONIC transformers with a single pushbutton control unit. The insert is connected as shown in fig. C.



**The number of electronic ballasts or TRONIC transformers that can be dimmed with a single pushbutton control unit depends on the control current of the individual electronic ballasts or TRONIC transformers and is dependent on the type of device. Control current of the pushbutton control unit: see Technical Data.**

**Important:**

 Observe correct polarity of the electronic ballasts when connecting the devices to different phase conductors.

## 6. Technical Data

Nominal voltage :	AC 230 V ~, 50 / 60 Hz
Power rating:	
incandescent lamps :	700 W
electronic ballasts :	type-dependent
Number of Extensions:	
"2-wire" extension insert,	
mechanical push-button :	unlimited
"3-wire" extension insert :	10
Different types of extension units can be combined.	
Illuminated mechanical pushbuttons must have a separate N terminal.	
Emitted interference :	acc. to EN 55015
Control voltage :	0,5 .. 10 V
Control current :	max. 50 mA
Switching contact :	relay contact at mains potential
Total length of cable to extension units :	max. 100 m

## 7. Guarantee

Our products are under guarantee within the scope of the statutory provisions.

**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: +(49) 23 55 . 80 65 51  
Telefax: +(49) 23 55 . 80 61 65  
E-Mail: mail.vka@jung.de

### General equipment

Service-Line: +(49) 23 55 . 80 65 55  
Telefax: +(49) 23 55 . 80 62 55  
E-Mail: mail.vkm@jung.de

### KNX equipment

Service-Line: +(49) 23 55 . 80 65 56  
Telefax: +(49) 23 55 . 80 62 55  
E-Mail: mail.vkm@jung.de

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