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## Controls available in your Tebis TS installation

A secold a still second	O male al a	the state of the s
Applications	Symbols	type of control
Lighting	-¤-	on
	•	off
	- <u>A</u> . •	on/off
		on/off
	-Ö- 1/10 V	variation
	-ņ- <b>P</b>	priority forced on
	• P	priority forced off
	- <b>^- E</b>	delayed on
	• 5	delayed off
	-ņ- <b>5</b>	ambient (1)
blinds/shutters		up
	Ē	down
	<b>↓</b> + ↓	up / down
	Р	wind safety
	FT P	priority forced up
	P P	priority forced down
	同 と	delayed down (2)
heating	¢	comfort
	C	eco
	\$\\C	comfort/eco
	*	frost-free
		forced off
	÷ 🎙	priority forced comfort
		priority forced eco
	¢ Ł	delayed comfort
	C Ł	delayed eco

 (1) control not available on dimmers TS 211 and TS 210
 (2) control not available on TS 220, TS 221, TS 223, TS 224, TS 225, and TS 226.

## **Configuration unit TS 100**

#### Safety :

- Installation should only be completed by a specialist.

#### **Recommendations :**

- The device's function is only possible within the system Tebis TS.
- Observe the installations regulations of the protection measures.

#### Function

The configuration unit TS 100 defines the allocation and functions of the Tebis TS input and output among (TS 304 and TS 206 for example).

#### **Technical specifications :**

#### Electrical data

- supply voltage :
- 230 V  $\sim$  50 Hz + bus 29V
- power consumption : 7 VA
- power dissipation : 7 W max.

#### **Operation data**

contact rating indicator output : 1 A / 250 V∼ AC1

#### Environment

- operating : 0 °C to +45 °C
- storage : -20 °C to +70 °C

### Connection

• cage clamps : flexible : 1 mm<sup>2</sup> to 6 mm<sup>2</sup> rigid : 1,5 mm<sup>2</sup> to 10 mm<sup>2</sup>

### Dimensions

size : 6 modules

#### Notices before putting into operation :

- 1. Observe operating temperature. Mount device in lower part of the enclosure.
- 2. Connect auxiliary voltage (230 V AC) and system voltage (29 V).
- 3. Follow the instructions of the configuration (see p 52 § "Configuration").







I Indicator (ex : ref SU 213) output contact 11/13 : when programming the inputs, the output contact is closed with every audible confirmation of the TS 100. A horn or a bell can be connected here which can be heard in the whole building. The indicator output has no function in regular service. ⊗ Bus BUS Indicator output clamps 17/19 : The contact is closed in case of system voltage loss. To indicate the loss a bell or indicator light can be connected.

## Configuration

After installing your Tebis TS system, check the wiring of the control (bus connections) and power circuits.

You will now need to establish the configuration links between the inputs and outputs in order to define how you want the installation to operate.

The configuration procedure described below consists of three steps :



If required, you can easily make changes to the operation of your installation with the configuration unit at a later time. Refer to the Modifications, Operation section for pratical tips and the correction and modification procedures.

Before you start using the configuration unit, make sure that all of the "Auto / (1)" selectors of the modules are set to the "**Auto**" position.

## 1. Input numbering in mode "0...9..."

This stage is only carried out once at the beginning of programming. It is a way of identifying and numbering each control device connected to a Tebis TS system input module.

- On the TS 100 configurator, set selector ① to mode "0...9...".
- Successively press all the switches and push-buttons of the installation.
- Wait to hear the audible beep each time, before pressing the next button.
- Each time a number is assigned, enter the location and function on the configuration sheet.
- For TS 302-4, operate the logic controller connected to the inputs.
- For TS 316, press the push-buttons on the front panel of the product or operate the devices of the controls connected to the inputs.
- For TS 340 TS 350 and TS 351, press the infrared or radio control buttons.
- For TS 320, TS 321, TS 322, press the controller push-button.

The numbers are assigned in increasing order, beginning with 1. In larger buildings, sound acknowledgements can be amplified by connecting a horn or a bell in series with the contact between terminals 11 and 13 of the TS 100 configurator.

- To locate the number of a control device in the mode " 0...9... ", simply operate the device (push-button, switch or logic controller).
- → the input number will be displayed with long audible acknowledgement (beep).



## 2. Link programming in "Prog" mode

This stage is a way of creating links between an input and one or several outputs and of defining, for each link, the desired control type.

- On configurator TS 100, set selector ① to the "Prog" mode.
  - 1. Selection of input number
  - Display the input number using the 2 "+" and "-" keys.
  - 2. Selection of outputs
  - Select each output with its push-button from the front panel of the modules (14).
  - →As soon as an output is selected, the configurator will recognize the application type of the module (營局 𝔐) and indicate this by lighting the corresponding indicator light in the matrix of configurator ④.
  - → after selecting the first output, only outputs forming part of the same area of application can be selected. If different application outputs have to be selected, see p 54 § 2.1. "Multiple Applications Scenario".
  - 3. Selection of control type
  - Choose the desired control type using one of the keys (-1) to (-3) on the configurator.
  - →An indicator light ⑥ will confirm the choice. On the configurator matrix, at the intersection of the ④ and ⑥ indicator lights, a symbol will indicate the type of command you have selected.
  - For priority, time delay and ambient setting commands, see p 56 § 2.2. "Selection of priority, time delay and Scenarios of ambients controls".
  - 4. Recording the link
  - Press the key "OK" ⑦, the link defined in steps 1 2 3 will be recorded.
  - → The input display will increment and move to the next input. If different type of controls have to be linked at the same time, see p 54 § 2.1. "Multiple Applications Scenario".

### 5. Further programming

by repeating phases 1 to 4 for each of the inputs.

- All the links can only be displayed by means of the "+" and "-" (2),
- to correct or modify a link, refer to the "Operation" chapter,
- if the configuration is satisfactory, move on to download.

**Note :** It is possible to have the system input react to the opening of a contact and not to its closing (for instance, if a normally-closed contact is connected). Simply press the key  $f \geq 3$ . The inverted input is indicated by the lighting of a dot at the bottom right of the display.

### 2.1. Multiple Application function

This function is a way of associating an input to a group with different types of commands. Up to 6 different controls types (links) can thus be configured for an input.

- During the link recording phase, (step 4 above), press for 2 s on the "OK" key
   → the input number will not be incremented.
- Select another type of command and the associated outputs.
- Press for more than 2 s on the "OK" key to configure another type of command or press briefly on "OK" to validate all the links to the input.





# 2.2. Selection of priority, time delay and Scenarios of ambiences controls

These commands are accessible by pressing for some time (>3 s.) on the keys ((-) or ((-)). A letter will appear on the display ((-)) indicating the selected command :

- P: Priority setting
- E: time delay
- 5 : ambiences

# Priority setting control

This command sets an output to a determined state and maintains this state until the setting is cancelled.

On cancelling the setting, the output state can be maintained (hold mode) or inverted (inversion mode).

It must be associated with a switch type input (i.e Not push-button).

#### **Control selection**

- Press for more than 3 s. on the key (5-1) or (5-2):
- 5-1 for on, up or comfort priority type commands,
- (5-2) for off, down or eco priority type commands.
- →The letter "P" appears on display (12) indicating that the priority setting command is selected.
- Confirm by "OK" to validate.

#### Selection of setting end mode

- →After validating the priority setting command, the inversion mode appears on display (2).
- "\_ [ L" for on, up and comfort (key (5-1)),
- "LI" for off, down and eco (key (5-2)).
- Press "+" to select the hold mode :
- "\_ [ "" for on, up and comfort (key (5-1)),
- "L\_" for off, down and eco (key (5-2)).
- Record the link by "OK".

#### Selection of priority, time delay and Scenarios of ambiences controls



#### **Priority setting control**

#### 0.0.2 2. -Ö-An input w ر ان ±.α configured for 0 0 0 priority setting (5) is displayed by the appearance (12) Inversion mode $\overline{7}$ of two dots at the bottom left (ok OK of the display. $\overline{7}$ (2) (2) Hold mode (7)OK) (2) + Inversion mode (7) (2) (12 (ok) OK Recording of link subsequent to Ŧ (2) programming 2 Hold mode (12) (OK $\overline{(7)}$

## E Time delay control

This command is used for the operation of an output for a period adjustable from 1 s. to 12 h. Two types of operation are available :

- delayed on and comfort,
- delayed off, down and eco.
- The time is set in hours, minutes and seconds.

At the end of the time delay, the output state is inverted.

#### **Control selection**

- Press the key (5-1) or (5-2) for more than 3 s :
  - (5-1) for delayed on, up or comfort type commands,
- (5-2) for delayed off, down or eco commands.
- → The letter "P" appears on display (12).
- Press "+".
- $\rightarrow$  The letter "t" appears on display (12) and the time-out command is selected.
- Confirm by "OK" to validate.

#### Time delay adjustment

- Adjust the hours, minutes and seconds using the " + " and " " keys.
- Record the link by "OK".



of the display.



## 5 Scenario of Ambient control

This command controls a group of lamps with a different preset illumination level for each of them. It is a way of creating different light ambience conditions in the same place. For a given group of lamps, up to 3 different ambience conditions can be defined. Example :

		lamp 1	lamp 2	lamp 3	lamp 4
PB1	ambiance 1 (meeting)	50 %	75 %	50 %	25 %
PB2	ambiance 2 (reception)	100 %	25 %	30 %	100 %
PB3	ambiance 3 (projection)	10 %	40 %	10 %	0 %

This command is available for variable type outputs (TS 210 or TS 211). Each output configured in an environment will be capable of measuring 3 different variation levels.Before programming a scenario of ambient, it is necessary to set a local individual control of dimming for each lamp concerned by the scenario.

### **Control selection**

- Press the key (5-1) for more than 3 s :
- → the letter "P" appears on display (12).
- Press twice on "+"
- $\rightarrow$  the letter "S" appears on display (12) and the ambient control is selected.
- Confirm by "OK" to validate.

## Choice of environment

- Choose one of the three possible environments for the selected group of lamps (figure 1, 2 or 3 on the display (12)) using the " + " and " - " keys.
- Confirm by "OK" to validate.
- Record the link by "OK".

## Adjustment of lamp's levels

The adjustment of the lighting level of each of the lamps is performed after recording the links. It calls for an individual variation command for each of the lamps in the group (see p 64 § 4 "Adjust the lighting levels for the ambience control scene").

## 3. Loading the configuration in the "Auto" mode.

When the configuration has been set and verified, it is time to load it to the input and output modules of Tebis TS.

- Loading
  - Set the selector 1 on the TS 100 configuration unit to the "auto" mode.
  - Loading " <sup>2</sup> " lamp (9) will flash.

The configuration unit will load all the data in the relevant units. The process may last from a few minutes to half hour, depending on the size of the installation.

## Scenario of Ambient control



## Loading the configuration in the "Auto" mode



As soon as the switch is set to **"auto"**, loading is indicated by flashing lamp "2". When the lamp ceases to flash, the installation is ready for operation.

## **Modifications, Operation**

After any action on the configurator, reset the switch to "Auto" mode in order to reload the modifications.

If the display (2) indicates "---" when the selector (1) is turned to the "**4**", "prog." or "0...9..." mode, TS 100 will be locked. See p 66 § 5 "Locking".

## 1. Display of links in the " < " mode

This step is used to verify all the links configured between inputs and outputs.

- Set selector (1) of the TS 100 configuration unit to the "  ${\bf \P}$  " position.

## 

Scroll the inputs numbers with the help of keys 2 "+" and "-". Lamps will light up to display the following :

- type of control and field of application on the configuration unit,
- relevant outputs on the outputs modules.

## ● Displaying by outputs ( < mode)

- Press the push-button of the relevant output and see the input number and type of control allocated to that output on the configuration unit.
- Press the output push-button repeatedly to see if the output is also controlled by any other input.

## 2. Modification of links in "Prog." mode

- Display the corresponding input number using the keys 2 "+" and "-".
- Change the type of command or select other outputs and confirm by "OK".
- Download the modifications by setting the selector to the "auto" position.

## Display of links in the " <> " mode



## Modification of links in "Prog." mode



## Erasing a link

## 3. Erasing

#### • Erasing a link ("0..9.." / "prog" modes) Reason :

- a control has been pressed by mistake during the numberin stage,
- you want to cancel an unwanted number,
- you want to replace an input module (without changing the configuration card).

### Procedure :

- select the number with the help of keys 2 "+" and "-",
- press key "CL" ⑧ nd confirm with "OK" ⑦,
- do not forget to load the modifications.

## $\mathbb{A}$

- The configuration link associated with the number will be deleted as well,
- any new numbering operation will give priority to the number which has been freed by the deletion.

### • Erasing the configuration ("0..9.." mode) Reason :

- offers a quick way to erase the entire configuration and all the numbers,
- testing before final configuration, for temporary operations.

### Procedure :

- press the flush "reset" button 0. All the numbers will be erased !
- do not forget to load the modifications.

## Ŵ

- After this operation, all the inputs will need to be numbered once again and the whole installation will have to be configured.

This procedure will not enable you to remove a unit and reuse it in another installation. See p 68  $\$  "Uninstallation".

## 4. Adjust the lighting levels for the ambience control scene

- Press the push-button controlling the ambience to be set.
- Set the lighting level of the lamp to the level desired using the local command for each of the lamps.
- Press at length (> 3 s.) on the push-button of the controller which operates the lamp.
- → The LED associated with the output will flash then go out. The value will be memorized.
- Repeat these operations for all the lamps forming part of the group.

Note : three lighting levels can be adjusted per output.







## 5. Locking

To prevent any inadvertent or undesirable action, the keyboard of TS 100 can be locked thus preventing access to the " <" display programs, "prog." programming and numbering "0...9...". The installation will nevertheless continue to be functional.

## Activation of locking

- Set selector ① of TS 100 to any position other than the "auto" position, for instance "prog".
- Using a tool, press the edge inversion key  $\Im$ .
- While holding the key down, push the switch over to the "auto" position.
- $\rightarrow$  The indication "on" appears on display (12).
- Confirm by pressing the key "OK".
- →TS 100 is locked. The programming and numbering display functions are no longer accessible.
- → Changing the switch to a position other than "auto" will cause three segments of the display to flash.

## Action on a locked TS 100

A set code used as a password is a way of working on the TS 100 configurator when locked.

- $\bullet$  Set selector 1 of TS 100 to a position other than "auto", e.g. "prog".
- Enter code 388 with the "+" and "-" keys.
- → Changing the selector to the "auto" position will return TS 100 to the locked mode.

## Unlocking

TS 100 is unlocked as follows :

- enter the password as indicated above,
- validate with the key "OK",
- use a tool to press the edge inversion key 3,
- while holding the key down, set selector 1 to the "auto" position
- $\rightarrow$  the indication "off" appears on display (12),
- validate with the key "OK".

The TS100 configurator will be unlocked.

## Activation of locking







## Uninstallation Uninstalling a single product

**Caution :** a Tébis TS system product configured the first time with TS 100 can no longer be used in any other installation configured with another TS 100.

In order to be able to reuse it in another installation, any product that is already configured must be returned to its original "works" mode condition, as it was when it left the works.

#### Reason :

- in the event of an installation product being replaced
- in the event of failure of the entire installation on return to the works mode. **Procedure :**
- check that selector 1 of TS 100 is on "auto",
- designate the product to be uninstalled as follows :
- check that the product selector is in "auto",
- ➡ press the product addressing button. The addressing LED will light up.
- if the product does not have an addressing button, simultaneously press on the front panel push-buttons of the products. The output LEDs will come on.
- Set the TS 100 configurator selector to the " < " display position,
- simultaneously press on the keys "+" and "-",
- while holding these two buttons down, set the selector to the "auto" position.

The  $\overline{a}$  LED flashes to indicate that the product reinitialization is underway. This procedure is only possible for one product at a time.

## Uninstalling the entire installation

#### Reason :

- to reinitialize any installation before installing a new configuration,
- in the event of a change in TS 100.

**Caution :** this action will totally erase the configuration in TS 100 and in the various modules of an installation **(link erasure).** 

#### Procedure :

- set the TS 100 selector to any position other than "auto",
- while holding the "reset" key down, set selector (1) to the "auto" position.
- The LED \$ will flash indicating that the reinitialization of the system is underway.
- → Once the LED is off, all of the installation products will be returned to the "works" mode. Any prior installation configuration will be erased. If the "err" message appears, the procedure for return of the installation

to the works mode will not have been effective. Carry out return to works mode for each of the products.

## Diagnostic aid if...

## ... a product cannot be configured:

- test the product in the " ♥ " mode and check that the outputs switch correctly when the front panel push-buttons are pressed,
- check for the presence of the 230 V~ and Bus power supplies, (Polarity and bus system voltage),
- check the cabling of the product,
- check that all the products are in the "auto" mode,
- cut off the Bus supply ; wait 10 s, then reenergize the bus voltage,
- do a single uninstallation of the affected product and re-programme it,
- lastly, reset the entire installation to the works mode.

## ... indicator lamp 1 flashes :

### Visible on the installation

The installation no longer reacts or product uninstallation is not possible.

#### Possible cause(s)

- What to do...
- the Bus is absent on TS 100
- check the cabling of the product (230 V~ and bus system voltage)

#### Visible on the installation

The default LED flashes each time you go to "Auto" mode and some of the programmed functions are missing.

#### Possible cause(s)

- The maximal number of links managed by the TS 100 or by the product has been exceeded

#### What to do ...

- Modify the programming of the installation and see page 62