⊃Lunatone

DALI-2 Touchpanel

Cockpit Configuration Files

Multifunctional DALI-2 control
module with flexible button layout

Custom Touchpanel Layout

All standard Layout Cockpit configuration files can be downloaded:
https://www.lunatone.com/wp-content/uploads/2021/03/TouchpanelLayout_KonfigFiles.zip

In this document the configuration of the cockpit files is explained – for the layout design guide see:
https://www.lunatone.com/wp-content/uploads/2020/11/DALI-2_Touchpanel_Manual_EN_M0021.pdf
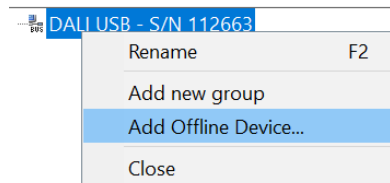
Cockpit Configuration File

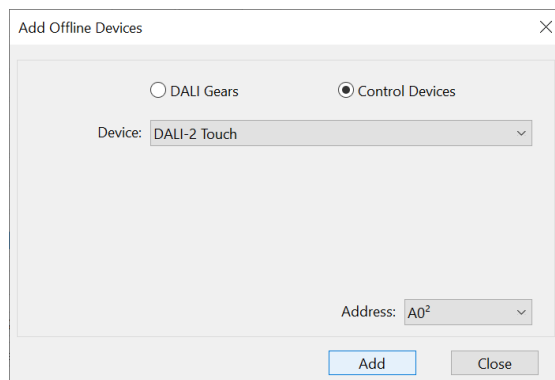To create a cockpit configuration File start the DALI Cockpit.

If no DALI Interface and Touchpanel device is yet available (USB, SCI, DALI4Net etc.) add a Virtual DALI Bus:
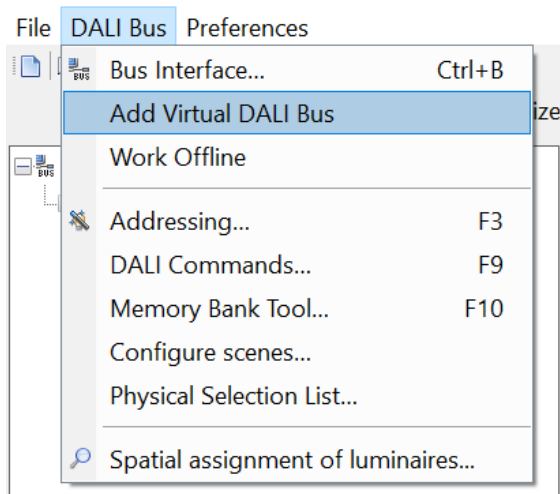
Right Click the DALI Bus and add an Offline Device

Select the section Control Devices and choose the Device: DALI-2 Touch

In the DALI Cockpit device overview existing configurations can be loaded or saved by right-clicking on the device and selecting "Import device settings" or " Export device settings…" respectively. See Figure 1.
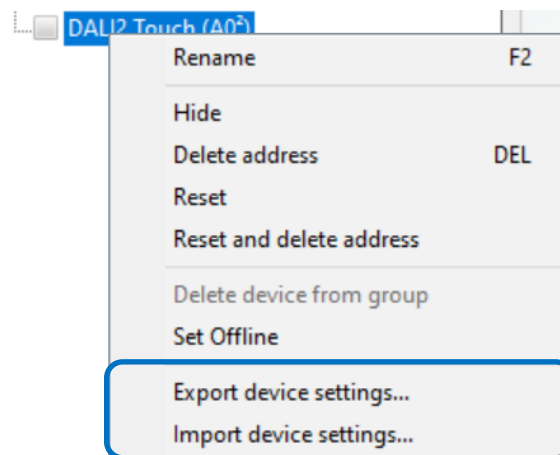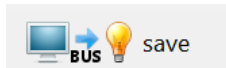

Figure 1. import or export device settings

This way existing files can be loaded and settings can be adjusted to fit the application e.g. number of buttons, button functions, effective range, etc on the device page - Tab "Application" – see details to all available settings on the following pages.

After configuration: press the save button

Apply your changes with "Save" in all cases-when writing to a device but also in offline configuration mode.
For easier configuration, start by loading a configuration file from the Lunatone Downloads with a similar button layout.

All available configurations in the DALI Cockpit are described below - all settings can be changed at any time.

Exporting the Configuration File

After saving the configuration it is possible to export the file by right clicking on the device in the treeview and selecting "Export device settings…". Shown also in Figure 1.

This way it is possible to share the .configuration throughout different devices or upload it to the Lunatone touchpanel configurator.

https://configurator.lunatone.com/touchpanel

Cockpit Application Overview

Application: Application Controller

Button position

To adjust the button positions, a reference picture can be added to the preview on the top left corner of the Cockpit Window "Add picture". Supported image formats: bmp, jpg, png, gif, tif, tiff, emf.

The positions of the buttons are defined by 4 parameters:

Button Centre X in %   Button Width X in %
Button Centre Y in %   Button Height Y in %
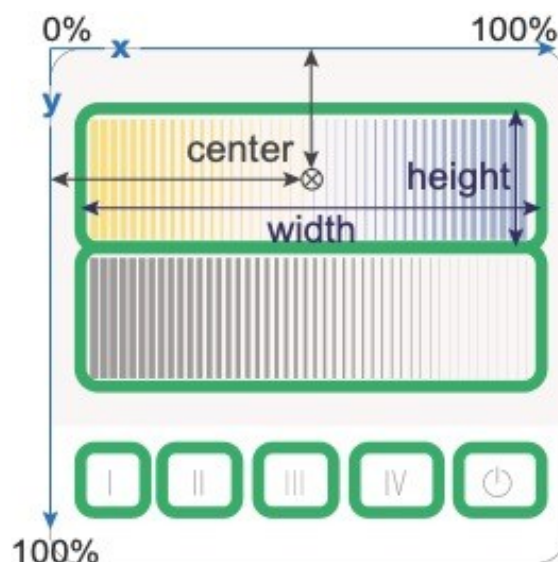
Button positions (indicated in green)

Destination address / effective range

In the section "destination addresses" it is possible to define which devices are affected by the button function. Possible destination addresses:

- Broadcast   (an alle)
- DALI group   (0 - 15)
- DALI single address (0 - 63)

Up to 4 different target addresses can be defined for each button. When the button is pressed the target addresses 1 to 4 will be processed sequentially (see Fig. 10)

Fig.10 Example: Addressing Inputs 1-4 – sequentially processed

Button Function (BF)

Various "Button Functions" (BF) can be assigned to the individual buttons. The "Button Function" defines the behaviour of a button. A short or long press of the button can trigger different DALI commands.

A toggle function (switching between on and off) is also possible.
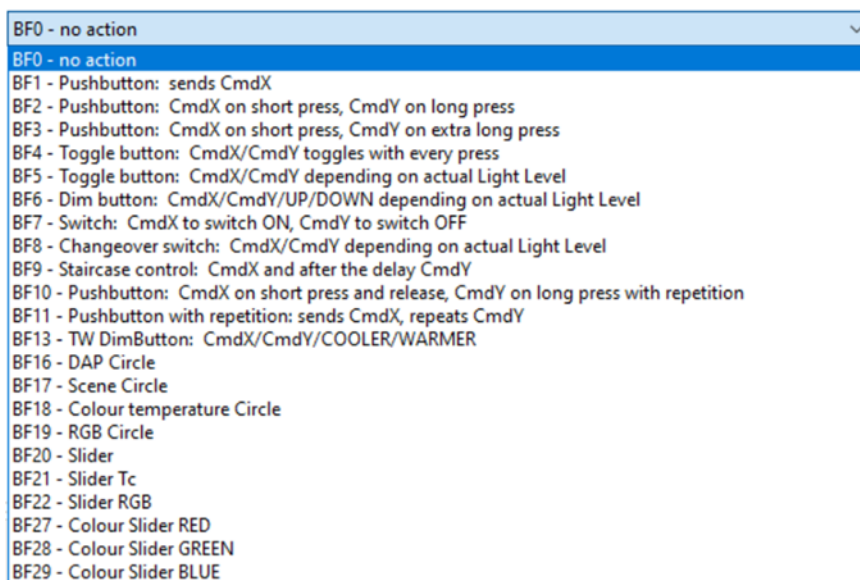
For the DALI-2 Touchpanel following "Button Functions" are available, Figure below

BF0 - no action	∨
BF0 - no action	
BF1 - Pushbutton: sends CmdX	
BF2 - Pushbutton: CmdX on short press, CmdY on long press	
BF3 - Pushbutton: CmdX on short press, CmdY on extra long press	
BF4 - Toggle button: CmdX/CmdY toggles with every press	
BF5 - Toggle button: CmdX/CmdY depending on actual Light Level	
BF6 - Dim button: CmdX/CmdY/UP/DOWN depending on actual Light Level	
BF7 - Switch: CmdX to switch ON, CmdY to switch OFF	
BF8 - Changeover switch: CmdX/CmdY depending on actual Light Level	
BF9 - Staircase control: CmdX and after the delay CmdY	
BF10 - Pushbutton: CmdX on short press and release, CmdY on long press with repetition	
BF11 - Pushbutton with repetition: sends CmdX, repeats CmdY	
BF13 - TW DimButton: CmdX/CmdY/COOLER/WARMER	
BF16 - DAP Circle	
BF17 - Scene Circle	
BF18 - Colour temperature Circle	
BF19 - RGB Circle	
BF20 - Slider	
BF21 - Slider Tc	
BF22 - Slider RGB	
BF27 - Colour Slider RED	
BF28 - Colour Slider GREEN	
BF29 - Colour Slider BLUE	

DALI-2 Touchpanel button functions

Key presses (short / long) are queried according to the following timing diagram and translated into internal signals (**key events**):
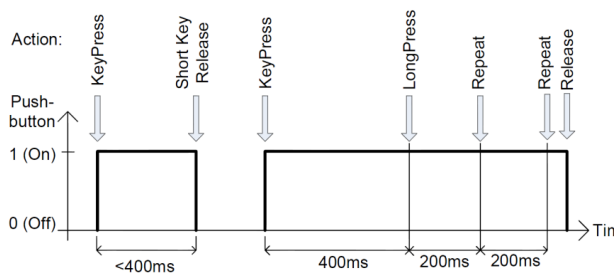

Fig.12 Key Events

The following table shows how the selected "Button Function" (lines 0 to 13) sends the commands **CmdX** and **CmdY** in connection with the "Key Events" (see Fig. 12). CmdX and CmdY refer to DALI commands.

☞ **Note**: The DALI commands are transmitted to all assigned target addresses.

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| button function number	event: press	event: short press	event: long press	event: extra-long press	event: repeat	function	typical application
0	-	-	-	-	-	-	-
1	CmdX	-	-	-	-	sends CmdX on key press	master off
2	CmdX	-	CmdY	-	-	sends CmdX on key press sends CmdY on long key press	switch to 2 different levels
3	-	CmdX	-	CmdY	-	sends CmdX on key press sends CmdY on extra-long key press	store level as scene
4	CmdX / CmdY toggle	-	-	-	-	sends alternating CmdX and CmdY on key press	toggle push button
5	CmdX / CmdY toggle	-	-	-	-	sends CmdX or CmdY on key press **(depending on bus status)**	changeover button
6	-	CmdX / CmdY toggle	ON AND STEPUP	-	UP / DOWN	sends CmdX or CmdY on short key press **(depending on bus status)** sends ON and STEPUP, if bus state is OFF before UP sends alternating UP or DOWN on repeat	push and dim
7	CmdX **(CmdY on release)**	-	-	-	-	sends CmdX on key press sends CmdY on key release	switch
8	CmdX / CmdY toggle **(CmdY / CmdX toggle on release)**	-	-	-	-	sends CmdX or CmdY on key press **(depending on bus status)** sends CmdY or CmdX on key release **(depending on bus status)**	changeover switch
9	CmdX **(CmdY on delay)**	-	-	-	-	sends CmdX on key press sends CmdY after a programmable delay	staircase control
10	-	CmdX	CmdY	-	CmdY	sends CmdX on short key press sends CmdY on long key press sends CmdY on repeat	push and dim
11	CmdX	-	-	-	CmdY	sends CmdX on key press sends CmdY on repeat	push and dim
13	-	CmdX / CmdY toggle	-	-	WARMER / COOLER	sends CmdX or CmdY on short key press **(depending on bus status)** sends alternating WARMER or COOLER on repeat	tunable white dim

BF 16 – DAP Circle
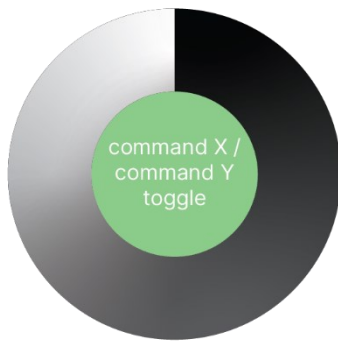
BF17 Scene Circle

BF18 Colour temperature Circle
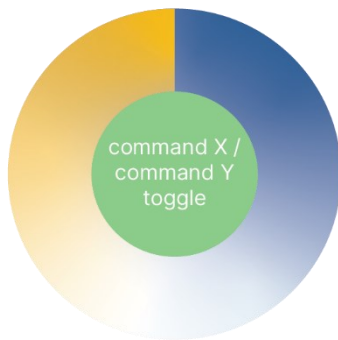
BF19 RGB Circle
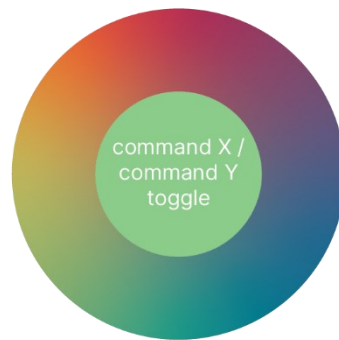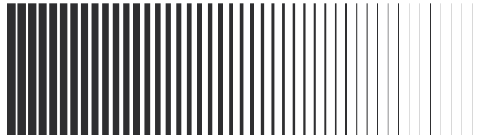
BF20 Slider

BF20 - Slider	▼
◉ Vertical ◉ Min <——> Max	
○ Horizontal ○ Max<——> Min	

BF21 Slider Tc
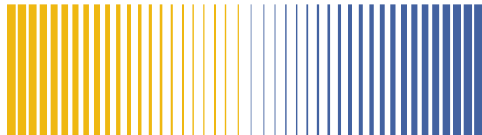
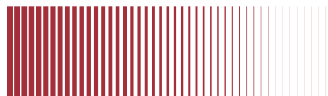| BF21 - Slider Tc	▼		
◉ Vertical ◉ Min <——> Max		Min Value:	Max Value:
○ Horizontal ○ Max<——> Min		1000 K	8000 K
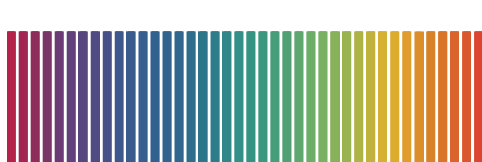
BF22 Slider RGB

BF22 - Slider RGB ▼

BF27 Colour Slider RED   BF28 Colour Slider GREEN   BF29 Colour Slider BLUE

◉ Vertical	◉ Min <——> Max
○ Horizontal	○ Max<——> Min

Commands:

The actual action (which function is triggered when pressing a button) is determined by the button function and command assigned to the button.

In most cases, an X command (CmdX) and also a Y command (CmdY) can be selected.
The following options are available:

Command number	Command name	action / function
no Nr.	DIRECT ARC POWER	direct arc power Level in %
0	OFF	off
1	UP	dim up (using fade rate)
2	DOWN	dim down (using fade rate)
3	STEP UP	increases light level by one increment
4	STEP DOWN	decreases light level by one increment
5	RECALL MAX	recalls MAX value
6	RECALL MIN	recalls MIN value
7	STEP DOWN AND OFF	decreases light level by one increment, if value at MIN switch off
8	ON AND STEP UP	increases light level by one increment, if OFF switch on
10	GOTO LAST ACTIVE LEVEL (DALI 2)	DALI-2-Cmd for switching on to the last active level (Memory-Function) (Firmware 2.0 and up)
16-31	GO TO SCENE	go to scene 0-15

Tab. 2

Depending on the selected command, additional input fields might appear for further settings:
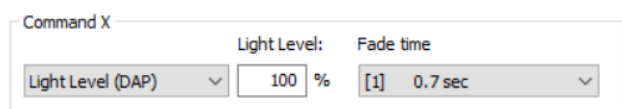

Fig. 13

Predefined macros:

Macros are predefined/ user defined command sequences that can be triggered by a single command.

The following macros are available:

Nr	Macro	Function
M1	Go Home	Light dims down to DAP 0 with predefined fade time, then fade time is set back to a programmable value
M2	Sequential Scenes	A list of the scenes can be defined; the scene is switched with each button press.
M3	Dynamic Scenes	A dynamic sequence of up to 16 scenes can be defined, including custom fade times and delays.
M4	Save actual light level as scene	When triggered the current level is saved in a scene (options: light level, RGB colour value, WAF colour value or colour temperature).
M5	User Defined Cmd-List	A user-defined macro script with up to 19 commands is executed.
M6	TC cooler	Activates the DT8 mode and sends the command "COOLER" 3 times.
M7	TC warmer	Activates the DT8 mode and sends the command "WARMER" 3 times.
M8	Send RGB +	Activates the DT8 mode and sends an ascending RGB colour table value.
M9	Send RGB -	Activates the DT8 mode and sends a descending RGB colour table value.
M10	Delayed Off	Sends a DAP level and after a delay the OFF command. DAP level and delay are user defined.

Tab. 3

Contact:

Additional Information and Equipment

Touchpanel Layout configuration files for the DALI cockpit
https://www.lunatone.com/wp-content/uploads/2021/03/TouchpanelLayout_KonfigFiles.zip

DALI Cockpit - free configuration software for DALI systems
https://www.lunatone.com/en/product/dali-cockpit/

Lunatone DALI products
https://www.lunatone.com/en

Lunatone Datasheets and Manuals
https://www.lunatone.com/en/downloads-a-z/

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Disclaimer

Subject to change. Information provided without guarantee. The datasheet refers to the current delivery.

The function in installations with other devices must be tested for compatibility in advance.