

GeoDim 24

Bühnenlicht-Steuerung

User manual
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INTRODUCTION

Control device is applicable for controlling 24 dimmer channels (through DMX dimmerpack PAR lamps), and for special controlling plus 4, maximum 8 channel DMX equipment, which can be even smoke, foam etc. machine. Control software can be updated from a PC through a USB port.

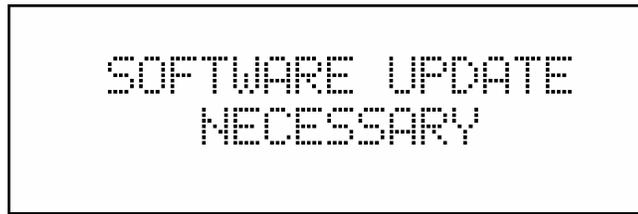
Reading through and operating the controller simultaneously are essential to handle the controller. If you have any question, please contact the manufacturer or dealer in e-mail. There you may report the contingent remarks experienced by you or proposals. We will answer your question in e-mail or load the software fixed by us to our home page, where you can download and install the fixed version, as the software of the controller can be upgraded free of charge. If you would like to be convinced that the software of your controller is updated, enter the menu, select the **SOFTWARE VERSION** menu item. Entering, you can read the version number of the controller software and the date of placing on the market in the bottom line of the display. Compare the version number with the version number of the software found on the website of the manufacturer, and if necessary, upgrade the controller software by the help of those described in the chapter entitled as **SOFTWARE UPGRADE**.

INSTALLATION:

After connecting the power supply, LED of the B.OUT switch is flashing, marking the standby. After pressing the B.OUT button, the LEDs of the controller turn on, and the logging-in text can be seen on the display for some seconds, then the controller moves to automatic mode.



If the caption "SOFTWARE UPGRADE IS NECESSARY" can be read on the display after turning on, the controller can be used only after software upgrade.



It may occur if the connection is cut off during the software upgrade or there is a power failure, so the upgrade is interrupted.

Shutting off the device: if in any mode you keep the B.OUT pushbutton pressed for 3 sec, the device disconnects and gets into the so-called standby mode, which is marked with flashing by the LED of the pushbutton.

Five positions of the LED's located in the switches of the controller are distinguished, the knowledge of which facilitates the operation of the controller.

- does not illuminate: Then the switch belonging to it does not have any function in the actual mode, its pressing down does not have any consequences.
- illuminates with half intensity: It is the so-called hotkey function. It means that the switch belonging to it has some kind of function, and it can be activated by pressing down the button.
- illuminates with total intensity: The function of the button belonging to the LED is active, which can be switched off by pressing down another button, not by itself.
- flashes with total intensity: indicates such a turned-on function, which can be switched off by pressing down the button belonging to the LED.

SOFTWARE UPGRADE:

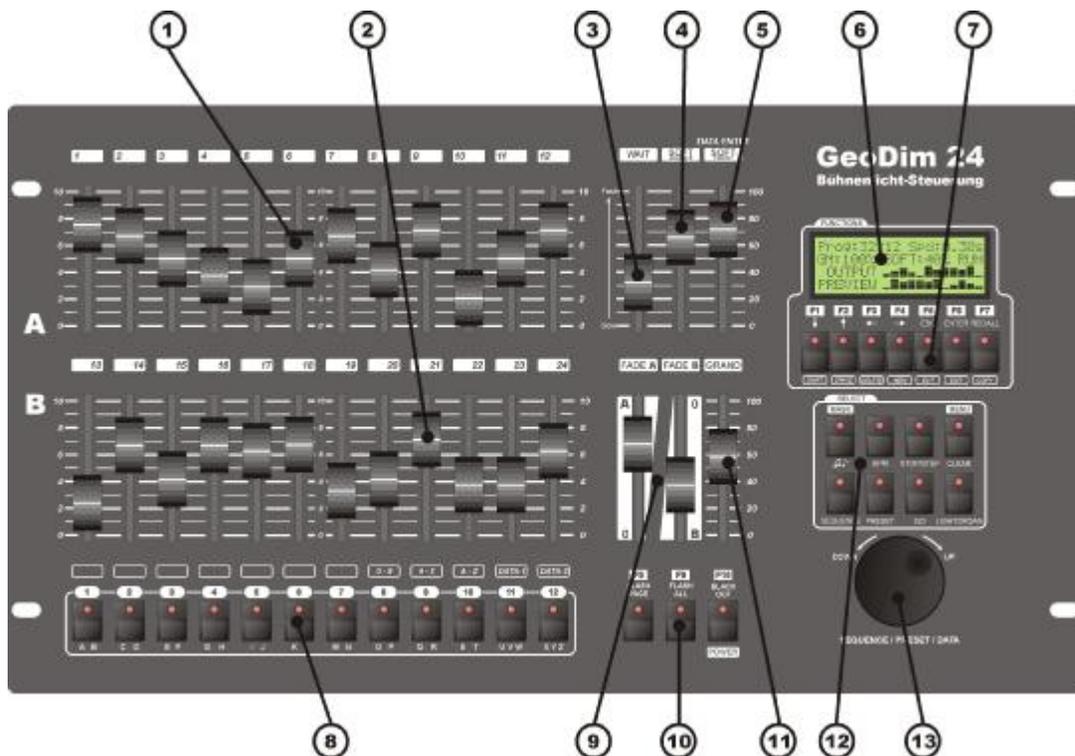
Usage of the downloading software: ATTENTION! The software runs only with Windows operating systems. Follow those described in the items listed below step by step to make the software upgrade:

1. Connect the controller and the computer with the USB cable.
2. Connect the controller to the power supply.
3. Start the computer, download the upgrading software from the home page of the dealer or manufacturer (ldm.exe) and the latest version of the controller software (*.bin).
4. Launch the software upgrading program (ldm.exe). After the first startup the controller offers the change of the most important settings: Select a language, then click on the 'OK' button.
5. The software starts connecting automatic, the LED's of the controller go out.
6. If the setting and the connection are settled, the data of the controller appear in the panel (type, etc.).
7. If the setting is not settled, the software warns you to check the connection, the accurate port setting, then try it again.
8. In case of proper connection click on the icon 'Opening the file' (1st icon), find the file to be downloaded into the controller (*.dat), then acknowledge the selection with the 'Select' button.
9. Click on the 'Download' icon or select the Setting/Start data downloading, downloading starts.
10. The state of downloading can be followed on the appearing process-marker, if it is finished, the caption 'Downloading is ready' appears, press the 'OK' button.
11. Terminate the connection, close application then the controller restarts automatically, the upgrade is finished.

If there is any error during the upgrading, eg. power failure, restart the controller disconnecting the power, and restart the upgrading software and repeat the transactions.

- flashes with half intensity: indicates such an activated function, in which some parameter has been modified, but at present it is not the actual mode. By pressing down the LED belonging to it, the function of the button will be active again, its LED will flash with total intensity.

INTRODUCTION OF CONTROL MEANS



1. **1-12 pots:** manual setting of 1-12 channels.
2. **13-24 pots:** manual setting of 13-24 channels, functions can be set: preset images, group luminosity, group wait and speed times.
3. **WAIT pot:** Delay time can be set between sequence steps running in actual group.
4. **SOFT pot:** Floating time of sequence steps running in actual group can be set.
5. **DELAY pot:** Floating time of preset picture and light organ sensitivity can be set
6. **DISPLAY:** LCD screen with 4x20 characters, luminosity and contrast can be set in menu, information on changes is displayed in case of moving any control device
7. **F1-F7 function buttons:** Freely configurable by user, function can be selected from function list, can be used for navigating in menu, and for carrying out modifications.
8. **1-12 Flash buttons:** Operate as channel flash in default setting, but functions can be added: Flash (maskable to define which channel is affected), Sequence and Preset start.
9. **FADE A-B pots:** Control device controls two manual planes, these can occur at the value added to luminosity set by the two pots.
10. **F9-F11 function buttons:** Freely configurable by user, functions can be selected from function list.
11. **Grand master pot:** can limit luminosity of all channels.
12. **SELECT group buttons:** Action start, stop, and most important functions: Music, Light organ, BPM, manual deletion, enter into the menu.
13. **JOG disk:** Sequence, and Preset select

HOW TO START

CHANNEL CONTROL

After switching on, control device gets into automatic mode. In order to prepare a SHOW and run it on its own luminous equipment, some settings need to be carried out, namely control device need to be configured. It is recommended to configure the control device in the following order:

- Check the version number of control software and if you find an updated version on distributor's or manufacturer's homepage, download it, and update control device, see: chapter SOFTWARE VERSION, CHAPTER SOFTWARE UPDATE
- Select the language which is used on display, see: chapter LANGUAGE SELECT.
- Set display contrast and luminosity, if it is e.g. too high or too low; chapter DISPLAY SETTING.
- Set led luminosity to the desired value, see: chapter LED SETTING.
- Set channel dmx address, see: chapter CHANNEL SETTING - Dmx address.
- Set other parameters, see: chapters CHANNEL SETTING – Pre-heating, Maximum value, Minimum value.
- Test if set means operate correctly, see: chapter MANUAL MODE. **Take care of the values of GRAND MASTER pot and FADE A-B pots in manual mode!**

If it is possible to set channel luminosity in manual mode after setting, then control device is ready for using. Operation of control device can be divided into two parts: **AUTOMATIC MODE** and **MENU SYSTEM**. All modifications and settings can be carried out in the MENU. In AUTOMATIC mode the programmed actions and effects which were set in the MENU can be run.

TEXT EDITING

Certain descriptions and texts can be modified at several points in menu. These can be accomplished always in the same system.

Buttons and their functions which are applicable in text editing are:

- You can read under 1-12 buttons which button displays which letter. Wherever there are two letters, the second letter can be displayed by double pressing.
- Display can be set to minuscule or to capital letter by button F1.
- Space can be displayed by button F2 (SPACE).
- You can select displayable characters by DATA-1 or DATA-2 (23,24) pots
- Character position can be changed by buttons F3-F4 (LEFT-RIGHT).
- Numbers can be selected by POT1 20 (0-9)
- By POT1 21 only minuscule letter can be selected (a-z)
- By POT1 22 only capital letter can be selected (A-Z)

Several references to this chapter can be found in the instructions.

DATA SAVE

If you exit a menu point in any menu system, the control device will ask if modifications are to save. The process is the same in every menu point

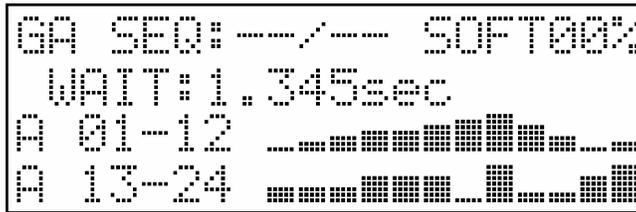


- CANCEL (F2) - return to menu without saving modifications
- ESC (F5) - save modifications, then return to menu
- ENTER (F6) - enter into selected menu point

AUTOMATIC MODE

After switching on the control device and pushing POWER button, control device gets in automatic mode. You can call off, start and set parameters of sequences and preset images written in menu here. You can learn the possibilities divided in some main parts in the following.

SCREEN



Letter G in left upper corner means group, the next character can be e.g. A, which means All, namely all groups. In this case the times set by WAIT, SOFT pots influence all the four groups. If there is a digit after letter G, a group is selected between 1 and 4. The change accomplished by WAIT and SOFT pots influence only on actual group.

Number of currently running sequence or preset can be read in the middle of the upper line.

Soft value belonging to sequence or preset is visible at the end of the upper line.

WAIT time of actual group can be read, short warning messages also appear here.

Information of pots 1-12 and 13-24 can be read on the left side of lower two lines. You can always carry out that is written here by the given pot. In the example above 1-12 channels of plane A can be modified by 1-12 pots, while 13-24 channels of plane A by pots 13-24.

Output values of 24 dimmer channels can be seen on right side of lower two lines in column diagram.

SELECT BUTTON GROUP

MUSIC

By switching it on, running sequences change step to the rhythm of the music. It can be mounted microphone, or signs received from input line. Control device automatically selects between the two possibilities, if there is connection to input line then received signs are converted, if not, it operates from internal microphone.

Sign conversion is amplified automatically, namely it attunes to low or to high toned music.

BPM

By pressing the button more times, control device memorizes the duration between presses and image change speed of running sequence adjusts to this value.

STOP / STEP

By pressing the button, running sequence can be stopped, the actual image at the time of pressing remains on output. Sequence can be re-started by pressing button GO.

CLEAR / MENU

If there is a modified channel, then led is flashing. By pressing the button flashing stops and manually reviewed channels get back to automatic mode, namely if there was running sequence, then they are involved again.

By pressing the button long, you can return to menu.

SEQUENCE

If button led is on with semi light, then preset data is displayed, and preset pre-selection is possible also by the JOG disk. Press the button, the led will be on with full light, now sequences can be pre-selected by the JOG disk. By pressing GO button, pre-selected sequence starts and SEQUENCE button led starts to flash, signing that the sequence is running. If led is flashing and you press SEQUENCE again, then running sequence will switch off and led stops flashing.

PRESET

If button led is on with semi light, then sequence data is displayed and sequence pre-selection is possible by the JOG disk. Press the button, then led will be on with full light, now you can pre-select preset images by the JOG disk. By pressing GO button, the pre-selected preset starts and PRESET button led flashes signing that there is an active preset. If led is flashing and PRESET button is pressed again, then active preset and led turn off.

GO

Pre-selected sequences or preset images can be started. If there is a pre-selection, then led is on with semi light.

LIGHTORGAN

Control device recognizes traditional light organ function, it is capable to control channels based on three different voice ranges (low, medium, high). Any of the 24 dimmer channels can be set to any of the three channels.

Press and keep LIGHTORGAN button.

By moving 1-24 pots you can select all to set operation.

- Switch off: Channel is not included in light organ, it operates independently
- Zero: If light organ is active, channel value is always zero.
- Low: If light organ is active, this channel reacts only to low voices
- Middle: If light organ is active, channel reacts always to medium voices
- High: If light organ is active, channel reacts always to high voices

Input sensitivity of light organ can also be set, LIGHTORGAN button has to be kept pressed and you can set sensitivity by DATA ENTRY pot.

For better operation it is recommended to use light organ from line input!

JOG DISK

Sequences or preset images can be pre-selected by JOG disk, depending that SEQUENCE or PRESET buttons are active or not. By using this any of the 99 events can be found.

GRAND MASTER AND FADE POTS

GRAND MASTER pot influences all dimmer channels in all circumstances. It releases as much percent from the channel as it is set at.

FADE pots are MASTER channels of two manual planes. If you pull them down or up together, then the channels smoothly float from plane A to plane B or vice versa.

WAIT, SOFT POTS

Image change time can be set by WAIT pot always in actual group between 0,3-5s. SOFT SEQUENCE and SOFT PRESET pots set the floating time of sequences and preset image channels, channels float from an image to another during wait time percentage, and when preset picture is called, it floats during the percentage.

FUNCTION BUTTONS

The 7 buttons under the display screen are the first 7 function buttons (F1-F7), the other 3 buttons are on front sheet in the middle of the lower line (F8-F10). The operation and function of these buttons are up to the user, who can select from a list what these buttons are to operate.

If a function button led is not on, that means that there are no added functions to this buttons.

Function list, and contained function operation can be found in chapter 'MENU SYSTEM – function settings – function buttons'.

FLASH BUTTONS

There are 12 flash buttons under the 24 pots. This number can be expanded virtually to 24, if you add FLASH PAGE change function to a function, then by 1-12 flash buttons 1-12 and 13-24 flash buttons can be reached. The operation and function of flash buttons are up to the user, he/she can select what they are to operate.

If a function button led is not on, that means that there are no added functions to this buttons.

Function list, and contained function operation can be found in chapter 'MENU SYSTEM – function settings – function buttons'.

1-24 POTS

By 1-24 pots are basically for manual setting of the 24 dimmer channels, in both manual planes (A,B) depending on function buttons state. Moreover it can also be used for light organ setting, and the lower 12 pots can also be used as function pots.

The functions which can be added to the function pots are included in chapter 'MENU SYSTEM – function settings – 13-24 pots.

If you wish to use pots 13-24 for dimmer channel control and also as a function pot, then SLIDER function has to be added to a function button, this is for changing from dimmer control to function.

If you wish to use only as a function pot, then it can be set in chapter 'MENU SYSTEM – Function settings Function save'. They operate then as function pots after every switch on.

MENU SYSTEM

It is recommended to start the use of control device with studying the menu system and its settings. After connecting control device battery and pressing POWER button the control device gets in automatic operation mode. Control device enters to menu by keeping the button pressed for 3 sec.

Name and number are displayed in first line, the menu points descriptions are in the other lines. Before actual menu point, an arrow is flashing. You can select menu points by DATA ENTRY pot, or by buttons UP-DOWN. You can enter into actual menu point by pressing ENTER, and return to automatic mode by pressing ESC.

You can enter to further sub menu from main menu by pressing ENTER, escape from and return to automatic mode is possible by pressing ESC.

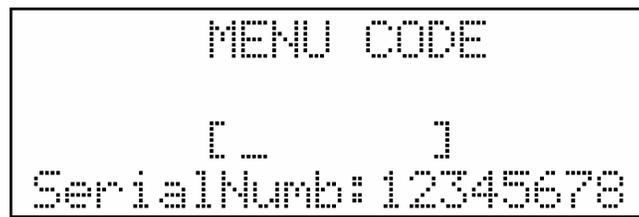
MENU SYSTEM STRUCTURE

- 1. Event creating
 - 1. Sequence
 - Edit (1-99)
 - Name (1-99)
 - 2. Preset
 - Edit (1-99)
 - Name (1-99)
- 2. Functions
 - 1. Function buttons (F1-F10)
 - 2. Flash buttons (1-12)
 - 3. Function slider (13-24)
 - 4. Function saving
- 3. Channels
 - 1. Dmx address (1-24)
 - 2. Name
 - 3. Characteristic
 - 4. Preheat
 - 5. Maximum value
 - 6. Minimum value
 - 7. Invers mod
- 4. Smoke machine
 - 1. Dmx address (1-4)
 - 2. Name
 - 3. Default value
- 5. Customize
 - 1. Language

- 2. Display
 - 1. Backlight
 - 2. Contrast
- 3. Led setup
 - 1. Full light
 - 2. Half light
- 4. Menu code
- 6. Information
 - 1. Worktime
 - 2. Software version
 - 1. Version number
 - 2. Edition date
 - 3. Controllerversion
 - 1. Serial number
 - 2. Production date

MENU SYSTEM – MENU CODE REQUEST

You can enter into menu by pressing MENU button long. If menu code is activated, then it is requested by the control device, and you can only enter into menu after typing the correct code.



- Flash buttons 1-12 - typing menu code
- ESC (F5) - to re-start code typing or to return to automatic mode
- ENTER (F6) - checking code and enter into menu
- F7 - Keep pressed for PIN code checking, then ENTER.

If you type incorrect code, the control device sends a warning, and you can restart code typing after pressing ESC button.

If you forgot your code, then with control device serial number it is possible to enter a PIN code. Serial number is in the lower line of the display screen. Submit this code to control device manufacturer or distributor, who returns the control device PIN code to you.

PIN code can be entered also by 1-12 buttons, then F7 button has to be pressed and kept pressed and press ENTER! Then control device enters into the menu. It is recommended to switch off or modify menu code in order to eliminate this problem at next start.

MENU – EVENT PREPARATION

Event sequences and presets can be prepared and run in the control device. Preset is a static image, it can be given to all channels to be included and if so, in what range. Sequences are image serials, these also can be masked by channel, and it can be set during running how often images are changed on output and in what speed the channels float from a value to another.



- UP-DOWN (F1-F2) - select menu point

- ESC (F5) - return to menu
- ENTER (F6) - enter into selected menu point

SEQUENCE

Sequences can be edited here, and can be named for easier identification.

```

Sequence creating
-->Edit
    Name
  
```

- UP-DOWN (F1-F2) - select menu point
- ESC (F5) - return to menu
- ENTER (F6) - enter into selected menu point

SEQUENCE – Description

```

Sequence Name
-->01. [ Sequ-01 ]
    02. [ Sequ-02 ]
    03. [ Sequ-03 ]
  
```

- UP-DOWN (F1-F2) - select sequence (1-99)
- ESC (F5) - return to menu
- ENTER (F6) - enter into selected menu point
- F7 - automatic giving name (Sequ-01..Sequ-99)

Name editing can be carried out according to the contents of chapter 'TEXT EDITING'.

SEQUENCE – Editing

To edit a sequence, select one of the 99.

```

Sequence select
-->01. Sequ-01
    02. Sequ-02
    03. Sequ-03
  
```

- UP-DOWN (F1-F2) - select sequence (1-99)
- ESC (F5) - return to menu
- ENTER (F6) - enter into selected menu point

After selection the control device is on the first step of the sequence. You can start editing or view the steps of a preliminary edited sequence.

- UP-DOWN (F1-F2) - select function button, function, then parameter
- ESC (F5) - back to menu
- ENTER (F6) - go to function select and parameter select paraméterválasztásba
- DELETE (F3) - delete function on the selected button

Numbers of function buttons are in first column, added functions in second and in third the parameter belonging to the function.

List of optional functions is expanding; presently the following functions are available and adjustable.

- MODE24

Control device controls 24 dimmer channels, on planes A and B, and there are 24 pots for manual control. This function is for switching from controlling all channels of a plane by 24 pots to controlling the first 12 channels of both planes.

- P.PAGE (Pot page)

Depending on the state of MODE24 you can switch either between planes A and B, or between the accesses of 1-12 and 13-24 channels.

At left lower part of the display in automatic mode, it can be seen that with which pot on which plane which channel is available.

Example:

MODE24 and P.PAGE switched off: 1-12 pots set 1-12 channels in plane A, 13-24 pots set 1-12 pots in plane B.

MODE24 switched on and P.PAGE switched off: 1-12 pots set 1-12 channels in plane A, 13-24 pots set 13-24 channels in plane A.

MODE24 switched off and P.PAGE switched on: 1-12 pots set 13-24 channels in plane A, 13-24 pots set 13-24 channels in plane B.

MODE24 and P.PAGE switched on: 1-12 pots set 1-12 channels in plane B, 13-24 pots set 13-24 channels in plane B.

- B.OUT

Black-out function can be added to a function button. Its speciality is that it can be masked by channel, namely it can be given by 12 flash buttons and by switching the buttons standing next, that on which channel it has effects between channels 1-24. Naturally several function buttons can be set to black-out function at the same time with different masks. Thus certain lamp groups, or colour groups as requested can be easily switched off.

Parameter: can be given for the black-out effect, the running sequences do not change image.

- GROUP

Four different sequences can run on control device simultaneously, namely in four different groups. Each group has adjustable image change time, floating time etc. If you want to use this, then GROUP function shall be added to two or more function buttons. Its parameter is the group number, between 1 and 4.

- SMOKE

The smoke machines set in menu can be used in the way that SMOKE function is added to one of the function buttons, and one of the smoke machines is selected as a parameter. In automatic operation mode smoke machine active channel values occur on the output while the button is kept pressed.

- STOP

Sequence running in a given group can be stopped, which can be selected as a parameter.

- MUSIC

Sequence image change can be switched to the music rhythm, parameter can be selected which group it has effects on.

- SLIDER

If you want to add functions to the pots, too, then this function is to be added to a function button, and 13-24 pots operate as function pots after switching on.

- F.PAGE (flash page)

Flash buttons are also programmable, but there are 12 flash buttons in total, that is why it has a switch button by which you can switch between 1-12 and 13-24 flash buttons. The switch button can also be an F.PAGE function.

- F.ALL (flash all)

Until pressing all channel will flash with maximum value.

Further functions are to be added to the list, if you find a function in the control device which is not included in the manual, see the updated manual on manufacturer's or distributor's webpage.

FLASH BUTTONS

Flash buttons can be found under 2x12 pots, altogether 12 pieces. There are in total 24 flash buttons as it is possible to add F.PAGE function to a function button, by which you can switch to upper flash page to reach also 13-24 flash functions by 1-12 buttons.

Butt	Function	Param
->01.	[FLASH II]]
02.	[SEQUENCE] 01]
03.	[PRESET] 01]

- UP-DOWN (F1-F2) - select flash button, function, then parameter
- ESC (F5) - back to menu
- ENTER (F6) - go to function select and parameter select paraméterválasztásba
- DELETE (F3) - delete function on the selected flash button

Flash button numbers are in first column, the added function in second and in the third the parameter belonging to the function.

List of optional functions is expanding; presently the following functions are available and adjustable.

- FLASH

Channel flashing, while this flash button is pressed it is maskable that on which channels maximum value are set.

- SEQUENCE

A sequence can be added to any flash buttons; it can be started and stopped by this button.

- PRESET

A preset can be added to any flash buttons; it can be started and stopped by this button.

13-24 FUNCTION POTS

Lower 12 pots are not just used for manual control of dimmer channels, but they can be customized with different functions. Pot selection, function addition and parametering are the same as in previous menu point.

List of optional functions is expanding; presently the following functions are available and adjustable.

- MASTER

If you wish to control master luminosity of some channels, then add this function to a pot and select the channels as a parameter.

- WAIT

If you wish to control WAIT time of a group separately, then add this function to a pot and select a group as a parameter

- SPEED

If you wish to control SPEED time of a group separately, then add this function to a pot and select a group as a parameter

FUNCTION SAVING

If you wish to use a function switched on in general, then it is recommended to save it as switched on here, thus this function switches on automatically after switching on the control device. If you wish to use always a function switched on, then it is not necessary to add a separate function button to a pot, because it activates after switching on and if switch off is not needed then it should not reserve place from an other function.

Example:

If you wish to set 24 dimmer channels always manually by 24 pots, then MODE 24 function should be switched on, it is activated hereinafter after switching on the control device, namely 1-24 pots can be controlled manually by 1-23 pots.

Working function saving in this version and its states:

- MODE24

After start you can reach all the 24 channels by 1-24 slider

- P.PAGE

After start you can reach the 1-12 channels by 1-24 slider in A an B bank.

- SLIDER

After start on the 13-24 slider you can reach function slider functions.

- F.PAGE

After start the 1-12 flash buttons works as 13-24 flash functions.

MENU – CHANNEL SETTING

24 dimmer channels which can be controlled by the control device can be set here

DMX ADDRESS

Any of the dimmer channels can be placed on any of the dmx channels, control does not permit to add them to those channels which are reserved by one of the 4 smoke machines channels.

Channel	DmxAddr
-->01.	[001]
02.	[002]
03.	[003]

- UP-DOWN (F1-F2) - select channel
- ESC (F5) - back to menu
- ENTER (F6) - go to dmx address setting

Channel number can be read in first column, a flashing arrow is before the one which is selected, the dmx address belonging to the channel is in second column.

Reserved addresses are automatically switched by the control device, thus it is impossible to give incorrect values. If you want to place it to an address which is already reserved, then the reserving smoke machine or dimmer channel should be firstly removed.

When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

NAME

Channels can be named for easier identification during use. Name can contain 8 characters.

```

Channel Name
-->01.    [Ch-01]
  02.    [Ch-02]
  03.    [Ch-03]

```

- UP-DOWN (F1-F2) - select channel
- ESC (F5) - back to menu
- ENTER (F6) - go to name editing

Channel number is in first column, a flashing arrow is before the selected one.

Name can be edited according to the contents of chapter TEXT EDITING.

When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

CHARACTERISTICS

Several devices can be controlled as a dimmer channel; these can be PAR lamp, neon, leds etc. Differences in performance and other parameters may occur within one type. They react differently because of different characteristics; for example not all of them will produce linear luminosity change when linear input data change. That is why there is a possibility to set different output characteristics for each channel.

```

Name     Character.
-->01.   [Normal ]
  02.   [Linear ]
  03.   [Exponenc]

```

- UP-DOWN (F1-F2) - select channel, then select characteristic
- ESC (F5) - back to menu
- ENTER (F6) - go to select characteristic

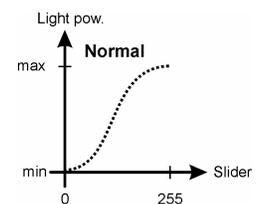
Channel number can be read in first column, a flashing arrow is before the actually selected one and belonging characteristics in second.

When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

Characteristics

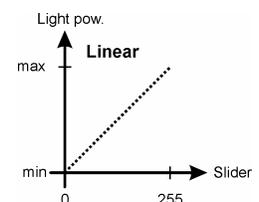
1. Normal

Slow luminosity change can be experienced in lower range of pot, in medium range a bigger change can be experienced also for small movement, while in the upper parts luminosity only slightly changes.



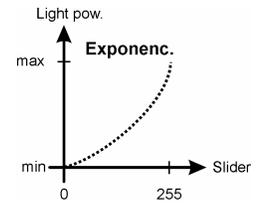
2. Linear

Balanced luminosity change takes place according to the adjustment of the pot.



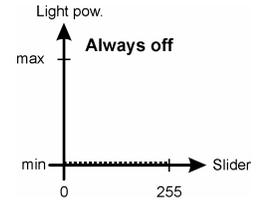
3. Exponential

The bigger range is reached by the pot, the stronger luminosity change takes place.



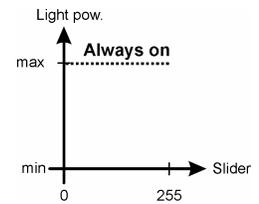
4. Always off

It is used if you do not want to use this channel. It is not needed to pull down the lamp from the input as no sign different from zero can exit.



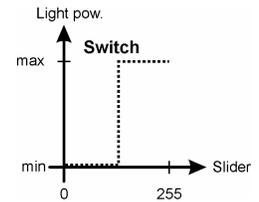
5. Always on

It is used when you wish to see always maximum sign level on the channel for e.g. a fixed light.



6. Switching

This characteristic differentiates between two sign levels. If 50% is not reached by pot on control device, then 0 value exits on dmx, if it is above, the maximum is 255.



PRE HEATING

A pre-heating value can be set to every dimmer channel. No less value will exit on output than this value. Pre-heating supports the increase of bulb lifetime as no light spread from the lamp in a few percentage of position, but filament coruscates thus it can not cool down and in case of switching it on several times the heat difference is less. It also supports quicker luminosity change.

Channel	Preheat
->01.	[000; 000%]
02.	[000; 000%]
03.	[000; 000%]

- UP-DOWN (F1-F2) - select channel
- ESC (F5) - back to menu
- ENTER (F6) - go to name editing

Channel number can be read in first column, a flashing arrow is before the selected one, the pre-heating value belonging to the channel is in second column in normal and percent value.

When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

MAXIMUM VALUE

A maximum value can be set to every channel. No higher value exits to channel output than this value. The point is that if e.g. PAR lamps in different colours are used, then yellow overshadows red and blue with the same bulb performances. If the maximum value of yellow is decreased, then it can be balanced with the other colours. Maximum value setting is the same as it was described in previous menu points.

MINIMUM VALUE

A minimum value can be set to every channel. No smaller value than this can exit to channel output, unless the channel is in black-out, as in this case the pre-heating value occurs.

The meaning of maximum and minimum setting through an example:

Two channels are given with a yellow and a red PAR lamp. Yellow lights are stronger than red under the same control, but we wish both colours to spread the stage in the same volume. This is what supported by maximum and minimum settings.

Set minimum value of yellow channel to 0%, and maximum value to 70%, and minimum of red channel to 7% and the maximum to 100%-ra.

If then both pots are pulled down in manual operation mode, then yellow will light at 0%, while red at 7%, and in pulled up pot position 70, and 100% will be the output values. It is clear that control device maps minimum and maximum settings to channel pots, and both pots can be pulled up as yellow will increase only to 70%, namely up to the value when it does not overshadow the red. We set 7% to red as no light can be seen from the lamp between 0 and 6%, and will be visible only right above 7%, while yellow is already visible at 1%.

It is important to note that these values and settings highly depend on the used lamps, performances and other adjusted properties – like characteristics – thus the described values are only examples.

Minimum value setting is the same as it was described in previous menu points.

INVERSE OPERATION

There is also a possibility for inversing, inverting the output values of every channel. Inverse value setting is the same as it was described in previous menu points.

MENU - SMOKE MACHINE SETTING

Besides the channels 4 pcs max. 8 channel dmx equipment can be controlled separately by the control device. This can be either a generally used smoke machine – referring to the menu point name -, foam machine or any dmx effects. The 4x8 channel values can be set in this menu point; these are added to connected smoke machines in standby state. Active values can be set in automatic mode by pressing SMOKE function added to a function button, which are added to the smoke machine while button is pressed, and when it is released the set standby value is added.

DMX ADDRESS

Four smoke machines can be placed to any of the dmx channels; control device does not permit to place it to those channels which are reserved by one of the 24 dimmer channels.

SmokeM.	DmxAddr
-->01.	[025]
02.	[033]
03.	[041]

- UP-DOWN (F1-F2) - select channel
- ESC (F5) - back to menu
- ENTER (F6) - go to setup dmx address

Number of smoke machine can be read in first line, a flashing arrow is before the selected one, and belonging dmx address in the second column.

Reserved addresses are leaped automatically, thus it is impossible to give incorrect data. However if you wanted to place it to a reserved address, then first the reserving smoke machine or dimmer channel need to be removed.

When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

NAMES

Smoke machines can be named for easier identification during usage. Name can contain 8 characters.

SmokeM.	Name
-->01.	[Sn-01]
02.	[Sn-02]
03.	[Sn-03]

- UP-DOWN (F1-F2) - select channel
- ESC (F5) - back to menu
- ENTER (F6) - go to setup dmx address

Number of smoke machine can be read in first column, a flashing arrow is before the actually selected one.

Name can be edited as it is described in chapter TEXT EDITING.

When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

STANDBY VALUE

A standby value can be given for each channel of smoke machine. This value is sent to dmx line at set address until it is activated in automatic mode by pressing smoke machine function button.

Number and channel number of smoke machine are in the first column, a flashing arrow is before the selected one.

SmokeM.	Default
-->01/01.	[000; 000%]
01/02.	[000; 000%]
01/03.	[000; 000%]

- UP-DOWN (F1-F2) - select smoke machine
- ESC (F5) - back to menu
- ENTER (F6) - enter to edit the selected smoke machine stand by value editing
- F7 - switching setup all channels together

When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

MENU - CUSTOMIZING

LANGUAGE SELECTION

It is possible to select in what language the control device should display the notifications.

Select the appropriate language from the list by UP-DOWN buttons after entering.

You can leave the menu point by ESC button. When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

DISPLAY

Luminosity and contrast of the display can be set to optimal value due to existing different light and temperature conditions.

Set value of background light can be found in third line after entering. This value can be set by the 24th pot. Set contrast value is in lower line. This value can be set by the 23rd pot.

You can leave the menu point by ESC button. When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

LED SETTING

Luminosity and contrast of the leds can be set to optimal value due to existing different light and temperature conditions.

Set value of full LED light in third line after entering, which also can be seen on 5-8 flash button leds. This value can be set by the 23rd pot. Set value of semi-luminosity can be seen in lower line, and actually set value is displayed on 1-4 leds. Value of semi-luminosity can be set by the 24th pot.

You can leave the menu point by ESC button. When you exit and there was modification, then control device asks for saving, if not requested, then it returns to the menu.

MENU CODE

It is possible to switch on menu code. If you do not want that unauthorized people modify data in control device, either it is a sequence, preset or any other data, then menu code needs to be activated. After activation when you enter into menu, first the code must be given then you can reach the menu points.

If after entering in lower line the text "switched off" is displayed, then menu code is not yet activated. You can return to menu by pressing ESC button, you can step further to give the menu code by pressing ENTER.

The maximum 6 character code can be typed by 1-12 buttons. You can return by ESC button. If a code is given, you can step on by ENTER button.

The same code has to be repeated, then you can step on by ENTER button.

If the code is new and the repeated code is not the same, then control device signs by a default notification and code must be typed again. Press ESC button and you can retype the code.

If the code is new and the same as the repeated one, then control device asks for saving. You can return by pressing ESC without saving, while by pressing ENTER, the code is saved.

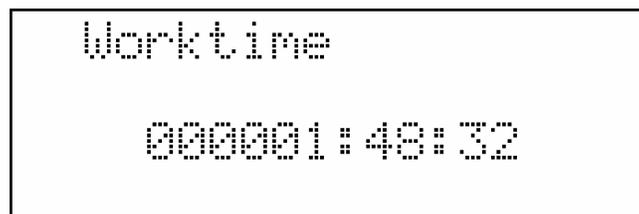
Code is now activated, thus you can switch from automatic mode only by typing the code. Activated code can be switched off, press DELETE button which is on with semi-light.

By pressing ESC, the code is not deleted, if ENTER button is pressed, the code is switched off, namely it is not requested when entering to the menu.

MENU - INFORMATION

OPERATION HOUR

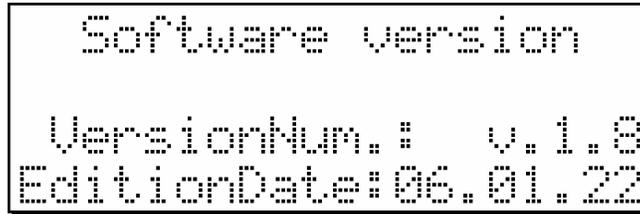
Control device measures the time from the point of installation, this can be displayed in a form 'hour:minute:second'.



ESC (F5) - back to menu

SOFTWARE VERSION

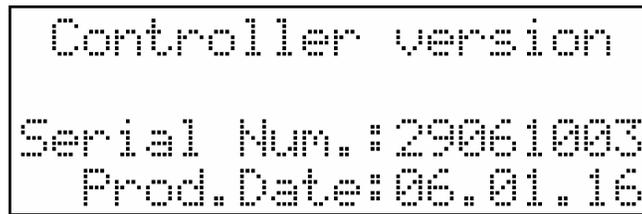
Version number of control device software is in third line of the display and in lower line the release date of software version can be read (year.month.day).



ESC (F5) - back to menu

CONTROL DATA

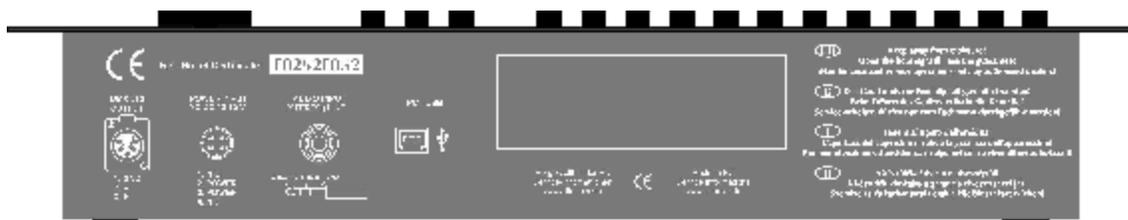
Serial number of control device is in third line of the display and production date of control device is in lower line (year.month.day).



ESC (F5) - back to menu

Technical details

- channels: 24 channels, + 4 x 8 channels for smoke machines
- number of sequences: 99, max. 99 step / sequence
- number of presets: 99
- sequence wait time: 0.3s – 5.0s
- sequence soft time: 0 – 100% / relation of wait time
- bpm values: 60.0 – 200.0bpm
- Light organ channels: bass, mid, high



Connectors and plugs

DMX connector: For scanners, movingheads, dimmers and smoke-machines



POWER INPUT

DC 12 V



1. N.C.
2. NEGATIV (-)
3. POSITIV (+)
4. N.C.

Power supply: The controller can be operated from a power supply of AC and DC types, therefore the linking is not sensitive to polarity. The controller should be operated only from such a power supply, which is of 12 voltage and can be loaded with at least 500mA.

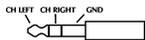


PC USB connector: *standard*

Cable: standard USB cable

AUDIO INPUT

(STEREO) LINE



AUDIO INPUT (STEREO LINE) connector: *6,3mm jack*

Dimensions and weight

- Width: 483mm, 19"; Height: 265mm 4HE; Depth: 83mm
- Weight of the controller: 4,3kg

Accessories

- 1pc 230V/12V AC/DC or AC/AC power supply
- 1pc operating instruction