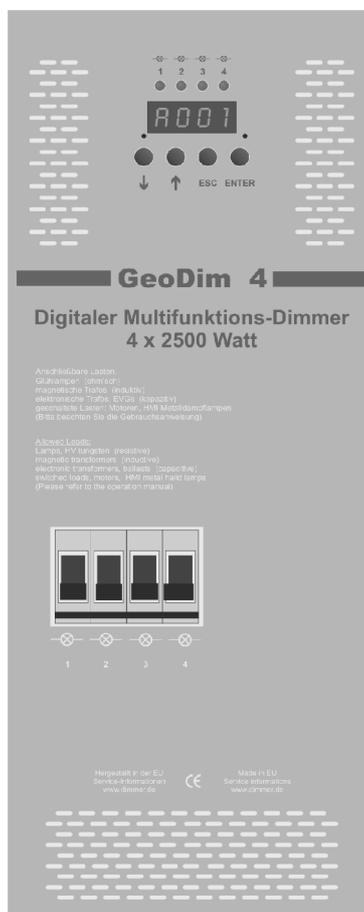


GeoDim Wall 4 Dimming Pack



Operating Manual

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Operation Manual

The GeoDim Wall dimmers have been developed for use in multipurpose hall, hotel, restaurant, school and industry. Installation and operation has to be done by a specialist.

Please read this manual carefully, to secure an optimized performance of your dimmer.

If you notice any malfunction or mechanical injury of the dimmer or the connecting wires, please disconnect the system immediately. Contact the technical service for consultancy.

Mounting:

Please care for a free air circulation around the dimmer, to avoid an overheating during continuous operation.

After mechanical mounting, remove the front panel to have access to the connection terminals.

On bottom are the terminals for power supply and load connections. Please use only wires with recommended copper diameters for the required current.

TECHNICAL DATA

Power supply:	1 phase 220 - 230V, 50 - 60Hz. Max. 44 amp. (depends of the connected loads) The supply cable has to be protected with 40 amps or 63 amps rated fuse.
Maximum power consumption:	10 kVA
Input :	DMX 512 / 1990 Analog 0 – 10V Analog 1 – 10V current sink (EIB function) Potentiometer control
Output :	8 external contacts 5 volts to start lighting scenes. 4 load channels with max. 2500 VA power. inductive load (mech. transfos. max. 2000 VA) resistive load (incandescent lamps max. 2500 VA) capacitive load (dimmable electronic transfos max. 2000 VA)
Minimum load:	60 VA per channel (optional with 10 VA available)
Housing:	Wall-mount sheet metal housing for operation in dry rooms. (IP 30)
Internal fuses:	Glass fuse 0,2 amps slow 250V, 5 x 20mm
Ambient temperature:	0 C° ... 35 C° (Higher ambient temperatures are possible at reduced output loads (derating informations on request))
Dimensions:	W 180 mm x h 480 mm x depth 105 mm
Weight:	6000 / 8500 g

Features are subject to be changed.

Inputs and Outputs:

DMX Input:

The dimmer can be controlled via standard DMX-512. Connect the DMX input and select the desired DMX starting adress. Now the levels can be controlled with the DMX signal.

0 -10V Analog Inputs (4 pcs):

The dimmer can be controlled by external 0 – 10 volts signals. Connect the desired analog inputs. Analog to the input voltage changings the outputs can be dimmed.

1 -10V Analog Inputs (EIB 4 pcs):

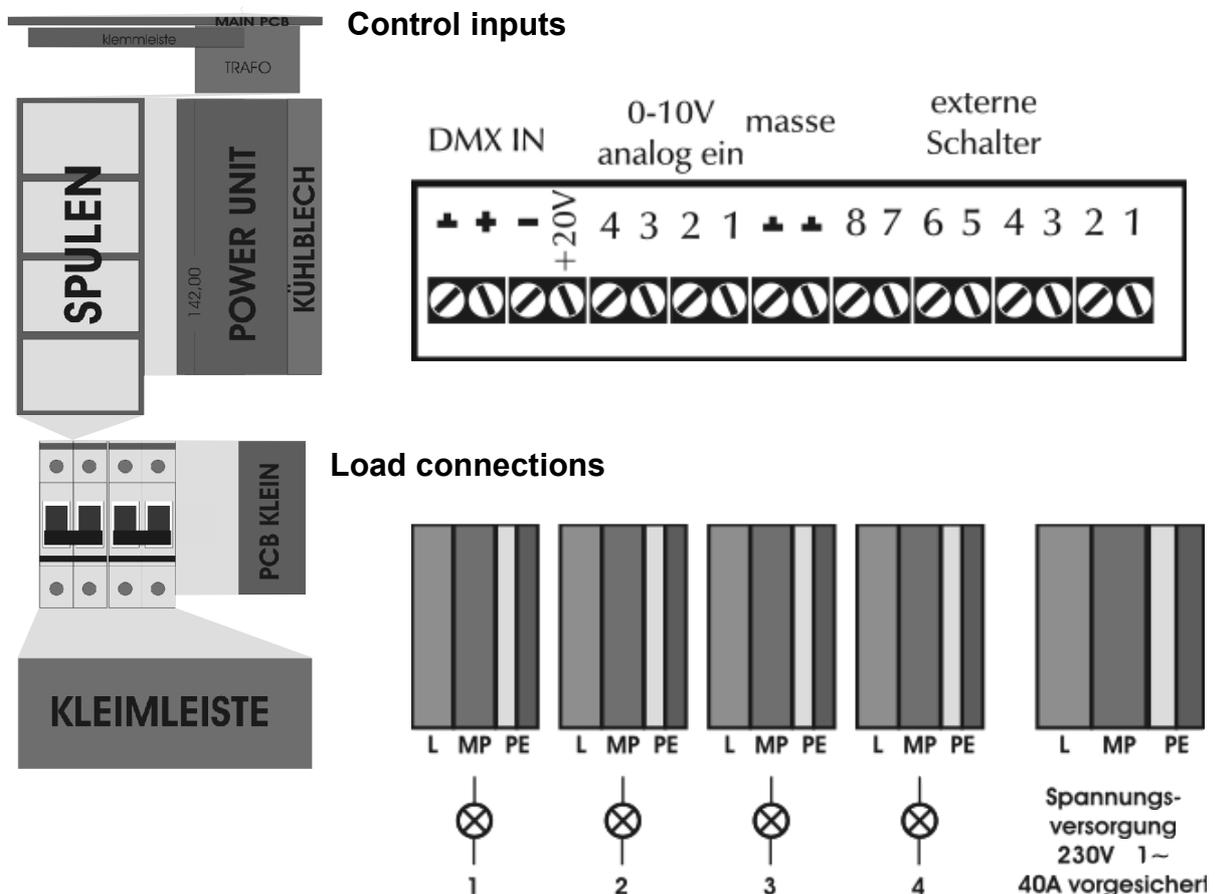
If you wish to drive the GeoDim with an EIB-Bus (European Installation BUS), you have to connect standard EIB actors. The actors outputs 1-10 volts have to be connected to the dimmers 4 analog inputs. The dimmer has to be setted into „EIB“ mode. (In the Setup menu the analog input must be activated „on“ AND the EIB input must be activated „on“). Confirm to input voltage changings the dimmer outputs change their intensities.

External switch inputs (8 pcs):

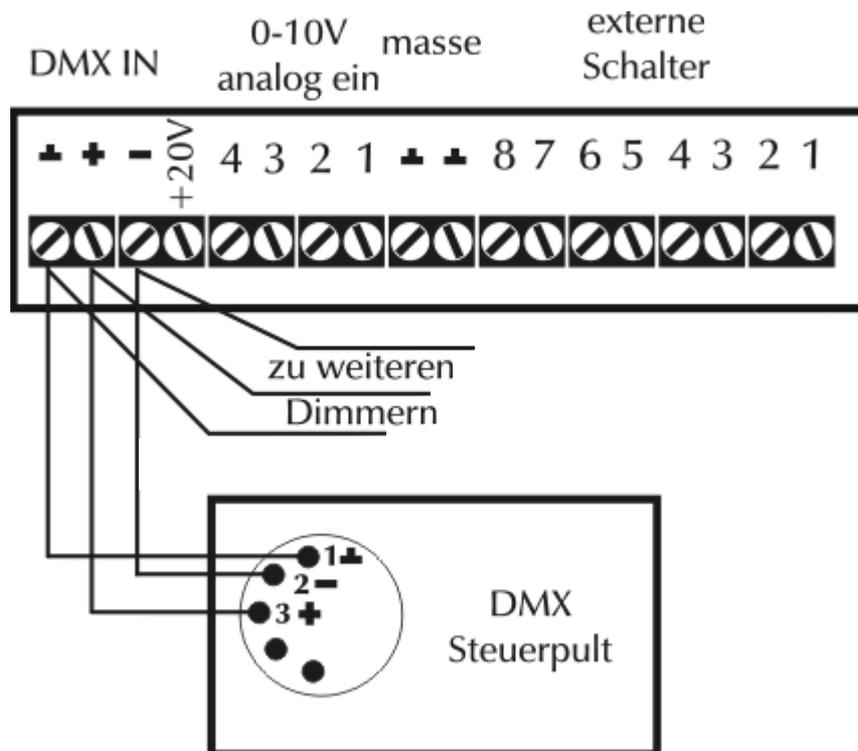
The GeoDim can store up to 8 lighting presets. Those scenes can be activated by 8 external switches. Connect these switches (any momentary acting switch – potential-free can be used) to the switch inputs 1 ... 8 in the dimmer. By pressing a switch, the corresponding input is connected temporarily to ground. So the desired preset has been started.

The fade-time can be setted from 0 sec to 9 seconds. (See menu settings).

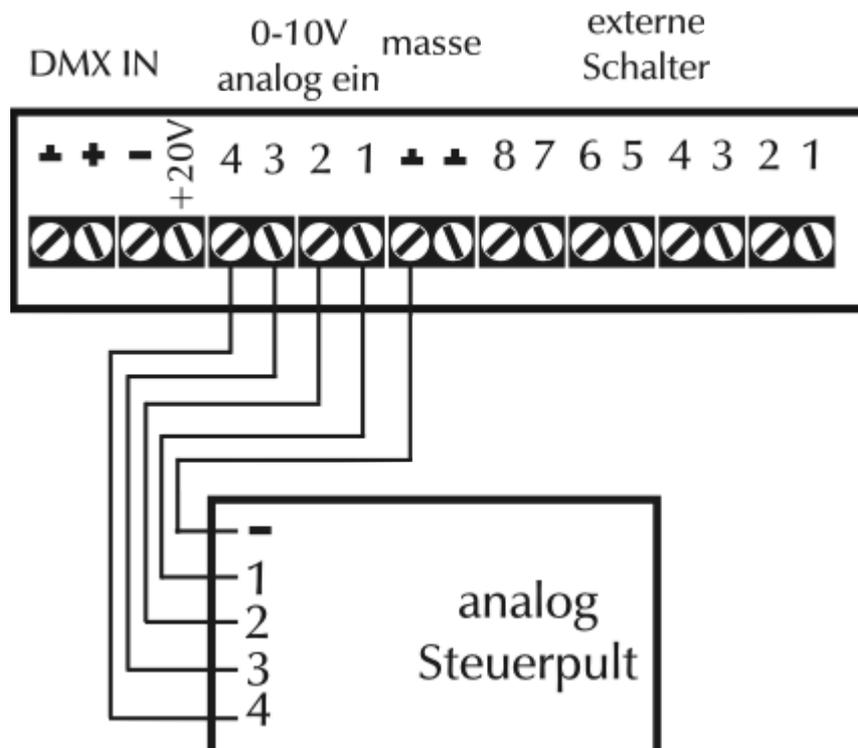
View on the screw terminals at opened front cover



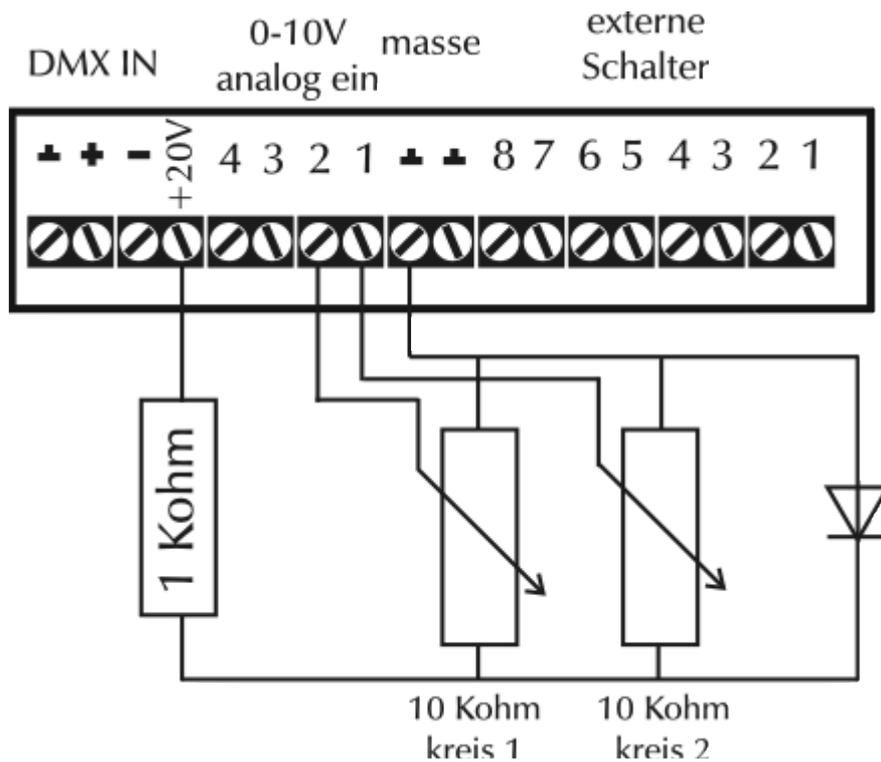
Example: Control with a DMX light console



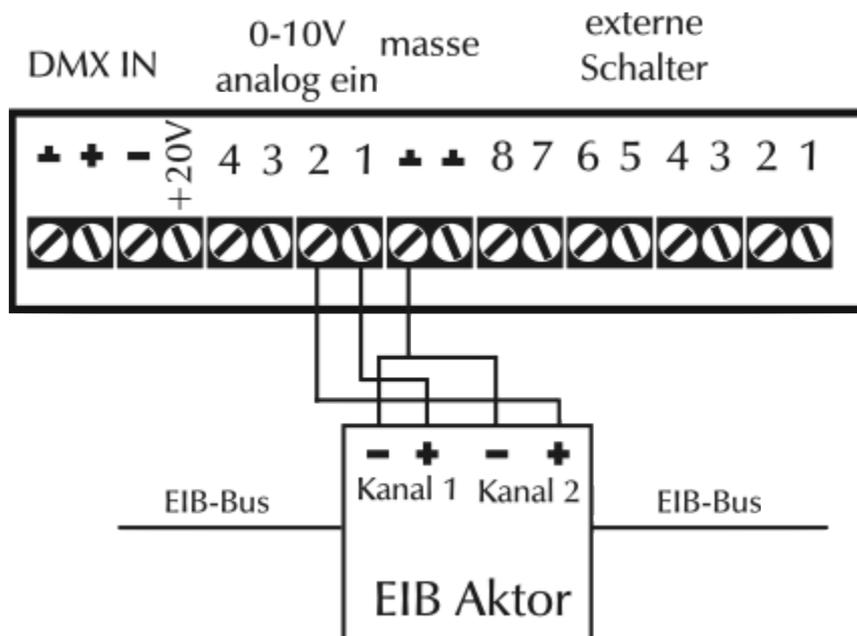
Example: Control with an analog light console



Example: Control with potentiometers

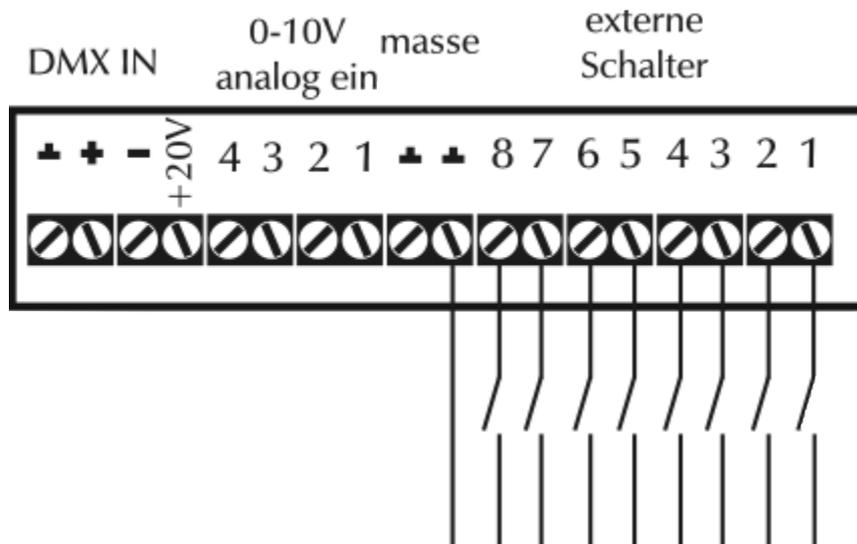


Example: Control via EIB (European installation bus)



In this example single channels can be dimmed or switched via a standard EIB actor. Alternatively you can connect the actor with the terminals „externe Schalter“, to be able, starting the lighting scenes in the dimmer via EIB. For each scene you like to start, there is an actor channel needed. To get a blackout (every channel zero), you have to create an empty scene.

Example: Control via external switching contacts (wall pushbuttons)



Each momentary acting switch can be used, to start lighting scenes of the dimmer.

Warning – don't connect mains voltage to the dimmer inputs !

If you wish to connect 230 volts supplied switches from the building with the dimmer, you have to isolate them galvanic by use of mechanic relays.

By pressing of a switch the corresponding lighting scene will be started. By pressing of another switch, the active scene will be faded out and synchronously the new scene fades in.

Switching on the dimmer:

If the GeoDim is connected with the power supply, it is 'active' ready for use.



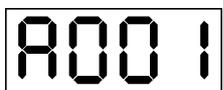
Init on the display. (GeoDim – 4)

After 5 sec. The next screen appears, showing the DMX adress. The controller is now in the menu mode.

Menu mode:

During standard operation, the active DMX adress is displayed. With the up-down buttons you can select different menu points.

Menu points:



DMX adress (0-509)



1. channel intensity (0-100% or 0-255 – depends of setup configuration)



2. channel intensity (0-100% or 0-255 – depends of setup configuration)



3. channel intensity (0-100% or 0-255 – depends of setup configuration)

4 100

4. channel intensity (0-100% or 0-255 – depends of setup configuration)

P r E . 1

Preset scene starting and saving. (preset 1 - 8)

F A D E

Fade time setting (0.0 - 9.0 sec., in 0.1 sec steps)

S E T U

Setup – access to further settings.

Menu mode – DMX Adress

A 0 0 1

The letter „A“ means „DMX-Adress“, and the following digits show the active starting adress. If the display is static, the dimmer receives no DMX signal. If a small dot on the right is blinking, DMX is o.k.

DMX-adress setting:

After pressing the ENTER key, the first digit will blink. With the UP-DOWN keys you can select between 1 - 509.

Press the Enter key again to save the changings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Menu Mode – Channel intensity (1,2,3,4)

1 53 2 187 3 255 4 100

Here the active intensity levels are shown. The first digit shows the channel number (blinking), and the digits 2 to 4 display the intensity level. Values are shown as 0-100% or 0-255, depends of the setup range setting.

After pressing the ENTER key, the value begins to blink. Now you can change the level with the UP-DOWN keys. Press the Enter key again to save the changings. By exiting the mode with the ESC key, the old settings will remain, without changings.

4 - - -

If the channel number is followed by three „minus“, this channel is disactivated (Lamp off). The level is „0“.

3 off 3 on

If the channel number is followed by 'on' or 'off', the channel is in the switching mode. The level can only be 0 or 100%. Recommended to control motors, automatic projection screens, motorized curtains etc. or non-dimmable discharge lamps, effect appliances and more.

Menu Mode – Preset Scene

PRES

Starting and modifying of 8 different lighting presets. Press the ENTER key for access.

PRE1

Select one of 8 presets. The last digit shows the number of the desired preset. With the ESC key you exit this menu without changings. By pressing „ENTER“ you proceed and digit 4 starts blinking. Now you can decide starting the scene or modifying. Press „ENTER“ again to start this preset. The preset will be faded-in with the standard fade-time (to be changed in the setup mode). By pressing the UP or DOWN key, the just active lighting scene will be saved in the actual scene preset number. The channel intensities can be adjusted in the Menu mode „Channel intensities“ or via DMX or via the 0-10 volts analog inputs. By pressing „ESC“ you exit the menu mode.

Menu Mode – Fade-Time Setting.

FADE

To adjust the global fade-time between 0.0 – 9.0 sec. in 0.1 sec. steps. Press „ENTER“ to see the active fade-time.

6.2

By pressing the UP-DOWN keys the time can be changed. Press „Enter“ to save your changings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Menu Mode – Setup Menu

SETU

Press „ENTER“ for access.
In the setup mode many parameters can be setted.

Setup Menu points:

PREH

Preheat /minimum level, (0-39%)

HIGH

Max level / limit (49-100%)

REVE

DMX levels are reversed (high DMX level results a low light intensity, a low DMX level gives a high light intensity)

LAMP

Channel constantly „on“ or „off“ (Parking)

SWIT

Channel in Switch-Mode (only switching – no dimming possible)

0 10.0

Activates 0-10 volts inputs

E 16

Activates special input for EIB protocol

d n P r

Activates DMX signal priority

d 50

Display contrast adjustment 10 - 100%

r R n C

Display range setting (Channel intensities are displayed in percent 0-100 % or in bit 0-255)

t n E

Shows operation hours (0-9999 h)

r E S E

Reset, sets original factory parameters.

U E r . 2

Shows software version.

Setup Menu Mode – Preheat

P r E H

To set the minimum dimming level. The channel cannot give lower levels than the preheat value. Press enter to access. Now you can select one of the 4 channels with the UP-DOWN keys.

1 53

The first digit shows the desired channel, followed by the assigned preheat value. Press "ENTER" to change the level. The value starts blinking. Adjustment is possible between 0% - 39%. Press „Enter“ to save your settings. By exiting the mode with the ESC key, the old settings will remain, without changing.

Setup Menu Mode – High – Max Level

Setting of maximum output levels. So each channel output can be limited. Press "ENTER", and then the UP-DOWN keys to select the desired channel.

The first digit shows the selected channel, the other digits display the maximum possible level. With the UP DOWN keys you can modify this value between 50% - 100%. This value is blinking.

Press „Enter“ to save your settings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Setup Menu Mode – Reverse DMX

Here you can invert the DMX levels. Press "ENTER" and on the display „Enter“ appears the active state: 'on' or 'off'.

'on' means reverse active. Here a high DMX level will give a low dimming level. When the DMX channel level decreases, the brightness of the spot will rise. Press UP or DOWN to deactivate this function.

'off' means DMX standard. Press UP or DOWN to activate the reverse function.

Press „Enter“ to save your settings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Setup Menu Mode – LAMP on-off

Here any channel can be deactivated. Press "ENTER" to see the channel number and the status: 'on' or 'off'.

'on' means: this channel is active and can be controlled by the dimmer. Press UP or DOWN, to deactivate the channel.

'off' means: this channel is deactivated – it has always 0% and cannot be controlled by the dimmer. Press UP or DOWN, to activate this channel.

Press „Enter“ to save your settings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Setup Menu Mode – SWITCH on-off

Here any channel can be set into the switch mode. Now the channel works like an electronic relay. Possible outputs are 0% (off) or 100% (on).

Recommended, if you like to control motors or light fixtures with discharge lamps.

Press „ENTER“ to see the active channel number and the switch function setting: 'on' or 'off'.

'on' means: This channel is in the switch mode (relay function). Use the UP or DOWN keys, to set the channel back into the dimming mode.

'off' means: This channel can be dimmed (standard mode). Press UP or DOWN, if you wish to set the channel into the switch mode.

Press „Enter“ to save your settings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Setup Menu Mode – 0-10V analog inputs activation

Here the analog inputs can be activated. Press „ENTER“ to see the active setting.

'off' means: the 0-10V input is deactivated. Press UP or DOWN to activate this input.

'on' means: the 0-10V input is active. The GeoDim can be controlled by analog signals. Press UP or DOWN to deactivate the input.

These settings are required, if the analog input will not be used. So signal disturbances can be separated from the dimmer.

Setup Menu Mode – EIB

Here the analog inputs can be set to 0 – 10 volts for lighting consoles, potentiometers etc. (EIB-Funktion „off“)

into 1 – 10 volts input (current sink) to connect EIB actors or other lightcontrols. (EIB mode „on“)

Setup Menu Mode – DMX Priority

Here the absolute DMX priority can be setted.

Is the function is activated „dpri on“, all inputs are blocked (analog and external contacts) if a DMX signal is received (console is running). Only if DMX signal is interrupted (console switched off) the other inputs are activated automatically.

(This setting is recommended for multi-purpose halls, where usually the lights ahe to be controlled with standard wall pushbuttons (presets).

Only if an event shall begin, a DMX console will be plugged in, wich automatically blocks all other inputs. Stage lighting and hall lighting can be controlled now only with the lighting desk.)

If this function is disactivated, all inputs are active at the same time.

The standard level rule in the GeoDim is in normal mode „LTP“ (Last takes precedence)

This means: that independant from wich input the GeoDim is controlled, this operating panel is active. If another control panel is in use, this panel automatically takes control. Always the last changings are active. So you are able to connect many control panels to the dimmer on different places.

Setup Menu Mode – Display

To set the display brightness between 10 -100%. Presse “ENTER“ to see the actual brightness setting.

With the UP DOWN keys the level can be modified.

Press „Enter“ to save your settings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Setup Menu Mode – Range

Display range setting (Channel intensities are displayed in percent 0-100 % or in bit 0-255. Press “ENTER“ to see the actual setting.

Levels are displayed in „%“. Press UP or DOWN, to change the setting.

Levels are displayed in „bit“.Press UP or DOWN, to change the setting.

Press „Enter“ to save your settings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Setup Menu Mode – Time – Operating Hours

A four-digit LED display showing the characters 't', '.', 'n', and 'E' in a 7-segment font.

Shows, how many hours the unit has be runned.

A four-digit LED display showing the characters '0', '0', '2', and '7' in a 7-segment font, with a small dot to the right of the '7'.

The blinking dot shows the seconds.

Press „ESC“ to exit the menu.

Setup Menu Mode – Reset

A four-digit LED display showing the characters 'r', 'E', 'S', and 'E' in a 7-segment font.

To erease all memories and to set all parameters to the original factory setttings. Press „ENTER“ and the display will start blinking. You must press the UP and DOWN keys at the same time and hold for 5 seconds, until the blinking stops. Now all parameters are resetted.

Setup Menu Mode – Software Version

A four-digit LED display showing the characters 'v', 'E', 'r', and '.2' in a 7-segment font.

The last digit shows the actual software version.

Manufactured in EU by:

GEO-TECHNIK, 14. Aug 2003

www.dimmer.de