GEO TECHNIK

GeoDim Wall-12
Dimming Pack

Operating 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 consultance.

Mounting:

Please care for a free air circulation around the dimmer, to avoid an overheating during continous 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: 3 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: 30 kVA
Input :   DMX 512 / 1990
        Analog 0 – 10V
        Analog 1 – 10V current sink (EIB function)
        Potentiometer control
        8 external contacts 5 volts to start lighting scenes.
Output :   12 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 shheet 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 470 mm x h 480 mm x depth105 mm
Weight: 16,5 / 18,0 kg

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 (12 pcs):
The dimmer can by controlled by external 0 – 10 volts signals. Connect the desired analog inputs. Analog to the input voltage changings the outputs can be dimmed.
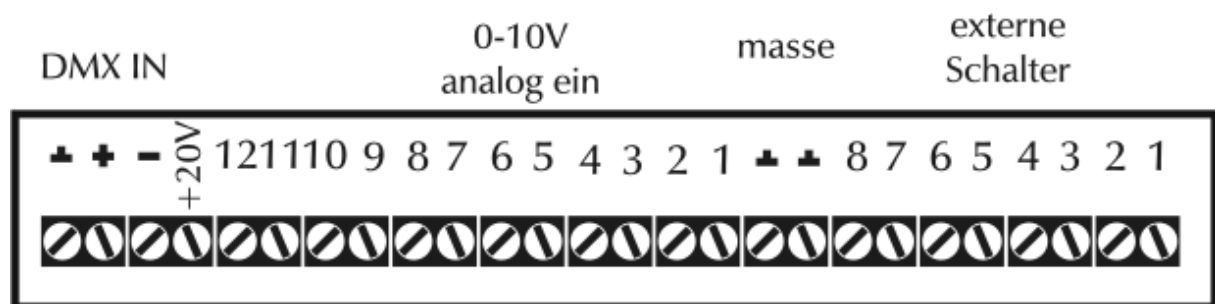
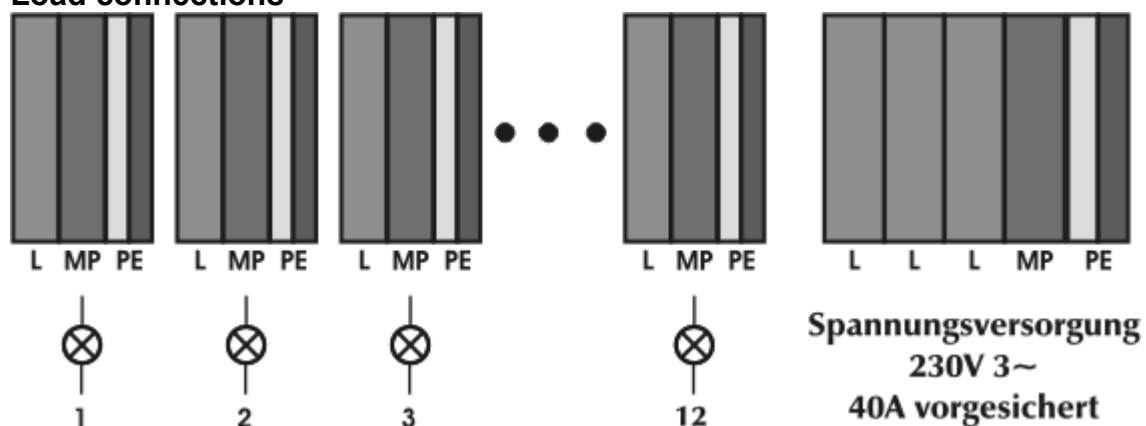### 1 -10V Analog Inputs (EIB 12 pcs):
If you wish to drive the GeoDim with an EIB-Bus (European Installation BUS), you have to connect standard EIB actors. The actors outputs 1-10 volts have to be connected to the dimmers 4 analog inputs. The dimmer has to be setted into „EIB" mode. (In the Setup menu 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.
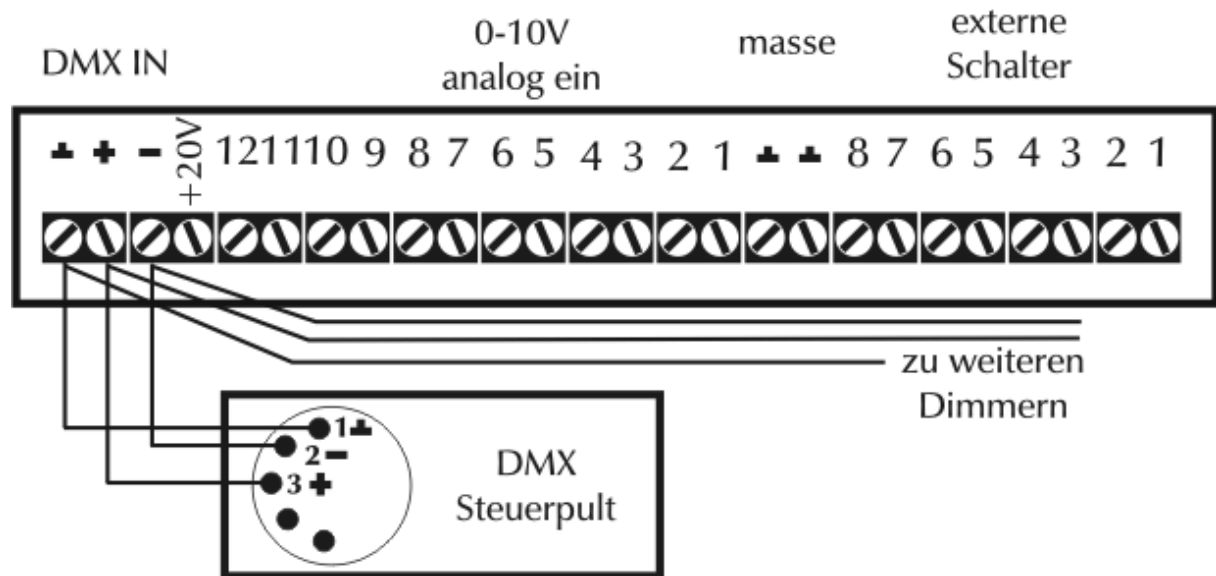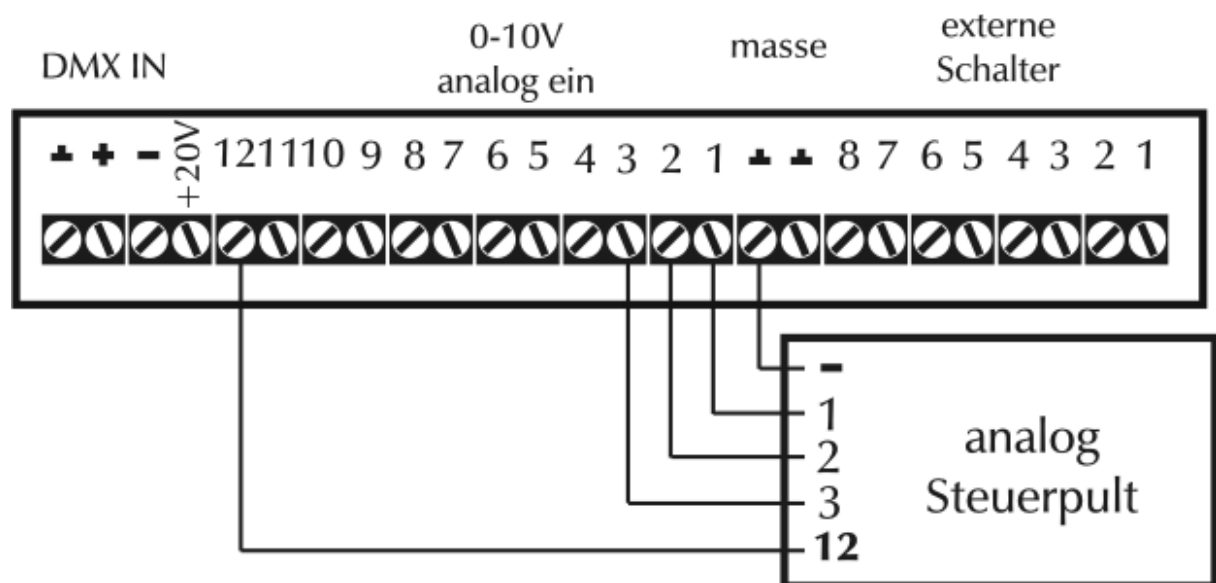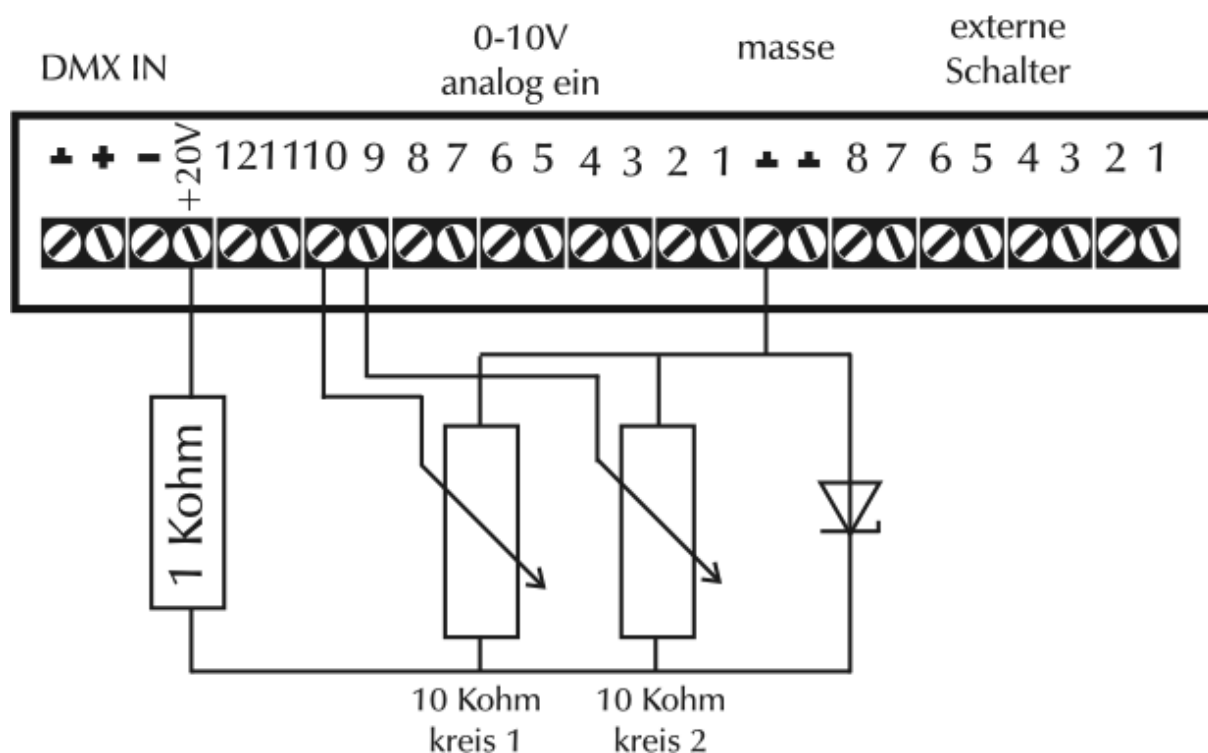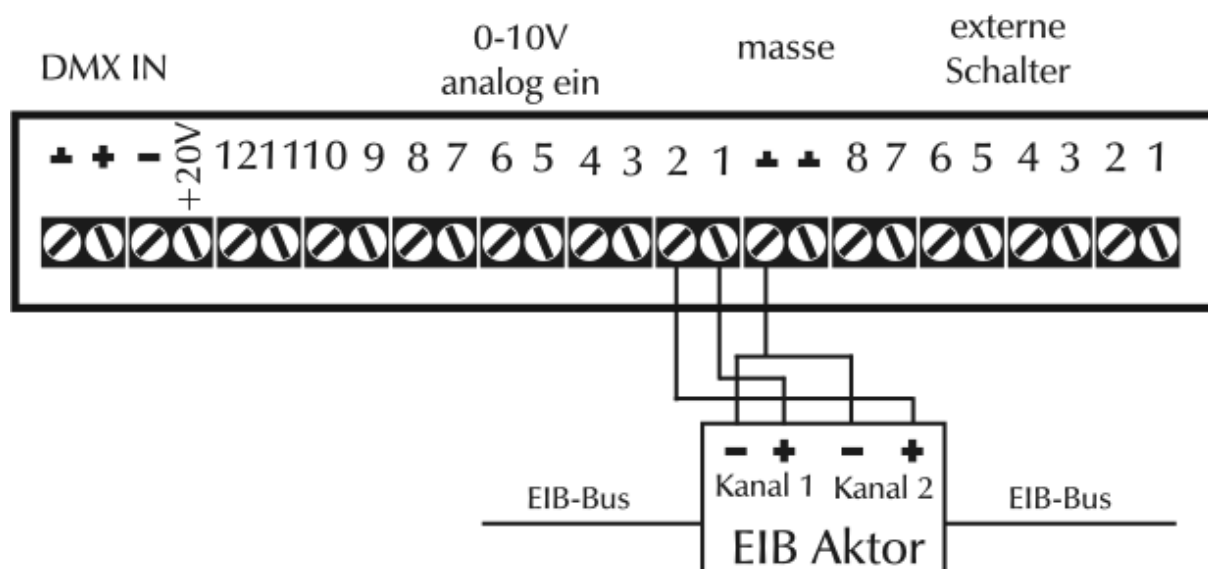
External switch inputs (8 pcs):
The GeoDim can store up to 8 lighting presets. Those scenes can be activated by 8 external switches. Connect these switches (any momentary acting switch – potential-free can be used) to the switch inputs 1 ... 8 in the dimmer. By pressing a switch, the corresponding input is connected temporarily to ground. So the desired preset has been started.
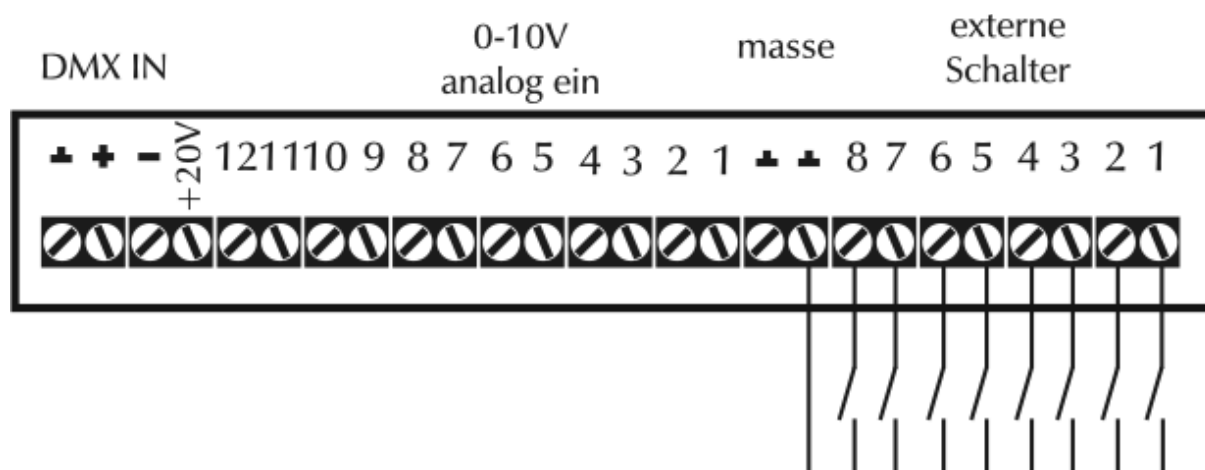The fade-time can be setted from 0 sec to 9 seconds. (See menu settings).

View on the screw terminals at opened front cover

Control inputs

Load connections

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 synchronuously 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. (**GeoD**im **– 12**)
After 5 sec. The next screen appears, showing the DMX adress. The controller is now in the menu mode.
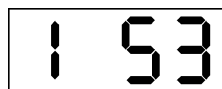
Menu mode:
During standard operation, the active DMX adress is displayed. With the up-down buttons you can select different menu points.

Menu points:

 DMX Adress (0-501)

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

 2. channel intensity (0-100% or 0-255 – depends of setup configuration**.**
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 12. channel intensity (0-100% at maximum level appears "FF").

CHAS Chaser – Create and starts chasers (1-12) or presets (1-12)

UAit Wait time setting.(from scene to scene 0.0 – 9.0 sec., in 0.1 s steps)

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

SEtU Setup – access to further settings.

Menu mode – DMX Adress

A001 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 - 501.
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 …,12)

1 53 **2 87** … **12 18**

Here the active intensity levels are shown. The first 2 digits show the channel number (blinking), and the last 2 digits display the intensity level. Values are shown as 0 - 99%. 100% is shown as "FF".
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.

Menu Mode – Chaser

CHAS To start or modify up to 12 different chasers. A chaser consists of up to 12 light scenes. Press "Enter" for access.

01 Select one of 12 chasers with the „UP-DOWN" keys. By pressing "ENTER", you acces the chaser. With the ESC key, you exit the menu and the old settings will remain, without changings.

After accessing, digits 3 and 4 start blinking. With "UP and DOWN" you descide between chaser starting or chaser editing.

01rn **01Ed**

‚rn' means run (By pressing ENTER the selected chaser will start running.)
By pressing „ESC" you exit the menu mode.
‚Ed' means edit (By pressing ENTER, you can modify the selected chaser.)

0 1:0 1 The first 2 digits show the chaser number, the right 2 digits show the actual scene. With Up and DOWN you can select one scene. With „ENTER" the selected scene (preset) will be stored in this place. The chaser scene numbers run one after the other. Beginning with „1" and ending with the highest number. Than number "1" begins again. By pressing ESC you exit this menu point.

Menu Mode – Wait-Time Setting.

UAit To adjust the wait-time from scene to scene. Adjustable between 0.,0 – 9.0 sec. in 0.1 sec. steps. Press ENTER to see the actual wait-time.

6.2 Durch Drücken der UP-DOWN Tasten können Sie die Überblendzeit ändern. Drücken Sie die Enter-Taste, um die Änderungen abzuspeichern. Sie können den Modus jederzeit über die ESC Taste verlassen, ohne dass die Einstellungen abgespeichert werden.

Menü Modus – Fade-Time Einstellung.

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:

NodE Dimming mode setting for each channel (off, on, switch, time, linear, logaritm)

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)

0 10.U   Activates 0-10 volts inputs

EIb   Activates special input for EIB protocol

dnPr   Activates DMX signal priority

diSP   Display contrast adjustment 10 - 100%

tEnP   Shows the dimmers inside temperature.

tinE   Shows operation hours (0-9999 h)

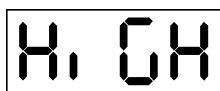**rESE**   Reset, sets original factory parameters.

UEr.2   Shows software version.

Setup Menu Mode – Preheat

PrEH   To set the minimum dimming level. The channel cannot give lower levels the 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 asigned 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 changings.
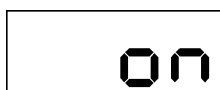
Setup Menu Mode – High – Max Level

`Hi GH` 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.

`2187` The first 2 digits show 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. The value 100% is displayed as "FF". 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

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

`on` 'on' means reverse active. Here a high DMX level will give a low dimming level. When the DMX channel leves decreases, the brightness of the spot will rise. Press UP or DOWN to disactivate this function.
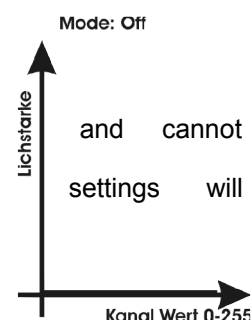
`oFF` 'oFF' means DMX standard. Press UP or DOWN to activate the reverse function. Press „Enter" to save your settings. By exiting the mode with the ESC key, the old settings will remain, without changings.

Setup Menu Mode – Mode

`NodE` Here any channel can be asigned to a special dimming characteristic. Press ENTER to access, and the first 2 digits start blinking. Now you can select the dimming channel you wish to modify with the UP and DOWN keys.
Press ENTER to confirm. Now the last 2 digits are blinking Here you can select one of 6 dimming curves.
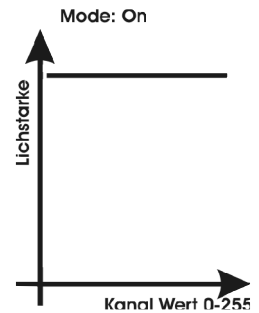
Mode: Off

`01oF` 'oFF' means: this channel is disactivated – 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.
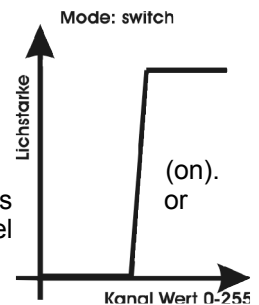
Lichstarke

Kanal Wert 0-255

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Mode: On

`01on` 'on' means: this channel is active and can be controlled by the dimmer. Presse UP or DOWN, to disactivate the channel.
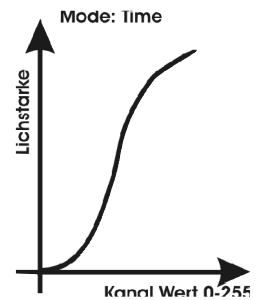
Mode: switch

`01Su` 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, motorized curtains, projection screens or light fixtures with discharge lamps. Press „ENTER" to see the active channel number and the switch function setting: 'on' or 'off'.
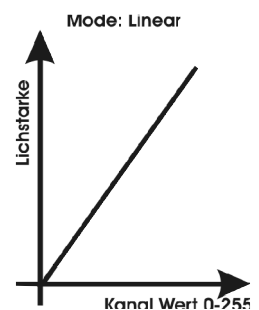
Mode: Time

`01t1` ‚time'
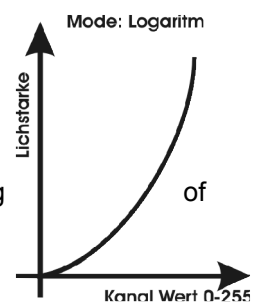The dimming characteristic is like a „S" curve.
Recommended for TV studio and movie

Mode: Linear

`01Ln` ‚linear'
Input value and output level are linear. This is the standard mode.

Mode: Logaritm

`01Lo` ‚logarithm'
input and output level are in a logarithm curve. Recommended for better controlling of fluorescent lamps.

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

`0 10.U` Here the analog inputs can be activated. Presse "ENTER" to see the active setting.

`oFF` 'oFF' means: the 0-10V input is disactivated. Presse UP or DOWN to activate this input.

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

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

Setup Menu Mode – EIB

`E Ib` Here the analog inputs can be setted 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

`dnPr` 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.
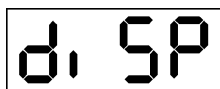
> (This setting is recommended for multi-purpose halls, where usually the lights ahe to be controlled with standard wall pushbuttons (presets).
> Only if an event shall begin, a DMX console will be plugged in, wich automatically blocks all other inputs. Stage lighting and hall lighting can be controlled 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

`di SP` To set the display brightness between 10 -100%. Presse "ENTER" to see the actual brightness setting.

100 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 – Time – Operating Hours

t i n E Shows, how many hours the unit has be runned.

0027. The blinking dot shows the seconds.

Press „ESC" to exit the menu.

Setup Menü Modus – Reset

r E S E 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 <u>at the same time and hold for 5 seconds</u>, until the blinking stops. Now all parameters are resetted.

Setup Menu Mode – Software Version

UEr.2 The last digit shows the actual software version.

Manufactured in EU by:

GEO-TECHNIK   20. Juli 2004

www.dimmer.de