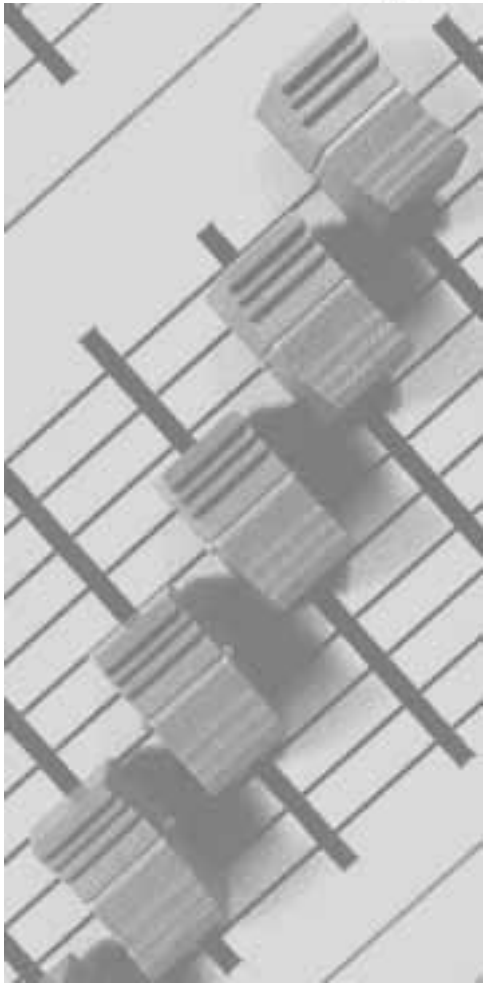
the INFORMATION pack



ID Series Dimmer Manual

English

with French & German Menu Structures

Zero 88 A touch of Brilliance

ATTENTION

Ne pas boucher les fentes d'aération du gradateur.

COUPER L'ALIMENTATION AVANT
de brancher ou de débrancher le connecteur d'entrée secteur.

Ne pas exposer le boîtier en plastique à une chaleur excessive.

WARNING

Do not obstruct the dimmer's ventilation slots.

ISOLATE POWER BEFORE
removing or connecting mains input connector.

Do not subject the plastic case to excessive heat.

ACHTUNG

Die Belüftungsschlitze des Dimmers dürfen nicht verlegt werden.

UNTERBRECHEN SIE DIE STROMVERSORGUNG,
bevor Sie den Netzstecker anschließen oder abstecken.

Setzen Sie das Kunststoffgehäuse keiner starken Hitze aus.

ID Series
Dimmer

Third issue - January 1997

Manual Stock No. 73-620-00

Software version: 8011

For use with desks fitted with DMX 512 or Analogue outputs.

Zero 88 Lighting Ltd. reserves the right to make changes to the equipment described in this manual without prior notice. E & OE.

This equipment is designed for professional stage lighting control, and is unsuitable for any other purpose. It should be used by, or under the supervision of, an appropriately qualified or trained person only.

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★= 24Hr Answer Phone

CONTENTS

The ID Series Dimmer

This product is designed to work in conjunction with Zero 88 lighting desks such as the Sirius, XL and XLS series, although it can be used with any other DMX and most analogue output equipped desks.

Connections are provided for DMX In, DMX Thru and Analogue In. DMX and Analogue inputs may be used simultaneously.

Three levels of operation are possible, allowing full, restricted or locked access to the controls. In addition, the dimmer has 10 memories which can be pre-programmed with adjustable fade times. These can be used as backup memories or to provide “stand alone” operation. Built-in fault diagnosis and test features are also provided to confirm the operation of the dimmer and the inputs.

Simple operation is achieved through the use of a two line backlit LCD Display and key pad. All the dimmer’s features may be accessed and edited via an easy to follow menu system.

About This Manual

This manual describes the operation and programming of ID1216 and ID625 dimmers. These instructions also apply to other ID Series dimmers which differ only in terms of their output channel configurations.

In many cases, the default settings of your dimmer will be suitable for your application and will not require adjustment. If a custom set-up is required, this manual describes the various options available, how to change them and how to save the settings. Where changes are described in the manual, the example begins with the default setting.

This manual also contains information about the more advanced “Super User Tasks”, test menus and error messages.
Parts of the Manual are available in other language options. However the English version remains the definitive version.

Power Source

ID Series dimmers are designed to operate from a range of power sources.

Auto sensing allows the use of mains voltages from 180 to 260V, at 45 to 65 Hz.

Single phase, three phase Star or Delta operation is permitted, two phase is also supported in cases where the unit is powered from two separate mains outlets on different phases. A phase conversion kit (00-432-00) is available.

The unit is also protected from excess voltage damage caused by accidental phase reversal, or loss of the neutral line.

Models are available with a range of output connectors to comply with the requirements of your territory. The Performance Specification section (see Page 38) details the variants available.

Control Panel

The control panel contains the display and control keys.

The display is a two line, back-lit, liquid crystal type, which is used to indicate the status of the dimmer. The top line of the display normally indicates the menu or option being edited, while the bottom line indicates the current selection.

The six control keys are used to move around within the menu system. The MENU key is used to step through the selection of menus, while the OPTION Δ and ∇ keys select options within these menus. Changes are then made using the EDIT Δ and ∇ keys. Sometimes, simultaneous pressing of the ENABLE key is required as a safe-guard, to prevent changes being made accidentally.

Power On Displays

Under normal circumstances, first the version display appears:

```
Digital Dimmer
Version 8xxx (12)
```

where 8xxx is the software version number and (12) is the number of channels fitted in the controller. The display then changes to show:

```
Digital Dimmer
Zero 88 Lighting
```

At this point, the software date may be viewed by pressing the ENABLE key:

```
Digital Dimmer
dd/mm/yy (c) Z88
```

Press and hold ENABLE to view software version instead of the date.

Press MENU to continue.

After this, the User Message appears, if enabled. This can contain the owner's name and telephone number and can be set up as described on page 26.

Finally, the Input Display appears:

```
INPUT 001 - 012
......  ......
```

The Input Display

```
INPUT 001 - 012
......  ......
```

The top line of this display indicates the input channel numbers. The default condition is to display channels 001 to 012, however this will be different if another group of 12 channels has been selected in the "Grouped Mode" option. If "Patched Mode" has been selected, the numbers will not be indicated and the display line will read:

```
INPUT  SIGNALS
......  ......
```

The bottom line of this display indicates the current input signal conditions. If there are no inputs to the cont roller, a line of twelve dots will be seen. If there are inputs present, these will appear as vertical bars, the height of each representing the level of each channel. If a channel has been shut down due to overheating, an asterisk will be seen.

Thus the Input Display can be used to confirm the reception of signals from an external console.

Note: if both Analogue and DMX sources are connected to the dimmer, the highest level input will take precedence.

In cases where there is no DMX source connected to the dimmer and DMX memory backup has been enabled, the following message will appear:

```
NO DMX PRESENT
Now using backup
```

Press the ENABLE key to cancel this message and return to the Input Display.

The Menus

All user adjustments are made via the menu system which is entered from the Input Display.

From the Input Display, the Status Menu may be entered by using the OPTION ∆ and ∇ keys. Access to other menus is via the MENU key which, when pressed repeatedly, steps through the following menus:

- Set Up Dimmer
- Set Up DMX Input
- Set Up Channels
- Backup Memories

For example, to change a dimmer parameter:

Use the MENU key to step to the required menu (the Display will show the menu name, followed by the option to be edited).

Next, use the OPTION ∆ and ∇ keys to select the required option.

Finally, hold the ENABLE key and use the EDIT ∆ and ∇ keys to change the value or type of option.

Note: some of the menus contain sub-menus. In cases where different key actions are required, e.g. to confirm a global change operation, a prompt will appear on the display when ENABLE is held.

In addition to the user menus, a “Super User Tasks Menu” is available. This menu allows access to the “Test Menu”.

Each of the menus, options available and key commands are described in this manual. In all cases, an example display is shown with the default setting selected. This may be changed as described in the text.

Control Input Connectors

5 pin XLR connectors are provided for DMX 512 In and Thru and 8 pin DIN connectors for Analogue Inputs.

The DMX In connector carries serial data for up

to 512 channels, any 12 (or 6 on the ID 625) of which may be selected to control the dimmer.

The DMX Thru connector allows the same serial data to be “daisy-chained” out for controlling further dimmers.

Each Analogue Input connector carries data for 6 dimmer channels. The left connector controls dimmer channels 1 to 6 while the right controls channels 7 to 12. The ID 625 only has one Analogue connector

The +/- switch above the Analogue Input connectors selects the output voltage polarity for analogue desk power supply. Input polarity sense is automatic and can handle voltages up to +/- 10V.

The current status of the input signals can be checked on the Input Display.

Power Connectors

Connectors are provided for the three phase mains input and dimmer output channels. The type of connectors fitted will vary according to the model of dimmer and country of use. Refer to the Performance Specification Section at the rear of this manual for details (see page 38).
The 63 Amp mains input connector, needs to have a cover that folds out to 90 degrees from the connectors body. A connector that is only suitable for “In Line” connection may not open enough to mate with the IDs chassis connector.

User Message (Security Identity)

The dimmer can be personalised by adding a “User Message” which is displayed as part of the power up sequence. This display can also be viewed at any time (as long as it has been programmed) by holding the MENU key.

The “User Message” can be programmed to show any message which will fit on the two line, sixteen character display. This could, for example, be the owner’s name and telephone number. To prevent tampering with this information, the “User Message” is protected by a security code known only by the owner.

Programming the “user Message” and the security code is described in the “Test Menu Options” under the “Super User Tasks” menu. (see page 26).

Plastic Case

Please note that the Polyethylene case may become deform if exposed to excessive heat, from a lantern for example.

Voltage Compensation

The dimmer is fitted with an automatic voltage compensation system, which continuously monitors the mains input and adjusts the dimmer outputs accordingly. In this way, it is possible to maintain constant lamp brightness even if the supply voltage is fluctuating.

This facility has two uses:

To maintain constant lamp settings while the dimmer is connected to different mains supplies. For example, if the dimmer is to be used on tour in different countries, the outputs will remain the same if the “Lamp Rating” is set to the lowest voltage to be encountered.

To allow the use of lamps of lower rating than the mains supply voltage. In this case, if “Lamp Rating” is set to 220V while the supply is 240V, then 220V lamps can be connected to the dimmer without being over stressed.

> Note: for safety, the lowest lamp rating allowed is 180V. This prevents the potentially dangerous use of 110V lamps on a 240V system.

Under normal operating conditions using lamps which match the supply voltage, and the supply is known to be stable, voltage compensation can be switched off. This saves having to set up the facility.

To switch the voltage compensation on, use the option in the “Super User Tasks” menu. Then go to the “Set Up Dimmer” menu and adjust the lamp rating to the required voltage.

Temperature Control

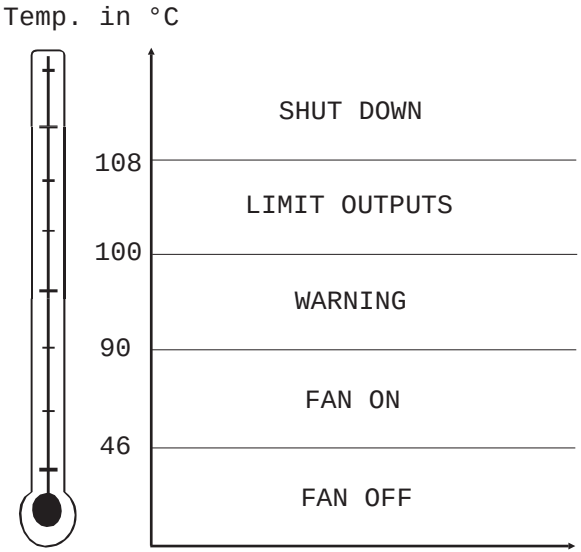
ID Series dimmers feature an advanced automatic control system which monitors and regulates the system’s internal temperature.

The dimmer can operate continuously at full load in high ambient temperatures. However, if the temperature rises further, due perhaps to a blocked fan aperture, a flashing warning message will be displayed.

If the warning is ignored and temperature continues to rise, the limit output stage is reached. This causes dimmer outputs to be limited (shut off), starting with channel 12, then channel 11, working back to channel 1.

Finally, under the most severe overheat conditions, the dimmer will shut down until its internal temperature has returned to a safe level.

Flashing temperature messages appear every time the dimmer’s internal temperature moves up or down a rank. These are listed on page 9.



Low Temperature Operation

At very low temperatures all LCD displays react slowly. This is a characteristic of LCD technology and is quite normal.
Usually this is not apparent but any flashing messages need to be read carefully.

The ID will turn the fans on at a low temperature as a safety feature. This is because the processor is unable to differentiate between low temperatures or a temperature sensor malfunction. The ID therefore switches the fans on, until normal operating temperatures are reached, in case the sensors are faulty

Operating Modes

Three levels of operation are possible, allowing full, restricted or locked access to the dimmer’s facilities.

In “Full Access” mode, the user has complete control of the dimmer including the more advanced functions.

“Restricted Access” gives the user a simple mode of operation, providing only the basic dimmer functions with the manufacturer’s default settings (see diagram on page 8).

In “Locked Access” mode, the MENU button is disabled. This inhibits the menu functions although status information can still be displayed. This mode can be used to prevent dimmer parameters from being changed via the key pad after they have been programmed in “Full Access” mode.

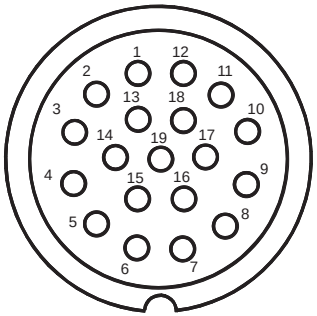
Socapex Connector

ID 1216 Socapex version has two Socapex 19 pin fixed sockets fitted. They are marked on the rear panel 1 to 6 - and 7 to 12.

The connectors are wired the same, except one starts at dimmer channel one and the other starts at dimmer channel seven.

The following drawing shows the pin numbers, viewed from the outside.

Channel	1	2	3	4	5	6
Live Pin	1	3	5	7	9	11
Neutral Pin	2	4	6	8	10	12
Earth Pin	13	14	15	16	17	18



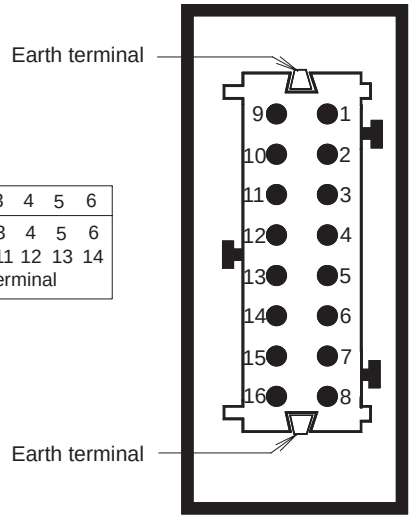
Harting Connector

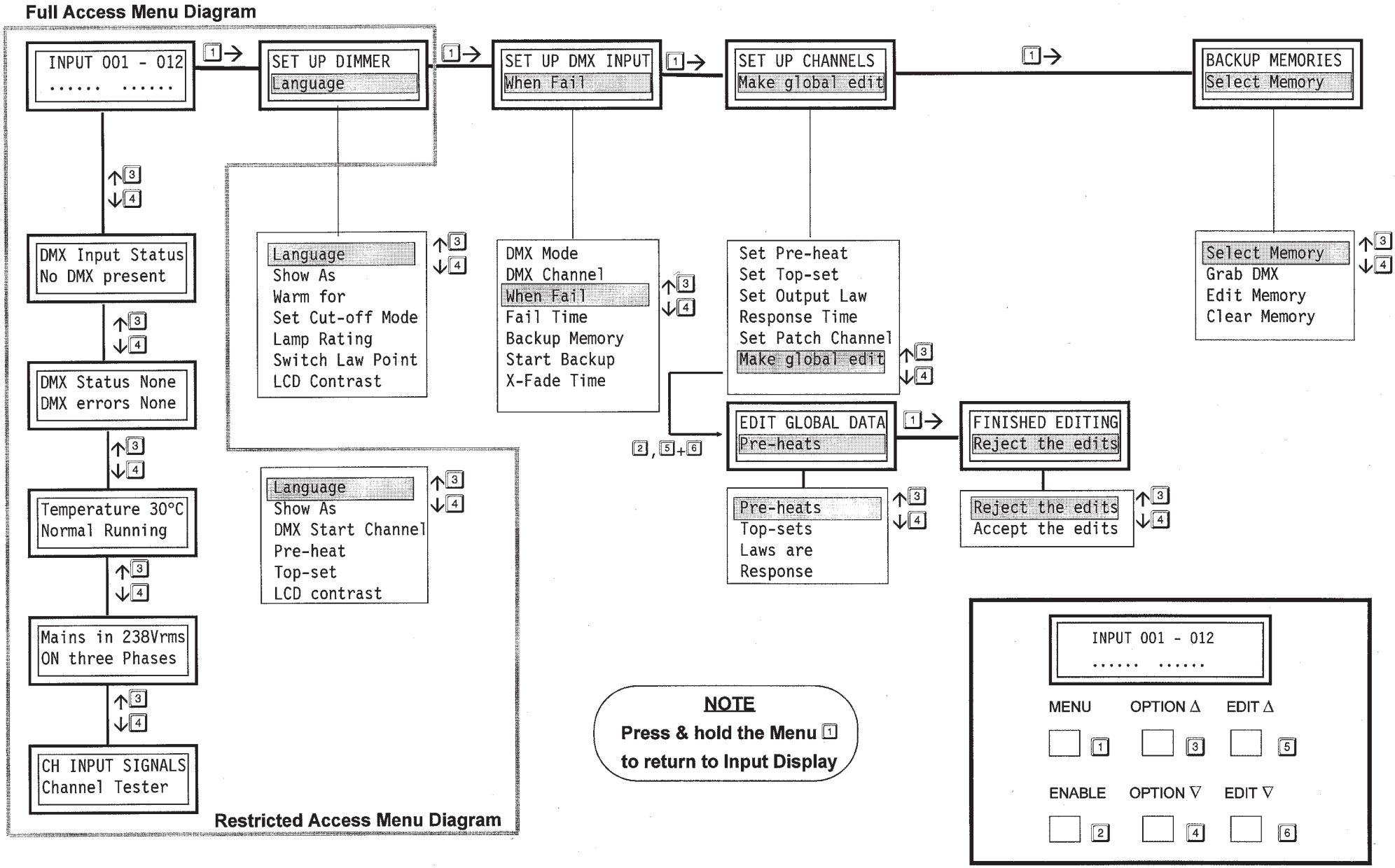
ID 1216 Harting version has two Harting 16 pin fixed sockets fitted. They are marked on the rear panel 1 to 6 - and 7 to 12.

The connectors are wired the same, except one starts at dimmer channel one and the other starts at dimmer channel seven.

The following drawing shows the pin numbers, viewed from the outside .

Channel	1	2	3	4	5	6
Live Pin	1	2	3	4	5	6
Neutral Pin	9	10	11	12	13	14
Earth Pin	Earth terminal					




Full Access Menu Diagram
INPUT 001 - 012
....
SET UP DIMMER
Language
SET UP DMX INPUT
When Fail
SET UP CHANNELS
Make global edit
BACKUP MEMORIES
Select Memory
DMX Input Status
No DMX present
DMX Status None
DMX errors None
Temperature 30°C
Normal Running
Mains in 238Vrms
ON three Phases
CH INPUT SIGNALS
Channel Tester
Language
Show As
Warm for
Set Cut-off Mode
Lamp Rating
Switch Law Point
LCD Contrast
DMX Mode
DMX Channel
When Fail
Fail Time
Backup Memory
Start Backup
X-Fade Time
Set Pre-heat
Set Top-set
Set Output Law
Response Time
Set Patch Channel
Make global edit
Select Memory
Grab DMX
Edit Memory
Clear Memory
EDIT GLOBAL DATA
Pre-heats
FINISHED EDITING
Reject the edits
Pre-heats
Top-sets
Laws are
Response
Reject the edits
Accept the edits
2, 5+6
Language
Show As
DMX Start Channel
Pre-heat
Top-set
LCD contrast
Restricted Access Menu Diagram
NOTE
Press & hold the Menu 1
to return to Input Display
INPUT 001 - 012
....
MENU
OPTION Δ
EDIT Δ
ENABLE
OPTION ∇
EDIT ∇

Status Menu

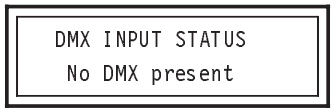
The status menu shows the current status of the dimmer. It is for information only and contains no user adjustable items, except in the Channel Tester section.

The Status Menu contains the following items:

- DMX Input Status
- DMX Status
- Temperature
- Mains Input
- Channel Tester

This menu is entered from the Input Display, by pressing either the OPTION Δ or ∇ keys. These keys are then used to step up and down through the options.

DMX Input Status and DMX Status



This shows the status of the DMX input. Any of the following messages may appear:

`No DMX present`

`DMX is present`

`Holding last DMX`

`Fading to DMX in`

`Fading to zero`

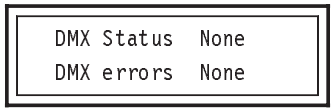
`Output at zero`

`Fading backup n`

`Output backup n`

where “n” is the number of the selected backup memory.

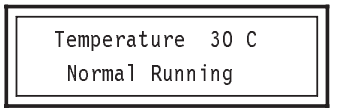
Press the OPTION Down ∇ key for more information.



The top line of the display shows the DMX status. This may read “`None`”, “`Okay`” or “`Lost`”.

The bottom line of the display shows the DMX errors. This may read “`None`”, “`No`” or “`Yes`”.

Temperature



This shows the internal temperature of the dimmer.

Should the temperature change significantly while the dimmer is running, one of the following temperature messages will appear:

`Running Cold`

`Normal running`

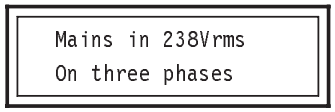
`Check air vents`

`Severe over-heat`

`Full over-heat`

These messages will flash until cleared by pressing the ENABLE key.

Mains Input



This shows the mains input conditions.

In this case, a three phase supply is used.

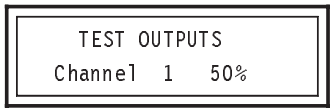
Channel Tester

This allows the user to temporarily turn on any channel of the dimmer. This is a quick and easy method of checking the continuity in each lamp circuit, as well as confirming dimmer operation.

Each channel may be set to 50 or 90% output.

> Note: 90% is used rather than 100%, to avoid unduly stressing the lamps attached to the channel under test.

To enter channel test, hold the ENABLE key and simultaneously press both the EDIT Δ and ∇ keys. The display shows:



The lamp connected to channel 1 should now illuminate at half power.

To alternate the output between 50% and 90% (near full power), press the EDIT Δ or ∇ key.

To test a different channel, press the OPTION Δ or ∇ key. This steps up or down to the next channel. Only one channel can be tested at a time, thus when channel 2 is selected, the test output from channel 1 is extinguished.

> Note: the test signal is independent of any DMX or Analogue control signal and there fore may be used while the dimmer is in operation. If test signals are selected while DMX or Analogue signals are present the dimmer output will be a mix of the two, the highest signal taking precedence.

After the “Channel Tester” item, pressing the OPTION ∇ key causes the Input Display to reappear.

The display may not say 50% if you have changed the “Show As” setting (see page 11).

Set Up Dimmer Menu

To reach this menu from the Input Display, press the MENU key once.

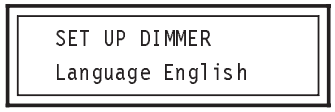
The Set Up Dimmer menu allows the user to set up the operating conditions of the dimmer, and contains the following options:

- Language
- Show As
- Warm For
- Set Cut-Off Mode
- Lamp Rating
- Switch Law Point
- LCD Contrast

Note: The “Lamp Rating” option is only available if the “Voltage Compensation” option has been enabled via the Super User Tasks Menu (see page 23).

Language

This sets the on-screen display language. English, French or German may be selected.



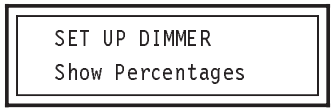
To change the display language, hold the ENABLE key and press either of the EDIT Δ or ∇ keys.

Show As (Decimals or Percentages)

This selects whether levels are expressed as percentages or decimals where appropriate.

If “decimals” is selected, values will be displayed in the range 0 to 255.

If “percentages” is selected, values will be displayed in the range 0 to 100%.



To set the required mode, hold the ENABLE key and press either of the EDIT Δ or ∇ keys.

Warm For

This sets the warm up time of the lamps when the dimmer is first powered up.

This is useful in preventing thermal shock, which shortens the lifetime of lamps. It also helps prevent current surges which could cause “nuisance tripping” of the circuit breakers.

The warm up time may be set between 0 and 2.5 seconds, in 0.5 second steps.

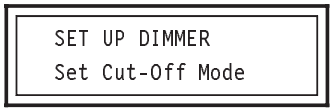
To change the warm up time, hold the ENABLE key and press the EDIT Δ or ∇ keys to increase or decrease the value.

Set Cut-Off Mode

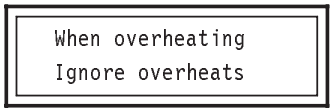
The dimmer is protected from overheating by an automatic fan system. In extreme circumstances, caused, for example by the fan apertures being covered, automatic cut-off of the output channels is provided.

Note: should overheating continue, further protection is provided by automatic shut-down.

This option selects whether the automatic overheat cut-off mode is set or ignored.



To change the cut-off mode, hold the ENABLE key. The following will be displayed:



While holding the ENABLE key, use the EDIT Δ or ∇ keys to select either “Ignore Overheats” or “Cut-off Channels”.

If “Cut-off Channels” is selected and overheating occurs, channel 12 will always be the first channel to be shut down. In the unlikely event of overheating continuing, channel 11 will be shut down, followed by channel 10 and so on. Channel 1 will be the last to shut down and is thus the best choice for the most important lamp.

Note: channels which overheat and are cut-off are represented by an asterisk on the Input Display. When temperatures return to a safe level, affected channels are switched on again.

Lamp Rating

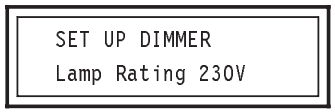
Caution!

Ensure that the Lamp Rating voltage matches the lamps used, and is never greater than the lamp's rating.

This option will not be available unless the "Voltage Compensation" option in the "Super User Tasks" menu is set to "on" (see page 23).

This option allows the use of lamps with a lower voltage rating than the mains supply. For example a 220v lamp may be used on a 240v supply.

Values from 180V to 250V may be selected. The default setting is 230V.



To change the lamp rating, hold the ENABLE key and press the EDIT Δ or ∇ keys to select the required value.

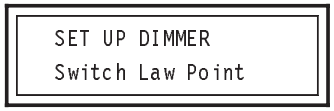
Switch Law Point

There are four different laws, each of which causes the output power of the dimmer to track the control voltage in a different way.

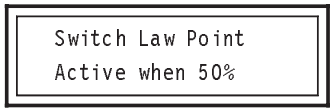
Each dimmer channel can be set to a different law but *all channels set to "Switch Law" will use the same switch point.*

This option sets the point at which the dimmer switches from zero to full output when Switch Law operation is selected. The value where switching occurs is expressed as a ratio of the full output.

Values from 1 to 99% (or 2 to 252) can be selected. The default setting is 50% (127).



To change the switch law point, hold the ENABLE key. The display will change to show:

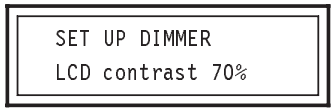


To change the value, continue to hold the ENABLE key and press the EDIT Δ or ∇ keys to increase or decrease the value.

LCD Contrast

This option adjusts the contrast of the liquid crystal display. This should be adjusted to give the best contrast at your viewing position.

Values from 0 to 100% steps can be selected, in 2% steps.



To change the display contrast, hold the ENABLE key and press the EDIT Δ or ∇ keys to increase or decrease the contrast.

Set Up DMX Input Menu

To reach this menu from the Input Display, press the MENU key twice.

This menu allows the user to set up the DMX input mode and backup memories. It contains the following options:

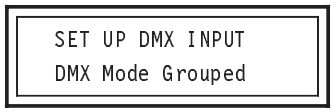
- DMX Mode
- DMX Channel
- When Fail
- Fail Time
- Backup Memory
- Start Backup
- Fade Time

Note: the “DMX Channel” option only becomes available if DMX Mode is set to “Grouped”.

DMX Mode

In “Grouped mode”, all DMX channels are addressed in a contiguous block of 12 channels on the ID1216 or 6 channels on the ID 625. In “Patched Mode”, they can be individually assigned to any DMX address.

This option selects the DMX mode, either “Grouped” or “Patched”.



To change the DMX mode, hold the ENABLE key and press either the EDIT Δ or ∇ key to alternate between the choices.

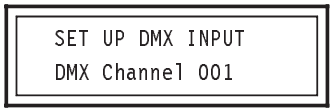
If “Patched” mode is selected, any dimmer channel can be assigned any DMX channel address between 1 and 512. To edit the assignments, select the “Set Patch Channel” option in the “Set Up Channels” menu.
See page 17 .

If “Grouped” mode is selected, the dimmer channels will be assigned a contiguous block of DMX channels, starting at the DMX channel selected in the “DMX Channel” option.

DMX Channel

This option will not be available unless DMX “Grouped” mode is selected.

It allows the DMX input channel assigned to dimmer channel number 1 to be changed. Channel numbers between 1 and 512 may be selected.



To change the current DMX Channel, hold the ENABLE key and press the EDIT Δ or ∇ key to step up or down through the channels. As all “Grouped” mode channels must be contiguous, the next 11 dimmer channels will be assigned accordingly. For example if the DMX channel is set to 14, dimmer channels will be 14 to 25 (ID1216) or 14 to 19 (ID625).

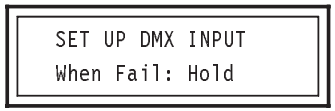
When Fail

If the DMX input to the dimmer should fail, the dimmer can be set to automatically take one of three possible actions. These are:

“Hold”, where the last DMX input received is maintained,

“Clear”, where the output channels are set to zero,

“Backup”, where the dimmer uses a previously programmed backup memory.



To change the “when fail” action, hold the ENABLE key and use the EDIT Δ or ∇ keys to select the required choice.

If the DMX input fails during use, a warning message will be displayed as the selected action takes place. For example, if “Backup” has been selected, the display will show:

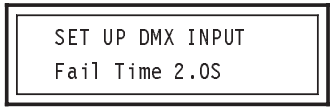
When DMX is restored, the display will show:

These messages may be cleared from the display by pressing the ENABLE key.

Note: if a backup analogue desk is available, “When Fail” should generally be set to “Clear”, as this will allow the analogue desk to be used without interference.

Fail Time

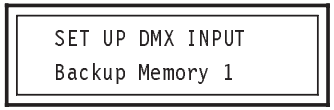
This is the time between the dimmer determining that DMX failure has occurred and the “When Fail” action beginning. The time may be varied between 0.5 and 10 seconds, in 0.5 second steps.



To change the fail time, hold the ENABLE key and press the EDIT Δ or ∇ keys to increase or decrease the time.

Backup Memory

This option allows the backup memory which is used when DMX fails, to be selected. It also allows the backup memory to be changed while in use.

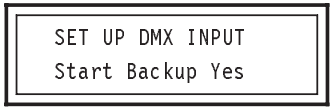


To change the backup memory, hold the ENABLE key and press the EDIT Δ or ∇ keys to step up or down through the memories 1 to 10.

Start Backup

In the absence of DMX signals at power on, a backup memory can be used to provide control signals to the dimmer.

This option allows the automatic start backup action to be enabled.

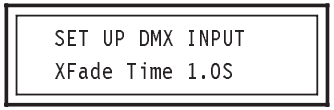


To alternate between “Yes” and “No”, hold the ENABLE key and press the EDIT Δ or ∇ key.

X-Fade Time

This refers to the cross-fade applied in the event of loss of DMX signals, or a cross-fade from one backup memory to another. It also applies to the cross-fade back when DMX signals are restored.

X-Fade Time can be set to any period between 0 and 60 seconds, in 0.5 second increments.



To set the cross-fade time, hold the ENABLE key and press the EDIT Δ or ∇ keys to increase or decrease the time.

Set Up Channel Menu

To reach this menu from the Input Display, press the MENU key three times.

The menu allows dimmer channels to be configured, either individually or globally. It contains the following items:

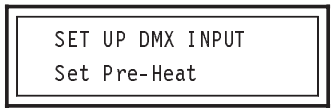
- Set Pre-Heat
- Set Top-Set
- Set Output Law
- Set Response Time
- Make Global Edits
- Set Patch Channel

Note: the “Set Patch Channel” option only becomes available if the “DMX Mode” option in the “Set Up DMX Input” menu is set to “Patched”.

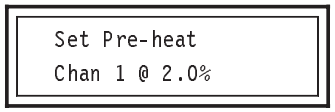
Set Pre-Heat

Pre-heating a lamp can reduce the stress applied to it when it is turned on, and thus increase its useful life. This is achieved by ensuring that the lamp is never fully turned off, instead running it at a small percentage of the full output power. It also helps to avoid current surges and “nuisance tripping” of circuit breakers.

This option allows the pre-heat to be set for a selected channel. The pre-heat can be set to any value between 0 and 50% in 0.2% steps.



Press the ENABLE key. The Display shows:



Continue to hold the ENABLE key and press the OPTION Δ or ∇ keys to change the dimmer channel and the EDIT Δ or ∇ keys to change the pre-heat percentage.

The default Pre-Heat setting is 2% for all channels.

Note: Pre-Heat can be set to the same level for all channels simultaneously, using the “Make Global Edits” option.

Set Top-Set

Top-Set is an upper limit applied to a channel, which prevents the lamp from being over-driven. This new limit then becomes the maximum level to which the output can be driven.

This option allows Top-Set of the currently selected channel to be changed. Top-Set can have any value in the range 50 to 100%, in 1% steps.

Press the ENABLE key. The display shows:

Continue to hold the ENABLE key and press the OPTION Δ or ∇ keys to change the dimmer channel and the EDIT Δ or ∇ keys to change the top-set percentage.

The default Top-Set setting is 100% for all channels.

Note: Top-Set can be set to the same level for all channels simultaneously, using the “Make Global Edits” option.

Set Output Law

The Output Law describes the relationship between the control voltage and the power supplied by the dimmer to the lamp.

This option allows the Output Law to be set for each channel. The Output Law can be set to “Normal”, “Switch”, “Square” or “Linear”.

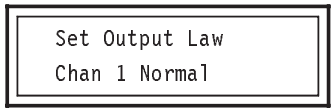
Normal (S Law): Standard output matches that of a similar analogue controlled dimmer.

Switch Law: Power from the dimmer switches from zero to full at a specified input level.

Square Law: Non-linear law for use with video cameras.

Linear Law: Linear dimmer action, suitable for most live or theatrical performances.

Press the ENABLE key. The Display shows:



Continue to hold the ENABLE key and press the EDIT Δ or ∇ key to change the output law selection. Hold the ENABLE key and press the OPTION Δ or ∇ key to change the channel number. The default law is “normal”.

Notes:

1 If Switch Law is selected, the switch point default setting is at 50%. This setting may be changed using the Switch Law Point option in the Set Up Dimmer Menu (see page 12).

2 Laws can be set for all channels simultaneously, using the “Make Global Edits” option (see page 17).

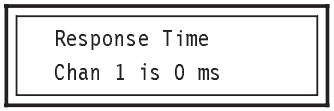
Set Response Time

“Response Time” refers to the speed in which the dimmer’s output changes in response to changes in the input Analogue and/or DMX signals.

A long response time may be used as a simple method of fading an output up or down in response to a “flash” input. Also, some types of lamps have characteristics which benefit from non-standard response times. Refer to your lamp’s specification sheet for details.

This option allows the response time of the currently selected channel to be adjusted from 0 to 2000 milliseconds, in 20 ms steps.

Press the ENABLE key. The display will show:



Continue to hold the ENABLE key and press the EDIT Δ or ∇ key to change the time.

The default response time is 0 milliseconds.

Note: Response Time can be set to the same level for all channels simultaneously using the “ Make Global Edits” option.

Set Patch Channel

This option only becomes available when "Patched" mode is selected in the "Set Up DMX Input" menu.

It allows any of the 512 DMX input channels to be assigned to any of the 12 dimmer channels.

This means that dimmer channel 1 is being driven by DMX channel 001. To change the channel assignments, proceed as follows.

While holding the ENABLE key, press the OPTION Δ or ∇ key to select the required dimmer channel and the EDIT Δ or ∇ key to select the required DMX channel.

This process can be repeated for all the dimmer channels.

Note: the same DMX input channel can be assigned to more than one dimmer channel if necessary.

Make Global Edits

Global Edits affect all dimmer channels, not only the currently selected channel.

To enter the Global Edit Menu, hold ENABLE while simultaneously pressing both the EDIT Δ and ∇ keys.

The MENU key can then be used to step through the options, which are:

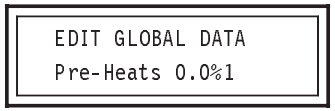
Pre-Heats

Set Top-Sets

Laws are

Response Time

Each option in this sub-menu can be edited in a similar way to the corresponding option in the parent "Set Up Channels" menu.



Hold the ENABLE key and press the EDIT Δ or ∇ key to change the Pre-Heat percentage.

The range is 0 to 50 % in 0.2% steps. The default setting is 2%.

Hold the ENABLE key and press the EDIT Δ or ∇ key to change the Top-Sets percentage.

The range is 50 to 100% in 1% steps. The default setting is 100%.

Hold the ENABLE key and press the EDIT Δ or ∇ key to step through the four law types.

The default setting is normal.

Hold the ENABLE key and press the EDIT Δ or ∇ key to increase or decrease the response time.

The range is 0 to 2000 ms in 20 ms steps. The default setting is 0ms.

Finished Editing

As global changes affect all channels, any changes made must be accepted or rejected.

To do this, press the MENU key. The display will show:

To alternate between “Accept” and “Reject”, press the OPTION Δ or ∇ key .

Next, hold the ENABLE key. The display will show either:

or:

Continue holding the ENABLE key and simultaneously press **both** the EDIT Δ and ∇ keys, to confirm your choice.

The “Set Up Channels” menu will now reappear.

Backup Memories Menu

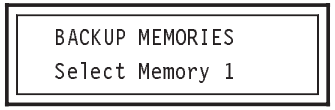
To reach this menu from the Input Display, press the MENU key four times.

The menu allows the backup memories to be configured. It contains the following items:

- Select Memory
- Grab DMX
- Edit Memory
- Clear Memory

Select Memory

This option allows a backup memory to be selected for programming, editing or clearing. Ten backup memories are available, numbered from 1 to 10.



To change the backup memory, hold the ENABLE key and press the EDIT Δ or ∇ key to step up or down to the required memory number.

Grab DMX

This option allows the current DMX information to be grabbed and stored in the currently selected backup memory. "Grab DMX" effectively takes a "snapshot" of the 12 dimmer channels. *Any analogue inputs will be ignored.*

Hold the ENABLE key to display:

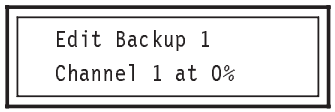
While holding the ENABLE key, simultaneously press **both** the EDIT Δ and ∇ keys. This grabs the current DMX settings and stores them in the selected backup memory.

Edit Memory

This option allows the currently selected memory to be edited.

Each of the 12 channels in the memory can be set to output any level from 0 to 100% in 1% steps.

Hold the ENABLE key to display:



While holding the ENABLE key, use the OPTION Δ or ∇ keys to select the required channel. Then, continue to hold the ENABLE key and use the EDIT Δ or ∇ keys to set the required output level.

Clear Memory

This option clears the currently selected backup memory.

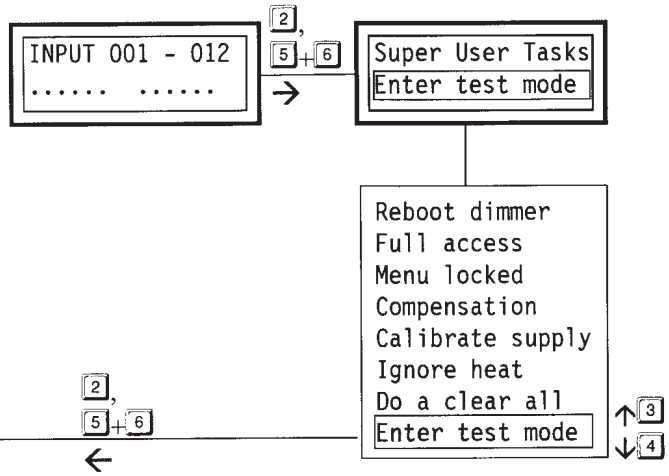
Hold the ENABLE key to display:

To clear the memory, simultaneously press **both** the EDIT Δ and ∇ keys while holding the ENABLE key. The display shows:

After a few seconds, the Display will return to show “Clear Memory”.

All channels in the selected backup memory will now be set to 0% output.

Super User Menu Diagram

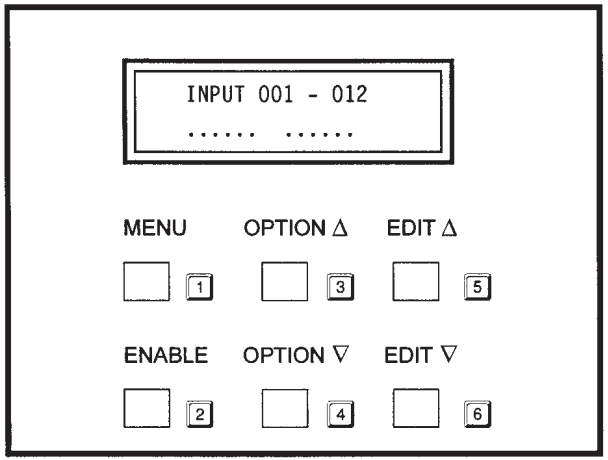


NOTE

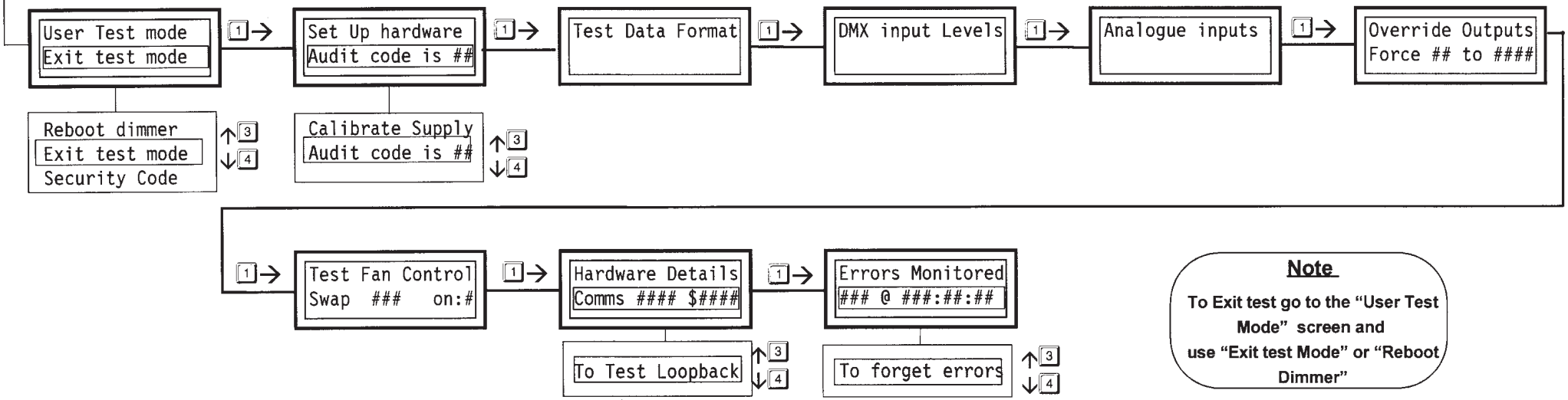
Press & hold the Menu 1 to return to Input Display

NOTE

The "Calibrate supply" option is only available when it has NOT been done.
To re-calibrate use the Test Menu
Set Up Hardware



User Test Mode Menu Structure



Note

To Exit test go to the "User Test Mode" screen and use "Exit test Mode" or "Reboot Dimmer"

Super User Tasks Menu

This Menu can only be entered from the Input Display.

This is performed by holding the ENABLE key and simultaneously pressing **both** the EDIT Δ and ∇ keys. Use the OPTION Δ or ∇ keys to step through the Super User Tasks options.

IMPORTANT

Ensure that you have read and fully understand the Super User Tasks part of this manual before changing any of the settings.

The Super User Tasks Menu contains the following options:

- Reboot Dimmer
- Full Access
- Menu Locked
- Voltage Compensation
- Calibrate Supply
- Ignore heat sensors
- Do a Clear All
- Enter Test Mode

Note: the “Calibrate Supply” option only becomes available if the dimmer supply has not already been calibrated.

Press the MENU key to escape from Super User at any time.

Reboot Dimmer

This option allows the dimmer to be rebooted. This restores the dimmer to its start condition, using either the latest saved user conditions, or the default settings if the parameters have not been changed.

When the ENABLE key is held, the display instructs you to simultaneously press **both** the EDIT Δ and ∇ keys.

When this is done, the dimmer will now reset, displaying the Power Up message sequence.

Full Access

This option allows access to the dimmer’s menu system to be restricted. *It also returns all user adjusted variables to their factory pre-set values.*

When limited access is applied, on rebooting the system, only the Input Display and the “Set Up Dimmer” menu will be available.

Note: full access can only be reinstated via the Super User Tasks Menu.

Hold the ENABLE key:

Then simultaneously press **both** the EDIT Δ and ∇ keys.

Press the OPTION Δ or ∇ key to alternate between “NO Keep current” and “YES Limit access”. Then, hold the ENABLE key.

Depending on your choice, the display shows:

or:

The display then returns to the Input Display.

If “No Keep current” is selected, the display returns to the Super User “Full Access” display.

Note: when in limited access mode, the “Set Up Dimmer” menu contains the following items:

- Language
- Show As
- DMX Channel
- Set Pre-Heat
- Set Top-Set
- LCD Contrast

with the following limitations applying:

DMX Channel is limited to “Grouped” mode only.

Set Pre-Heat can only be varied between 0 and 50%.

Set Top-Set can only be varied between 50 and 100%.

Values cannot be set to individual channels, only global changes are allowed.

Menu Locked

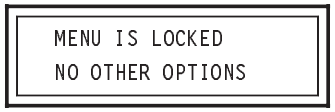
The option allows all the menus to be locked out, while retaining the settings which you have edited.

To lock the menus, hold the ENABLE key and press the EDIT Δ or ∇ key to select “Yes”.

Press the MENU key to escape from Super User.

Now, all the user menus will be locked out. If the MENU key is pressed, no menus will appear, with only the Input Display available.

If the ENABLE key is pressed, the display will show:



Super User Tasks is still available however, even though it is not indicated.

To unlock the menus, enter Super User in the normal way and step to the Menu Locked option.

Hold the ENABLE key and press the EDIT Δ or ∇ key to select “No”.

Voltage Compensation

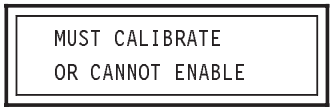
The dimmer has an automatic voltage compensation system which constantly monitors the mains input voltage and adjusts the outputs accordingly. See page 6 for details.

This option allows the voltage compensation to be turned on or off.

To enable voltage compensation, hold the ENABLE key and press either the EDIT Δ or ∇ key. Repeat the process to turn the compensation off again.

If the dimmer’s supply has already been calibrated, the display will show:

If however, the supply has not been calibrated, the following message will appear:



If this message appears, you must first use the “Calibrate Supply” option described on page 24.

Calibrate Supply

This option only becomes available if the dimmer has not already been calibrated.

Hold the ENABLE key to display:

Continue to hold the ENABLE key and press **both** the EDIT Δ and ∇ keys. The display will now indicate the calibration voltage.

This must be done to allow Voltage Compensation to work. Once set this option is not available.

To recalibrate or adjust use Test Mode, Set Up Hardware, Calibrate Supply.

Ignore Heat Sensors

WARNING!

Serious damage to your dimmer may result from ignoring heat sensors.

Zero 88 Lighting Ltd. will NOT accept responsibility for damage or loss caused in this way.

This option should only be used under the most extreme circumstances and then *only if it is imperative that "the show must go on"*, regardless of the consequences.

To ignore the heat sensors, hold ENABLE and press either the EDIT Δ or ∇ key. This option will always reset to "No" when the dimmer is powered up.

Do a Clear All

IMPORTANT

This will result in the loss of all user configured changes.

This option allows all user settings to be returned to their factory default condition.

When the ENABLE key is held, the display instructs you to simultaneously press both the EDIT Δ and ∇ keys.

If this is done, all user settings will be reset, the display showing:

When complete, the "Do a Clear All" option reappears.

Enter Test Mode

This option invokes the Test Menu. This menu is useful when trouble-shooting as it allows certain advanced dimmer parameters to be viewed or tested.

When the ENABLE key is held, the following display appears:

Continue to hold the ENABLE key and press both the EDIT Δ and ∇ keys to enter the “Test Mode”.

See page 26 for Test Mode options.

Test Mode

The “Test Mode” can only be entered from the Super User Tasks menu. Refer to page 22 for details.

Note: “Test Mode” is completely separate from the user menus and should be considered as a new top-level menu. Therefore, the MENU key must be pressed to step through the “Test Mode” items.

The items in the Test Menu are as follows:

- User Test Mode
- Test Data Format
- DMX Input Levels
- Analogue Inputs
- Override Outputs
- Test Fan Control
- Hardware Details
- Errors Monitored

IMPORTANT

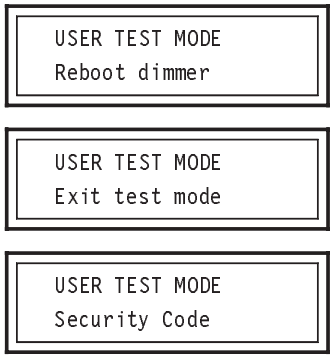
The Override Outputs option will cause the dimmer to temporarily ignore all input signals.
If selected during a live show it will “black out” all lamps.

Exit test mode

To exit test mode see “User Test Mode” on this page.

User Test Mode

This allows three operations.



Use the OPTION Δ or ∇ keys to select the required function.

If “Reboot dimmer” is selected, holding the ENABLE key while simultaneously pressing **both** the EDIT Δ and ∇ keys will result in the system restarting. This is the same action as in the “Reboot Dimmer” option under the “Super User Tasks” menu, described on page 22.

If “Exit test mode” is selected, holding the ENABLE key while simultaneously pressing **both** the EDIT Δ and ∇ keys will return the display to the “Super User Tasks” menu.

Security Code

The security code prevents unauthorised changes to the dimmer’s “User message”. We strongly recommend a code is entered before the dimmer is sent out on hire.

If “Security Code” is selected, holding the ENABLE key while simultaneously pressing **both** the EDIT Δ and ∇ keys gives access to the security code entry display.

The security code is 16 characters long and will initially be set to 16 hyphens.

It is strongly recommended that this code is personalised when the “User message” is set up, to prevent the “User message” being changed.

The code begins with the left-most character. To enter a character at this point, hold the ENABLE key and press the EDIT Δ or ∇ key to cycle through the list of characters until the desired one appears. The characters available are:

-ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789_ (space)

To move right, to the next character position, hold the ENABLE key and press the OPTION Δ key. To step back to the left, hold the ENABLE key and press the OPTION ∇ key.

When all 16 characters have been entered, press the MENU key. If the security code was entered correctly, or this was the first time a code was entered, the “Security Details” function will now be available. If the security code was incorrect, the “User Test Mode” will reappear.

Security Details

There are 5 options under the “Security Details” option. These are:

Reboot Dimmer

Clear Details

Grab Dealer Name

Edit Dealer Name

Alter Code

Use the OPTION Δ or ∇ key to select the required function.

Once the dimmer user message has been entered, the dimmer **must** be rebooted. This will cause the dimmer to save the user message and security code and then reset to the top level menu.

Hold the ENABLE key and simultaneously press **both** the EDIT Δ and ∇ keys to reboot the dimmer.

This function allows the current user message to be cleared. Hold the ENABLE key and simultaneously press **both** the EDIT Δ and ∇ keys to reboot the dimmer.

This allows 32 characters of user message information to be input either from the first 32 channels of a DMX desk or using the ENABLE key and EDIT Δ or ∇ keys as described for entering the Security Code. If using a desk, a wider range of characters may be used; they can be set by adjusting the appropriate faders. Save the desk settings to a memory card for re-use if required.

Once the user message is correct, press the MENU key to save it.

This function allows the user message to be edited.

To edit the details, hold the ENABLE key and simultaneously press **both** EDIT Δ and ∇ keys to obtain the user message display. The characters may then be edited by holding the ENABLE key and pressing the EDIT Δ or ∇ keys. To move to a different position, hold the ENABLE key and press the OPTION Δ or ∇ keys. When completed, press the MENU key to save changes, then reboot the dimmer.

This function allows the 16 character security code to be changed. It is strongly recommended that this is done immediately for all new dimmers, as the default code will be a line of 16 hyphens.

To change the code, hold the ENABLE key and press the EDIT Δ or ∇ key. To move to a different position, hold the ENABLE key and press the OPTION Δ or ∇ key. When completed, press the MENU key to save changes, then reboot the dimmer.

Note: the security code cannot be set up via a DMX equipped desk.

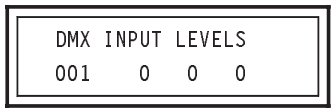
Test Data Format

This option decides the format in which data will be presented throughout the Test Menu. The data can be shown as decimals, percentages or hexadecimal numbers.

To change the data format, press the OPTION Δ or ∇ key.

DMX Input Levels

This option allows the current values of any three consecutive DMX input channels to be seen. It also records glitches seen on the DMX inputs.



To change the DMX channel, press the EDIT Δ or ∇ key to step up or down through the channels. Data present is represented as numerical values in the lower line of the display. The first number is the value read from the selected channel (in this example, channel 001). The other numbers are the values in the next two consecutive channels (002 and 003).

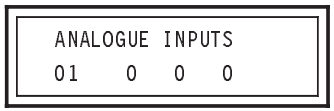
Press the OPTION Δ or ∇ key to alternate between the Input Levels display and the See DMX Glitches display.

Normally, when there are no glitches present, the display will show a line of 12 dots, representing the 12 input channels. If noise or DMX glitches caused by, for example, a "noisy" electrical environment are present, random flickering bar-graph information will be seen on this line. Should such glitches appear, check your desk and DMX cable.

Note: DMX signals which are constantly changing will appear to generate glitches. A glitch may also be generated when the DMX channel being viewed is changed. Such glitches should be ignored. Ensure that the incoming DMX signal is at a steady value.

Analogue Inputs

This option allows the current values on any of the Analogue input channels to be seen in real time.



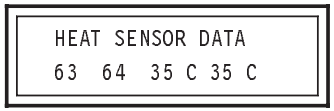
To change the Analogue input channel, press the EDIT Δ or ∇ key to step up or down through the channels.

Channels 01 to 12 represent the analogue mixer input channels (ie. the voltages on the DIN connector(s)).

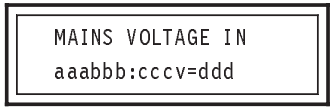
Channels 13 to 15 represent internal analogue measurement channels.

Channel 16 is currently unused.

In addition, other analogue parameters may be viewed. Press the OPTION Δ or ∇ key to step through the following displays.



This display shows the numerical values returned by the equipment's internal temperature probes and the respective calculated temperatures.



This display shows the measured mains input voltage to the dimmer, where:

aaa=raw sensor input

bbb=calculated mains input

ccc=lamp reference voltage

ddd=ratio

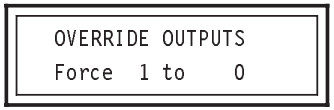
Override Outputs

IMPORTANT

If "Override Outputs" is selected during a live show, all lamps will be temporarily blacked out!

This option allows each of the dimmer's output channels to be forced to provide an output, regardless of the i nput conditions.

Control is provided from 0 to 100% of full output in 1% steps.



To change the channel being forced, press the OPTION Δ or ∇ key.

To change the output level of the forced channel, press the EDIT Δ or ∇ key.

Note: the override output is independent of the normal working of the dimmer. Therefo re if "Override Outputs" is selected while desk inputs are being received, the desk inputs will be ignored.

Test Fan Control

Automatic cooling fans are fitted inside the dimmer.

This option allows their operation to be checked.

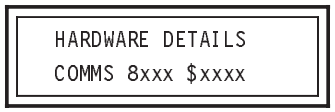
Press the OPTION Δ or ∇ key to “Swap” the automatic control action on the fan; i.e. if it is turned off, turn it on and vice versa.

Press the EDIT Δ or ∇ key to manually force the fan on or off.

Note: when the “Test Mode” is exited, fan operation will return to normal.

Hardware Details

This option gives details relating to the internal circuits of the dimmer and is of use only for service purposes.



Press the OPTION Δ or ∇ key for further information. For a model ID1216 dimmer, this is as follows:

	Eprom number	Eprom checksum
1	00 8xxxx	$xxxx
2	01 8xxxx	$xxxx
3	02 8xxxx	$xxxx
4	Not installed	
5	Not installed	
6	Not installed	
7	Not installed	
8	Not installed	

Other ID Series dimmers may return different information.

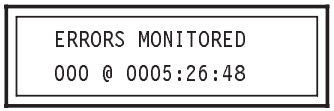
On the ID 625 eprom number 3 is not installed.

Errors Monitored

This option keeps a log of all memory corruption errors monitored on the system.

In an ideal environment, no errors will occur. Under bad mains supply conditions, for example in a “noisy” industrial environment, the dimmer may report errors which affect its normal operating process.

The dimmer however, is able to automatically correct such errors in normal use. Therefore this display is most useful in determining the suitability of the operating environment.



The first three digits indicate the numbers of errors monitored. The digits separated by colons indicate the run time, in hours, minutes and seconds, since the system was reset. *This run timer may be used to indicate the total usage time of the system.*

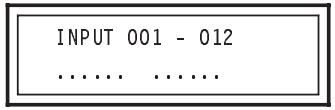
To reset the “Errors Monitored” and run timer, hold the ENABLE key and simultaneously press **both** the EDIT Δ and ∇ keys.

Empty Page

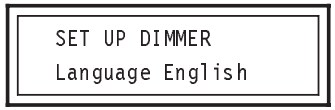
Instructions

Ces instructions décrivent le mode d'utilisation du gradateur au moyen de schéma de menu simple et facile à suivre.

Pour accéder au menu en français depuis l'Entrée:



Appuyez une fois sur la touche MENU pour faire apparaître l'affichage suivant:



Pour changer la langue d'affichage, appuyez sur la touche ENABLE sans la relâcher et appuyez une fois sur la touche EDIT Δ.

Vous êtes maintenant dans le menu en français.

ATTENTION

Ne pas boucher les fentes d'aération du gradateur.

COUPER L'ALIMENTATION AVANT de brancher ou de débrancher le connecteur d'entrée secteur.

Ne pas exposer le boîtier en plastique à une chaleur excessive.

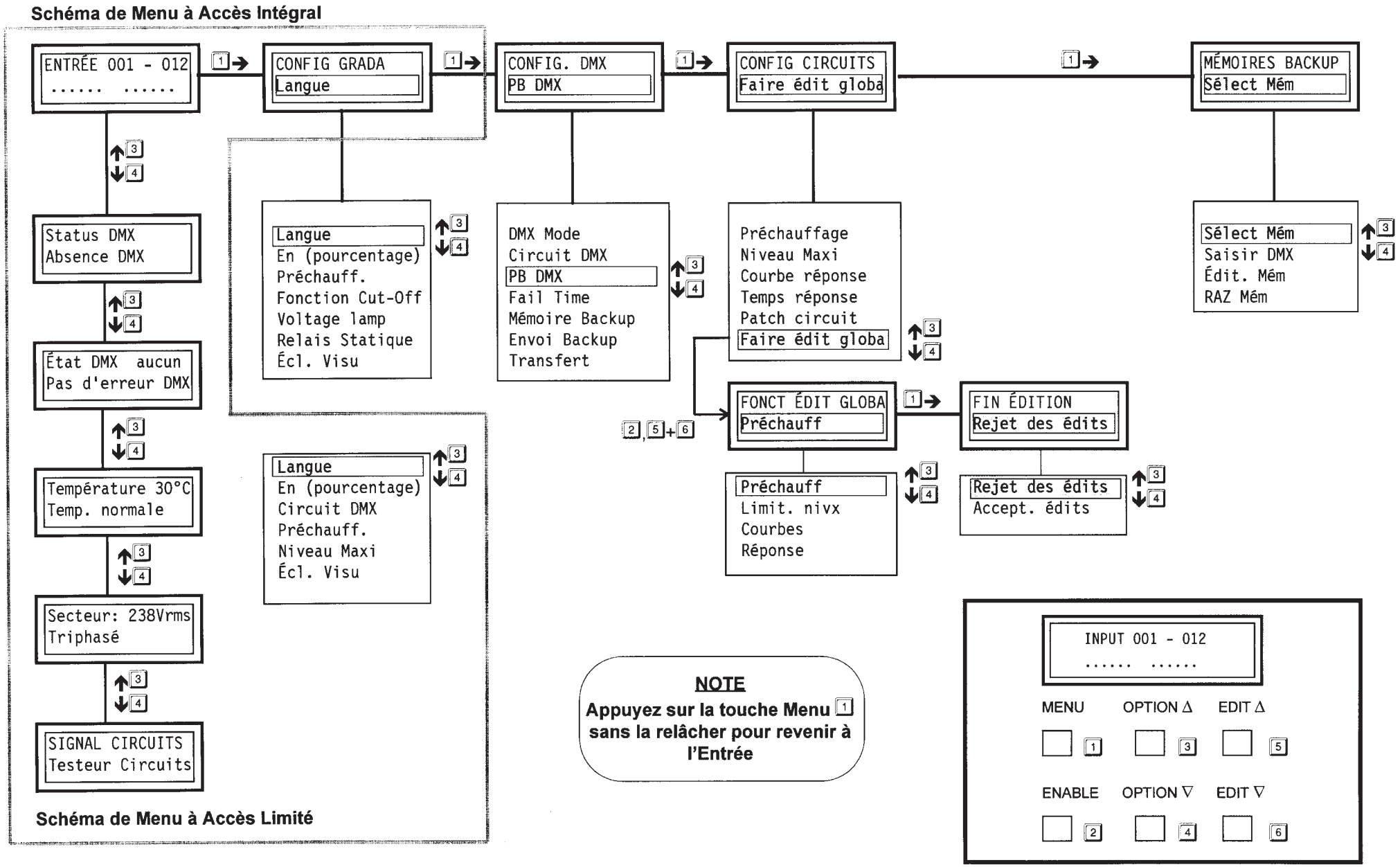
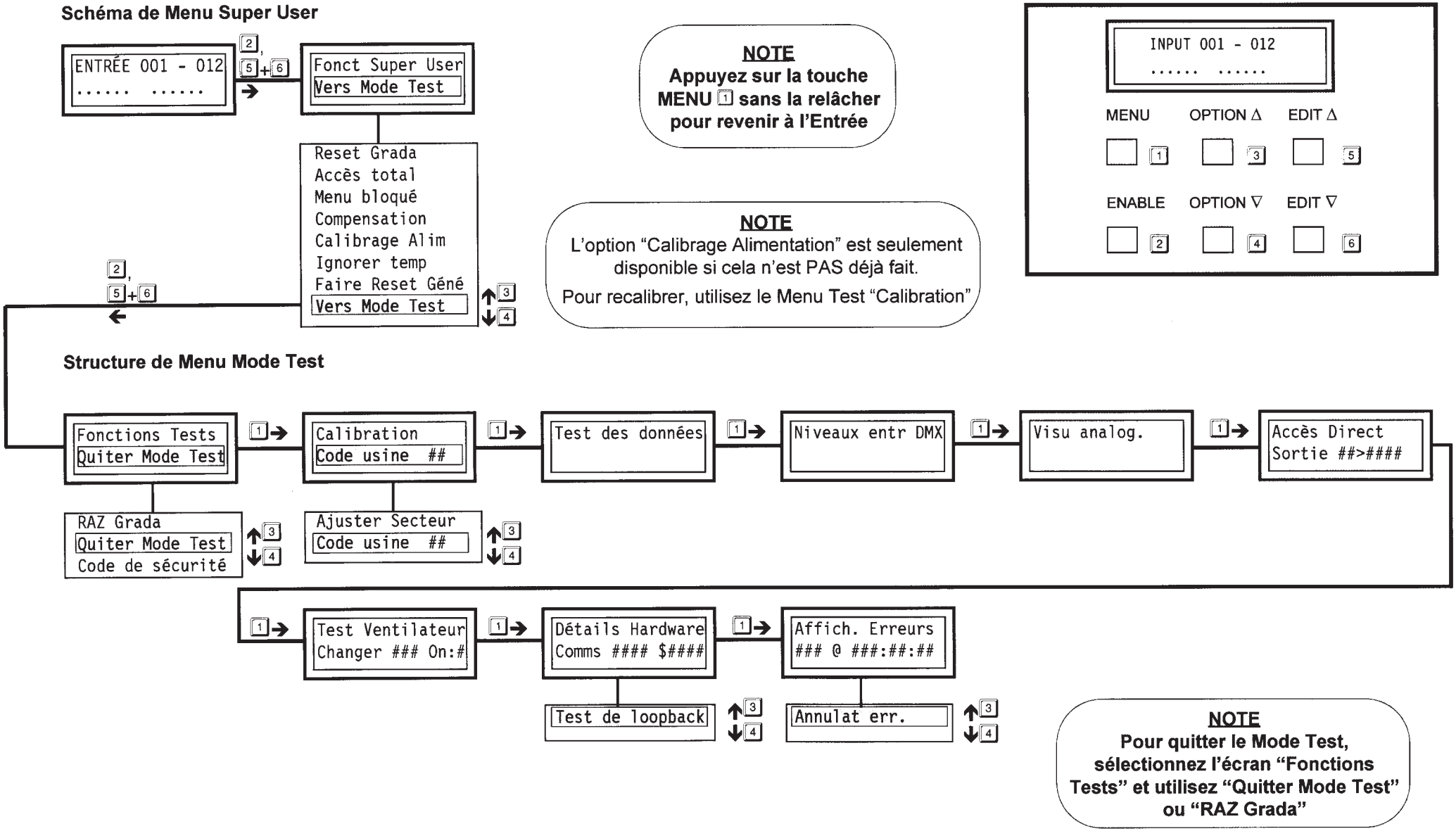


Schéma de Menu à Accès Intégral
ENTRÉE 001 - 012
....
CONFIG GRADA
Langue
CONFIG. DMX
PB DMX
CONFIG CIRCUITS
Faire édit globa
MÉMOIRES BACKUP
Sélect Mém
Status DMX
Absence DMX
État DMX aucun
Pas d'erreur DMX
Température 30°C
Temp. normale
Secteur: 238Vrms
Triphasé
SIGNAL CIRCUITS
Testeur Circuits
Langue
En (pourcentage)
Préchauff.
Fonction Cut-Off
Voltage lamp
Relais Statique
Écl. Visu
Langue
En (pourcentage)
Circuit DMX
Préchauff.
Niveau Maxi
Écl. Visu
DMX Mode
Circuit DMX
PB DMX
Fail Time
Mémoire Backup
Envoi Backup
Transfert
Préchauffage
Niveau Maxi
Courbe réponse
Temps réponse
Patch circuit
Faire édit globa
FONCT ÉDIT GLOBA
Préchauff
FIN ÉDITION
Rejet des édits
Préchauff
Limit. nivx
Courbes
Réponse
Rejet des édits
Accept. édits
Sélect Mém
Saisir DMX
Édit. Mém
RAZ Mém
2, 5+6
Schéma de Menu à Accès Limité
NOTE
Appuyez sur la touche Menu 1 sans la relâcher pour revenir à l'Entrée
INPUT 001 - 012
....
MENU
OPTION Δ
EDIT Δ
ENABLE
OPTION ∇
EDIT ∇

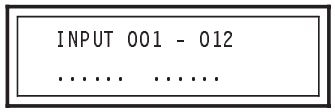
Schéma de Menu Super User



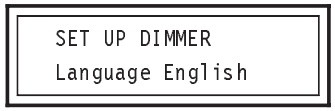
Anleitung

In dieser Anleitung wird erklärt, wie der Dimmer zu benutzen ist; dies erfolgt dabei über einfache, bedienungsfreundliche Menüdiagramme.

Wenn das deutsche Menü bei der Eingabeanzeige aufgerufen werden soll:



Drücken Sie die MENU-Taste einmal, wobei die folgende Anzeige erscheint:



Wenn die Sprache gewechselt werden soll, halten Sie die ENABLE-Taste gedrückt, und drücken Sie die EDIT ∇ - Taste einmal.

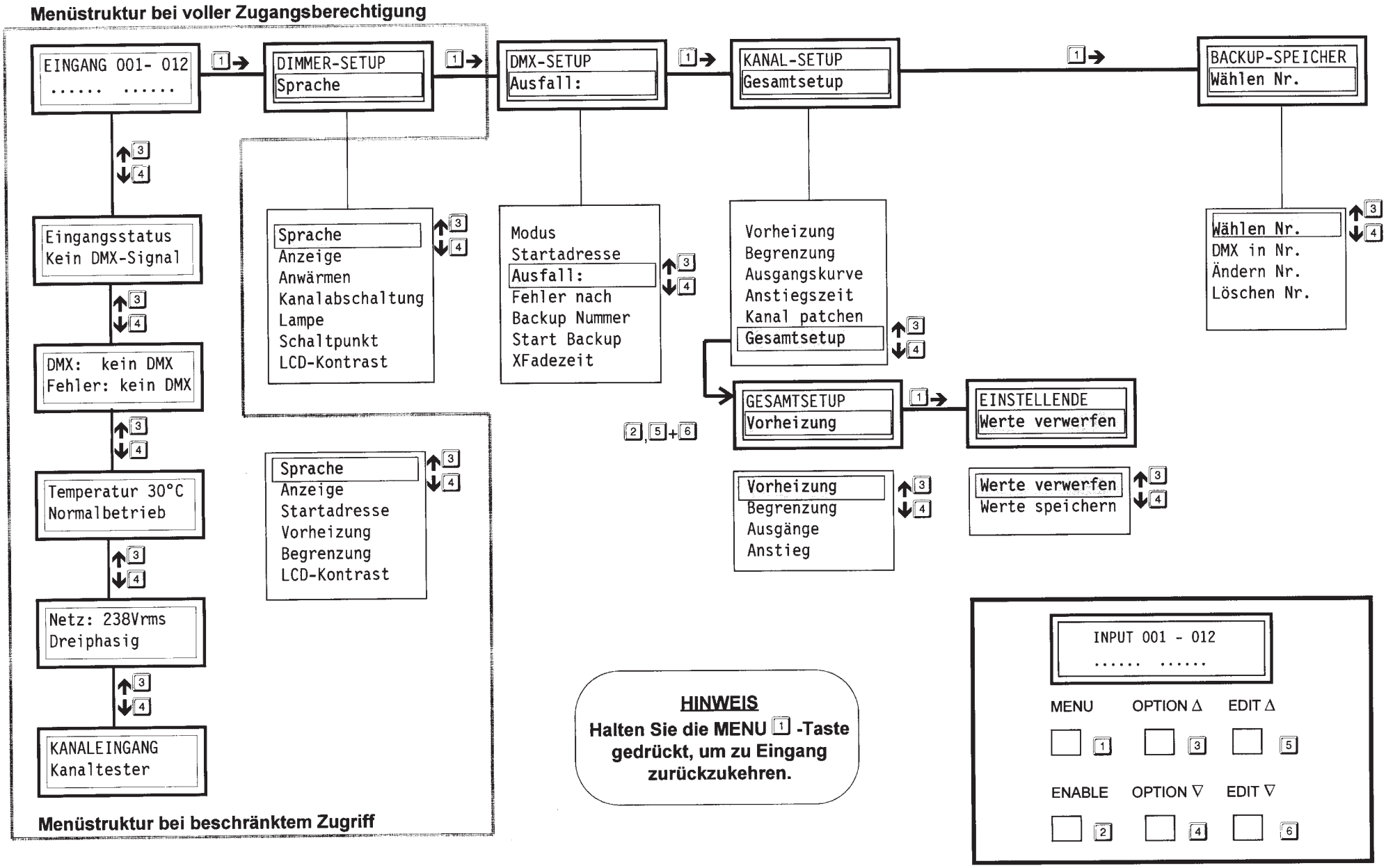
Nun befinden Sie sich im deutschen Menü.

ACHTUNG

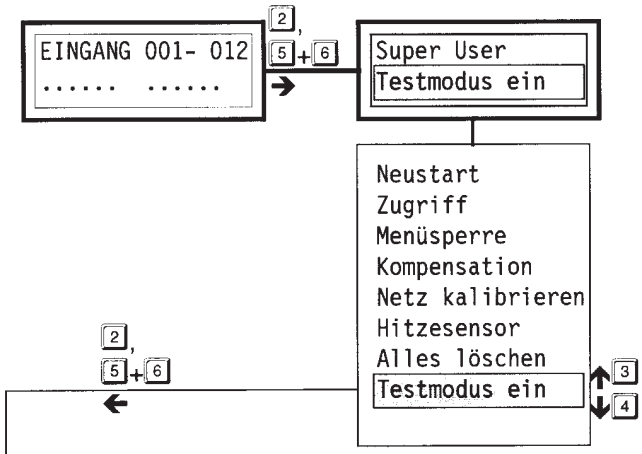
Die Belüftungsschlitze des Dimmers dürfen nicht verlegt werden.

UNTERBRECHEN SIE DIE STROMVERSORGUNG bevor Sie den Netzstecker anschließen oder abstecken.

Setzen Sie das Kunststoffgehäuse keiner starken Hitze aus.

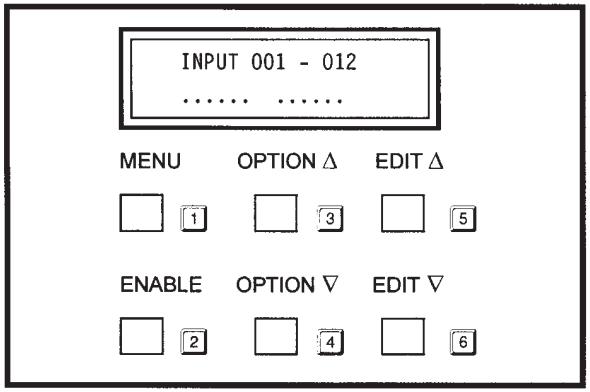

Menüstruktur bei voller Zugangsberechtigung
EINGANG 001- 012
....
DIMMER-SETUP
Sprache
DMX-SETUP
Ausfall:
KANAL-SETUP
Gesamtsetup
BACKUP-SPEICHER
Wählen Nr.
Eingangsstatus
Kein DMX-Signal
DMX: kein DMX
Fehler: kein DMX
Temperatur 30°C
Normalbetrieb
Netz: 238Vrms
Dreiphasig
KANALEINGANG
Kanaltester
Sprache
Anzeige
Anwärmen
Kanalabschaltung
Lampe
Schaltpunkt
LCD-Kontrast
Modus
Startadresse
Ausfall:
Fehler nach
Backup Nummer
Start Backup
XFadezeit
Vorheizung
Begrenzung
Ausgangskurve
Anstiegszeit
Kanal patchen
Gesamtsetup
Wählen Nr.
DMX in Nr.
Ändern Nr.
Löschen Nr.
GESAMTSETUP
Vorheizung
EINSTELLENDE
Werte verwerfen
Werte verwerfen
Werte speichern
Vorheizung
Begrenzung
Ausgänge
Anstieg
2, 5+6
Sprache
Anzeige
Startadresse
Vorheizung
Begrenzung
LCD-Kontrast
Menüstruktur bei beschränktem Zugriff
HINWEIS
Halten Sie die MENU 1 -Taste gedrückt, um zu Eingang zurückzukehren.
INPUT 001 - 012
....
MENU
OPTION Δ
EDIT Δ
ENABLE
OPTION ∇
EDIT ∇

Menüdiagramm Super User

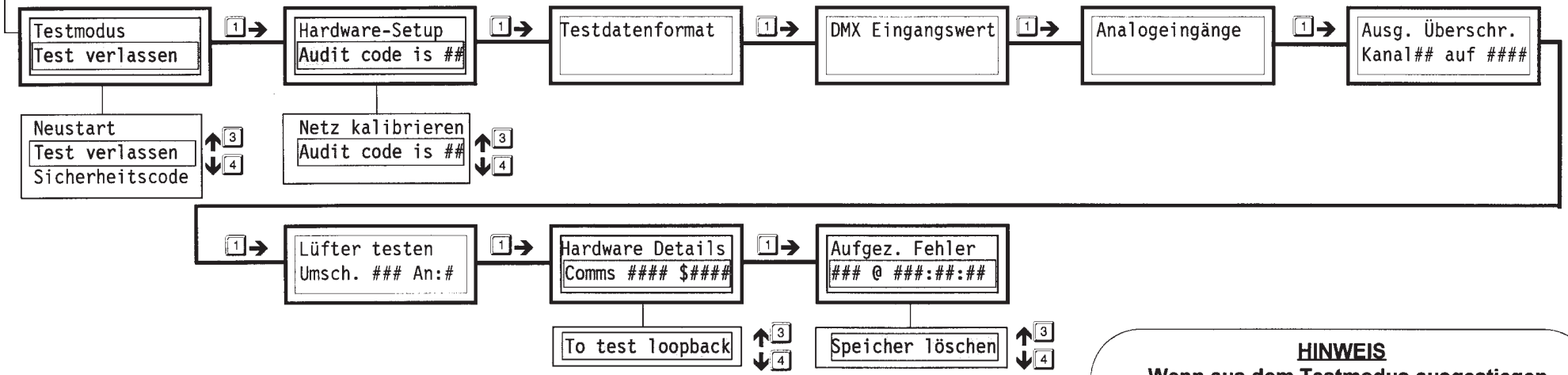


HINWEIS
Halten Sie die MENU 1 Taste gedrückt, um zu Eingang zurückzukehren.

HINWEIS
Die Option ‚Netz kalibrieren' steht nur dann zur Verfügung, wenn dieser Vorgang noch nicht durchgeführt wurde.
Zur neuerlichen Kalibrierung muß ‚Hardware-Setup' aus dem Testmenü verwendet werden.



Menüstruktur User Testmodus



HINWEIS
Wenn aus dem Testmodus ausgestiegen werden soll, muß der Bildschirm ‚Testmodus' aufgerufen und die Option ‚Test verlassen' oder ‚Neustart' gewählt werden.

Performance Specification

ID Dimmer Performance Specification

Mains Input

Mains input connection	
Standard	3 phase (Star) 63Amp CEEform connector (5 pin)
Using Option Kit (00-432-00)	Single, Dual and Delta 3 Phase
Mains input control	4 pole, 63 Amp switch, (on rear of unit) except 00-401-11
Voltage input range	180v to 260V 85V to 130V (factory set)
Over voltage protection	up to 450V phase to neutral
PSU protection	Via electronic (PTC) fuses, with secondary backup internal 20mm fuses
Mains frequency	45Hz to 65Hz auto sensing at startup, +/- 5% during operation.
Power consumption	Less than 30Watts for no load
Earth leakage	Less than 2.0 mA

Outputs

Accessory output	1 channel (controlled via breaker next to mains input switch on rear)
Accessory output socket	Normally same as channel output connectors (see table)
Phase controlled outputs	12 channels
Output protection	Thermalmagnetic circuit breakers, one per channel, with neutral disconnect
Breaking capacity	To EN 60898: 1991 4.5K Amps
Over rating	Triac controlling devices are specified to not less than 3.0 times the continuous maximium current.
Phase connections	
ID 1216	channels 1,2,3,4 phase 1
	channels 5,6,7,8 phase 2
	channels 9,10,11,12 phase 3
ID 625	channels 1 and 2 phase 1
	channels 3 and 4 phase 2
	channels 5 and 6 phase 3

Output Connector, Breaker and Isolator Versions:

Stock No.	Output connector	Channel Breaker Rating	Accessory Connector	Isolator
00-411-11	12 by 15A round pin	13A	13A square pin	Yes
00-411-21	12 by double Schuko	16A	Schuko	Yes
00-411-22	12 by triple Swiss	13A	SwissC5,5,0,0,0,0	Yes
00-411-23	12 by double French	16A	French	Yes
00-411-41	2 by Harting 12 x 16A	16A	CEE17 16A	Yes
00-411-42	2 by Socapex 12 by 16A	16A	CEE17 16A	Yes
00-411-61	12 by CEE17 16A	16A	CEE17 16A	Yes
00-401-11	12 by 15A round pin + hole for socapex	13A	13A square pin	No
00-412-62	6 by CEE17 32A	25A	CEE17 16A	Yes

Load Capability: ID1216

short term maximum, per channel	16 Amps
continuous maximum, per channel	13.3 Amps (3,000W)
continuous maximum total load	36,000 Watts
Minimum load per channel	25 Watts
Maximum insertion loss	Less than 5V rms at full rated continuous load
Maximum DC content of output	Less than +/- 2.0V DC any control setting
Response time	Adjustable by the user 0 to 2.0 seconds (in steps of 20ms)

Load Capability: ID625

short term maximum, per channel	25 Amps
continuous maximum, per channel	22.7 Amps
continuous maximum total load	30,000 Watts
Minimum load per channel	100 Watts
Maximum insertion loss	Less than 5V rms at full rated continuous load
Maximum DC content of output	Less than +/- 2.5V DC any control setting
Current waveform rise time	200 microseconds
Response time	Adjustable by the user from, 0 to 2.0 seconds (in steps of 20ms)

Thermal Control

Maximum ambient temperature	40 degrees C
Minimum operating temperature	5 degrees C
Method of cooling	2 DC. fans under microprocessor control
Method of temperature sensing	Semiconductor sensors 2 on ID1216, 3 on ID 625 (one per heatsink)
Thermal management	Five operating temperature regions with front panel LCD indication and warning messages
Thermal control override	Fans may be forced on under Super User control.
Perceived Audible fan noise	32 DbA

Standards and Environments

Safety standards (PSU and control electronics)	BS61010-1 1993 BS 415 1990
Atmospheric environment	Non condensing
Professional use	This is professional stage lighting equipment and should only be used by, or under the supervision of suitably trained, qualified staff.

Physical Details

	ID1216	ID625
Dimensions	Height 50 cm, Width 47.5 cm Depth 52 cm	50 cm 47.5 cm 52 cm
Weight	29 Kg	34 Kg
Shipping dimensions	Height 64.5 cm Width 61cm Depth 61.5 cm	64.5 cm 61cm 61.5 cm
Shipping weight	30 Kg	35 Kg

Plastic case	
Fire retardant to	BS476 Part 7 Class 4 1987
Retains mechanical strength to	-15 degrees C
Material	Polyethylene

Control Electronics

Controls	Illuminated LCD display (data is shown in decimal or % format) 6 buttons
Modes of use	Full access
	Restricted - preheat, DMX start address - plus manufacturers default settings
	Locked - no parameters may be changed
Languages	English, French & German
Channel Test	Facility to override inputs to 50% or 90% levels
Channel parameters	Preheat 0 to 50% in 0.2% steps
	Topset 50 to 100% in 1% steps
	Channel response time 0 to 2.0secs in 20mS steps
Output control laws (all laws set individually on a per channel basis)	Square law "S" law Linear law Switch law (switch point is user programmable)
All channel parameters may be set globally (ie adjust all channels together)	
Mains turn on	Anti flash circuits user controlled "warm for" time, (allows preheats to be held before desk control connected)
Backup / Internal Memories	10 memories available - user selectable crossfade time
Backup turn on	A backup memory can be selected at turn on if no DMX input
Memory edit	Via input keys or "grabbed" from DMX input
User Message	A text memory stores a 32 character message, displayed at turn on, or on holding the Menu button
Resolution of control	From an input resolution of 256 steps, 16 bit law and compensation accuracy is used to give a resolution equal to greater than 6500 steps.

Hardware and Software Details

Control Inputs

Normal display	Control input levels as histogram type display
Analogue input	+ 10Volts / - 10Volts autosensing via locking DIN on front panel
Input impedance	100K
Overload capability	+/- 40V continuous
DC output	20V nominal supply to DIN connectors, switched + or - via front panel
DC output specification	18V to 28V, maximum current 200mA (electronic fuse)
DMX input	Via 5 pin XLR hardwired to "pass thru" 5 pin XLR output socket (no buffering)
DMX input isolation	Optical isolation to withstand 240V, with electronic front end giving full RS485 sensitivity
DMX loading	Less than one unit load
DMX input protection	Special filter circuit to remove line transients
DMX addressing	**Grouped** channels 1 to 12 together, select channel one address only **Patched**, select the address of channels individually
Input mixing	DMX, analogue and test mix on "highest takes precedence" basis
DMX status/error	Status indication "none", "DMX lost" or "DMX OK" Any received DMX errors are indicated on on the display.

Voltage Compensation

Action	Output levels are adjusted to compensate for variations in supply voltage.
Calibration	This control is allows for outputs to be defined as a percentage of a defined voltage rather than the usual, percentage of random supply voltage.
Operation	A global maximum control voltage is set (less than supply voltage). Channel control then becomes a percentage of that voltage, as the supply varies, the control electronics constantly adjusts the output to maintain the constant percentage required
Compensation accuracy	Output will be held to within +/- 8%
Control range	170V to 270V
Control of compensation	Voltage compensation may be turned off by the user

Power On Errors

When the dimmer is reset by choice or by a fault being detected, one of the following messages will be seen:

```
* SYSTEM RESET *
Super User Reset
```

or:

```
* SYSTEM RESET *
Exited Test Mode
```

or:

```
* SYSTEM RESET *
Processor Halted
```

or:

```
* SYSTEM RESET *
 Unknown reason
```

The first two messages result from user resets and do not represent true error conditions.

The “Processor Halted” or “Unknown reason” messages could be caused by an internal hardware problem. If these are seen, contact your Zero 88 dealer.

DMX Errors

At power on, if no DMX input is found, the following message will appear:

```
NO DMX PRESENT
Now using backup
```

If DMX signals are lost during operation, the following message will appear:

```
*** DMX LOST ***
Holding latest
```

or:

```
*** DMX LOST ***
Fading to backup
```

or:

```
*** DMX LOST ***
Fading to zero
```

When DMX signals are restored, the following message will appear:

```
* DMX RESTORED *
Tracking inputs
```

or:

```
* DMX RESTORED *
Fading to Inputs
```

Messages will vary according to the setting of the dimmer’s “When Fail” option.

The following message can only occur when the Input Display is shown:

```
*** DMX REPORT ***
  Error detected
```

In all the above cases, check that the cable between the desk and the dimmer is correctly connected and that the desk is set up and transmitting data. If the fault persists, try a different DMX cable and / or a different cable route.

Hardware Errors

At a power on or a menu selected reset, the dimmer runs an internal hardware self-check routine. If a fault is detected, the following message will appear:

```
*HARDWARE ERROR*
Expect confusion
```

followed by an “Analogue Error” message detailing which fault has been detected. This could be one of the following:

```
Agnd read as $##

Vref read as $##

+5v read as $##

Sensor 1 is ## C

Sensor 2 is ## C

Voltage is ###V
```

Any of these errors may cause the dimmer to malfunction.

System Failure

If the main processor can no longer communicate with the triac processors, the following message is displayed:

```
SYSTEM FAILURE
No Triac Cards
```

Software Errors

At power on or a menu selected reset, the dimmer checks that the internal battery backup data is intact. Should a corruption of the data be found, the data will be cleared and a default value used. If a fault is detected, the following message will appear:

```
** DATA ERROR **
Found corruption
```

followed by a report on the type of corruption detected. This could be one of the following:

```
Lost Data CONFIG

Lost Data   DMX

Lost Data BACKUP

Lost Data CHANEL

Lost Data SECURE

Language English

Full Access   No

Menu Locked   No
```

Temperature Errors

The dimmer continuously monitors its internal temperature. Overheating due to very high ambient temperatures and high power outputs can cause the following messages to appear:

```
SEVERE OVER-HEAT
LIMITING OUTPUTS
```

or:

```
FULL OVER-HEAT
DIMMER SHUT-DOWN
```

Normal operation will resume as soon as the internal temperature of the dimmer has reduced.

To avoid over-heat problems, always install the dimmer in a well ventilated position and DO NOT obstruct the fan apertures.

Low Temperature Operation

At low temperatures all LCD displays react slowly. This is a characteristic of Liquid Crystal Display (LCD) technology and is quite normal.

The ID will turn the fans on at low temperature, as the processor is unable to differentiate between low temperature and a sensor malfunction. Running the fans also speeds up the warning process, if the dimmers are cold because they have been in a track all night. The fans will run until normal operating temperatures are reached.

The following error message is shown.

```
Temperature # # # C
Running Cold
```

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