DIGIfactor *club* 6x2,5Kw

488

464

98

88
(2 Rack unit)

76

428

322

310

95

82

273

308
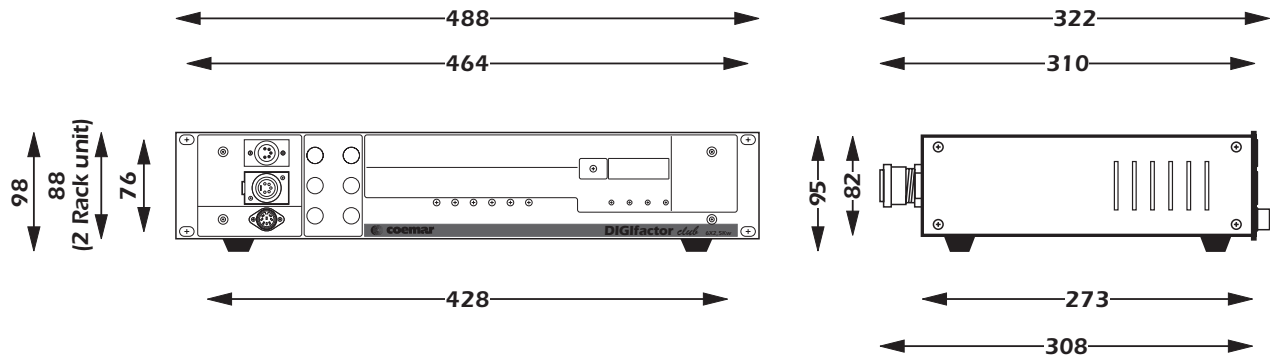
serial number

date of purchase

retailer

address

suburb

capital city

state

tel./fax/

Please note in the space provided above the relative service information of the model and the retailer from whom you purchased your **DIGIfactor** *club* **6x2,5Kw**: This information will assist us in providing spare parts, repairs or in answering any technical enquiries with the utmost speed and accuracy.

WARNING: the security of the fixture is granted only if these instructions are strictly followed; therefore it is absolutely necessary to keep this manual.

Index

1. Introduction

Congratulations on having purchased a new **coemar** product. You have ensured yourself of a controller of the highest quality, both in the components and in the technology used.

In any request for information regarding the **DIGIfactor** *club* **6x2,5Kw**. We ask that you specify correctly the model purchased. To this end we requst that you complete the purchase details listed below. This information will assist us in providing you with prompt and accurate information.

2. Technical characteristics

DIGIfactor *club* **6x2,5Kw** is a dimmer rack allowing control over the output of 6 channels from 0 to 230V. The six channels may be loaded to a maximum of 2,5KW; therefore resulting in a maximum current of 10 Amps per channel.

mechanical:
- Removeable enclosure panels allow easy internal inspection
- Maximum ambient operating temperature: 40 °C
- Weight: 7,5 Kg.

electrical:
- Power supply 230V three phase + N + E
- Voltage over-suply protection
- Load protection via ceramic fuses
- Maximum load per channel: 2,5KW
- Number of channels: 6.
- CE compliance
- Locking load connectors
- Locking supply connectors
- Fuse-blown indicator on all load outlets

electronics:
- Load voltages controlled by either 0/+10 v DC or DMX 512 signal
- Single channel test facility
- Digital DMX 512 addressing.
- Internal measurement of each of the three phases
- Internal measurement of supply frequency
- Instantaneous internal temperature measurement at the triacs
- Hours of operation counter
- DMX parameter measurement and display
- Individual channel pre-heating
- Variable maximum output limits for each channel
- Individual channels assignable as dimming or switching (on/off)
- Individual switching channel pre-heating(for trasformer loads).
- 9 scenes programmable in the **DIGIfactor** *club* **6x2,5Kw** for use in absence of a control console
- Reset function
- DMX 512 via XLR 5/M socket
- Daisy chaining of **DIGIfactor** *club* **6x2,5Kw** and other DMX 512 units via XLR 5/F plugs
- Internal +20 V DC powersupply
- 0/+10V DC via 8 pin Locking din
- 0-10 and DMX signal input measurement
- Output voltage display

3. Mechanical installation

Installation into a rack-case or a fixed installation should follow certain procedures to ensure correct operation of the unit.

Attention!

DIGIfactor *club* **6x2,5Kw** is mechanically constructed to suit standard 19" rack mounting

Load voltage regulation is via internally mounted Triacs; these components will heat up when a load is connected; the **DIGIfactor** *club* **6x2,5Kw** needs to disappate this heat and for this reason the unit needs to be located in a well-ventilated position, leaving a minimum of 2 centimetres clearance around the unit housing and any adjoining surfaces.

Note that on either side of the **DIGIfactor** *club* **6x2,5Kw** there are forced-cooling air intake/exhaust passages. These passages should under no circumstances be covered.

Installation should not be onto a flammable surface; a hot housing is indicative of abnormal operating conditions.

Ambient operating temperature range: -10°C to +40°C.

If the ambient operating temperature exceeds that indicated, you may choose to install a forced-air cooling system into your **DIGIfactor** *club* **6x2,5Kw** rack case or mounting system to remove hot air from the housing.

After having installed the **DIGIfactor** *club* **6x2,5Kw** refer to section 9.2.3 of this manual, "Temperature testing" to complete the correct installation of the unit.

Note that maximum operating temperature should be measured only after all load has been connected and been operating for a minimum of one hour.

4. Connection to mains power

DIGIfactor *club* **6x2,5Kw** is a dimmer rack suitable for power supply via 3 phase 230V.

230V single phase supply is possible, but will not allow the unit to be used in adherance to certain safety norms concerning electrical operation and electromagnetic radiation emission.

Strict adherance to local regulatory requirements is essential; as is a correct and secure earth connection.

Ensure the supply cable is able to carry the maximum load for the unit.

1) Loosen the four screws (**A**) which affix the rear panel (**B**).
2) Locate the power supply terminal strip
3) Slide your supply cable through the cable clamp till sufficient length is available for connection to the terminal strip.
4) Fix the cable clamp to the cable securely.
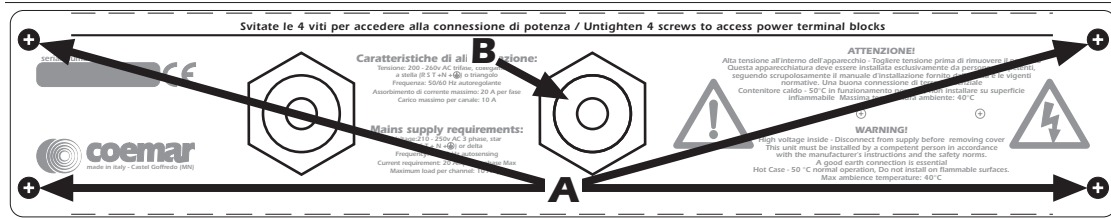
5) Connect the cable as shown in the diagram.
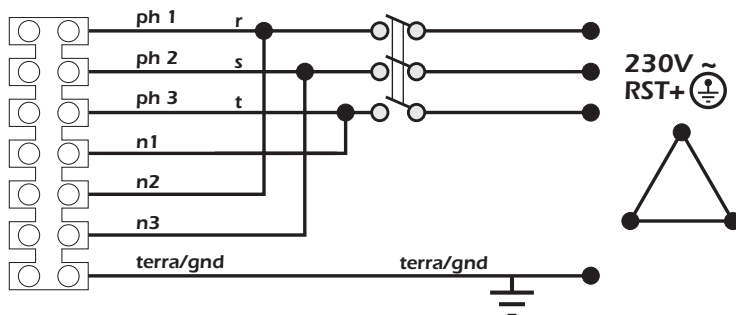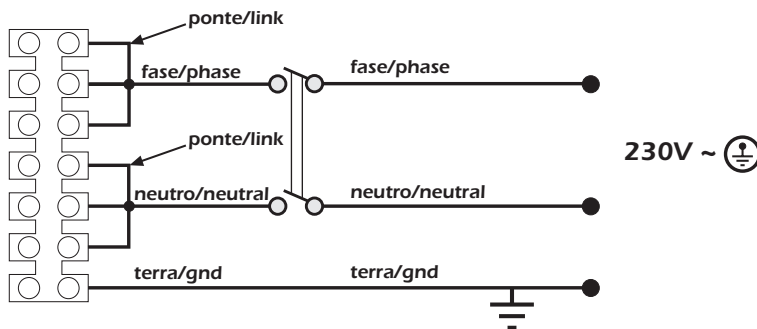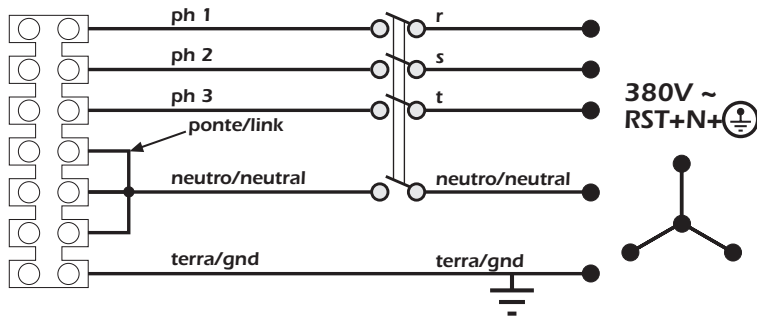
protection

For proper powering up of the **DIGIfactor** *club* **6x2,5Kw** we recommend the use of a termal/magnetic circuit breaker of sufficient rating, as indicated in the diagram.

Attention

DIGIfactor *club* **6x2,5Kw** is a high-technology dimmer running on mains power; only qualified personal should perform installation, after thorough examination of this manual, and bearing in mind all local norms. Remove mains power prior to removing the rear panel and performing any internal procedures.

The housing may be hot, 50°C during normal operation, do not install on flammable surfaces. Maximum ambient temperature: 40°C

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5. Load connection

DIGIfactor *club* **6x2,5Kw** can control a maximum of 6 channels @ 2,5 Kw; with a maximum of 10 Amps per channel.
**Do not overload the outlets!**
Refer to local regualtions and norms with respect to the correct cabling required for connection of loads to dimmers in public locations.
A good and secure earth connection is essential.

1) Loosen the four screw (A) on the rear panel (B) of the **DIGIfactor** *club* **6x2,5Kw**; using a cable of suitable rating slide it through the cable clamp (C) located on the rear of the unit and secure it firmly.
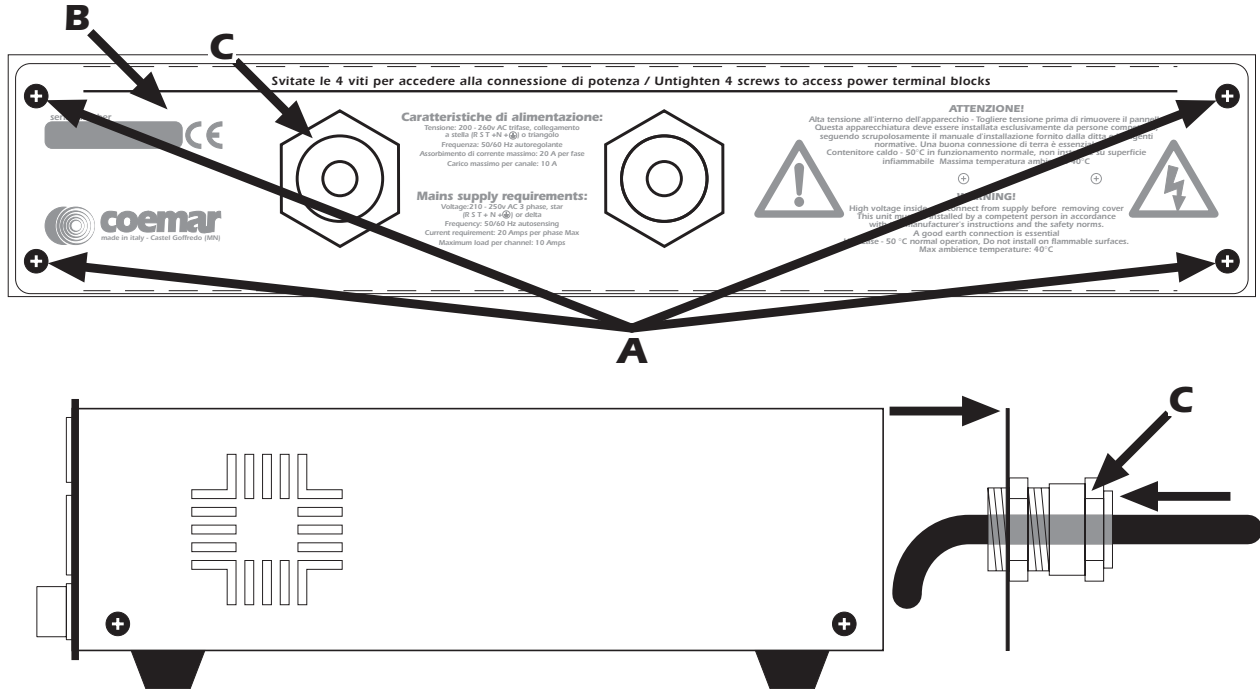
2) Connect the load cables, referring to the schematic shown, where a standard load is indicated by lamps.
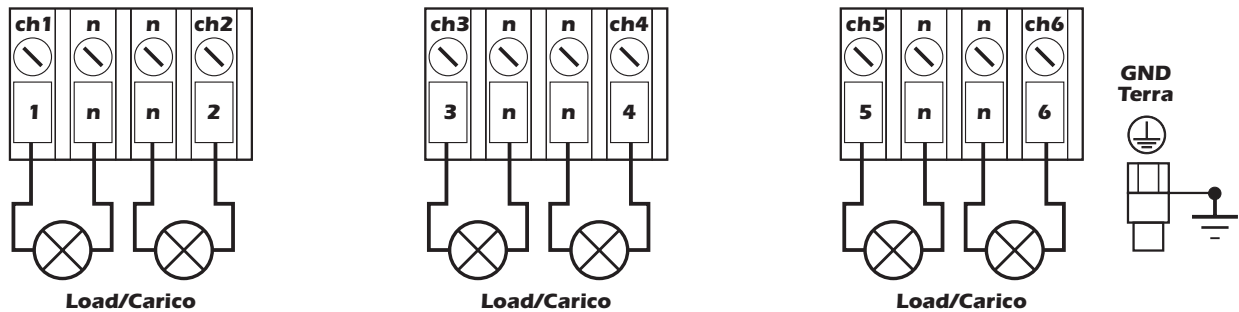
3) Re-close the rear of the **DIGIfactor** *club* **6x2,5Kw**.

6. Signal connection

DIGIfactor *club* **6x2,5Kw** operates on the two most common control signals used in the lighting industry:
digital DMX 512 and analogue 0/+10V dc.

6.1 DMX 512

DIGIfactor *club* **6x2,5Kw** receives, via an XLR 5 plug, 6 channels of DMX 512 digitally addressed as 1 to 6; using the signals to to control the output levels of 6 channels in the range of 0 to 255, as per the DMX 512 standard, regulated by USITT (U.S Intitute of Theatre Technology)
Connection between the DMX 512 controller and the **DIGIfactor** *club* **6x2,5Kw** follows the recognised standard:

Pin 1= Ground (GND)
Pin 2= DATA -
Pin 3= DATA +
Pin 4= Optional - (not connected)
Pin 5= Optional + (not connected)

If required, the components for making up cables are available from **coemar**:

ME 4966 (Plug XLR 5)
ME 4965 (Socket XLR 5)
CV 4158 (two core screened cable Ø 0.5)

Connection should be via two core screened cable, following all protocols for screened signal cable.
Screening is always connected to pin 1 of the XLR plug and must be isolated from the metalic housing of the plug, with regards to polarity.
A typical DMX 512 connection with **DIGIfactor** *club* **6x2,5Kw** is shown in the diagram.
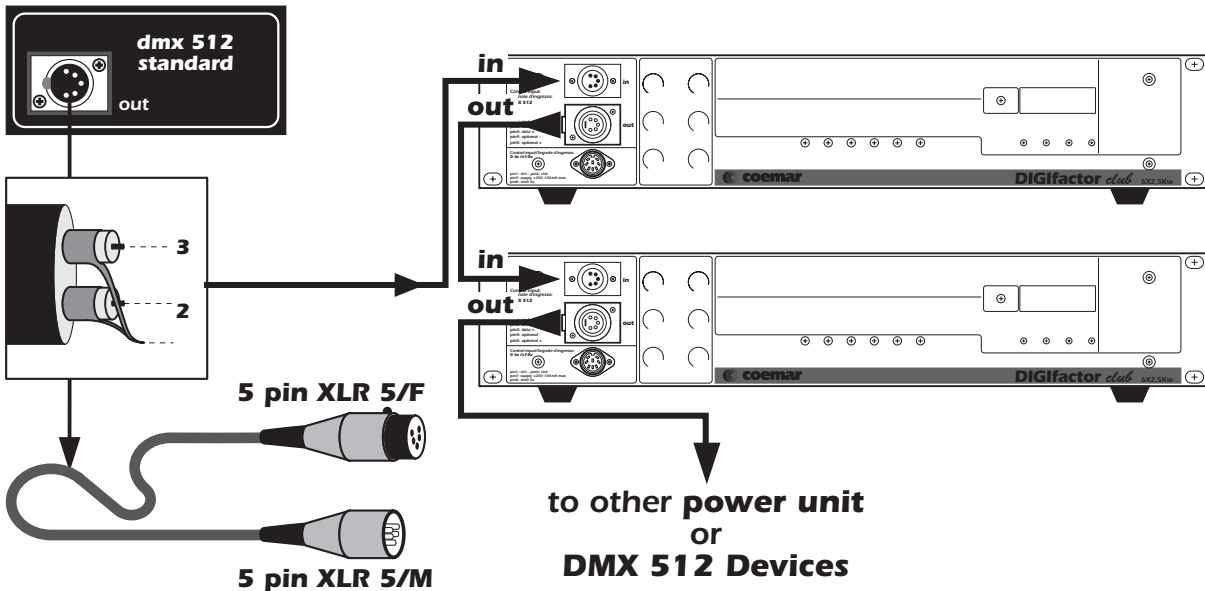
6.2 0/+10VDC

DIGIfactor *club* **6x2,5Kw** receives via a Locking-din plug, 6 variable voltages from 0 to +10V continuous current, as per international norms for analgoue transmission.
Connection is particualrly simple if the fixure receiving signal follows the **coemar** standard

Plug type Locking din 8 pin **DIGIfactor** *club* **6x2,5Kw**
Pin 1= 0/+ 10 V DC channel 1
Pin 2= 0/+ 10 V DC channel 2
Pin 3= 0/+ 10 V DC channel 3
Pin 4= 0/+ 10 V DC channel 4
Pin 5= 0/+ 10 V DC channel 5
Pin 6= 0/+ 10 V DC channel 6
Pin 7= supply + 20 V DC
Pin 8= 0V DC reference
Pin number 7 is connected to an internal +20 V DC regulated power supply; this is useful as a power supply source for a number of consoles which operate on this voltage.
If the contol console operates on the **coemar** standard, you may use the following locking din cables available from you authorised **coemar** service centre:

Code: 247 (5m length)
Code: 248 (10m length)

Code: 249 (25m length)
Code: 250 (50m length)

If required, componts for the manufacture of cable can be ordered from **coemar**:

ME 261 (Locking-din plug)
CV 924 (screened 8 core cable Ø 0.25, per metre)
CV 4158 (8 core cable Ø 0.25, per metre)

We recommend the use of screened cable; particularly in situations where the possiblity of electromagnetic disturbance is high, to reduce to a minimum the possible causes of incorrect functioning of equipment.
Screening should alwasy be connected to pin 8 of the locking-din.
Shown is a typical 0/+10v DC connection between controller and **DIGIfactor** *club* **6x2,5Kw**.
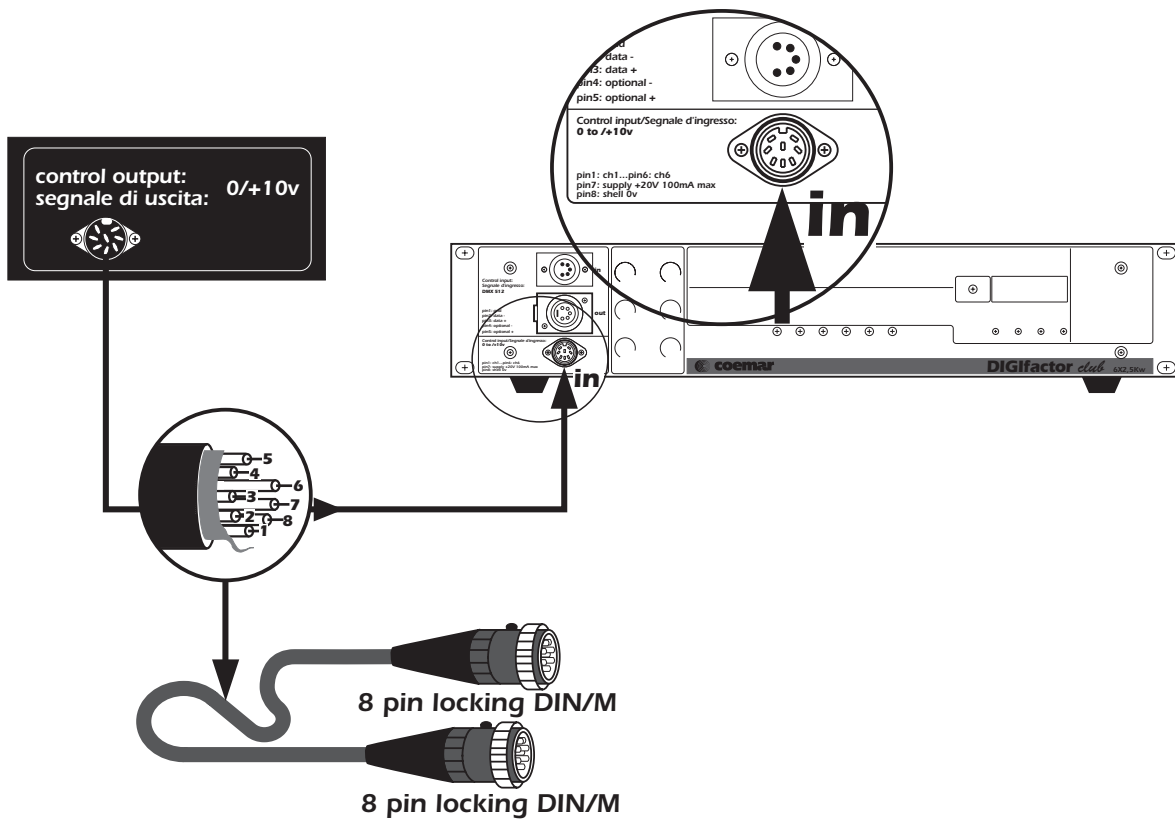
7. Powering up

After having carefully followed the instructions regarding electrical connection and mechanical fixing, the **DIGIfactor** *club* **6x2,5Kw** may now be powered up via an thermal/magnetic circuit breaker as described in section 4.

Upon powering up, the display will run through a test/reset procedure which begins with a display of the software version installed in the unit, followed by a measurement of the current operating frequency of the power supply and auto-optimisation of the unit's operation. **DIGIfactor** *club* **6x2,5Kw** will also display the voltage above 250V or below 180V.
When the display shows A001(or any other value preceded by the letter A), the **DIGIfactor** *club* **6x2,5Kw** is ready for normal operation.

Attention!

If the start-up procedure is not as described above, and the display does not come on, it may be that the power supply is not connected properly; refer to section 4 to re-check connection.
If the display should come on signaling other than that described above, refer to your authorised **coemar** service centre for further advice

8. DMX addressing or analogue 0/+10v DC

As described in section 6 you may use the **DIGIfactor** *club* **6x2,5Kw** with either 0/+10V DC or DMX 512 control signals; depending upon the requirements of your controller

8.1 0/10 v DC

After having correctly connected the cable, channel number 1 of the **DIGIfactor** *club* **6x2,5Kw** corresponds to the signal being sent via pin 1 of the Locking DIN; channel number 2 corresponds to the signal being sent via pin 2 of the Locking DIN, and so on until the 6th channel being via pin number 6 of the Locking DIN.
A variation in the voltage from 0 to 10 V of the control signal corresponds to a variation of the load voltage from 0 to 230 V.

8.2 DMX 512

After correct connection of the DMX 512 signal cable, the 6 channels of the dimmer are controlled via 6 channels of your DMX controller in sequence.
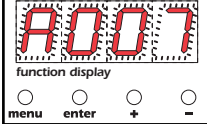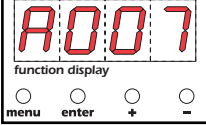
Upon first turning on the dimmer's display shows **A001** indicating the address **DMX 1**.
A dimmer so addressed will respond to channels **1** through **6** of the **DMX 512** controller, a second dimmer should be addressed as **7**, and so on in multiples of 6.
A dimmer can therefore respond to whichever 6 sequential channels of the controller you wish simply by changing the display's address.
Note that after the first address is set, **DIGIfactor** *club* **6x2,5Kw** will also occupy the next 5 addresses as well.

changing the dmx address

Power up the **DIGIfactor** *club* **6x2,5Kw**		Address **DMX 001**
Press the **+** or **-** buttons until the desired channel is shown	**A007** function display ○ ○ ○ ○ menu enter + −	Shows the **DMX** addresses from 1 to 501, the led display will flash, indicating that the change has not been recorded yet, for example, 7
Press the **enter** button	**A007** function display ○ ○ ○ ○ menu enter + −	PConfirms your selection of address, the display stops flashing and the unit responds to the new **DMX 512** address.

Important Note: Keeping the **+** or **-** buttons depressed will cause the display to scroll at high speed, allowing for rapid chaing ing .

The presence of DMX signal is indicated by the flashing led in the DMX input display.

dmx input display ○

function display

function display

9. Display panel functions

Attention! the display panel controls the proper functioning of the dimmer and its various parameters.

Altering the **coemar** factory presents can vary the functioning of the dimmer, causing it to not respond to **DMX 512** control signal; careful and thorough reading of all the following procedures is therefore recommended prior to altering any functions.

IMPORTANT NOTES: these notes are valid for all the functions which follow

1. Keeping the **+** or **-** buttons depressed for 8 seconds for rapid scrolling.

2. You may abort the altering of any function by simply pressing the **menu** button until the display shows the DMX address

3. To immediately go to the maximum value, press the **+** button whilst simultaneously pressing the **-** button.

4. To immediatley go to the minimum value, press the **-** button whilst simultaneously pressing the **+** button.

5. You may alter single channel settings or press the **+** or **-** buttons until the display shows **ALL** to alter all channels simultaneously.

6. Changes made via the menu buttons are confirmed and recorded when the **enter** button is pressed.
It is always possible to over-write any settings with new ones at any time.
The reset procedure allows all settings to be returned to factory presets, with the exception of the DMX address.

7. Display panel functions remain active for 10 secondis if no changes are made, after which they will return to the DMX address display/

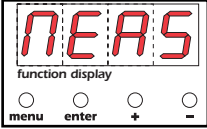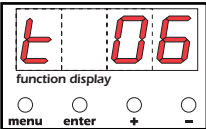The display panel has three menus and main functions, which are:

9.1. Test
9.2. Electical and electronic displays
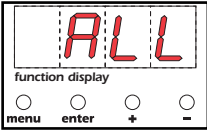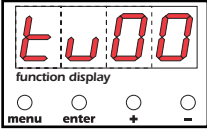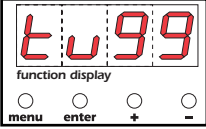## 9.3. Advanced functions (installer options)

9.1. Test
9.1.1. Tests every channel

Allows the testing of every outlet of the **DIGIfactor** *club* **6x2,5Kw**, without the need for a controller

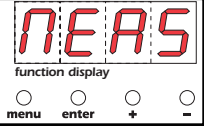|		
Power up the **DIGIfactor** *club* **6x2,5Kw**		Address **DMX 001**
Press the **menu** button	⬛ NEAS function display ○ menu ○ enter ○ + ○ –	electronics display menu
Press the **+** button		Channel **test** menu
Press the **enter** button		To confirm your selection of channel **test**, the first channel for testing is displayed as 1 (**t 01**).
Press the **+** or **-** buttons to select the required channel for testing	t 06 function display ○ menu ○ enter ○ + ○ –	For example, test channel 6 (**t 6**)
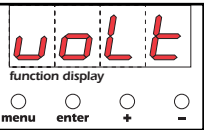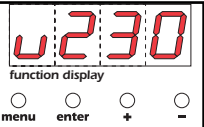
You may repeat the test on any individual channel, or, alternatively:

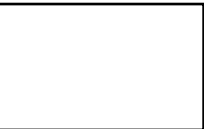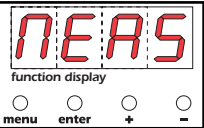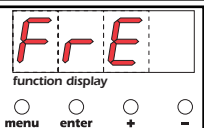|		
Press the **+** or **-** buttons	ALL function display ○ menu ○ enter ○ + ○ –	**ALL** to test all channels simultaneously
Press the **enter** button	tu00 function display ○ menu ○ enter ○ + ○ –	Output level set to **00**
Press the **+** or **-** button	tu99 function display ○ menu ○ enter ○ + ○ –	Select an output level from 0 to 99 (maximum output); via the digital display. As the display value increases, note that the output level of the load does the same.

9.2 Electrical and electronic displays
9.2.1. Voltage display
Displays the input voltage across the three phases (in volts).
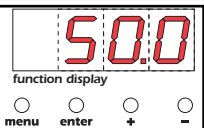
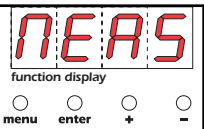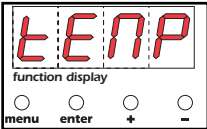|		
Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Press the **menu** button	NEAS	Electronic display menu
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons	uoLt	voltage displayed
Press the **enter** button	u230	**DIGIfactor** *club* **6x2,5Kw** measures the voltage across one phase, for example phase**1** voltage is 230v
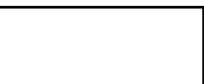
9.2.2. Frequency display
Displays the input voltage frequency (in Hertz).
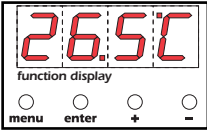
Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Press the **menu** button	NEAS	Electronic display menu
Press the **enter** button		To confirm your selection
Press the **+** or **-** button	FrE	**FrE** measures the frequency in Hertz
Press the **enter** button	50.0	**DIGIfactor** *club* **6x2,5Kw** **FrE** measures the frequency in Hertz

9.2.3. Temperature display
Displays the instantaneous temperature of the dimmer's internals (in centigrade).

Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Press the **menu** button	NEAS	Electronic display menu
Press the **enter** button		To confirm your selection
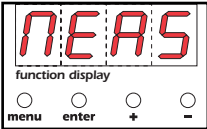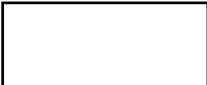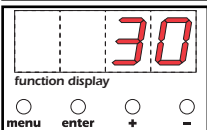
Press the **+** or **-** buttons	`tENP` function display ○ menu ○ enter ○ + ○ −	**tEMP** temperature display in °C
Press the **enter** button	`26.5C` function display ○ menu ○ enter ○ + ○ −	**DIGIfactor** *club* **6x2,5Kw** displays the temperature, measured at the triacs

The maximum operating temperature of the unit is 65°C. If under full load for some hours the temperature should exceed 65°, re-check the mechanical installation of the unit, which may be incorrect. The forced cooling system may be obstructed, the fan itself may be functioning incorrectly; or simply the unit's cooling system may not be situated in a suitable position to allow heat to be disappated sufficiently.

In such an instance, the addition of a further fan at the base of the unit, may be appropriate.
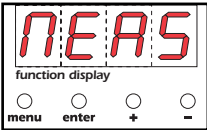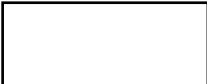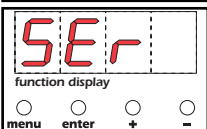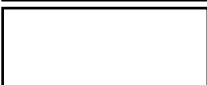
9.2.4. DIGIfactor *club* 6x2,5Kw hours of operation
Displays the number of hours that the **DIGIfactor** *club* **6x2,5Kw** has been operated (in hours)
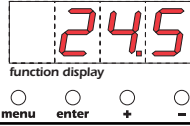
Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Press the **menu** button	`NEAS` function display ○ menu ○ enter ○ + ○ −	Electronic menu display
Press the **enter** button		To confirm your selection
Press the **+** or **-** button		**HoUr** display in hours
Press the **enter** button	`30` function display ○ menu ○ enter ○ + ○ −	**DIGIfactor** *club* **6x2,5Kw** displays the amount of time, in hours, it has been operational, for example, 30.

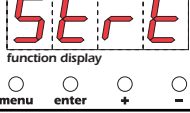### 9.2.5. DMX 512 parameters display
Displays significant parameters of the **DMX 512** signal, bringing any problems to light
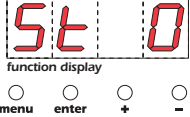
Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Press the **menu** button	`NEAS` function display ○ menu ○ enter ○ + ○ −	Electronic display menu
Press the **enter** button		To confirm your selection
Press the **+** or **-** button	`SEr` function display ○ menu ○ enter ○ + ○ −	**SEr** displays significant parameters of the **DMX 512** signal
Press the **enter** button		To confirm your selection

Ymay now display various DMX 512 parameters

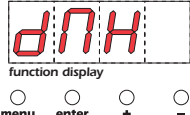| Press the **+** or **-** button		**rAtE** measures the frequency at which **DIGIfactor** *club* **6x2,5Kw** receives a new packet of signal (**DMX**)
Press the **enter** button	`24.5` function display ○ ○ ○ ○ menu enter + −	**DIGIfactor** *club* **6x2,5Kw** displays the value in Hertz
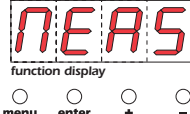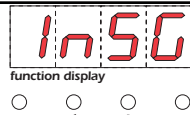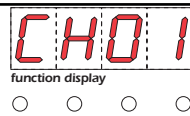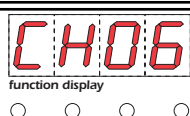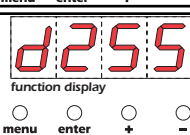
Recommended values: Minimum 1, maximum 44 Hz.
or

Press the **+** or **-** button	`Strt` function display ○ ○ ○ ○ menu enter + −	**Strt** the first bit after a **reset** signal (**DMX**)
Press the **enter** button	`St 0` function display ○ ○ ○ ○ menu enter + −	**DIGIfactor** *club* **6x2,5Kw** displays the reading

Refer to section 12 for information regarding error messages

9.2.6. Individual channel DMX 512 input signal levels
Displays the DMX level (from 0 to 255) which is being outputted by the controller to each of the 6 channels

Power up **DIGIfactor** *club* **6x2,5Kw**		**DMX** address
Press the **menu** button	`MEAS` function display ○ ○ ○ ○ menu enter + −	Electronic display menu
Press the **+** or **-** button until **InSG** is displayed	`InSG` function display ○ ○ ○ ○ menu enter + −	Input signal display menu
Press the **enter** button		To confirm your selection
Press the **+** or **-** button until **dMX** is displayed	`dMX` function display ○ ○ ○ ○ menu enter + −	To measure the incoming DMX 512 signal levels
Press the **enter** button	`CH01` function display ○ ○ ○ ○ menu enter +	Channel number **1**
Press the **+** or **-** button to select the next channel you wish to display	`CH06` function display ○ ○ ○ ○ menu enter + −	For example, channel number **6**
Press the **enter** button	`d255` function display ○ ○ ○ ○ menu enter + −	**DIGIfactor** *club* **6x2,5Kw will** display the incoming DMX 512 signal level of the selected channel, for example a level of 255.

9.2.7. Individual channel 0/+10V DC input signal levels

Displays the 0/+10V DC level (decimal from 0 to 10) which is being outputted by the controller to each of the 6 channels

Power up **DIGIfactor** *club* **6x2,5Kw**		**DMX** address
Press the **menu** button	*ΠΕΑS* function display ○ menu ○ enter ○ + ○ −	Electronic display menu
Press the **+** or **-** button until **InSG** is displayed	*InSG* function display ○ menu ○ enter ○ + ○ −	Input signal display menu
Press the **enter** button		Measure the incoming signal level
Press the **+** or **-** button until **0-10** is displayed	*0-10* function display ○ menu ○ enter ○ + ○ −	To measure the incoming 0/10V signal
Press the **enter** button	*CH01* function display ○ menu ○ enter ○ + ○ −	Channel number **1**
Press the **+** or **-** button to select the next channel you wish to display	*CH06* function display ○ menu ○ enter ○ + ○ −	For example, channel number **6**
Press the **enter** button	*8.00* function display ○ menu ○ enter ○ + ○ −	**DIGIfactor** *club* **6x2,5Kw** will display the incoming 0/+10v signal level of the selected channel, for example a level of 8 volts

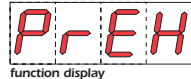### 9.2.8. Individual channel output voltage levels

Displays the instantaneous output level (in volts) of each of the 6 channels. The display may be the result of an output voltage as determined by the controller, or of an in-built function of the dimmer, such as swithing channel pre-heating.

Power up **DIGIfactor** *club* **6x2,5Kw**		**DMX** address
Press the **menu** button	*ΠΕΑS* function display ○ menu ○ enter ○ + ○ −	Electronic display menu
Press the **+** or **-** button until **Outv** is displayed	*Outv* function display ○ menu ○ enter ○ + ○ −	Output voltage display menu
Press the **enter** button		To confirm your selection
Press the **enter** button	*CH01* function display ○ menu ○ enter ○ + ○ −	Channel number **1**

Press the **+** or **-** button to select the next channel you wish to display	`CH06` function display ○ ○ ○ ○ menu enter + −	For example, channel number **12**
Press the **enter** button	`o230` function display ○ ○ ○ ○ menu enter + −	**DIGIfactor** *club* **6x2,5Kw** will display the RMS output voltage of the selected channel (in volts). For example, **230** volts.

9.3. Advanced functions (installer options)

ATTENTION! Modifying these settings will modify the operation of the **DIGIfactor** *club* **6x2,5Kw**. Use these functions only when necessary.

Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Simultaneously press the **menu** and **enter** buttons	`SEtt` function display ○ ○ ○ ○ menu enter + −	Function menu displayed
Press the **enter** button		To confirm your selection
Press the **+** or **-** button	`PrEH` function display ○ ○ ○ ○ menu enter + −	To display the lamp pre-heat menu **PrEH**
Press the **enter** button		To confirm your selection
Press the **+** or **-** button until the required channel is selected	`P 06` function display ○ ○ ○ ○ menu enter + −	For example, number **6**

NOTE: ATTENTION! You may set individual pre-heat values for each channel or, by pressing the **+** or **-** buttons till **ALL** is displayed, you may address and set all the channels simultaneously

Press the **enter** button	`Pu00` function display ○ ○ ○ ○ menu enter + −	Pre-heating set at level **0**
Press the **+** or **-** buttons until the required level is achieved.	`Pu50` function display ○ ○ ○ ○ menu enter + −	**DIGIfactor** *club* **6x2,5Kw** sets the dimmer channel(s) to the set minimum level, regardless of incoming DMX signal
Press the **enter** button		To set the level in memory

The voltage value selected above is calculated as a percentage of the input voltage, for ease of use. **DIGIfactor** *club* **6x2,5Kw** will display a value which is an approximation, not an accuracte reading.

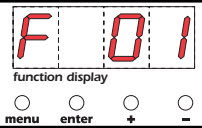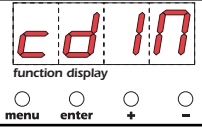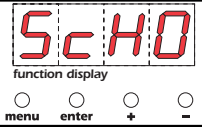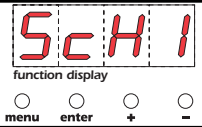### 9.3.2. Setting individual channel output voltage limits

Sets a maximum output voltage (between the maximum output voltage and 180V) which the selected channel can achieve. Suitable if the dimmer is located close to the generator or sub-station by preventing lamp failure due to over-voltage supply.

Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Simultaneously press the **menu** and **enter** buttons	**SEtt** function display ○ menu ○ enter ○ + ○ −	Function menu displayed
Press the **enter** button		To confirm your selection
Press the **+** or **-** button	**SEtu** function display ○ menu ○ enter ○ + ○ −	Maximum output voltage menu displayed **SEtv**
Press the **enter** button		To confirm your selection
Press the **+** or **-** button to select the required channel	**S 04** function display ○ menu ○ enter ○ + ○ −	For example, channel **4**
Press the **enter** button	**u230** function display ○ menu ○ enter ○ + ○ −	Maximum output voltage is selected.
Press the **+** or **-** button	**u180** function display ○ menu ○ enter ○ + ○ −	You may reduce the voltage down to 180V
Press the **enter** button		To confirm your selection

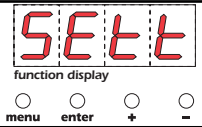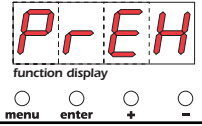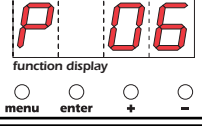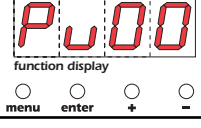### 9.3.3. Setting channels to on/off operation (switching)

Allows selected channels to be set to on/off only. The channel will remain off up to 50% and on from 50% to 100%, it will not allow the voltage to be regulated to any other value.
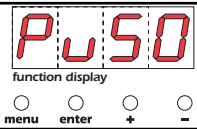
Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Simultaneously press the **menu** and **enter** buttons	**SEtt** function display ○ menu ○ enter ○ + ○ −	Function menu displayed
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until **FUnc** is displayed	**FUnc** function display ○ menu ○ enter ○ + ○ −	**switching** (on/off) or **dimming** menu is displayed

Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until the required channel is selected.	`F 01` function display ○ menu ○ enter ○ + ○ −	For example, channel **1**
Press the **enter** button		To confirm your selection
Press the **+** or **-** button until **cdiM** is displayed	`cd1M` function display ○ menu ○ enter ○ + ○ −	Dimmer function
Press the **+** or **-** button until **ScH0** is displayed	`ScH0` function display ○ menu ○ enter ○ + ○ −	Switching standard function
Press the **+** or **-** button until **ScH1** is displayed	`ScH1` function display ○ menu ○ enter ○ + ○ −	Transformer switching function (allows pre-heat to be assigned)
Press the **enter** button		To confirm your selection

9.3.4. Switching channel pre-heating

Causes sufficient voltage to be applied to the channel's load to assist in preventing lamp/transformer failure due to large thermal differences between fixture on and off states. You may select this function only if the channels have been set to switching **ScH1** as described above.

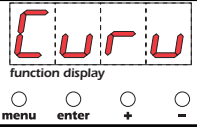| Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Simultaneously press the **menu** and **enter** buttons	`SEtt` function display ○ menu ○ enter ○ + ○ −	Function menu displayed
Press the **enter** button		To confirm your selection
Press the **+** or **-** button until **PrEH** is displayed	`PrEH` function display ○ menu ○ enter ○ + ○ −	Lamp pre-heating
Press the **enter** button		To confirm your selection
Press the **+** or **-** button until the required channel is selected	`P 06` function display ○ menu ○ enter ○ + ○ −	For example, channel **6** previously set to **ScH1**
Press the **enter** button	`Pv00` function display ○ menu ○ enter ○ + ○ −	**Pv00** pre-heat at level **0**
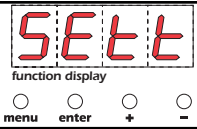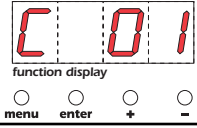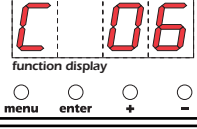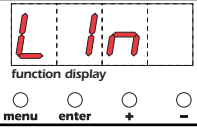
	function display	
Press the **+** or **-** button until the required output voltage is achieved	`Pu5O` function display ○ ○ ○ ○ menu enter + −	**DIGIfactor** *club* **6x2,5Kw** sets the dimmer channel(s) to the set minimum level, regardless of incoming DMX signal
Press the **enter** button		To record the level in memory

9.3.5. Stting dimming curves

Allows the selection of two distinct dimming curves.

standard, a standard lighting response curve, where response to the control slider is proportional, thus resulting in the standard "S" type dimming curve.

lineare, a linear dimming curve where the response to the control slider is equal along the length of travel of the slider.

Power up **DIGIfactor** *club* **6x2,5Kw**		**DMX** address
Simultaneously press the **menu** and **enter** buttons	`SEtt` function display ○ ○ ○ ○ menu enter + −	Function menu displayed
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until **CUrv** is displayed	`Curu` function display ○ ○ ○ ○ menu enter + −	Setting the type of dimming curve for each channel
Press the **enter** button		To confirm your selection
Press the **enter** button	`C 01` function display ○ ○ ○ ○ menu enter + −	Channel number **1**
Press the **+** or **-** button until the required channel is selected	`C 06` function display ○ ○ ○ ○ menu enter + −	For example, channel number **6**
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until **Strd** is displayed		Setting the standard curve

oppure

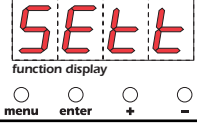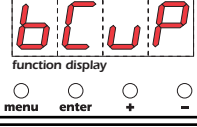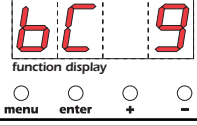|		
Press the **+** or **-** buttons until **LIn** is displayed	`LIn` function display ○ ○ ○ ○ menu enter + −	Setting the linear curve
Press the **enter** button		To confirm your selection

9.3.6. Recording output levels
Allow the recording of up to 9 lighting scenes which may be played back at anytime without the need for an external playback controller

Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Simultaneously press the **menu** and **enter** buttons	`SEtt` function display ○ menu ○ enter ○ + ○ −	Function menu displayed
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until **Stor** is displayed	`Stor` function display ○ menu ○ enter ○ + ○ −	Level recording
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until the number of the required memory is displayed	`NEM3` function display ○ menu ○ enter ○ + ○ −	For example, number **3**
Press the **enter** button	`SAuE` function display ○ menu ○ enter ○ + ○ −	**DIGIfactor** *club* **6x2,5Kw** reads the incoming signal, **0/+10V** or **DMX 512**. The display will flash to indicate that the recording is unconfirmed.
Press the **enter** button	`SAuE` function display ○ menu ○ enter ○ + ○ −	To confirm your request to record the scene

9.3.7. restoring scenes from back-up
Allows a pre-recorded scene to be recalled and run via a remote signal, both from the mixer or an alternate source (see section 10 for connection details)

Power up **DIGIfactor** *club* **6x2,5Kw**		**DMX** address
Simultaneously press the **menu** and **enter** b	`SEtt` function display ○ menu ○ enter ○ + ○ −	Function menu displayed
Press the **+** or **-** buttons until **bCuP** is displayed	`bCuP` function display ○ menu ○ enter ○ + ○ −	Back-up activated
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until the number of the required scene is displayed which you wish to restore via remote	`bC 9` function display ○ menu ○ enter ○ + ○ −	For example, number 9 recorded previously
Press the **enter** button		To confirm your selection

9.3.8. Protection against over-heating

You may select the type of action which **DIGIfactor** *club* **6x2,5Kw** will effect in case it begins to overheat.
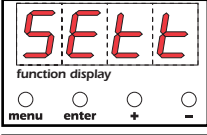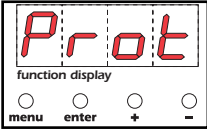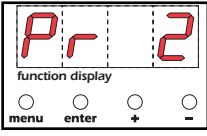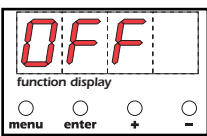
off: no protection

Pr 1: if the internal temperature exceeds 75 °C any channels previously set as dimming will lower their maximum output by up to 50% upon reaching 85 °C.
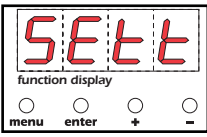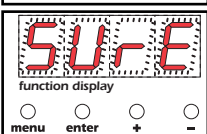Any channels set as switching will be unaffected.

Pr 2: if the internal temperature exceeds 75 °C any channels previously set as dimming will lower their maximum output by up to 50% upon reaching 85 °C.
Any channels set as switching will be disabled.

Power up **DIGIfactor** *club* **6x2,5Kw**		**DMX** address
Simultaneously press the **menu** and **enter** buttons	**SEtt** function display menu enter + −	Function menu displayed
Press the **+** or **-** buttons until **Prot** is displayed	**Prot** function display menu enter + −	Protection menu
Press the **+** or **-** buttons until the type of protection desired is displayed	**Pr 2** function display menu enter + −	For example, **Pr 2**
Press the **enter** button		To confirm your selection

or

Press the **+** or **-** buttons until **OFF** is displayed	**OFF** function display menu enter + −	Protection disabled
Press the **enter** button		To confirm your selection

9.3.9. Resetting DIGIfactor *club* 6x2,5Kw
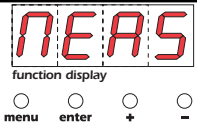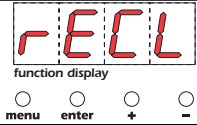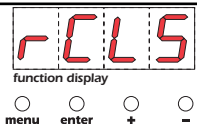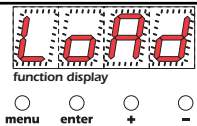
Allows the **DIGIfactor** *club* **6x2,5Kw** to reset all functions previously altered.

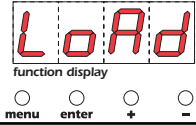|		
Power up **DIGIfactor** *club* **6x2,5Kw**		**DIGIfactor** *club* **6x2,5Kw** turns on
Simultaneously press the **menu** and **enter** buttons	**SEtt** function display menu enter + −	Function menu displayed
Press the **enter** button		To confirm your selection
Press the **+** or **-** button until **rESE** is displayed		A **reset** of all altered functions, **DIGIfactor** *club* **6x2,5Kw** resets to the **coemar** factory presets
Press the **enter** button	**SurE** function display menu enter + −	The display flashes to indicate an unconfirmed reset. To escape at this point, without performing a reset, press the **menu** button

Press the **enter** button		**DIGIfactor** _club_ **6x2,5Kw** performs a total reset of all functions.

9.3.10. Viewing recorded scenes
Allows the 9 recorded scenes (as described above) without the need for an external controller.
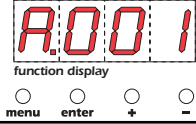
Power up **DIGIfactor** _club_ **6x2,5Kw**		**DIGIfactor** _club_ **6x2,5Kw** turns on
Press the **menu** button	ΠEAS function display ○ menu ○ enter ○ + ○ −	Electronic display menu
Press the **+** or **-** buttons until **rEcL** is displayed	rECL function display ○ menu ○ enter ○ + ○ −	To recall previously recorded scenes
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until a previous recording is reached	rCLS function display ○ menu ○ enter ○ + ○ −	For example, number **5**
Press the **enter** button	LoAd function display ○ menu ○ enter ○ + ○ −	**DIGIfactor** _club_ **6x2,5Kw** loads the required scene

The display will flash to indicate the request is unconfirmed; to escape at this point press the **menu** button

Press the **enter** button	LoAd function display ○ menu ○ enter ○ + ○ −	To confirm your selection

From this point **DIGIfactor** _club_ **6x2,5Kw** will output the levels as previously recorded and the address display will include a decimal point, indicating a pre-recorded scene is currently being outputted.

Indication that a pre-recorded scene is currently operational	A.001 function display ○ menu ○ enter ○ + ○ −	Note the decimal point between the A and the DMX address
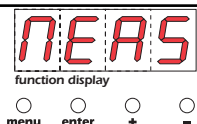
NOTE: The pre-recorded scenes may be played back sequentially in the event of temporary control console failure.
NOTE: Pre-programmed scenes played back by the **DIGIfactor** _club_ **6x2,5Kw** are faded in to avoid abrupt lighting changes on-stage.
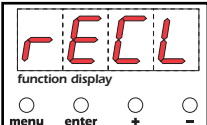
9.3.11. Switching off pre-recorded scenes
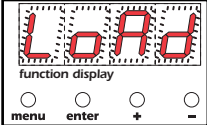Pre-recorded scenes may be switched of when no longer required.
ATTENTION! the following procedure will not erase the scene, it will simply de-activate it until future use.
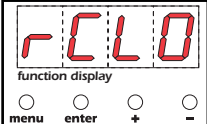
Power up **DIGIfactor** _club_ **6x2,5Kw**		**DIGIfactor** _club_ **6x2,5Kw** turns on
Press the **menu** button	ΠEAS function display ○ menu ○ enter ○ + ○ −	Electronic display menu
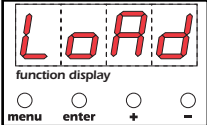
Press the **+** or **-** buttons until **rEcL** is displayed	rECL function display ○ ○ ○ ○ menu enter + −	To recall the previously recorded scene
Press the **enter** button		To confirm your selection
Press the **+** or **-** buttons until scene number **0** is displayed	rCL0 function display ○ ○ ○ ○ menu enter + −	Scene **0** is displayed, non-modifiable
Press the **enter** button	LoAd function display ○ ○ ○ ○ menu enter + −	**DIGIfactor** *club* **6x2,5Kw** loads the scene
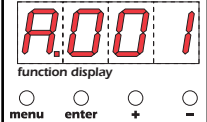
The display will flash, indicating the need for confirmation; to escape at this point press the **menu** button

Press the **enter** button	LoAd function display ○ ○ ○ ○ menu enter + −	To confirm your selection

From this point **DIGIfactor** *club* **6x2,5Kw** ceases to output the levels of the pre-recorded scene. Note that the address display no longer has a decimal point present

Indicating the absence of a pre-recorded scene	A001 function display ○ ○ ○ ○ menu enter + −	Note the decimal point between the A and the DMX address has switched off

For your convenience we have included the following table which will allow you to note down any function changes you may make.

Tabella riepilogativa dei settaggi funzionali

CH	PrEH	SEtv	FUnC			CUrv	
CH01			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH02			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH03			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH04			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH05			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH06			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH07			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH08			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH09			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH10			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH11			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin
CH12			❏ cdiM	❏ ScH0	❏ ScH1	❏ Strd	❏ Lin

rECL	BCUP	Prot
❏ rCL1	❏ bC 1	❏ Pr 1
❏ rCL2	❏ bC 2	❏ Pr 2
❏ rCL3	❏ bC 3	❏ oFF
❏ rCL4	❏ bC 4	
❏ rCL5	❏ bC 5	
❏ rCL6	❏ bC 6	
❏ rCL7	❏ bC 7	
❏ rCL8	❏ bC 8	
❏ rCL9	❏ bC 9	
	❏ oFF	

Tabella riepilogativa dei settaggi funzionali

CH	PrEH	SEtv	FUnC			CUrv	
CH01			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH02			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH03			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH04			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH05			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH06			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH07			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH08			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH09			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH10			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH11			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH12			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin

rECL	BCUP	Prot
❑ rCL1	❑ bC 1	❑ Pr 1
❑ rCL2	❑ bC 2	❑ Pr 2
❑ rCL3	❑ bC 3	❑ oFF
❑ rCL4	❑ bC 4	
❑ rCL5	❑ bC 5	
❑ rCL6	❑ bC 6	
❑ rCL7	❑ bC 7	
❑ rCL8	❑ bC 8	
❑ rCL9	❑ bC 9	
	❑ oFF	

Tabella riepilogativa dei settaggi funzionali

CH	PrEH	SEtv	FUnC			CUrv	
CH01			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH02			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH03			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH04			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH05			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH06			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH07			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH08			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH09			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH10			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH11			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin
CH12			❑ cdiM	❑ ScH0	❑ ScH1	❑ Strd	❑ Lin

rECL	BCUP	Prot
❑ rCL1	❑ bC 1	❑ Pr 1
❑ rCL2	❑ bC 2	❑ Pr 2
❑ rCL3	❑ bC 3	❑ oFF
❑ rCL4	❑ bC 4	
❑ rCL5	❑ bC 5	
❑ rCL6	❑ bC 6	
❑ rCL7	❑ bC 7	
❑ rCL8	❑ bC 8	
❑ rCL9	❑ bC 9	
	❑ oFF	

10. Remote back-up scene restoration

DIGIfactor *club* **6x2,5Kw** *allows a remote signal to be used to restore a back-up scene. This may be useful in case a problem occurs with the controller normally used with the dimmer.*
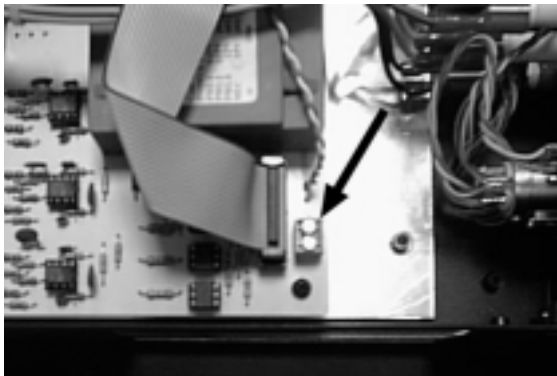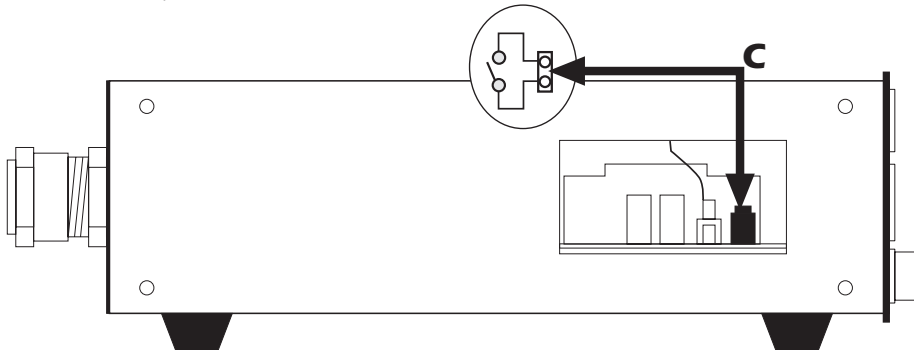*The scene should be recorded as described in section 9.3.7 and may be activated as described below.*
1) *Remove the 4 screws (A) which affix the top cover (B).*
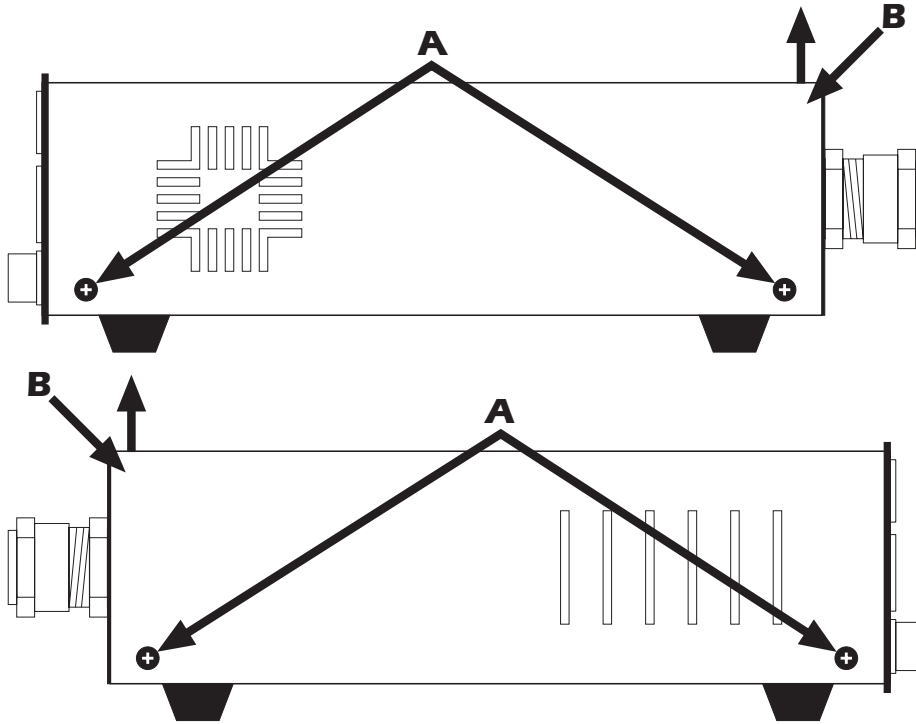
2) *Locate the clamp (C).*
3) *Connect a two pole switch, as shown below.*

4) *If the switch is opern* **DIGIfactor** *club* **6x2,5Kw** *operates normally; if the switch is closed, the scene previously saved as the back-up will be activated.*
   There is a delay of some 10 seconds prior to the scene being activated, so as to avoid an abrupt change to the lighting state in operation.
   A dot will flash in the display to indicate that the back-up scene is activated.
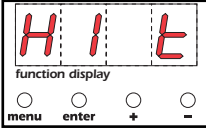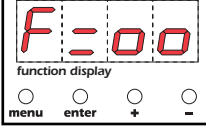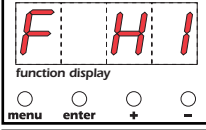5) *To deactivate the back-up scene, simply switch the circuit to open once again.*
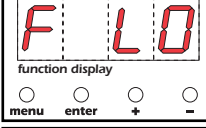**NOTE 1:** *the back-up scene takes absolute precedence, any 0-10V or DMX signal is over-ridden*
NOTE 2: *back-uip levels take priority over the recalled scene*
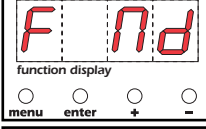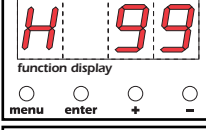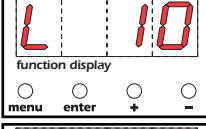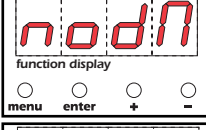
11. Error messages

DIGIfactor *club* **6x2,5Kw** assists the installer and user in determining the reasons for possible failures; its memory contains the following error messages.

In the majority of cases, it may be advisable to seek the advice of an individual who has experience with the causes of errors which are described below

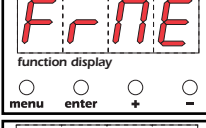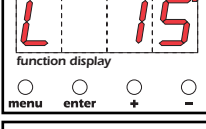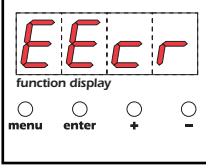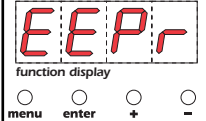| Display	Description
HI t function display ○ ○ ○ ○ menu enter + −	The internal temperature has exceeded 65°. The display will flash to indicate an abnormal state. **DIGIfactor** *club* **6x2,5Kw** can continue to operate but is in danger of being damaged; adequate ventilation must be provided to resolve this problem
F=oo function display ○ ○ ○ ○ menu enter + −	An internal hardware failure has occured which is causing the unit to be unable to determine the operating frequency of 50-60 Hz. This message appears upon start up. Being a hardware problem, the unit will need to be referred to an autorised **coemar** sevice centre.
F HI function display ○ ○ ○ ○ menu enter + −	The frequency measured at start up exceeds 62 Hz **DIGIfactor** *club* **6x2,5Kw** auto sets to 60 Hz; the power supply frequency problem will need to be investigated and the problem rectified in the short term.
F LO function display ○ ○ ○ ○ menu enter + −	The frequency measured at start up is below 48 Hz **DIGIfactor** *club* **6x2,5Kw** auto sets to 50 Hz; the power supply frequency problem will need to be investigated and the problem rectified in the short term.
F nd function display ○ ○ ○ ○ menu enter + −	The frequency measured at start up falls between 52 and 58 Hz, and is therefore not standard. **DIGIfactor** *club* **6x2,5Kw** auto sets to 50 Hz; the power supply frequency problem will need to be investigated and the problem rectified in the short term.
H 99 function display ○ ○ ○ ○ menu enter + −	The frequency, as measured during a electronic menu function exceeds the range of the unit's measurement capacity, which is between 10 and 99 Hz This condition can only be detected by a electronic menu function. The problem will need to be rectified in the short term.
L 10 function display ○ ○ ○ ○ menu enter + −	The frequency, as measured during a electronic menu function falls below the range of the unit's measurement capacity, which is between 10 and 99 Hz This condition can only be detected by a electronic menu function. The problem will need to be rectified in the short term.
nodn function display ○ ○ ○ ○ menu enter + −	No DMX signal present or not standard DMX 512. Check all DMX connections and the DMX 512 controller which may be switched off
FrnE function display ○ ○ ○ ○ menu enter + −	The number of channels being transmitted to the **DIGIfactor** *club* **6x2,5Kw** are below those indicated by its DMX address. The DMX signal cannot be interpreted correctly as it is incomplete. The dimmer requires more channels of DMX to be sent; consult your controller's manual
L 15 function display ○ ○ ○ ○ menu enter + −	The temperature is measured at below 15°C and is below the capacity of the unit to measure. This error will not compromise the correct functioning of the dimmer, however, it may indicate that the thermal sensor may have shifted its position in the dimmer's internals, perhaps during transportation. A check of this is recommended.
EEcr function display ○ ○ ○ ○ menu enter + −	An error has occured in the EEPROM data. This error message will be shown immediately after powering up the unit. . In this situation **DIGIfactor** *club* **6x2,5Kw** will attempt to rectify the error itself; success will depend upon the seriousness of the error. **DIGIfactor** *club* **6x2,5Kw** will reset itself after the error has been corrected although it should be noted that data enterd via the menu functions may have been lost. **Attention!**: default settings may be incompatible with any switching circuits connected; if this condition is encountered, ensure all functions are returned to your settings.
EEPr function display ○ ○ ○ ○ menu enter + −	EEPROM access/reading error. **DIGIfactor** *club* **6x2,5Kw** will operate only at the factory presets, ot any changes made via the menu functions. This indicates that the EEPROM is defective or missing. **Attention!**: default settings may be incompatible with any switching circuits connected; if this occurs, ensure all functions are returned to your settings. Contact your **coemar** service centre
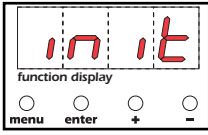
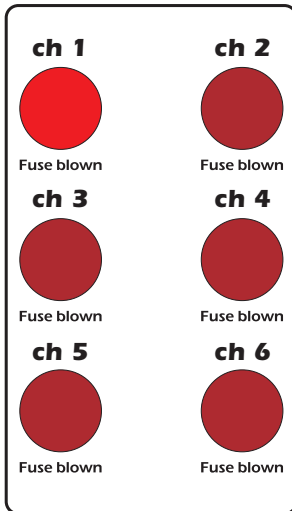| init function display ○ ○ ○ ○ menu enter + −	*The EEPROM is being re-initialised. This may occur if the EEPROM is new or has been erased completely. It is being re-initialised with the unit's default settings.*

12. Maintenance
fuse replacement

The dimmer utilises 6 fuses for load protection located adjacent to the load sockets.
The indicatorsassociated with each channel will indicate a blown fuse; this indicator is easily seen.
Indicators will switch on to indicate a blown fuse, replace each fuse with one of similar dimensions and physical characteristics: T10A ceramic 6,2 X 32mm.

ch 1

Fuse blown

ch 2

Fuse blown

ch 3

Fuse blown

ch 4

Fuse blown

ch 5

Fuse blown

ch 6

Fuse blown

A lamp won't come on

A brief check-list of possible remedies to this situation.
1) Check the circuit indicator to see if it shows that a fuse is blown.
2) Check the fixture's lamp is not blown and it is operating normally.
3) Check the controller to isolate the dimmer as the cause of the problem.
4) Check the channel monitor on the front panel
5) Perform the test procedure as described in section 9.1.1.
6) Reset the memory of the EEPROM as indicated in section 9.3.6.
7) Follwing this. re-test the unit as described in section 9.1.1.

If, after this point, the dimmer is still not generating the required output, refer the unit to your authorised **coemar** service centre for assistance with your **DIGIfactor** *club* **6x2,5Kw**.

Replacing a triac

1) Remove the 4 screws (A) which affix the top cover (B).

A **B**

B **A**
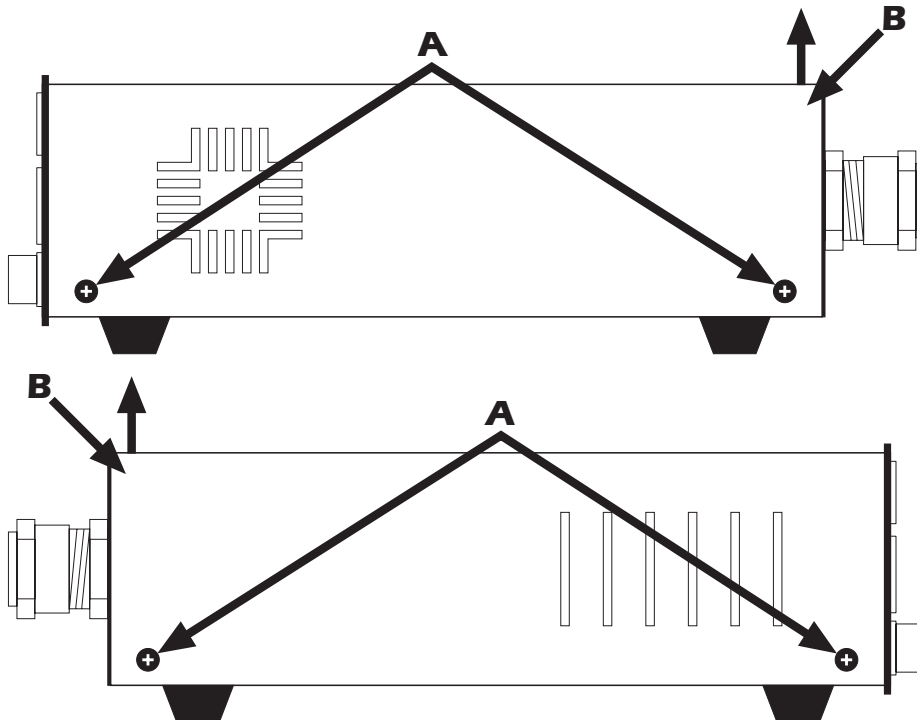
2) Locate the faulty triacs replacing each as shown with one of the same type: (BTA26-600B)
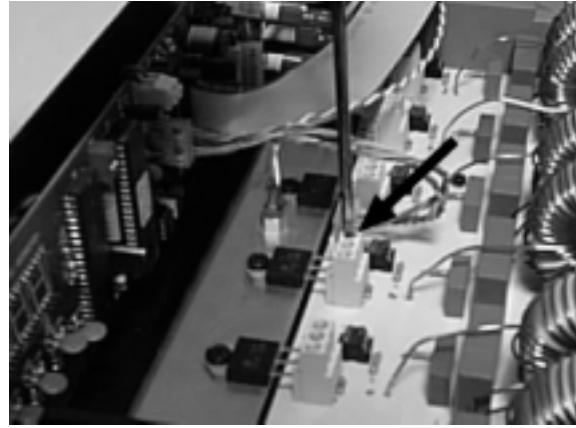
3) Test the unit is functioning correctly and replace all components and covers.

Periodic cleaning

The fan and air passages should be inspected and cleaned at least every 12 weeks; this period of time may be shorter depending upon the unit's operating conditions.

To effect this cleaning use a common brush, vacuum cleaner, or air compressor.

If necessary, do not hesitate to perform this cleaning more frequently than recommended.

Electronic components.

Check all electrical connections, in particular the earth connection and all removeable connectors.

Press all connectors firmly, if necessary, re-affixing them as they were originally.

13. Spare parts

All the components of the **DIGIfactor** *club* **6x2,5Kw** are available as spare parts from your authorised **coemar** service centre.

To assist us in providing your with prompt and accurate service, carefully specify the model and serial number of the unit, and the spare parts which you require.

$$C\,E$$

coemar spa

manuale istruzioni

DIGIfactor *club* **6x2,5Kw**