PREMIUM 79 SERIES
MULTIFUNCTIONAL POWER CONTROLLERS

USER'S MANUAL   ver. 1.0

ELECTRON®

Note.

This user's manual refers to all models of the Premium 79 Series. Technical specifications, such as operating voltage, power consumption, channels, channel output, and so on, are written in the Technical Specifications Document that is provided together with the Premium 79. Relative reference will be made where necessary in this User Manual.

Introduction

Congratulations on your purchase of the New PREMIUM 79 Power Controller.

The PREMIUM 79 Series of Power Controllers is a Series of technologically advanced Wall-mounted Multi-functional controllers that can be used as stage power controllers and as architectural power controllers as well.

The PREMIUM Controllers are manufactured to provide great flexibility to meet your own control needs. In particular, the most important benefit of the New PREMIUM Series is that every PREMIUM Controller is manufactured according to the specific requirements of each application (custom / tailor made). More specifically, ELECTRON SA has developed independent Power Units for different loads. This means, that the PREMIUM 79 can control different kinds of loads from one only enclosure, minimizing by this way the number of required control units for different kinds of loads.

The PREMIUM Controllers can accept data from analogue inputs, from the build-in keyboard and from the digital DMX-512 signal.

The analogue inputs can be programmed in order to be connected to the architectural control panels of the MICON E and MICON BS Series of ELECTRON SA, as well as to simple faders, dry contacts, motion detectors, push buttons, cinema projectors (using the cinema adaptor of ELECTRON SA) and other.

Each analogue input and DMX channel can be programmed to activate a scene, a user chaser, a factory chaser or a channel.

When connecting the PREMIUM 79 to a DMX-512 Control Desk, the user may disable all or some of the analogue inputs and, thus, deactivate the data entered in these inputs.

The DMX-512 input is fully programmable allowing the user to select the start address or the DMX address for each channel independently.

The user can use up to 512 scenes and up to 128 chasers, all with programmable Fade time and programmable speed for the chasers.

The settings of preheat level, soft start, maximum level, and law, allow the proper lighting control.

The PREMIUM Series can operate in Emergency mode, receiving a signal through a dry contact from an emergency power supply, in which case the PREMIUM allows the operation of a single scene pre-programmed for this purpose, thus avoiding the overloading of uninterrupted supply.

In addition, they have the ability of activating a Panic lighting scene by pressing one key.

Moreover, the Premium controllers are Password protected, for security of the user's settings and programming.

ELECTRON SA would like to thank you for choosing the PREMIUM 79 and assures you that this is an amazing tool for multiple applications. We believe that using this power controller will be very exciting for you.

For safe and correct operation, please read the instruction manual very carefully, before using this power controller.

ELECTRON SA

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Precautions & Operation Notes

Before doing anything

- Please read carefully these instructions manual.
- In case that you don't understand something from the instructions manual, please consult your supplier.
- The PREMIUM 79 installation has to be performed by authorized personnel.

Before you start installing

- The PREMIUM 79 is for indoor use only. It should be properly air-cooled and it should never get wet.
- The PREMIUM 79 can under no circumstances be mounted on normally flammable surfaces.

Attention: The PREMIUM 79 should be placed in a dry location with low levels of humidity and ambient temperature below 35°C.

- Make sure that the supply cable is connected to a mains switch and the appropriate circuit breaker, according to the total PREMIUM 79 load.
- Check that the main switch of the electrical distribution board is set at the OFF position

Installation

- In case that you have any doubt / query about the wiring connections or the operating instructions of this device, please contact your supplier or a qualified person.
- PREMIUM 79 is a Class-I device and should be grounded (earth wire).
- No matter where the PREMIUM 79 is located, make sure that all the air cooling openings are free to let the air flow inside the device.
- The area where the PREMIUM 79 is located should never get wet.
- ELECTRON SA is not responsible for any accident or damage caused by incorrect installation or improper use of the equipment.

After the installation and the connections of the General Power Supply and Loads

- Make sure that the PREMIUM 79 is installed and connected properly, before using it for the first time.
- Turn on the power.
- Do not use wet clothes to clean the PREMIUM 79 during operation.
- To avoid danger, do not put flammable material near the PREMIUM 79.
- Do not use water to clean the PREMIUM 79.
- Do not try to open the PREMIUM 79 metal enclosure. There is danger of electric-shock.
- Do not try to repair the PREMIUM 79 yourself by opening the PREMIUM 79 metal enclosure because there is danger of electric-shock, and also because there are no extra parts or materials that you can replace. The service should always be performed by an authorized person.
- The PREMIUM 79 is not based on the chassis for protection from accidental contact with live parts.

Installation

What you have to notice

- The wall where the PREMIUM 79 will be installed should be flat and always dry.

- There should be no high current wiring installed at the rear side of the PREMIUM 79.

- The PREMIUM 79 should be placed in a dry location with low levels of humidity and ambient temperature below 35°C.

- Do not put inflammable material near the installation location.

- Do not install the PREMIUM 79 inside a closet, because there is danger of overheating.

- Make sure that there is at least 25cm of free space above and below the PREMIUM 79 for proper air flow of the device. Also make sure that there is at least 10cm of free space at the right and the left side of the PREMIUM 79.

- There should be no wiring, at all, at least for a distance of 60cm from the air cooling openings at the upper side of the PREMIUM 79.

Carriage of the PREMIUM 79

In case you need to transfer the PREMIUM 79 with a derrick, you can use the two accessories (lifting eye bolts), that are included in the PREMIUM 79 packaging.

- Screw the two lifting eye bolts in the two threading holes on the flat top part of the chassis.

- The exact position of the two lifting eye bolts after you screw them up, has to be similar with that in the right picture.

- The lifting cables must have an angle differ bigger than 50 degrees with the flat top part of the chassis.

Installation Procedure

The PREMIUM 79 can be installed on the floor next to a wall or it can be hang from a wall.

On the floor next to a wall

- Transfer the PREMIUM 79 in the installation location.

- Unscrew the two screws that are located under the buttons <PANIC> and <STANDBY>, open the electrical connections panel and let it lean against the back wall.

> **Attention:** **Do not let the electrical connections panel loose, hanging only on its handles, without touching the wall on the back of the PREMIUM 79. There is danger of causing severe damage to the handles.**

- Make a mark on the wall from the hole that is located on the center and on the upper part of the back of the metal enclosure of the PREMIUM 79.

- Drill a hole exactly at the point that you have marked on the wall. The hole should have the diameter of 8mm. Place the 8mm anchor that is included in the PREMIUM 79 packaging. (you may need to remove the PREMIUM 79 in order to make the hole).

- Move the PREMIUM 79 in the installation location so that the hole of the rear side of the metal enclosure is in front of the anchor and bolt a screw, from the ones that you will find in the packaging.

The PREMIUM 79 is now secured in the installation location.

On the wall

On the rear side of PREMIUM 79 there is a wall plate that will be used to Hang the PREMIUM 79 from a wall. The wall plate at the rear side of the metal enclosure is shown in the picture on the right.

At first remove the wall plate from the rear side of the PREMIUM 79:

- Unscrew the two screws that are located under the buttons <PANIC> and <STANDBY> and open the electrical connections panel.

> **Attention:** **Do not let the electrical connections panel loose, hanging only on its handles, without touching the wall on the back of the PREMIUM 79. There is danger of causing severe damage to the handles.**

- Keeping the electrical connections panel open (but not loose on it's handles), unscrew the two hexagonal (100mm) defectors, that are on the left and the right side from the main power supply screw terminals, using a 10mm box spanner. These defectors will be screwed again later, when you have the PREMIUM 79 fixed on the wall.
- Let the panel close (you don't have to screw up the two screws).
- The lower part of the wall plate is now free. Hold it and unscrew the two screws that are located on the left and right upper corner of the wall plate.

Firm up the wall plate on the wall:

- Place the wall plate on the wall at the point and height that you want. (Please refer to the section «What you have to notice.» in the beginning of the chapter).
- The wall plate should be placed completely horizontally, with the <V> shape facing upwards, and the metal surface with the six installation holes leaning against the wall.
- Mark on the wall the six holes of the wall plate, drill six holes of 8 mm diameter, and place on the holes the anchors that are included in the packaging.
- Screw the wall plate on the wall by using the six hexagonal set screws that you will find in the packaging.

Hang the PREMIUM 79 on the wall:

- Lift and hang the PREMIUM 79 on the wall plate that is fixed on the wall.
- Open the electrical connections panel and screw the two defectors (100mm) that you had previously unscrewed at their original positions. (On the left and right of the power supply screw terminals). In case that the threads, in which the defectors will be bolted, cannot be seen, you will need to remove the PREMIUM 79 to the left or to the right until they are shown.
- For additional stability, you can use the metal fittings that are included in the packaging which stabilize the lower part of PREMIUM 79:

- Firm up on the lower part of the chassis next to the right and left back end of the PREMIUM 79 the metal fitting so that the round hole faces the wall and so as through the oblong hole to see the thread on which the fitting will be bolted on the chassis.
- Mark the wall, open two holes of 7 mm diameter, and place the two 7 mm anchors that are included in the packaging.
- Screw loosely the metal fittings on the lower part of the metal enclosure with screws 5M x 12 and the washers.
- Screw tight the two screws 10 x 1 1/2'' at the anchors and then tight the screws 5M x 12.

High Voltage Electrical connections

General

The electrical connections of the PREMIUM 79 should always be realized by an experienced and qualified person.

> **Attention:** **The power supply cable of the PREMIUM 79 must ALWAYS have a mains switch and the appropriate circuit breaker (depending on the maximum power consumption of the PREMIUM 79).**

- Beware that the cable cross section should be appropriate to hold the maximum power consumption of the PREMIUM 79.

- The PREMIUM 79 is designed to operate under three phase power supply. Do not ever supply the PREMIUM 79 with single phase.

The area of electrical connections is covered by the front part of PREMIUM 79 where the display and control panel are located. This part acts like a door. Thus, when the door is not open:

- Unscrew the two screws that are located under the buttons <PANIC> and <STANDBY>, open the electrical connections panel and let it lean against the back wall.

The picture below shows the groups of high voltage screw terminal blocks.
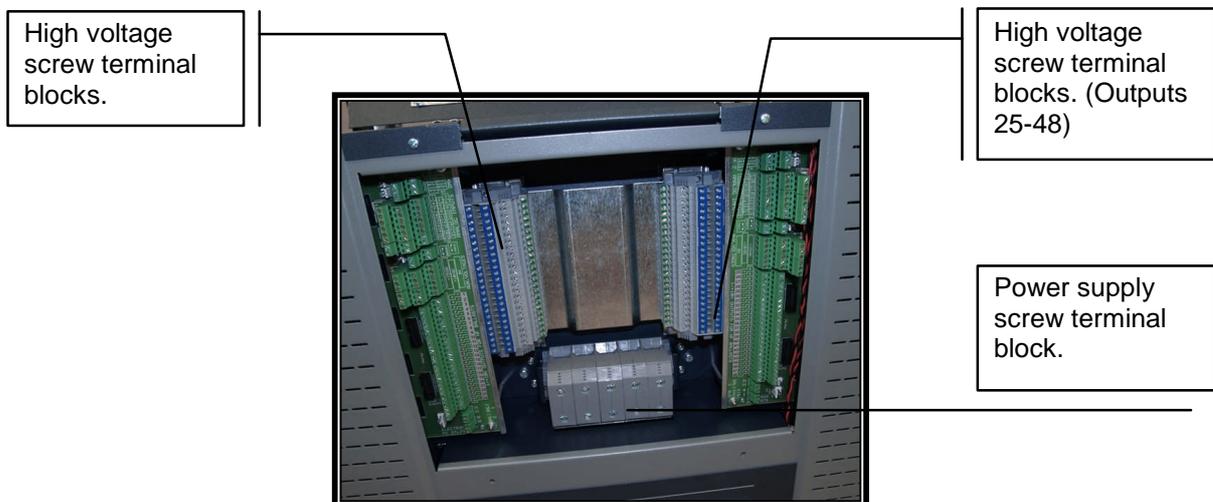
On the upper part of the metal enclosure there is an opening from where the cables that will be connected to the PREMIUM 79 can pass (the opening is covered when the PREMIUM 79 is delivered to you).
The size of the opening can be regular or bigger (in case the cables are many), depending on the cover that you will remove.

- Unscrew the two screws that are located on the upper side and on the center of the metal enclosure and remove the cover that covers the regular opening.

- If it is necessary also unscrew the other four screws so as to remove the cover that covers the bigger opening.

TThe cables should be placed vertically on the wall, exactly at the opening where the cables are to be inserted, they should be fastened (or placed in a channel), and they should leave free space of 60cm from above the two ventilation fans.

Supply connection and Operating Voltage

The PREMIUM 79 series includes models of << Star >> power supply and three phases << Delta >> type . The operating voltages for these series are:

Three phases Star   :   **400 / 230 V ~ 3 / N / PE / 50-60 Hz**

Three phases Delta   :   **230 V ~ 3 / PE / 50-60 Hz**

In the Technical Specifications leaflet of the PREMIUM 79 that you own, the operating voltage is referred.

In the pictures bellow you can see the screw terminals and their markings for each power supply type of the PREMIUM 79 series.

Models STAR   Models DELTA
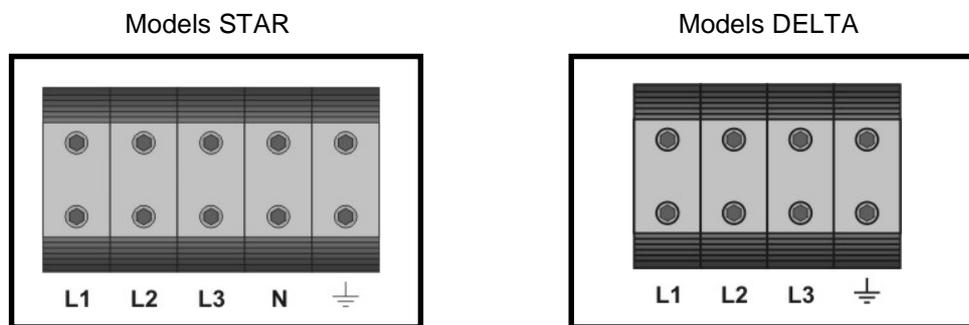
Connect the main power supply cables as follows:

- Remove the outer isolation of the supply cable for approximately 15 cm above the power supply screw terminals.

- Cut the five power supply cables in a way that they can fit well inside the appropriate screw terminals but without making them hold their weight.

- Pass the cables under the sheet metal on which the screw terminals are fitted and tight them on them according to the markings shown in the above pictures.(These markings exist on the plate, of the electrical connections panel too).

Maximum Power Consumption

The PREMIUM 79 has maximum power consumption when all channels are driven under maximum load. In the Technical Specifications leaflet of the PREMIUM 79 you will find the maximum power consumption of the PREMIUM 79 model that you have.

Loads Connection

All PREMIUM 79 models have screw terminal outputs.
A three-level screw terminal corresponds to each channel (ground, phase, neutral or ground, phase, phase for the Delta models).

> **Attention:** **Each channel load should be connected to the PREMIUM 79 independently. More particularly, the phase, the neutral and the ground of each channel load should be connected to the screw terminal. Do not use common neutral wire that ends to the distribution board.**

All output channels of every PREMIUM 79 model have one pole MCB for protection of the channels from short circuit or overloading (P+N MCBs can be installed upon request).

Delta models have Two pole MCBs.

The scheme bellow indicates the 48 output screw terminals of the PREMIUM 79. In all models, Channel 1 is on the upper left side.
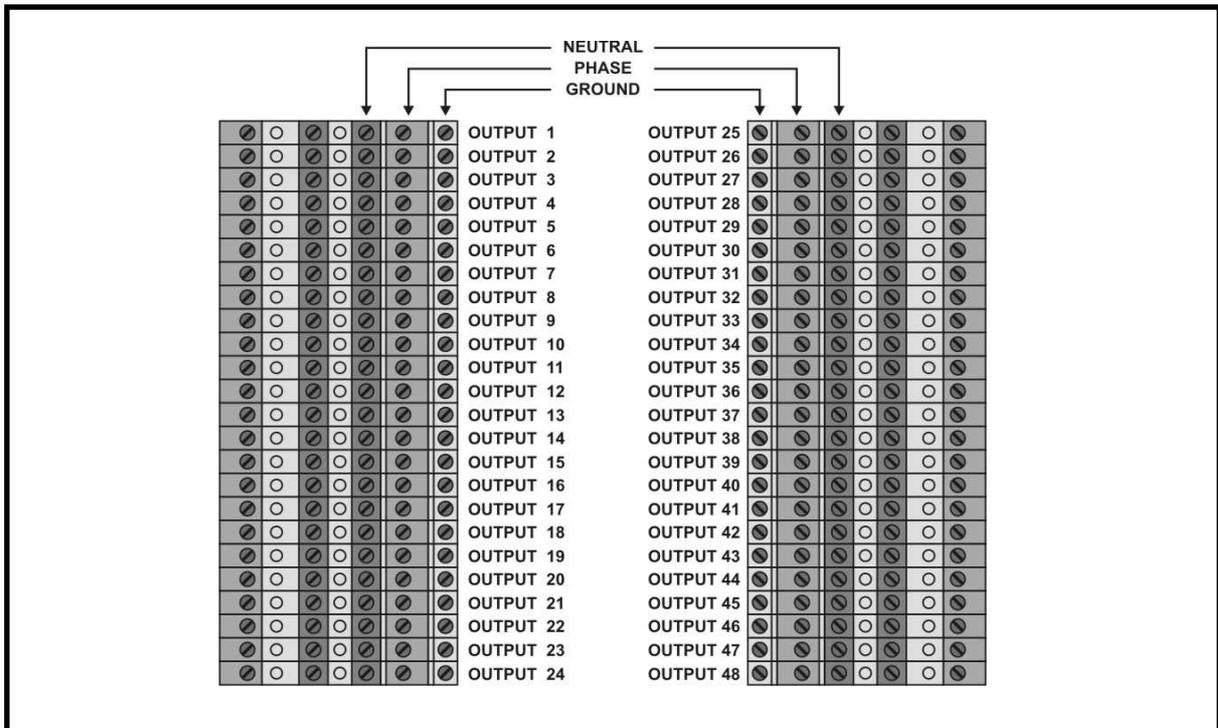
Load Types

The load types that can be connected to a PREMIUM 79 Power Controller depend on the model and more specifically on the Power Units of the device.

To the Power Units with triacs or thyristors (dimmers) you can connect:

- Resistive and inductive loads.
- Incandescent lamps.
- Iron core transformers to supply low voltage lamps (e.g. halogen)

To the power units with relay switches you can connect:

- All the above.
- Devices and lighting fixtures that cannot be controlled by dimmers.

To the power units with HF Fluorescent controllers you can connect:

- High Frequency Electronic Ballast for fluorescent lamps, with 1/+10V input for dimming the lighting level.

Distribution of the General Power supply phases to the power units

The PREMIUM 79 models are manufactured with an exceptionally useful innovation which is based on the concept of "power units". The Power Units incorporated within the PREMIUM 79 enclosure offer the ability of controlling different kinds of loads from one enclosure. For instance, in case an application requires leading edge dimmers, relay switches and fluorescent controllers, then ELECTRON SA can build a PREMIUM 79 controller that meets the specific requirements.

Independent Power Units of 1-4 channels, and 6A-25A per channel, are available for every kind of load.

The PREMIUM 79 consists of twelve power units and the distribution of the three phase power supply is as follows:

Phase 1 : Power Unit 1, 4, 7, 10.
Phase 2 : Power Unit 2, 5, 8, 11.
Phase 3 : Power Unit 3, 6, 9, 12.

On the facade of the PREMIUM 79 and next to the safety fuses, you can see the phase indicator and the corresponding dimmer number that this fuse is supporting.

Electrical connections of the control signals

General

The PREMIUM 79 receives data from the control signals (inputs controls) and according to them it functions and creates output controls so as to control other devices.

All of the signal control cables are connected to the screw terminals on the printed circuits that exist on the electrical connections area on the left and on the right side.

Please note that note all of the input and output signals that are available until the time that this instructions manual was printed, are described below.

In the picture bellow all the screw terminal groups of the input and output control signals are presented.

Signal control input/output screw terminals

Signal control input/output screw terminals
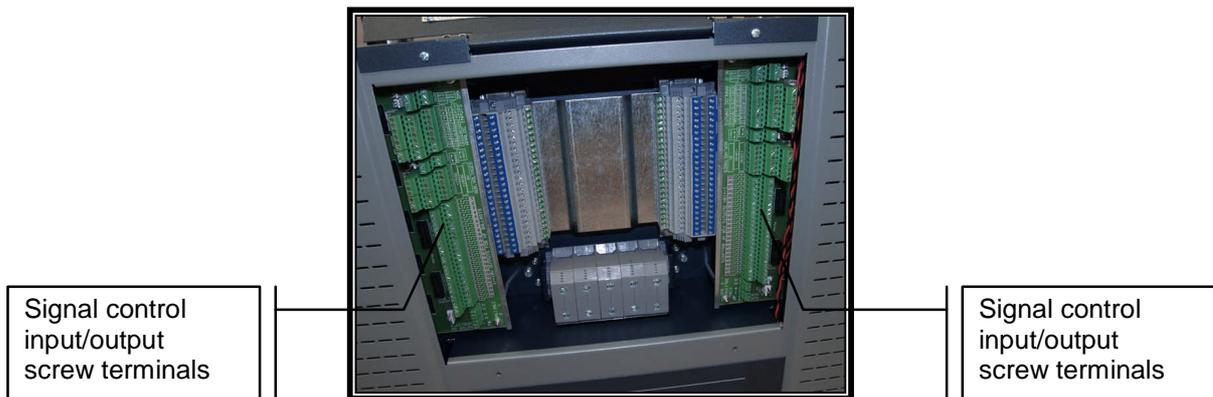
Connection of the DMX-512 signal (1)

The DMX-512 signal is connected to the two level screw terminals located on the printed circuit, on the left side of the electrical connections area.

The scheme on the right shows the screw terminals.

- At the upper level (DMX INPUT) where the PREMIUM 79's DMX-512 input is located, connect the cable that comes from the console output. The connection should be realized as follows:

Pin 1 XLR of the console to the screw terminal COMMON.
Pin 2 XLR of the console to the screw terminal DATA -.
Pin 3 XLR of the console to the screw terminal DATA +.

- At the lower level (DMX OUTPUT) where the PREMIUM79's DMX-512 output is located, you can connect the next PREMIUM 79, if there is one.
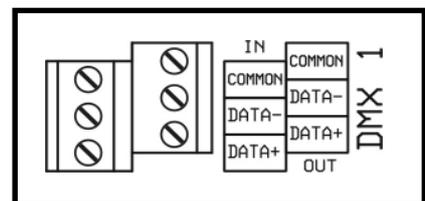
Note 1.The DMX-512 output signal is not amplified. (The input and output screw terminals are bridged).

Note 2. The input and the output of the DMX-512 signal consists of a Galvanic isolation from the rest of the PREMIUM 79's circuits.

Note 3. The DMX-512 input signal includes a termination resistance that can be activated selectively by the user. (Read the chapter "How can I activate or deactivate the termination resistance on the DMX signal").

> **Attention: NEVER Connect a DMX device in the DMX-512 Output, when you have activated the termination resistance.**

The cable, that will be used for the DMX-512 signal connections, can be shielded type (two signals and shield), or a 4 pairs , CAT5 UTP. If you are going to use a 4 pairs CAT5 UTP, connect the following pairs and colors:

Pair 1	(blue)	:	Data – (negative info).
Pair 1	(white / blue)	:	Data + (positive info).
Pair 3	(green - white / green	:	common (0V).
Pair 2	(orange - white / orange)	:	Not connected.
Pair 4	(brown - white / brown)	:	Not connected.

> **Attention: The distance between the cable cross channel that is used for the DMX-512 cables and the cable cross channel that carries the power cables, has to be more than 50 cm .**

Analogue inputs connections

In the Premium 79 models containing 48 analogue inputs, you can connect controllers with 0/+10V output, or any other kind of controller (see chapter << Programming of analogue inputs >> and << Use and examples of analogue inputs >>).

The main section of the Power controller is equipped with two different power supplies for powering these controllers, so (in most cases), there is no need for a separate power supply.

The analogue signals are connected to the three level screw terminals that exist on the printed circuits of the control signals. On the left printed circuit are the 1-24 input connections and on the right are the 25 – 48.

You can see in the following scheme the left and right input screw terminals and their markings too.
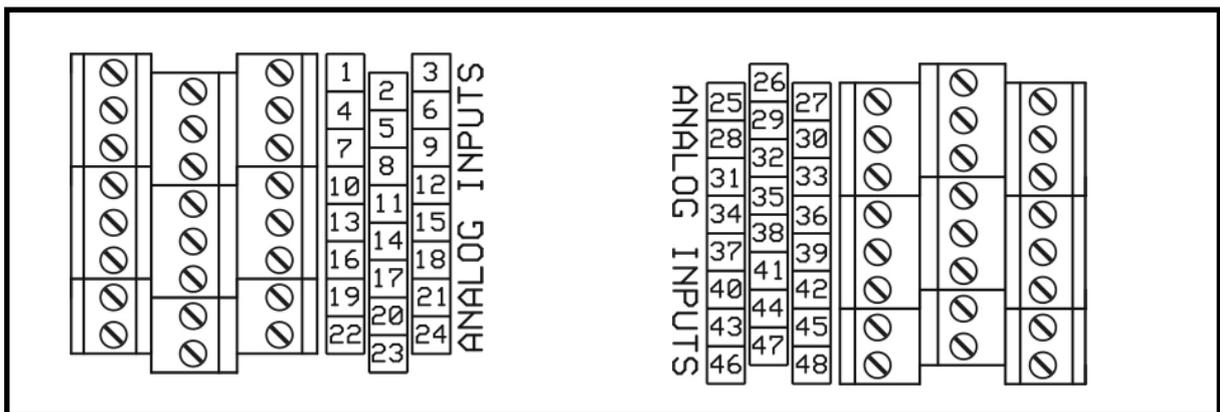
Note 1. The DMX-512 signal inputs are Galvanic isolated from the rest of the PREMIUM 79 circuits.
The analogue input section includes two DC power supply outputs which are:

1. 15VDC power supply (up to 1 A) for powering input controllers such as E1115-6M or the E1115-12M, or any input controller from the MICON E and BS ELECTRON series.

2. 10VDC power supply (up to 45mA) for powering simple input controllers with potentiometers. (The resistance of the potentiometers in ohms must be 10K LIN).

Note 2. The 1 A current for the 15VDC section is the total power that can be supplied by the PREMIUM 79 in ALL the 15VDC screw terminals. On the other hand you can use the whole power (1 A) from a single screw terminal connector.

Note 3. The 45mA current for the 10VDC section is the maximum power that can be supplied by the PREMIUM 79 in every 10VDC screw terminals Set. This means that we can use 45mA for the left 10 VDC screw terminal circuit and 45mA for the right 10 VDC screw terminal circuit.

In the following scheme you can see these Auxiliary voltage screw terminals, for the left and right set, with their markings.
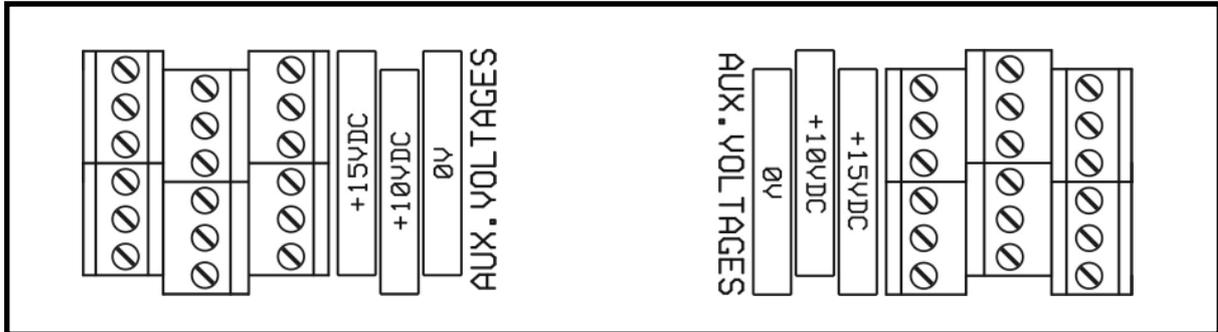
Make the connections as following:

- Connect to the "0V" screw terminal the corresponded 0V or common of the analogue signals of your controller.
- Connect to the "+15VDC" or "+10VDC" (depending on the analogue controller that you will use), the corresponded cables that will supply the controllers.
- Connect to the 1 - 48 signal input screw terminals the analogue signals of the controllers. (It is not necessary to connect all the inputs. (If you have a controller with 3 outputs, connect them in just three inputs).

Connection of the "emergency" and "panic" contacts

The PREMIUM 79 models that support analogue inputs, have two inputs where you can connect contacts which activate emergency mode operations.

In the right scheme you can see the corresponded screw terminals that are used for the "emergency" and "panic" mode operations.

- On the screw terminal marked "emergency" you can connect a cold contact (open in normal condition), for example a relay contact, that will be taking commands from a power generator that will start working in case of the network's power failure .
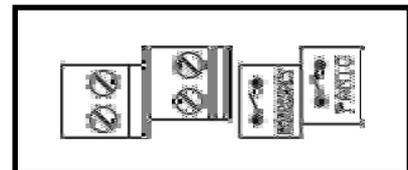
In this case the PREMIUM 79 will activate automatically a preprogrammed scene (by the user) avoiding the power generator's overload.
(Read more in the chapter "Programming of the analogue inputs").

- On the screw terminal marked "panic" connect (if you want) a heavy duty push button. With this button you can immediately activate a specific lighting scene used for an emergency situation.

In this case the PREMIUM 79 will activate automatically the scene that the user has programmed for this situation.

(Read more in the chapter "Programming of the analogue inputs)".

Note. The screw terminals used for these contacts exist on both of the screw terminal sets of input signals (left and right). The PREMIUM 79 will do the same operation independently of which side contacts you will use.

Connection of the 1/+10V outputs for the electronic ballasts

The PREMIUM 79 models with built in HF Fluorescent controller, are supplied with 1/+10V outputs for the controlling of HF dimmable ballasts.
These outputs can be found on the two level screw terminals on the control signals printed circuits.

Note. The number of 1/+10V HF outputs that a PREMIUM 79 has, depends on the number of channels of the HF Fluorescent controllers existed and on the number of independent 1/+10V output channels included. If for example there is only one HF Fluorescent controller power unit with two channels, then two 1/+10V outputs will exist or if there are two HF Fluorescent controller power units each one controlling four channels and 12 independent 1/+10V outputs, then there will be eight outputs 1/+10V for the HF Fluorescent controllers and 12 independent outputs 1/+10V, total a total of 20 outputs.

In the following scheme you can see the screw terminal sections that are used for connecting the 1/+10V signal outputs in a PREMIUM 79 that has 48 HF Fluorescent controllers.
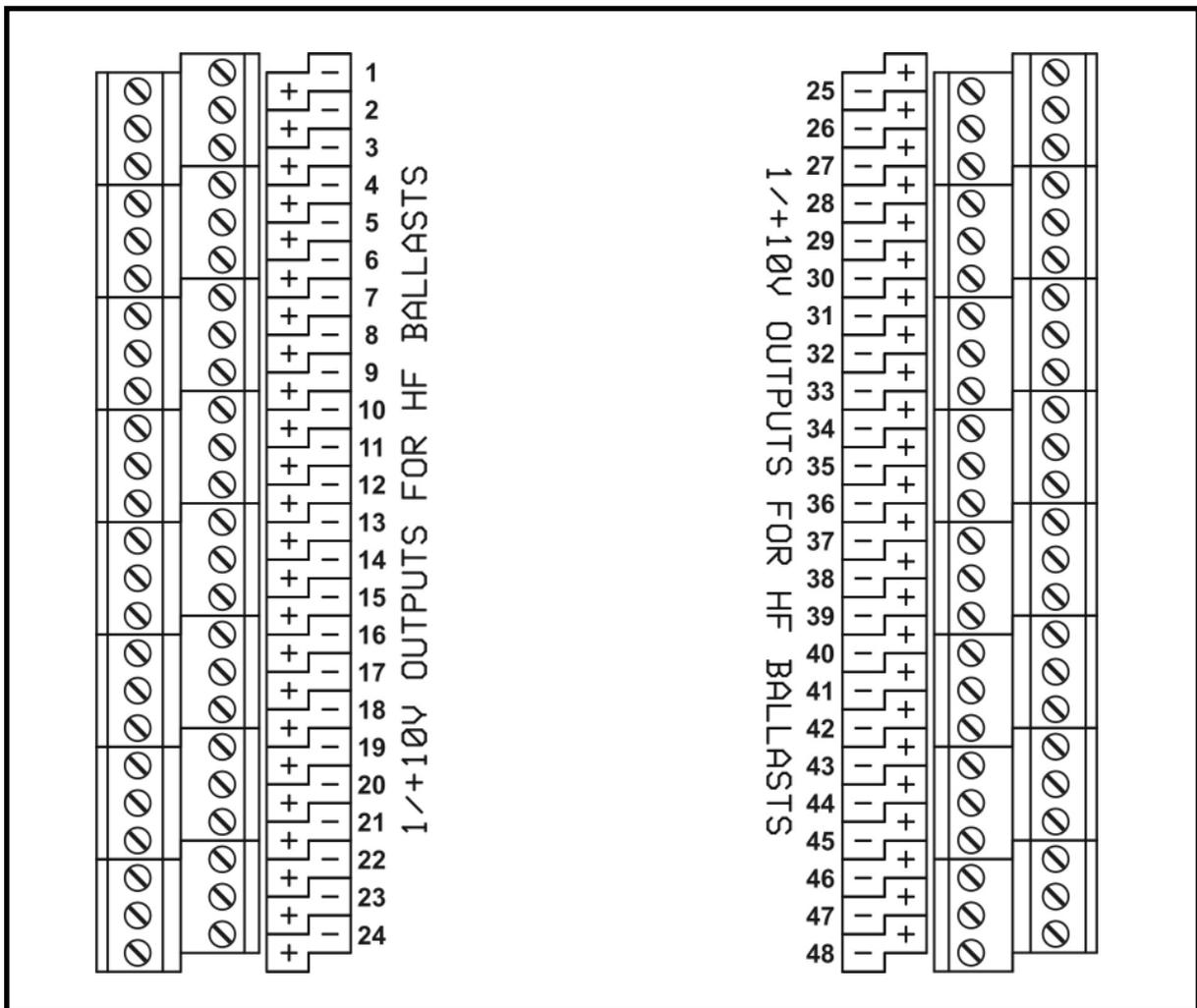
- Connect in each output a bipolar cable that will be connected (on its other side) to the corresponded ballast input that you want to control from this channel.

> **Attention:** **The maximum driving current of the 1/+10V outputs is 60mA. This means that if you use a ballast with input current control up to 0,6mA, then you can connect in each 1/+10V output, 100 ballasts, making sure that the maximum power consumption of the ballasts is not exceeding the power capacity of the high voltage (230V~) output channel.**

Note. The 230V~ supply voltage of the ballasts, that you are going to control from a 1/+10V signal output, is available on the corresponded High Voltage (230V~) Output. This means that if you use the 1/+10V signal output 5 for controlling some ballasts, then you must use the High Voltage (230V~) Output number 5 for the supply of the 230V~ of these ballasts. If there is no corresponded number on the 1/+10V output (or the outputs) for the supply of the 230V~ then these outputs are independent.

Setup of the PREMIUM 79

General

The setup of the channels, the scenes or the chasers on a PREMIUM 79 (with the right programming) can be done with the following ways:

- Analogue signal 0/+10V for every channel.
- Digital signal DMX-512.
- Manually, from the keyboard.

The setup can be done simultaneously from all the setup ways.
The output level of each channel, scene or chaser depends on the definitions that you have given in the command "Merge Settings" (Read the chapter "Combining the control informations").

The PREMIUM 79 is preprogrammed from the factory with the "HTP" method , which means that the output level of each channel, scene or chaser, will be corresponded to the higher level that this channel is accepting, (or a scene or a chaser), from an analogue input, the digital input, or the keyboard.

The PREMIUM 79 series have the ability (except the conventional setup ways) to receive commands from other sources such as:

- Analogue signal 0/+5V for each channel.
- Open contact (In calm state).
- Closed contact (In calm state).
- All the architectural controllers from the MICON ES AND BS ELECTRON series.
- Push buttons.

Using this capability the PREMIUM series can work in an architectural environment.
Read the chapter "Use and examples of the analogue inputs", for a fully detailed description of the way you can use these capabilities.

Automatic Power control

An automatic Power Control system (" APC ") is installed in all the PREMIUM 79 series that is used for monitoring the temperature in every Power Unit.

If , for any reason, the temperature of a Power Unit exceeds some limits, then the PREMIUM 79 reduces automatically the output power of this specific Power Unit, (reducing the lighting level to the outputs), keeping the temperature in a safe level.

When the Automatic Power Control is enabled the "APC" sign turns to "ON" on the graphic display.

Variables

Variable Settings

The PREMIUM 79 series include a graphic display panel 128x64, which can project up to eight lines with 21 digits in each line and together with the keyboard it constitutes the Power Controller's communication devices for the user.

The graphic display shows the operation mode the PREMIUM 79 is, and the variable values that you want to change.

Variable value is the value that can be changed by the user and determines the operations of the PREMIUM 79 (The DMX start address is a variable, the preheat level is another variable value e.t.c).

The PREMIUM shows the variables on the display through the cursor.

Cursor is the PREMIUM 79 operation, which shows on the display a number (or a word), by blinking it.

For example imagine that on the right scheme the number "1" is blinking. Then this means that the cursor is pointing on the number "1" or that it is on the "1".

What is the number "1"? It is the variable of the start DMX address for which you can select a value from 1 - 512.

If you want to choose another variable then you have to move the cursor on it.

```
START ADDRESS SET
INDEPENDENT ADDR:   NO
TERMINATION:        ON

START ADDRESS:       1
```
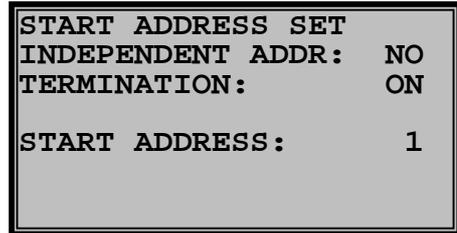
> **The selection of the variables can be done by moving the cursor, on the desirable position, by turning left (previous) or right (next), the <SELECTOR> encoder.**

> **The value change of the variable can be done by turning left (reduce) or right (increase) the <VALUE> encoder.**

The only exception is the case of setting the intensity level of the selected channel, scene or chaser, in which case the <SELECTOR> encoder is used to select for example the channel and using the <VALUE> encoder you change the intension of the channel. In such a case both the channel number is blinking (that can be changed through the <SELECTOR> encoder), and the intensity level of the channel is blinking (that changes values from the <VALUE> encoder). In the following example you can see the rule and the exception.

Example.

- Press the key <MANUAL> while the PREMIUM 79 is on the start mode.

The display is changing and becomes similar to the scheme on the right, informing you that the PREMIUM 79 is on the Manual setup of the Outputs.

- Turn the <SELECTOR> encoder on the left to select the variable "MANUAL MASTER".

```
MANUAL CONTR.
/NORMAL
MANUAL MASTER:
100% CHAN.:   1
LEVEL:   0%

_
_
```
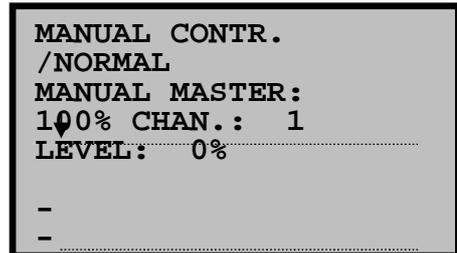
As you can see the percentage 100% is blinking, this means that the variable "MANUAL MASTER" has been selected.

- Turn the <VALUE> encoder on the left and the right side so as to decrease and increase again the "MANUAL MASTER" variable value (leave it on the 100% percentage).

The above variables setup is the RULE.

- Now turn the <SELECTOR> encoder on the left until the channel's number is the " 1 ".

You will notice now that the channel's number, the intension percentage of the channel and the arrow that is pointing on the level bar, are blinking. This is the EXCEPTION.

- Turn on the right the <VALUE> encoder so you can increase the intensity of the selected channel.
- Now turn the <SELECTOR> encoder on the right so you can select another channel.
- Turn the <VALUE> encoder on the right to increase the intensity of the channel you just selected.

```
MANUAL CONTR.
/NORMAL
MANUAL MASTER:
100% CHAN.: 22     ↓
LEVEL: 88%
```
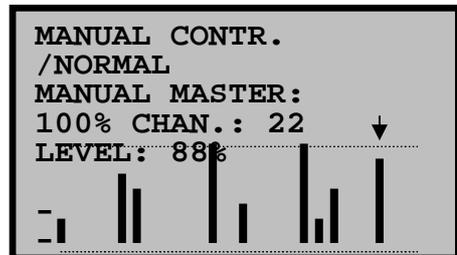
You may experiment with the setup on different channels altering values until you familiarize with them. After some value changes, on different channels, the display will show a similar screen with the scheme on the right.

The above procedure is valid almost in all cases of programming and using the PREMIUM 79, so for this reason:

Knowing how to move the cursor and how to change the variables are essential for the proper use of the PREMIUM.

The following instruction manual is written considering that you are totally familiarized with the procedure of finding and altering values to the variables.

Operation modes of the PREMIUM 79

The operation modes of the PREMIUM 79 are the following:

- **Start mode.**   The mode in which the PREMIUM 79 is at when turned on.
- **Program menu.**   The mode where you can select programming commands.
- **Command mode.** The operation mode for all programming commands.
- **Monitor mode.**   The mode where the outputs are displayed in percentage.
- **Scene mode.**   The mode where you can control the programmed scenes.
- **Chaser mode.**   The mode where you can control the chasers.
- **Manual mode.**   The mode where you can manually control the outputs of the PREMIUM.
- **Standby mode.**   The mode in which the Premium 79 is on Standby (all the outputs are in 0% percentage)
- **Panic mode.**   The mode in which the user has activated the panic scene.
- **Emergency mode.** The mode in which the Premium 79 is on Emergency (for example a Power failure).

Start mode

The mode which the PREMIUM enters when turned on, after the welcome message appears. From this mode you can move to other modes and you can also see some information about the PREMIUM 79 operation.

The scheme below shows the keyboard, the display indications and the led indicators.
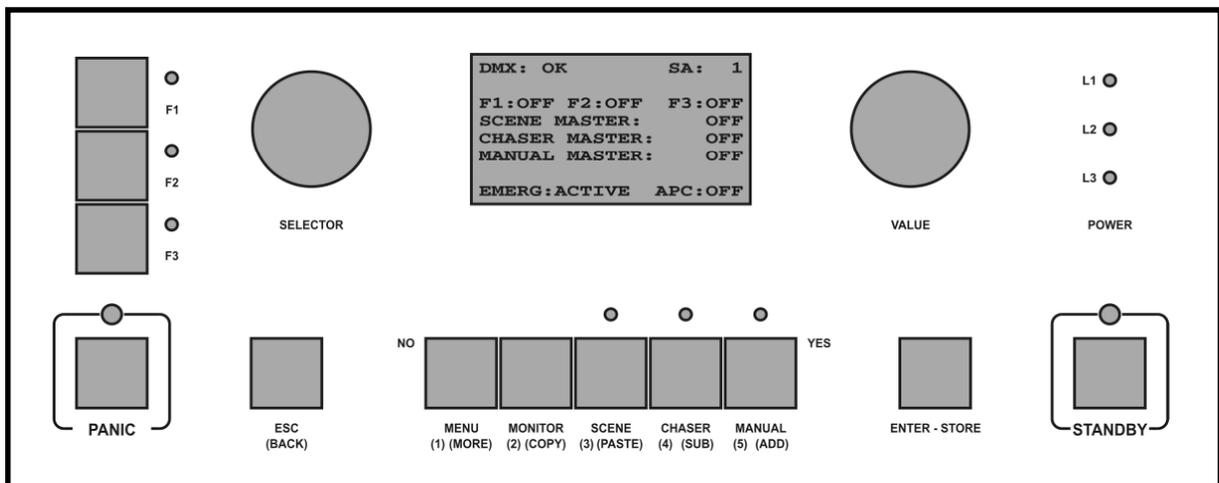
The PREMIUM 79 keyboard consists of 12 buttons, of which on some of which change operation depending on the mode that the Premium 79 is operating.
The operations of the buttons and the encoders of the keyboard, when the PREMIUM is at the Start Mode, are the following:

<F1> - <F3>   Function key 1, 2, 3. Activate – deactivate the specific operation you have programmed to this keys (not factory pre programmed).

<PANIC>   Activate – deactivate the Panic mode.

<MENU>   Entrance to the Menu mode, (you will be asked for a security code, (if this option is activated) .

<MONITOR>   Entrance to the Monitor mode, (The display shows the outputs in percentage)

<SCENE>   Entrance to the Scene mode (the mode in which you control the programmed scenes).

<CHASER>   Entrance to the Chaser Mode (the mode in which you control the chasers).

<MANUAL>   Entrance to the Manual Mode (the mode in which you adjust manually the outputs of the PREMIUM 79).

<STANDBY>   Activate – deactivate the standby mode. (all the outputs are in 0% percentage)

<SELECTOR> Selector of one of 6 variables (F1, F2, F3, SCENE MASTER, CHASER MASTER, MANUAL MASTER), when it isn't "OFF" .

<VALUE>   Percentage value adjustment of the selected variable.

The <ESC> and <ENTER-STORE> buttons are not doing any operation on The Start mode.

The functions of the buttons in the rest operation modes are fully described in the following chapters.

Start Mode display indication

The PREMIUM display in the Start Mode shows the following information:
(The schemes on the right side of the script are showing single lines of the display).

- **DMX: OK.** When there is connected signal in the DMX input and it is correct.

```
DMX1: OK    T  SA:    1
```

- **DMX: ERROR.** When there is connected signal to the DMX relevant input but the signal is wrong. You will notice an Error indication when the information "START CODE" of the DMX signal is not 0, or when have programmed "START ADDRESS" that doesn't exist on the DMX signal, or when the PREMIUM 79 is not receiving in all the channels, DMX information.

```
DMX1:ERROR T   SA:    1
```

```
DMX1:FAIL  T   SA:    1
```

- **DMX: FAIL.** When there is no signal connected to the DMX input.

Note. Using the command "DMX LOSS" you can program the behavior of the PREMIUM 79, in case of DMX-512 signal loss.

- The terminal resistor is activated. When it is deactivated the "T" is not appearing.

```
DMX1: OK    T  SA:    1
```

- **SA: 1.** The number of the start address of the DMX-512 signal.

```
DMX1: OK       PATCHED
```

- **PATCHED.** When the user has programmed independent DMX addresses for each channel of the PREMIUM 79.

```
F1:OFF F2:OFF  F3:OFF
```

- **F1, F2, F3.** This indication is **"OFF"** if the operation that you have programmed to the relevant Function Key is deactivated. When it is activated the intensity percentage appears, or the **"FL"** indication (Full).

```
F1:FL  F2:25%  F3:90%
```

- **SCENE MASTER.** This indication is **"OFF"** when all the scenes are at 0% percentage. If even one scene is activated at some percentage, then the display will show the intensity percentage of the master (for all the scenes). When the indication is full then the display will show **"FL"**.

```
SCENE MASTER:       OFF
```

```
SCENE MASTER:       50%
```

- The "⬆⬇" indication signifies the general fluctuation on the intensity of all the scenes, when you have set the choice "LAST" on the merge settings.

```
SCENE MASTER:      ⬆ ⬇
```

- **CHASER MASTER.** The same description as for the SCENE MASTER.

- **MANUAL MASTER.** The same description as for the SCENE MASTER.

- **EMERG: ACTIVE.** The emergency operation is activated. (Only to the models supplied with analogue inputs).

```
EMERG:ACTIVE   APC: ON
```

- **EMERG: OFF.** The emergency operation is deactivated. (Only to the models supplied with analogue inputs).
- **APC: ON.** The APC operation is activated.
- **APC: OFF.** The APC operation is deactivated.

```
EMERG:OFF      APC:OFF
```

LED indication lamps

- **F1, F2, F3.** They light up when the programmed operation of the relevant function key is activated. They help the user to stay informed when the PREMIUM 79 is in another mode and the display is presenting some other information.
- **SCENE.** Lights up even if only one scene has a percentage greater than 0%. It helps the user to stay informed when the channel percentages when the PREMIUM 79 is not in the scene mode and the display is showing other information.
- **CHASER.** Lights up even if only one chaser chaser in the chaser mode has a percentage greater than 0%. It helps the user to stay informed when the PREMIUM 79 is not in the chaser mode and the display is showing some other information.
- **MANUAL.** Lights up even if only one channel in the manual mode has a percentage greater than 0%. It helps the user to stay informed when the PREMIUM 79 is not in the manual mode and the display is showing some other information.
- **L1, L2, L3.** They indicate the presence of the three phases.

Start mode output intensity percentage control

The PREMIUM 79 is giving you the ability to adjust the intensity percentage of the activated operations of the function keys and the masters of the scenes, chasers and channels (manual).

Note.
"OFF" mode.

Suppose that you see on the display the values of the scheme on the right.

```
DMX1: ON          SA:    1

F1:25% F2:OFF   F3:90%
SCENE MASTER:        70%
CHASER MASTER:       FL
MANUAL MASTER:       OFF

EMERG:ACTIVE   APC:OFF
```

- Turn the <SELECTOR> encoder on the left or on the right to select the variable you want to choose.

As you can notice, the cursor overrides the variables that are in "OFF" mode.

- Now turn the <VALUE> encoder to adjust the intension percentage level.

Note.The above adjustments refer to the scenes, chasers and channels, that have been activated from the function keys and the corresponding function modes of the PREMIUM 79 (Scene mode, chaser mode and manual mode).
They are not related with scenes, chasers or channels that have been activated from an analogue or DMX input, except if the "LAST" selections have been activated on the merge settings.

Panic mode (PANIC)

On the PREMIUM 79 you can program a lighting scene that it will be used in a panic condition then you can assign it as a ''Panic mode'' scene.
As a factory preset the panic scene is scene 512. This scene is free from any assignment so you have to program it (Read the chapter "Scene programming").
You may also choose to define another scene (different than scene 512) as the panic scene (this is explained thoroughly in the chapter "General Setup").

To activate the Panic mode:

- Press the <PANIC> button. The display is changing and becomes as the scheme on the right. At the same time the built in PREMIUM 79's buzzer starts buzzing.

```
   YOU ARE IN
   PANIC MODE


SCENE 512 IS ACTIVE
DIMMER LEVEL: FULL
```

On the display readings you can see the activated scene and the intensity value of it. This value can be modified by using the <VALUE> encoder.

- Press again the <PANIC> button to exit the panic mode.

On Panic mode the PREMIUM 79 nullifies all the intensity percentages from any input or mode and leaves activated only the Panic scene.

The only adjustment the user can do is on the intensity level of the Panic scene by using the <VALUE> encoder.

The operation of the external push button (connected on the corresponded screw terminal) in a PREMIUM 79 with analogue inputs, is exactly the same with the <PANIC> button of the keyboard. They can also function in parallel mode.

To learn more on how to connect an external <PANIC> push button please read the chapter "electrical connections of control signals".
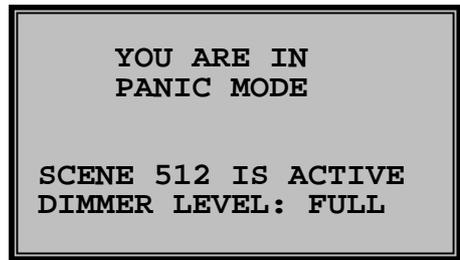
Emergency mode (EMERGENCY)

In the PREMIUM 79 that is supplied with analogue inputs, you can program a lighting scene that will be used in an emergency situation, and then you can assign it as the emergency scene.
As a factory preset the emergency scene is scene 511. This scene is free from any assignment so you have to program it. (Read the chapter "Scene programming").
You may also choose to define another scene (different than scene 511) as the panic scene (this is explained thoroughly in the chapter "General Setup").

The emergency scene is used in cases that the PREMIUM 79 is supplied by an electric power generator during a loss of the supply voltage. In these cases you can set (if you want) the PREMIUM 79 to preserve a lower load than the total, so there will be no chance of overloading the power generator.

The emergency mode can be activated automatically if you have made the necessary setup and connections which are:

- Use of a relay that will be activated when the electric power generator is functioning.
- Connect the two terminals, of a normal open dry contact of the relay on the screw terminals marked "EMERGENCY". (See the chapter "emergency" and "panic" contact connections).
- Program the scene 511, having in mind that the total electric load of all the channels used will not go beyond the power that you want. (Read the chapter "Scene programming"). You can program another scene if you want(different than 511).
- Set the scene that you just programmed as the emergency scene. (Read the chapter "General Setup").
- Activate the emergency mode. (Read the chapter "General Setup").

After the above settings and connections, the PREMIUM 79 is ready to enter the emergency mode thus protecting the electric power generator from overloading.

In this mode the display is changing to the scheme on the right and the, PREMIUM 79'S built in, buzzer starts to buzz.

On the display readings you can see the activated scene and the intensity value that is programmed. This value can be modified by using the <VALUE> encoder.

In the emergency mode the PREMIUM 79 nullifies all the intensity percentages from any input or mode and leaves activated only the emergency scene.

```
   YOU ARE IN
  EMERGENCY MODE


SCENE 511 IS ACTIVE
DIMMER LEVEL: FULL
```

The only adjustment the user can do is that of the intensity level of the emergency scene by using the <VALUE> encoder.

Note 1. When the PREMIUM 79 returns to its normal condition, it restores everything that was activated before the power failure.
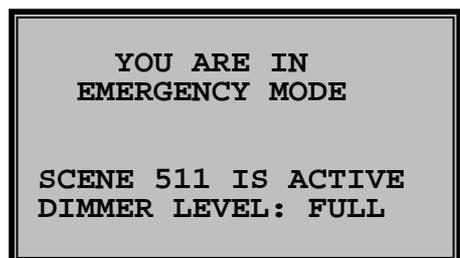
Note 2. For the PREMIUM 79 to exit the Emergency Mode, the power supply of the electrical network has to be restored and the relay contact has to open, indicating that the electric power generator is not working, and that the PREMIUM 79 is supplied by the electrical network power.

Standby mode (STANDBY)

In this mode the PREMIUM 79 nullifies the percentages of all the outputs and preserves them in this state until the user will change mode, independently from the commands it is receiving from the signal control inputs.

```
    YOU ARE IN
   STANDBY MODE

You can now switch
off Premium 79, or
press standby key
again for exit.
```

- Press the <STANDBY> button to activate this mode.

  The display panel is changing and becomes like the scheme on the right.

- Press again the <STANDBY> button to deactivate this mode.

Note. It is recommended to always activate the Standby mode, before cutting the power supply from the main switch of the PREMIUM 79, (if the model that you own is equipped with one), or from the main switch on the central electrical board.

Commands menu

It is the mode that on the PREMIUM 79's display appears a commands menu which you can use to program the PREMIUM.

- From the start mode press the <MENU> button to enter the commands menu of the PREMIUM 79, which is indicated as the MAIN MENU (scheme on the right).

Pay attention to the two arrows that exist on the left and the right side of the command "DMX PORT SETTINGS".
These arrows are the indicators pointing out the command you are going to enter by pressing the relevant button
(<ENTER>).

```
       MAIN MENU
--------------------
->DMX PORT SETTINGS<-
     SCENE SET
  USER CHASER SET
  CHASER CREATOR
 ANALOG IN ASSIGN
  FUNCTION KEYS
```

- Turn on the right the <SELECTOR> encode, the arrows now are indicating the next command.

If you continue to turn the <SELECTOR> encoder on the right, the indicator arrows will shift to the next commands until you reach the last one. When the arrows reach the last display line the commands will unfold upwards.(scroll up).
The Commands menu (main menu) includes the following commands and sub menus:

1. **DMX PORT SETTINGS.** Settings of the DMX port. (Sub menu).

   1.1.DMX START ADDRESS. Programming of the DMX start address (Start address) or of the independent addresses per channel (Patch) and activation or deactivation of the Termination resistance.

   1.2.DMX LOSS. Programming of the PREMIUM 79's behavior in case of DMX-512 signal loss.

2. **SCENE SET.** Scene programming.
3. **USER CHASER SET.** User chasers programming.
4. **CHASER CREATOR.** Creator of the chasers.
5. **ANALOGUE IN ASSIGN.** Programming of the analogue inputs operation.
6. **FUNCTION KEYS.** Programming of the functional keys F1, F2, F3.
7. **LAWS.** Laws adjustments. (Sub menu).

   7.1.DIMMING LAWS. Laws adjustment per channel.

7.2. USER LAW SET. Laws adjustment programming.

7.3. SOFT STARTS. Soft start time programming for the smooth increase of the output level per channel.

8. **CHANNEL FADES.** Programming of the time of gradual change of the output level per channel.
9. **PREHEAT LEVELS.** Programming of the filaments preheat level per channel.
10. **MAXIMUM LEVELS.** Programming of the Maximum output per channel.
11. **DMX ASSIGNS.** Programming of the functions that will activate the DMX channels.
12. **MERGE SETTINGS.** Programming of the way of merging the command information.
13. **SETTINGS.** Programming of special functional settings.
14. **TEST-FIND.** Test – find of outputs and loads.
15. **CLEARS-DEFAULTS.** Clearing and restoring on factory presets.

When the indicator arrows are pointing on the sub menu or the command that you want to select:

- Press the <ENTER> button.

Now you have entered the command or the sub menu you have chosen.

If you want to exit from the main menu without entering any command:

- Press the <ESC> button, and you will be transferred to the start mode.

All the commands are described analytically below.

Note. The PREMIUM 79 exits automatically from the main menu mode if the <SELECTOR> ENCODER is not moved for more than 60 seconds.

DMX Start Address

Programming command of the start address or the independent addresses per channel (patch) and activation or deactivation of the Termination resistance.
This command can be found on the "DMX PORT SETTINGS" sub menu.

Factory values: Start address = 1.
Patch = sequential addresses using as the first address, the address number 1.
Termination resistance = deactivated (OFF).

How can I set a new DMX start address

- From the start mode press the <MENU> button to enter the main menu.

- With the indication arrows pointing on "DMX PORT SETTINGS" press the <ENTER> button. The display panel shows now the sub menu. (right scheme).

- With the indication arrows pointing on "DMX START ADDRESS" press the <ENTER> button..

  You are now inside the command's menu with the cursor blinking on the start address number. (scheme on the right).

- Turn the <VALUE> selector to choose the desirable address.

- Now press sequentially the buttons <ENTER>, <ESC>, <ESC> to return to the previous mode.

```
   DMX PORT SETTINGS
--------------------

->DMX START ADDRESS<-

    DMX LOSS
```

```
START ADDRESS SET
INDEPENDENT ADDR:   NO
TERMINATION:       OFF

START ADDRESS:       1
```

How can I define independent DMX addresses per channel (Patch)

- From the start menu press the <MENU> button to enter the main menu.

```
   DMX PORT SETTINGS
--------------------

->DMX START ADDRESS<-

    DMX LOSS
```

25

- With the indication arrows pointing on "DMX PORT SETTINGS" press the <ENTER> button. The display now shows the sub menu. (scheme on the right).

- With the indication arrows pointing on "DMX START ADDRESS" press the <ENTER> button.

You are now inside the command's menu, with the cursor blinking on the start address number. (scheme on the right).

```
┌─────────────────────────┐
│START ADDRESS SET        │
│INDEPENDENT ADDR:    NO  │
│TERMINATION:        OFF  │
│                         │
│START ADDRESS:        1  │
└─────────────────────────┘
```

- Turn the <SELECTOR> encoder to move the cursor on the variable "INDEPENDENT ADDRESS".

- Now turn the <VALUE> encoder.

The display now becomes as the scheme on the right.

```
┌─────────────────────────┐
│START ADDRESS SET        │
│INDEPENDENT ADDR:   YES  │
│TERMINATION:        OFF  │
│CHAN.  1 @ ADDR.      1  │
│CHAN.  2 @ ADDR.      2  │
│CHAN.  3 @ ADDR.      3  │
│CHAN.  4 @ ADDR.      4  │
│CHAN.  5 @ ADDR.      5  │
└─────────────────────────┘
```

- Turn the <SELECTOR> encoder to move the cursor on the channel's address you want to change.

- Now using the <VALUE> encoder you can change the address.

By using the <SELECTOR> and <VALUE> encoders put the desirable addresses to all the channels.

```
┌─────────────────────────┐
│CHAN.  4 @ ADDR.    ---  │
└─────────────────────────┘
```

Note 1. In case you want a channel not to receive any command from any DMX address, select the 3 dashes using the <VALUE> encoder. (In the example on the scheme on the right, the channel 4 is not taking command from any DMX address.)

Note 2. You can, if it is desired, assign the same DMX address to more than one channel, so these channels will respond to the same DMX command. With this way you increase the available power capacity of the specific DMX channel. (On the scheme on the right the channels 1,2,3,4 are receiving commands from the DMX address 20).

```
┌─────────────────────────┐
│CHAN.  1 @ ADDR.     20  │
│CHAN.  2 @ ADDR.     20  │
│CHAN.  3 @ ADDR.     20  │
│CHAN.  4 @ ADDR.     20  │
└─────────────────────────┘
```

- Press sequentially the <ENTER>, <ESC>, <ESC> buttons to return to the start mode.

The reading on line 1 of the display (in start mode) becomes as the scheme on the right.

```
┌─────────────────────────┐
│DMX1: OK      PATCHED    │
└─────────────────────────┘
```

How can I activate or deactivate the termination resistance on the DMX signal

- From the start mode menu press the <MENU> button to enter the main menu.

- With the indication arrows pointing on "DMX PORT SETTINGS" press the <ENTER> button. The display now shows the sub menu (right scheme).

- With the indication arrows pointing on "DMX START ADDRESS" press the <ENTER> button.

You are now inside the command's menu. Notice that the cursor is blinking on the start address number. (right scheme).

```
┌─────────────────────────┐
│   DMX PORT SETTINGS     │
│---------------------    │
│                         │
│->DMX START ADDRESS<-    │
│                         │
│    DMX LOSS             │
└─────────────────────────┘
```

- Turn the <SELECTOR> encoder to move the cursor to the "TERMINATION" variable.

- Using the <VALUE> encoder the reading "OFF" becomes "ON".

- Press sequentially the <ENTER>, <ESC>, <ESC> buttons to return to the start mode menu.

On the first line of the display the letter "T" is added indicating that the termination resistance is activated (right scheme).

```
┌─────────────────────────┐
│START ADDRESS SET        │
│INDEPENDENT ADDR:    NO  │
│TERMINATION:        OFF  │
│                         │
│START ADDRESS:        1  │
└─────────────────────────┘
```

```
┌─────────────────────────┐
│DMX1: OK    T  SA:    1  │
└─────────────────────────┘
```

> **Attention:** **NEVER Connect a DMX device in the DMX-512 output connectors, when you have activated the termination resistance.**

DMX signal loss (DMX Loss)

Using this command you can determine the PREMIUM 79's behavior in case of DMX signal loss. The options are three:

1. Holding of the last DMX-512 commands packet DMX-512 received.(Hold last packet).
2. Nullification off all the last DMX-512 commands received (Blackout).
3. Activation of scene 1 (Rise scene 24).

This command can be found inside the sub menu "DMX PORT SETTINGS".

Factory presets: Holding of the last DMX-512 commands packet DMX-512 received.(Hold last packet).

How can I change the PREMIUM 79's behavior in case of DMX signal loss.

- From the start mode press the <MENU> button to enter the main menu.

- With the indication arrows pointing on "DMX PORT SETTINGS" press <ENTER>. The display now shows the sub menu (right scheme).

- Using the <SELECTOR> encoder move the arrows on the command "DMX LOSS" and press<ENTER>.

  Now you are inside the command's menu, with the brackets pointing at "HOLD LAST PACKET". (right scheme).

- Turn the <SELECTOR> encoder to select the desirable choice you want, by moving the brackets.

  If you select the third choice the cursor appears, blinking on the scene number, which you can modify by turning the <VALUE> encoder.

  The letter **"f"** next to the number denotes that the scene is free, so you have to program it, or you can select another scene with the indication **"w"**, signalling it is written.

- Press sequentially the buttons <ENTER>, <ESC>, <ESC> to return to the start mode.

```
    DMX PORT SETTINGS
--------------------

->DMX START ADDRESS<-

     DMX LOSS
```

```
DMX LOSS BEHAVIOR


[ HOLD LAST PACKET ]
      BLACKOUT
    RISE SCENE    1f
```

Scenes programming (Scene Set)

You can program up to 512 scenes in the PREMIUM 79. The number of the programmed scenes depends on the quantity of channels included in each one of them. The more the channels you use for a scene the more space this scene consumes from the PREMIUM 79's memory. (In any case of scene programming there is notification on the display informing you about the remaining percentage of the free memory).

You have the ability in each scene to define the time of the gradual increase - decrease of lighting (Fade in-out). This time can be from 0 - 60 minutes.

You can activate the scenes from the scene mode, the analogue inputs and from a connected DMX console. (Read the chapters "Analogue inputs programming" and "Functions assigning on DMX channels").

This command can be found on the main menu.

Factory presets: All the scenes are free (of programming) with fade time (Fade in-out) 0 minutes.

Buttons functions and display readings during the scenes programming

The buttons functions and the display readings during the scenes programming are described below.

<MORE>   Getting into the second sub menu screen of sub commands, selections and readings.

<BACK>   Returning to the first screen (from the second). (The readings on the schemes describing the first and the second screens below, are random).

First screen (percentages)

```
SCENE
SET....more...>
SCENE:    1w
M99% CHAN: 22          ↓
LEV:88%
  _
 _▮
```

Second screen

```
<...back....SCENE SET
SCENE:    1f        M99%

FADE IN-OUT:   0m00.0s
CLEAR SCENE
CAPTURE DMX PORT(s)
```
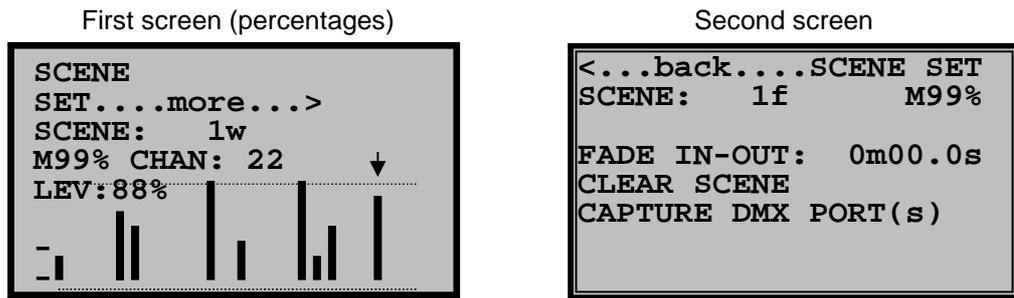
<COPY>   Copy of the percentages of the current scene to the clipboard memory of the PREMIUM 79.

<PASTE>   Paste of the percentages from the clipboard memory of the PREMIUM 79 to the running scene. If the scene had some percentages, these are deleted.

<ADD>   Adding the channel where the indicator is, on the "edited channels" using the <VALUE> encoder. The "edited channels" are blinking.
 With the <ADD> button pressed turn the <SELECTOR> encoder. All the channels that the indicator will pass over, will be registered as "edited channels"

<SUB>   Removal from the "edited channels" of the channel where the indicator is.
With the <SUB> button pressed turn the <SELECTOR> encoder. All the channels that the indicator will pass over will be removed from the "edited channels"

<ADD>+<SUB>Registration of all the PREMIUM 79 channels as "edited channels".

<ESC>   Removal of all the channels from the "edited channels" except the one that the indicator is pointing on, when they exist, otherwise exit from the command.

<STORE>   Storing of the scene and automatic transfer to the next scene.

M99%.   Percentage reading of the PREMIUM 79 free memory.

▮▮▯▮   Reading that the clipboard memory of the PREMIUM 79 contains data. When you press the <COPY> button, the reading winks three times, indicating that the new data is copied inside the clipboard memory of the PREMIUM 79.

"f"   Reading next to the scene number indicating that the scene is free.

"w"   Reading next to the scene number indicating that the scene is written

How can I program or edit a scene

- From the start mode menu press the <MENU> button to enter the main menu.
- With the <SELECTOR> encoder move the indicators to the command "SCENE SET"
- Press the <ENTER> button.
  Now you are inside the command of scene programming, the display is like the scheme on the right (assuming that the scene is free). The cursor is blinking on the scene number. If you want to change the scene number :

```
SCENE
SET....more...>
SCENE:    1f
M99% CHAN:   1
LEV: 0%

 _
 _
```

- Turn the <VALUE> encoder until you find the desirable scene that you want to program or edit.
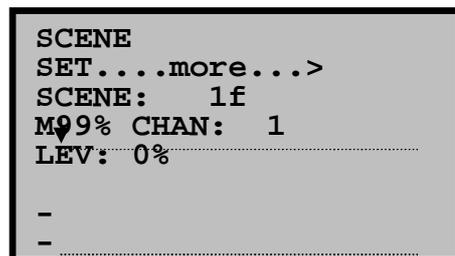
  Following:

- By turning the <SELECTOR> encoder select the channel that you want to adjust.
- By turning the <VALUE> encoder adjust the desirable percentage of the channels.

Repeating the two commands above adjust all the channels that you want in the particular scene. If we assume that the programming you did is the same as that on the scheme on the right, then the the screen on the PREMIUM 79's display will have the exact same readings.

```
SCENE
SET....more...>
SCENE:    1f
M99% CHAN: 22          ↓
LEV:88%
  _
 _▮
```
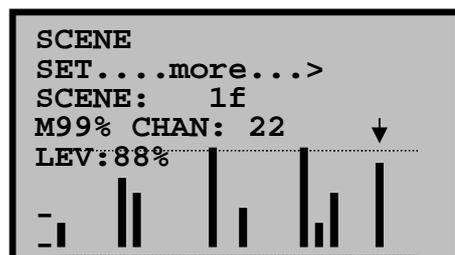
The PREMIUM 79 provides you with enough facilitation that is relative with the channel adjustments, so we recommend you to read carefully the previews chapter "Buttons functions and display readings during the scenes programming" and experiment.

At this point you have three choices:

Press the <STORE> button, to store the scene in the memory and automatically go to the next scene for programming, or

1. If you want to set the fade in-out time of the scene continue reading the next chapter, "How can I adjust the fade in-out time in a scene", or

2. Press sequentially the <STORE>, <ESC>, <ESC> buttons to store, exit from the command and go to the start mode menu of the PREMIUM 79

How can I adjust the fade in-out time in a scene

If you are not in the scene programming command:

- From the start mode menu press the <MENU> button to enter the main menu.

- With the <SELECTOR> encoder move the indication arrows on the command "SCENE SET"

- Press the <ENTER> button.

  You are now inside the programming scenes command and the screen is like the scheme on the right.(assuming that the scene is free). The cursor is blinking on the scene number. If you want to change the scene number:

```
SCENE
SET....more...>
SCENE:    1f
M99% CHAN:   1
LEV: 0%


-
-
```

- Turn the <VALUE> encoder until you find the scene that you will set, or change, the fade in-out time. Then :

- Press the <MORE> button. The screen becomes as that on the right scheme with the cursor blinking on the fade in-out time.

- Turn the <VALUE> button, to select the desirable time.

  At this point you have three choices:

1. Press the <STORE> button, to store the scene in the memory and automatically go to the next scene for programming, or

```
<...back....SCENE SET
SCENE:    1f       M99%

FADE IN-OUT:   0m00.0s
CLEAR SCENE
CAPTURE DMX PORT(s)
```

2. Press the <BACK> button to go back on the previews screen (percentages) to adjust the fade in-out time again, or

3. Press sequentially the buttons <STORE>, <ESC>, <ESC> to store, exit from the commands menu and go to the start mode menu of the PREMIUM 79.

Note.   The fade in-out time has a scalable shift with the following scales:

From 0 to 10 seconds, the step is 0,1 seconds. From 10 to 30 seconds, the step is 0,5 seconds. From 30 to 60 seconds, the step is 1 second. From 1 to 3 minutes, the step is 5 seconds. From 3 to 6 minutes, the step is 15 seconds. From 6 to 15 minutes, the step is 30 seconds. From 15 to 60 minutes, the step is 1 minute.

How can I clean a scene

If you are not inside the scene programming command menu:

- From the start mode menu press the <MENU> button to enter the main menu.

- Using the <SELECTOR> encoder move the indication arrows on the command "SCENE SET"

- Press the <ENTER> button.

  You are now inside the programming scenes command and the screen on the PREMIUM 79 display is similar to that on the scheme on the right.(supposing that the scene

```
SCENE
SET....more...>
SCENE:    1w
M99% CHAN:   1
LEV:35%
```

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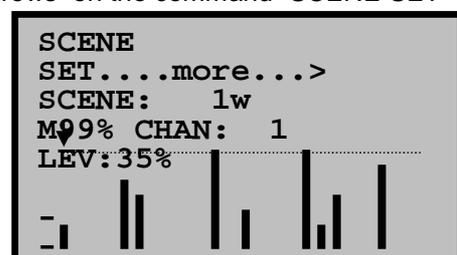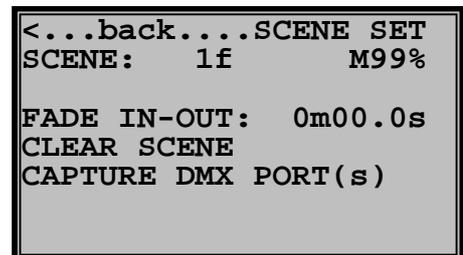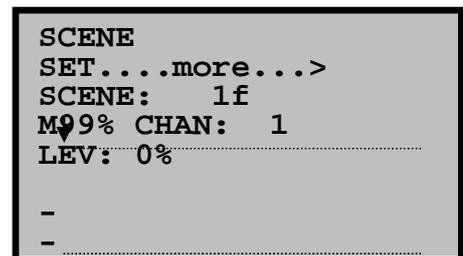
has these percentages). The cursor is blinking on the scene number. If you want to change the scene number :

- Turn the <VALUE> encoder until you find the scene that you want to clear.

Then :

- Press the <MORE> button. The screen becomes like the scheme on the right , with the cursor blinking on the fade in-out time.
- Turn the <SELECTOR> encoder one click. On the right side of the "CLEAR SCENE" line the <ENTER> symbol appears, blinking.
- Press the button <ENTER>.The scene gets cleared and the display returns to the percentages screen for programming of new percentages.

```
<...back....SCENE SET
SCENE:    1w       M99%

FADE IN-OUT:  0m00.0s
CLEAR SCENE
CAPTURE DMX PORT(s)
```
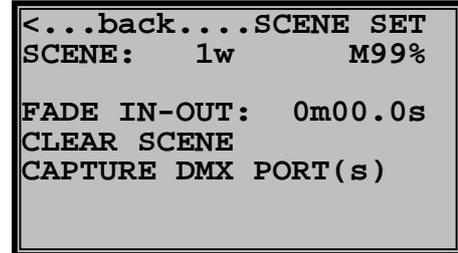
At this point you have two options:

1. Press the <STORE> button , to store the cleared scene and automatically go to the next one, for cleaning , programming, or
2. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit and return to the start mode menu of the REMIUM 79.

How can I record DMX data on a scene

If you are not inside the scenes programming command:

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder move the indication arrows on the command "SCENE SET"
- Press the <ENTER> button.

You are now inside the scenes programming command and the screen is similar with the scheme on the right. (assuming that the scene is free). The cursor is blinking on the scene number. If you want to change the scene number :

```
SCENE
SET....more...>
SCENE:    1f
M99% CHAN:   1
LEV: 0%


_
_
```
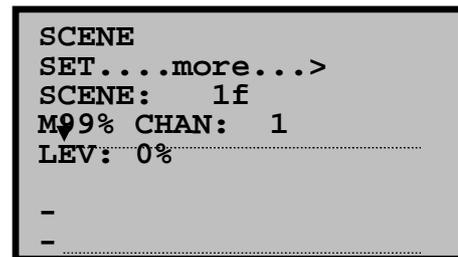
- Turn the <VALUE> button until you find the scene that you will record the DMX data.

Then :

- Press the <MORE> button. The screen becomes like the scheme on the right, with the cursor blinking on the fade in-out line.
- Turn the <SELECTOR> button two clicks. Notice now that on the right side of the line "CAPTURE DMX PORT(s)" the <ENTER> symbol appears blinking.
- Press the <ENTER> button. The DMX data are recorded on the display and the percentages screen returns for further modifications on them if it is needed.

```
<...back....SCENE SET
SCENE:    1f       M99%

FADE IN-OUT:  0m00.0s
CLEAR SCENE
CAPTURE DMX PORT(s)
```

At this point you have two choices:

1. Press the <STORE> button , to store the scene and automatically go to the next one, for recording new DMX data, programming, or
2. Press sequentially the buttons <STORE>, <ESC>, <ESC> to store, exit from the command's menu and return to the the start mode menu of the PREMIUM 79.

How can I copy the lighting of a scene to another

If you are not inside the scene programming command:

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder move the indication arrows on the command "SCENE SET"
- Press the <ENTER> button.

You are now inside the scenes programming command and the screen becomes like the scheme on the right. (assuming that the scene is programmed with these percentages). The cursor is blinking on the scene number. If you want to change the scene number :

```
SCENE
SET....more...>
SCENE:    1w
M99% CHAN:    1
LEV:35%
_
_I
```
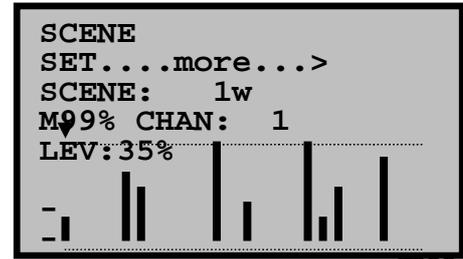
- Turn the <VALUE> encoder until you find the scene from which you will copy the percentages.
- Press the <COPY> button. The clipboard symbol appears on the screen informing us that new data is recorded inside the clipboard.
- Turn the <SELECTOR> encoder to move the cursor blinking on the scenes number.
- Turn the <VALUE> encoder until you find the scene in which you want to paste the clipboard's data (percentages).
- Press the <PASTE> button for the transfer of the clipboard data to the scene.

At this point you have two choices:

1. Press the <STORE> button , for storing the scene and automatic passage to the next scene, or
2. Press sequentially the buttons <STORE>, <ESC>, <ESC> for storing, exit from the command's menu and return to the start mode menu of the PREMIUM 79.

Chasers programming (User Chaser Set)

You can program on the PREMIUM 79 up to 128 chasers. The first 70 are programmed with the present command and the rest with the "CHASER CREATOR" command. (It is described thoroughly in the next chapter). The chasers number depends on the quantity of the steps a chaser will contain and the number of the channels that this step will contain. The more channels a step contains and the more steps we use for a chaser, the more memory this chaser takes from the PREMIUM 79's total memory. (On the screens of chaser programming there is a reading that informs you about the total amount of the remaining memory).

Every chaser can have up to 58 steps with independent intensity percentages per channel, while the steps speed and the fade time between the steps, are also fully programmable for each channel.

The speed appears in time and not in abstract numbers so you can define the changing time with accuracy. This time can take values from 0,06sec up to 60sec.

The fade time can take values from 0 up to 60sec.

You can activate the chasers from the chaser mode menu, from analogue inputs and from a DMX console connected to the DMX input of the PREMIUM 79.(Read the chapters "Programming of the analogue inputs" and "Assigning functions on the DMX channels").

This command can be found in the main menu.

Factory presets: All the chasers are free with step time (rate) 0,50 sec, and fade time 0 sec.

Button functions and display readings during the chasers programming

The button functions and the display readings, during the chasers programming, are referred bellow.
<MORE>   Transfer to the second sub menu screen of the sub commands, selections and readings.
<BACK>   Return to the first screen from the second. (The readings on the schemes of the first and second screen bellow are random.).

First screen (Percentages)

```
CHASER
SET....more..>
CHASER: 1w ST: 1
M99% CHAN: 22        ↓
LEV:88%
_
_I
```

Second screen

```
<..back....CHASER SET
CHASER: 1w ST: 1 M99%
RATE TIME :       0.50s
FADE TIME :       0.0s
LOAD SCENE    1 f
CAPTURE DMX PORT(s)
CLEAR   CHASE    STEP
STEP   DELETE   INSERT
```

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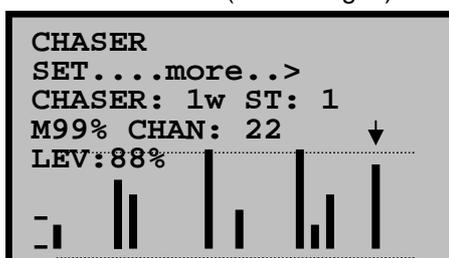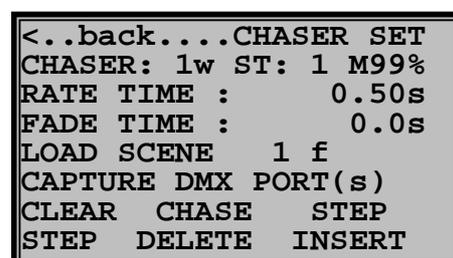
<COPY>   Copy of the current step's percentages in the clipboard memory of the PREMIUM 79.

<PASTE> Paste the percentages from the clipboard memory of the PREMIUM 79 to the current step. If the step had some percentages, these are lost.

<ADD>   Channel registration where the indication arrows are, to the '' channels for editing '' using the <VALUE> button. The "channels for editing'' are blinking.

When you keep the <ADD> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over will be registered as ''channels for editing''.

<SUB>   Removal from the ''channels for editing'' of the channel where the indication arrows are.

When you keep the <SUB> button pressed and turn the <SELECTOR> encoder, then all the channels which the indication arrows will pass over, will be removed from the "channels for editing"

<ADD>+<SUB> Registration of all the PREMIUM 79's channels as "channels for editing".

<ESC>   Removal of all the PREMIUM 79's channels from the '' channels for editing'' mode, except the channel which the indication arrows are pointing, if they exist or else exit from the command.

<STORE> Storing of the current step's values in the memory and automatic transfer to the next step.

tM99%.   Reading on the screen about the free memory percentage of the PREMIUM 79.

    Reading that the clipboard memory of the PREMIUM 79 contains data. When you press the <COPY> button, it blinks three times indicating that there is new data stored inside the clipboard memory of the PREMIUM 79.

"f"   Reading next to the chaser's number indicating that the particular chaser is free.

"w"   Reading next to the chaser's number indicating that the particular chaser is written.

"ST: 1"   The "ST" is the abbreviation of the word STEP, next to it the digit that appears indicates the step's number.

How can I program or edit a chaser

- From the start mode menu press the <MENU> button to enter the main menu.

- Using the <SELECTOR> encoder move the indication arrows pointing on the "USER CHASER SET" command

- Press the <ENTER> button.

  You are now inside the chasers programming command menu and the screen is similar to the scheme on the right (assuming that the chaser is free). The cursor is blinking on the chaser's number. If you want to change chaser:

```
CHASER
SET....more..>
CHASER: 1f ST: 1
M99% CHAN:   1
LEV: 0%

_
_
```

- Turn the <VALUE> encoder until you find the chaser that you want to program or edit.

  The active step at this moment is step 1. If the chaser is written and you want to edit another step:

- Turn one click the <SELECTOR> button to move the cursor on the step's number.

- Turn the <VALUE> encoder until you find the step that you want to edit.

  Then:

- By turning the <SELECTOR> encoder you can move to the channel that you want to edit.

- By turning the <VALUE> encoder you can edit the percentage that you want.

By repeating the two functions above you can set the desirable percentages to all the channels that this step will contain. If we assume that the editing you did is the same with that on the scheme on the right, then the PREMIUM 79's display will have the exact readings.

```
CHASER
SET....more..>
CHASER: 1f ST: 1
M99% CHAN:   6
LEV:75%

_ ||||
_
```

The PREMIUM 79 provides you with many facilitations that are relative with the channels adjustments, so we recommend you to read thoroughly the previews chapter '' Button functions and the display readings, during the chasers programming'' and experiment with it.
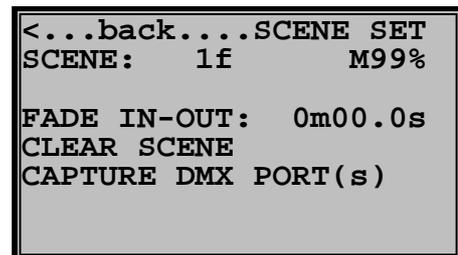
At this point you have three choices:
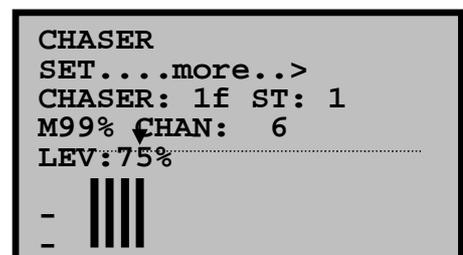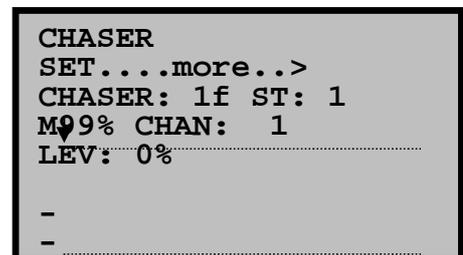
1. Press the <STORE> button , to store the current step and automatically go to the next step for programming, or
2. If you want to adjust the chaser's rate and fade times, go directly to the next chapter, "How can I adjust the chaser's rate and fade time", or
3. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command's menu and transfer to the start mode menu of the PREMIUM 79.

How can I adjust the chaser's rate and fade time

Note.   When the chaser is free, you cannot program the rate and fade times.

If you are not inside the chaser programming command menu:

- From the start mode menu press the <MENU> button to enter the main menu.
- By turning the <SELECTOR> encoder move the indication arrows on the command "USER CHASER SET".
- Press the <ENTER> button.

```
CHASER
SET....more..>
CHASER: 1w ST: 1
M99% CHAN:   3
LEV:75%

-  ║║║║
-
```

You are now inside the chasers programming command and the display is similar to the scheme on the right (assuming that the chaser is written). The cursor is blinking on the chaser's number. If you want to change the chaser's number:

- Turn the <VALUE> button until you find the chaser that you want to adjust or edit the rate and (or) the fade time.

Then :

- Press the <MORE> button. The screen becomes like the scheme on the right and the cursor is blinking on the rate time.
- Turn the <VALUE> encoder, to select the desirable rate time.
- Now turn the <SELECTOR> encoder one click to move the cursor on the fade time.
- Turn the <VALUE> encoder, to select the desired fade time.

```
<..back....CHASER SET
CHASER: 1w ST: 1 M99%
RATE TIME :     0.50s
FADE TIME :      0.0s
LOAD SCENE    1 f
CAPTURE DMX PORT(s)
CLEAR  CHASE   STEP
STEP  DELETE  INSERT
```

At this point you have two choices:

1. Press the <BACK> button to move back to the percentages screen for editing the values, or
2. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command's menu and transfer to the start mode menu of the PREMIUM 79.

Note. The rate time has a scalable shift with the following scales:

From 0 to 1 second, the step is 0, 02 seconds. From 1 to 5 seconds, the step is 0, 1 second. From 5 to 15 seconds, the step is 0.5 seconds. From 15 to 60 seconds, the step is 1 second.

The fade time has a scalable shift with the following scales:

From 0 to 10 seconds, the step is 0, 1 second. From 10 to 30 seconds. The step is 0.5 seconds. From 30 to 60 seconds, the step is 1 second.

How can I copy a scene's lighting into a step

Note.   The copy is related only with the scene's intensity percentages and not with the fade in – out time.

If you are not inside the scene programming menu:

- From the start mode menu press the <MENU> button to enter the main menu.
- By turning the <SELECTOR> encoder move the indication arrows on the "USER CHASER SET" command.
- Press the <ENTER> button.

    You are now inside the user chaser set menu command and the screen is similar with the scheme on the right (assuming that the chaser is free). The cursor is blinking on the scene's number. If you want to change chaser:

```
CHASER
SET....more..>
CHASER: 1f ST: 1
M99% CHAN:   1
LEV: 0%

–
–
```

- Turn the <VALUE> encoder until you find the chaser you want.

    Then:

- Press the <MORE> button. The display becomes like the scheme on the right and the cursor is blinking on the <ENTER> symbol on the right side of the "LOAD SCENE   1 f" line and on the scene's number. (If the chaser is written then the cursor will be blinking on the rate time).

    If next to the scene's number you see an "f", you must select a different scene, by turning the <VALUE> encoder, because this scene is empty (free).

    Then:

```
<..back....CHASER SET
CHASER: 1f ST: 1 M99%
RATE TIME :       0.50s
FADE TIME :        0.0s
LOAD SCENE    1 f
CAPTURE DMX PORT(s)
CLEAR   CHASE    STEP
STEP   DELETE   INSERT
```

- Press the <ENTER> button.

The scene's percentages are copied on the current step and the display turns back to the percentages screen for further editing, if it is required.

At this point you have two options:

1. Press the < STORE > button to store the step and automatically go to the next programming, or
2. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command's menu and transfer to the start mode menu of the PREMIUM 79.

How can I record DMX data on a step?

    If you are not inside the scene programming command:

- From the start mode menu press the <MENU> button to enter the main menu.
- By turning the <SELECTOR> encoder move the indication arrows on the command "USER CHASER SET".
- Press <ENTER>.

You are now inside the menu of the chaser programming command and the display is similar to the scheme on the right (assuming that the chaser is free). The cursor is blinking on the chaser's number. If you want to select a different chaser:

```
CHASER
SET....more..>
CHASER: 1f ST: 1
M99% CHAN:   1
LEV: 0%

–
–
```

- Turn the <VALUE> encoder until you find the chaser you want.

The current running step is the step 1. If the chaser is written and you want to paste the DMX data on another step:

- Turn the <SELECTOR> encoder one click to move the cursor on the step's number.
- Turn the <VALUE> encoder until you find the step where you want to make the paste.

    Then:

- Press the <MORE> button. The screen becomes like the scheme on the right and the cursor is blinking on the <ENTER> on the right side of the "LOAD SCENE   1 f" line and on the scene's number. (If the chaser is written the cursor will be blinking on the rate time).

```
<..back....CHASER SET
CHASER: 1f ST: 1 M99%
RATE TIME :       0.50s
FADE TIME :        0.0s
LOAD SCENE    1 f
CAPTURE DMX PORT(s)
CLEAR   CHASE    STEP
STEP   DELETE   INSERT
```

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- Turn the <SELECTOR> encoder until the <ENTER> symbol appears next to the "CAPTURE DMX PORT(s) line.
- Press the <ENTER> button. The DMX data is recorded on the current step and the display is automatically turning on the percentages screen for further editing, if necessary.

At this point you have two choices:

1. Press the < STORE > button to store the step and automatically go to the next, for programming, or
2. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

How can I clean a chaser or a step?

If you are not inside the chasers programming command:

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder, move the indication arrows on the "USER CHASER SET" command.
- Press the <ENTER> button.

```
CHASER
SET....more..>
CHASER: 1w ST: 1
M99% CHAN:   3
LEV:75%
_ ||||
_
```

You are now inside the chasers programming command and the screen is similar to the scheme on the right (assuming that the chaser is written). The cursor is blinking on the chaser's number. If you want to select a different chaser:

- Turn the <VALUE> encoder until you find the chaser that you want to clean.

Then:

The current step at this moment is the step 1. If you want to clean a different step of the specific chaser:

- Turn the <SELECTOR> encoder one click to move the cursor on the step's number.
- Turn the <VALUE> encoder until you find the step that you want to clean.

Following:

- Press the <MORE> button. The screen becomes similar to the scheme on the right.
- Turn the <SELECTOR> encoder until the word "CLEAR" on the seventh display line starts to blink and the <ENTER> symbol appears on the right side of the word "CHASE" (when it's about chaser cleaning) or the word "STEP" (when it's about step cleaning).
- Press the <ENTER> button. The chaser or the step is cleaned and the percentages screen appears again on the display for further editing.

```
<..back....CHASER SET
CHASER: 1f ST: 1 M99%
RATE TIME :      0.50s
FADE TIME :      0.0s
LOAD SCENE   1 f
CAPTURE DMX PORT(s)
CLEAR   CHASE    STEP
STEP   DELETE   INSERT
```
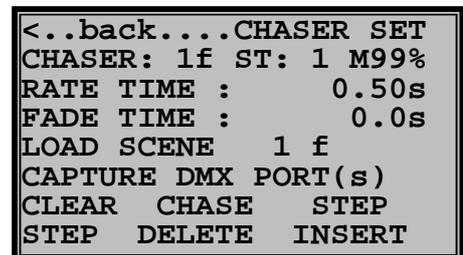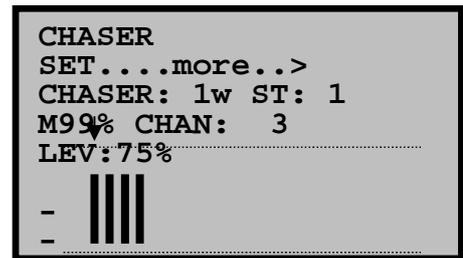
Note. The cleaning of a step does not remove it from the chaser. It nullifies only the intensity percentages of all the channels. This means that if you had a chaser with 5 steps and you clean the step 3, then the chaser will continue to contain 5 steps, but when the step 3 runs the outputs will be at 0% percentage.

- Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

How can I insert or remove a medial step

If you are not inside the chaser programming command:

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder, move the indication arrows on the command "USER CHASER SET".
- Press the <ENTER> button.

```
CHASER
SET....more..>
CHASER: 1w ST: 1
M99% CHAN:   3
LEV:75%
_ ||||
_
```

You are now inside the chaser programming command and the screen is similar to the scheme on the right (assuming that the
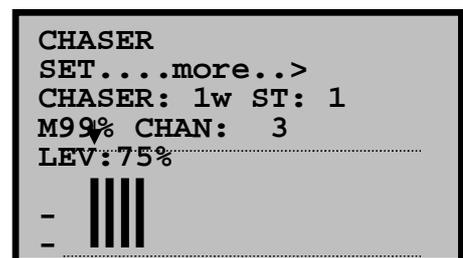
chaser is written). The cursor is blinking on the chaser's number.
If you want to change chaser:

- Turn the <VALUE> encoder until you find the chaser in which you want to add a new step or to remove an already recorded step.

  Following:

- Turn the <SELECTOR> encoder one click to move the cursor on the step's number.

- Turn the <VALUE> encoder, until you find the step where you will insert a new step or you will remove the current step.

- Press the <MORE> button. The screen becomes similar to the scheme on the right.

- Turn the <SELECTOR> encoder until the word "STEP" on the eighth display line starts blinking and the <ENTER> symbol appears on the right side of the word "DELETE" (when it's about deleting a step) or the word "INSERT" (when it's about inserting a new step).

```
<..back....CHASER SET
CHASER: 1f ST: 1 M99%
RATE  TIME :      0.50s
FADE  TIME :       0.0s
LOAD SCENE    1 f
CAPTURE DMX PORT(s)
CLEAR   CHASE    STEP
STEP   DELETE   INSERT
```

- Press the <ENTER> button. The step will be deleted if you had chosen "DELETE" or a new step will be inserted if you had chosen "INSERT" and immediately the display is turning back to the percentages screen for further editing.

Note. Using the INSERT command the step where the new step is entered, is not lost, but it is transferred to the next position as the following step. For example if you had a chaser with 5 steps and you insert a new step in position 3, then the steps 3, 4 and 5 will be transferred to the positions 4, 5 and 6 increasing the total steps quantity from 5 to 6.

Using the DELETE command the selected step is removed from the chaser. For example if you had a chaser with 5 steps and you remove the step 3, then the steps 4 and 5 are becoming step 3 and 4 correspondingly by reducing the total steps number from 5 to 4.

Then you can program the new step, if you have made a step insertion, or

- Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command's menu and transfer to the start mode menu of the PREMIUM 79.

How can I copy a step's lighting to another step

If you are not inside the chaser's programming command:

- From the start mode menu press the <MENU> button to enter the main menu.

- Using the <SELECTOR> encoder, move the indication arrows on the command "USER CHASER SET".

- Press the <ENTER> button.

You are now inside the chasers programming command and the screen is similar to the scheme on the right (assuming that the chaser is written). The cursor is blinking on the chaser's number.
If you want to select a different chaser:

```
CHASER
SET....more..>
CHASER: 1w ST: 1
M99% CHAN:   3
LEV:75%

_ ||||
_
```

- Turn the <VALUE> encoder until you find the desirable chaser.

Following:

The current step at the moment is step 1. If you want to copy the values from a different step:

- Turn the <SELECTOR> encoder one click to move the cursors on the step's number.

- Turn the <VALUE> encoder until you find the step from which you will make the copy.

- Now press the <COPY> button. The clipboard symbol appears on the screen. This symbol indicates that new data is written inside the clipboard memory.

- With the cursor blinking on the step's number, turn the <VALUE> encoder until you find the step on which you will paste the clipboard's data. (You can also select a step from a different chaser).

- Press the <PASTE> button to copy the clipboard's data to the step.

  Then you can adjust the percentages you just copied, or

- Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

Chaser Creator

You can program up to 128 chasers on the PREMIUM 79. The first 70 are programmed by using the command "USER CHASER CREATOR" (this is described in the previews chapter) and the rest 58 by using the present command.

With the Chaser creator you can build with ease and very fast a chaser, from 1 to 14 channels, with programmable rate and fade time, programmable dimmer level, and eight function modes (effects). The programming time is not compared to the user chasers programming time.

The main differences with the user chasers are:

1. The channels of the Chaser Creator have all the same intensity percentage.
2. The Creator's chasers cannot contain more than 14 channels.

The playback speed on these chasers appears in time and not in abstract numbers so you can set with accuracy the step time. This time can vary from 0,06sec up to 60sec.

The fade time has a rate from 0 up to 60sec.

The Creator's chasers can be activated from the chaser mode, from the analogue inputs and from a DMX console connected to the PREMIUM 79 (read the chapters "Programming of the analogue inputs" and "Function assigns to the DMX channels").

This command can be found on the main menu ("MAIN MENU").

Factory presets: All the chasers are free with rate time 0, 50 sec, and fade time 0 sec.

Buttons functions and display readings of the chaser creator

The buttons functions and the display readings during the chaser creator command are referred bellow.

<ADD>   Addition of a new channel that the chaser will run. If the chaser is free, the channel 1 of the PREMIUM 79 will be added as the first channel of the chaser. If the chaser is not free then the new channel will have the number of the last chaser that was added incremented by 1 (it cannot exceed though the channels number of the PREMIUM 79).

<SUB>   Removal of the chaser's last channel.

<ESC>   Exit from the command.

<STORE>   Storing of the step and automatic transfer to the next chaser.

M99%.   Percentage indication of the free memory that remains in the PREMIUM 79.

"f"   Indication next to the chaser's number that signifies that it is free.

"w"   Indication next to the chaser's number that signifies that it is written.

"CH.: 5"   The "CH" is the abbreviation of the word CHANNEL and next to it, there is the number of channels that the chaser will run (for example the indication "CH.: 5" on the screen signifies that the chaser contains 5 channels).

How can I program or edit a chaser by using the chaser creator

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder, move the indication arrows on the command "CHASER CREATOR".
- Press the <ENTER> button.

You are now inside the chasers programming command and the screen is similar to the scheme on the right (assuming that the chaser is written). The cursor is blinking on the chaser's number. If you want to select a different chaser:

```
CHASER CREATOR   M99%
CHASER:  71f   CH.: 0
RUN ON CHANNEL(S) :

MODE :            UP
RAT: 0.50s  FAD: 0.0s
DIMMER LEVEL :    100%
CLEAR CHASER ?
```

- Turn the <VALUE> encoder until you find the desirable chaser that you want to program or edit.

     Then:

- Turn the <SELECTOR> encoder until the cursor goes on the two dashes above the MODE.
- Now turn the <VALUE> encoder until you see the number of the first channel that you want the chaser to run (select for example channel number 8).
- Press 5 times the <ADD> button. The screen becomes similar to the scheme on the right.

```
CHASER CREATOR    M99%
CHASER:   71f   CH.: 5
RUN ON CHANNEL(S) :
  8  9 10 11 12 13 MODE
:              UP
RAT: 0.50s  FAD: 0.0s
DIMMER LEVEL :    100%
CLEAR CHASER ?
```

You have just created a 6 channels chaser (CH.:6) that will run (RUN ON CHANNEL(S) :), on channels 8-13.

- If you want to change the channels that the six-channel chaser will run, move the cursor on the channel by turning the <SELECTOR> encoder and adjust the channels number by using the <VALUE> encoder. (Example: 6, 8, 12, 21, 22, 28). If you want to add a new channel, i.e. to make the chaser a <<seven channels>> chaser, press the <ADD> button (to make an eight-channel chaser, press another time on <ADD> e.t.c.). Please keep in mind that the chaser cannot run on more than 14 channels.
- If you want to remove a channel, i.e. to make the chaser a <<five channels>> chaser, press the <SUB> button (to make a <<four channels>> chaser, press another time on <SUB> e.t.c.)

At this point you have three choices:
1. Continue with the next chapter about the chaser's function mode, or
2. Press the <STORE> button to store the chaser and automatically go to the next, for programming, or
3. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and tranfer to the start mode menu of the PREMIUM 79.

How can I change the function mode on a chaser by using the chaser creator?

If you are not inside the programming command:

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder move the indication arrows on the "CHASER CREATOR" command.
- Press the <ENTER> button.

```
CHASER CREATOR    M99%
CHASER:   71w   CH.: 5
RUN ON CHANNEL(S) :
  8  9 10 11 12 13 MODE
:              UP
RAT: 0.50s  FAD: 0.0s
DIMMER LEVEL :    100%
CLEAR CHASER ?
```

You are now inside the chaser creator command and the screen is similar to the scheme on the right (assuming that the chaser is written). The cursor is blinking on the chaser's number. If you want to change chaser:

- Turn the <VALUE> encoder until you find the chaser to which you want to change the function mode. Following:
- Turn the <SELECTOR> encoder until the cursor goes to the chaser's function mode (MODE), i.e. to the "UP".
- Turn the <VALUE> encoder to select one of the following eight function modes.

These modes are: Up, Down, Up-Down, Shift right, Shift left, And Shift mid in, Shift mid out και Flash.

Note.   **The only function mode allowed in a single channel chaser, is the FLASH" mode. If you have chosen a different function mode, the PREMIUM 79 will automatically change it during the store procedure.**

At this point you have three choices:
1. Continue with the next chapter for selecting rate time, fade time and intensity level of the chaser, or
2. Press the <STORE> button to store the chaser and automatically go to the next, for programming or,
3. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and tranfer to the start mode menu of the PREMIUM 79.

How can I change the rate, fade time and intensity level on a chaser by using the chaser creator?

If you are not inside the programming command:

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder move the indication arrows on the "CHASER CREATOR" command.
- Press the <ENTER> button.

```
CHASER CREATOR    M99%
CHASER:   71w    CH.: 5
RUN ON CHANNEL(S) :
 8  9 10 11 12 13 MODE
:             UP
RAT: 0.50s  FAD: 0.0s
DIMMER LEVEL :    100%
CLEAR CHASER ?
```

You are now inside the chaser creator command and the screen is similar to the scheme on the right (assuming that the chaser is written). The cursor is blinking on the chaser's number. If you want to change chaser:

- Turn the <VALUE> encoder until you find the chaser to which you want to change its function mode.
  Following:
- Turn the <SELECTOR> encoder until the cursor will go to the variable that you want to change.
  Turn the <VALUE> encoder to adjust the variable.

At this point you have two choices:
1. Press the <STORE> button to store the chaser and automatically go to the next chaser, for programming or,
2. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

> **Note.** The rate time has a scalable change with the following scales:
>
> From 0 up to 1 second, the step is 0, 02 seconds. From 1 up to 5 seconds, the step is 0, 1 second. From 5 up to 15 seconds, the step is 0, 5 seconds. From 15 up to 60 seconds, the step is 1 second.
>
> The Fade time has a scalable change with the following scales:
>
> From 0 up to 10 seconds, the step is 0, 1 second. From 10 up to 30 seconds, the step is 0, 5 seconds. From 30 up to 60 seconds, the step is 1 second.

Programming of the Analogue inputs (Analogue in assign)

Note. This command is not available on the PREMIUM 79 models that are not supported with analogue inputs.

The PREMIUM 79, (not all the models), includes 48 analogue inputs which are fully programmable, extremely flexible and capable of covering many different applications, which means that the PREMIUM 79 can operate with ease in architectural applications (read the chapter "Use and examples of the analogue inputs").

This command can be found on the main menu ("MAIN MENU").

Factory presets: Group =   0 to all inputs.
           Assign =   In each input the relevant channel of the PREMIUM 79 is assigned. If the PREMIUM 79 is not supported with 48 channels then the remaining inputs have no assign (none).
Mode = 0/+10V to all the inputs.
           Pulse time = Ever. To all inputs.
           Function = Enabled. To all inputs.

Analogue inputs functions description

The analogue inputs function is related to the following.

1. **The group in which it belongs. (Group).**

The analogue inputs can be divided in groups. The 0 group in which you can find all the inputs when you purchase the PREMIUM 79 and 15 other.

The inputs that belong to the 0 group are functioning as they have preprogrammed without the one affecting the function of the other.

The inputs that belong to a group different than the group 0, (for example group 1), are functioning with the method **"one active"**, which means that they affect one another in such a way, so that the active function (assigned function) is always one.

Take for example the case where in group 3 the analogue inputs 11, 12, 13, 14, 15 and 16 are programmed. The assigned functions of these inputs are to control the scenes from 11 up to 16 correspondingly. The function mode of the inputs is "P.BUTTON" and we have connected 6 push buttons.

When you will press the 1, the scene 11 will be activated and all the others will close. By this way only one scene is activated at a time (One active).

In case that the 6th push button must execute the "OFF" function then the input 16 must not have any assignment (Assign : none).

2. The control function assignment they have. (Assign).

In each analogue input you can define the function that will be activated when signal is received (Assigned function). The choices are: scene, chaser, channel or none.

For example in an input where the chaser number 5 is assigned with the function mode 0/+10V, when raising the potentiometer that is connected to the input, the chaser number 5 will be activated (it will start running).

3. The operation mode of the input. (Operation mode).

Every analogue input can work with one of six different modes, so we can have the ability to connect different signal sources. The six modes are: 0/+10V, 0/+5V, open contact (CONTACT NO), closed contact (CONTACT NC), network EASY NET which is the protocol that the MICON E series also support, and P.BUTTON where simple push buttons of the market can be connected.

Every analogue input also offers a function parameter that allows the user to select if the input will function with a fixed fade time of 2,5 seconds, or not. (Normal / Faded)

4. The Assigned function's pulse time. (Pulse time).

The pulse time is used when for example we want by pressing a button to activate a channel, scene or chaser for a definite time and then to turn this off automatically.

This time (Pulse time) collaborates with three of the six function modes, which are: open contact (CONTACT NO), closed contact (CONTACT NC), and P.BUTTON.

For example in an input the channel 5 is assigned and has function mode P.BUTTON and Pulse time 50 sec. When we press the corresponding connected button, the channel 5 will be activated for 50 seconds and then it will go to off mode automatically. If you press again the button the same procedure will take place again.

5. The blocking or not of the analogue input's function. (Blocked function).

The function of one, more, or all the analogue inputs can be blocked (blocked function), when this is desired, from the presence of DMX signal (on the PREMIUM 79) or from the channel of a DMX address assigned from the user.

When, in the first case, a DMX signal enters the PREMIUM 79 or when the percentage of the channel of the address that has been assigned as the Blocking address exceeds the 60%, then any assigned function that is activated from the analogue input that is "blocked", will be deactivated.

Take for example the case where an analogue input has been assigned the scene 10, has the function mode EASY NET, and has been programmed as blocked (from the Blocking mode) of DMX input signal. Suppose that to this input a MICON E series controller is connected to adjust the general lighting of a theater. But this lighting has to be off when a theatrical show takes place.

In such a case when the light engineer will activate the DMX console of the theater and the PREMIUM 79 will receive the DMX signal, the analogue input will be blocked and the scene 10 will be deactivated.

In case the blocking mode (Blocking mode) was of a DMX channel (DMX CHANNEL) then the light engineer would have to power the DMX console of the theater and increase the specific blocking channel more than 60%.

Buttons functions and display readings during the analogue inputs programming

The buttons functions and the display readings during the analogue inputs programming command are referred bellow.

<ESC>   Exit from the command (During the exit from the command the system stores automatically all the changes that have been made).

<STORE>   Storing of the programming of the current analogue input and automatic tranfer to the next one.

<COPY>   Copy of the programming of the current analogue input on the clipboard memory of the PREMIUM 79.

<PASTE>   Paste of the programming from the clipboard memory of the PREMIUM 79 to the current input.

Indication that the clipboard memory of the PREMIUM 79 contains data. When you press the <COPY> button, it blinks three times showing that there is new data copied inside the clipboard's memory of the PREMIUM 79.

How can I program the analogue inputs?

Note. The programming is not necessary (when there has not been any other programming) if you want to activate the analogue inputs by control signal 0/+10V without using any other capability of the inputs.

The PREMIUM 79 is factory-set with control mode 0/+10V.

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder, move the indication arrows on the command "ANALOGUE IN ASSIGN".
- Press the <ENTER> button.

You are now inside the analogue inputs assign command menu and the screen is similar to the scheme on the right (the display shows the factory preset values).The cursor is blinking on the input's number. If you want to select a different input:

```
ANALOG IN ASSIGN
INPUT:  1    GROUP:   0
ASSIGN:   CHANNEL.  1
MODE:   0/+10V /NORM.
PULSE TIME:      EVER
FUNCTION:     ENABLED
```

- Turn the <VALUE> encoder until you find the analogue input that you want to program or edit.

At this point we recommend you, if you haven't already done it, to read the chapter "Description of the analogue inputs functions", in the beginning of this chapter, so you can understand the analogue inputs function and make the programming that you really need.

If you don't want to change a variable you can simply overpass it.

Group. (Group).
- Turn the <SELECTOR> encoder to move the cursor on the group's number.
- Turn the <VALUE> encoder to select the group that the current input will belong to.

Control function assign (Assign).
- Turn the <SELECTOR> encoder to move the cursor on the variable "ASSIGN" with factory preset "CHANNEL".
- Turn the <VALUE> button to assign the control function of the current input.
   - The choices are: No function control. (NONE),
                              Channel control. (CHANNEL),
                              Scene control. (SCENE),
                              Chaser control. (CHASER).

- Turn the <SELECTOR> encoder one click to move the cursor on the function control number, as long as you haven't chosen "NONE".
- Turn the <VALUE> encoder to select the channel, scene, or chaser number that the current input will control.

Operation mode

- Turn the <SELECTOR> encoder to move the cursor on the variable "MODE" with factory preset "0/+10V".
- Turn the <VALUE> encoder to assign the current input's control mode.

The options are: 0/+10V, 0/+5V,
Open contact (CONTACT NO),
Closed contact (CONTACT NC),
EASY NET network (which the MICON E series controllers are working too),
P.BUTTON.

- Turn the <SELECTOR> encoder so as to move the cursor on the parameter of the control mode, where the factory preset is "NORM."
- Turn the <VALUE> encoder to select one of the two options.
    The options are: Without a fixed fade time of 2,5 seconds. (NORMAL),
    With a fixed fade time of 2,5 seconds. (FADED).

Pulse time of the assigned function. (Pulse time)

Note. You can assign pulse time only in the following control modes:

Open contact (CONTACT NO), closed contact (CONTACT NC) and P.BUTTON.
To the other control modes the variable's value is "EVER".

- Turn the <SELECTOR> encoder so as to move the cursor on the variable "PULSE TIME" with factory preset "EVER".
- Turn the <VALUE> encoder to set the pulse time of the pre – assigned function of the current input. (Read the Note above).

Note. The pulse time has a scalable change with the following scales:

From 0 up to 1 minute, the step is 1 second. From 1 up to 2 minutes, the step is 5 seconds. From 5 up to 60 minutes, the step is 10 seconds.

Enabling or disabling the analogue input's function. (Enabled-Blocked function)

- Turn the <SELECTOR> encoder so as to move the cursor on the variable "FUNCTION" with factory preset "ENABLED".
- Turn the <VALUE> encoder to select the capability of blocking or not the function of the current input.
    The options are: Without blocking capability. (ENABLED),
    With blocking capability. (BLOCKED).

When you select the "BLOCKED" mode, another line appears on the screen, showing the blocking mode of the current input (Blocking Mode).

On the scheme on the right the "DMX SIGNAL" mode is shown, which means that the current analogue input will be blocked for as long as the PREMIUM 79 will be receiving DMX signal.

If you want to block the input from a specific DMX channel:

```
ANALOG IN ASSIGN
INPUT:  1    GROUP:   0
ASSIGN:    CHANNEL.  1
MODE:   0/+10V /NORM.
PULSE TIME:        EVER
FUNCTION:      BLOCKED
BLOCK.MODE:DMX SIGNAL
```

- Turn the <SELECTOR> encoder to move the cursor on
    the variable "BLOCK.MODE" with factory preset "DMX SIGNAL".
- Turn the <VALUE> encoder to choose the blocking capability from a specific DMX channel.

On the display appears the variable "BLOCKING ADDRESS" (you can see it on the scheme on the right), which means that the DMX address of the channel that will block the analogue input is the number 512. If you want to change it:

```
ANALOG IN ASSIGN
INPUT:  1    GROUP:   0
ASSIGN:    CHANNEL.  1
MODE:   0/+10V /NORM.
PULSE TIME:        EVER
FUNCTION:      BLOCKED
BLOCK.MODE: DMX CHAN.
BLOCKING ADDRESS: 512
```

- Turn the <SELECTOR> encoder so as to move the cursor on the variable "BLOCKING ADDRESS".
- Turn the <VALUE> encoder to select the DMX address number that will block the analogue input.

At this point you have two options:

1. Press the <STORE> button to store the analogue input and automatically go to the next for programming, or
2. Press sequentially the buttons <STORE>, <ESC>, <ESC> for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

Function keys programming (Function Keys)

The PREMIUM 79 has three function keys (Function keys), the F1, F2 and F3, which can be programmed by the user to perform a specific function. This function is activated when you press the function key, and deactivated when you press it again.

This command can be found on the main menu ("MAIN MENU").

Factory presets: Assign = No function assigned. (NONE).
Dimmer Level = Maximum. (Full).

How can I program the Function Keys?

- From the start mode menu press the<MENU> button to enter the main menu.
- Using the <SELECTOR> encoder, move the indication arrows on the command "FUNCTION KEYS".
- Press the <ENTER> button.

```
FUNCTION KEYS

FUNCTION KEY:        1

ASSIGN:           NONE

DIMMER LEVEL:     FULL
```

You are now in the Function Keys programming command and the screen is similar to the scheme on the right (the display is showing the factory preset values). The cursor is blinking on the function key's number. If you want to select a different key:

- Turn the <VALUE> encoder to select the key that you want to program or edit.

Function assign (Assign).
- Turn the <SELECTOR> encoder to move the cursor on the variable "ASSIGN" with factory preset "NONE".
- Turn the <VALUE> encoder to set the control function of the current key.

    The options are: No control function at all. (NONE),
    Function control of a channel. (CHANNEL),
    Function control of a scene. (SCENE),
    Function control of a chaser. (CHASER).

- Turn the <SELECTOR> encoder one click so as to move the cursor on the control function's number, as long as you haven't selected "NONE".
- Turn the <VALUE> encoder so as to select the channel, the scene or the chaser number that the current key will control.

Dimmer level. (Dimmer Level).
- Turn the <SELECTOR> encoder to move the cursor on the variable "DIMMER LEVEL" with factory preset "FULL".
- Turn the <VALUE> encoder to adjust the intensity level that the pre programmed key function will have when it will be activated.

    At this point you have two options:
    1. Press the <STORE> button to store the function key and automaticly go to the next one, for programming, or
    2. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

Dimming laws (Dimming Laws)

Dimming law programming command in every output channel of the PREMIUM 79, depending with the load that you have connected to it.

The dimming laws that the PREMIUM 79 provides to the outputs with Triacs, Thyristors or fluorescent controllers, are:

1. **Linear**. The output voltage is relevant to the setting you do whether you use a console, the analogue inputs or manually.
2. **Linear RMS**. The RMS output voltage is relevant to the setting that you do whether you use a console, the analogue inputs or manually (a true RMS voltmeter is needed, for measuring the output voltage).
3. **Switch @ 50%.** For connecting loads that will not operate with a dimmer function, or when you want the output to work as a switch for any kind of load. There is also the capability of selecting the control percentage in which the mode switching will take place, from OFF to ON. The lag is 2%.
4. **Square.** Square dimming law.
5. **Fluorescent.** Fluorescent dimming law. On the outputs with fluorescent controllers, the relay is cutting the voltage output (230VAC) when the control signal is 0% .
6. **Incandescent.** Incandescent dimming law.
7. **120V RMS.** Dimming law with maximum voltage output 120V RMS @ 240VAC power supply (a true RMS voltmeter is needed, for measuring the voltage output).
8. **User 1.** Dimming law that you can create. The factory preset is linear RMS (Linear RMS). (Read the next chapter "USER LAW SET").
9. **User 2.** Dimming law that you can create. The factory preset is linear RMS (Linear RMS). (Read the next chapter "USER LAW SET").
10. **User 3.** Dimming law that you can create. The factory preset is linear RMS (Linear RMS). (Read the next chapter "USER LAW SET").
11. **User 4.** Dimming law that you can create. The factory preset is linear RMS (Linear RMS). (Read the next chapter "USER LAW SET").
12. **User 5.** Dimming law that you can create. The factory preset is linear RMS (Linear RMS). (Read the next chapter "USER LAW SET").
13. **PTD (time).** Linear dimming law with selected output time. After the lapse of this selected time the output is nullified. The activation percentage of the selected time is 5%.
14. **PTS (time).** For connecting loads that do not function with dimming mode, or when you want the output to function as a switch with any kind of load, on a selected output time. After this time, the output will be nullified. The percentage that will activate the time and the output is 50%.

The dimming laws on the relay outputs are:
1. **Switch @ 50%.** For connecting loads that do not function with dimming mode. There is the capability on selecting the control percentage on which the mode changing will take place (from OFF to ON). The lag is 2%.
2. **PTS (time).** For connecting loads that do not function with dimming mode, or when you want the output to function as a switch with any kind of load, on a selected output time. After this time will pass the output will be nullified. The percentage that will activate the time and the output is 50%.
   Attention. **When you select the dimming law "Switch" for the channels with a dimmer power unit, there is a case, depending on the load type, where there will be needed to connect, on parallel connection, to the output a dummy load of 50W to 100W.**

This command can be found on the sub menu "LAW MENU".

Factory presets: All the outputs are using the "LINEAR" dimming law.

Function keys setting and display readings during the dimming laws programming

The function keys settings and the display readings during the dimming laws programming are referred below.

<COPY> Copy of the dimming law of the current output channel, in the clipboard memory of the PREMIUM 79.

<PASTE> Paste of the dimming law from the clipboard to the current output channel and to all the other channels that are in programming mode.

<ADD> Adding the channel that the indication arrows are pointing, to the channels that will be edited, by using the <VALUE> encoder. The "edited channels'' are blinking.
When you keep the <ADD> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be registered as " edited channels''.

<SUB> removing the channel which the indication arrows are, from the "edited channels''.

When you keep the <SUB> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be removed from the "edited channels".

<ADD>+<SUB> Registration of all the PREMIUM 79's channels as "edited channels".

<ESC> Removing all the channels that are registered as "edited channels" except the channel that the indication arrows point, when there is such, or else, exit from the command.

<STORE> Storing of the dimming laws.

 Indication that the clipboard memory of the PPREMIUM 79 (clipboard) contains data. When you press the <COPY> button, it blinks three times indicating that there is new data written in the clipboard memory of the PREMIUM 79.

How can I change a dimming law?

- From the start mode menu press the <MENU> button to enter the main menu.
- With the indication arrows point on the "LAWS" press the <ENTER> button. The screen is presenting now the sub menu (scheme on the right).
- With the indication arrows pointing on the command "DIMMING LAWS" press the <ENTER> button.

```
       LAW MENU
------------------
-> DIMMING LAWS   <-

   USER LAW SET
```
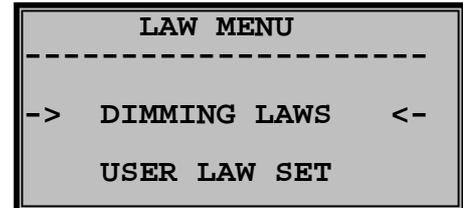
You are now in the command's menu, and the cursor is blinking on channel 1 (right scheme). The indicator on the left side of the word "CHAN." is pointing the cursor's position. This happens because when you select many '' edited channels'', the dimming law will be blinking on all of them and as a result you will not recognize where the cursor is.

- Turn the <VALUE> encoder to select the dimming law that you want to use.

```
DIMMING LAWS
>CHAN.  1:      LINEAR
 CHAN.  2:      LINEAR
 CHAN.  3:      LINEAR
 CHAN.  4:      LINEAR
 CHAN.  5:      LINEAR
 CHAN.  6:      LINEAR
 CHAN.  7:      LINEAR
```

The PREMIUM 79 is providing you with many facilities that are relative with the channels editing, so we recommend you to read carefully the previews chapter "Function keys setting and display readings during the dimming laws programming" and experiment with it.

At this point you have two options:

1. Turn the <SELECTOR> encoder to select a different channel to which you want to change the dimming law, or
2. Press three times the <ESC> button for storing, exit from the command and tranfer to the start mode menu of the PREMIUM 79.

Dimming law programming by the user
(User Law Set)

Using this command you can create your own dimming laws according to the needs you have. The PREMIUM 79 is provided with 5 of these laws.

This command can be found on the sub menu "LAW MENU".

Factory presets: All the 5 laws are Linear RMS (Linear RMS).

Function keys setting and display readings during the dimming laws programming

The function keys settings and the display readings during your own dimming laws programming are referred below.

<COPY> Copy of the current dimming law USER x, in the clipboard memory of the PREMIUM 79.

<PASTE> Paste of the PREMIUM 79's clipboard memory to the current dimming law USER x .

<ESC> Exit from the command.

<STORE> Storing of the user dimming law and automatic tranfer to the next one.
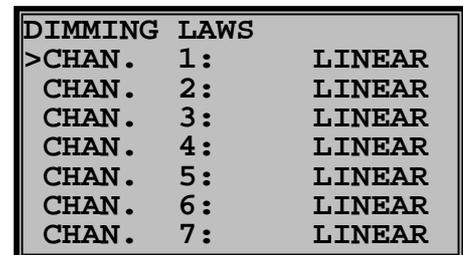
Indication that the clipboard memory of the PPREMIUM 79 (clipboard) contains data. When you press the <COPY> button, it blinks three times indicating that there is new data written in the clipboard memory of the PREMIUM 79.

What you have to know

The creation of a user law made by you is the programming of the output percentage (in RMS values upon the voltage power supply 230VAC), that the channel using the law will have, in any percentage of control input signal.

More specifically, using the Linear RMS dimming law, when the control signal is on 20% then the output will be 20% of the 230VAC voltage, namely 46V RMS. When the control signal is on 65% the output will be 65% of the 230VAC, namely 149,5V RMS.

Using the USER LAW, you can program for instance an output percentage of 30% (69V RMS) when the control signal is 20%, and 80% (184V RMS) when the control signal is 65%.

The PREMIUM 79 is giving you the ability to create a law by importing up to 25 output percentages on a level of 4 percentage points of the control signal. The medial percentages are calculated automatically by the PREMIUM 79.

If you are more demanding you can increase the analysis to a level of 2 percentage points, therefore you will have to import 51 output percentages, or you can even select the highest analysis to a level of 1 percentage point and import 101 output percentage values.

You can of course use the highest analysis only in difficult points of the law, thus avoiding the procedure of importing 101 percentage values.

The screen presents the law (curve) as a graphic design in which the control signal percentages can be found on the horizontal axis (control) and the output percentages to the vertical axis.

The readings "CONTR." and "OUT" indicate correspondingly the percentages of the control and the output, while the reading "RESOL." informs you about the output percentage analysis you have used (resolution).

Note. The voltage outputs referred are RMS and for measuring them a true RMS voltmeter is needed.

How can I create my own dimming law (user law)?

- From the start mode menu press the <MENU> button to enter the main menu.
- With the indication arrows point on the"LAWS" press the <ENTER> button. The screen is showing now the sub menu (right scheme).
- With the indication arrows pointing on the command "USER LAW SET" press the <ENTER> button.
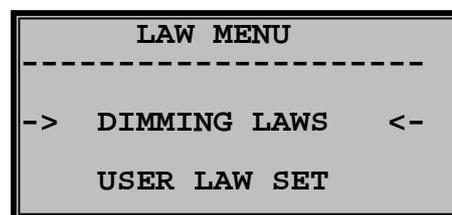
You are now inside the command's menu, with the cursor blinking on the active law that is number 1 (Right scheme).

If you haven't read the previews chapter we recommend you to read it now so you can easily understand the description below.

The scheme on the right presents the factory law, which is the Linear law.
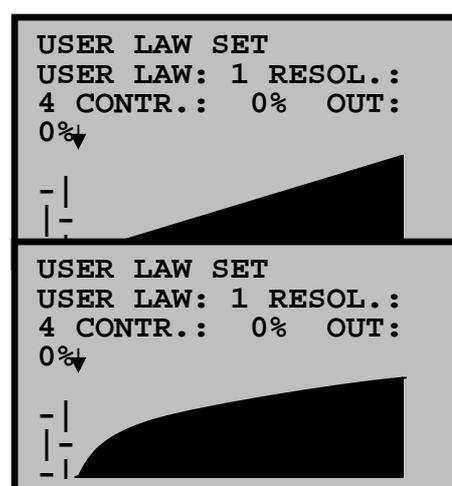
Let's assume that you want to create a law similar to the scheme on the right.

- Turn the <SELECTOR> encoder to move the indicator on the percentage of the control to which you want to change the output level.
- Turn the <VALUE> button to adjust the output percentage.

If you want in a specific curve point, a bigger analysis than 4 percentage units:

- Turn the <SELECTOR> encoder to move the cursor on the "RESOL" command and change the analysis by selecting with the <VALUE> encoder the numbers 2 or 1. This number signifies the percentage input per 2 or 1 control percentage units.

By repeating the above you will have in the end the dimming law that is shown on the above scheme.

At this point you have two options:

```
        LAW MENU
-------------------

->   DIMMING LAWS    <-

     USER LAW SET
```

```
USER LAW SET
USER LAW: 1 RESOL.:
4 CONTR.:   0%  OUT:
0%
```

```
USER LAW SET
USER LAW: 1 RESOL.:
4 CONTR.:   0%  OUT:
0%
```

1. Press the <STORE> button to store the user law and automatically go to the next one, for programming, or
2. Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

How can I copy a law in another in order to make micro changes?

If you want to create a law that will be similar to another one that you have already made, but with some minor changes, you do not have to make it from the beginning.
You can just copy the one you have created to another and make only the minor changes.

For example let's assume that you have already created the law USER 1.

- Move to the command "USER LAW SET" on the law USER LAW 1 (check on the previous chapter's instructions, the way to do that).
- Press the <COPY> button to copy the law USER 1 in the clipboard.
- With the cursor on the command "USER LAW" turn the <VALUE> encoder to select the law that you want to create, for example the USER 2.
- Press the <PASTE> button to paste the data (USER 1 law) from the clipboard to the law USER 2.
- Now make the minor changes that you want according to the previous chapter's instructions.
- Press sequentially the <STORE>, <ESC>, <ESC> buttons for storing, exit from the command and tranfer to the start mode menu of the PREMIUM 79.

How can I see in a load, the dimming law that I am creating?

- Connect a DMX control desk (or an analogue one) on the relevant inputs of the PREMIUM 79.
- Connect the load on the output of the PREMIUM 79.
- Select, by using the command DIMMING LAWS, the law that you want to create while monitoring the channel on which you have connected the load. For example the law USER 1.
- Move to the command USER LAW SET and start creating the law (curve).

By adjusting now the potentiometer of the console, you can see the setting of the law that you are creating.

Time adjustment of the smooth increase on the output levels (Soft Starts)

With this command you can program the time of increasing the output channels of the PREMIUM 79, so that the output's intensity will be smoothly increasing (not sharply) according to the time (Soft start) that you have selected.

You can use this time when for example you want to protect the lamp filaments from the high inrush currents, but you don't want to have the power consumption that is caused by using the Preheat Levels because your loads are heavy or you want the lamp filaments to be completely off.

> **Attention:** **The soft start time (Soft start) is not functioning when on the output channel that you have programmed you have selected the Switch dimming laws).**

Please notice that these times refer to the outputs of the PREMIUM 79, and they function always independently from where the specific output is receiving input (for example from an analogue input channel, or a DMX input, a scene, a chaser, or a manual channel adjustment).
It is clarified that the working mode of the Soft starts is totally different than the Channel fades mode (Read the command Channel fades).
This command can be found on the main menu ("MAIN MENU").

Factory presets: Zero soft start time for all the output channels of the PREMIUM 79.

Function keys setting and display readings during the soft starts programming
The function keys settings and the display readings during the soft starts programming are the following.

<COPY> Copy of the soft start time of the current channel, in the clipboard memory of the PREMIUM 79.

<PASTE> Paste of the soft start time from the clipboard to the current output channel and to all the other channels that are in the same process mode.

<ADD> Adding the channel that the indication arrows are pointing, as an edited channel, by using the <VALUE> encoder. The "edited channels" are blinking.
When you keep the <ADD> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be registered as " edited channels".

<SUB> Removing the channel which the indication arrows are pointing, from the "edited channels".
When you keep the <SUB> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be removed from the "edited channels".

<ADD>+<SUB> Registration of all the PREMIUM 79's channels as "edited channels".

<ESC> Removing all the channels that are registered as "edited channels" except the channel that the indication arrows point, when there is such, or else store and exit from the command.

<STORE> Storing of the soft start times.

Indication that the clipboard memory of the PPREMIUM 79 (clipboard) contains data. When you press the <COPY> button, it blinks three times indicating that there is new data written in the clipboard memory of the PREMIUM 79.

How can I change soft start time in an output channel

- From the start mode menu press the <MENU> button to enter the main menu.
- With the <SELECTOR> encoder move the indication arrows on the command "SOFT STARTS".
- Press the <ENTER> button.

You are now inside the command's menu (soft start) and the screen is similar to the scheme on the right (the scheme shows the factory preset values). The cursor is blinking on the output channel 1.

```
SOFT STARTS
> CHAN.  1:        0.0s
  CHAN.  2:        0.0s
  CHAN.  3:        0.0s
  CHAN.  4:        0.0s
  CHAN.  5:        0.0s
  CHAN.  6:        0.0s
  CHAN.  7:        0.0s
```

The indicator on the left of the word "CHAN." signifies the cursor's position. This happens because when you select many "edited channels", the soft start will be blinking on all of them and as a result you will not recognize where the cursor is.

Turn the <VALUE> encoder to select the time that you want. The maximum time is 5 seconds.

The PREMIUM 79 is providing you with many capabilities that are relative with the channels editing, so we recommend you to read carefully the previews chapter "Function keys setting and display readings during the Soft Start programming" and experiment with it.

At this point you have two options:

1. Turn the <SELECTOR> encoder to select a different channel to which you want to change the Soft Start time, or
2. Press twice the <ESC> button for storing, exit from the command and tranfer to the start mode menu of the PREMIUM 79.

Times of increasing – decreasing the channels level (Channel Fades)

With this command you can program the time of increasing – decreasing of the control channels of the PREMIUM 79, so as to increase or decrease according to the Fade time you have selected.
Attention. The Fade times apply to the control channels and not to the output channels of the PREMIUM 79. This means that you see the fade time on the loads, only when the output channels of the PREMIUM 79 are receiving data from control channels that have fade time, and not from a scene or a chaser.

The control channels of the PREMIUM 79 are receiving data from the DMX input, the analogue inputs and the manual mode adjustments.
In general you will have to know that the output channels (outputs), are receiving data from three sources which are: the control channels, the scenes and the chasers.

Therefore, if a control channel has fade time, this time will appear to the relevant output. If, however, we activate a scene that does not have Fade in-out time, then on the output channel there will be no fade time (or what will appear is the Fade in-out of the scene if programmed, and not the one of the control channel). This command can be found on the main menu ("MAIN MENU").

Factory presets: Zero Fade Times for all the output channels of the PREMIUM 79.

Function keys setting and display readings during the Fade Time programming.

<COPY> Copy of the fade time of the current channel, in the clipboard memory of the PREMIUM 79.

<PASTE> Paste of the fade time from the clipboard to the current control channel and to all the other channels that are in the same process mode.

<ADD> Adding the channel that the indication arrows are pointing, as an edited channel, by using the <VALUE> encoder. The "edited channels'' are blinking.
When you keep the <ADD> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be registered as "edited channels''.

<SUB> Removing the channel which the indication arrows are pointing, from the "edited channels''.
When you keep the <SUB> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be removed from the "edited channels''.

<ADD>+<SUB> Registration of all the PREMIUM 79's channels as ''edited channels''.

<ESC> Removing all the channels that are registered as "edited channels'' except the channel that the indication arrows point, when there is such, or else store and exit from the command.

<STORE> Storing of the Fade Times.

Indication that the clipboard memory of the PPREMIUM 79 (clipboard) contains data. When you press the <COPY> button, it blinks three times indicating that there is new data written in the clipboard memory of the PREMIUM 79.

How can I change the fade time on a control channel

- From the start mode menu press the <MENU> button to enter the main menu.
- With the <SELECTOR> encoder move the indicators on the command "CHANNEL FADES".
- Press the <ENTER> button.

```
CHANNEL  FADES
> CHAN.  1:        0.0s
  CHAN.  2:        0.0s
  CHAN.  3:        0.0s
  CHAN.  4:        0.0s
  CHAN.  5:        0.0s
  CHAN.  6:        0.0s
  CHAN.  7:        0.0s
```

You are now inside the command's menu (Channel Fades) and the screen is similar to the scheme on the right (the screen shows the factory preset values). The cursor is on the control channel 1.

The indicator on the left of the word "CHAN." signifies the cursor's position. This happens because when you select many '' edited channels'', the time will be blinking on all of them and as a result you will not recognize where the cursor is.

- Turn the <VALUE> encoder to select the time you want. The maximum time is 59,9 seconds.

The PREMIUM 79 is providing you with many capabilities that are relative with the channels editing, so we recommend you to read carefully the previews chapter "Function keys setting and display readings during the Fade Time programming" and experiment with it.

At this point you have two options:
1. Turn the <SELECTOR> encoder to select a different channel to which you want to change the fade time, or
2. Press twice the <ESC> button for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

Output preheat levels (Preheat Levels)

With this command you can program the output channels to preserve constantly a level that is called Preheat Level, which is selected by you and it is used to keep the lamp filaments warm. Using this technique the filament is not stressed during the ignition, because it is warm and the ignition current is smaller.

> **Attention: The preheat level is not working when on the output channel that you have programmed a preheat level the Switch dimming law is selected.**

This command can be found on the main menu ("MAIN MENU").

Factory presets: 0% to all the output channels of the PREMIUM 79.

Function keys setting and display readings during the Preheat Levels programming

<COPY> Copy of the Preheat level of the current channel, in the clipboard memory of the PREMIUM 79.

<PASTE> Paste of the Preheat level from the clipboard to the current control channel and to all the other channels that are in the same process mode.

<ADD> Adding the channel that the indication arrows are pointing as an edited channel, by using the <VALUE> encoder. The "edited channels'' are blinking.
When you keep the <ADD> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be registered as "edited channels''.

<SUB> Removing the channel which the indication arrows are pointing, from the "edited channels''.
When you keep the <SUB> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be removed from the "edited channels''.

<ADD>+<SUB>Registration of all the PREMIUM 79's channels as ''edited channels''.

<ESC> Removing all the channels that are registered as "edited channels'' except the channel that the indication arrows points, when there is such, or else store and exit from the command.

<STORE> Storing of the Preheat Levels.

Indication that the clipboard memory of the PPREMIUM 79 (clipboard) contains data. When you press the <COPY> button, it blinks three times indicating that there is new data written in the clipboard memory of the PREMIUM 79.

How can I change a Preheat Level to an output channel?

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder, move the indicators on the command "PREHEAT LEVELS".
- Press the <ENTER> button.

```
PREHEAT LEVELS
> CHAN.  1:        0 %
  CHAN.  2:        0 %
  CHAN.  3:        0 %
  CHAN.  4:        0 %
  CHAN.  5:        0 %
  CHAN.  6:        0 %
  CHAN.  7:        0 %
```

You are now in the Preheat Levels command and the screen is similar to the scheme on the right (the screen shows the factory preset values). The cursor is on the output channel 1.The indicator on the left of the word "CHAN." signifies the cursor's position. This happens because when you select many ''edited channels'', the Preheat Level will be blinking on all of them and as a result you will not recognize where the cursor is.

- Turn the <VALUE> encoder to select the preheat level that you want. The maximum is 40%.

The PREMIUM 79 is providing you with many capabilities that are relative with the channels editing, so we recommend you to read carefully the previews chapter "Function keys setting and display readings during the Preheat level programming" and experiment with it.

At this point you have two options:

1. Turn the <SELECTOR> encoder to select a different channel to which you want to change the preheat level, or

2. Press twice the <ESC> button for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

Maximum output levels (Maximum Levels)

With this command you can program the output channels to operate with a smaller percentage than 100%, namely with a lower voltage output than 230V~.

For example, assume that you are in an area where in many cases the network's output exceeds the 230V~ and you are using lamps with sort life time. In this case you can program the PREMIUM 79 so that all the output channels that you want, will not exceed for example the 80% (of the supply voltage), increasing this way the life time of the lamps.

> **Attention:** **The maximum levels (Maximum Levels) affect the control channels of the PREMIUM 79. Thereby, a real analogy between the voltage and the output percentage exists only when you use a LINEAR RMS dimming law.**

> **Attention:** **The maximum level (Maximum Level) is not working when on the output channel you have programmed you have selected a Switch dimming law.**

This command can be found on the main menu ("MAIN MENU").

Factory presets: 100% to all the output channels of the PREMIUM 79.

Function keys setting and display readings during the Maximum Levels programming

<COPY> Copy of the Maximum level of the current channel, in the clipboard memory of the PREMIUM 79.

<PASTE> Paste of the Maximum level from the clipboard to the current output channel and to all the other channels that are in the same process mode.

<ADD> Adding the channel that the indication arrows are pointing, as an edited channel, by using the <VALUE> encoder. The "edited channels" are blinking.
When you keep the <ADD> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be registered as "edited channels".

<SUB> Removing the channel which the indication arrows are pointing, from the "edited channels".
When you keep the <SUB> button pressed and turn the <SELECTOR> encoder, then all the channels that the indication arrows will pass over, will be removed from the "edited channels".

<ADD>+<SUB> Registration of all the PREMIUM 79's channels as "edited channels".

<ESC> Removing all the channels that are registered as "edited channels" except the channel that the indication arrows point, if there is such, or else store and exit from the command.

<STORE> Storing of the Maximum Levels.

Indication that the clipboard memory of the PPREMIUM 79 (clipboard) contains data. When you press the <COPY> button, it blinks three times indicating that there is new data written in the clipboard memory of the PREMIUM 79.

How can I change Maximum Level to an output channel?

- From the start mode menu press the <MENU> button to enter the main menu.
- With the <SELECTOR> encoder move the indicators on the command "MAXIMUM LEVELS".
- Press the <ENTER> button.

You are now in the Maximum Levels command and the screen is similar to the scheme on the right. (The screen shows the factory preset values). The cursor is on the output channel 1.

```
MAXIMUM LEVELS
> CHAN.  1:    @ 100 %
  CHAN.  2:    @ 100 %
  CHAN.  3:    @ 100 %
  CHAN.  4:    @ 100 %
  CHAN.  5:    @ 100 %
  CHAN.  6:    @ 100 %
  CHAN.  7:    @ 100 %
```

The indicator on the left of the word "CHAN." signifies the cursor's position. This happens because when you select many ''edited channels'', the Maximum Level will be blinking on all of them and as a result you will not recognize where the cursor is.

- Turn the <VALUE> encoder to select the desired level. The smallest value is 50%.

The PREMIUM 79 is providing you with many capabilities that are relative with the channels editing, so we recommend you to read carefully the previews chapter "Function keys setting and display readings during the Maximum level programming" and experiment with it.

At this point you have two options:

1. Turn the <SELECTOR> encoder to select a different channel to which you want to change the maximum level, or
2. Press twice the <ESC> button for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

Function assigns to the DMX Channels (DMX Assigns)

With this command you can assign some DMX channels that you want, to execute an assigned function.

This command can be found on the main menu ("MAIN MENU").

Factory presets: No DMX assignment in any channel.

What you have to know

On the PREMIUM 79 you can create up to 128 DMX assigns. These assigns are called "assignment registrations" and are related to the DMX channels or the DMX addresses.

At this point we have to clarify the difference between the DMX channels and the DMX addresses of the PREMIUM 79.

DMX channel for the PREMIUM 79 is considered the channel that has been imported on the PREMIUM 79 according to the start address or the independent addresses (Patch) tbat you have given.

Therefore, the DMX channels cannot be more than the total number of the output channels of the PREMIUM 79. For example, a PREMIUM 79 with 24 output channels of 16 Ampers cannot have i.e. 85 DMX channels. It will have the DMX channels 1 to 24, independently from whether they correspond to the addresses for example, 100-123 with starting address number 100 (Start Address), or the addresses 251-274 with starting address number 251.

DMX address for the PREMIUM 79 is considered the channel of the definite address of the DMX signal that is connected to the DMX input of the PREMIUM 79.

These channels of course can be up to 512 since so many are the signal addresses of the DMX-512 protocol.

This clarification is made because in this command there is a separation between the two categories where the function assign will take place. Thereby you have the capability of adjusting all of the output channels of the PREMIUM 79 and at the same time you can activate functions that have been assigned to other DMX signal addresses.

How can I set a DMX channel or a DMX address to activate a function?

- From the start mode menu press the <MENU> button to enter the main menu.
- Using the <SELECTOR> encoder, move the indicators on the command "DMX ASSIGNS".
- Press the <ENTER> button.

You are now in the DMX assign command and the screen is similar to the scheme on the right (the screen shows the factory preset values). The cursor is on the first DMX assign of defined function, which at this moment has no function (NONE).

```
DMX ASSIGNS    REG:   1
NONE         : -----.---
NONE         : -----.---
NONE         : -----.---
NONE         : -----.---
NONE         : -----.---
NONE         : -----.---
NONE         : -----.---
```

On the top right side of the screen you can see the reading "REG: 1" .This indicates the number of the DMX assign where the cursor is. If you want to change assign:

- Turn the <SELECTOR> encoder until you find the assign that you want.

Now select the function that you want to be activated.

- Turn the <VALUE> encoder. The options are:

No control function. (NONE)
Channel control function. (CHANNEL),
Scene control function. (SCENE),
Chaser control function. (CHASER).

If we assume that you select the scene control function, then the assign will show: (scheme on the right)

```
SCENE.    1: D.CHA.   1
```

- Turn the <SELECTOR> encoder one click to move the cursor on the scene's number.

- Turn the <VALUE> encoder to select the scene that you want to be activated. Let's say scene number 15, the assign line will show: (scheme on the right)

```
SCENE.   15: D.CHA.   1
```

- Turn the <SELECTOR> encoder one click to move the cursor on the channels category, to select a DMX channel or a DMX address (read the previous chapter "what you have to know").

- Turn the <VALUE> encoder to select the channels category. The options are:
     "D.CHA." meaning, DMX channel and
     "D1.AD." meaning, DMX address.

Let's suppose you selected DMX address, the assign line will show: (scheme on the right)

```
SCENE.   15: D1.AD.   1
```

- Turn the <SELECTOR> encoder one click to move the cursor on the DMX address number.

- Turn the <VALUE> encoder to select the address number, for example 100.

```
SCENE.   15: D1.AD.100
```

You have completed now the DMX assign on the DMX address number 100, which means that when you activate the number 100 channel from your DMX control desk, the scene 15 will be activated.

At this point you have two options:
1. Turn the <SELECTOR> encoder to select a different DMX assign and set a function, or
2. Press twice the <ESC> button for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

Merging of control data (Merge Settings)

With this command you can define the way that the PREMIUM 79 will merge the control data.

This command can be found on the main menu ("MAIN MENU").

Factory presets: HTP. (Read the chapter bellow).

What you have to know.

Inside the PREMIUM 79 there is a built in merger that gives you the ability to define one from the three merging modes of the data available.

The three merging modes are:

HTP. Highest Take Precedence. The data with the higher level has priority.

LTP. Lowest Take Precedence. The data with the smaller level has priority.

LAST. Last change takes precedence. The last data given has priority.

The selection of the merging mode is different for the channels, the scenes and the chasers. You can have, for instance, HTP merge on the channels and the scenes and LAST merge on the chasers.

The data sources:

For the channels are: analogue inputs, digital input DMX and manual channels adjustment (from the manual mode),

For the scenes are: analogue inputs (with function assign), digital input DMX (with function assign), manual scene adjustment (from the scene mode) and

For the chasers are: analogue inputs (with function assign), digital input DMX (with function assign), manual chaser adjustment (from the chaser mode).

How can I define the way that the PREMIUM 79 will merge the control data (Merge mode)?

- From the start mode menu press the <MENU> button to enter the main menu.
- With the <SELECTOR> encoder move the indicators on the command "MERGE SETTINGS".
- Press the <ENTER> button.

```
MERGE SETTINGS

CHANNELS  :        HTP
SCENES    :        HTP
CHASERS   :        HTP
```

You are now in the command of data merging and the screen is similar to the scheme on the right (factory presets), and the cursor is on the channels setting.

To change the merge mode:

- Move the cursor on the variable that you want, by using the <SELECTOR> encoder.
- Turn the <VALUE> encoder to change the merge mode.
- Press twice the <ESC> button for storing, exit from the command and transfer to the start mode menu of the PREMIUM 79.

General Settings (Settings)

Some of the PREMIUM 79 functions are defined from the variables that are described in this chapter.

This command can be found on the main menu. ("MAIN MENU").

To enter the General Settings:

- From the start mode menu press the <MENU> button to enter the main menu.
- With the <SELECTOR> encoder move the indicators on the command "SETTINGS".
- Press the <ENTER> button.

```
SETTINGS
PASSWORD    :
OFF CHANGE PASSWORD ◄˙
BLIND PROG.:
OFF
BEEPER      :
ON
SAFETY SCENE :
```

You are now in the General Settings and the screen is similar to the scheme on the right (the screen shows the factory preset values). The cursor is on the variable "PASSWORD".

To select a different variable:

- Turn right the <SELECTOR> encoder, now the cursor is blinking on the next variable.

If you continue turning the <SELECTOR> encoder, the cursor will move to the next variables until it reaches the last one. When it reaches the last line of the screen the variables are unfolding upwards (Scroll up).

All the variables are presented below.

How can I activate the entrance code on the programming? (Password)

If you are not already there, move to the variable "PASSWORD" (Read the beginning of this chapter).

- Turn on the right the <VALUE> encoder.

```
ENTER PASSWORD

- - - - -
```

For safety reasons, in order to activate the password the PREMIUM 79 is asking you to enter the existing password. The screen will be similar to the scheme on the right.

The 5 keys under the screen have a numbering based on which you will enter the code.

If you press a wrong key turn the <SELECTOR> encoder on the left.

- Enter the existing code. If you haven't changed it, the factory code is «12345».

Now the screen returns to the variable readings and the "PASSWORD" variable is "ON".

Now, each time that you press the <MENU> button from the start mode, to enter the commands menu you will be asked to put the password.

- When you finish, you can select another variable for editing or you can press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Note. If the PREMIUM 79 receives a wrong password it will show some readings and messages that are described in the chapter "What happens in case of a wrong password insertion".

Factory preset: Deactivated password. ("OFF").

How can I change the entrance code on programming? (Change Password)

If you are not already there, move to the variable "CHANGE PASSWORD" (Read the beginning of this chapter).

Press the <ENTER> button.

Enter the previous password, so it will let you put a new one. The screen will be similar to the scheme on the right.

The 5 keys under the screen have a numbering based on which you will enter the code. If you press a wrong key turn the <SELECTOR> encoder to the left.

```
CHANGE PASSWORD

OLD PASSWORD      -----

NEW PASSWORD      -----
VER NEW PASS      -----
```

- Enter the old code. If you haven't changed it, the factory code is «12345».

If you enter a wrong old code, the "WRONG PASSWORD" message appears on the screen.

- Enter the new code.
- Now enter again the same code for confirmation.

The screen returns to the variables readings.

- When you finish you can select another variable for editing or you can press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

> **Attention:** **Keep the new password in a safe place. If you forget it or you loose it, you will not be able to program the PREMIUM 79, until you will be given by the supplier (not immediately) a new code.**
> **Read the chapter "What happens in case of a wrong password insertion"?**

Factory preset code: "12345".

How can I activate the blind programming? (Blind Programming)

This variable defines if the intensity percentage adjustments that you make during the programming of the scenes or the steps of the user chasers, will appear ("OFF") or not ("ON"), to the output channels of the PREMIUM 79.

If you are not already there, move to the variable "BLIND PROG." (Read the beginning of the chapter).

- Turn to the right the <VALUE> encoder, to activate the blind programming or,
- Turn to the left the <VALUE> encoder, to deactivate the blind programming.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general setting and transfer to the start mode menu of the PREMIUM 79.

  Factory preset: Deactivated. ("OFF").

How can I deactivate the notification sound? (Beeper)

This variable defines if on the appearance of some messages or conditions, the PREMIUM 79 will produce ("ON") or not ("OFF") a notification sound (beeper).

If you are not already there, move to the variable "BEEPER" (Read the beginning of this chapter).

- Turn to the left the <VALUE> encoder, to deactivate the sound, or
- Turn to the right the <VALUE> encoder, to activate the sound.
- When you finish you can select another variable for editing or you can press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Factory preset: Activated ("ON").

How can I set a safety scene? (Safety Scene)

This variable defines the scene, meaning the lighting, which will be activated if for any reason the main processor of the PREMIUM 79 will stop functioning.
Note. Not all of the cases of wrong functioning are ensured.

If you are not already there, move to the variable "SAFETY SCENE" (Read the beginning of this chapter).

On the right of the scene's number there is the letter "f" or "w" indicating that the scene is free or written. If the scene that you selected is free, then you will need to program it first. If you don't want to have any safety lighting, then let it free.

- Turn the <VALUE> encoder to select the scene's number.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Factory preset: Scene 510.

How can I define a panic scene? (Panic Scene)

This variable defines the scene, meaning the lighting, which will be activated in the panic condition.

If you are not already there, move to the variable "PANIC SCENE" (Read the beginning of this chapter).

On the right of the scene's number there is the letter "f" or "w" indicating that the scene is free or written. If the scene that you selected is free, then you will need to program it.

- Turn the <VALUE> encoder to select the scene's number.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Factory preset: Scene 512.

How can I adjust the display's intensity? (Disp. Intensity)

If you are not already there, move to the variable "DISP. INTENSITY" (Read the beginning of this chapter).

- Turn the <VALUE> encoder to select the display's luminance. The values that you can give are from 10 to 100.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Factory preset: 70.

How can I adjust the display's contrast? (Disp. Contrast)

If you are not already there, move to the variable "DISP. CONTRAST" (Read the beginning of this chapter).

- Turn the <VALUE>encoder to select the display's contrast. The values that you can give are from 1 to 40.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Factory preset: 18.

How can I set the Display saving time?

The Display Saving time is the time that takes from the last key pressing or the last turning of one of the two encoders, until the screen turns off.

If you are not already there, move to the variable "DISPLAY SAVING" (Read the beginning of this chapter).

- Turn the <VALUE> encoder to select the time. The time is adjusted in a 5 minutes scale and the value that you can set, is from 5 to 60 minutes.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Factory preset: 15 minutes.

How can I check the software's firmware version of the PREMIUM 79? (Firmware Info)

If you are not already there, move to the variable "FIRMWARE INFO" (Read the beginning of this chapter).

- Press the <ENTER> button, to see the software's firmware of the PREMIUM 79.
- Press the <ESC>, to return to the variables.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

How can I activate the emergency function? (Emergency)

This variable defines if the emergency function of the PREMIUM 79 will be activated ("ON") or not ("OFF").
If the function is activated then the PREMIUM 79 can turn to the emergency mode (as long as it receives an emergency input signal). If this function is not activated, then the PREMIUM 79 cannot enter the emergency mode.

If you are not already there, move to the variable "EMERGENCY" (Read the beginning of this chapter).

- Turn right the <VALUE> encoder , to activate the emergency mode function, or
- Turn left the <VALUE> encoder, to deactivate it.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Factory preset: Activated.

How can I set an emergency scene? (Emergency Scene)
This variable defines the scene, meaning the lighting, which will be activated in the emergency mode.

If you are not already there, move to the variable "EMERGENCY SCENE" (Read the beginning of this chapter).

On the right of the scene's number there is the letter "f" or "w" indicating that the scene is free or written. If the scene that you selected is free, then you will need to program.

- Turn the <VALUE> encoder, to select the scene's number.
- When you finish, you can move to another variable for editing or press twice the <ESC> button for storing, exit from the general settings and transfer to the start mode menu of the PREMIUM 79.

Factory preset: Scene 511.

Loads test and find (Test - Find)

With this command you can easily find a load inside an accoutrement.

The output channel, of which you are searching the load, can be blinking or can be stable, it can be selected by you or all of the channels of the PREMIUM 79 can automatically alter one by one, you can adjust the intensity percentage, you can adjust the speed of the automatic change, and you can adjust the flash speed.

This command can be found in the main menu ("MAIN MENU").

Factory presets:	Auto	= Automatic change off. (OFF).
	Auto rate	= Automatic change rate 3.
	Dimming level	= Intensity percentage 50%.
	Flash	= Activated (ON).
	Flash rate	= Flash rate 3.

To enter the command:

- From the start mode menu press the <MENU> button to enter the main menu.
- With the <SELECTOR> encoder move the indicators on the command "TEST - FIND".
- Press the <ENTER> button.

You are now in the command's menu and the screen is similar to the scheme on the right (the screen shows the factory presets). The cursor is on the output channels variable on channel number 1.

```
TEST - FIND

CHANNEL :              1
AUTO :               OFF
AUTO RATE :            3
DIMMING LEVEL :      50%
FLASH :               ON
FLASH RATE :          3
```

At this point you have the following options:

1. Turn the <VALUE> encoder, to change the output channel.
2. Using the <SELECTOR> encoder move the cursor to the variable "AUTO", and with the <VALUE> encoder activate the automatic changing of the output channels.
3. Using the <SELECTOR> encoder move the cursor to the variable "AUTO RATE", and with the <VALUE> encoder set the changing rate. The values are 1-5.
4. Using the <SELECTOR> encoder move the cursor to the variable "DIMMING LEVEL", and with the <VALUE> encoder set the intensity percentage of the current output channel.
5. Using the <SELECTOR> encoder move the cursor to the variable "FLASH", and with the <VALUE> encoder select if the current output channel will flash or not.
6. Using the <SELECTOR> encoder move the cursor to the variable "FLASH RATE", and with the <VALUE> encoder set the flash rate.

To exit the command:

- Press the <ESC> button.

Note. If the output channel has the "Switch" dimming law with a changing mode percentage higher than the intensity percentage of the command, it will not turn on.

Clear – restore to the factory defaults (Clears - Defaults)

This command consists of several sub commands which allow you to clear the memory parts that you want, and/or restore the factory presets in any section you want.

To enter the command:
- From the start mode menu press the <MENU> button to enter the main menu.
- With the <SELECTOR> encoder move the indicators on the command "CLEARS - DEFAULTS".
- Press the <ENTER> button.

You are now in the command's menu and the screen is similar to the scheme on the right, presenting the sub command list. The cursor (the ENTER symbol) is on the first sub command.

```
CLEARS-DEFAULTS
CLEAR SCENES          ↵
CLEAR CHASERS
DMX PORT DEFAULTS
ANALOG IN DEFAULTS
FUNC.KEYS DEFAULTS
DIM.LAWS DEFAULTS
CLEAR USER LAW 1
```

To select a different sub command:

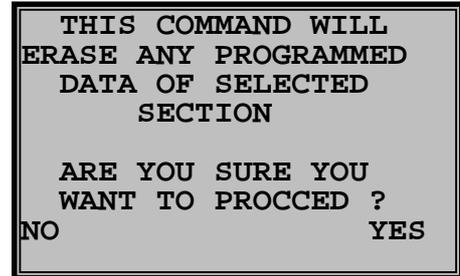- Turn right the <SELECTOR> encoder, and the cursor is now pointing on the next sub command.

If you continue turning the <SELECTOR> encoder, the cursor will move to the next sub commands until you reach the last one. When it reaches the last line of the screen the sub command will unfold upwards (Scroll up).

When the cursor (the ENTER symbol) is on the sub command that you want:

- Press the <ENTER> button.

The message of the scheme on the right appears, informing you that the command will erase any programmed data of the specific section and is asking you if you are sure to proceed.

You will have to answer by pressing the key <NO> or the key <YES>.

All of the sub commands are described bellow.

```
 THIS  COMMAND  WILL
ERASE  ANY  PROGRAMMED
  DATA  OF  SELECTED
       SECTION

  ARE  YOU  SURE  YOU
  WANT  TO  PROCCED ?
NO                   YES
```

Clear scenes. (Clear Scenes)

All the scenes are cleared (erased) and all the Fade in-out times are nullified.

Clearing of the chasers. (Clear Chasers)

All the chasers are cleared (erased), the fade times are nullified, and the rate times take the value of 0,50 seconds.

Factory presets restoring of the DMX-512 input (DMX Port Defaults)

The values that are restored are: Start Address= 1.
Patch = sequential addresses with first address number 1.
Terminal resistance = deactivated (OFF).

Factory presets restoring of the analogue inputs (Analogue in Defaults)

(Only in the models that are equipped with analogue inputs)

The values that are restored are: Group = 0 to all the inputs.
Assign = In every input the relevant channel of the PREMIUM 79 is assigned. If the Premium does not have 48 channels then the remaining inputs will have no assign (none).
Mode = 0/+10V to all the inputs.
Pulse time = Ever. To all inputs.
Function = Enabled. To all inputs.

Factory presets restoring of the function keys (Funk. Keys Defaults)

The values that are restored are: Assign = No function assigned (NONE).
Dimmer Level = 100% (Full).

Factory presets restoring of the dimming laws (Dim. Laws Defaults)

The "Linear" dimming law is restored to all the output channels.
On the relay output channels, the "Switch @ 50%" dimming law is restored.

Clearing of the dimming law USER 1 (Clear User Law 1)

The specific user law is cleared and the Linear RMS dimming law is restored.

Clearing of the dimming law USER 2 (Clear User Law 2)

The specific user law is cleared and the Linear RMS dimming law is restored.

Clearing of the dimming law USER 3 (Clear User Law 3)

The specific user law is cleared and the Linear RMS dimming law is restored.

Clearing of the dimming law USER 4 (Clear User Law 4)

The specific user law is cleared and the Linear RMS dimming law is restored.

Clearing of the dimming law USER 5 (Clear User Law 5)

The specific user law is cleared and the Linear RMS dimming law is restored.

Factory presets restoring of the Soft Starts time (Soft Start Defaults)

The Soft Start times are nullified.

Factory presets restoring of the Fade times (Chan. Fade Defaults)

The Fade times of the control channels are nullified.

Factory presets restoring of the Preheat Levels (Preheat Defaults)

The preheat levels are nullified.

Factory presets restoring of the Maximum Levels (Maximum Defaults)

The maximum levels are restored.

Clearing of the DMX assigns to the DMX channels (Clear DMX Assigns)

Clearing of all the function assigns from the DMX channels and the DMX addresses.

Factory presets restoring of the Data Merging Modes (Merge Defaults)
The HTP value is restored (Highest Take Precedence).

Factory presets restoring of the General Settings (Settings Defaults)

The values that are restored are:
Password code: deactivated. (OFF).
Blind programming: deactivated. (OFF).
Beeper sound: activated. (ON).
Safety scene: 510.
Panic scene: 512.
Display intensity: 70.
Display contrast: 18.
Display saving time: 15 minutes.
Emergency mode function: activated (Only in the models with analogue inputs).
Panic scene function: 511. (Only in the models with analogue inputs).

Factory presets restoring of the Test – Find command (Test Defaults)

The values that are restored are:
Auto	=automatic change OFF.
Auto rate	= Automatic change rate 3.
Dimming level	= Intensity percentage 50%.
Flash	= Activated (ON).
Flash rate	= Flash rate 3.

Clearing of the whole memory and restoring all the factory presets of the PREMIUM 79 (All Clears - Defaults)

All of the above, plus clearing of start mode variables, scene mode percentages, chaser and manual.
The only exception is the password code that remains the same.

Mode- scenes control (Scene)

This is the mode where you can activate or deactivate manually the scenes.

In any scene that you activate you can set the intensity percentage, and at the same time you have at your disposal a master setting (scene master) for all the activated scenes.

Every scene is activated according to the Fade in-out time that you have programmed.

You have the capability to activate or deactivate instantly on the 100% or the 0% one or more scenes by pressing the <ENTER> button.

With the "SOLO" function you can activate instantly a scene and the PREMIUM 79 will automatically deactivate all of the previous scenes, keeping this way always one scene activated.

Note. The PREMIUM 79 can have up to 48 scenes activated at the same time. If you try to activate a scene further than the 48, it will simply not be activated.

　　　To enter the scene mode:
- From the start mode menu press the <SCENE> button.

The scene mode screen appears on the display, as in the scheme on the right (the scheme does not show an activated scene).

The indicator will point on the first activated scene or the first written scene, or the first scene if there is no written or activated scene. The letter next to the scene's number informs you if it is free "f" or written "w".

```
SCENE CONTROL
/NORMAL
SCENE MASTER:
100% SCENE:  1f
LEVEL:   0%


-
-
```
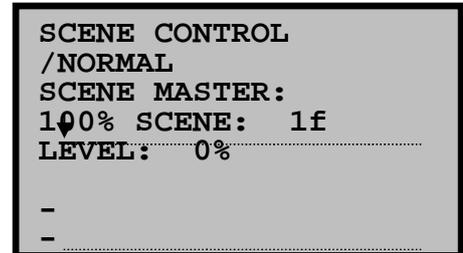
How can I manually call a scene?

The description bellow refers to the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the scene mode (See the beginning of the chapter).

- Turn the <SELECTOR> encoder to move the indicator on the scene that you want to activate.
- Turn the <VALUE> encoder to increase the intensity percentage, which you see on the "LEVEL" indication.

If you want to activate another scene follow the above procedure.

Notice that the led indicator of the scenes will turn on as soon as you set the scene to a percentage higher than 0% and it will remain on for as long as there is a scene with a percentage higher than 0%.

If you want to set the General scene master (scene master):

- Turn the <SELECTOR> encoder until the cursor is on the general scene master percentage and set the desired value with the <VALUE> encoder.

If you want to exit the scene mode:

- Press the <ESC> button.

The PREMIUM 79 returns to the start mode menu but the scenes that you activated remain active until you deactivate them from the scene mode.

How can I manually call two or more scenes?

The description bellow refers to the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the scene mode (See the beginning of the chapter).

- Turn the <SELECTOR> encoder to move the indicator on the scene that you want to activate.
- Press the <ADD> button, to register the scene as an "edited scene".
- Turn the <SELECTOR> encoder to move the indicator on the second scene that you want to activate together with the first one.
- Press the <ADD> button, to register the scene as an "edited scene".
- Turn the <SELECTOR> encoder to move the indicator on the third scene that you want to activate together with the first and the second one.
- Turn the <VALUE> encoder to increase the intensity percentage on all the three scenes.
- Press the <ESC> button to unregister the scenes as "edited scenes".

If you want to exit the scene mode:

- Press the <ESC> button.

The PREMIUM 79 returns to the start mode menu but the scenes that you activated remain active until you deactivate them from the scene mode.

How can I change the activated scene by pressing only one key?

The description bellow refers to the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the scene mode (See the beginning of the chapter).

- Press the <MORE> button. The reading on the right side of the first display line changes from "NORMAL" to "SOLO".
- Turn the <SELECTOR> encoder to move the indicator to the scene that you want to activate.
- Press the <ENTER> button. The scene instantly goes at 100% and all the previously activated scenes are deactivated.

In general, you select the scene and press <ENTER>. If the scene does not have a 0% percentage it goes to 0%, if it has 0% it goes to 100%.

To go back to the "NORMAL" mode press the <MORE> button. Now pressing the <ENTER> button, all of the previous activated scenes will not be deactivated.

If you want to exit from the scene mode:

- Press the <ESC> button.

The PREMIUM 79 returns to the start mode menu but the scenes that you activated remain active until you deactivate them from the scene mode.

How is the setting of the scenes done by using the LTP merging mode? (LTP Merge)

With the LTP merge mode, a scene will go up to the percentage that you have set, as long as this percentage is smaller than the corresponding setting of this scene from another source.
(Read the chapter "What you have to know" on the chapter "Merging of control data").

For example: You have assigned control function of the scene 10 to the analogue input 2. This means that the analogue input 2 data and the scene mode data will be merged using the LTP mode. Therefore, since on this mode the data with the smallest percentage has priority, if the analogue input is on 25%, you will not be able to set the scene 10 from the PREMIUM 79 above the 25%.

Note. On the screen you see the percentage that you set and not the percentage that takes the priority.

An application with this merging mode is the following:

If you have connected external control panels to adjust the scenes (with function assigns), to be able to set from the PREMIUM 79 the maximum allowed percentage of the adjustment they can do.

The same thing can be achieved from a DMX control desk, by setting the scene's control function that you want, on a DMX address. In this case you control the maximum allowed percentage of the external control panels from the PREMIUM 79 and from the DMX control desk.

How is the setting of the scenes done by using the Last merging mode? (LAST Merge)

With the LAST merge mode, a scene will remain to the same percentage that you have set, until another adjustment is made to the same scene from a different source.
(Read the chapter "What you have to know" on the chapter "Merging of control data").

An application with this merging mode is the following:

When you have connected external control panels to adjust the scenes (with function assigns) you can set the scenes (from 0% to 100%) from both sources. This means that you can rise the scene's percentage from the external control panel and you can reduce it from the PREMIUM 79 and vice versa (ale retour operation).

You can do the same from a DMX control desk, assigning the control function of the scene that you want, on a DMX address. In this case the scene's percentage can increase or decrease from all the three sources, meaning from the external control panels, the DMX console and from the PREMIUM 79.

Note. Two reversed arrows appear in the place of the scene master, indicating that you can increase or decrease the percentage on all the activated scenes.

Important. The display in the scene mode indicates the percentage of the last scene setting independently from where it was given. This means that you can see which scenes have been

activated, for example, from the external control panels, and if you want you can deactivate them by nullifying their percentage.

At the same time you can check with a quick look (looking at the scenes LED indicator), if there is an activated scene, independently of the source that it was activated from.

Mode – chaser check (Chaser)

It is the mode with which you can activate or deactivate manually the chasers.

In every chaser that you activate you can set the intensity percentage and at the same time you have at your disposal a general master setting (chaser master) for all the activated chasers.

You have the ability to activate or deactivate instantly, on 100% or 0% correspondingly, one or more chasers by pressing the <ENTER> button.

With the "SOLO" function you can instantly activate a chaser and the PREMIUM 79 will deactivate automatically all the previous, keeping this way one chaser activated.

Note. The PREMIUM 79 can have up to 16 activated chasers at the same time. If you try to activate another further to the 16, then it will simply not be activated.

To enter the chaser mode:

- From the start mode menu press the <CHASER> button.

The chasers mode screen appears and it is similar to the scheme on the right (the scheme does not show an activated chaser).

The indicator will show the first activated chaser, or the first written chaser or the first chaser if there is not any activated or written chaser. The letter next to the chaser's number informs you if it is free "f" or written "w".

```
CHASER CONTROL
RATE TIME :    --.--
s CHASE:  1f LEVEL:
0%
_
_
_
```
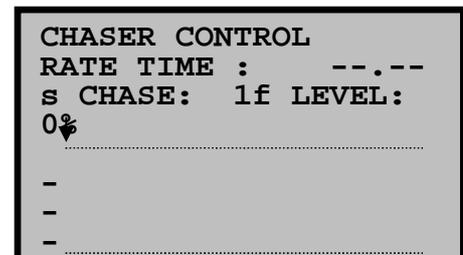
How can I manually call a chaser

The description bellow refers to the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the chaser mode (See the beginning of the chapter).

- Turn the <SELECTOR> encoder to move the indicator on the chaser that you want to activate.
- Turn the <VALUE> encoder to increase the intensity percentage, which you see on the "LEVEL" indication.

If you want to activate another chaser follow the above procedure.

Notice that the led indicator of the chasers will turn on as soon as you set the chaser in a percentage higher than 0% and it will remain on for as long as there is even one chaser with a percentage higher than 0%.

If you want to set the General scene master (scene master):

- Press the <MORE> button, until on the second line of the display the variable "CHASER MASTER" will show.
- Turn and set the percentage with the <VALUE> encoder.

If you want to exit the chaser mode:

- Press the <ESC> button.

The PREMIUM 79 returns to the start mode menu but the chasers that you activated remain active until you deactivate them from the chaser mode.

How can I manually call two or more chasers?

The description bellow refers to the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the chaser mode (See the beginning of the chapter).

- Turn the <SELECTOR> encoder to move the indicator on the chaser that you want to activate.
- Press the <ADD> button, to register the chaser as an "edited chaser".
- Turn the <SELECTOR> encoder to move the indicator on the second chaser that you want to activate together with the first one.
- Press the <ADD> button, to register the chaser as an "edited chaser".
- Turn the <SELECTOR> encoder to move the indicator on the third chaser that you want to activate together with the first and the second one.
- Turn the <VALUE> encoder to increase the intensity percentage on all the three chasers.
- Press the <ESC> button to unregister the chasers as "edited chasers".

If you want to exit the chaser mode:
- Press the <ESC> button.

The PREMIUM 79 returns to the start mode menu but the chasers that you activated remain active until you deactivate them from the chaser mode.

How can I change the rate and the fade time on a chaser while it is active

If you are not already there, move to the chaser mode (See the beginning of the chapter).
- Turn the <SELECTOR> encoder to move the indicator on the chaser that you want to change the rate or/and the fade time.
- Press the <MORE> button. The cursor moves to the variable "RATE TIME" on the second line of the display. If this variable is not appearing press the <MORE> button again until it is shown.
  If the chaser is free, then in the place of the time indication, dashes will appear.
- Turn the <VALUE> encoder to increase or decrease the rate time. We remind you that the setting of the rate time is done by altering the time of change between steps, therefore by reducing the time you increase the rate and vice versa.

If you want to set the Fade time:
- Press the <MORE> button until on the second line of the display the variable "FADE TIME" will appear.

If the chaser is free, then in the place of the time indication, dashes will appear.
- Turn the <VALUE> encoder to increase or decrease the fade time.

To return to the chaser intensity percentages:
- Press the <ESC> button.

If you want to exit the chaser mode:
- Press the <ESC> button.

How can I change the activated chaser by pressing only one key?

The description bellow refers to the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the chaser mode. (See the beginning of the chapter).
- Press the <MORE> button until on the second line of the display the variable "SELECTION MODE" will appear.
- Turn the <VALUE> encoder to change in "SOLO" function mode.
- Press the <ESC> button to return to the chaser intensity percentages.
- Turn the <SELECTOR> encoder to move the indicator on the chaser that you want to activate.
- Press the <ENTER> button. The chaser instantly goes on 100% and all the previously activated chasers are deactivated.

In general, you select the chaser and press <ENTER>. If the chaser does not have a 0% percentage it goes to 0%, if it has 0% it goes to 100% (Keeping the "SOLO" function activated).

To go back to the "NORMAL" mode press the <MORE> button and change the variable "SELECTION MODE" to "NORMAL". Now pressing the <ENTER> button, all of the previous activated chasers, will not be deactivated.

If you want to exit from the chaser mode:

- Press the <ESC> button.

How is the setting of the chasers done by using the LTP merging mode? (LTP Merge)

With the LTP merge mode, a chaser will go up to the percentage that you have set, as long as this percentage is smaller than the corresponding setting of this chaser from another source.
(Read the chapter "What you have to know" on the chapter "Merging of control data").

For example: You have assigned control function of the chaser 10 to the analogue input 2. This means that the analogue input 2 data and the chaser mode data will be merged using the LTP mode. Therefore, since on this mode the smallest percentage data takes the priority, if the analogue input is on 25%, you will not be able to set the chaser 10 from the PREMIUM 79 more than 25%.

Note. On the screen you see the percentage that you set and not the percentage that takes the priority.

An application with this merging mode is:

When you have connected external control panels to adjust the chasers (with function assigns), the ability to set from the PREMIUM 79 the maximum allowed percentage they can give.

The same thing can be achieved from a DMX control desk, by setting the chaser's control function that you want, on a DMX address. In this case you control the maximum allowed percentage of the external control panels from the PREMIUM 79 and from the DMX control desks.

How is the setting of the chasers done by using the Last merging mode?. (LAST Merge)

With the LAST merge mode, a chaser will remain to the same percentage that you have set, until the moment that a different source will set the same chaser.
(Read the chapter "What you have to know" on the chapter "Merging of control data").

An application with this merging mode is:

When you have connected external control panels to adjust the chasers (with function assigns), you can set these chasers (from 0% to 100%) from both sources. This means that you can rise the chaser's percentage from the external control panel and you can reduce it from the PREMIUM 79 and vice versa. (ale retour operation).

You can do the same from a DMX control desk, assigning the control function of the chaser that you want, on a DMX address. In this case the chaser's percentage can go up or down from all the three sources, meaning from the external control panel, the DMX control desk and from the PREMIUM 79.

Note. Two reversed arrows appear on the general chaser's master, indicating that you can increase or decrease the percentage on all the activated chasers.

Important. The display in the scene mode indicates the percentage of the last chaser setting independently from where it was given. This means that you can see which chasers have been activated for example from the external control panels and if you want you can deactivate them by nullifying their percentage.

At the same time you can see with a glimpse, (noticing the scenes LED indicator), to check if there is an activated chaser, independently from the source that it was activated.

Manual mode – channels check (Manual)

It is the mode that you can set the control channels manually.

In any control channel you can set the percentage of the intensity and at the same time you have at your disposal a general master's setting (manual master) for all the activated channels.

You have the capability to activate or deactivate instantly on 100% or 0% accordingly one or more channels by pressing the <ENTER> button.

With the "SOLO" function you can instantly activate a control channel and automatically the PREMIUM 79 will deactivate all of the previous channels, keeping always activated one channel.

To enter the manual mode:

```
MANUAL CONTR. /NORMAL
MANUAL MASTER:   100%
CHAN.:  1  LEVEL:   0%

_↓_____ _
_                          _
_                          _
_                          _
_____
```

- From the start mode press press the <CHASER> button.

The channels control screen appears on the display which is similar to the scheme on the right (The screen doesn't show an activated channel).

The indicator will show the first activated channel or the first chanel, if there is no channel activated.
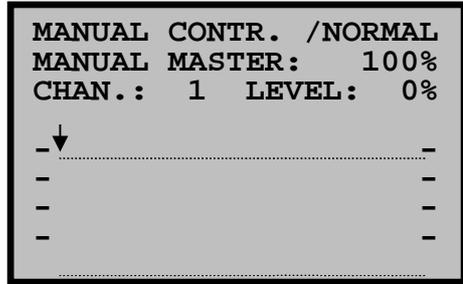
How can I manually set a control channel?

The description bellow stands on the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the manual mode. (See the beginning of the chapter).

- Turn the <SELECTOR> encoder to move the indicator on the the channel that you want to set.
- Turn the <VALUE> encoder to increase the intensity percentage, which you can monitor on the "LEVEL" indication.

If you want to set another channel simply follow the above procedure.

Notice that the indicating led Manual, will light on as soon as you give to the channel a percentage higher than 0%, and it will remain on for as long as even one channel will have an intensity percentage higher than 0%.

If you want to set the general scene master:

- Turn on the left the <SELECTOR> encoder until the cursor will be on the general master and adjust the percentage by using the <VALUE> encoder.

If you want to exit from the manual mode:

- Press the <ESC> button.

The PREMIUM 79 returns to the start mode menu but the channels that you activated remain active until you will deactivate them from the manual mode.

How can I manually set two, more or all of the channels?

The description bellow stands on the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the manual mode. (See the beginning of the chapter).

- Turn the <SELECTOR> encoder to move the indicator on the the channel that you want to set.
- Press the <ADD> button, to register the channel on the "edited channels".
- Turn the <SELECTOR> encoder to move the indicator on the second channel that you want to set with the first one.
- Press the <ADD> button, to register the channel on the "edited channels".
- Turn the <SELECTOR> encoder to move the indicator on the third channel that you want to set with the first and the second.
- Press the <ADD> button, to register the channel on the "edited channels".
- Turn the <VALUE> encoder to increase the intensity percentage of all the three channels together.
- Press the <ESC> button to unregister the channels as "edited channels".

If you want to select more channels:

- Press and hold pressed the <ADD> button and turn the <SELECTOR> encoder. All the channels which the indicator will pass over will be registered as "edited channels".

If you want to select all the channels:

- Press simultaneously the <ADD> and the <SUB> buttons. All the channels will be registered as "edited channels".

After the selection turn the <VALUE> encoder to increase or decrease the intensity percentage of the selected channels.

If you want to exit the manual mode:

- Press the <ESC> button.

The PREMIUM 79 returns to the start mode menu but the channels that you activated remain active until you will deactivate them from the manual mode.

How can I change the activated channel by pressing only one key?

The description bellow stands on the Merging of control data HTP (HTP Merge). On the LTP and LAST modes there are some differences. Read bellow the relative chapters.

If you are not already there, move to the manual mode. (See the beginning of the chapter).

- Press the <MORE> button. The reading on the right side of the first display line is changing from "NORMAL" to "SOLO".
- Turn the <SELECTOR> encoder to move the indicator on the channel that you want to set.
- Press the <ENTER> button. The channel goes instantly to100% and all the previously activated channels are deactivated.

In general, you select the channel and you press the <ENTER> button. If the channel doesn't have a 0% percentage, it turns to 0%, if it is already on 0% percentage it turns immediately to 100%.

To turn on the "NORMAL" mode press the <MORE> button. Now pressing the <ENTER> button, any previously activated channel, will not be deactivated.

If you want to exit the manual mode:

- Press the <ESC> button.

The PREMIUM 79 returns to the start mode menu but the channels that you activated remain active until you will deactivate them from the manual mode.

How is the setting of the Channels done by using the LTP merging mode? (LTP Merge)

With the LTP merge mode, a channel will go up to the percentage that you have set, as long as this percentage is smaller than the corresponding setting of the chanel from another source.
(Read the chapter "What you have to know" on the chapter "Merging of control data").

For example: You have connected a control panel to the analogue input 1. This means that the data from the analogue input 1 and the scene mode data will be merged using the LTP mode. Therefore, since on this mode the smallest percentage data takes the priority, if the analogue input is on 25%, you will not be able to set the channel 1 from the PREMIUM 79 more than 25%.

Note.

On the screen you see the percentage that you set and not the percentage that takes the priority.

An application with this merging mode, is:

When you have connected external control panels to adjust the channels, you have the ability to set from the PREMIUM 79 the maximum allowed percentage they can give.

The same thing can be achieved from a DMX console. In this case you control the maximum allowed percentage of the external control panels from the PREMIUM 79 and from the DMX control desks.

How is the setting of the channels done by using the Last merging mode?. (LAST Merge)

With the LAST merge mode, a channel will remain to the same percentage that you have set, until the moment that a different source will set the same channel.
(Read the chapter "What you have to know" on the chapter "Merging of control data").

An application with this merging mode is:

When you have connected external control panels to adjust the channels , you can set the channels (from 0% to 100%) from both sources. This means that you can rise the channel's percentage from the external control panel and you can reduce it from the PREMIUM 79 and vice versa. (ale retour operation).

You can do the same from a DMX control desk. In this case the channel's percentage can go up or down from all the three sources, meaning from the external control panels, the DMX control desk and from the PREMIUM 79.

Note. Two reversed arrows appear on the general channel's master (manual master), indicating that you can increase or decrease the percentage on all the activated channels.

Important. The display in the manual mode indicates the percentage of the last channel setting independently from where it was given. This means that you can see which channels have been activated for example from the external control panels and if you want you can deactivate them by nullifying their percentage.
At the same time you can see with a glimpse, (by noticing the relative LED indicator), to check if there is an activated channel, independently from the source that it was activated.

Monitor mode (Monitor)

It is the mode that the PREMIUM 79 presents on the display the intensity percentages of the control channels, which they contain all the data that the output channels will get.

Note. The percentages that are shown on the display, are the control channel percentages of the PREMIUM 79, before the dimming laws processing and they don't represent the true analogy, between input voltage and percentage, unless you are using the LINEAR RMS dimming law.

To enter the monitor mode:

- From the start mode menu press the <MONITOR> button.

The monitor screen appears and it is similar to the scheme on the right.(The scheme doesn't show an activated channel).The indicator will show the first channel.

If you want to see the percentage of a channel:

- Turn the <SELECTOR> encoder to move the indicator on the channel you want to monitor and check the percentage on the "LEVEL" reading.

When you want to exit the monitor mode:

- Press the <ESC> button to return to the start mode menu.

```
CONTROL CHAN.
MONITOR

CHAN.:  1   LEVEL:
0%

_
_
```
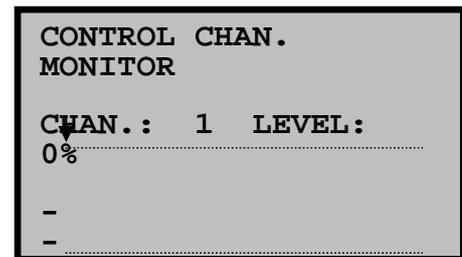
What happens in case of a wrong password insertion.

When the entrance code on the programming is activated, the PREMIUM 79 will ask you, every time that you want to get inside the commands menu, to enter the password code, showing the input code screen that is similar to the scheme on the right.
At this point, you have to enter the right password, by pressing the corresponding numbered code keys, that can be found under the screen.

If you do something wrong you can turn left the <SELECTOR> encoder to erase the wrong input(s).

After you enter the last digit, press <ENTER>.

If the password that you entered is wrong then a message similar to the scheme on the right appears for a while, followed by a notification sound.

After a while the message will go and the PREMIUM 79 will show again the password input screen informing you that you have 4 more attempts to put the right code.(Right scheme).

The PREMIUM 79 is totally giving you up to 5 attempts to enter the right code. If you fail on all the 5 times, then it locks and a period of 10 minutes has to pass until you can have the authority to try again.

```
    ENTER PASSWORD

        -----
```

```
    WRONG PASSWORD
```

```
    ENTER PASSWORD

        -----
4 attempt(s) left
```
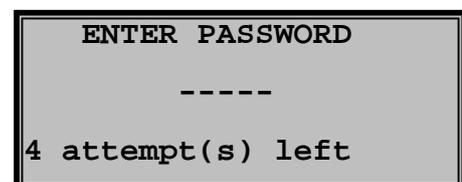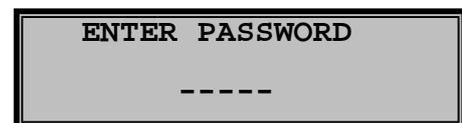
In this case you can press the <ESC> button to turn back on the start mode menu of the PREMIUM 79.

When the PREMIUM 79 will lock, the message of the right scheme appears on the screen for approximately 2,5 seconds and then the display returns to the initial screen.
This message will appear every time that you will try to enter the command menu for 10 minutes. After this period of time the PREMIUM 79 will let you again to try putting the right code.

```
  YOU CAN NOT ENTER
  YOUR PASSWORD NOW

  PLEASE TRY LATER
```

In case that you have forgotten your password:

- During the 2,5 seconds that the input code denial message appears, press simultaneously the <ADD> and <SUB> buttons.

A 18-digits unlock code appears on the screen, similar to the scheme on the right.

```
      UNLOCK CODE

  3CCC5B-32264A-300399
```

Remark. The unlock code will appear on the screen only after 5 wrong attempts of entering the code and for a short period of 2,5 seconds, meaning the time that the PREMIUM 79 informs you that you have to try later entering a password.

The unlock code has to be sent (through your supplier) to ELECTRON which will send to your supplier, the password that you will enter to unlock the PREMIUM 79.

After entering this code, you can change it and put one of your own.

Messages and warnings of the PREMIUM 79

When you change a scene or a chaser on the relevant programming commands, or when you exit from these commands, having made changes on the intensity percentages of the channels that you haven't already save, then a message similar to the scheme on the right appears on the screen.
Then you can press the <NO> key if you don't want to save the changes, or the <YES> key if you want the changes to be saved.

```
  SAVE CHANGES   ?

NO              YES
```

When you will try to record DMX data on the scene and chaser programming commands, with no DMX input signal present, then a message similar to the scheme on the right, appears on the screen.

```
    THERE IS NO
    DMX SIGNAL
```

When you are entering inside the scene and chaser programming commands and there is not enough free memory, then the message of the scheme on the right appears on the screen.

```
  THERE IS NOT ENOUGH
       MEMORY.
    STORING MAY BE
     INCOMPLETE
```

When you will try to save a scene or a chaser, on the relevant programming commands and there is no free memory at all, then the message of the scheme on the right appears on the screen.

```
    MEMORY IS FULL
       STORING
   CANNOT BE DONE
```

When you will try to insert a new step, by using the INSERT command, in a chaser that has already 58 steps (58 is the maximum step number a chaser can have), then the message of the scheme on the right appears on the screen.

```
   NEW STEP CANNOT
    BE INSERTED
```

When you are entering the CHASER CREATOR command and there is no memory for storing a new chaser, then the message of the scheme on the right appears on the screen.

```
  THERE IS NO MEMORY
     FOR STORING
    A NEW CHASER
```

When you are inside the CHASER CREATOR command and you press the <ADD> button, to add a new channel in a chaser that has already 14 channels, then the message of the scheme on the right appears on the screen.

```
   YOU CAN NOT ADD
    MORE CHANNELS
```

When you are inside the CHASER CREATOR command, and on a single channel chaser you select function mode different than "FLASH" mode, the PREMIUM 79 transforms it automatically to "FLASH" mode during the saving of the chaser. The screen shows a message similar to the scheme on the right.

```
THE STORED CHASER IS
AUTOMATICALLY CHANGED
TO FLASH MODE

Note. One channel
chasers work only in
flash mode.
```

When you press any Function key (F1 ή F2 ή F3), on which you haven't assigned any function, then the message of the scheme on the right appears on the screen.

```
    FUNCTION KEY 1
  IS NOT PROGRAMMED
```

When you change the password code on the programming and you give wrong confirmation code, then the message of the scheme on the right appears on the screen.

```
 WRONG VERIFICATION
  OF NEW PASSWORD
```

When you select more than 48 scenes and you try to activate them, on the scene mode, then the message of the right scheme appears on the screen.

```
 YOU CAN NOT SELECT
    MORE  SCENES
```

When you select more than 16 chasers and you try to activate them, on the chaser mode, then the message of the right scheme appears on the screen.

```
 YOU CAN NOT SELECT
    MORE CHASERS
```

When the power supply will drop more than -25% (173V~) the message of the scheme on the right appears on the screen and all the output channels of the PREMIUM 79 are nullified.

```
    POWER FAIL
```

Use and examples of the analogue inputs

Note. This chapter refers to the models that are supplied with analogue inputs.

The PREMIUM 79 as it is previously referred, can operate in stage applications, in architectural applications, but they can also operate in special applications that combine scene manipulating and architectural lighting at the same time.

To accomplish that, the PREMIUM 79 are provided with 48 fully programmable analogue inputs, that give the user the capability to connect different kinds of control panels such as the ELECTRON SA architectural control panels of the MICON E and BS series, simple faders, cold contacts, motion detectors, push buttons, cinema movie projectors (through the ELECTRON SA cinema adaptor), control desks with analogue outputs e.t.c.

In this chapter the capabilities and the use of the analogue inputs are described with examples of several control panels. The examples are presenting also the electrical connections between the control panels and the analogue inputs.
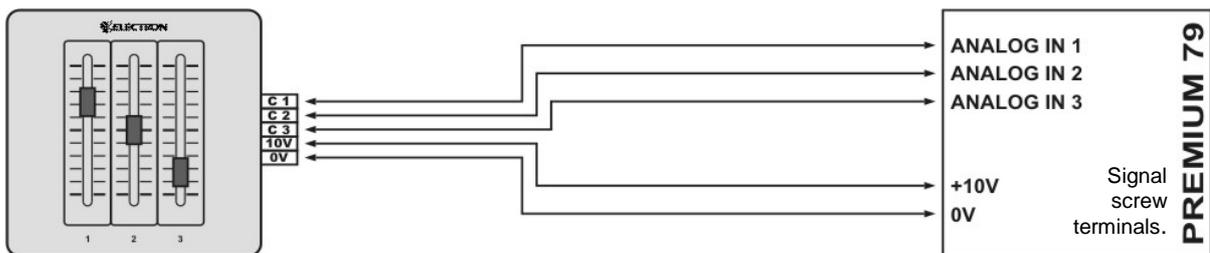
Before you continue on the analysis and study of the following examples please keep in mind that:

- In the specific examples, the selection of the control panels and their channels was made randomly. The goal is to enable the user to comprehend the cooperation and connection between control panels and analogue inputs. You can use any other control panel but in the same logic as the one described in the examples.

- It is not necessary to connect control panels to all analogue inputs. Depending on your needs you can use no analogue input or all of them. Also, there is no constraint to the sequence of the analogue inputs you use. For example you can use the inputs 8 and 11.

- The auxiliary voltage +10V is only available for the connection of simple potentiometers, dry contacts or push buttons, but not of electronic circuits. You can connect only one potentiometer per input with resistance of 10K each. Do not use potentiometers with lower resistance. For proper control the potentiometers should be Linear. Do not connect more than 24 potentiometers in each group of screw terminals of the auxiliary voltage +10V. The PREMIUM 79 is equipped with two groups, the left and the right, read the chapter "Analogue input connections"

- The auxiliary voltage +15V is available for the connection of small control panels by supplying current up to 1A. In case the control panel, or the sum of the control panels in use, consume more power, then you have to use the appropriate external power supply.

- When you use an external power supply, always connect the 0V of the power supply with the 0V of the PREMIUM.

- In any case the analogue inputs must never receive voltage more than +10V.

- The wiring network of the control panels must not be installed in parallel with 230V power supply or load cables. The distance between these should not be less than 50cm.

- For the connection of the control panels you can use telephone cable J-Y(St)Y, of as many pairs as needed in your application.

- In most examples the MICON E and MICON B Series of control panels of ELECTRON SA are used.

- The PREMIUM can also operate without a DMX Control Desk, but only with the analogue inputs to which the control panels of your preference can be connected.

- You can program independently in each channel, the operation mode (Read the chapter "analogue inputs programming".

Example 1. Connection of the MICON BS3 Control Panel

The MICON BS3 is a simple control panel with three potentiometers (faders), without any other electronic circuits, thus the operating voltage +10V is used. The scheme below shows the connections between the control panels and the analogue inputs.

Using the "ANALOGUE IN ASSIGN" command program the three analogue inputs, starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

1. Do you want this Group of the three inputs to operate with the method **"one active"?** (**GROUP**).
   - **No.** Then all the three analogue inputs need to belong to Group 0.
   - **Yes.** Then all the three analogue inputs will have to belong in a group from 1 – 15.

2. What functions do you want these inputs to activate? (**ASSIGN**).
   - **Channels.** Then you have to assign the channel to every one of the inputs.
   - **Scenes.** Then you have to assign the scene that you want to every one of the inputs.
   - **Chasers.** Then you have to assign the chaser that you want to every one of the inputs.
   - **Different function in every channel.** Then for example you have to assign to input 1 a channel, input 2 a scene and to input 3 a chaser.

3. What function mode will the analogue inputs have? (**MODE**).
   - **0/+10V,** All of the three inputs, when you have connected potentiometers with operating voltage 10V.

4. Do you want these three inputs to have a standard fade time of 2,5 seconds?
   - **No.** Then on all of the three analogue inputs you have to select "**NORM**".
   - **Yes.** Then on all of the three analogue inputs you have to select "**FADED**".

- **Only in input 2.** Then on the inputs 1 and 3 select "**NORM**" and on 2 select "**FADED**".

5. Do you want to block these inputs from the DMX control desk? (**FUNCTION**).
   - **No.** Then on all of the three analogue inputs you must select "**ENABLED**".
   - **Yes.** Then on all of the three inputs you have to select "**BLOCKED**".
   - **Only the input 3.** Then on the inputs 1, 2 select "**ENABLED**" and on 3 select "**BLOCKED**".

6. Do you want the BLOCKED inputs to be blocked from the DMX input signal or a DMX channel? (**BLOCKED MODE**).
   - **DMX signal.** Then on the BLOCKED inputs select "**DMX SIGNAL**".
   - **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Note. You don't have to change the variables that have already the desired values.

Example 2. Connection of the MICON BS6M Control Panel.

The MICON BS6M is a control panel with six potentiometers (faders) and a master. It is supplied with +15V. **As long as its power consumption does not exceed 100mA, you can supply it by the auxiliary voltage +15V of the PREMIUM.** The scheme below indicates the electrical connections between the control panel and the analogue inputs.

Attention. The sum of control panels in use that you supply with the auxiliary power of +15V must not exceed 1A of consumption. The power consumption of the MICON BS6M is 20mA
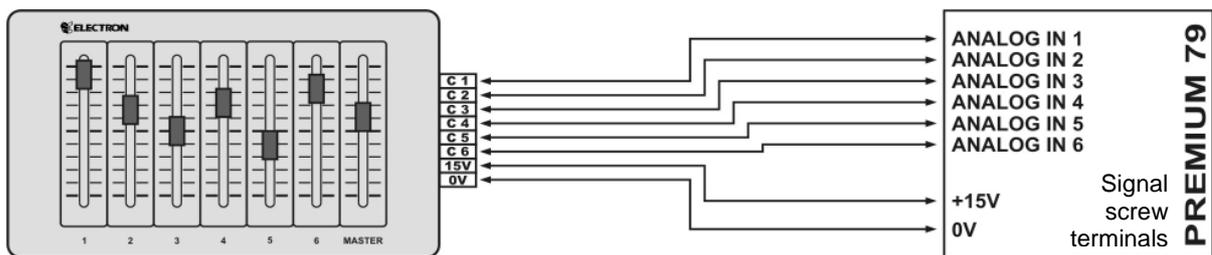
Using the "ANALOGUE IN ASSIGN" command program the six analogue inputs starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

1. Do you want this Group of the six inputs to operate with the method **"one active"?** (**GROUP**).
   - **No.** Then all the six analogue inputs need to belong to Group 0.
   - **Yes.** Then all the six analogue inputs will have to belong in a group from 1 – 15.

2. What functions do you want these inputs to activate? (**ASSIGN**).
   - **Channels.** Then you have to assign the channel to every one of the inputs.
   - **Scenes.** Then you have to assign the scene that you want to every one of the inputs.
   - **Chasers.** Then you have to assign the chaser that you want to every one of the inputs.

Different function in every channel. Then for example you have to assign to input 1,2 a channel, input 3,4 a scene and to inputs 5,6 a chaser.
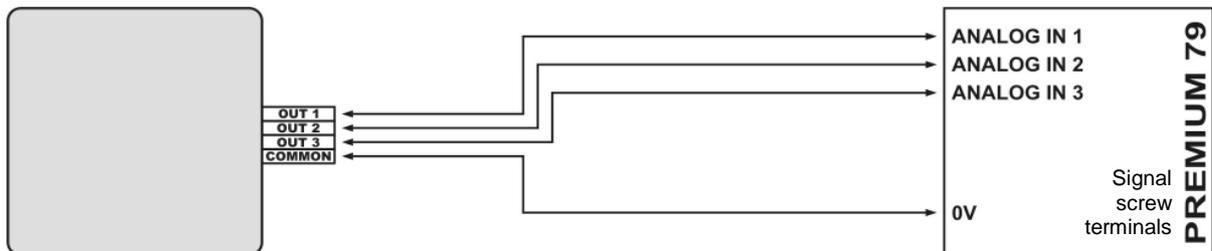
3. What function mode will the analogue inputs have? (**MODE**).

- **0/+10V,** All of the six inputs, since the MICON BS6M outputs are 10V.

4.   Do you want these six inputs to have a standard fade time of 2,5 seconds?
   - **No.** Then on all of the six analogue inputs you have to select "**NORM**".
   - **Yes.** Then on all of the six analogue inputs you have to select "**FADED**".
   - **Only in input 6.** Then on the inputs 1 - 5 select "**NORM**" and on 6 select "**FADED**".

5.   Do you want to block these inputs from the DMX control desk? (**FUNCTION**).
   - **No.** Then on all of the six analog inputs you must select "**ENABLED**".
   - **Yes.** Then on all of the six inputs you have to select "**BLOCKED**".
   - **Only the input 6.** Then on the inputs 1-5 select "**ENABLED**" and on 6 select "**BLOCKED**".

6.   Do you want the BLOCKED inputs to be blocked from the DMX input signal or a DMX channel? (**BLOCKED MODE**).
   - **DMX signal.** Then on the BLOCKED inputs select "**DMX SIGNAL**".
   - **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Note. You don't have to change the variables that have already the desired values.

Example 3. Connection of Control Panels with 0/+5V outputs

This example refers to any control panel you may have with analogue outputs 0/+5V and with its own power supply, which suggests that none of the two power supplies +10V or +15V of the PREMIUM will be used. The scheme below indicates the electrical connections between the control panel and the analogue inputs.

Using the "ANALOGUE IN ASSIGN" command program the three analogue inputs starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:
1. Do you want this Group of the three inputs to operate with the method **"one active"?** (**GROUP**).
   - **No.** Then all the three analogue inputs need to belong to Group **0**.
   - **Yes.** Then all the three analogue inputs will have to belong in a group from **1 – 15**.
2. What functions do you want these inputs to activate? (**ASSIGN**).
   - **Channels.** Then you have to assign the channel to every one of the inputs.
   - **Scenes.** Then you have to assign the scene that you want to every one of the inputs.
   - **Chasers.** Then you have to assign the chaser that you want to every one of the inputs.
   - **Different function in every channel.** Then for example you have to assign to input 1 a channel, input 2 a scene and to input 3 a chaser.

3. What function mode will the analogue inputs have? (**MODE**).

    - **0/+5V,** All of the three inputs, since the controller's outputs are 5V.

4. Do you want these three inputs to have a standard fade time of 2,5 seconds?

    - **No.** Then on all of the three analogue inputs you have to select **"NORM".**

    - **Yes.** Then on all of the three analogue inputs you have to select **"FADED"**.

    - **Only in input 2.** Then on the inputs 1 and 3 select **"NORM"** and on 2 select **"FADED"**.

5. Do you want to block these inputs from the DMX control desk? (**FUNCTION**).

    - **No.** Then on all of the three analogue inputs you must select **"ENABLED"**.

    - **Yes.** Then on all of the three inputs you have to select **"BLOCKED"**.

    - **Only the input 3.** Then on the inputs 1, 2 select **"ENABLED"** and on 3 select **"BLOCKED"**.

6. Do you want the BLOCKED inputs to be blocked from the DMX input signal or a DMX channel? (**BLOCKED MODE**).

    - **DMX signal.** Then on the BLOCKED inputs select **"DMX SIGNAL"**.

    - **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".
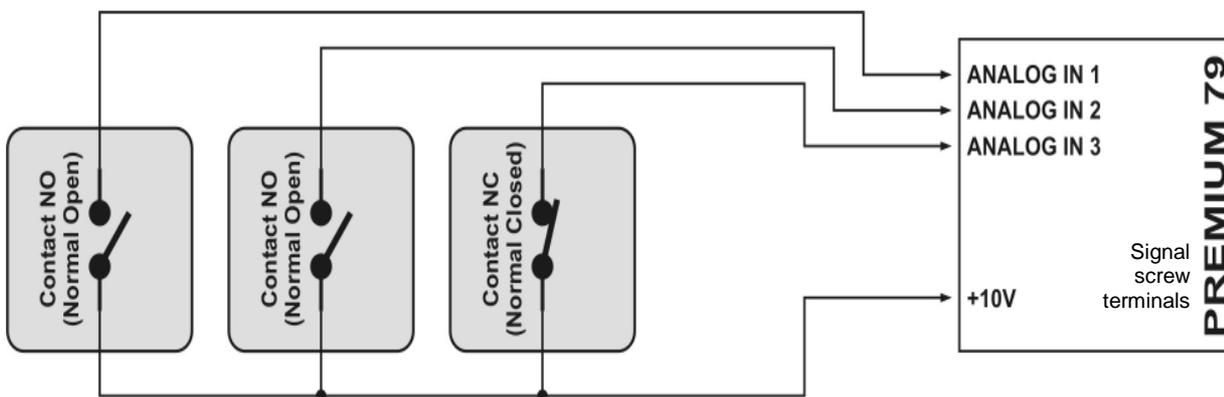
Note. You don't have to change the variables that have already the desired values.

Example 4. Dry contacts Connection

This example refers to any control panel with dry contacts. The Dry Contacts are separated in two categories: Normal Open and Normal Closed.

You can connect both categories to the analogue inputs of the PREMIUM after making the appropriate programming. The supply voltage that will be connected to one terminal of the contact is the +10V, which is provided by the PREMIUM.

This is an example of two Normal Open contacts and one Normal Closed contact. The scheme below indicates the electrical connections between the two contacts and the analogue inputs.

Using the "ANALOGUE IN ASSIGN" command program the six analogue inputs starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

1. Do you want this Group of the three inputs to operate with the method **"one active"**? (**GROUP**).

    - **No.** Then all the three analogue inputs need to belong to Group **0.**

    - **Yes.** Then all the three analogue inputs will have to belong in a group from **1 – 15.**

2.   What function do you want these inputs to activate? (**ASSIGN**).

- **Channels.**   Then you have to assign the channel to every one of the inputs.
- **Scenes.**   Then you have to assign the scene that you want to every one of the inputs.
- **Chasers.**   Then you have to assign the chaser that you want to every one of the inputs.
- **Different function in every channel.** Then for example you have to assign to input 1 a channel, input 2 a scene and to input 3 a chaser.

3.   What function mode will the analogue inputs have? (**MODE**).

- **CONTACT NO,**   The input 1 and 2, since you have connected contacts "normal open".
- **CONTACT NC,**   The input 3, since you have connected contact "normal close"

4.   Do you want these three inputs to have a standard **Fade time** of 2,5 seconds?

- **No.**   Then on all of the three analogue inputs you have to select **"NORM".**
- **Yes.**   Then on all of the three analogue inputs you have to select **" FADED"**
- **Only in input 2.** Then on the inputs 1 and 3 select **"NORM"** and on 2 select **"FADED".**

5.   Do you want the functions that these inputs are activating, to stay activated for a specific time, or for as long as the contacts are activated? (**PULSE TIME**).

- **No.**   Then on all of the three analogue inputs you have to select "**EVER**".
- **Yes.** Then on each analogue input you will select the time you like, for example "**1m 30s**".
- **Only in input 2.** Then on inputs 1 and 3 select "**EVER**" and on input 2 select the time you like, for example "**1m 30s**".

6.   Do you want to block these inputs from the DMX control desk? (**FUNCTION**).

- **No.**   Then on all of the three analogue inputs you must select **"ENABLED".**
- **Yes.**   Then on all of the three inputs you have to select **"BLOCKED".**
- **Only the input 3.** Then on the inputs 1, 2 select **"ENABLED"** and on 3 select **"BLOCKED".**

7.   Do you want the BLOCKED inputs to be blocked from the DMX input signal or a DMX channel? (**BLOCKED MODE**).

- **DMX signal.**   Then on the BLOCKED inputs select **"DMX SIGNAL".**
- **DMX channel.**   Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Attention. When you select a specific time of activating the assigned function "PULSE TIME" and the contact will be activated before this time will pass, then the assigned function will be deactivated too.

Note. You don't have to change the variables that have already the desired values.

Example 5   Connection of two MICON ES3 and MICON ES3M Control Panels in parallel connection (aller-retour)

The MICON E control panels by ELECTRON SA also provide the ability to function in parallel (alle-retour). In this example two control panels of the specific series are used in parallel connection, so that the user is able to control the lighting from two different points in the installation area. Both control panels of this example have three channels, while the MICON ES3M control panel also has a master.

The MICON ES3M control panel with master has been used in this example, so as to allow parallel control of the channels from two different points and master control from one only installation point. In such case, the lighting can be switched off from the master, but cannot be switched on by any other installation point. Apparently, both control panels could have or not have a master.
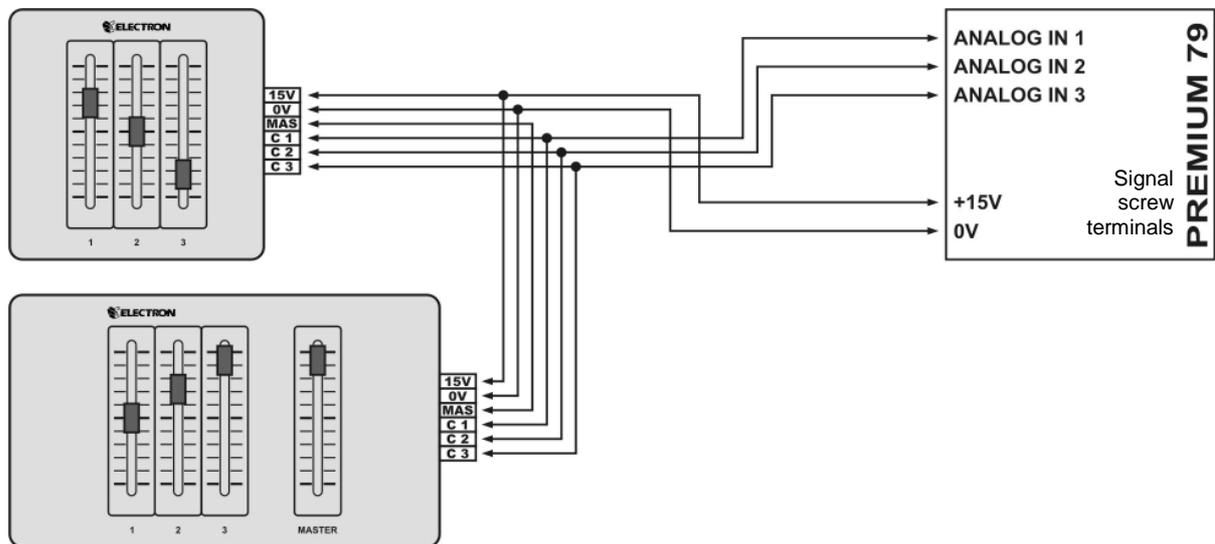
The scheme below indicates the electrical connections between the control panels and the analogue inputs.

Attention. The sum of control panels in use that you supply with the auxiliary power of +15V must not exceed 1A of consumption.

The   MICON ES3 power consumption is 40mA.
The   MICON ES3M power consumption is είναι 90mA.

Using the "ANALOGUE IN ASSIGN" command program the three analogue inputs starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

1. Do you want this Group of the three inputs to operate with the method **"one active"?** (**GROUP**).

   - **No.** Then all the three analogue inputs need to belong to Group **0.**
   - **Yes.** Then all the three analogue inputs will have to belong in a group from **1 – 15.**

2. What function do you want these inputs to activate? (**ASSIGN**).

   - **Channels.** Then you have to assign the channel to every one of the inputs.
   - **Scenes.** Then you have to assign the scene that you want to every one of the inputs.
   - **Chasers.** Then you have to assign the chaser that you want to every one of the inputs.
   - **Different function in every channel.** Then for example you have to assign to input 1 a channel, input 2 a scene and to input 3 a chaser.

3. What function mode will the analogue inputs have? (**MODE**).

   - **EASY NET,**   All of the three inputs, because these control panels are using this communication protocol.

4. Do you want these three inputs to have a standard **Fade time** of 2,5 seconds?

   - **No.** Then on all of the three analogue inputs you have to select **"NORM".**
   - **Yes.** Then on all of the three analogue inputs you have to select "**FADED**".
   - **Only in input 2.** Then on the inputs 1 and 3 select **"NORM"** and on 2 select **"FADED".**

5. Do you want to block these inputs from the DMX control desk? (**FUNCTION**).

   - **No.** Then on all of the three analogue inputs you must select **"ENABLED".**
   - **Yes.** Then on all of the three inputs you have to select **"BLOCKED".**
   - **Only the input 3.** Then on the inputs 1, 2 select **"ENABLED"** and on 3 select **"BLOCKED".**

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6.   Do you want the BLOCKED inputs to be blocked from the DMX input signal or a DMX channel? (**BLOCKED MODE**).

- •   **DMX signal.**   Then on the BLOCKED inputs select **"DMX SIGNAL".**
- •   **DMX channel.**   Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Note. You don't have to change the variables that have already the desired values.

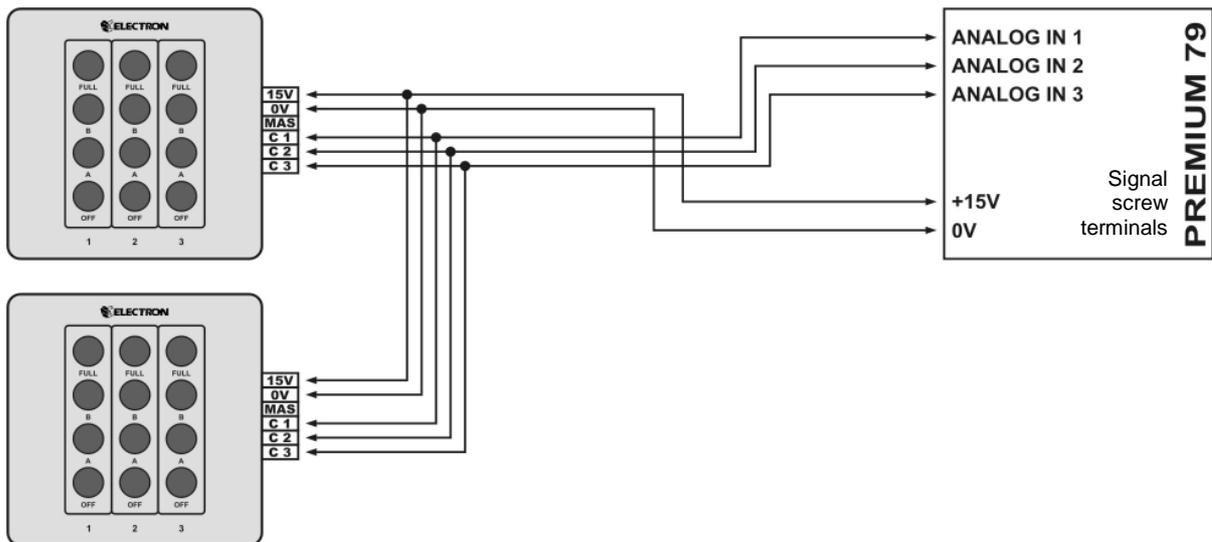## Example 6   Connection of two MICON EL3 Control Panels in parallel connection (aller-retour).

In this example, two MICON EL3 control panels of the MICON E Series, by ELECTRON SA, are used.These control panels are composed of four buttons per channel, which execute the following functions, respectively: OFF, Level A, Level B and Full. Level A and Level B are programmed by the user through the control panel (in case you have such control panels, refer to the relevant user manuals for programming instructions).

In this example, two control panels are used in parallel connection so that the user is able to control the lighting from two different installation points. Both control panels are of three channels.

The scheme below indicates the electrical connections between the control panels and the analogue inputs.

Attention. The sum of control panels in use that you supply with the auxiliary power of +15V must not exceed 1A of consumption.
The   MICON EL3 power consumption is 40mA.

Using the "ANALOGUE IN ASSIGN" command program the three analogue inputs starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

1.   Do you want this Group of the three inputs to operate with the method **"one active"**? (**GROUP**).

- •   **No.**   Then all the three analogue inputs need to belong to Group **0.**
- •   **Yes.**   Then all the three analogue inputs will have to belong in a group from **1 – 15.**

2.   What functions do you want these inputs to activate? (**ASSIGN**).

- •   **Channels.**   Then you will assign the selected channel to each one of the inputs.
- •   **Scenes.**   Then you will assign the selected scene to each one of the inputs.
- •   **Chasers.**   Then you will assign the selected chaser to each one of the inputs.

- **Different function in every channel.** Then for example you have to assign to input 1 a channel, input 2 a scene and to input 3 a chaser.

3. What function mode will the analogue inputs have? (**MODE**).

- **EASY NET,** All of the three inputs, because these control panels are using this communication protocol.

4. Do you want these three inputs to have a standard **Fade time** of 2,5 seconds?

- **No.** Then on all of the three analogue inputs you have to select **"NORM".**
- **Yes.** Then on all of the three analogue inputs you have to select "**FADED**".
- **Only in input 2.** Then on the inputs 1 and 3 select **"NORM"** and on 2 select **"FADED".**

5. Do you want to block these inputs from the DMX console? (**FUNCTION**).

- **No.** Then on all of the three analogue inputs you must select **"ENABLED".**
- **Yes.** Then on all of the three inputs you have to select **"BLOCKED".**
- **Only the input 3.** Then on the inputs 1, 2 select **"ENABLED"** and on 3 select **"BLOCKED".**

6. Do you want the BLOCKED inputs to be blocked from the DMX input signal or a DMX channel? (**BLOCKED MODE**).

- **DMX signal.** Then on the BLOCKED inputs select **"DMX SIGNAL".**
- **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".
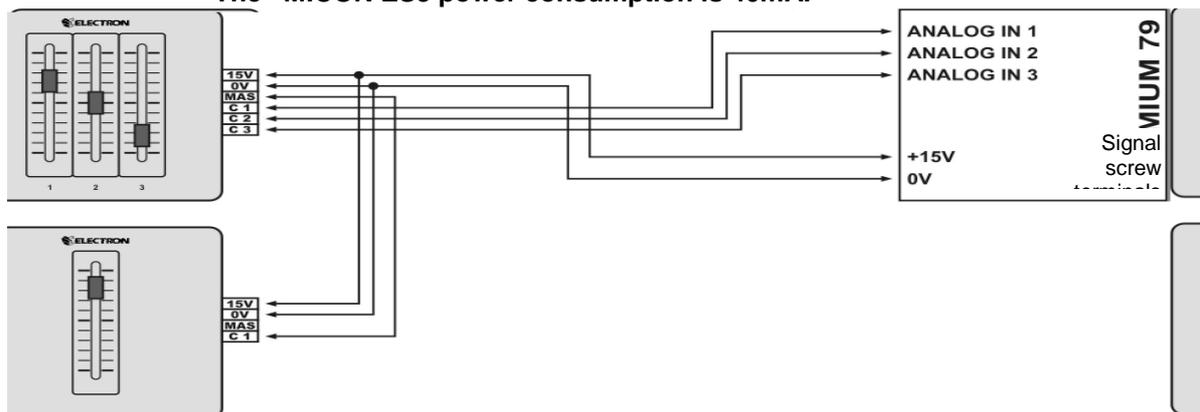
Note. You don't have to change the variables that have already the desired values.

Example 7   Connection of MICON ES3 and MICON ES1 Control Panels

In this example, a MICON ES3 control panel of three channels is used and an ES1 control panel of one channel. In this connection the ES1 control panel is used as the master of the ES3 control panel, but is located in a different installation point than the ES3 control panel

The scheme below indicates the electrical connections between the control panels and the analogue inputs.

Attention. **The sum of control panels in use that you supply with the auxiliary power of +15V must not exceed 1A of consumption.**
The MICON ES3 power consumption is 40mA.

Using the "ANALOGUE IN ASSIGN" command program the three analogue inputs starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

1. Do you want this Group of the three inputs to operate with the method **"one active"?** (**GROUP**).

- **No.** Then all the three analogue inputs need to belong to Group **0.**

- **Yes.** Then all the three analogue inputs will have to belong in a group from **1 – 15.**.
2. What functions do you want these inputs to have? (**ASSIGN**).
   - **Channels.** Then you will assign the selected channel to each one of the inputs.
   - **Scenes.** Then you will assign the selected scene to each one of the inputs.
   - **Chasers.** Then you will assign the selected chaser to each one of the inputs.
   - **Different function in every channel.** Then for example you have to assign to input 1 a channel, input 2 a scene and to input 3 a chaser.
3. What function mode will the analogue inputs have? (**MODE**).
   - **EASY NET,** All of the three inputs, because these control panels are using this communication protocol.
4. Do you want these inputs to have a standard fade time of 2,5 seconds?
   - **No.** Then on all of the three inputs you will select "**NORM**".
   - **Yes.** Then on all of the three inputs you will select "**FADED**".
   - **Only in input 2.** Then on inputs 1 and 3 select "**NORM**" and on 2 "**FADED**".
5. Do you want to block these inputs from a DMX console? (**FUNCTION**).
   - **No.** Then on all of the three inputs you will select "**ENABLED**".
   - **Yes.** Then on all of the three inputs you will select "**BLOCKED**".
   - **Only the input 3.** Then on the inputs 1,2 select "**ENABLED**" and on 3 "**BLOCKED**".
6. Do you want the BLOCKED inputs to be blocked from the DMX input signal or from a DMX channel? (**BLOCKED MODE**).
   - **DMX signal.** Then on the BLOCKED inputs select "**DMX SIGNAL**".
   - **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Note. You don't have to change the variables that have already the desired values.

Example 8   Connection of Control Panels with push buttons

This example explains the operation of the PREMIUM when connected to control panels with push buttons. You can use any non electronic control panel with dry contact push buttons. This means that the connectors of the push buttons will no be connected to any electronic circuit of the control panel (if it is supported with any).
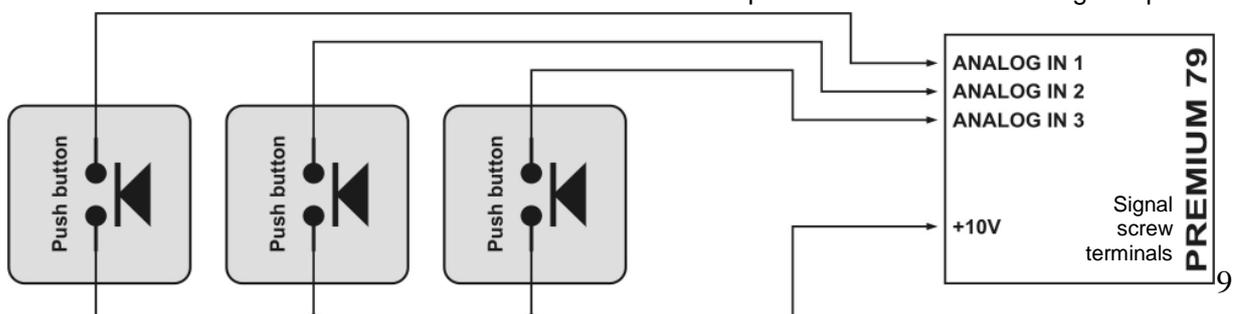
The scheme below indicates the connection of the three push buttons to three analogue inputs. Nevertheless, you can also connect more than one push button to an analogue input, so as to have alle-retour operation.

The operation of the PREMIUM, when an analogue input is programmed to the P. BUTTON mode, is the following:

- Each time you press the push button instantly, you move from ON to OFF and vice-versa
- Each time you press the push button constantly, the corresponding PREMIUM output increases or decreases gradually (with fade). The increase and decrease of the output operate in sequence, which means that at the first push the output increases, at the second push the output decreases, at the next push the output increases again and so on.
- The output level that you have set by holding the push button is saved. This output level is used for lights ON when you instantly press the button for changing function (ON-OFF).

For the operation of the push button an auxiliary supply voltage of +10V is used.

The scheme below indicates the electrical connections between the push-buttons and the analogue inputs.

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Using the "ANALOGUE IN ASSIGN" command, program the three analogue inputs starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

1. Do you want this Group of the three inputs to operate with the method **"one active"?** (**GROUP**).

   - **No.** Then all the three analogue inputs need to belong to Group **0.**
   - **Yes.** Then all the three analogue inputs will have to belong in a group from **1 – 15.**.

2. What functions do you want these inputs to activate? (**ASSIGN**).

   - **Channels.** Then you will assign the selected channel to each one of the inputs.
   - **Scenes.** Then you will assign the selected scene to each one of the inputs.
   - **Chasers.** Then you will assign the selected chaser to each one of the inputs.
   - **Different function in every channel.** Then for example you have to assign to input 1 a channel, input 2 a scene and to input 3 a chaser.

3. What function mode will the analogue inputs have? (**MODE**).

   - **P.BUTTON,** all of the three inputs, since you have connected push buttons.

4. Do you want these inputs to have a standard fade time of 2,5 seconds?

   - **No.** Then on all of the three inputs you will select "**NORM**".
   - **Yes.** Then on all of the three inputs you will select "**FADED**".
   - **Only in input 2.** Then on inputs 1 and 3 select "**NORM**" and on 2 "**FADED**".

5. Do you want the functions that these inputs are activating, to stay activated for a specific time, or for as long as the contacts are activated? (**PULSE TIME**).

   - **No.** Then on all of the three analogue inputs you have to select "**EVER**".
   - **Yes.** Then on every analogue input you will select the time you like, for example "**1m 30s**".
   - **Only in input 2.** Then on inputs 1 and 3 select "**EVER**" and on input 2 select the time that you like, for example "**1m 30s**".

6. Do you want to block these inputs from a DMX console? (**FUNCTION**).

   - **No.** Then on all of the three inputs you will select "**ENABLED**".
   - **Yes.** Then on all of the three inputs you will select "**BLOCKED**".
   - **Only the input 3.** Then on the inputs 1, 2 select "**ENABLED**" and on 3 "**BLOCKED**".

7. Do you want the BLOCKED inputs to be blocked from the DMX input signal or from a DMX channel? (**BLOCKED MODE**).

   - **DMX signal.** Then on the BLOCKED inputs select "**DMX SIGNAL**".
   - **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Attention. When you select a specific time of activating the assigned function "PULSE TIME" and the contact will be activated before this time will pass, then the assigned function will be deactivated too.

Note. You don't have to change the variables that have already the desired values.

Example 9   Connection of different types of Control Panels

This example refers to the case where different types of control panels are used. Take, for instance, the case where the following control panels are used:

A control panel with three analogue outputs 0/+10V, connected to the inputs 1-3.

A MICON ES3 control panel of three channels, with one potentiometer per channel, connected to the inputs 4-6.

A MICON EL3 control panel of three channels, with OFF - A - B - FULL buttons per channel, connected to the inputs 7-9.

Two push buttons connected to the inputs 10 and 11.

And a dry contact (contact normal open) connected to the input 12.

The application presented in this example is a typical architectural lighting control application. In such a case, it is not necessary to connect a DMX lighting Control Desk to the PREMIUM 79, unless you want to do so.

In this application, the MICON ES3 and MICON EL3 control panels can operate aller-retour, by connecting in parallel more control panels to the existing ones. Please refer to the examples referring to such connections.

The dry contact and the push buttons are connected to the auxiliary supply voltage of +10V provided by the PREMIUM.

The scheme below indicates the electrical connections between the control panels and the analogue inputs, as well as the external power supply connection.

Attention. **The sum of control panels in use that you supply with the auxiliary power of +15V must not exceed 1A of consumption.**
The MICON ES3 power consumption is 40mA.
The MICON EL3 power consumption is 40mA.
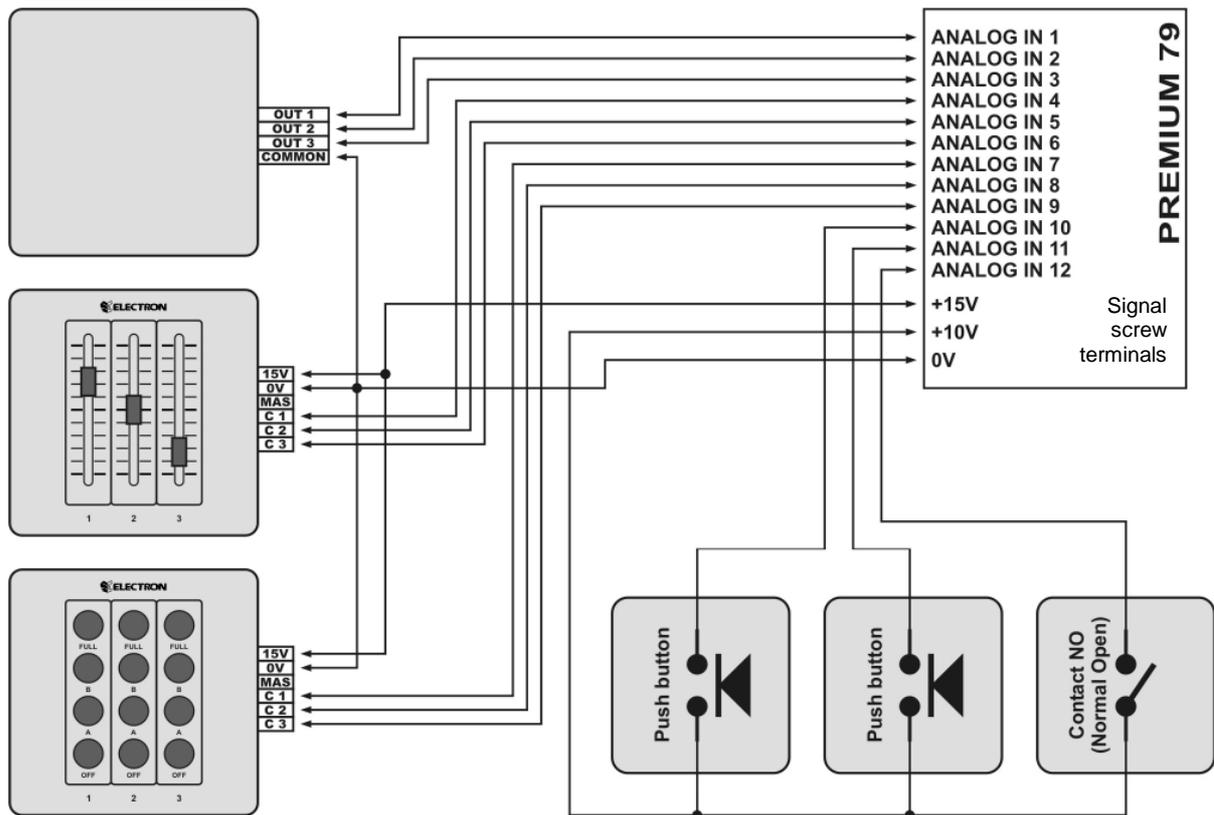
Using the "ANALOGUE IN ASSIGN" command program the analogue inputs starting from input 1

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

1. Do you want this Group of these inputs to operate with the method **"one active"?** (**GROUP**).

- **No.** Then all the analogue inputs need to belong to Group **0.**

- **Yes.** Then all the analogue inputs will have to belong in a group from **1 – 15.**.

2. What functions do you want these inputs to activate? (**ASSIGN**).

- **Channels.** Then you will assign the selected channel to each one of the inputs.
- **Scenes.** Then you will assign the selected scene to each one of the inputs.
- **Chasers.** Then you will assign the selected chaser to each one of the inputs.
- **Different function in every channel.** Then for example you have to assign to inputs 1-3 and 12 a channel, inputs 4-9 a scene and to inputs 10, 11 a chaser.

3. What function mode will the analogue inputs have? (**MODE**).
- **0/+10V,** the inputs 1-3, since you have connected a control panel with 10V outputs.
- **EASY NET,** the inputs 4-9, since you have connected a control panel that is using this communication protocol.
- **P.BUTTON,** the inputs 10 and 11, since you have connected push buttons.
- **CONTACT NO,** the input 12, since you have connected a dry contact "normal open".

4. Do you want these inputs to have a standard fade time of 2,5 seconds?
- **No.** Then on all of the three inputs you will select "**NORM**".
- **Yes.** Then on all of the three inputs you will select "**FADED**".
- **Only in inputs 10, 11.** Then on inputs 1-9 and 12 select "**NORM**" and on inputs 10 and 11 "**FADED**".

5. Do you want the functions that these inputs are activating, to stay activated for a specific time, or for as long as the contacts are activated? (**PULSE TIME**).
- **No.** Then on all of the analogue inputs you have to select "**EVER**".
- **Yes.** Then on every analogue input you will select the time you like, for example "**1m 30s**".
- **Only in input 12.** Then on the inputs 1 - 11 select "**EVER**" and on input 12 select the time you like, for example "**1m 30s**".

6. Do you want to block these inputs from a DMX control desk? (**FUNCTION**).
- **No.** Then on all of the three inputs you will select "**ENABLED**".
- **Yes.** Then on all of the three inputs you will select "**BLOCKED**".
- **Only the inputs 10-12.** Then on the inputs 1-9 select "**ENABLED**" and on 10-12 "**BLOCKED**".

7. Do you want the BLOCKED inputs to be blocked from the DMX input signal or from a DMX channel? (**BLOCKED MODE**).
- **DMX signal.** Then on the BLOCKED inputs select "**DMX SIGNAL**".
- **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Attention. When you select a specific time of activating the assigned function "PULSE TIME" and the contact will be activated before this time will pass, then the assigned function will be deactivated too.

Note. You don't have to change the variables that have already the desired values.

Example 10   Connection Of three control panels for lighting three different areas by using the "one active" method

This example refers to the case in which there is the need of lighting control in three independent rooms. In each room there will be a control panel which it will control the lights only in this place. In the whole area there is also a corridor that has to be controlled by two push buttons (one in the beginning of the corridor and one in the end). The push buttons will activate the corridor lights and after 2,30 minutes the lights will shut automatically.

The following control panels are used for this lighting application:

A MICON EB3 control panel of three UP – DOWN channels, for controlling the first room (1).
A MICON EB3 control panel of three UP – DOWN channels, for controlling the second room (2).
A MICON EB6 control panel of six UP – DOWN channels, for controlling the third room (3).

Two PUSH BUTTONS on parallel connection for controlling the corridor.

The application presented in this example is a typical architectural lighting control application. In such a case, it is not necessary to connect a DMX lighting Control Desk to the PREMIUM 79, unless you want to do so.

If you want, you can operate the MICON EB3 and EB6 control panels in alle-retour mode, by connecting on parallel, more control panels. Read the examples that are refered in such connections of this type.

The push buttons, are connected to the auxiliary supply voltage output (+10V) of the PREMIUM 79.

The scheme below indicates the electrical connections between the control panels and the analogue inputs, as well as the external power supply connection.

Attention.The sum of control panels in use that you supply with the auxiliary power of +15V must not exceed 1A of consumption.
The   MICON EB3 power consumption is 40mA.
The   MICON EB6 power consumption is 90mA.
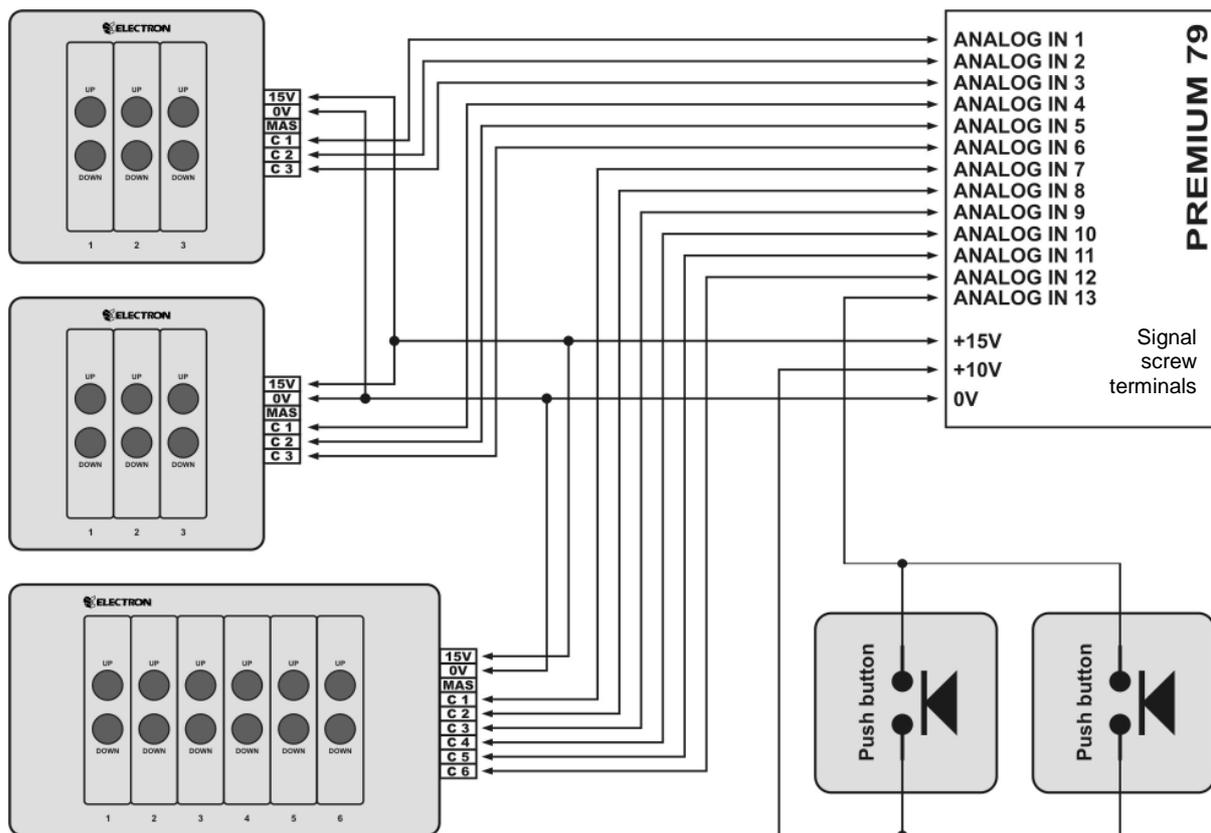
Using the "ANALOGUE IN ASSIGN" command program the analogue inputs starting from input 1

Note.If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

   The method that you have to follow is:

   1.   Do you want this Group of the inputs to operate with the method **"one active"?** (**GROUP**).

- **No.**   Then all the analogue inputs need to belong to Group **0.**
- **Yes, in three Groups and the Push Buttons independent.** Then:
   The inputs 1-3 of the first control panel will have to belong in a group, for example 1.
   The inputs 4-6 of the second control panel will have to belong in a different group,
   for example 2.
   The inputs 7-12 of the third control panel will have to belong in another group for example 3.
   The input 13 of the push buttons, since it is a single input, can be in group 0.

   2.   What functions do you want these inputs to activate? (**ASSIGN**).

- **Channels.**   Then you will assign the selected channel to each one of the inputs.

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- **Scenes.** Then you will assign the selected scene to each one of the inputs.
- **Chasers.** Then you will assign the selected chaser to each one of the inputs.
- **Different function in every channel.** Then for example you have to assign to inputs 1-12 a scene and to input 13 a channel.

3. What function mode will the analogue inputs have? (**MODE**).

- **EASY NET,** the inputs 1-12, since you have connected control panels that are using this communication protocol.
- **P.BUTTON,** the input 13, since you have connected push buttons.

4. Do you want these inputs to have a standard fade time of 2,5 seconds?
- **No.** Then on all of the inputs you will select "**NORM**".
- **Yes.** Then on all the analogue inputs you will select "**FADED**".
- **Only in the inputs 11, 12.** Then in inputs 1-10 and 13 select "**NORM**" and in inputs 11 and 12, "**FADED**".

5. Do you want the functions that these inputs are activating, to stay activated for a specific time, or for as long as the contacts are activated? (**PULSE TIME**).
- **No.** Then on all of the analogue inputs you have to select "**EVER**".
- **Yes.** Then on every analogue input you will select the time that you like, for example "**1m 30s**".
- **Only in input 13.** Then on inputs 1-12 select "**EVER**" and on input 13 select the time that you like, for example "**2m 30s**".

6. Do you want to block these inputs from a DMX control desk? (**FUNCTION**).
- **No.** Then on all of the three inputs you will select "**ENABLED**".
- **Yes.** Then on all of the three inputs you will select "**BLOCKED**".
- **Only the inputs 11,12.** Then on the inputs 1-10 and 13 select "**ENABLED**" and on inputs 11,12 "**BLOCKED**".

7. Do you want the BLOCKED inputs to be blocked from the DMX input signal or from a DMX channel? (**BLOCKED MODE**).
- **DMX signal.** Then on the BLOCKED inputs select "**DMX SIGNAL**".
- **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Attention. When you select a specific time of activating the assigned function "PULSE TIME" and the contact will be activated before this time will pass, then the assigned function will be deactivated too.

Note. You don't have to change the variables that have already the desired values.

If you desire in the above example, on the third room, from the fifth and sixth UP-DOWN setup, to adjust a chaser and an corresponding output channel, but not using the "one active" method, then:

- Remove the inputs 11 and 12 from group 3 and insert them in group 0.
- Assign the chaser function that you desire to input 11.
- Assign the channel function that you desire to input 12.

Now, the first 4 channels of the control panel that is controlling the third room will activate the functions that you assigned to the relevant inputs, using the "one active" method and the last two channels will activate the chaser and the channel that you assigned, independently from the first four.

Example 11   Typical connection of fluorescent lamps to electronic dimmable ballasts 1/10V and control by a MICON EL3 Control Panel
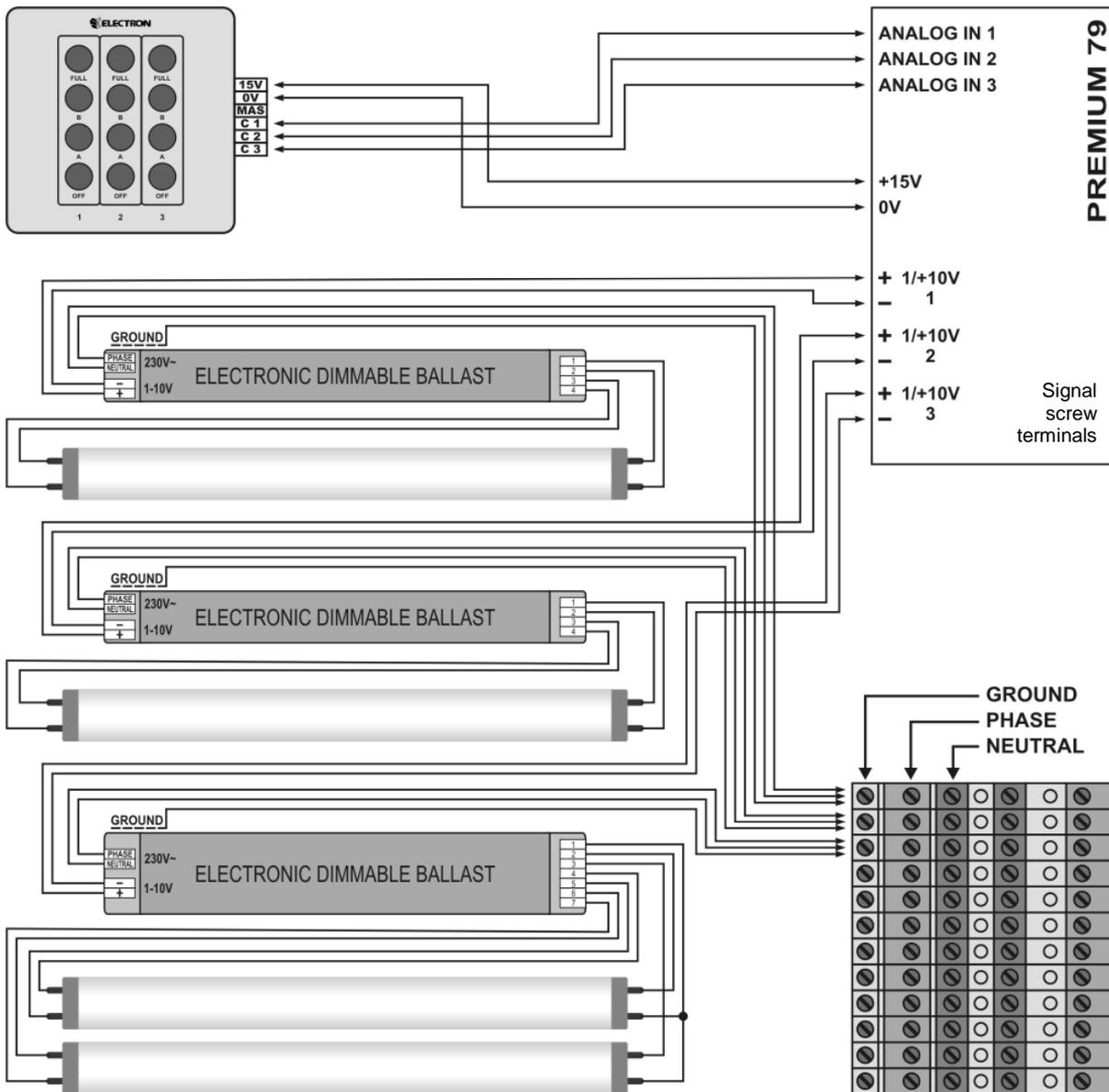
This example refers to an application with fluorescent lamps with electronic dimmable ballasts 1/10V. In such case, the PREMIUM 79 should have HF fluorescent controllers.

The lighting control is realized by a MICON EL3 control panel, connected to the analogue inputs 1-3.

The scheme below indicates the connection of the control panel, the 1/10V signals, and the power supply 230V~ of the electronic dimmable ballasts.

Attention.The sum of control panels in use that you supply with the auxiliary power of +15V must not exceed 1A of consumption.
The MICON EL3 power consumption is 40mA.

Using the "ANALOGUE IN ASSIGN" command program the three analogue inputs starting from input 1.

Note. If you haven't read the chapter "Analogue inputs programming" we recommend you to do it now, so you can comprehend the following example.

The method that you have to follow is:

    1.   Do you want this Group of the three inputs to operate with the method **"one active"?** (**GROUP**).

- **No.** Then all the three analogue inputs need to belong to Group **0.**
- **Yes.** Then all the three analogue inputs will have to belong in a group from **1 – 15.**
2. What functions do you want these inputs to activate? (**ASSIGN**).
   - **Channels.** Then you will assign the selected channel to each one of the inputs.
   - **Scenes.** Then you will assign the selected scene to each one of the inputs.
   - **Chasers.** Then you will assign the selected chaser to each one of the inputs.
   - **Different function in every channel.** Then for example you have to assign to input 1 a channel, input 2 a scene and to input 3 a chaser.
3. What function mode will the analogue inputs have? (**MODE**).
   - **EASY NET,** All of the three inputs, because these control panels are using this communication protocol.

4. Do you want these three inputs to have a standard **Fade time** of 2,5 seconds?
   - **No.** Then on all of the three analogue inputs you have to select **"NORM".**
   - **Yes.** Then on all of the three analogue inputs you have to select "**FADED**".
   - **Only in input 2.** Then on the inputs 1 and 3 select **"NORM"** and on 2 select **"FADED".**
5. Do you want to block these inputs from the DMX console? (**FUNCTION**).
   - **No.** Then on all of the three analogue inputs you must select **"ENABLED".**
   - **Yes.** Then on all of the three inputs you have to select **"BLOCKED".**
   - **Only the input 3.** Then on the inputs 1, 2 select **"ENABLED"** and on 3 select **"BLOCKED".**
6. Do you want the BLOCKED inputs to be blocked from the DMX input signal or a DMX channel? (**BLOCKED MODE**).
   - **DMX signal.** Then on the BLOCKED inputs select **"DMX SIGNAL".**
   - **DMX channel.** Then on the BLOCKED inputs select "**DMX CHAN.**" and then choose the DMX address of the channel "**BLOCKING ADDRESS**".

Note. You don't have to change the variables that have already the desired values.

TECHNICAL SPECIFICATIONS

Note. The following specifications are common for all the REMIUM 79 series.
However there is the possibility some of the characteristics not to be valid for the specific model that you have.
Specifications that concern exclusively the model that you own are referred to the additional technical specifications leaflet that escorts your PREMIUM 79.

High voltage outputs section (230V~)

High voltage outputs. (230V~)	See the additional technical specifications leaflet.
Outputs type.	See the additional technical specifications leaflet.
Triac or Thyristor drive	Hard fired
Maximum load per output.	See the additional technical specifications leaflet.
Minimum load per output.	See the additional technical specifications leaflet.
Maximum total load.	See the additional technical specifications leaflet.

Load Types.	(See the additional technical specifications leaflet). **Triac or thyristor dimmers:** Incandescent lamps. Resistive loads. Inductive loads. Iron core transformers to supply low voltage lamps. **Relay switches:** Devices and lighting fixtures that cannot be controlled by dimmers. **Controllers for HF ballasts:** High frequency electronic ballasts for fluorescent lamps with 1/+10V input for dimming the lighting level.
Laws.	Linear, Linear RMS, Switch (με ρύθμιση του ποσοστού εναλλαγής), Square, Fluorescent, Incandescent, 120V RMS, User 1, User 2, User 3, User 4, User 5, Pulsed dim, Pulsed switch.
Soft start.	Programmable soft starts 0 - 5'' for every output. (This time rate is not functioning on the output channels with "Switch" dimming law).
Preheat Levels.	Programmable Preheat Level 0 - 40% for every output. (This time rate is not functioning on the output channels with "Switch" dimming law).
Maximum output levels.	Programmable level 50 - 100% for all of the outputs. (This time rate is not functioning on the output channels with "Switch" dimming law).
Output protection.	See the additional technical specifications leaflet.
Main Switch.	See the additional technical specifications leaflet.
Residual Current Device. (RCD).	See the additional technical specifications leaflet.
Output Monitor.	Graphical presentation of the control channels percentages on the Premium screen.
Output screw terminal 16A.	Triple screw terminal per output (phase, neutral, ground). Cross-section: 4 ▫
Output screw terminal 25A.	Triple screw terminal per output (phase, neutral, ground). Cross-section: 6 ▫

1/10V signal output section

(Only in the models supplied with Fluorescent controllers or independent 1/10V outputs).

Signal outputs 1/10V.	See the additional technical specifications leaflet.
Output type.	"Sink" current adjustment for controlling HF ballast with input control 1/10V.
Maximum output current (Sink).	60mA per output
Screw terminals .	Double screw terminal per output signal (+, -). Cross-section: 1,5 ▫

Analogue inputs section

(Only in the models supplied with analogue inputs)

Analogue inputs.	48
Analogue input voltage.	0 / +10VDC.
Analogue in assignments	Each analogue input may be assigned to control a channel, or a scene, or a factory chaser, or a user chaser, or nothing.
Operating Modes.	0/+10VDC, 0/+5VDC, Contact NO, Contact NC, Easy net, Push Button.
Grouping.	Yes. The groups are functioning with the method "One active".
Input impedance.	50 KΩ (min.)
Power supply for control panels.	Two auxiliary Power supplies. 1) 2 x 10VDC / 2 x 45 mA. /For the supply of up to 48 10K LIN potentiometers. (In every 10V voltage supply you can connect up to 24 10K LIN potentiometers). 2) 15VDC / 1A. For supplying small control panels.
Analogue inputs terminals.	One screw terminal per input. Cable cross-section: 1,5 ▫
Supply voltage terminals.	6 screw terminals for the left 10V output. Cable cross-section: 1,5 ▫ 6 screw terminals for the right 10V output. Cable cross-section: 1,5 ▫ 12 screw terminals for the 15V output. Cable cross-section: 1,5 ▫ 12 screw terminals for the 0V common. Cable cross-section: 1,5 ▫

Digital input section

Digital input.	DMX-512 / 1990 with galvanic isolation from the Premium 79.
Digital output.	"Through" connection type.
Digital input status indication.	OK, FAULT, ERROR
PREMIUM behavior in case of DMX-512 signal loss.	Preserving of the last DMX data (Hold) or nullifying the last data packet,(Blackout), or activation of a scene.
DMX-512 assignments.	Each DMX channel may be assigned to control a channel, or a scene, or a chaser, or nothing.
.Assignments total	128
Input Screw Terminals.	Triple input - output screw terminal. Cable cross-section: 1,5 ▫
Digital input Soft Patch.	Yes

Special Features

Scenes.	Up to 512, with independent Fade in-out (0 - 60').
DMX data record on a scene.	Yes
User Chasers.	70, and up to 58 steps each. With independent Fade (0 - 60'') and Rate (0,06'' - 60'')
Scene copy on a step.	Yes.
DMX data recording on a step.	Yes.
Adding and Removal of a step.	Yes.
Chaser creator.	Yes. Capability of creating up to 58 chasers, from 1 to 14 channels, which are defined by the user, independent Fade (0 – 60'') and Rate (0,06'' - 60'') times pre-programmable chaser intensity and 8 automatic function modes.
Channel Fades.	Programmable Channel Fade in-out, 0 - 59,9'', for each channel.
Manual control.	Yes. The Scenes, the Chasers and the channels can be controlled by the keyboard.
Function keys.	3 programmable function keys. Each one can be assigned to control a channel, a scene, a factory chaser, a user chaser, or nothing.
Emergency Lighting.	When selected, the Premium 79 allows only the scene's function, that is programmed for this reason.
Panic lighting	Yes. The Premium 79 allows only the scene's function, that is programmed for this reason.
Standby mode.	Yes.
Merging modes.	Three. HTP, LTP, LAST. (With independent selection for the channels, the scenes and the chasers).
Connecting architectural control panels.	You can connect to the PREMIUM controllers the MICON E and BS Control Panels of ELECTRON S.A., simple faders, dry contacts, motion detectors, push buttons.
Controlling the analogue inputs by a DMX control desk.	Yes. The user sets the DMX channel which will block some or even all the analogue inputs.

Power Supply Section

Power Supply Voltage.	See the additional technical specifications leaflet.
Power Supply Voltage Limits.	+10% / -15%
Power Supply current.	See the additional technical specifications leaflet.
Minimum power consumption.	See the additional technical specifications leaflet.
Maximum power consumption.	See the additional technical specifications leaflet.

Power Factor cos φ.	1 (with resistive loads @ 100%).
Power Supply Connection.	See the additional technical specifications leaflet.
Phase distribution.	See the additional technical specifications leaflet.

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Other Characteristics

Password Protection.	Not allowing the entrance to the programming menu.
Blind programming.	Yes.
Alarm sound.	Yes.
Display brightness adjustment.	Yes.
Display contrast adjustment.	Yes.
Soft Power on.	Gradual increase of the outputs 5 sec. (When the dimmer is power up).
Automatic Power Control. (APC).	Automatic power reduce to avoid overheating.
Operation environment.	Indoor use only
Operating ambient temperature.	-5°C έως 35°C
Protection IP	IP10
Installation.	Permanent Wall – Mounted.
Dimensions.	750 mm x 1115 mm x 155 mm (Πλάτος-Ύψος-Βάθος)
Compatibility Norms.	IEC 61347-1 / 2003 EN 61347-2-11 / 2001 EN 61000-6-1 / 2007 EN 61000-6-3 / 2007