coemar

manual system 6 plus

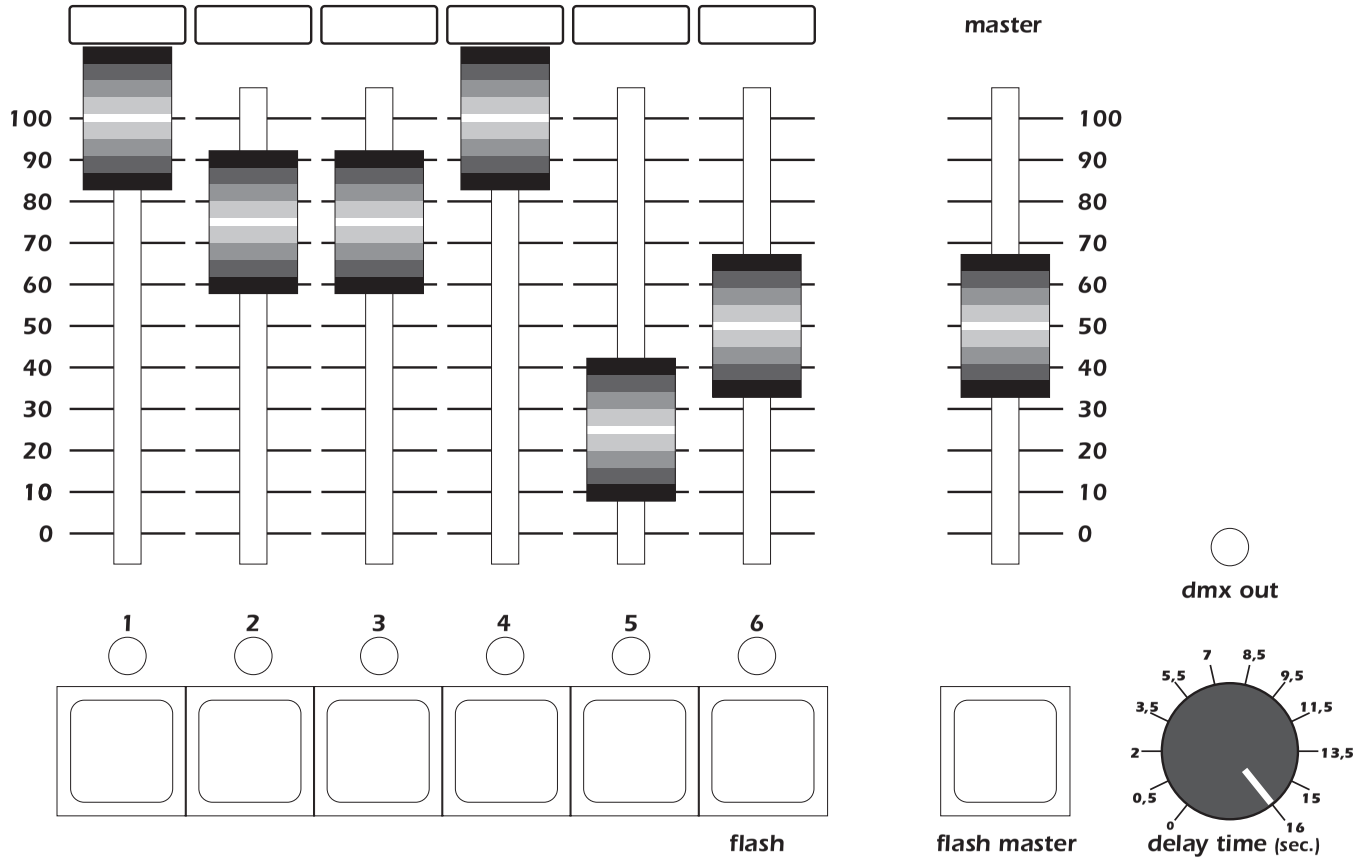
manuale
di istruzioni
intructions
manual

1^ edizione, luglio 1998
1st edition, july 1998

coemar

manual system 6

0/+10V-DMX 512



Index

manual system 6

0/+10V-DMX 512

1. *Introduction*

Congratulations on having purchased a new **coemar** product. You have ensured yourself of a controller of the highest quality, both in the components and in the technology used.
In any request for information regarding the **manual system 6**, we ask that you specify correctly the model purchased. To this end we requst that you complete the purchase details listed below. This information will assist us in providing you with prompt and accurate information.

serial number _____

date of purchase _____

retailer _____

address _____

suburb _____

capital city _____

state _____

tel./fax _____

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

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

2. General characteristics

The **manual system 6** is an electronic controller which generates 6 channels of 0/+10 v DC and DMX 512.
It may be used for any fixture which accepts either of these signals.
It requires a +20 V DC power supply.
An internal electronic device protects the unit against oversupply.
The DMX 512 output is electronically controlled.

Thanks to the rear-mounted rubber feet, the **manual system 6** is easily operated on any desk surface.

At the rear of the unit are two assembly features which allow the **manual system 6** to be operated in the vertical position, for example on a wall, in cases where installation may necessitate this mounting position.

3. Connecting 0/+10 v DC signal

manual system 6 *generates from the Locking-din, 6 separate outputs variable from 0 to +10V DC, as per the international standards for analogue output; all fixtures which accept analogue signal of this type are able to be operated from the* ***manual system 6****, per their respective functions.*
Connection is very simple if the fixture follows the coemar standard for analogue fixture connection, which is as follows:

Plug type 8 pin Locking din on ***manual system 6***

Pin 1*= 0/+ 10 V DC channel 1*
Pin 2*= 0/+ 10 V DC channel 2*
Pin 3*= 0/+ 10 V DC channel 3*
Pin 4*= 0/+ 10 V DC channel 4*
Pin 5*= 0/+ 10 V DC channel 5*
Pin 6*= 0/+ 10 V DC channel 6*

Pin 7*= + 20 V DC input*
Pin 8*= 0V DC*

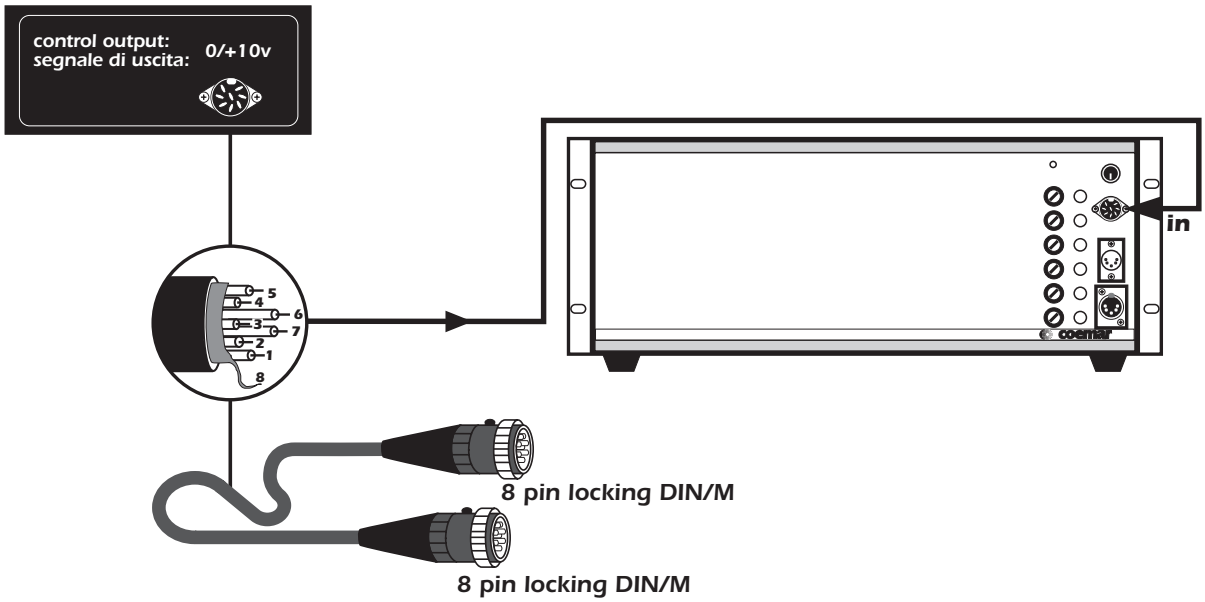
If your fixture accepts the coemar standard, you may use locking0din cables which are available from your authorised ***coemar*** *distributor:*

Code: 247 *(5m length)*
Code: 248 *(10m length)*
Code: 249 *(25m length)*
Code: 250 *(50m length)*

Should you wish to order only components, the following ***coemar*** *compnent parts are available:*

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

We recommend the use of screened cable; particularly in locations where there exists the possiblity of electomagnetic interference which may cause erratic behaviour.
The screening should always be connected to pin 8 of the locking-din plug.
Below is a typical 0/+10v DC connection between the ***manual system 6*** *and a dimmer.*



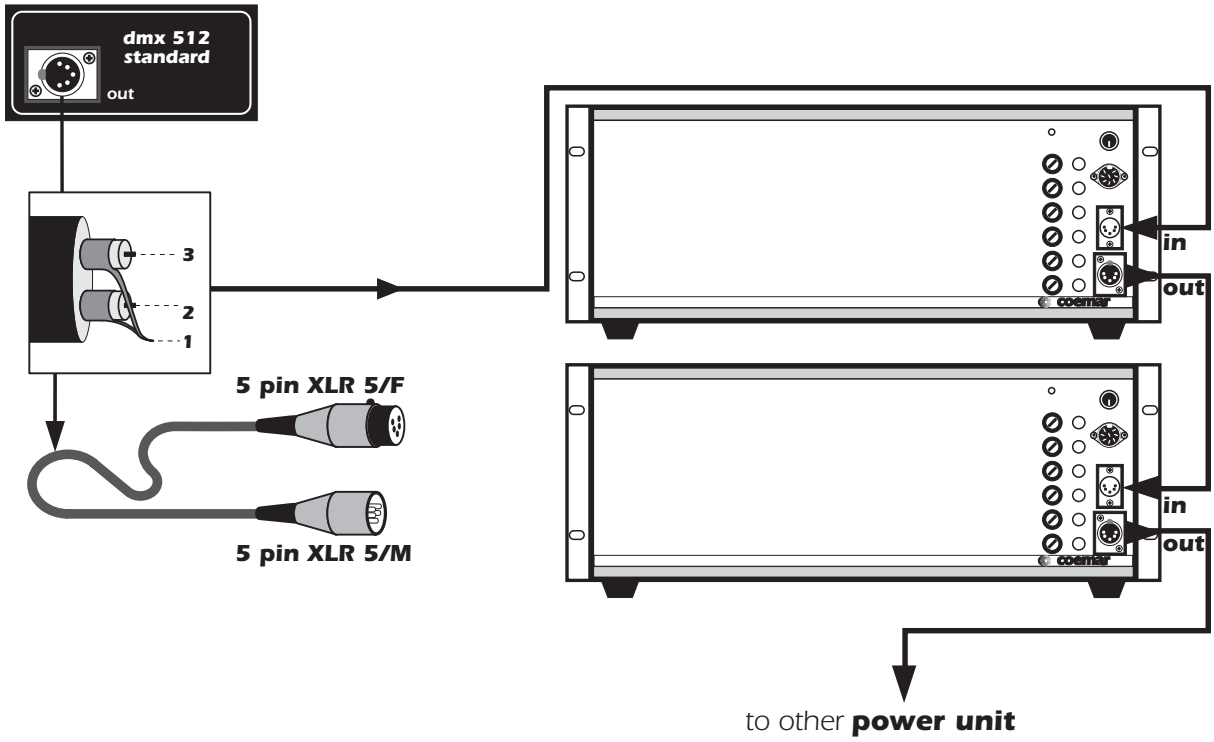
4. Connecting DMX 512 signal

manual system 6 generates, via the XLR 5 socket, 6 channels of DMX 512 numbered digitally from 1 to 6; allowing via the sliders a variation of the signal in the 6 channels of between 0 and 255, as per the international standards governing DMX 512 signal, described by USITT (U.S Intitute of Theatre Technology)
All fixtures and dimmers compatible with this standard are controllable via the **manual system 6**, as per their particular functions for signal equal to or below channel 6.
Connection between the **manual system 6** and the DMX 512 controlled fixture is as follows:

Output signal connection from the XLR5 socket on the **manual system 6:**
Pin 1= Ground (GND)
Pin 2= DATA -
Pin 3= DATA +
Pin 4= Optional -
Pin 5= Optional +

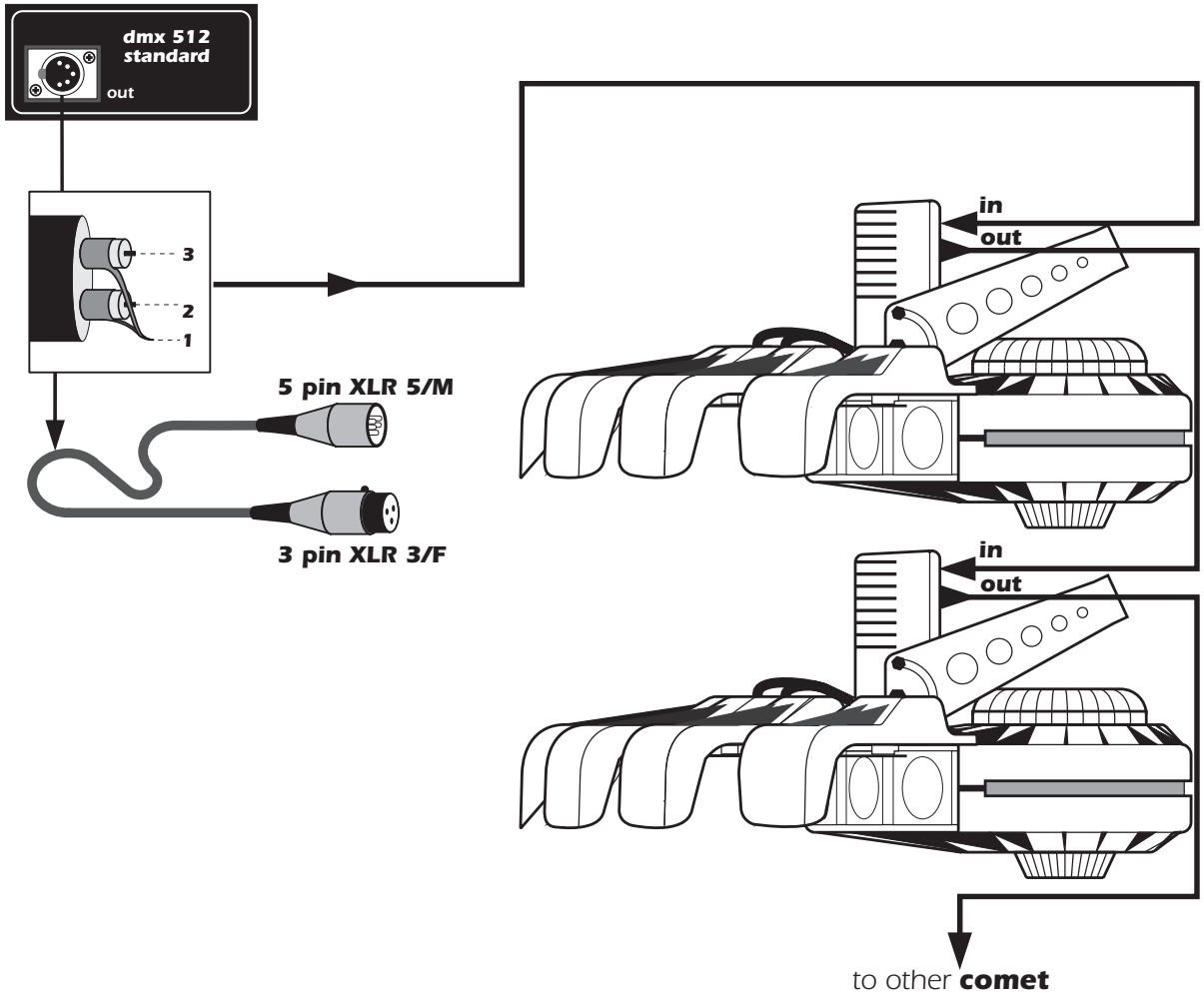
The following components are available from **coemar**:
ME 1344 (XLR 3 plug)
ME 1230 (XLR 3 socket)
ME 4966 (XLR 5 plug)
ME 4965 (XLR 5 socket)
CV 4158 (per metre screened cable 2 core Ø 0.5)

Connection must be via 2 core screened cable, adhering strictly to the recognised standards for connection.
The screening should always be connected to pin 1 of the XLR and must be isolated from the metal housing of the plug, with correct polarity.
The following diagram shows a typical DMX 512 connection between the **manual system 6** and a dimmer.



If the DMX 512 fixture to be controlled from the **manual system 6** has an XLR3 connector, simply do not connect pins 4 and 5, which are internationally recognised as not in use for DMX 512 signal connection.

The following diagram shows DMX 512 connection between a **manual system 6** and a **coemar comet**.



All DMX 512 controllable fixtures and dimmers must be set to the correct DMX address in order to operate correctly from the **manual system 6.**
Section 5 describes the procedure necessary for correct setting of the fixture to be controlled from the **manual system 6.**

5. Setting DMX signal reception (reserved for installer)

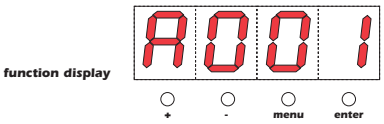
manual system 6 is able to control both dimmers and fixtures via DMX.
For your benefit, we explain below how to operate 2 different DMX controllable devices, a standard DMX controllable fixture and a **coemar comet**.

All fixtures should be addressed to the channel **DMX 1** to respond correctly to the 6 channels of the ***manual system 6,*** many fixtures require different methods for doing this, we recommend that you refer to the respective owner's manuals.

5.1. coemar DIGIfactor 6 channels

1-At start-up, the display on your projector will show ***A001*** indicating the address **DMX 1**.
This address should be maintained to ensure correct functioning
In the case that the display should show otherwise, proceed as follows:

Press the **+** or **-** buttons until the display shows **DMX A001** , the display will flash, indicating that the address is not recorded.

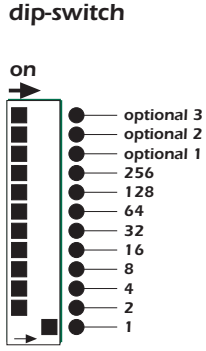


2- Press the **enter** button to record your selection, the display will cease flashing and the fixture will respond to address **DMX 1.**

holding down the + or - will allow for rapid scrolling through the display.

5.2. coemar comet

It is important to set the dip switched correctly to ensure correct reception by the **comet.**
The **comet** should be set, in fact, as would any other DMX 512 unit attached to the ***manual system 6***, to address 1
The following diagramme shows only the dip switches which should be set to 0N.
Other **comets** with the same address setting can also be controlled; if you wish them to be synchronised, you will need to also connect the stereo jack between **comets**; for other information refer to the **comet** manual.



6. Powering up

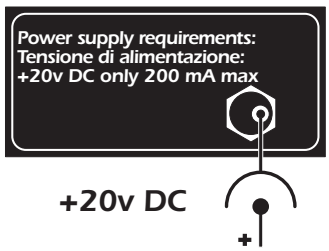
manual system 6 *requires a + 20V DC supply; it is electronically set to recieve this from appropriate* **coemar** *products or via an appropriate external power supplyl.*

6.1. external +20V DC power supply

The +20V DC 200 mA. power supply should be connected to the socket at the rear of the controller.with an appropriate plug to suit the ***manual system 6***:
Two core, Ø internal 2,1mm, Ø external 5,5mm.

For 230V 50/60 Hz mains supplies, we recommend the use of a **coemar** power supply which is available from distributors with stock code:

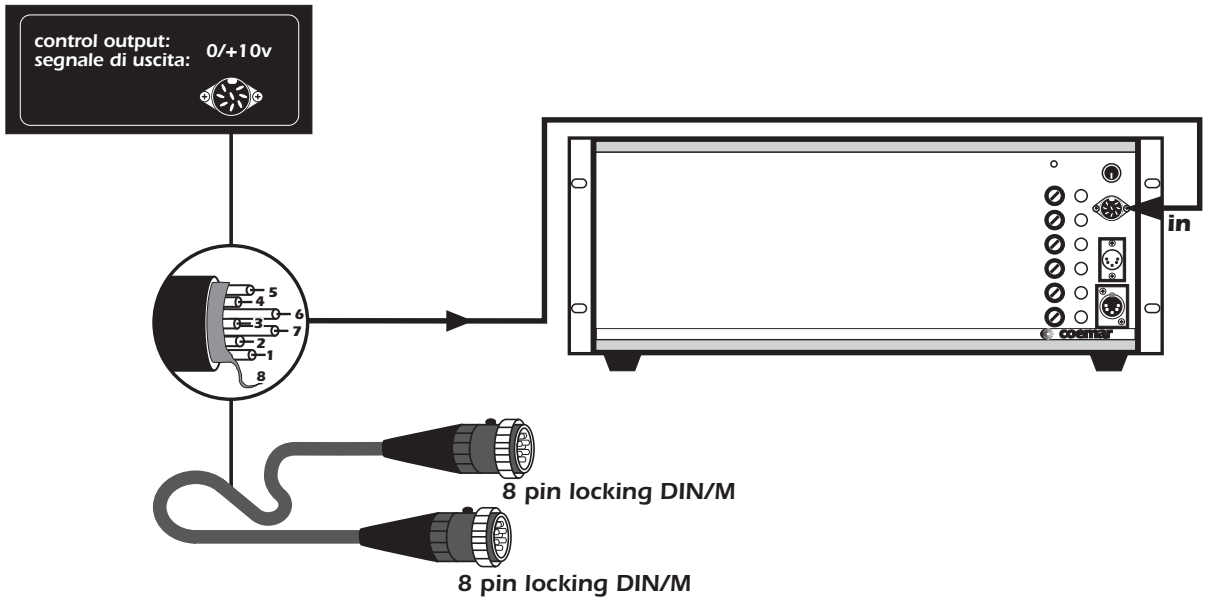
FO644/2 (power supply 230V 50/60Hz)



Power reception is indicated by the switching on of the dmx out led which will remain static on for 5 seconds and will then flash whilst it monitors outgoing dmx 512 signal.

6.2. power supply from the dimmer

Most **coemar** dimmers manufactured since 1982 will automatically power up the ***manual system 6*** via their analogue connections
Check that your fixture is supplying **+20V DC via pin number 7** of the locking-din and that **0V is via pin number 8**.
To power up the ***manual system 6*** connect it as described in section 3 regarding 0/+10V Dc connection, and as in the diagramme..



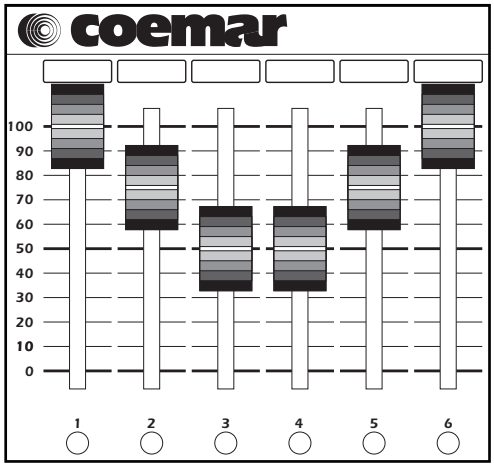
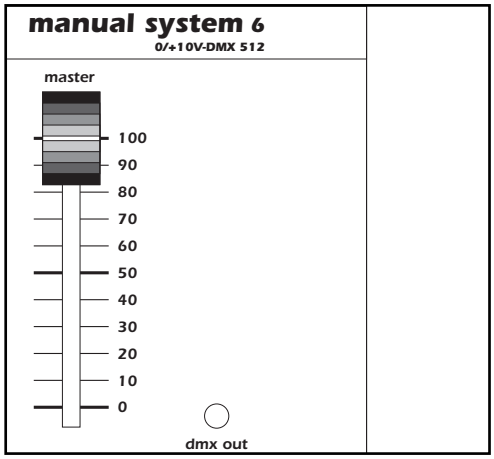
7. Functions

manual system 6.is a controller which offers complete control over 6 channels of DMX 512 or 0/+10V DC.
Check that the DMX out led is on and flashing on the ***manual system 6*** indicating that the controller is powered up and generating DMX signal.

If the DMX out led is not flashing, re-power the unit as described in section 6 of this manual.

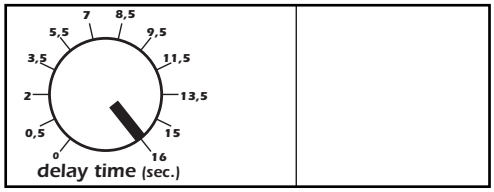
7.1. Adjusting output levels

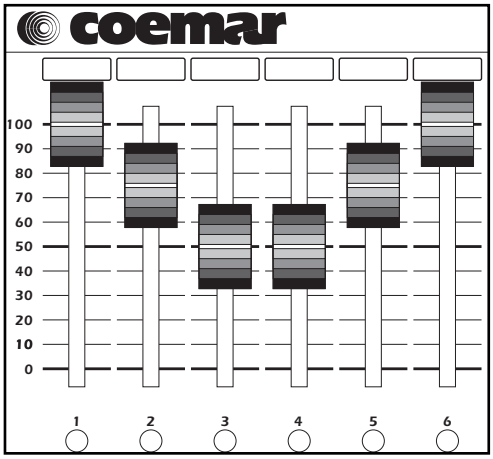
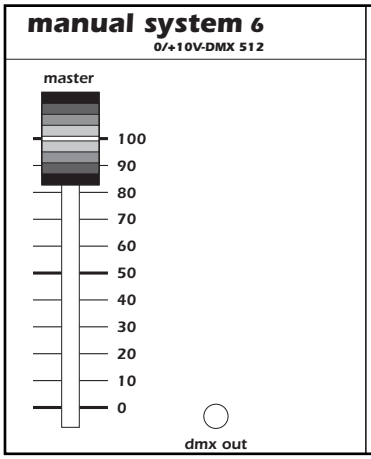
With this function it is possible to regulate the level of dmx or analogue signal being outputed.

1-		Adjust the position of sliders 1 to 6 to achieve the output level which you require The leds corresponding to the sliders (1 to 6) will remain off, indicating that there is no signal being transmitted.
2-		Adjust the level of the master slider from 0 al 100%. The leds corresponding to the sliders (1 to 6) will come on at a level of brightness corresponding to the respective levels being outputed. At this time the ***manual system 6*** is generating a 0/+10 V DC or DMX 512.signal.

7.2. Adjusting fade times

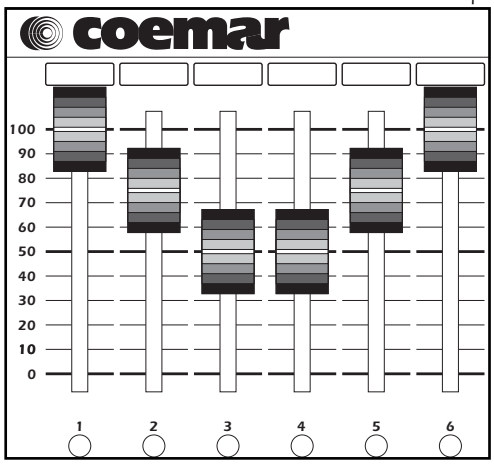
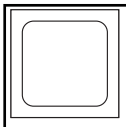
This function allows the output of the master slider to be assigned a fade time:

1-		Adjsut the level of the **delay time** potentiometer to, say, 16 seconds

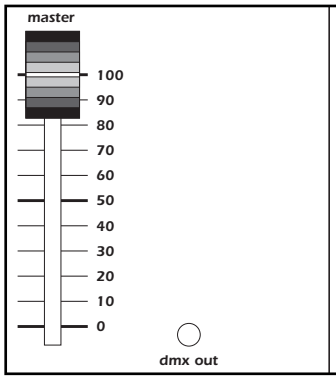
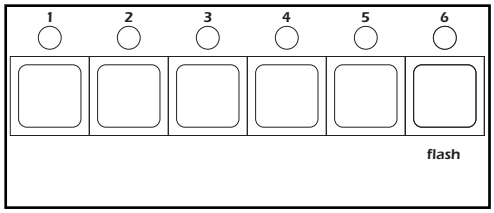
2-		*Adjust the position of sliders 1 to 6 to achieve the output level which you require* *The leds corresponding to the sliders (1 to 6) will remain off, indicating that there is no signal being transmitted.*
3-		*Adjust the level of the master slider to 100%.* *The respective leds will fade up over a period of 16 seconds till the reach 100%* *This feature is adjustable from a minimum of 0 seconds (no fade delay) to a maximum of 16 seconds.* *The* ***delay time*** *potentiometer will operate on the* ***master*** *in both fade up and fade down modes.*

7.3. Flash buttons

This function allows a selected channel to be flashed up to 100% instantaneously

1-		Adjust the position of sliders 1 to 6 to achieve the output level which you require The leds corresponding to the sliders (1 to 6) will remain off, indicating that there is no signal being transmitted.
2-	 **flash master**	Press the flash master button; the 6 channels will flash up to the level determined by the sliders. The leds corresponding to the sliders will come on to the level assigned by the sliders, remaining on until the flash master button is released. The **delay time** potentiometer has no effect over this function.

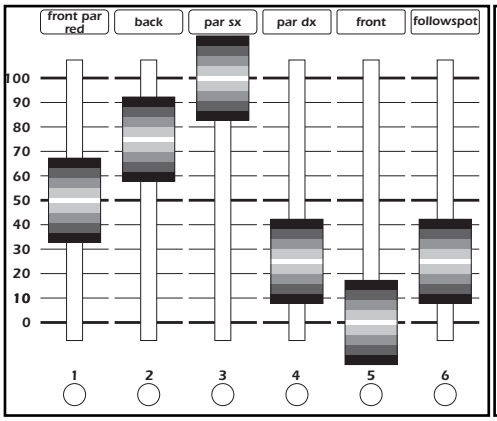
Note: It is possible to alter the action of the **flash master** button, a description appears in section **8 optional functions.**

3-		Adjust the **master** slider to the required level.
4-		Press the single channel **flash** buttons; the maximum output, as determined by the **master** slider, results. The maximum output of 100% is only achieved if the **master** slider is set to its maximum. The **flash** buttons will always generate a signal which surpasses that set by their individual sliders, outputting maximum level as determined by the **master**.

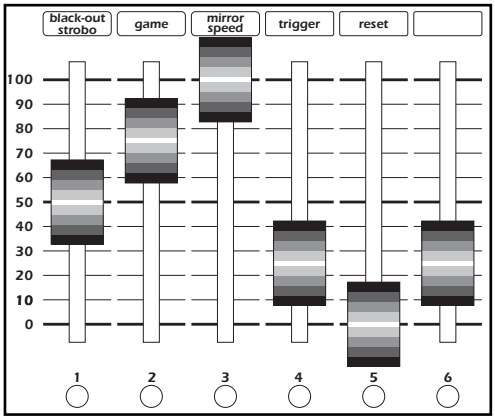
7.4. Area for writing down channel functions

*To facilitate installation of the **manual system 6**, coemar has provided an area to allow both installer and user to write down the various channel allocations. For example:*

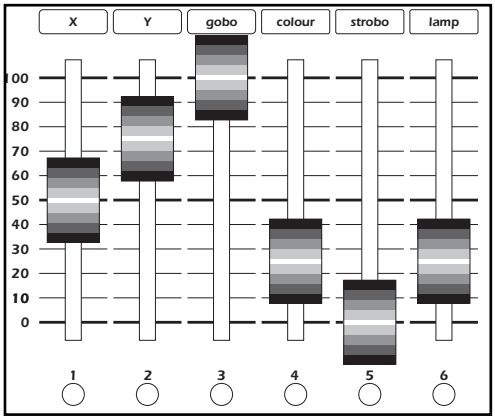
*If the **manual system 6** is connected to a dimmer rack, you may use the area provided to write down the following functions:*

1-		Channel 1 is assigned to red gel par 64's. Channel 2 is assigned to groundrows Channel 3 is assigned to par 64's stage left Channel 4 is assigned to par 64's stge right Channel 5 is assigned to cyclights Channel 6 is assigned to the followspot

*If your **manual system 6** is connected to a **coemar comet** you may use the area for writing down the channel functions for this unit:*

1-		Channel 1 controls black-out and strobe functions Channel 2 controls the program being run (10 levels) Channel 3 controls mirror speed Channel 4 controls step speed Channel 5 allows for a total reset of the **comet** Channel 6 has no function.

*If your **manual system 6** is connected to a **coemar micro scan 1** or **2**, you may use the area for writing down the channel functions for this unit:*

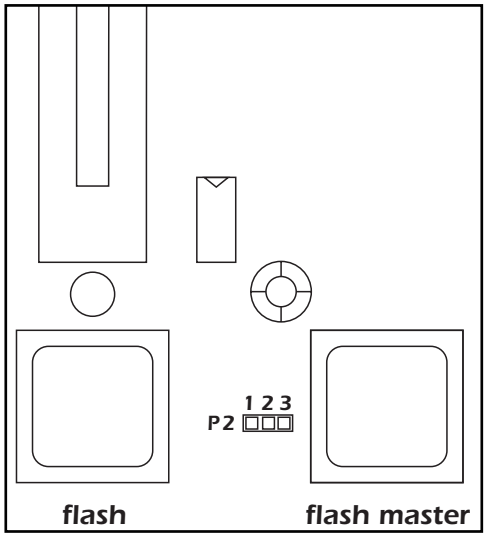
1-		Channel 1 controls mirror movement in the X axis Channel 2 controls mirror movement in the Y axis Channel 3 controls gobo selection Channel 4 controls colour selection Channel 5 contols black-out and strobe functions Channel 6 control dimming(halogen lamp versions) or lamp on and off facility (discharge versions)

8. Optional functions

The function of the **flash master** can be altered via the addition of a bridge (**P2**) to the circuit board within the **manual system 6.**
The button can generate a flash level as deternined by the 6 respective channel sliders or always at the maximum 100%.

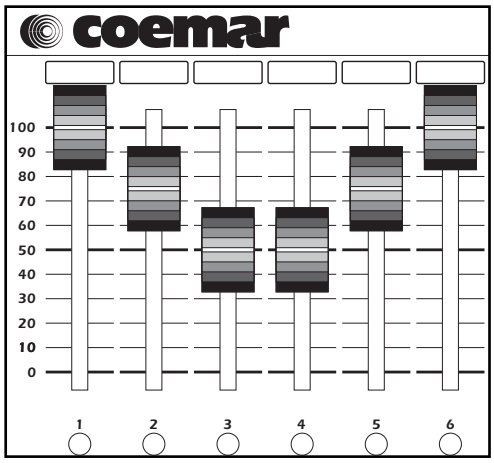
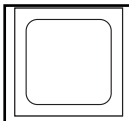
To activate the bridge, proceed as follows:

1-Remove the 7 plastic slider knobs (6 channels & 1 master).
2- Loosen the screw on the **delay time** knob.
3- Loosen the 4 screws which affix the front panel to the controller housing.
4- Locate the bridge **P2** in the internals of the **manual system 6** (see diagramme).
5- Position the position of the bridge **P2** according to the function which you wish the **flash master** to perform (as described below).



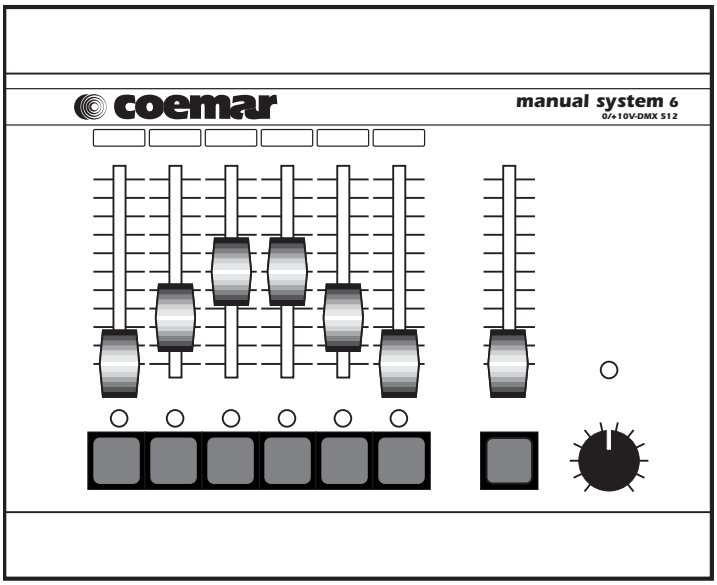
6- After selecting the position of the bridge **P2**, return the controller to its orignal state by replacing all components.

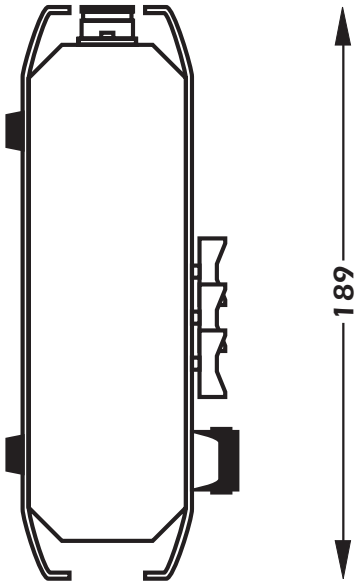
coemar sets the **flash master** to its standard position as described in section **7.3** of this manual; bridge **P2** in in this case is closed over contacts **2** and **3**.
The function of the **flash master** button can be altered if bridge **P2** is located over contacts **1** and **2**.
In this case the function is altered as follows:
In this setting it is possible to generate maximum output on all channels instantaneously.

1-		The settings of sliders 1 to 6 has no effect on the action of the **flash master** button. Test this by relocating the sliders to a variety of positions.
2-		Press the **flash master** button; the 6 channels output their maximum level. The leds above the respective sliders come on and remain on whilst the button is held on. The **delay time** potentiometer has no effect in this mode.

9. Technical characteristics

- Power supply: +20 V DC V via two core cable(plug specifications: Ø internal 2.1mm, Ø external 5.5mm).
- Amperage (excluding the 0/+10 V DC outlet): 100 mA
- Maximum amperage for analogue output: 5 mA per channel
- Accuracy: +/-1 bit
- DMX 512 rate: 15 mS
- Fade time: from 0.1 to 15 seconds
- Microprocessor controlled digital **DMX 512** output via 5 pin XLR5
- Analogue **0/+10 V DC** output via 8 pin Locking-din
- Individual channel bufffer for connection of dimmers in series
- 6 channels of analogue output variable from 0 to +10V DC
- 6 channels of digital DMX512 signal addressed 1 to 6
- Dust resistant sliders
- Over-voltage supply protection
- 4 rubber feet on rear
- FIxings for wall mounting
- Weight: 2,2 Kg
- Dimensions:





234

76

coemar spa

via Inghilterra
46042 Castelgoffredo (Mantova) Italy
Tel. 0376/77521
Fax 0376/780657

instruction manual

manual system 6 plus

1st edition july 1998