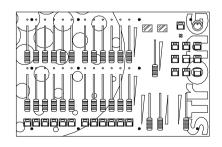
NOCTURNE 12/24 DMX



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1.- Description

The Nocturne 12/24 DMX is a desk with 24 analogue and digital channels. Its performance and versatility make it ideal for use in small-scale theatre productions.

It controls up to 24 channels and can store in its memory 144 scenes, on 12 pages of 12 scenes each.

In the manual mode, it has two presets that allow two different scenes to be played, for changing ambiences, performances etc.

In automatic mode it can execute programs of up to 66 scenes. It can also be adapted to the needs of musical groups who require light effects to be executed in time to the music

This desk can also be installed in a desktop version, with wooden feet, or in the rack version, which has wings for mounting on desks, racks, etc.

2.- Characteristics

- 2×12 channel manual presets
- One master per preset
- Blackout key for cancelling all outputs.
- •Blind key which keeps output invariable while pre-recorded scenes or chases are verified.
- •12 push buttons with their respective leds, for activating pages, chases or scenes

- Output level indicators for each channel.
- Timing of changeover (Fade) and running (Time) of a scene.
- Desktop or rack mounting options.

2.1.- Technical Data

Mains voltage	220V 50Hz one phase
Power absorbed	10 W
Safety fuse	5x20 0.5Amp
Analogue signal output	0-10V d.c. 10 mA max channel
Digital signal output	USITT DMX-512
Analogue output connector	Sub-D 15 pins
Digital output connector	XLR 5 pins
Maximum timing	60 sec
Weight	5Kg

3.- Dimensions

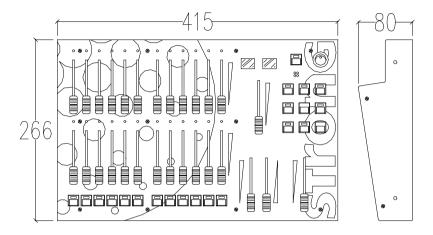


Figure 1

4.- Connections

4.1. Mains Connection



Fig.-2

- 1.- Safety fuse 0.5 A 5×20.
- 2.- Mains lead.

The Nocturne 12/24 DMX should only be connected to the one-phase 220v 50Hz mains via the mains lead. (see 2)

- 3.- Digital output
- 4.- Analogue channel outputs.

The three-conductor cable (phase, neutral and earth) with 1 mm² section supplied with the desk should be used.

4.2. Connecting the DMX Signal

Cables used should be low-capacity braided pair and shielded, with a minimum calibre of type 24AWG (0,2047 mm²) and an impedance of 120 Ohms. It is important to remember that the type of cable used significantly conditions any problems that may arise subsequently due to parasites coming through on the line. Shielded cables of the type usually used for connecting microphones should NOT BE USED.

The cables should be connected in such a way that pin 1 of the male connector on one end coincides with pin 1 of the female on the other end, and so on respectively for pins 2 and 3, while 4 and 5 are not used.

The screen connected to pin 1 should NOT be in contact with the casing of the connector.

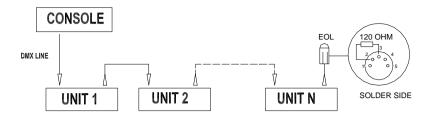


Fig.- 3

The connections should be made exactly as shown in Figure 3. It will be seen that a resistance of 120 Ohms 1/4W has been placed at the end of the line between pins 2 and 3; this corresponds to the end-of-line connector which is supplied with all items of equipment. The maximum

number of items that may be connected to a single line without the need for an amplifier is 32, and the maximum length of cable to the last item is 1 Km, although the use of an amplifier is recommended for lines over 500 metres.

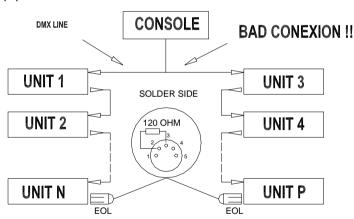


Fig.- 4

The connection shown in Figure 4 is NOT CORRECT: if an installation is required that divides into various branches, then SPLITTERS will be needed. These are elements that

distribute and amplify a single signal into several identical signals through different lines. (See Figure 5).

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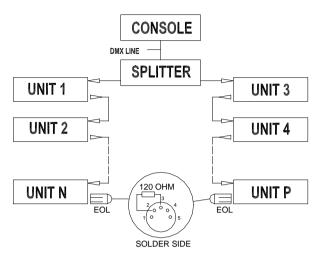


Fig.-5

XLR type 5-pin connectors should be used. The signal from the command should be connected to the DMX-IN input and the signal outgoing to

another projector to DMX-OUT. The end-of-line resistance should be connected to the output on the last projector.

4.3 Connecting the Analogue Signal

The 24 corresponding analogue signals are supplied through the two Sub-D 15 contact connectors. Pins 1 to 12 of each connector are outputs 1 to 12, and pins 13, 14 and 15 are connected to mass in both cases.

It is advisable not to make these cables too long, nor to pass them close by power lines, as they may capture electromagnetic disturbances causing faulty functioning of the equipment. Cables with a 0.25mm² section may be used.

5.- Operation

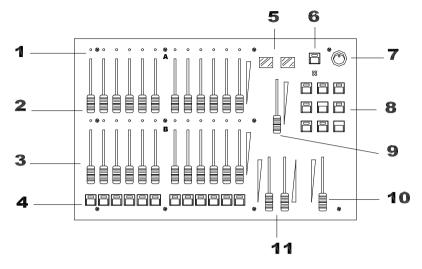


Fig.-6

- 1.-Channel leds
- 2.- Faders channels preset A
- 3. Faders channels
- preset B
- 4.- Scene/Page/Chase
- Pushbuttons

- 5.- Chase/Page Displays6.- Blackout Function
- 7.- On switch
- 8.- Function keys 9.- Fade/Time Fader
- 10.-Grand Master.
- 11.-Preset A and B master

5.1. Manual Desk Mode

When the desk is initialised, the CHASE and PAGE displays show 00.

This indicates that the desk is ready to operate in the conventional manual mode with 12 channels in 2

presets, A and B, or with 24 channels in 1 preset. That is to say, in this mode, the function keys are not operative, except the one that selects operation with 12 or 24 channels.

5.1.1. 12 Channel Mode

- Set the levels for each each channel with the corresponding faders.
- b) Change the preset moving the master A and master B faders

with their corresponding masters. Use the FADE fader to regulate the changeover time between scenes.

5.1.2.- 24 Channel Mode

To work in manual mode with 24 channels, press the 12/24 key and the corresponding led will light up. The 12 faders of the 2 presets become channel faders: those of preset A from 1 to 12, and those of preset B, from 13 to 24. It should be remembered that in this

It should be remembered that in this working mode the master B does not function. The flash pushbuttons do not function.

The procedure for playing scenes is:

- Set the levels of each channel with its respective fader.
- b) Shift the master A successively from one end to the other in

order to execute each of the scenes that are prepared. The changeover time between scenes will change depending on the position of the FADE fader. As explained above, in this mode the master B does not function.

The GRAND MASTER fader in any mode always acts as general output master. Similarly, when pressed, the BLACKOUT button (BLK) cancels the outputs, and the led in the button blinks, indicating that the function is activated.

5.2. Programming Desk Mode

In order to access this work mode, the PLAY key should be held down for several seconds, until 01 appears on the PAGE display and the CHASER display goes off. Similarly, the led corresponding to PLAY will light up, while the rest will stay off. This means that we are now in a

position to play a pre-recorded scene. If this is the first time the desk is started up, there will usually be no pre-recorded scenes or possibly some of no interest. Therefore, the first step before playing scenes or chases is to record them.

5.2.1. -Scene Mode

In scene mode a scene with up to 24 channels may be recorded in each of the 12 positions on each page. A total of 12 pages is available, therefore 12x12 = 144 scenes with 24 channels may be recorded.

Subsquently, these scenes will be played separately through the submaster (preset B fader) or later linked together through a chase.

5.2.1.1. Recording a scene

Press the REC key. The led corresponding to REC and to the 12/24 key will light up. Now select the page on which you wish to record the scene. Press the PAGE key and when the PAGE display and the leds corresponding to the 12 flash buttons wink, press the flash key that indicates the page you wish to access. If you wish to access page 1, then press 1, for page 6, press 6 etc. The page selected will appear on the display. If you make a mistake, press PAGE again and follow the same procedure as explained above.

When the page on which the scene is to be recorded has been selected, which of the twelve possible positions must be defined.

The 24 faders are used to prepare the scene as required for recording.

Faders 1 to 12 regulate the first 12 channels and faders 13 to 24 the rest. In this mode neither of the masters A and B function. If you are working with fewer than 24 channels, only use the necessary faders. But the desk is always available for recording up to 24 channels.

Now press twice the flash button that indicates the position in which you wish to record. If this is position 3, for example, then press key 3 twice. When this has been recorded, the led corresponding to this position will stay lit up to indicate that it contains a scene. If the scene is not recorded, the led will stay off. So, when a page is accessed, the leds that are lit up will indicate which positions contain prerecorded scenes. Only scenes may be recorded on these pages. To record chases, see section 5.2.2.1

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5.2.1.2. Deleting scenes

When in scene recording mode, if the REC key and the flash key containing the scene to be deleted are pressed simultaneously, the led goes out and the scene is deleted. If

several scenes are to be deleted, hold down the REC key while the keys containing the scenes are pressed successively.

5.2.1.3. Playing scenes

Press the PLAY key. The corresponding led will light up. Select the page on which the scene is recorded by pressing PAGE and the page number with the flash keys. The display will show the number of the page selected. Bring up the submaster (B faders) corresponding to the scene you wish to play back (any which has its led lit up). The master B acts as such. Also, in this mode, the A preset faders may modify the state of the 24 channels and be superimposed on the 24 of the scene.

The operation should be carried out in groups of 12. That is to say, modify the first 12 (from 1 to 12) and press the 12/24 key in order to modify the rest (13 to 24). The modifications must always be made with the first 12 faders (the A preset ones). The A master will act as such. When one submaster is brought up and another down, in order to put on and take off a scene, the changeover time will be determined by the position of the FADE fader. Maximum time is one minute.

5.2.2. Chase Mode

Press the SCENE/CHASER key. The corresponding led will light up and the chaser display will start to change constantly from 1 to 12,

5.2.2.1. Recording chases

To record a chase, the pre-recorded scenes have to be linked up. Press the REC key and select the chase to be recorded by pressing twice the flash key that indicates the number of the chase, and the corresponding led will light up. The number selected will appear on the CHASER display and automatically page 01 will be selected. The flash key leds will show all the positions on the page that contain scenes.

Press the keys with the scenes you wish to record, one after the other, in the order you require them to appear in the chase. After each scene selected press COPY.

5.2.2.2. Deleting chases

Press simultaneously the REC key and bottom button of the chase you

indicating that only 12 chases may be recorded. The leds of the 12 lower buttons that contain pre-recorded chases will be lit up.

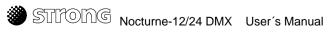
To be precise: press key 1 and view the scene. If you wish to add it to the chase, press COPY. If not, select another scene, view it and press COPY if you wish to add it. Proceed thus until the chase is complete. If you wish to record scenes from other pages in the same chase, press PAGE, select the page number and the scene or scenes required and press COPY.

Up to 64 scenes may be recorded in one chase.

To complete the recording, press REC again.

The leds of the flash keys where the chases are recorded will stay on.

wish to delete. The process is analagous to the deletion of scenes.



5.2.2.3. Playing back chases

Press the PLAY key, and the corresponding led will light up. Press the MANUAL/AUTOMATIC key to leave it in the AUTOMATIC position. Press the bottom button that is lit up and contains the pre-recorded chase you wish to play back. Use the TIME fader to vary the speed of execution of the chase.

The 24 faders of the 2 presets A(from 1 to 12) and B (13 to 24), assigned in this work mode to the 24 channels, may be superimposed on the chase outputs. The master A acts as the master for the 24-channel preset but not as master of the chase. The master B acts as chase master (it regulates the output levels).

If the AUDIO key is pressed, the chase will play in time to background music.

If the MANUAL option is selected, every time the COPY key is pressed the scene of the chase will change, according to the FADE fader. To exit the chase, press the corresponding the bottom button again. The led will stay on and the chaser display will show sequentially the values from 1 to 12.

The BLIND key serves to work with the desk (display scenes, chases, etc.) while the output remains invariable in the situation existing before pressing the key. To quit the BLIND mode, press the key again.

6.- Maintenance

6.1.- Regular Cleaning

To prevent the build-up of dust and dirt which may impair the correct operation of the desk, this should be cleaned regularly

Use a soft, slightly damp cloth (if the equipment is very dirty, apply a little liquid detergent to the cloth).

WARNING! Do not use solvents or products containing alcohol. Make sure that no liquids get inside the equipment.

7.- The Most Common Problems.

Problem	Cause	Solution
The desk does not light up.	No power.	Connect the mains power.
	Control fuse fused.	Check installation and change fuse.
No channel output.	Masters at zero.	Bring up masters.
	Blackout function is activated.	De-activate.
	Signal connector not connected.	Check connection and re-connect.
	Dimmers have no power.	Connect dimmers.
Outputs do not change but leds do.	BLIND function activated.	De-activate.
When chase and MANUAL option is selected, when COPY is pressed the chase does not advance.	FADE fader with very long time.	Decrease time.
When chase and AUTOMATIC option selected, the chase does not advance.	AUDIO option selected.	De-activate.
	TIME fader with very long time.	Reduce time.

If the problem persists in spite of these measures, please contact FRESNEL S.A.'s Technical Service

Tel.: 34 93 210 73 51 Tel.: 34 93 219 94 60 Fax: 34 93 213 76 61



FRESNEL S.A.

STATEMENT OF COMPLIANCE

DC-01

DATF: 1/1/99

We hereby state the product:

STRONG Make:

NOCTURNE 12/24 DMX Model:

Year of manufacture: 2001

Complies with directive 73/23 in respect of the safety requirements for electrical material intended for use within specific voltage limits, and with directive 89/336 in respect of the electromagnetic compatibility of equipment, systems and installations.

Sole administrator

Angel Torrecillas Redón Barcelona, 1 January 2001

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