

CLS

DMX16 16 Channels DMX Light Mixer



User-Manual

2001 V3

Made in Norway by
Compact Light System AS
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Table of contents :

- Page 1: User Manual cover page.
- Page 2: Table of contents, Contact Address - Support
- Page 3: Specifications
- Page 4: Overview
- Page 5: Explanations
- Page 6: Getting Started - Programming the CLS DMX16-Easy Mode
- Page 7: Programming the CLS DMX16-Advanced Mode
- Page 8: Trouble shooting diagram

- 1: Start-up and power on.
- 2: Grp/Smoke.
- 3: Mem: Store:/Blackout.
- 4: Edit: Fast select/Main flash
- 5: Prg: Program-function
- 6. Fader functions CHASE

Thank you for choosing a CLS product.

We hope that you will enjoy the functionality and possibilities this unit can handle, for many years.

Make certain that no inflammable liquids, water or metal objects enter the fixture.

For best exploitation of capacity - read this manual carefully.

Compact Light System AS

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Specification:

Compact DMX Light Mixing Console

DMX Channels : 16 + Smoke channel 17.

Output : 3-pin or 5-pin Neutriks XLR female

Protocol : DMX 512 (1990)

Memory : 4 programs (Scenes)

Faders : 60mm Alps

Processor : 16MHz

Software : User upgradeable

2 Modes : Easy mode and Advanced Mode

Chaser : 4 Scenes-adjustable tempo and Crossfade speed

Crossfades : Yes

Input : Powerplug-5,5mm Pin 2,1mm.

Weight : 0,3 kg **Size :** 6 x 110 x 55 mm

Software Version : 1.0

Designed for the control of:

1. Small Theatre Lighting
2. Band Lighting
3. Discotheque Lighting
4. Intelligent Spotlights and dimmers together
5. Environmental Lighting
6. School theatre lighting
7. Lights for PA rent out and lighting companies
8. Smoke/Haze machines

OVERVIEW:

The CLS DMX 16 comes with built in user selectable two versions software: Easy Mode and Advance Mode.

POWER INPUT: 12-18V 600mA -AC or DC, polarity unessential.

DMX512 DIGITAL OUTPUT 3 PIN or 5 PIN XLR SOCKET

All 17 channels levels are transmitted in the DMX512 (1990) serial digital format to any device capable of receiving it. Use twin core screened cable.

Pin connections: Pin 1 = Screen Earth, Pin 2 = Signal-, Pin 3 = Signal+.

NOTE: The end of the DMX line must always be terminated with a 120 ohm resistor connected between Signal+ and Signal- as a standard of DMX. This resistor can conveniently be mounted in a 3 or 5 pin XLR plug which should be inserted in the last device on the DMX line.

4 LEDs: Indicate Group selections in Mix Mode and Program selections in Program Mode.

4 FLASH BUTTONS: Normal flash buttons in Mix Mode, and selection of Groups and Programs.

4 FADERS: Normal faders in Mix Mode. Fader 1 is controlling the Pause length in Chase Mode. The Fading time in Program and Chase Mode is controlled by fader 2. Leds flashing when fading.

SMOKE BUTTON: Sending out DMX Channel 17 when it is pressed in. It is not programable, but available in Program Mode, designed for operating On and Off Smoke Machines or other DMX controlled units.

BLACK OUT BUTTON: Sets all 16 DMX Channels to value zero when pressed in. It is not programable, but available in Program Mode

FLASH ALL BUTTON: Sets all 16 DMX Channels to value 256 when pressed in. It is not programable, but available in Program Mode

Specifications are subject to change without notice.

Explanations:

CHANNEL FADERS = 4 Sliders controlling 4 channels in each group.

FLASH BUTTONS = 4 Buttons under the channel faders.

FUNCTIONS BUTTONS = 4 buttons in the front. Several functions.

ONE PROGRAM = A complete mix of the 16 channels.

GROUP = 1 page of the mixers faders.

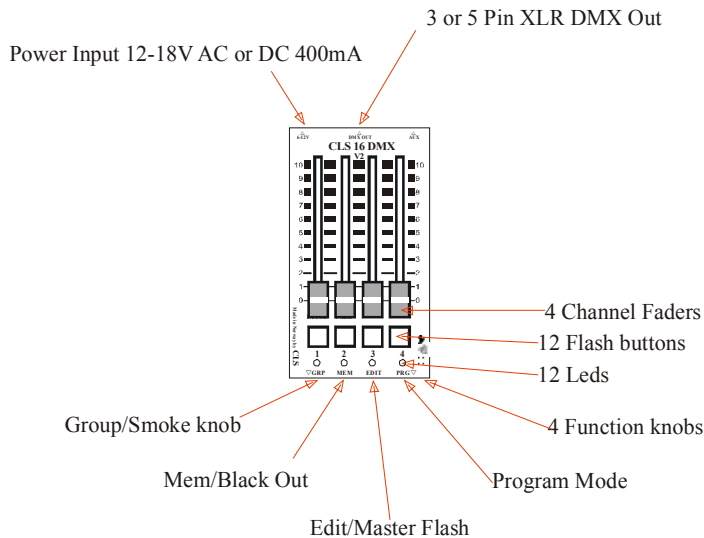
Group 1 = DMX Channels 1- 4

Group 2 = DMX Channels 5- 8

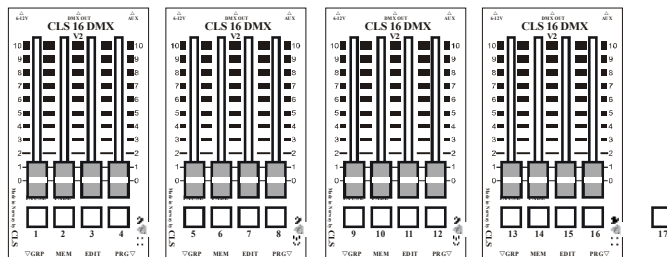
Group 3 = DMX Channels 9- 12

Group 4 = DMX Channels 13- 16

CHASER = Programmable running light at adjustable speed and fading time.



To explain the functionality of the DMX 16, see this diagram:



Group 1	Group 2	Group 3	Group 4	Smoke
DMX Channel: 1 2 3 4	5 6 7 8	9 10 11 12	13 14 15 16	17

Getting Started

Connect all the DMX units together with the DMX Cables.

Set the respectively DMX addresses on each unit connected to the CLS DMX16. (See the instruction manual for each units.) Plug in a terminator at the last unit of the DMX line. (XLR contact with a 120 Ohms resistor connected between pin 2 and 3.)

Connect the power for every unit and the CLS DMX16 Mixing Console.

You are now ready to make your first show with CLS DMX16.

Selecting the CLS DMX16 Easy Mode or Advance Mode:

Press and Hold the Flash button 1 and the Functions knob 4.

While holding these: Connect the power.

This will Switch between the Easy Mode and Advanced Mode.

To check what Mode you are in: Push a Function knob in the front of the CLS DMX16. The led will light. Do it again and the led will go out. This means that the CLS DMX16 is in Easy Mode.

Easy Mode: In Easy Mode the CLS DMX16 has disabled many of the functions to make it easier for non experience users. The is **NO** Chaser, Crossfade, Blackout, Flash or Smoke knob ch.17. available. The Group select is made easier and Store the scenes is just to hold down the Flash knob for 5 sek.

Programming the CLS DMX16 - Easy Mode.

1. The first you see when you connect the power is a light in the first led. This tells you that the CLS DMX16 is in Mix Mode, Group 1 is activated and the faders will work at DMX Ch. 1-4. Mix the lights the way you want them, change Group by pressing a function knob, the Leds on selected groups will light up. It is possible to select more than 1 group, up to 4, at the same time.
2. Mix more and so on...
3. Save the scene by pressing and holding a flash knob until the leds is flashing. (5sek)
4. Mix more...
5. Save the scene to another flash knob and so on.
6. Select the saved scenes by pressing a flash knob.

When selecting a scene on a Flash knob, the Group select will reset to no Group selected. The led(s) will stop lighting. To mix manually you have to select one Group or more with the functions knobs to get the faders working.

If you change to Advanced Mode, the CLS DMX16 will remember the scenes from the Easy Mode and vice versa.

Programming the CLS DMX16 - Advanced Mode.

1. The first you see when you connect the power is a light in the first led. This tells you that the DMX16 is in Mix Mode, Group 1 is activated and the faders will work at DMX Ch. 1-4.

2. Grp/Smoke:

Choose a group that you want to mix by pressing and holding the Grp while pressing a Flash button. The Leds on selected groups will light up. It is possible to select more than 1 group, up to 4, at the same time.

The leds will light up. In Program Mode the Grp knob will send out DMX Channel 17 when pressed in. (Value 256) This is useful for controlling a DMX Smoke Machine.

3. Mem: Store:/Blackout.

Press and hold the Mem knob while pressing a Flash button to memorize a program. It will overwrite an earlier programming on the same flash knob. It's possible to make 4 programs(scenes) in the memory, one for each flash knob. In program mode the Mem knob function is Blackout. (Sending out value 0(Zero) to all channels) Push a flash knob to go out of blackout and in to a program.

4. Edit: Fast select/Main flash:

Press and hold the Edit knob while pressing a flash knob to make fast selections of a program to edit in the mix-function.

This function makes it possible for a scene that is already stored, to be changed and stored again without setting all channels from the beginning. In program mode the Edit knob will function as a Main Flash knob. Pressing this will send value 256(full) to all DMX channels. Release it to go out of Main Flash and back to the program.

5. Prg: Program-function:

One pressure: ON for user programmed scenes. (The leds will flash as a chase)
Then press flashknobs to changes scenes.

Next pressure: OFF to go back to the mix-function. (All the leds will flash when pressed in) No groups are activated.

Make the group(s) selections, and the faders/flash knobs are in manual setting.

6. Fader functions:

CLS DMX16 mixer has 4 Faders. They are multiprocessing, dependent of the functions-setting of the mixer.

A. If selected mix-function, the faders will have the same function as on other mixers.

B. If the mixer is set in program function, Fader 1 will act like a Adjustable-Pause controller and Fader 2 will act like an Adjustable-Speed controller (Cross Fade speed between programs). Automatic select of scenes (Chase) will be activated when Fader 1-(Pause) is out of the full position. Manual select of scenes is activated by pressing flash knobs 1-4. The speed for change of scenes will depend on the Fader 2-position. (Cross Fade in to the next program)

Trouble shooting diagram:

Fault Indication:

No lights in the leds when connecting power to the DMX16.

When turning on all the Groups, the light in the diodes is dimmed down.

The lamps that is connected to the DMX chain is flashing and seems unstable.

There is no response on the DMX unit(s) connected to the DMX16.

When selecting a new group, the faders seems to not working.

The CLS DMX 16 is running the Chase when the power is connected and there is no light staying in led 1.

What to do:

Is the mixer in program-mode ? Push the Prg knob. All the leds should flash.

Check if the power plug connected to the mains ?

Try to take out the power and the DMX plugs, wait 20 second, and connect it again.

Any power in the connection ?

Connect a lamp to the power outlet. If it light up, change power supply.

If it doesn't light up. Check fuse for the power outlet circuit.

To small power supply.

Recommended input minimum is: 600mA 12V AC or DC. Polarity unessential.

Always use good quality DMX cable with a terminator at the last unit.

(120 Ohms resistor connected between Pin 2 and 3 in a XLR plug.) Check or change the cables one by one.

Check the DMX channel selection on the unit(s). Is it the same channel on the DMX unit(s) than the one you are working on ?

The DMX16's groups will remember the last used position and you need to find the point where it was last time. Move the fader slowly till you see some changing of the light. This will activate the fader.

The CLS DMX 16 has a built in function if the power fails. It will start the Chaser as it was running when the power comes back if it was in program-mode when the power was turn off. Press Prg to go to mix-mode.