

FOS

technologies

FOS 24CH DMX Console



PRODUCT SPECIFICATIONS

TECHNICAL SPECIFICATION

Power Input: DC12V-18V 500mA.

DMX output: 3Pin female XLR

MIDI SINGLE: 5Pin DIN

Fuse (internal): F0.5A 250V 5x20mm

Dimensions: 482 x 264 x 85 mm

Weight: 4.8 Kg

Adaptor: AC 230V 50Hz, DC 12V,500mA

SAFETY WARNING

This product must be installed by a qualified professional. All maintenance must be carried out by a qualified electrician. A minimum distance of 0.5 m must be maintained between the equipment and a combustible surface. The product must always be operated in a well-ventilated area. DO NOT stare directly into the light source. Always disconnect the power before carrying out any maintenance. The earth must always be connected to the ground. Ensure that all parts of the equipment are kept clean and free of dust.

PROTECTION AGAINST SOLIDS AND WATER

Only for IP-rated fixtures

The protection level of a housing is set by applied standards. For classification there is used the IP-Code. It contains the declaration „IP“and two following numbers. The first number characterizes the protection against harmful effects of solids, the second is rating the water protection. It is important to distinguish

whether encapsulation and harmful effect! There can be housing that is not capsuled completely but still avoids harmful effect of solids or water.

PROTECTION EXAMPLES:

IP20: Protection against intruding objects >12,5mm „Finger protected “; No waterproofing. **TYPICAL PROTECTION FOR INDOOR USE FIXTURES**

IP33: Protection against intruding objects >2,5mm; Falling water within an angle of 60° has no harmful effect **TYPICAL PROTECTION OF LED-LIGHTS USING RECESSED POWERCON AND DMX SOCKET.** This protection is linked to the mounting position of the fixture and always refers to typical mounting situation like a Floor spot used standing on the ground.

IP54: complete protection against solids and low-pressure water from any side **THIS TYPE OF FIXTURES CAN BE USED UNDER NORMAL OUTDOOR CONDITIONS.**

IP65: shielded against dust and pressurized water from any side. **TYPICAL PROTECTION FOR OUTDOOR RATED EVENTFIXTURES USING WATERPROOFED POWER AND SIGNAL LINK.**

IP67: shielded against dust and protected for accidental briefly submerge. **PROTECTION AGAINST ACCIDENTAL SUBMERGING ON TEMPORARY FLOODED AREA.**

TEMPORARY USE

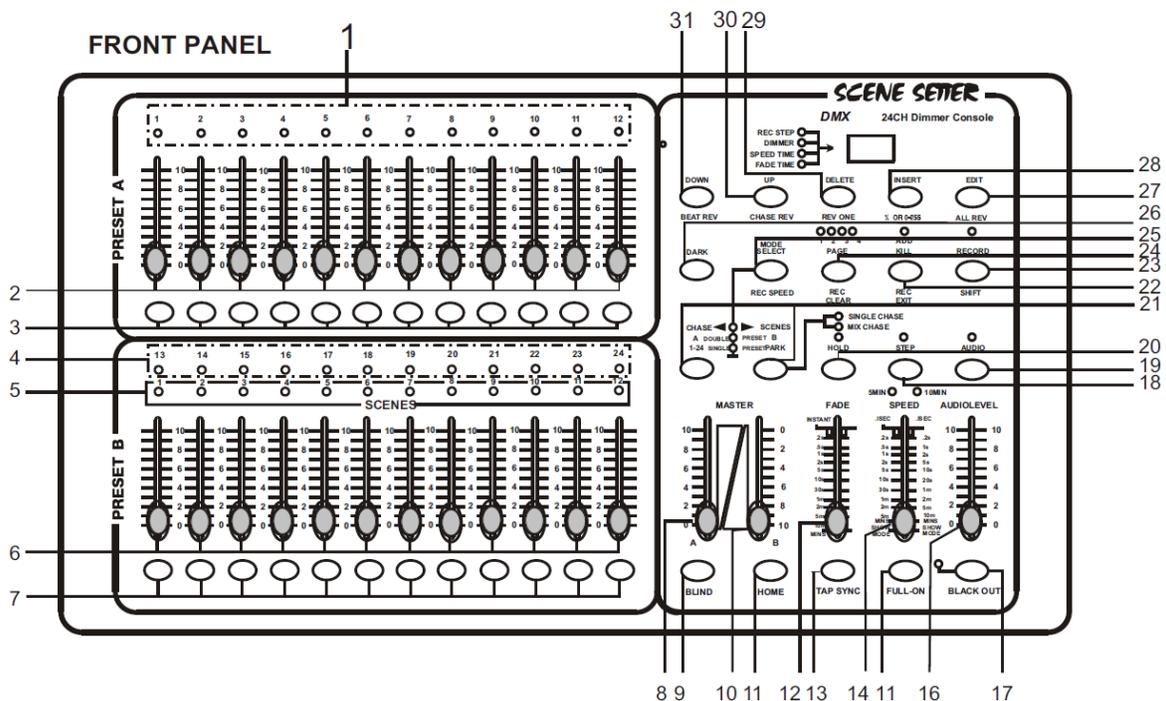
Event equipment is designed for temporary use. This are typical purpose as concerts, festivals, theatre, clubs and disco use and referable venues. Long-term use, specially under outdoor conditions and fixed outdoor installation can bring damage in aging materials and affect the coated surface. Sealings as well as cables are made from rubber material and will age by long-term UV-emission as sunlight and should be checked frequently.

LIMITATIONS OF IP PROTECTION

IP-Rating doesn't mean unlimited outdoor use and protection against any kind of environmental influence! Especially sunlight and included UV will bring accelerated aging. Some fixtures need special parts or processes to fit the rated IP-Protection, like mounting covers or caps or similar. Sealings and

other plastic or rubber materials are aging parts. They must be checked frequently to ensure the protection and safety of the fixtures. Also specified torque of screws can affect protection!

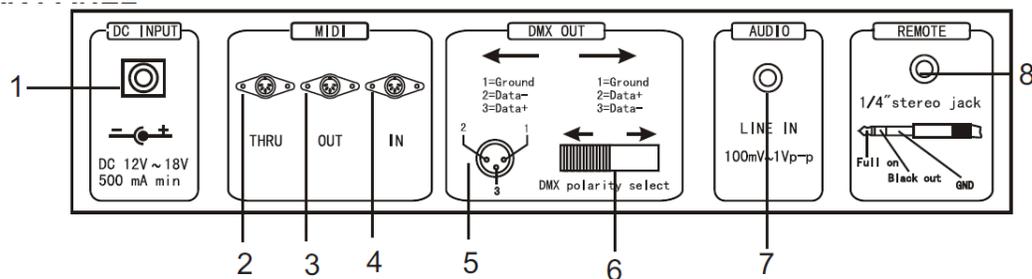
Console Description



1. **PRESET A LEDS.**
2. **CHANNEL SLIDERS 1-12:** these sliders will adjust the output of 1 to 12 channel from 0 to 100% or 0 to 255.
3. **Flash key 1-12:** press to activate maximum channel output.
4. **PRESET B LEDS.**
5. **SCENES LEDS.**
6. **CHANNEL SLIDERS 13-24:** these sliders will adjust the output of 13 to 24 channel from 0 to 100% or 0 to 255.
7. **Flash key 13-24:** press to activate maximum channel output.
8. **MASTER A SLIDER:** the slider will adjust the output of preset A.

9. **BLIND KEY:** in Chases / Scenes, when this key is activated, the output of each channel will be controlled only by slider or flash key.
10. **Master B Slider:** adjust the output of preset B.
11. **Home Key:** in Chase / Scenes this key, when activated, the output of each channel will be come back from controlled by slider or flash key to controlled by program.
12. **Fade Time Slider:** adjust fade time.
13. **Tap Sync:** in AUTO CHASE, press it twice to define chasing speed.
14. **Speed Slider:** adjusts chasing speed.
15. **Full on Key:** when activated, every channel's output will be maximum and disable BLACK OUT.
16. **Audio Level Slider:** adjusts the sensitivity of audio input.
17. **BLACK OUT KEY:** takes all the channels values to zero.
18. **STEP KEY:** moving forward one step on Chases / Scenes mode.
19. **AUDIO KEY:** Activates the Audio mode of the Chases.
20. **HOLD KEY:** while pressing and holding this button, the output will be hold.
21. **PARK:** in Chase / Scenes mode, pressing the button will select the Single Chase or Mix Chase. In Double preset, Park B is same as Master B at maximum. In Single Preset, pressing Park A, is same as Master A at maximum.
22. **REC Exit:** Exits the Record mode. When the LED is on, is in KILL mode. Pressing one of the Flash buttons will cause the value of the other channels to get to zero, except that specific channel, which its flash button is being pressed.
23. **RECORD KEY:** Pressing it, will store a step into memory.
24. **PAGE KEY:** Changes the scene pages.
25. **MODE SELECT:** By pressing the key you can select CHASE / SCENES, DOUBLE RESET or SINGLE PRESET.
26. **DARK KEY:** Pressing it pauses the output, including FULL ON & FLASH.
27. **ALL REV:** Reverses the chase direction of all programs.
28. **0% OR 0-255 KEY:** press it to select 0% or 0-255 on DISPLAY.
29. **REV ONE:** press and hold the key, then press any one of PRESET B. The SCENE program will chase in reversed direction.
30. **CHASE REV:** the key will reverse the SCENE program chase direction controlled by slider of speed.
31. **BEAT REV:** the key will reverse the SCENE program chase direction controlled by regular beat.

Rear Panel



1. **POWER INPUT:** DC 12-18V, 500mA MIN.
2. **MIDI THRU:** Use to transmit MIDI data received on the MIDI IN connector.
3. **MIDI OUT:** transmit MIDI data originated by itself.
4. **MIDI IN:** received MIDI data.
5. **DMX OUT:** DMX output.
6. **DMX POLARITY SELECT:** select the polarity of DMX output.
7. **AUDIO INPUT:** line in music single.100mV-1Vpp.
8. **REMOTE CONTROL:** FULL ON and BLACK OUT are remote controlled using 1/4" stereo jack.

Console Operation

Recording mode

1. RECORD ENABLE

- Press and hold RECORD KEY.
- Press FLASH 1 FLASH 5 FLASH 6 FLASH 8 keys in sequence.
- Release RECORD, the LED is lighting, recording is ready.

2. ERASE ALL PROGRAMS

- Press and hold RECORD KEY.
- Press FLASH 1 FLASH 3 FLASH 2 FLASH 3 in sequence.
- Release RECORD

3. CLEAR MEMORY

- Press RECORD key, and then press REC CLEAR KEY.
- Release RECORD and REC CLEAR at a time.

4. RECORD PROGRAM

- Set desired channel and record it.
- Light the relevant page led.
- Press RECORD then press appropriate FLASH.
- Release RECORD.

For example: create a program, record it in the 28th SCENE.

- clear memory.
- light 1-24 SINGLE LED
- set channel slider 1-24 to min. position and MASTER A to max position.
- move slider 1 to max. Position, press RECORD then move it to min position. Continue moving other sliders until all sliders are set.
- press PAGE key to light page 3 led.
- press RECORD, then press FLASH 16.
- Release RECORD and FLASH 16, the program of 1-24 full on in sequence is recorded in the 28th SCENE.

5. DELETE A PROGRAM

- Press PAGE to light the desired PAGE LED.
- Press RECORD, then press appropriate FLASH twice.

For example: to delete the 40th SCENE program.

- press PAGE to light page 4 led.
- press RECORD, then press FLASH 16 twice.
- release RECORD.

6. SCENE EDIT ENABLE

- Press PAGE light desired PAGE led.
- Press MODE SELECT to light led.
- Press EDIT and desired scene FLASH.
- Release EDIT and the FLASH, the relevant SCENE LED is lit, and others go out. Now editing is enable.

For example: to make the 11th SCENE program enter EDIT mode.

- press PAGE to light PAGE 1 led.
- press MODE SELECT to light CHASE <> SCENES LED
- Press EDIT and FLASH 23.
- Release EDIT and FLASH 23.

7. EXIT EDIT MODE

- Press RECORD, then press EXIT.
- Release RECORD and EXIT.

8. DELETE STEP

- In EDIT mode, press STEP to execute the program till the step to be deleted.
- Press DELETE. The step is deleted, and the next step is executed.

9. ADD STEP

- In EDIT mode. Record the step to be inserted.
- Press STEP to execute the program till the step you want to insert before.

10. MODIFY STEP

- In EDIT mode. Press STEP to execute the program till the step to be modify.
- press UP or DOWN and desired FLASH, the output will show on display, when you're ready, release FLASH.

11. CHANGE SHOWING MODE OF DIMMER

- Press and hold RECORD, then press 0% or 0-255 KEY.

12. SELECT AND RUN PROGRAM

- Press MODE SELECT to light led.
- Press PAGE to light the desired page led.
- Move MASTER B slider to max position.
- Move desired scene channel slider to min then move it up the program is selected and executed.

13. RUN A PROGRAM WITH REGULAR BEAT

- Press AUDIO to extinguish AUDIO led.
- Press PARK to light MIX MODE LED.
- Select to run the scene program.
- Move the SPEED slider or press TAP SYNC twice to define beat time.
- Press REC SPEED and the desired FLASH KEY. Then the program will be executed with the beat time.

14. RUN A PROGRAM WITH SPEED SLIDER.

- Press AUDIO to extinguish AUDIO led.
- Press PARK to light MIX MODE led.
- Select to run the scene program.
- Move SPEED slider to SHOW MODE position.
- Press REC SPEED, then press the appropriate FLASH.

For example: run the 14th SCENE program with the speed of 1 step per second, then set it to be controlled by speed slider.

- Press MODE SELECT to light CHASE<>SCENES LED.
- Press AUDIO to extinguish its led.
- Press PARK to light MIX MODE LED.
- Move all channel sliders to min position.
- Move MASTER B slider to max position.
- Press PAGE to light PAGE 2 LED.
- Move the 14th channel slider to max. Position.
- Move SPEED slider until 1.00 appear in display and SPEED LED is lit.
- Press REC SPEED and FLASH 14, then release both keys, the 14th SCENE program is set to run 1 step per second.
- Move SPEED slider to SHOW MODE position. Press REC SPEED and the 14t FLASH, then the 14th SCENE program is set to be controlled by SPEED slider, move SPEED slider until 0.10 appears on display, the 14th program will run with 10 steps per second.

15.SPEED SETTING

A: SLOWEST SPEED SLIDER SETTING (5 MIN)

- Press and hold RECORD.
- Press the 5th FLASH KEY 3 times, then release RECORD.
- The 5 MIN LED is lit, which means that 5 MIN SPEED slider is done.

B: SLOWEST SPEED SLIDER SETTING (10 MIN)

- Press and hold RECORD.
- Press the 10th FLASH KEY 3 times, then release RECORD.
- The 10 MIN LED is lit, which means that 10 MIN SPEED slider is done

16.MIDI IN SETTING

- Press and hold RECORD
- Press 1th FLASH KEY 3 times, then release RECORD, when CHI appears on display, you can select MIDI IN channel from 1th FLASH to 16th FLASH.
- After you press desired FLASH, the appropriate channel led is lit.
- Press RECORD and EXIT to withdraw MIDI IN setting.

17.MIDI OUT SETTING

- Press and hold RECORD
- Press 2th FLASH KEY 3 times, then release RECORD, when CHO appears on display, you can select MIDI IN channel from 1th FLASH to 16th FLASH.
- After you press desired FLASH, the appropriate channel led is lit.
- Press RECORD and EXIT to withdraw MIDI OUT setting.

18.RECEIVE FILE DUMP

- Press and hold RECORD
- Press 3th FLASH KEY 3 times, then release RECORD, when IN appears on display, it is ready to receive file dump.

- All other operations are void when receiving file dump. It will withdraw receiving file dump automatically when receiving is over or mistakes is occurred. Power on after power off also pause receiving file dump.

19. Send file dump

- Press and hold RECORD
- Press 4th FLASH KEY 3 times, then release RECORD, when OUT appears on display, it is ready to receive file dump.
- All other operations are void when receiving file dump. It will withdraw sending file dump automatically when sending is over or mistakes is occurred. Power on after power off also pause receiving file dump.

20. DETAILED DESCRIPTION

- FADE TIME: The period that output varies from full dimmer to zero or from zero dimmer to full dimmer.
- SINGLE MODE: SCENE program is executed one by one and the NO. is showing on display. Its speed is controlled by SPEED slider.
- MIX MODE: All selected program is executed synchronously; each can have respective chasing speed.
- When LED is lit, you can select scene program using PRESET B channel sliders. BLIND one of PRESET B channels, the appropriate channel slider together with MASTER A slider control its output, and the maximum dimmer of the program is maintained until you HOME the channel.
- FADE TIME & SPEED TIME INDICATIONS

A: when time is more than 1 minute, the indication includes two dots.

For example: 1-minute past 15 second, indicate 1.15.

Half past 4 minute, indicate 4.30.

10 minutes, indicate 10.0.

B: when time is less than 1 minute, the indication has one dot only.

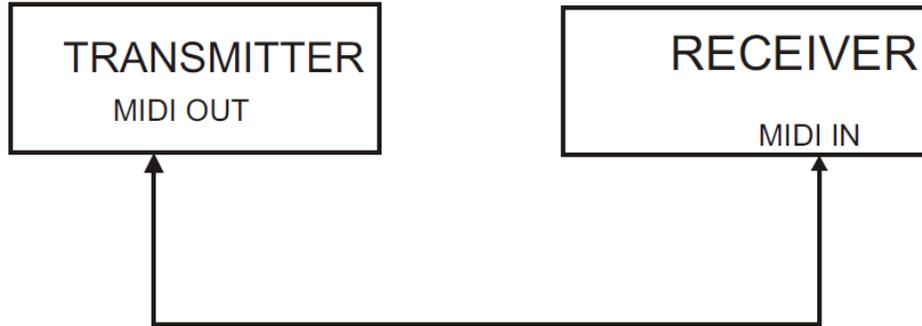
For example: 11.5 second, indicate 11.5

1.2 second, indicate 1.2

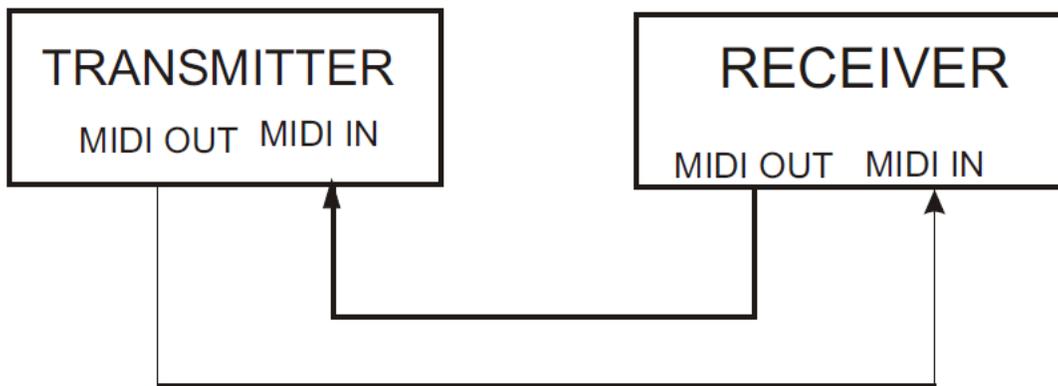
0.55 second, indicate 0.55

- Transmit and receive file:

A: open loop mode:



B: closed loop mode:



NOTE: when sending file dump in open loop mode, you should set up receiving mode for the receiver, otherwise receiving is disable.

- When the power voltage is too low, the display show LOP, now you should check whether the power is OK. It is normal that LOP is appeared for a short while just after power is turned on.

2 0. MIDI RUN

- If MIDI data is not received within 10 minutes, the channel and program turned on by MIDI will be cleared.
- When sending or receiving file dump, the device ID is 55H. All information (include System Exclusive) is sent or received in file dump. You can send SCENE program to storage or another unit, you can also receive SCENE program from storage or another unit.
- this unit sends or receives NOTE information, relevant functions is as follows:

NOTE NUMBER	VELOCITY	FUNCTION
22-69	PROGRAM MASTER	TURN ON/OFF PROGRAM 1-48
70-93	CHANNEL DIMMER	TURN ON/OFF CHANNEL 1-24
94		FULL ON
95		DARK
96		HOLD
97		TURN ON/OFF AUDIO CHASE
98		CHASE $\langle \rangle$ SCENES
99	DOUBLE	PRESET MODE
100	SINGLE	PRESET MODE
101		STEP CHANGE
102		BLACK OUT

