



## 48CH DMX DIMMER CONSOLE



### Introduction

Thank you for choosing our 48 channel dimmer console. This console is provided with microprocessor control system and it is full compatible with international DMX512 and MIDI standards. The console is provided with 48 channels DMX512 and MIDI standard, 96 programs can be programmed on 4 pages and the maximal number of steps doesn't exceed 4500. It is strongly recommended to read the following user manual before first use. This device is the most advanced item in this class concerning the price and size. Furthermore it is very simple in use and faultless.

- 48 DMX channels
- 96 chase programs
- 3 digit display
- High class digital technology
- Memory independent of power supply
- MIDI standard and DMX ports
- Complex edition program
- The programs can be activated synchronically

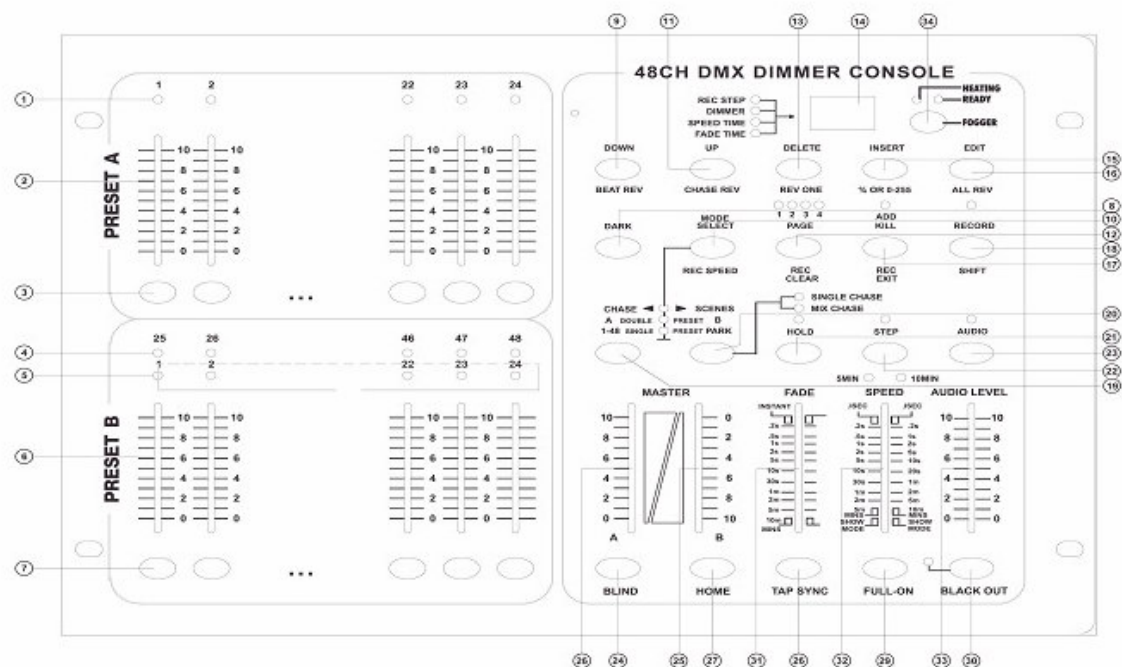
Please read very carefully this user manual to get familiar with the safety and operating instruction of this device. Please keep this user manual in the safe place.

### **Remarks:**

1. To minimize the danger of an electric shock or causing fire the device shouldn't be operated in rain or by big humidity.
2. The constantly canceling of the memory can damaged the memory of the device, that's way it is recommended to pare this operation to the minimum.
3. Use only the recommended AC/DC adapters.
4. Do not throw out the original packing in case of the future servicing of the device.
5. Do not spill water or other liquid substances around the device.
6. Make sure that you are using only the recommended voltage parameters.
7. Check always the condition of the AC adapter and cable before connecting the device.
8. Do not try to remove the grounding pin from the socket or plug, then the grounding minimize the risk of an electric shock.
9. Remember to disconnect the device from the mains before connecting other signal wires.
10. Do not ever open the cover of the device.
11. Disconnect the device from the mains if it is not in use for a long time
12. This device is for professional use only.
13. Make sure that there are no damages caused during the transportation. Should there be any then contact your local dealer immediately and do not use the device.
14. The device can be used only by qualified persons.
15. The environment temperature shouldn't be lower than 2°C/35,6°F and not higher than 45°C/113°F.

### **Caution:**

1. There are no exchangeable parts inside the device that could be repaired by the user.
2. All repairs should be carried out by a qualified personnel only. In case of an unauthorized repair the customer will lose the right to any claim under guarantee.
3. In case of malfunction contact your local distributor.



### The front panel:

1. **PRESET `A`** diodes show the activity of the chosen channel (from the 1 to 24).
2. Channel sliders 1-24. Those 24 sliders are used to control/ or to adjust the value of the 1 to 24 channel.
3. The buttons **FLASH 1-24** are used to adjust the full value on the channel output.
4. **PRESET `B`** diodes show the activity of the chosen channel from 25 to 48.
5. The **SCENE`S** diodes flash if the chosen scene is active.
6. Channel sliders 25-48.  
Those 24 sliders are used for control/ or to adjust the value of the channel 25-48.
7. The buttons **FLASH 25-48** are used for setting of the full value on the particular channels.
8. The button **DARK**. Push this button to damp the output signals together with the option **FULL ON** and **FLASH**
9. The button **DOWN / BEAT REV**  
The **DOWN** button is used for modify the scenes in edition mode. The **BEAT REV** button is used for reversing the sequence (chase) of program with a regular beat.
10. **MODE SELECT / REC SPEED**. Each time you push this button it will successive activate **CHASE** mode <> **SCENES**, **DOUBLE PRESET** or **SINGLE PRESET**. **REC SPEED** assign the speed of each program sequence (chase) in the **MIX MODE**.
11. **UP/CHASE REV**

The **UP** button is used to modify the scenes in edition mode. The **CHASE REV** button is used to reverse the run of chase which is controlled via speed slider.

**12. The PAGE button**

Push this button to choose the page of the scene 1-4.

**13. DELETE / REV ONE**

The **DELETE** button erases each step in the scene and the button **REV ONE** Reverse the chase run of any program.

**14. Display**

shows the activity of the chosen function.

**15. INSERT / % or 0-255**

By pushing this button you can add one step in the scene. By using the buttons **%** or **0-255** you can choose the range of the displayed value 0 – 100% or 0 – 255.

**16. EDIT / ALL REV**

The **EDIT** button activates the edition mode. **ALL REV** reverse the chase run for all programs.

**17. ADD or Kill / REC EXIT**

In the **ADD** mode various scenes or **FLASH** buttons will be active on the same time. If you push the **FLASH** buttons in the **KILL** mode it will activate other scenes or programs. Push the **REC EXIT** button if you want to exit the program or edition mode.

**18. RECORD / SHIFT**

The **RECORD** button activates the recording mode or is used to program the step. The **SHIFT** function is used to activate other buttons.

**19. MASTER `A` button**

Sets the maximal value for the 1-12 channels.

**20. PARK button.**

Use this button to change the **MIX CHASE/SINGLE CHASE** mode. It cause that the 12-34 channels reach the full value or temporarily the scene program will be switched onto the **MASTER `B`** slider, dependent on the mode.

**21. HOLD button**

stops for a moment the actually played scene.

**22. STEP button**

The button is used to pass between steps when the **SPEED** slider is in **SHOW MODE** (on the button) or in edition mode.

**23. AUDIO button**

This button activates the **AUDIO** detecting mode and defines it sensitivity.

**24. MASTER `A` slider**

The slider controls the outputs for all channels.

**25. MASTER `B` slider**

The slider controls all chases for all channels.

**26. BLIND button**

This function disconnects the channel from the program sequence (chase) in **CHASE <> SCENES** mode.

**27. HOME button**

This button deactivates the **BLIND** function.

**28. TAP SYNC button**

By multiple pushing of this button the chase speed can be defined.

**29. FULL ON button**

This function makes all outputs reach maximal value.

**30. BLACK OUT** button

This button is used to disconnect all output channels except for **FULL ON** and **FLASH**.

**31. FADE TIME** slider

Use this button to set the **FADE** time.

**32. SPEED** slider

This slider is used to set the speed.

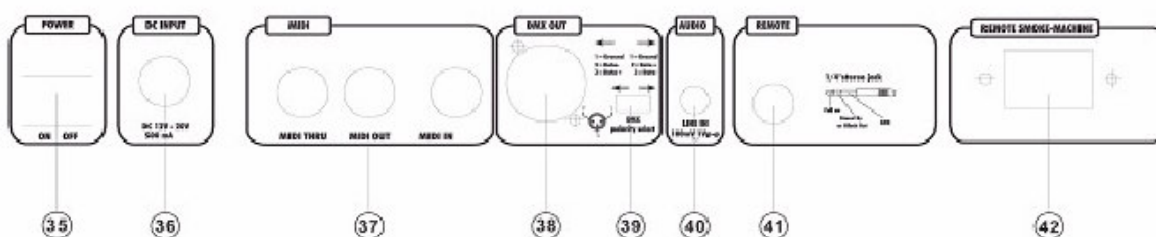
**33. AUDIO LEVEL** slider

Use this slider to set the sensitivity of the **AUDIO** input signal.

**34. FOG MACHINE** button

Use this button to control the fog machine.

## Rear view



**35.** The voltage switch

**36.** Power supply input  
DC 12-20V / 500mA

**37. MIDI** Thru/Out/In

Midi ports are used to connect the MIDI device.

**38.** DMX output

This socket is used to send the DMX signal.

**39.** Choosing of the DMX signal polarity.

**40. AUDIO** input

This socket accepts the linear AUDIO input signal in the range of 100mV – 1 V pp.

**41.** Remote input

The **BLACK OUT** and **FULL ON** options can be recalled via remote signal by stereo jack.

**42.** Fog machine control socket.

## V. Operating:

### 1. Programming

#### 1.1 Activating the recording mode.

1. Press and hold the button **RECORD**
2. Press successively the **FLASH 1**, **FLASH 6**, **FLASH 6**, **FLASH 8** buttons.
3. Let go of the **RECORD** button, the recording mode is activated.

**Caution !!** By the first start the standard recording code is the combination of the successively pushed **FLASH 1,6,6 and 8** buttons. To protect your programs you can change this code.

## 1.2 Securing of the program.

To protect the program from the unauthorized access you can change the recording code.

1. Enter the actual valid recording code (buttons 1,6,6 and 8)
2. Press and hold at the same time the **RECORD** and **EDIT** buttons.
3. Enter different **FLASH** buttons combination to change the code. The code can not be longer then the combination of 4 **FLASH** buttons.
4. Enter the new recording code and all scenes and channels corresponding diodes will flash 3 times – it means that the new code was entered and remembered.
5. Quit the recording mode by simultaneous pressing and releasing of the **REC EXIT** and **RECORD** buttons.

## Important !

Always remember to exit the recording mode after you finished programming otherwise you can lose the control over the device.

**Caution** – if you entered the new recording code to access the recording mode, but the scene and channel diodes did not flash then it means that the changing of the code failed and you need to enter the code once again. If you entered the recording mode using the new access code and you want to delete the code just press simultaneous and hold the **RECORD** and **EXIT** buttons.

## 1.3 Programming the scene

1. Activate the recording mode.
2. Choose the **SINGLE MODE** by pushing the **MODE SELECT** button. This will allow you to control each of the 48 channels. Make sure that the sliders **MASTER `A`** and **MASTER `B`** are set on maximum (the maximal value for the **MASTER `A`** slider is at the top and the maximal value for the **MASTER `B`** is at the bottom).
3. Create chosen scene using the sliders from 1 to 48 by setting the values in % or DMX.
4. If the creating of the scene is finished press the **RECORD** button to save the scene as a step.
5. Repeat the point 3 and 4 until all the steps were programmed and saved to the memory of the device.
6. Choose **CHASE BANK** or **SCENE MASTER** to save the whole program. Press the **PAGE** button to choose the appropriate page (1-4) to which the program should be saved.

7. Press and hold one **FLASH** button from the range of **25-48** and then press the **RECORD** button. All diodes will flash which means that the scene was saved to the memory.
8. You can continue or cancel the programming. To exit the programming mode press and hold the **ELIT** button and the **RECORD** diode should switch off.

**Example:** Programming of 16 steps with 1-32 channels in chase and assigning them to the **FLASH 25** button on page 1.

1. Activate the recording mode.
2. Set the **MASTER`A`** and **MASTER`B`** button on maximum and push the **FADE** slider up.
3. Press **MODE SELECT** to choose **SINGLE MODE**.
4. Push the slider of channel 1 maximal forward (up).
5. Press the **RECORD** button to save this step.
6. Repeat point 4 and 5 until all the channel sliders from 1 till 32 are programmed.
7. Press the **PAGE** button, the corresponding diode of the first **PAGE** will flash.
8. Press **FLASH 25** button and then the **RECORD** – all diodes will flash, it means that the programming process was successful and chasers were saved to the memory.

## 2. Edition

1. Activate the record mode.
2. Use the **PAGE** button to choose the page with the program you want to modify.
3. Press **MODE SELECT** to choose the **SCENE <> CHASE** mode.
4. Press and hold the **EDIT** button.
5. Press the **FLASH** button of the chosen program that suppose to be modify.
6. Let go of the **EDIT** button, the corresponding diode of the scene will flash, which means that you entered the edition mode.

### 2.2 Deleting the program

1. Activate the recording mode.
2. Use the **PAGE** button to choose the page with the saved program that has to be deleted.
3. Press and hold the **EDIT** button then press twice the **FLASH** button from the range of **25-48**.
4. Simultaneously release the **EDIT** button. All diodes will flash which means that the program has been deleted.

### 2.3 Deleting all programs

1. Press and hold the **RECORD** button.
2. Press successively the **FLASH 1,4,2** and **3** buttons, all diodes will flash which means that all saved programs have been deleted.

## 2.4 Clear scene or scenes

1. Activate the record mode.
2. Start to record scene or scenes.
3. If you are not satisfied with the scene or scenes you can press and hold the **RECORD** button and then push **REC CLEAR** button, all diodes will flash which means that scenes were cleared.

## 2.5 Deleting the step or steps

1. Activate the record mode.
2. Press the **STEP** button to choose the step you want to delete.
3. If you find the step you want to delete press the **DELETE** button, all diodes will flash which means that the step has been deleted.
4. Repeat the point 2 and 3 until all the chosen steps will be deleted.
5. Press and hold the **RECORD** button, then press the **REC EXIT** button, the diode of corresponding scene will switch off which means you quit the edition mode.

**Example:** Deleting the step 3 from the scene **FLASH 25**.

1. Activate the record mode.
2. Press **MODE SELECT** to chose **CHASE < > SCENES** mode.
3. Press the **PAGE** button to switch on the second diode of the page.
4. Press and hold the **EDIT** button then press **FLASH 25** button.
5. Press the **STEP** button so long until you find the step 3
6. Press **DELETE** button to delete this step.
7. Press and hold the **RECORD** button and then press **REC EXIT** button to exit the edition mode.

## 2.6 Adding a step or steps

1. Record step or steps you want to add.
2. Make sure you are in the **CHASE < > SCENES** mode and next enter the edition mode.
3. Push the **STEP** button till you find the step to which you want to add a new step. You can observe the steps on the display.
4. Push the **INSERT** button to save the step you created – all diodes will flash which means that the step was added successful.
5. Exit the edition mode.

**Example:** Adding a new step between the 4 and 5 step in which the channels from 1 till 12 have the full values at the same time.

1. Activate the record mode.
2. Push the sliders of channels 1 to 12 maximal forward (up) and save it as a step.



3. Push the **MODE SELECT** button to choose the **CHASE < > SCENES** mode.
4. Push the **PAGE** button to choose page 2 (the second diode will flash).
5. Press and hold **EDIT** button and then push the **FLASH 35** button and release the **EDIT** button.
6. Push the **STEP** button to skip to step 4.
7. Press the **INSERT** button to add the step you created earlier.

## 2.7 Modifying a step or steps

1. Enter the edition mode.
2. Push the **STEP** button in order to find the step you want to modify.
3. Press and hold the **UP** button if you want to increase the intensity. To decrease the intensity press and hold **DOWN** button.
4. By pushing the **UP** or **DOWN** button together with the **FLASH** button (of the channel corresponding to the scene you want to modify) you can define (change) the intensity which value will be showed on the display. If you are satisfied with the current settings then press once again the **FLASH** button.
5. Repeat the point 2,3 and 4 till all the chosen steps will be modified.
6. Exit the **EDITION** mode.

## 3. Starting up

### 3.1 Chase (sequence) activation

1. Press the **SELECT MODE** button in order to choose the **CHASE < > SCENES** mode.
2. Press the **PAGE** button to choose the page with the program you want to activate.
3. Set the **MASTER`B`** slider in order to reach the maximal value (push the slider maximal down)
4. Push the chosen slider of the channel (from 25 to 48) to maximum to activate the program where the step duration is defined by the **FADE TIME** slider.
5. Push the channel slider to set the output of the chosen program.

### 3.2 Activating the AUDIO program

1. Use the built in microphone or connect the sound source to the **RCA AUDIO**.
2. Choose the program just like in point 3.1.
3. Press the **AUDIO** button and the corresponding diode will flash, which means that the **AUDIO** mode is active.
4. Use the **AUDIO LEVEL** slider to set the sound sensitivity.
5. To return to the regular operating mode press once again the **AUDIO** button.

### 3.3 Activating the program with the speed slider

1. Make sure that the **AUDIO** mode is switched off.

2. Choose the program just like in point 3.1.
3. Push the **SPEED** slider to the **SHOW MODE** position and press and hold the **REC SPEED** button, then press the appropriate **FLASH** button (from 25 to 48) it will cause that the program won't be played any more with a regular beat.
4. Now you can control the speed of the program by using the **SPEED** slider.

**Caution: the subentry 3 is not necessary if the program was not recorded with the standard beat.**

### 3.4 Activating the program with the standard beat

1. Make sure that the **AUDIO** mode is switched off. Press the **SELECT MODE** button to skip to **CHASE < > SCENES** mode.
2. Press **PARK** button in order to choose **MIX CHASE**.
3. Choose the program just like in point 3.1.
4. Push the **SPEED** slider till the desired value will appear on the display. You can push two times the **TAP SYNC** button to define the frequency time.
5. Press and hold the **REC SPEED** button and next press the **FLASH** button (from 25 to 48).
6. The program will be played with the specified time and beat.
7. Repeat point 4 and 5 to define new frequency time.

### 4. Changing the speed mode between 5 and 10 minutes.

1. Press and hold the **RECORD** button.
2. Press three times the **FLASH 5** or **FLASH 10** and at the same time hold the **RECORD** button.
3. The diode **5 MIN** or **10 MIN** will flash which means that the adjusted time will be defined by the **SPEED** slider.

## 5. MIDI

### 5.1 MIDI IN settings

1. Press and hold **RECORD** button and then push 3 times **FLASH 1** button, on the display will appear the inscription **CHI** and it means that the **MIDI** channel settings are available.
2. Press the **FLASH** button from the range of 1 – 16 to choose the **MIDI IN** channel.

### 5.2 MIDI OUT settings

1. Press and hold **RECORD** button and then push 3 times **FLASH 2** button, on the display will appear the inscription **CHO** and it means that the **MIDI** channel settings are available.
2. Press the **FLASH** button from the range of 1 – 16 to choose the **MIDI OUT** channel.

### 5.3 Exit the MIDI settings mode

1. Press and hold the **RECORD** button and then press **REC EXIT**.

#### 5.4 Receiving the collective MIDI file (MIDI file dump)

1. Press and hold the **RECORD** button then press 3 times **FLASH 3** button, on the display will appear the inscription **IN** which means that the controller is ready for receiving the MIDI file.

#### 5.5 Sending the collective MIDI file (MIDI file dump)

1. Press and hold the **RECORD** button then press 3 times **FLASH 4** button, on the display will appear the inscription **OUT** which means that the controller is ready for receiving the MIDI file.

**Caution:** All others operation will be suspend during the transferring time of the collective file. The device will exit automatically the transferring mode of the collective file after the sending will be finished.

#### 5.6 Implementation

1. During sending or receiving of the **MIDI** signal all the activated scenes and channels will be automatically stopped in case of non response for longer then 10 minutes.
2. During sending or receiving of the collective file the controller will send automatically the identification information's of the device 55h(85) in the file with the name DC2448.bin.
3. The collective files can be sent as well to another unit as they can be received from other unties.

#### 5. The controller sends and receives information's

Decimal numbers	Fast	Functions
22-69	Master program	Switching ON/OFF the program 1-48
22-117	Channels of the lights	Activates channels 1-48
118		FULL ON
119		DARK
120		HOLD
121		Switching ON/OFF the AUDIO mode
122		CHALE<>SCENES
123		DOUBLE PRESET MODE
124		SINGLE PRESET MODE
125		STEP CHANGE
126		BLACK OUT

## V. Description of the basic functions

### 1) Reversal of the scene direction

1. To reverse the direction of all scenes press the button **ALL REV** and all scenes will change the direction.
2. To reverse the chase direction for all programs with the speed control option just press **CHASE REV** button.
3. To reverse the chase direction for all programs with standard beat press the **BEAT REV** button.
4. To reverse the chase direction of any program press and hold the **REV ONE** button then press the **FLASH** button of the corresponding program and release simultaneously both buttons.

### 4. FADE TIME

1. The crossing time for the **Dimmer** from zero on the output to maximum.
2. Duration of the step will be adjusted by the **FADE TIME** slider in the range of up to 10 minutes.

### 3) TAP SYNC button

1. The **TAP SYNC** button will be used to synchronize the speed of chase run. By pushing the **TAP SYNC** button in the chosen time the speed of the chase will be synchronized according to the time defined by the last 2 times of pushing the button. The flashing diode over the **STEP** button informs about the new chase speed. The speed of the chase can be changed any time.
2. Function **TAP SYNC** will replace the previous settings of the speed slider till the slider will be pushed again.
3. Use the **TAP SYNC** button to set the frequency, you will achieve the same effect as in case of using the **SPEED** slider.

### 4) MASTER slider

1. **MASTER** slider sets the proportions for all channels and scenes except for **FLASH** buttons.

**Example:** If the **MASTER** slider is set on minimum then all channels and scenes will have the zero value. Activated will be only those functions that were enabled by using the **FLASH** and **FULL ON** Button. If the **MASTER** slider is set on 50% then all channel outputs will reach the value of 50% and only those functions will be activated that were enabled by using the **FLASH** and **FULL ON**. If the **MASTER** slider is set on maximum then all channel outputs will work according to the controller.

2. The **MASTER`A`** slider always refers to the channel outputs and the **MASTER`B`** slider refers to programs and scenes except for **DOUBLE PRESS MODE**.

## 5) SINGLE MODE

1. All programs will be activated in the right order.
2. On the display will appear the number of the activated program.
3. All programs will be controlled via **SPEED** slider.
4. Press **MODE SELECT** to choose **CHASE < > SCENES**.
5. Press the **PARK** button to choose **SINGLE CHASE MODE**.

## 6) MIX MODE

1. All programs will be activated synchronically.
2. All the programs can be controlled via **SPEED** slider, however there is also possible to control each program separately (refer to the SPEED setting chapter).
3. Press **MODE SELECT** to choose **CHASE < > SCENES**.
4. Press the **PARK** button to choose **MIX MODE**.

## 7) DISPLAY

1. 3 digit segment display shows as well the percentage values and DMX values.
2. In order to change the displayed percentage values for the DMX values press and hold the **SHIFT** button and then press the % or **0-255** button.
3. For example the display shows "076" which means that it is the percentage value, that is 76%. If the display shows 0.76 that means it is the **DMX** value, that is 76.

## 8) BLIND and HOME buttons

1. The **BLIND** function disconnect temporally the channel from the chase that is at the moment activated and it makes possible to control the channel manually.
2. Press and hold the **BLIND** button and then push the **FLASH** button of the channel that has to be disconnected temporally from the chase.
3. To restore the normal chase mode press the **HOME** button and the chosen **FLASH** button.

## Technical specification

Power supply input.....	DC 12 – 18V / 500mA min.
DMX input .....	3 – pin XLR male socket
MIDI In/Out/Thru.....	5 – pin DIN socket
Dimensions.....	710 x 266 x 90 mm
Weight.....	6,3 kg