



KONTROL48

48 Channel DMX Controller

USER MANUAL



For your safety, please read this user manual carefully before use.

Event Lighting reserves the right to revise the manual at any time. Information and specifications within this manual are subject to change without notice. Event Lighting assumes no liability or responsibility for any errors or omissions. Please consult Event Lighting for any clarification or information regarding this item.

Version: 1 (11 Jan 2022)

Safety Instructions

Warning

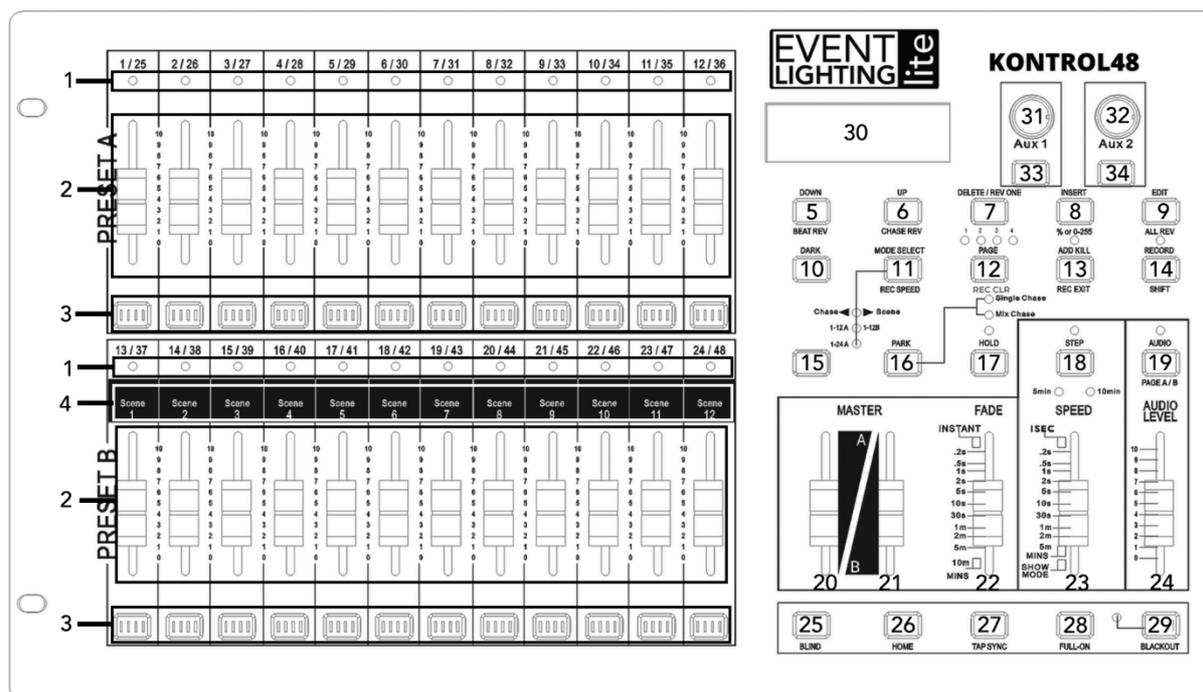
- Do not open this device, there are no user-serviceable parts inside. Risk of electric shock.
- Do not operate this device outdoors or in any location where dust, excessive heat, water, or humidity may affect it.
- Do not connect this device to a dimmer or rheostat.
- The maximum ambient temperature is 40° C. Do not operate this device at higher temperatures.

Power Input

The included DC power adaptor works with an input voltage range of 100-240V AC, 50/60 Hz. KONTROL48 requires a power supply capable of outputting 12V DC/800 mA minimum.

Product Overview

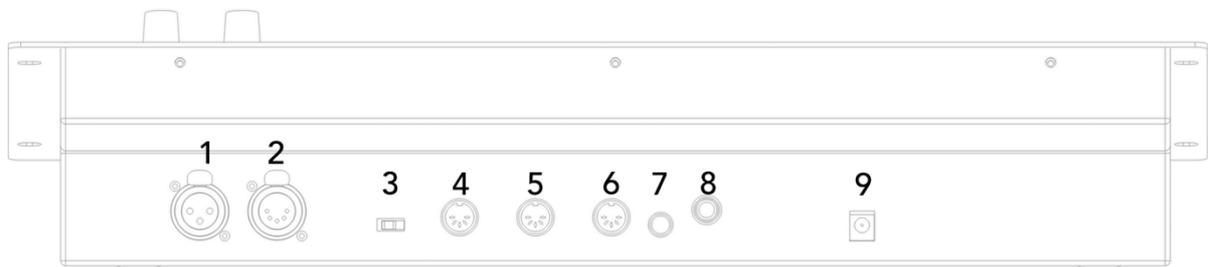
Front



No.	Item	Description
1	Channel indicators	Displays currently outputting channels.
2	Channel faders	Controls channel output.
3	Channel Flash button	Sets channel output to 100% for a short time.
4	Scene playback indicators	Displays currently playing scenes.
5	Down / Beat Rev	Lower the selected value / Reverse the chase direction of all scenes set to tempo.
6	Up / Chase Rev	Raise the selected value / Reverse the chase direction of all scenes controlled by the speed fader.
7	Delete / Rev One	Delete the selected step in the scene / Reverse the chase direction of the selected scenes.
8	Insert / % or 0-255	Add a step to the scene / Switch between % (0-100%) and DMX value (0-255) display.
9	Exit / All Rev	Enter Edit mode / Reverse the chase direction of all scenes.
10	Dark	Sets all outputs to 0% for a short time.
11	Mode Select / Rev Speed	Cycle between operating modes / Program tempo for a scene.
12	Page / Rec Clr	Cycle between scene banks / Delete unsaved steps.
13	Add Kill / Rex Exit	Blind all except the selected channels for a short time / Exit Record or Edit mode.
14	Record / Shift	Enter Record mode, programs a step / Switch between button functions.
15	Reserved	Currently unused.
16	Park	Switch between Single chase and Mix chase modes.
17	Hold	Freeze output to the current state for a short time.
18	Step	Move to next step in Show and Edit modes.
19	Audio / Page A/B	Enable sound active/ Switch between channel pages.
20	Master Fader A	Controls total output of Scenes and Preset A channels.

21	Master Fader B	Controls total output of manual fader settings and Preset B channels.
22	Fade Fader	Set Fade time.
23	Speed Fader	Set Scene playback tempo.
24	Audio Level Fader	Adjust audio sensitivity.
25	Blind	Deactivate the selected channel's output.
26	Home	Reactivates the channel deactivated by Blind (25).
27	Tap Sync	Set playback speed by tapping repeatedly.
28	Full-On	Set all outputs to 100%.
29	Blackout	Set all outputs to 0% / Restore normal output.
30	Display	Displays pertinent operating information.
31/33	Aux 1	Patchable control for a channel/Channel Flash button.
32/34	Aux 2	Patchable control for a channel/Channel Flash button.

Rear



1	3-pin DMX out
2	5-pin DMX out
3	Polarity switch
4	MIDI thru
5	MIDI out
6	MIDI in
7	Audio in
8	Remote input
9	DC in

Product Operation

Basic Operation

Page Selection

To switch between Page A (channels 1-24) and Page B (channels 25-48):

- Press and hold **Record/Shift**
- Press **Audio/Page A/B**
- Release **Record/Shift**

Master Faders

There are two master faders: A and B. Their functionality depends on which operation mode KONTROL48 is set to. To switch between operation modes, press **Mode Select/Rec Speed** repeatedly. Below is a description of the available modes.

Crossfade Mode

- Master Fader A controls the output of **Preset A** faders and Master Fader B controls the output of **Preset B** faders.
- Preset A and Preset B will always control the same 12 channels:
 - Page A: Channel 1-12.
 - Page B: Channel 13-24.

To use KONTROL48 in Crossfade mode:

1. Move both Master Fader A and B to the bottom of the fader.
2. Press **Mode Select/Rec Speed** until the **yellow** indicator for **1-12A/1-12B** is lit.
3. Design the first look with faders in **Preset A**.
4. Slide both Master Fader A and B up to the top simultaneously. This will activate Preset A.
5. Design the next look with the faders in **Preset B**.
6. Switch to **Preset B** by sliding both Master Fader A and B to the bottom simultaneously.
7. Repeat steps 3-6 until finished designing.

Chase◊Scene Mode

- Master Fader A controls the output of the faders in **Preset A** and Master Fader B controls the total output of the current scene.

To use KONTROL48 in Chase◊Scene Mode, press **Mode Select/Rec Speed** until the **red** indicator for **Chase◊Scene** is lit.

To operate Master Fader B:

- Move Master Fader B to its maximum position (fully down) for maximum effect. Adjust it until the desired output for Record Mode and Scene Playback is reached.

To operate Master Fader A:

1. Move Master Fader A to its maximum position (fully up) for maximum effect. Adjust it to get the desired output.
2. Move faders in **Preset A** to override the Master Fader A. **Important:** The recorded scene will only be overridden if the position of the fader in Preset A is higher than the previously recorded position.

Channel Mode

- Master Fader A will control the output of all channels, and Master Fader B has no function.

To use KONTROL48 in Channel Mode, press **Mode Select/Rec Speed** until the **green** indicator for **1-24A** is lit.

Record Mode

Enable Recording

Enable **Record Mode** to access all programming functions:

1. Press and hold **Record/Shift**.
2. Press the Channel Flash buttons in the following sequence: 1,5,6,8.
3. Release **Record/Shift**.

To exit **Record Mode**:

1. Press and hold **Record/Shift**.
2. Press **Add Kill/Rec Exit**. All channel indicator LEDs will flash.
3. Release **Record/Shift**.

Create Scene

1. Enable **Record Mode**.
2. Press **Mode Select/Rec Speed** until the **green** indicator for **1-24A** is lit.
3. Compose the first step for the scene by moving the faders to the desired positions.
4. Press **Record/Shift** to save the step to temporary memory.
5. Repeat steps 3-4 until the scene is finished. Up to 999 steps can be recorded in one scene.
6. Press **Page/Rec Clr** until the LED indicates the desired page to select the page in which to save the scene.
7. Press and hold **Record/Shift** and press a Channel Flash button in the **13/37 – 24/48** row to save the scene to that fader.

Play Scene

After a scene is saved, it can be played back using the fader it was assigned to.

1. Press **Mode Select/Rec Speed** until the **green** indicator for **1-24A** is lit.
2. Press **Page/Rec Clr** to select the page the scene is saved in.
3. Move Master Fader B to its maximum position (fully down).
4. Move the Speed and Fade faders to their desired positions.
5. Move the fader for the scene to play back to the desired position. Adjust the output level of the scene by moving the fader.
6. Move Master Fader B to adjust the total output of all scenes.

Clear Recording

If you do not wish to save the scene currently being recorded:

1. Press **Record/Shift**.
2. Press **Page/Rec Clr**. All channel indicator LEDs will flash.
3. Release **Record/Shift**.

Edit Mode

Enable **Edit Mode** to make changes to a step in a scene:

1. Enable Record Mode.
2. Press **Mode Select/Rec Speed** until the **red** indicator for **Chase<>Scene** is lit.
3. Press **Page/Rec Clr** to select the page the scene is saved in.
4. Press and hold **Edit/All Rev** and press the Channel Flash button corresponding to the scene.
5. Release **Edit/Add Rev**. The LED corresponding to the selected scene will be lit.

To exit **Edit Mode**:

1. Press **Record/Shift**.
2. Press **Add Kill/Rec Exit**. All channel indicator LEDs will flash.
3. Release **Record/Shift**. KONTROL48 will return to Record Mode.

Delete Entire Scene

1. Enable Edit Mode for the scene to be deleted.

2. Press **Delete/Rev One** three times.

Delete a Step

1. Enable Edit Mode for the scene to be edited.
2. Press **Step** to step through the steps of the scene until the desired step is selected.
3. Press **Delete/Rev One**.
4. Repeat steps 2-3 until all the unwanted steps are deleted.

Insert a Step

1. Enable Record Mode and record the steps to be inserted.
2. Enable Edit Mode for the scene where the steps are to be inserted.
3. Press **Step** to step through the steps of the scene until the step **after** the steps to be inserted is reached.
4. Press **Insert/% or 0-255** to insert the new steps. All channel indicator LEDs will flash.

Modify a Step

1. Enable Edit Mode for the scene to be edited.
2. Press **Step** to step through the steps of the scene until the desired step is selected.
3. Press and hold **Down/Beat Rev** to lower the value or **Up/Chase Rev** to raise the value.
4. Press or hold the Channel Flash button of the channel to be edited.
5. Repeat steps 2-4 until all modifications are made.

Playback Modes

Sound Active

KONTROL48 will respond to sound, either using the internal microphone or another device plugged into the Audio In port. To use Sound Active mode:

1. Play back a scene
2. Press **Audio/Page A/B**.
3. Use the Audio Level fader to adjust the sensitivity.

Speed

The Speed fader will determine the amount of time between each step of a scene. When the Speed fader is moved, the display will show **Speed _m_s_**, which indicates the time, in minutes, seconds and milliseconds, between each step. The speed can range between 20 milliseconds and 5 minutes or 10 minutes, depending on the mode.

The Speed fader has two modes: 5 minute and 10 minute.

To set the fader to 5 minute mode:

1. Press **Record/Shift**.
2. Press the Channel Flash button under **5/29** three times.
3. Release **Record/Shift**.

To set the fader to 10 minute mode:

1. Press **Record/Shift**.
2. Press the Channel Flash button under **10/34** three times.
3. Release **Record/Shift**.

To manually trigger the next step, move the Speed fader to **Show Mode** (the lowest position). When in Show Mode, press **Step** to trigger the next step.

Note: The Speed fader will have no effect if a beat is recorded or if Sound Active mode is enabled.

Beat

The Speed fader or Tap Sync button can be used to record a beat.

To record a beat using the Speed fader:

1. Play back the scene to be assigned the beat.
2. Press **Park** until the yellow LED indicating Mix Chase is lit.
3. Press and hold **Mode Select/Rec Speed** and tap the Channel Flash button of the scene that is playing back.

To disable a beat recorded using the Speed fader:

1. Play back the scene the beat is to be removed from.
2. Press **Park** until the yellow LED indicating Mix Chase is lit.
3. Move the Speed fader to the lowest position.
4. Press and hold **Mode Select/Rec Speed** and tap the Channel Flash button of the scene that is playing back.

To record a beat using Tap Sync:

1. Play back the scene to be assigned the beat.
2. Press **Tap Sync**
3. Press **Tap Sync** again once the desired time has passed. The time between pressed will be shown on the display.
4. If necessary, repeat step 3 until the correct timing is achieved.

To disable a beat recorded using Tap Sync:

1. Move the Speed fader.

Fade

The Fade fader sets the time each step takes to fade in and out. The maximum fade time is 10 minutes. The minimum is instant. Fade time cannot be recorded as part of a scene.

Single Chase

Cycle through all enabled scenes. The speed is determined by Sound Activation, Speed fader or Tap Sync.

To use Single Chase mode:

1. Press **Park** until the red LED indicating Single Chase is lit.
2. Move the faders for the scenes to be cycled to their desired output levels.

Mix Chase

Two or more scenes will be output simultaneously.

To use Mix Chase mode:

1. Press **Park** until the yellow LED indicating Mix Chase is lit.
2. Move the faders for the scenes to be cycled to their desired output levels.
3. Adjust the output of each scene as necessary.

Other Functions

Blind/Home

Press **Blind** and a Channel Flash button to blackout that channel.

Press **Home** to restore normal functionality.

Full On

Press and hold **Full On** to change the output of all 48 channels to 100%. Release to restore normal functionality.

Black Out

Press **Blackout** to stop all DMX output. Press again to restore DMX output.

- Functions will still work when Black Out is active.

Beat Rev

Press **Down/Beat Rev** to reverse the playback of all scenes that have a beat recorded. This will also work in the **Single Chase** playback mode.

Chase Rev

Press **Up/Chase Rev** to reverse the playback of all scenes that do not have a beat recorded.

Rev One

Press **Delete/Rev One** to reverse the playback of the selected scene.

All Rev

Press **Edit/All Rev** to reverse the playback of all scenes.

% or 0-255

Display the fader states as a percentage value (0-100%) or as DMX values (0-255). To toggle this option:

1. Press and hold **Record/Shift**.
2. Press **Insert/% or 0-255**.
3. Release **Record/Shift**.

Dark

Press and hold **Dark** to black out. Scene playback will continue when the button is pressed. Once released, the output will skip to the current state of the scene.

Add Kill

Pressing **Add Kill/Rec Exit** during playback will toggle Add Kill mode. While in this mode, press the Channel Flash button to change that channel to 100% output and black out all other channels. Scene playback will continue while in Add Kill mode, but only the selected channel will be output. Once released, the output will skip to the current state of the scene.

Hold

Press and hold **Hold** to freeze the DMX output at the current state. Scene playback will continue when the button is pressed. Once released, the output will skip to the current state of the scene.

Factory Reset

To reset the KONTROL48 to factory settings:

- Enter Record Mode.
- Press and hold **Record/Shift** and press the channel flash buttons in this order: 1, 3, 2, 3.
- Release **Record/Shift**.

Auxiliary Controls

There are three Auxiliary modes that can be used with the **Auxiliary Knobs**, which can act as shortcuts for the DMX channels:

- Mode 1: Auxiliary knobs and flash buttons are disabled.
- Mode 2: Auxiliary knobs and flash buttons have the same function as the original fader.
- Mode 3: The Auxiliary knobs set the output value of the corresponding flash button.

To assign a channel to an auxiliary knob and flash button:

1. Press and hold **Record/Shift**.
2. To assign to **Aux 1**, press the **7/31** channel flash button three times, or to assign to **Aux 2**, press the **8/32** button three times.
3. Release **Record/Shift**. The display will now show the status of the Aux channel currently being set.
4. Press and hold **Record/Shift**.
5. Press a channel flash button to assign a mode:
 - **1/25** for Mode 1
 - **2/26** for Mode 2
 - **3/27** for Mode 3
6. Release **Record/Shift**.
7. Press the Channel Flash button of the channel to be assigned to the Aux.
8. Press and hold **Record/Shift**.
9. Press **Add Kill/Rec Exit**.
10. Release **Record/Shift**.

The behaviour of the original fader and channel flash button depends on the Mode the Auxiliary Knob is set to:

- When using Mode 2, the original fader and channel flash button for the channel will not function.
- When using Mode 3, the original fader and channel flash button for the channel will function, and the higher value between the fader and auxiliary knob will take precedence.

MIDI Control

Set MIDI in/out

A MIDI Channel must be assigned to the controller to send and receive MIDI commands. To assign a MIDI channel to the controller:

1. Press and hold **Record/Shift**
2. To assign the channel as MIDI in, press the **1/25** channel flash button three times, or to assign the channel as MIDI out, press the **2/26** channel flash button three times.
3. Release **Record/Shift**.
4. Press the channel flash button of the channel to be used to assign it. Only channels 1-16 can be selected.
5. Continue to press and hold **Record/Shift** and press **Add Kill/Rec Exit**.
6. Release **Record/Shift**.

The controller will only respond to commands and send output on the assigned MIDI channels. Connect to **MIDI THRU** to output all MIDI input.

Control Chart

MIDI Note	Function
22-69	Trigger scenes 1-48
70-117	Activate channels 1-48
118	Full on
119	Dark
120	Hold
121	Toggle Audio
122	Chase<>Scene Mode
123	1-12A_1-12B Mode
124	1-24A mode
125	Step
126	Black Out
127	Toggle Page A/B

MIDI File Dump

Use MIDI to copy the contents of one KONTROL48's memory to another KONTROL48.

On the controller receiving the file dump:

1. Press and hold **Record/Shift**.
2. Press **3/27** channel flash button three times.
3. Release **Record/Shift**. The display will show **MIDI FILEDUMP RECEIVING 0%**.
4. Connect the **MIDI in** jack on the controller receiving the file dump to the **MIDI out** jack on the controller sending it.

On the controller sending the file dump:

1. Press and hold **Record/Shift**.
2. Press **3/27** channel flash button three times.
3. Release **Record/Shift**. The display will show **MIDI FILEDUMP SENDING 0%**.

The numbers on both displays will update as the file is sending. During this process, no other functions of the controller will be available, and it can take several minutes to complete. Once the process is complete, follow these steps on both controllers to exit MIDI mode:

1. Press and hold **Record/Shift**.
2. Press **Add Kill/Rec Exit**
3. Release **Record/Shift**

Technical Specifications

Power

- Input: 12V DC, 800mA.

Control

- DMX: 48 channels.
- Connections: 3- and 5-pin DMX out, MIDI in, MIDI out, MIDI thru, Audio in.

Housing

- Dimensions: 483x267x89 mm.
- Weight: 4.5 kg.
- Rackmount: 6 RU.

Warranty

Please contact your local dealer or contact Event Lighting.

www.event-lighting.com.au