



SC-2412

ORDERCODE 50710

v2



Highlite International B.V.

Vestastraat 2
6468 EX Kerkrade
The Netherlands

SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from Showtec.

The Showtec SC2412 brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.

We design and manufacture professional light equipment for the entertainment industry.

New products are being launched regularly. We work hard to keep you, our customer, satisfied.

For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.

So next time, turn to Showtec for more great lighting equipment.

Always get the best -- with Showtec !

Thank you!



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Warning

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing. Your shipment includes:

- Showtec SC2412
- AC power adapter 12Vdc 500mA
- User manual

WARNING



CAUTION!
Keep this device away from rain and moisture!



**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual



CAUTION! Be careful with your operations.
**With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**



Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.

- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would reduce the device's life.
- Only use device indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- Repairs, servicing and electric connection must be carried out only by Showtec.
- WARRANTY: Till one year after date of purchase.

Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The maximum ambient temperature $t_a = 45^\circ\text{C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 45°C .
- If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc.


You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!



Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

The SC-2412 is a 48 Channel Lighting Desk

Features

- 48 patchable channels & 2 Aux channels
- Easy to use Midi functionality
- 24 channel faders
- Clear LCD display
- Programmable Speed and Fade time
- 3 and 5 pole XLR output
- Patchable channels
- Desktop and 19 inch model
- User record code

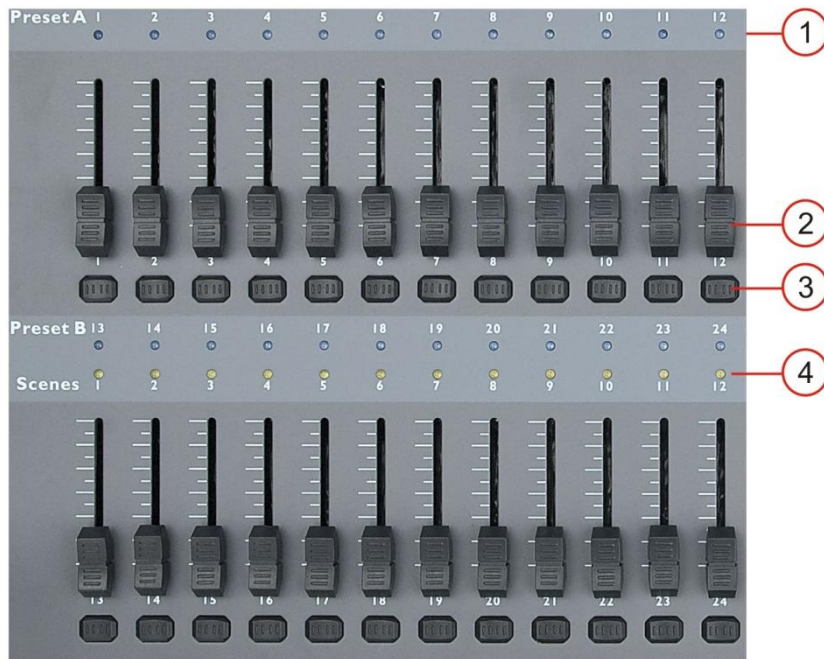
Note: Knowledge of DMX and Midi is required to fully utilize this unit.

Overview



Fig. 1

Controller Front



1. DMX-channel LEDs

Indicate the status of the DMX channel 1-24 when page A is selected, 25-48 when page B is selected.

2. Channel faders

Allow you to control DMX channel 1-24 when in Page A and DMX channel 25-48 when in page B in directly or use them for programming scenes/chases when in record mode.

Fader 13-24 can also be used to start/ stop scenes for playback.

3. Flash buttons

Pushing a flash button will send value of 100% to the according DMX channel. The flash button control DMX channel 1-24 when Page A is selected and DMX channel 25-48 when Page B is selected.

Flash button 13-24 can also be used to store scenes, speed settings for a particular scene and deleting scenes in programming mode or edit mode.

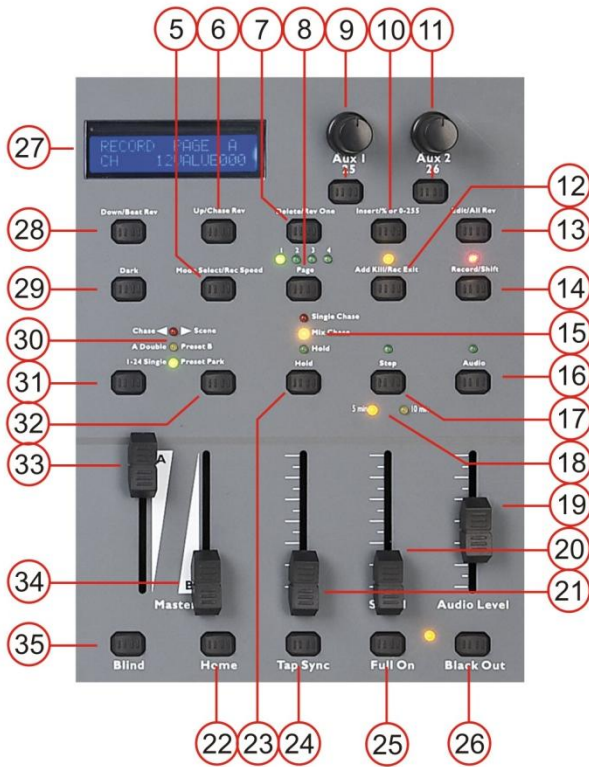
While pushing and holding the **Record/shift (15)** button, the Flash buttons 1-12 can be used to enter different programming modes.

#6 three times: Patch mode.

#1-#5-#6-#8: Program mode.

4. Chase LEDs

Indicate the status of Chase 1-12.



5. Park button

Allows you to select either single chase mode or mix chase mode. In single chase mode you are only able to playback a single scene. In mix mode you are able to playback several scenes simultaneous. Fader 13-25 can be used to set the master intensity for the according scene (fader 13: scene 1, fader 14: scene 2 etc.) The chase mode is indicated by the **Chase mode Indicator(16)**.

6. Up/chase rev

This button allows you to modify a scene while in edit mode.

In combination with the **record/shift (15)** button, this button allows you to reverse the direction of a chase while in the chase is in playback mode.

7. Delete/rev one

This button allows you to delete a step or chase while in edit mode.

In combination with the **record/shift (15)** button, this button allows you to reverse the direction of a single chase while in playback mode.

8. Page/record clr button + page LEDs

Each page can contain 12 scene/chases. So you can store up to 48 scenes/chases.

9. Aux 1 control + button

The aux control and button can be assigned to any DMX channel. Each aux control can be set up in three modes:

Mode 1: The control is not assigned to a DMX channel.

Mode 2: The control and control button work as a normal channel fader and flash button (max. brightness).

Mode 3: The control is used to adjust the brightness of the flash button.

10. Insert/% or 0-255

This button allows you to insert one or more steps (scenes) into a chase.

While pushing and holding the **rec/shift (15)** button, this button allows you to switch the DMX output value in the display as either 0-100% or 0-255.

11. Aux 2 control + button

The aux control and button can be assigned to any DMX channel. Each aux control can be set up in three modes:

Mode 1: The control is not assigned to a DMX channel.

Mode 2: The control and control button work as a normal channel fader and flash button (max. brightness).

Mode 3: The control is used to adjust the brightness of the control button.

12. Add kill/rec exit

This button allows you to enter Add mode, kill mode or exit the record mode.

Add mode, this button allows you to activate multiple scenes or flash buttons.

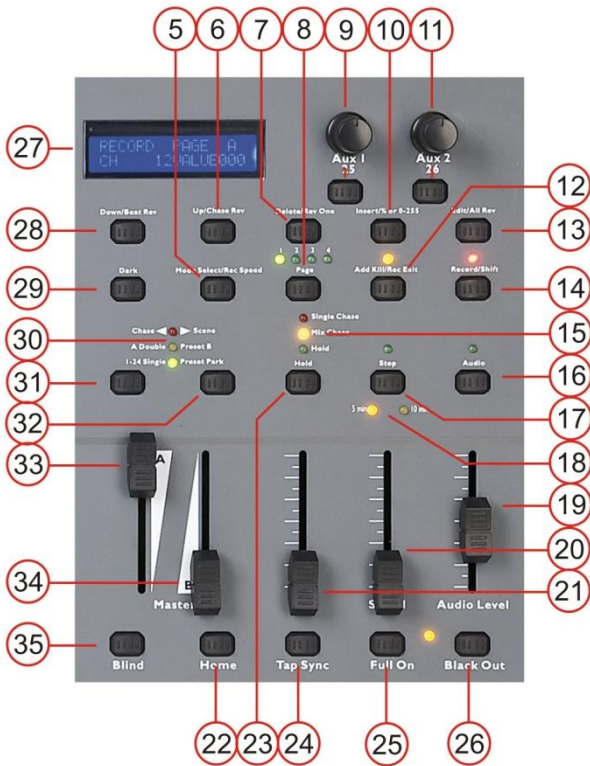
Kill mode, selecting a scene or flashbutton will kill any other active scene program.

Record mode, in combination with the **record/shift (15)** button, this button allows you to exit the record mode.

13. Edit/all rev

Use this button to activate the edit mode.

Pushing this button while holding the **record/shift (15)** button will reverse the direction of all chases.



14. Record/shift

This button can be used to enter record mode or give you access to the secondary (**shift**) functions of a button.

15. Chase mode indicator

Indicates if the SC-2412 is in mix chase mode (orange LED) or single chase mode (red LED).

16. Audio/page A-B button

Allows you to enter audio mode or switch between page A or page B (in combination with the **record/shift (15)** button).

17. Step button + LED

Allows you to step through a chase when the speed fader is set in max position (completely down).

18. 5-10 min LED's

Indicates if the SC-2412 is in mix or single mode.

19. Audio level fader

Allows you adjust the sensitivity for the built in microphone or the audio input jack at the rear while playing with audio triggering.

20. Speed fader

Allows you to adjust the speed for the scenes in program mode or in playback mode.

21. Fade fader

Allows you to adjust the fade time in playback mode.

22. Home button

Allows you to release a DMX channel which is in blind mode and return to normal chase playback. See page 9: **Blind (35)** button.

23. Hold button

Allows you to toggle the hold mode on or off. The status of the hold mode is indicated by the green LED above the button. Activating the hold mode during Chase playback, will hold a scene until you deactivate the hold mode.

24. Tap sync button

Tapping this button allows you to sync the speed during chase playback.

25. Full on button

This button allows you to activate all 48 DMX channels at 100%.

26. Black out button

Push this button to kill all output.

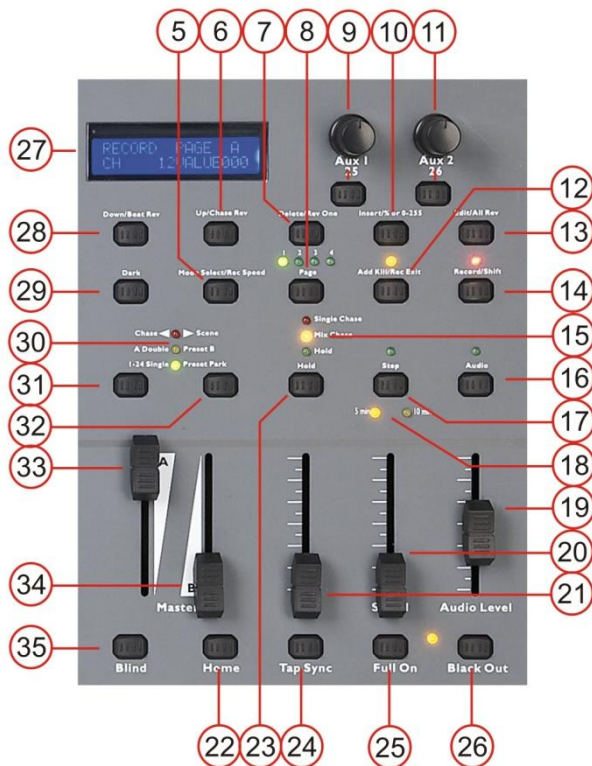
27. LCD display

Shows the current activity or the programming state.

28. Down/beat rev button

This button allows you to modify a scene while in edit mode.

In combination with the **record/shift (15)** button, this button allows you to reverse the direction of a chase while the chase is in audio control mode.



29. Dark button

This button allows you mute all output as long as the button is pushed.

30. Mode indicator button

The mode indicator indicates if you're in:

Chase scene mode: Allows you to program/playback scenes/chases.

A double preset B mode: In this mode you can use the channel faders to set up two presets for DMX channel 1-12. Preset 1: fader #1 - #12, preset 2: fader #13 - #24.

Switch/ fade between two presets by moving the **master A (33)** and **master B (34)** faders simultaneously up or down.

Single preset park mode: Allows you to set up scenes.

31. Master A button

Is a flash button for the master A fader. Regardless of the setting of the Master A fader, pushing this button has the same effect as sliding the master A fader to it's maximum position.

32. Park button

While in chase <> scene mode, this button can be used for switching between Single chase mode and mix chase mode. The selected mode is indicated by the **chase mode indicator (16)**.

While in double preset mode, pushing this button has the same function as sliding the **master B (34)** fader completely up.

While in Single preset mode, this button allows you to temporarily record the current output while adjusting the **master B (34)** fader.

33. Master A fader

Is used for adjusting the overall output level. This fader controls overall output of all channels.

34. Master B fader

Is used for adjusting the overall output level. This fader controls the chase of all programs.

35. Blind button

Push and hold the blind button and tapping the corresponding channel's flash button will release the channel's fader from the chase currently playing. Use the fader to control the selected channel independent of the chase. Return from blind mode by pushing and holding the **home (22)** button while tapping the fader(s) you released while in blind mode.

Controller Backside



Fig. 2

36. 3-pin DMX OUT

37. 5-pin DMX OUT

38. Polarity switch

39. Midi thru

40. Midi out

41. Midi in

42. Audio Input

This jack accepts a line level audio input signal ranged from 100 mV to 1Vpp.

43. Remote input

Blackout and full can be controlled by a remote control with a 1/4 " jack connection.

44. DC input

Connect a 12-18Vdc, 800mA min. adapter.

Installation

Remove all packing materials from the SC2412. Check that all foam and plastic padding is removed. Screw the equipment into a 19" rack or install the optional frame (50791) to use it as a table top device. Connect all cables.

Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Set Up and Operation

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Common Terms

The following are common terms used in intelligent light programming.

Blackout is a state where all lighting fixtures' light output are set to 0 or off, usually on a temporary basis.

Chases are a number of scenes played in sequence. So a program which consists of several scenes (steps) is called a chase while a program which consists of a single scene (step) is called a scene

DMX-512 is an industry standard digital communication protocol used in entertainment lighting equipment. For more information read Sections "DMX Primer" and "DMX Control Mode" in the Appendix.

Fixture refers to your lighting instrument or other device such as a fogger or dimmer which you can control.

Scenes are static lightning states.

Faders are also known as sliders.

Scanner refers to a lighting instrument with a pan and tilt mirror; however DMX controllers can use this term to control any DMX-512 compatible device as a generic fixture.

MIDI is a standard for representing musical information in a digital format. A MIDI input would provide external triggering of scenes using midi devices such as a midi keyboard.

Stand Alone refers to a fixture's ability to function independently of an external controller and usually in sync to music, due to a built in microphone.

Fade fader is used to adjust the fade time between scenes within a chase.

Speed fader affects the amount of time a scene will hold its state. It is also considered a wait time.

Shutter is a mechanical device in the lighting fixture that allows you to block the lights path. It is often used to lessen the intensity of the light output and to strobe.

Patching refers to the process of assigning faders to a DMX channel within a fixture.

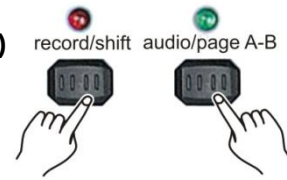
Playbacks can be either scenes or chases that are directly called to execution by the user. A playback can also be considered program memory that can be recalled during a show.

General Operations

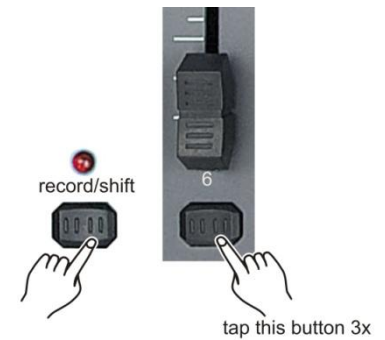
Physical fader assignment

Use this feature to combine or unify fixture control attributes for different fixtures. For example; if you were controlling 4 moving mirrors and 4 moving yokes, the color, gobo and dimmer channels may not line up ideally on the physical faders. Use this function to re-assign the dimmer, color and gobo channels to faders 1, 2 and 3. From now on you will be able to control the same attributes on all fixtures using the same fader location.

1. Select the page which the DMX channel (CHNO) you wish to assign is in. Push and hold the **record/shift (14)** button and tap the **audio/page A B (16)** button to toggle between page A and page B. The page selected is indicated in the **LCD (27)** display



2. While holding the **record/shift (14)** button tap **flash button #6** three times.



3. Tap the **flash (3)** button of the DMX channel (CHNO) you want to assign to a fader.

Page A selected: Fader 1-24.

Page B selected: Fader 25-48.



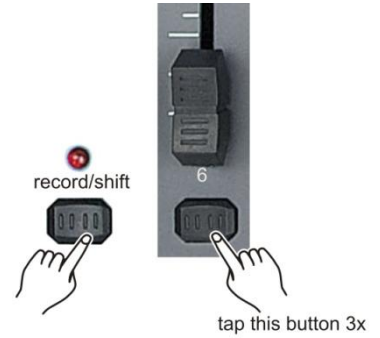
4. If you want to assign the DMX channel (CHNO) to a fader in another page then the one that you are into right now, push and hold the **record/shift (14)** button while tapping the **add kill/rec exit (12)** button to exit fader assignment mode. If the fader is on the same page, proceed with step 7.



5. Select the page which the DMX channel (CHNO) you wish to assign is in. Push and hold the **record/shift (14)** button and tap the **audio/page A B (16)** button to toggle between page A and page B. The page selected is indicated in the **LCD (27)** display



6. While holding the **record/shift (14)** button tap **flash button #6** three times.

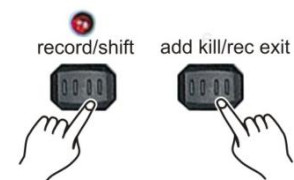


7. Push and hold the **record/shift (14)** while tapping the **flash (3)** button of the fader, you wish to assign the DMX channel to.
 Page A selected: Fader 1-24.
 Page B selected: Fader 25-48.



8. Repeat steps 2 -7 as often as necessary.

6. Push and hold the **record/shift (14)** button while you push the **add kill/rec (12)** button to exit fader assignment mode.



Example: You wish to assign DMX channel #1 to fader #5.

1. Hold the record button & tap **flash** button #6 three times.
2. Press **flash** button #1.
3. While holding the **record/shift (14)** button, press **flash** button #5.
4. Push and hold the **record/shift (14)** button while you tap the **add kill/rec (12)** button to exit fader assignment mode.

Notes:

- All physical faders can be re-assigned to output on a different DMX channel. Faders are given a channel number and are labeled on the surface of the controller as such.
- You can check to see what the assignment is by pressing the fader button of the corresponding channel while in this mode.
- Here is no limit to the amount of channels that can be assigned to single faders. One can assign up to all 48 channels of DMX output to a single fader.
- CHNO corresponds to the channel number, while SLDNO corresponds to the physical fader number.

Switching between page A and page B (channels 1-24 and 25-48)

Push and hold the record/exit () button and tap the **audio/page A B (16)** button to toggle between page A and page B.



Notes:

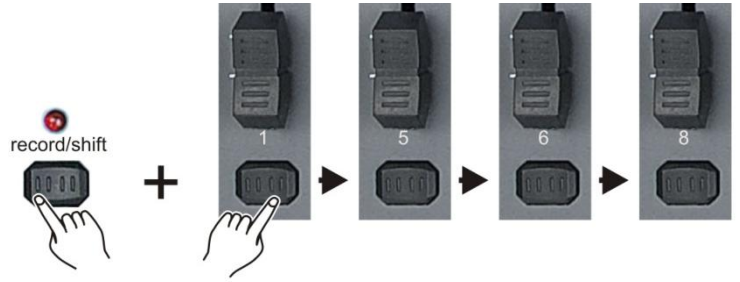
- When the fixture turns on, it will revert to the previously used page.
- Page A is used to control channels 1-24, while Page B is used to control channels 25-48.
- The screen will display which page is active.
- There is an additional set of 4 pages of playback controls on Page B.

Recording

Create a scene/chase

1. While holding the **record/shift (14)** button, tap the **flash (3)** buttons #1-5-6-8 in sequence.

2. Release the **record/shift (14)** button. The record LED will light. Now you are in Program mode (record enable).



3. Select the 1-24 Single mode by tapping the **Mode Select/rec speed (5)** button give you control of all 24 channels of the first page.

4. Compose a scene by moving the channel faders (changes in fixture attribute such as colors and gobos, or simply dimmer values).



5. Tap the **record/shift (14)** button to store the scene into the temporary memory.



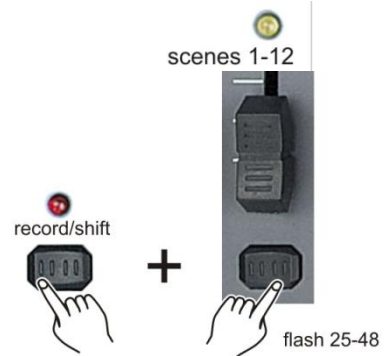
6. If you wish to create a chase, add scenes by repeating steps 2 – 4 until you have your desired chase.



7. Tap the **page (8)** button to select a page (1-4) in which you want to Store your scene/chase.



8. Press and hold the **record/shift (14)** button and tap the **flash** button for the memory number indicated by the **scene** LED (1-12) in which you want to store your scene/chase. All LEDs will flash briefly, indicating the scene/ chase has been stored into memory. Flash button 13-24 allow you to store scenes/chases in memory 1-12.



9. You can continue programming or exit. To exit program mode, press and hold the **record/shift (14)** button and tap the **Add kill/Rec Exit (12)** button.

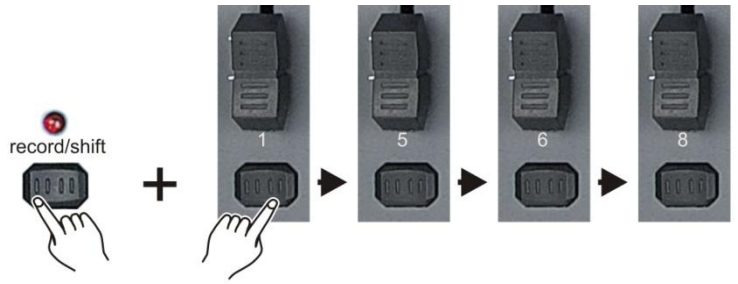


Notes:

- Leave the blackout mode if the blackout LED is lit by tapping the **blackout (26)** button.
- Be sure that you are on the right page by viewing the screen where it displays page A or page B. This will enable 1-24 or 25-48 channel control.
- If you just wish to create a static look (= scene), then you must create a chase composed of only 1 scene (step).
- You can add up to 1000 scenes (steps) available in every chase.

Edit a scene/chase

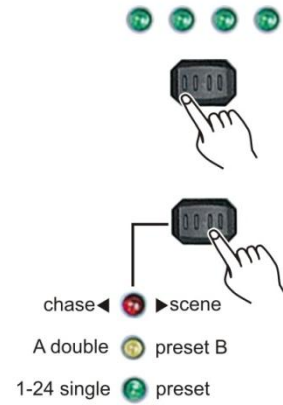
1. While holding the **record/shift (14)** button, tap the **flash (3)** buttons #1-5-6-8 in sequence.



2. Release the **record/shift (14)** button. The record LED will light. Now you are in Program mode (record enable).

3. Use the **page (8)** button to select the page where the scene/chase you want to edit is in.

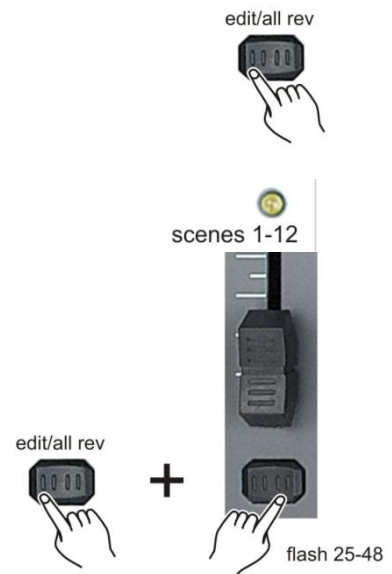
4. Select the chase < > scene mode by tapping the **Mode Select/rec speed (5)** button give you control of all 24 channels of the first page.



5. Push and hold the **edit/all rev (13)** button.

6. While holding the **edit/all rev (13)** button, tap the **flash(3)** button corresponding with the scene/chase you want to edit.

7. Release the **edit/all rev (13)** button. The relevant scene LED will light, indicating that the scene is in edit mode.



8. Tap the **step (17)** button until you reach the scene you want to edit.



9. Push and hold the **up/chase rev (6)** button if you want to increase the output value of a DMX channel.



Push and hold the **down/beat rev (28)** button if you want to decrease the output value of a DMX channel.



10. While holding either the **up/chase rev (6)** button or the **down/ beat rev (28)** button, tap the corresponding flash button to respectively increase or decrease that channel's DMX output.



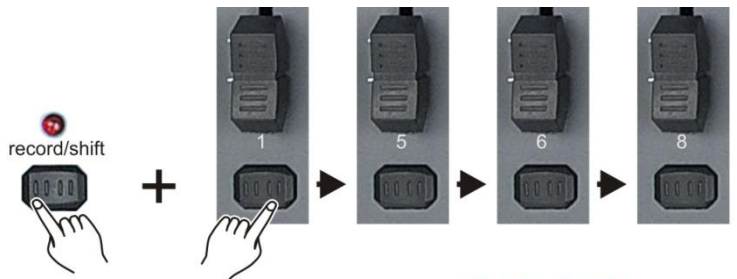
11. Repeat step 8 – 10 until all scenes have been edited.

12. Exit program mode, push and hold the **record/shift (14)** button & tap the **Add kill/Rec Exit (12)** button.



Delete a scene/chase

1. While holding the **record/shift (14)** button, tap the **flash (3)** buttons #1-5-6-8 in sequence.



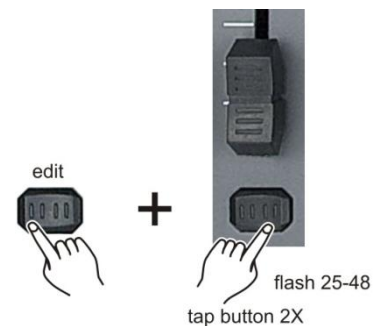
2. Release the **record/shift (14)** button. The record LED will light. Now you are in Program mode (record enable).

3. Use the **page (8)** button to select page in which the scene/chase you want to edit is in.



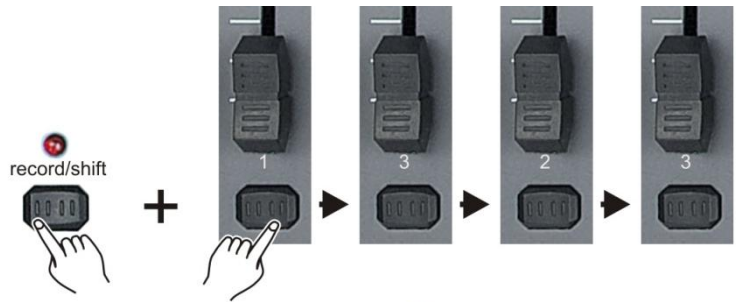
4. While holding the **edit/all rev (13)** button, tap the **flash(3)** button corresponding with the scene/chase you want to edit twice.

5. Release the **edit/all rev (13)** button. All LEDs will flash briefly, indicating the scene/chase is erased.

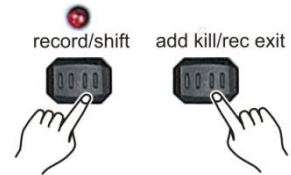


Delete all scenes/chases

1. While holding the **record/shift (14)** button, tap the **flash (3)** buttons #1-3-2-3 in sequence.



2. Push and hold the **record/shift (14)** button and tap the **Add kill/Rec Exit (12)** button.



Notes:

- You must be in record mode to reset the controller.
- The LED above the record button will light, indicating the record mode operation.
- Following parameters can be edited while a chase is running.

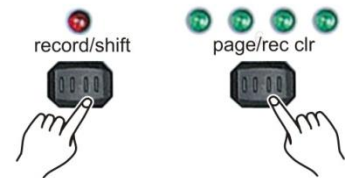
Warning!

This action will reset the controller to its factory defaults. This will erase all programs and settings.

Delete a scene/chase in temporary memory

1. If you're not satisfied with a chase while programming (as described on page 14/15: **Create a scene/chase**), you have the option to delete the chase without leaving the program mode.

2. If you're not happy with the result, push and hold the **record/shift (14)** button while tapping the **page/record clr (8)** button. All LED's will flash, indicating the scene/chase is deleted.

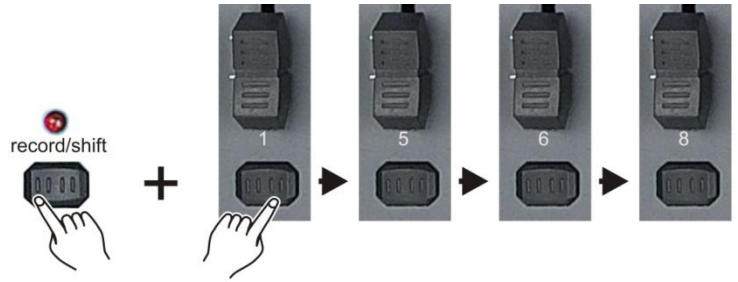


Note:

- All the scenes stored in the temporary memory of the controller will be erased by this process.
- This process will not affect the scenes already programmed into a scene/chase fader.

Delete a single scene in a chase

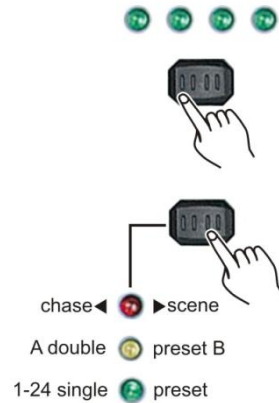
1. While holding the **record/shift (14)** button, tap the **flash (3)** buttons #1-5-6-8 in sequence.



2. Release the **record/shift (14)** button. The record LED will light. Now you are in Program mode (record enable).

3. Use the **page (8)** button to select the page where the scene/chase you want to edit is in.

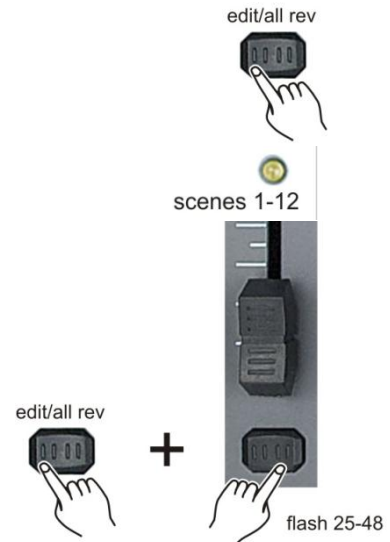
4. Select the chase < > scene mode by tapping the **mode select/rec speed (5)** button give you control of all 24 channels of the first page.



5. Push and hold the **edit/all rev (13)** button.

6. While holding the **edit/all rev (13)** button, tap the **flash** button corresponding with the chase in which you want to delete a scene.

7. Release the **edit/all rev (13)** button. The relevant scene/chase LED will light, indicating that the chase is in edit mode.



8. Tap the **step (17)** button until you reach the scene you want to delete.



9. Tap the **delete/rev one (7)** button to delete the current scene. All LEDs will light up, indicating the current scene is deleted.



10. Repeat step 8 and 9 until all unwanted scenes are deleted.

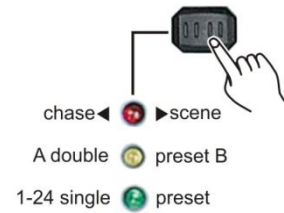
11. Exit program mode, push and hold the **record/shift (14)** button & tap the **Add kill/Rec Exit (12)** button. The scene LED will dim indicating you left edit mode.



Insert a scene in a chase

1. Record the scene or chase you wish to insert (now your scene is stored in the edit buffer). As described on page 15/16: **Creating a scene/chase**.

4. Select the chase < > scene mode by tapping the **Mode Select/rec speed (5)** button. The chase < > scene mode gives you access to the 24 channels of the selected page.



5. Push and hold the **edit/all rev (13)** button.



6. While holding the **edit/all rev (13)** button, tap the **flash (3)** button corresponding with the chase in which you want to delete a scene.

7. Release the **edit/all rev (13)** button. The relevant scene/chase LED will light, indicating that the chase is in edit mode.



8. Tap the **step (17)** button until you reach the scene you want to insert your new scene before.



9. Tap the **insert/% or 255 (10)** button to insert the step you've created before.



10. Exit the edit mode.



Notes:

- Part of entering the edit mode is selecting which chase or scene you wish to edit. See section on edit enable for further instructions.
- All LEDs will flash to indicate a successful insert of the scene.

Playback

Playing a scene/chase

1. Select the chase < > scene mode by tapping the **mode select/rec speed (5)** button give you control of all 24 channels of the selected page.

2. Tap the **page (8)** button to select the page, where the scene/chase, you want for playback is stored in.

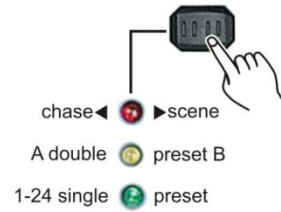
3. Move the **master B (34)** fader to its maximum position (fully down).

4. Move the corresponding chase/scene fader (channel fader 13-24) to its maximum position to start the chase/scene. The chase/scene will fade in depending upon the current fade time.

5. Move the corresponding chase/scene fader (channel fader 13-24) to adjust the overall output of the chase/scene.

Notes:

- The current mode is indicated by the 3 LEDs:
Red indicates the Chase ◀ ▶ Scene mode is selected.
Yellow indicates the 2-scene preset A/B mode selected.
Green indicates 1-24 single mode selected.
- You may press and hold down the relevant flash button for the scene to trigger the button momentarily.



Playing a scene/chase with audio triggering

1. Play a chase/scene as described in **playing a chase/scene** on page 22.

2. Activate audio mode by tapping the **audio/page A-B (16)** button. Audio mode is active as the LED is lit.



3. Adjust the sensitivity moving the **audio level (19)** fader.

audio level



4. To exit audio mode tap the **audio/page A-B (16)** button. The LED will dim.

Note: You can use the audio mode with either the built in microphone or connect a line level audio source at the **audio (42)** input.

Playing a scene/chase while adjusting speed with the speed fader

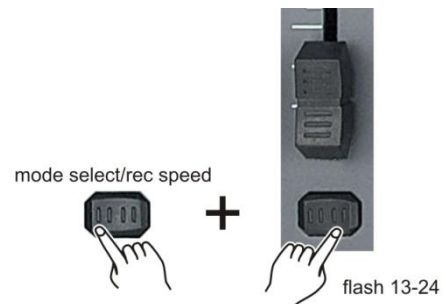
1. Play a chase/scene as described in **playing a chase/scene** on page 22.

2. Move the speed fader in minimum position (fully down).



3. Push and hold the mode **select/record speed (5)** button while tapping the the corresponding **flash** button #13 - #24. The scene selected, will no longer run with the standard beat.

4. Move the speed fader to change the speed.



Note:

- Make sure audio mode is not activated.
- Step 3 is not necessary if the selected chase/scene is not recorded with a standard beat.

Playing a scene/chase with the stored beat.

1. Select the chase < > scene mode by tapping the **mode select/rec speed (5)** button. The chase < > scene mode gives you control of all 24 channels in the selected page.

2. Tap the **park (32)** button to select the mix chase mode.

3. Play a chase/scene as described in **playing a chase/scene** on page 22.

4. Move the speed fader in until the display reads the desired value.

5. Push and hold the **mode select/record speed (5)** button while tapping the the corresponding **flash** button #13 - #24. To store the scene. The scene with the time set or beat when engaged.

6. Repeat step 4 and 5 to set a new beat time.

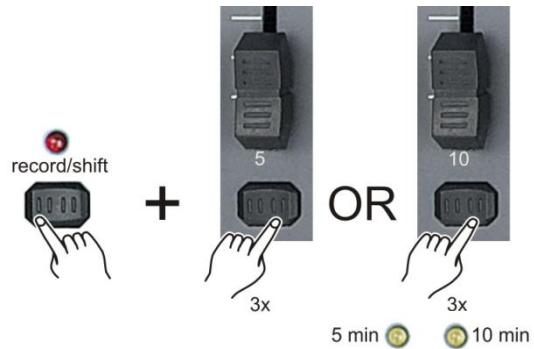
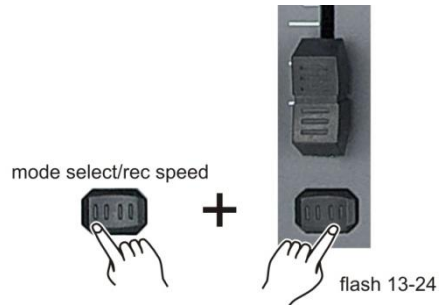
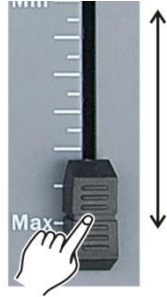
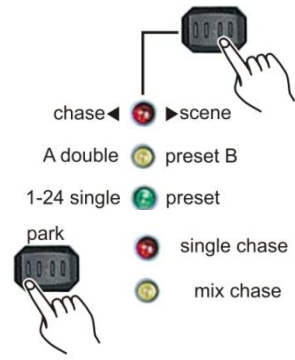
Notes:

- Be sure audio mode is disengaged.
- As an alternative to using the speed slider to change the speed, you can also use the **tap sync (24)** button (2 times) to set the speed.

Change the speed mode between 5 and 10 minutes.

1. While holding the **record/shift (14)** button, tap either **flash (3)** button #5 or **flash (3)** button #6 three times.

2. The speed mode you're in, is indicated by either The 5 min or the 10 min LED.



Auxiliary controls

This is the process of assigning the aux controls. These will act as shortcuts and are most commonly used for DMX strobe light or DMX fog machines. However, they are not limited to these functions, such as pan/tilt control which is very useful for follow spots.

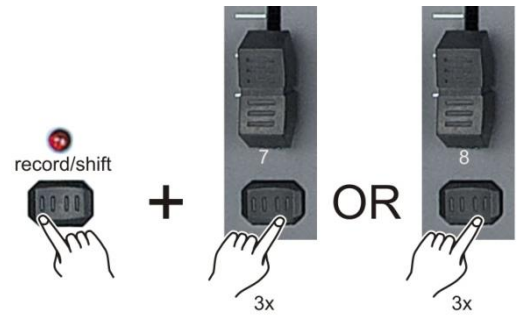
Each aux control can be assigned in three ways:

Function 1: The aux control is not assigned.

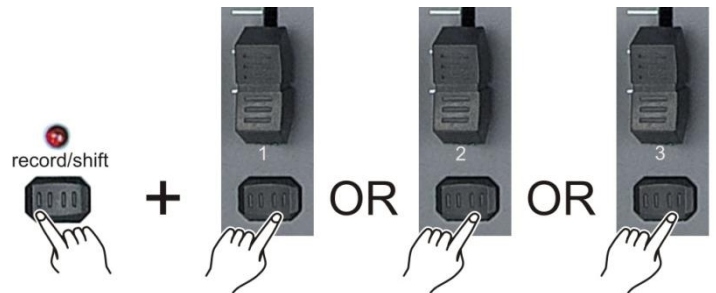
Function 2: The aux control/button will work as a normal channel fader and it's corresponding flash button.

Function 3: The aux control is used to set the maximum output level for the corresponding aux button.

1. Press and hold **record/shift (14)** and tap the **flash** button **#7** for **aux 1 (9)** or **#8** for **aux 2 (11)** three times. The display indicates the aux mode.



2. While holding down the **record** button, select the function 1, 2 or 3 for the aux control/button by tapping respectively **flash** button **#1**, **#2** or **#3**.



3. To assign the auxiliary to a channel, tap the **flash (3)** button for the channel you wish to assign the auxiliary control to. The corresponding LED above the channel will light, indicating that the channel has been assigned.



4. Exit program mode, push and hold the **record/shift (14)** button & tap the **add kill/rec exit (12)** button.



Midi operation

The controller will only respond to MIDI commands on the MIDI channel that it is assigned to. All MIDI control is performed using Note on commands. All other MIDI instructions are ignored. To stop a chase, send the **blackout on** note. Also see **appendix 1: MIDI Implementation**.

Setting up MIDI in

1. While holding down the **record/shift (14) record** button, simultaneously tap the **flash** button #1 three times. The display reads *MIDI CHANNEL IN* to indicate channel setup is available.



2. Select the MIDI control channel (1-16) by tapping **flash (3)** buttons #1-16. The relevant channel LED lights indicating the MIDI in channel is set.



3. While holding down the **record/shift (14)** button, tap the **add kill/rec exit (12)** button to exit MIDI setting.

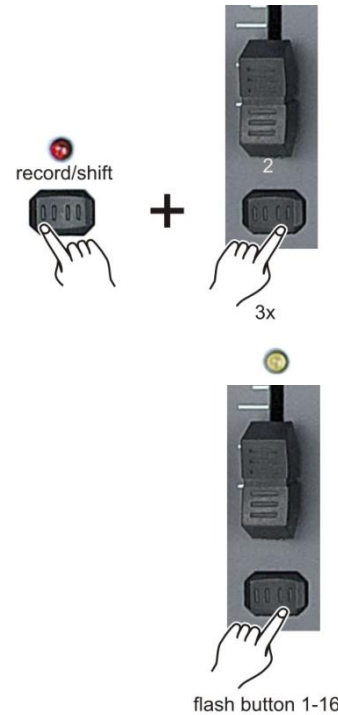


Note:

- This is the channel on which the controller will receive MIDI note on commands.

Setting up MIDI out

1. While holding down the **record/shift (14) record** button, simultaneously tap the **flash #2** three times. The display reads *MIDI CHANNEL OUT* to indicate channel setup is available.



2. Select the MIDI control channel (1-16) by tapping **flash (3)** buttons **#1-16**. The relevant channel LED lights indicating the MIDI IN channel is set.

3. While holding down the **record/shift (14)** button, tap the **add kill/rec exit (12)** button to exit MIDI setting.



Note:

- This is the channel on which the controller will transmit MIDI note commands.

Receiving MIDI File Dump

1. While holding down the **record/shift (14)** button, simultaneously tap the **flash #3** three times. The display reads *MIDI FILEDUMP RECVING 000%* and is ready to receive a MIDI file dump.



2. When holding down **record/shift (14)** button tap the **add kill/rec exit (12)** button to exit the MIDI setting.



Receiving MIDI File Dump

1. While holding down the **record/shift (14)** button, simultaneously tap **flash (3)** button **#4** three times. The display reads *MIDI FILEDUMP SENDING 000%* and the MIDI file dump will start.



2. When holding down the **record/shift (14)** button tap the **add kill/rec exit (12)** button to exit the MIDI setting.

Notes:

- Midi file dump is the process of copying your entire show to another SC2412 or make a backup on a PC/laptop (with the appropriate software). This will not work with any other device.
- This process can take several minutes to complete.
- The controller will automatically begin sending the FILE DUMP once the mode has been selected. Therefore, be sure that the other device has previously been setup to receive the transfer.
- During FILE DUMP, all other operations will cease to function.
- If errors or power failure occurs, FILE DUMP will be interrupted and stop.

Maintenance

The Showtec SC-2412 requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.

Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

Showtec SC-2412

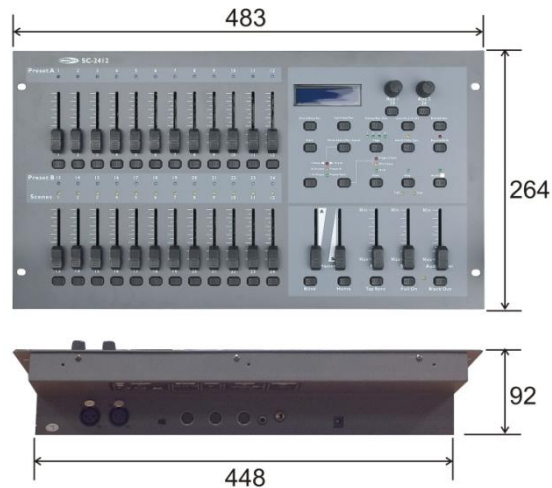
This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

1. Fixture does not respond to controller: Check the DMX-address of the fixture and the controller. Make sure they match. Make sure the connections are correct.
2. Interference between chases; If the same channel is assigned to different running chases, the one with the highest channel value will be put out.
3. Note: when in programming mode, as long as the LED indicator is lit, the value will be stored, even if the value is zero.
4. Except for the channels assigned to the jog wheels and the channels set with slope, slope is not assigned to the other channels.
5. For the master controlled channels, the master faders are valid only when the dimmer buttons are activated (LED indicator is on). If some channels can't be controlled, please check if they are assigned to master control.
6. If the device does not operate properly, unplug the device.
7. Check power from the wall, all cables, the fuse, the settings (return to default), etc.
8. If all of the above appears to be O.K., plug the unit in again.
9. If nothing happens after 30 seconds, unplug the device.
10. Return the device to your Showtec dealer.

Product Specification

Model: Showtec SC2412
Power Adapter: DC 12-18V 800mA Min.
DMX-Output: 3-pin female XLR
MIDI-Signal: 5-pin standard interface
Audio Input: 100 mV~1Vpp
Internal Fuse: F0.5A 250V 5x20
Dimensions: 483 x 264 x 100 mm (LxWxH)
Weight: 4,06 kg

Detachable frame: 50791 (not included)



Design and product specifications are subject to change without prior notice.



Website: www.Showtec.info
Email: service@highlite.nl

Midi Implementation

function		Transmitted	Recognized	Remarks
basic channel	Default	X	1	
	Changed	1-16	1-16	
Mode	Default			
	Messages Altered	X	X	
Note number		22-127	22-127	*1 *2
	True voice	X	X	
Velocity	Note ON	X	O	
	Note OFF	X	O	
After touch	Key's	X	X	
	Channel	X	X	
Pitch bend		X	X	
Control change		X	X	
Prog Change		X	X	
	True#	X	X	
SysEx		O	O	Universal Non-Real Time
Common	Song pos	X	X	
	Song Sel	X	X	
	Tune	X	X	
System real time	Clock	X	X	
	Commands	X	X	
Aux Messages	Local ON/OFF	X	X	
	All Notes OFF	X	X	
	Active Sense	O	X	
	Reset	X	X	
O: YES Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO X: NO Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO				

*1 table 1: note numbers

note number	function
22-69	Program 1-48 on or off
70-117	Activate channel 1-24
118	FULL-ON on or off
119	DARK on or off
120	HOLD on or off
121	AUDIO on or off
122	MODE: CHASE ◀▶ SCENE
123	MODE: 1-12A_1-12B
124	MODE: 1-24A
125	Step
126	Blackout
127	Channel Page A(1-24)/ B(25-48) select

*2

ON: Velocity > 0

OFF: Velocity = 0

except: note number 122, 123, and 124 which can be selected using only note on commands (velocity > 0)

note number 70-117 Midi In: The intensity is controlled by velocity.



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