



## DMX **DUO**

### **USER MANUAL**

Version 1.3 24-004-1648-00

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## **Section 1: General introduction**

Thank you for purchasing the Elation **DMX Duo**. This unit is a professional DMX recorder and playback device with high performance and advanced capabilities. This device was designed to accept information from any universal DMX controller available on the market today. Any group of scenes that have been programmed into a universal DMX controller can simply be downloaded into the DMX Duo for easy playback. In many cases, the DMX Duo is pre-programmed at the factory when sold in system packages. This unit is made up of two control sections - one part for effect lighting and the other for playback of dimmers and moving lights. The two parts run completely independent of one another allowing you more flexibility when playing back shows or turning effects on and off.

Every unit has been thoroughly tested and carefully packed before shipment. Unpack the shipping carton and inspect thoroughly saving the carton and all packing materials for possible use later. Check carefully and make sure your product is not damaged and that no included accessory is missing. If your product appears to be damaged or missing something, please do not use it- contact our customer support staff at (800) 322.6337 ext-401 for instructions on what to do.

## **Section: 2 Safety Information & Maintenance**

Please read through this manual carefully and thoroughly, as it gives important information regarding safety, use and maintenance. Keep this manual with the unit for possible future reference. Please read all instructions prior to mounting, and operating your DMX Duo. To protect against fire, electric shock and injury to persons, please follow the safety precautions listed below and observe all warnings in this manual and warnings printed on the console. The following rules give important information regarding safety during operation and maintenance for long term use. If you have any questions regarding operation of this console, please contact our customer support staff at (800) 322-6337 ext-401.

- **Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.**
- **To reduce the risk of fire or electrical shock, do not expose this unit to rain or high levels of moisture. Do not use this unit near water.**
- **Do not operate this unit if the ambient temperature exceeds 45°C.**
- **Refer any service operation not described in this manual to a qualified technician.**
- **Do not dismantle or modify this unit as there are no user serviceable parts inside. Refer all service related issues to a qualified technician.**
- **Use this unit only as described.**
- **Handle this unit carefully. Any strong shock or vibration may result in malfunction.**
- **Do not operate this unit when front face panel is removed.**
- **Any damaged or crimped AC cable should be replaced immediately. Protect the power supply cable from being walked on or pinched.**
- **Do not allow children to play with this unit.**
- **Keep these instructions for future use.**
- **Heed all warnings.**
- **Follow all instructions.**
- **Clean only with dry cloth.**
- **Do not install near any heat sources such as heaters, stoves, amplifiers or any other heat generating apparatus.**
- **Only use attachments and accessories specified by Elation Professional.**
- **Unplug this unit during lighting storms or when unused for long periods of time.**
- **In order to keep your DMX Duo in good working condition, please follow these simple steps for safety and maintenance.**

### Section: 3 Information Notice

**Product Modification Warning:**

Elation Professional products are designed and manufactured to meet the requirements of United States and International safety regulations. Modifications to the product could affect safety and render the product non-compliant to relevant safety standards.

**Updates & Changes:**

Information and specifications in this manual are subject to change without notice. Elation Professional assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual.

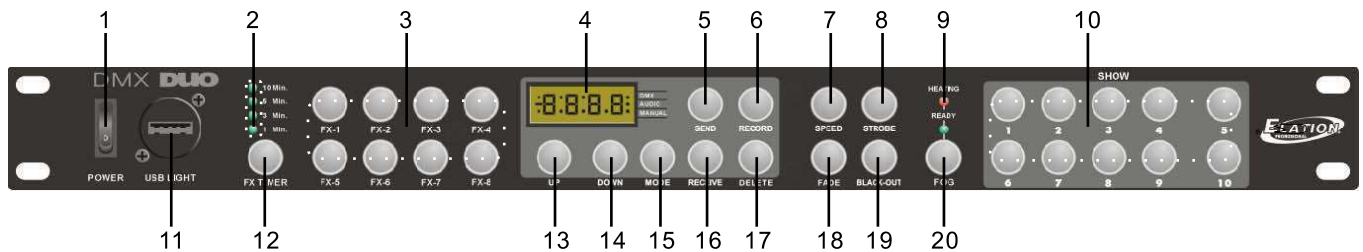
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**It is of great benefit to keep this user manual for future reference.**

### Section 4: Front Panel Overview



1. **Power switch**- switches the units power on or off. Up position switches the unit ON and Down position switches the unit OFF.
2. **FX timer LED's**- indicate selected timer interval between 1, 3, 5 or 10 minutes. The built in timer works in conjunction with the eight (8) FX light buttons. Selected timer interval will have its LED lit. (See next section for additional information).
3. **1-8 FX switches**- Switch effects ON or OFF. When an FX button is selected, corresponding button illuminates. Therefore, corresponding effect or effects will switch ON. These buttons are also used to select effects for timer interval automatic playback. (See next section for additional information).
4. **Display**- display's show times and current operation mode.
5. **Send Button**- used to send memory data file to another DMX Duo or PC. (See next Section for additional data transfer information).
6. **Record Button**- used to record show steps. Also used to engage record mode.
7. **Speed Button**- to adjust show hold times. When selected, a show hold time can be changed with the UP/Down buttons.

## Front Panel Overview (Cont.)

- 8. Strobe Button-** allows for a strobe effect to be programmed for quick access during playback. Any selected show will incorporate a strobe effect when this button is selected.
- 9. Fog Machine Indicators-** L.E.D's indicate when connected fogger is "Heating" or "Ready" for use. Red indicator L.E.D indicates that the fogger is heating and Green indicator L.E.D indicates that the fogger is ready to be used.
- 10. 1-10 Show Buttons-** used to store and playback shows. Up to 99 steps can be stored into each show button. Shows can be played back in one of two modes- sequential or mixed. A show will incorporate the same hold and fade time for each step.
- 11. USB Input-** allows for a USB work light to be plugged into it such as the Elation USB LITE.
- 12. FX Timer Button-** used to select desired timer setting between 1, 3, 5 or 10 minute intervals. The FX timer works in conjunction with the 1-8 FX buttons.
- 13. UP Button-** used to increase show step and fade times. Also used when in record edit mode to increase selected show step.
- 14. Down Button-** used to decrease show step and fade times. Also used when in record edit mode to decrease selected show step.
- 15. Mode Button-** used to select between DMX, Audio or Manual operation modes.
- 16. Receive Button-** used to receive a memory data file from another DMX Duo or PC. (See next Section for additional data transfer information).
- 17. Delete Button-** used to delete show steps when in record or record edit modes.
- 18. Fade Button-** used to adjust show fade times. When selected, a show fade time can be changed with the UP/Down buttons.
- 19. Blackout Button-** used to blackout all selected shows.
- 20. Fog Button-** used to trigger a connected fog machine. Compatible foggers include: ADJ MB-1000, Stallion, Vapor-Flow, Fog Storm-1200 and Fog Storm-1700.

## Section 5: Rear Panel Overview



1. **Fog Machine 5 pin Input socket-** connect to a compatible fog machine for onboard triggering. Use any midi standard type cable to connect between DMX Duo and fog machine. Compatible foggers include ADJ MB-1000, Stallion, Vapor-Flow, Fog Storm-1200 and Fog Storm-1700.
2. **DB9 Pin RS-232 input connector-** connect to a another DMX Duo, lap top or PC to transfer or load a data file. Use a standard RS-232 serial lap link type cable to connect between DMX Duo and other device. Must use Elation RS-232 software to transfer data between DMX Duo and lap top or PC- software available at [www.elationlighting.com](http://www.elationlighting.com) . (See next section for additional data transfer information).
3. **DMX Input-** connect a universal DMX controller into this input for scene uploading.
4. **DMX Output-** connect to moving lights or dimmers for show playback of uploaded scenes. This output works in conjunction with the 1-10 show buttons.
5. **FX Output-** connect to a switch pack such as the Elation DP-415 or PP-DMX20L. Up to 8 channels can independantly be switched ON and OFF via this output. This output works in conjunction with the 1-8 FX buttons.
6. **Power Supply DC Input-** plug the supplied 9V DC-1000mA minimum power supply into this input.

## Section 6: FX 1-8 On/Off Buttons & FX Timer

The FX 1-8 buttons are used to turn the corresponding DMX output channels ON or OFF. Up to two 4 channel power packs can be controlled via the 1-8 FX buttons. The first power pack should be set to DMX channel one (1) and the second power pack should be set to DMX channel five (5). If your packs incorporate dip switches, set dipswitch #1 ON for the first pack in line and dip switch #'s 1 & 3 ON for the second pack. This will give you control of channels 1-4 on your first pack and channels 5-8 on the second pack. The FX Timer includes five options which are represented by the LED's above the FX Timer button- 1 minute, 3 minute, 5 minute and 10 minute intervals can manually be selected by repeatedly pressing the FX Timer Button. When all timer interval L.E.D's are OFF, this means that the timer is OFF.

### 6a. Manual On/Off Control of FX 1-8 buttons

To obtain manual on/off control of FX 1-8, press the "FX Timer" button until all green LED's above the FX Timer button are off. You can then turn FX 1-8 ON or OFF as required.

### 6b. FX Timer

To select FX for timer sequence, press the "FX TIMER" button until all green LED's above FX Timer button are off. Next, select the FX you want included into timer sequence by selecting FX buttons 1-8. For example, if you select buttons 1, 3, 4 & 7, FX 1, 3, 4 & 7 will be the FX included into your timer sequence. Finally, press the "FX TIMER" button until the LED next to your desired timer interval is lit- 1, 3, 5 or 10 minute modes. *(If no FX are selected, all FX 1-8 will automatically run one after another based on the selected interval time- 1, 3, 5, 10 minutes. If only one FX is selected, the selected FX will turn on and off to the selected interval time).*

## Section 9: Recording Shows

1. Connect from your DMX controllers output to the DMX input of your DMX Duo. *(When programming moving lights, it is recommended that you pre program scenes into your DMX controller before recording shows into the DMX Duo. If your programming conventional dimmers, you can record them in real time using your controllers dimmer channels).*

2. Press and hold down the "Record" button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the record LED will illuminate. *(Note: if you do not have a DMX controller connected to the DMX input of the DMX Duo as described in the previous step, you will not be able to access the Record mode).*

## Recording Shows (Cont.)

3. Select the Show button 1-10 that you want to record into. Once selected, the show LED will continually flash and the LED will display the current show step- "SH:00".
4. From your DMX controller, select the scene or manually adjust the channels you want included into your first show step.
5. Adjust the steps hold time by pressing the "SPEED" button. Next, use the "UP/DOWN" buttons to select the hold time ranging from 0.1 (one tenth of a second) to 10:00 (ten minutes).
6. Adjust the steps fade time by pressing the "FADE" button. Next, use the "UP/DOWN" buttons to select the fade time ranging from 0.1 (one tenth of a second) to 10:00 (ten minutes).
7. To record the step, press "Record". All eight show LED's will momentarily flash and the LED will display the next show step confirming that your step has been recorded.
8. Repeat steps 4-7 up to 99 times per show.
9. Press "BLACK-OUT" twice to exit record mode.

## Section 10: Editing Shows

### 10a. Adding steps to an existing show

1. Press and hold down the "Record" button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the Record LED will illuminate. (*Note: if you do not have a DMX controller connected to the DMX input of the DMX Duo as described in the previous step, you will not be able to access the Record mode*).
2. Select the show you want to edit by pressing show button 1-10. The show LED will continually flash and the LED will display the total amount of show steps included into the selected show- "SH:xx".
3. To view the previously recorded steps, press the same show button, both show and record LED's will be lit. Use the "UP/DOWN" buttons to scroll to the step you would like to add a new step after. Once you find the step, press the same show button again so that the show LED is flashing. (*You must exit this preview mode before you can record or add the new step*).
4. From your DMX controller, select the scene to be added or manually adjust the channels to your desired setting.
5. Adjust the steps hold time by pressing the "SPEED" button. Next, use the "UP/DOWN" buttons to select the hold time ranging from 0.1 (one tenth of a second) to 10:00 (ten minutes).
6. Adjust the steps fade time by pressing the "FADE" button. Next, use the "UP/DOWN" buttons to select the fade time ranging from 0.1 (one tenth of a second) to 10:00 (ten minutes).
7. To record the new step, press "Record". All eight show LED's will momentarily flash and the LED will display the new show step confirming that your step has been recorded.
8. Repeat steps 3 -5 to add additional show steps.
9. Press "BLACK-OUT" twice to exit record mode.



## Editing Shows (Cont.)

### 10b. Deleting show steps

1. Press and hold down the “Record” button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the Record LED will illuminate. *(Note: if you do not have a DMX controller connected to the DMX input of the DMX Duo as described in the previous step, you will not be able to access the Record mode).*
2. Select show you want to edit by pressing show buttons 1-10. The show LED will continually flash and the LED will display the total amount of show steps included into the selected show- “SH:xx”.
3. To view the previously recorded steps, press the same show button, both show and record LED’s will be lit. Use the “UP/DOWN” buttons to scroll to the step you would like to delete. Once you find the step, press the same show button again so that the show LED is flashing. *(You must exit this preview mode before you can delete the step).*
4. Press the “DELETE” button. All eight show LED’s will momentarily flash and the LED will display the previous show step confirming that the step has been deleted.
5. Repeat steps 3 & 4 to delete additional steps.
6. Press “BLACK-OUT” twice to exit record mode.

### 10c. Deleting Shows

1. Press and hold down the “Record” button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the Record LED will illuminate. *(Note: if you do not have a DMX controller connected to the DMX input of the DMX Duo as described in the previous step, you will not be able to access the Record mode).*
2. Press and hold down the “Delete” button, then press the show button 1-10 you want to delete. All eight show LED’s will momentarily flash and the show button you selected will not be lit anymore confirming that the show has been deleted.
3. Repeat step 2 to delete additional shows.
4. Press “BLACK-OUT” twice to exit record mode.

## Section 11: Strobe Function Assign

1. Press and hold down the “Record” button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the Strobe button LED will illuminate. *(Note: if you do not have a DMX controller connected to the DMX input of the DMX Duo as described in the previous step, you will not be able to access the Record mode).*
2. From your DMX controller, select a pre programmed strobe scene, **including only the strobe channel**, or manually set your strobe or shutter channel to strobe at your desired flash rate. *(For a pre programmed strobe scene- it is important that you do not include any channel other than the strobe channel when recording the scene into your universal DMX controller).*
3. Press the “STROBE” button to record and save. All eight show LED’s will flash momentarily confirming that the strobe function has been saved.
4. To exit, press “BLACK-OUT” twice.

## Section 13: Show Playback

Shows can be played back in two modes- “Sequence” or “Mix”. Sequence mode allows for shows to be played back one at a time. Ten shows can be selected at one time. However, the show with the flashing LED is the only active show running at the given time. Once that show has finished, the next selected show will automatically begin to run and it’s LED will begin to flash until it finishes. This sequence mode will automatically loop both shows continuously. Mix mode allows ten shows to be played back at any one time. This mode allows for the highest values to take effect over a given channel. For example, if one show contains a value of 161 for channel 3 and the other show contains a value of 223 for channel 3 then the show containing the value of 223 will take precedence because it is a higher value. This mode works very well with moving lights.

### 13a. Sequencing show playback

1. Press show buttons 1-10. The active show LED will flash continuously and the LED will display the selected show number followed by the sequencing show steps- “S1-10:1-99”. *(Note: in this mode the shows will continue to loop from one to the other. Speed and Fade buttons do not have any effect in show playback as speed and fade times were recorded in show record mode).*
2. To disengage a show, press the show button you wish to turn off. The show button LED will turn off confirming that it will no longer be included in the sequence.

### 13b. Mix show playback

1. Press and hold down any of recorded show buttons 1-10, then press the other show buttons and release all simultaneously. All show LED’s will then flash continuously indicating that they are in mix show playback mode.
2. To exit this mode, press each show button twice.

## Section 14: Strobe Playback

The strobe function will mix with any current running show.

1. Press the “STROBE” button when effect is desired.
2. Press the “STROBE” button again when you want the strobe effect switched OFF.

## Section 15: Audio / Manual

When running shows, you can also select between running them in audio or manual modes.

### 15a. Activating Audio Mode

1. While playing shows back, press the “MODE” button. An indicator light will illuminate in the LED next to the AUDIO silk screen. This confirms you are in audio or sound active mode. Your shows will now be triggered to sound via an internal microphone in the DMX Duo.
2. To exit audio mode, press the “MODE” button twice. Your shows will now return to the default speed and fade times.

### **15b. Activating manual mode**

1. While playing shows back, press the “MODE” button twice. An indicator light will illuminate in the LED next to the MANUAL silk screen. This confirms you are in manual mode. Your shows can now be triggered manually by using the “UP/DOWN” buttons. The UP button will advance your show one step each time it is pressed and the DOWN button will go back one step each time it is pressed.
2. To exit manual mode, press the “MODE” button once. Your shows will now return to the default speed and fade times.

### **Section 16: Fog Machine**

The “FOG” button is used to trigger an analog 5 pin (midi style connector) remote fog machine. This button is a momentary function so it will trigger your fogger as long as you hold the button down. Compatible foggers include: MB-1000, STALLION, VAPORIZOR, VAPOR FLOW, FOG STORM-1200 and FOG STORM-1700.

### **Section 17: Send & Receive**

Send and Receive are two functions used when wanting to transfer data from one DMX Duo to another or from a DMX Duo to your PC or laptop via our RS232 software program available on our website at [www.elationlighting.com](http://www.elationlighting.com) .

### **17a. Transfer data from a master DMX Duo to a slave DMX Duo, do the following:**

1. Using a 9 pin serial lap link cable, connect from the RS232 connector on the rear of your master unit (unit that contains the programs) into the RS232 connector on the rear of your slave unit (unit that contains nothing or something you wish to overwrite).
2. On your master unit, press and hold down the “SEND” button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the send LED will illuminate and the LED will display “SEnd” indicating it is ready to send information.
3. On your slave unit, press and hold down the “RECEIVE” button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the receive LED will illuminate and the LED will display “IN” and is now ready to receive information.
4. Press “SEND” on your master unit and the information will begin to transfer to your slave unit. Once complete, the LED on both your master and slave units will display “END” indicating that the transfer is complete.
5. Press “BLACK-OUT” to exit.

## Send & Receive (Cont.)

**17b. Transfer data from a DMX Duo to a PC or laptop. (NOTE- You must first install our RS232 software before doing anything else. The software is available at [www.elationlighting.com](http://www.elationlighting.com) in the downloads section or DMX Duo product page.**

1. Using a 9 pin serial lap link cable, connect from the RS232 connector on the rear of your master unit and into the serial port of your PC or laptop.
2. In your PC or laptop, open the RS232 program, set the Baud transfer rate to 38400 and select the com port associated with your serial port. Every computer is different- if you don't know which com port it is, select com port 1 and go to step 3. If the transfer doesn't go through, select com port 2 and repeat steps 3 & 4.
3. On your DMX Duo, press and hold down the "SEND" button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the send LED will illuminate and the LED will display "SEnd" indicating it is ready to send information.
4. On your PC or laptop, select the "RECEIVE" button from the RS232 program. As a result, the program will notify you that it is receiving a new file.
5. Once complete, the LED on your DMX Duo will display "END" indicating that the transfer is complete.
6. Press "BLACK-OUT" to exit.

**17c. Transfer data from your PC or laptop into a DMX Duo. (NOTE- You must first install our RS232 software before doing anything else. The software is available at [www.elationlighting.com](http://www.elationlighting.com) in the downloads section.)**

1. Using a 9 pin serial lap link cable, connect from the RS232 connector on the rear of your master unit and into the serial port of your PC or laptop.
2. In your PC or laptop, open the RS232 program, set the Baud transfer rate to 38400 and select the com port associated with your serial port. Every computer is different- if you don't know which com port it is, select com port 1 and go to step 3. If the transfer doesn't go through, select com port 2 and repeat steps 3 & 4.
3. On your DMX Duo, press and hold down the "RECEIVE" button and simultaneously press show buttons 1, 6, 8, 1, 6, 8 in sequence. As a result, the receive LED will illuminate and the LED will display "IN" indicating it is ready to receive information.
4. On your PC or laptop, select the "SEND" button from the RS232 program and select the file that you wish to transfer into the DMX Duo.
5. As a result, the program will notify you that it is sending the selected file and the DMX Duo will also display a receiving track in its LED.
6. Once complete, the LED on your DMX Duo will display "END" indicating that the transfer is complete.
7. Press "BLACK-OUT" to exit.

## **Section 18: Blackout Setup**

This feature allows you to set your DMX Duo to activate or deactivate black out on power up. Deactivating allows you to automatically begin playback of shows on power up.

1. Flip the power switch to the "OFF" position.
2. Press and hold the "FADE" and "SHOW 10" buttons simultaneously and flip the power switch to the "ON" position. As a result, the LED will display "Y-BO" or "N-BO" depending on the current active setting.
3. If you wish to have blackout active on power up, press the "FADE" button so the LED display's "N-BO". If you wish to deactivate black out on power up, press the "FADE" button so the LED display's "Y-BO".
4. To confirm your blackout setting, press the "BLACK-OUT" button.

## **Section 19: Erase All Memory**

Use this function only if you wish to completely erase all shows currently stored in your DMX Duo.

1. Flip the power switch to the "OFF" position.
2. Press and hold the "RECORD", "SPEED", "SHOW 5" and "BLACK-OUT" buttons and simultaneously flip the power switch to the "ON" position. All memory will now be erased.