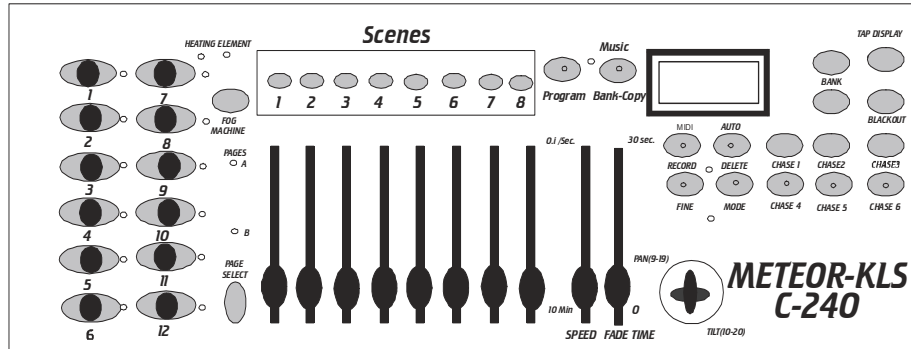


# C-240

## DMX LIGHTING CONTROLLER



# Operators Manual

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## METEOR C-240 CONTROLLER

Please read these instructions carefully before attempting to operate / program controller. Once you feel you understand the instructions, locate the instructions in a place where you will remember where they are for future reference and additional help in using your controller

### CONTENTS:

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### 1. INTRODUCTION / FEATURES

The **C- 240 CONTROLLER** is a standard **DMX 512** Controller capable of controlling up to **240 DMX** channels simultaneously. The main features include:

- 12** fixtures up to **20 channels** each
- 30** banks of **8 Scenes** each for a total of **240 scenes**
- 6** Chases – each up to **240 Scenes**
- 8** Faders to adjust DMX output level from 0 – 255.
- 2** Faders control **Speed / Fade Time**
- MIDI** control through MIDI Interface
- Built in **Microphone** for Sound to Light / or Audio Jack
- Blackout Button**
- Ease of Operation and Programming and copying scenes
- Mix and Match any DMX Lighting fixture

### SPECIFICATIONS:

- Power Input:** DC9 – 12v 300mA
- DMX OUTPUT:** 3 Pin Female XLR connector
- Size:** 19" (rack-mountable) x 5.25" h x 3" d
- Power supply:** included

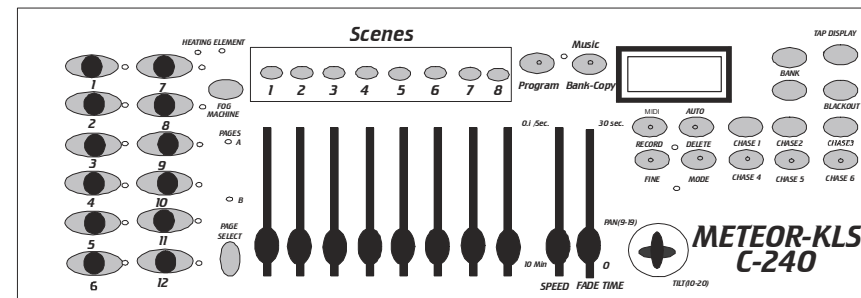
## 2 FUNCTIONS / Buttons: Front Control Panel

- 1) **Scanners:** to select any or all of the 12 units
- 2) **Scenes:** To store or run scenes
- 3) **Page Select:** To select Page A for Channel 1 to 8, or B for channels 9-16.
- 4) **LCD Display:** 4 digit showing numeric value of DMX channel / Level
- 5) **Bank ( up / down ) :** 30 banks are available for use in selecting
- 6) **Chases:** To Select 1 – 6 Chases
- 7) **Blackout –** Disables all active channel outputs without going into a DMX reset
- 8) **Program:** to activate the program mode. Display flashes when activated
- 9) **Midi / Add:** To control MIDI operations of activates save functions.
- 10) **Auto/Del:** to Select Auto Run in Chase mode or delete scenes and / or chases
- 11) **Music / Bank Copy:** to trigger the Sound Activation in Chase mode or to copy a bank of scenes from one to another in program mode
- 12) **Tap SYNC/ Display:** In Auto Chase mode used to change the Rate of Chase and in Program Mode to change LCD display value.
- 13) **Fade Time Slider:** To adjust the Fade Time – fade time is the time takes the **C-240** to completely cross fade from one scene to another scene.
- 14) **2- Speed Slider:** to adjust the chase rate in Auto Mode
- 15) **Faders ( 1 – 8 ):** to adjust the output level from 0 – 255 or the intensity from 0% - 100% of each channel

(2)

## 2 REAR CONTROL PANEL:

- 16) **Midi In:** to receive MIDI data.
- 17) **DMX Polarity Select:** make sure Polarity of your fixture and set the **SCENEMASTER C-240** to the proper polarity.
- 18) **DMX Output:** to send All DMX signals to fixture or powerpacks / dimmers.
- 19) **DC Input:** to supply a DC 9 – 12v power, 300 mA minimum
- 20) **ON / OFF** switch



## 3 - OPERATION INSTRUCTION:

### Standard DMX 512 Addressing

**Dip Switch Setting:** Each Dip Switch has an address based on Binary code

Dip Switch number:	1	2	3	4	5	6	7	8	9
DMX Value:	1	2	4	8	16	32	64	128	256

**Select the address wanted:** by adding the total of Dip Switches on.

(note) Dip switch # 10 is not used with DMX normally for selectable functions, i.e. master/slave or sound activation etc.

**Each of the 12 fixtures** is assigned 16 Channels (whether you are using all those channels or not . The dip switches on your fixtures are set as per the diagram on next page.

(3)

<b>Scanners</b>	<b>Channels</b>	<b>Dip Switches ON</b>
Fixture 1	1 - 20	1
Fixture 2	21 - 40	1, 3, 5
Fixture 3	41 - 60	1, 4, 6
Fixture 4	61 - 80	1, 3, 4, 5, 6
Fixture 5	81 - 100	1, 5, 7
Fixture 6	101 - 120	1, 3, 6, 7
Fixture 7	121 - 140	1, 4, 5, 6, 7
Fixture 8	141 - 160	1, 3, 4, 8
Fixture 9	161 - 180	1, 6, 8
Fixture 10	181 - 200	1, 3, 5, 6, 8
Fixture 11	201 - 220	1, 4, 7, 8
Fixture 12	221 - 240	1, 3, 4, 5, 7, 8

- **note:** When addressing your fixtures, use the starting addresses used in this instruction manual, not the addressing found in your fixture manual. (every thing in groups of 20)

### **SCENE PROGRAMMING:**

- 1) Press and HOLD **PROGRAM BUTTON** for three (3) seconds to activate PROGRAM Mode. The LCD next to "PROGRAM" blinks. This indicates the program has been started.
- 2) Select the fixture to program by pressing any or all the scanner buttons 1 - 12.
- 3) Adjust / move the Faders / sliders to the desired output levels for all channels (i.e., color gobo, pan and tilt, etc.) of the fixture(s) you selected. Press **PAGE SELECT A/B** if the fixture has more than 8 channels. When selecting from page A to B, you have to move the sliders to activate the channels.
- 4) If you have set the fixture to its correct position, color gobo and you wish to program another fixture – Press the Scanner button you have just finished adjusting. This will hold that fixture and its values in its final configuration. Select another fixture by pressing the target Scanner Button and proceed to adjust / set and change to the settings of your liking of fixture two
- 5) Repeat Steps 2 and 3 until you have set the fixture to its correct position

- 6) When all the fixtures you want to be programmed are in their correct position. Press the MIDI / ADD button
- 7) Select the desired Bank to store scene using the **UP** and **DOWN** bank select button. There are 30 BANKS you can store up to eight scenes per **BANK**. For a total of 240 Scenes.
- 8) Then Press the **SCENE BUTTON** 1-8 to store the **SCENE**. All **LED's** will flash 3 times. The LCD Screen will display the BANK and the SCENE where your SCENE was stored.
- 9) Repeat Steps 2-8 to record all your desired SCENES. You can copy the settings from one Scanner button to another in case you want to add more fixtures to your show. Just press and HOLD the SCANNER Button you want to copy. Then press the Scanner Button you want to copy to.
- 10) To exit **PROGRAMMING** Mode – Press and **HOLD** the **PROGRAM** button for 3 – 5 seconds. (when you exit the Programming, the **BLACKOUT LED** is on. Press **BLACKOUT** Button to disable **BLACKOUT** function

### **SCENE EDITING:**

**This function allows you to make changes in an already programmed scene.**

- 1) Press the **PROGRAM** button for three seconds to enter the Program mode.
- 2) Use the **BANK UP** and **DOWN** button to select the bank that stores the scene you would like to edit.
- 3) Select the Scene you want to edit by pressing the **SCENE** button.
- 4) Use the faders / sliders to make your changes.
- 5) Press the **MIDI / Add** button then followed by the **SCENE** Button that corresponds to the scene you selected earlier (otherwise you might accidentally record over an existing scene).

### **SCENE COPY:**

**This function allows you to copy the setting of one scene to another.**

1. Press the **PROGRAM** button for three seconds to enter the Program mode.

2. Use the BANK Up and Down to locate the bank that has
  - a. that particular scene in it.
3. Select the desired **SCENE** you want to copy by pressing the **SCENE** Button.
4. Use the **BANK** buttons **UP** and **DOWN** to select the Bank where you want the to store the copied **SCENE**.
5. Press **MIDI / Add** button followed by the **SCENE** button where you want to copy to.

### 3. **SCENE DELETE:**

**This function will rest all the DMX channels incorporated within a SCENE to a DMX value of 0.**

- 1) Select the desired **SCENE** you would like to delete.
- 2) While Pressing and Holding **AUTO / Del.** Press the SCENE button (1 – 8) you want to delete.

### 3. **ERASE ALL SCENE:**

**This will ERASE all SCENES in ALL BANKS. All SCENES are reset to DMX value zero (0). Make double sure this is really what you are wanting to do**

- 1) Press and hold down **PROGRAM** and **BANK** Down buttons while turning power off.
- 2) Re-connect POWER. All SCENES should be erased.  
*NOTE: Once you have successfully erased all SCENES, there is no way to retrieve them.*

### 3. **COPY A BANK:**

**This function enables you to copy the setting of one BANK to another BANK.**

- 1) Press and **HOLD** the **PROGRAM** Button for **3** seconds to activate the **PROGRAMMING** Mode.
- 2) Select the **BANK** you want to copy.
- 3) Press and Release the **MIDI / Add** button.
- 4) Select the **BANK** into which you want to copy to.
- 5) Press the **MUSIC / BANK-Copy** Button. The **LCD Display** will flash momentarily to indicate the process / copy has been completed.

### 3 **DELETE A BANK:**

- 1) Press and **HOLD** the **PROGRAM** Button for **3** seconds to Activate the **PROGRAM** Mode.
- 2) Select the **BANK** to be deleted.. Press **AUTO / Del** and **MUSIC / Bank Copy** at the same time to delete the **BANK**. The **LCD** will flash momentarily to indicate it has been successfully deleted.

### 3 **CHASE PROGRAMMING:**

**You must already have programmed SCENES before you can program any chases.**

- 1) Press and **HOLD** the **PROGRAM** Button down for three (3) seconds to enter the **PROGRAMMING MODE**
- 2) Choose any **CHASE** ( 1 – 6 ) to be programmed.
- 3) Select the desired **SCENE** from any of the **BANKS**. **SCENES** run in the same order as they are entered into the **PROGRAM CHASE**.
- 4) Pre the **MIDI / Add** Button. All the **LED's** will **FLASH** three (3) times.
- 5) Repeat steps 3 and 4 as many times as you want. You can record up to **240 SCENES** in one **CHASE**.
- 6) When you are finished **PROGRAMMING** a **CHASE** – **PRESS** and **HOLD** the **PROGRAM** Button for three (3) seconds.

### 3 **COPY A BANK TO A CHASE:**

1. Press and HOLD the **PROGRAM** Button for three (3) Seconds to enter the Programming Mode.
2. Select the **BANK** of **SCENES** you wish to copy.
3. Select the **CHASE** to which you want to copy the bank of **SCENES**. Press the **MUSIC / BANK-Copy** Button. The **LCD Display** will flash momentarily to indicate the process / copy has been completed.
4. Press **MUSIC / Bank-Copy** and **MIDI / Add** at the same time. The **SCENES** of the **BANK** are now copied into the **CHASE**.
5. Press and HOLD the **PROGRAM** Button for three (3) seconds to exit the Programming Mode.

- 3 **EDITING CHASES:**  
This feature allows you to add / delete **SCENES** from an already existing **CHASE**.
- 1) Press and HOLD the **PROGRAM** Button down for three (3) Seconds to enter the Programming Mode.
  - 2) Select the **CHASE** (1-6) to which you want to add a step.
  - 3) Press **TAPSYNC / Display** and the **LCD** shows the **SCENE** and the **BANK**. That is the **BANK** containing the **SCENE** you want to add to the **CHASE**.
  - 4) Press **TAPSYNC / Display** again and the **LCD** shows the **CHASE** that you have selected to add to.
  - 5) Use the **UP** or **DOWN** Buttons to scroll through the **CHASE** to reach the step **AFTER** which you wish to add.
  - 6) Press **MIDI / Add** – the **LCD** will read one step number higher.
  - 7) Press the **SCENE** Button you wish to add.
  - 8) Press the **MIDI / Add** again to add the new step.
  - 9) Press and **HOLD** the **PROGRAM** Button down for three (3) seconds to exit the Programming Mode.

- 3 **DELETING A STEP OR TWO IN A CHASE:**
- 1) Press and HOLD the **PROGRAM** Button for three (3) Seconds to enter the Programming Mode.
  - 2) Select the **CHASE** (1-6) from which you want to delete a step (scene).
  - 3) Press **TAPSYNC / Display** and the **LCD** shows the **CHASE** you have selected.
  - 4) Use the **UP** and **Down** Buttons to scroll through the **CHASE** to reach the step (scene) you want to delete.
  - 5) Press **AUTO / Del** and the **SCENE** will be deleted.
  - 6) Press and HOLD the **PROGRAM** Button for three (3) seconds to exit the Programming Mode.

- 3 **DELETE CHASE ( all SCENES still available)**
- 1) Press and HOLD down the **BANK Down** and **AUTO / Del.** while turning power off.
  - 2) Reconnect the Power and the **CHASES** should all be deleted

- 3 **RUNNING SCENES:**  
**MANUAL RUN SCENES**
- 1) When the power is first turned on, the unit is in a **MANUAL** Scene mode.
  - 2) If in the **Program Mode** – Press and Hold the **PROGRAM** Button for three (3) seconds. The **Program LED** will go out. The **SCENEMASTER** is now in its **MANUAL** Mode.
  - 3) Be Sure that the **AUTO** and **MUSIC** Button **LED's** are off.
  - 4) Select the **BANK** – using the **UP** or **DOWN** Button that stores the **SCENES** you want to run.
  - 5) Press the **SCENE** Button to run the **SCENE** you have selected.

- 3 **RUNNING SCENES:**  
**AUTO RUN SCENES:**  
This function will run a **BANK** of **PROGRAMMED SCENES** in a sequential loop.
- 1) Press **AUTO / Del** once to activate the **AUTO RUN** mode.
  - 2) Use the **UP** or **DOWN BANK** Button to select a Bank of **SCENES** to run.
  - 3) Now you can use the **SPEED** and **FADE** sliders to adjust the **SCENES** to your liking  
*NOTE:* The **FADE** setting should never be slower then the **SPEED** setting or the **SCENES** will not be completed.
  - 4) You can change the **BANKS** “on the fly” by pressing the **UP** or **DOWN BANK** Buttons.

- 3 **RUNNING SCENES:**  
**MUSIC RUN SCENES**
- 1) Press the **MUSIC / Bank-Copy** Button and the Corresponding indicator light will come on in the **LCD**.
  - 2) Select the desired **BANK** that stores the **SCENES** you want to **CHASE** by using the **UP** or **DOWN** Button

- 3 **RUNNING SCENES:**  
**MIDI RUN SCENES**
- 1) Select **BANK** to run **SCENES** using **MIDI** – in **MANUAL / Auto** or **MUSIC Run Mode**.

- 1) Select **BANK** to run **SCENES** using MIDI – in **MANUAL / Auto** or **MUSIC Run Mode**.

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### **RUNNING CHASES:**

#### **MANUAL RUN CHASES:**

This function will enable you to manually step through a selected **CHASE**.

- 1) Press and HOLD the **PROGRAM** Button for three (3) seconds to enter the **Programming Mode**.
- 2) Start a **CHASE** by selecting one of the six (6) **CHASE** Buttons.
- 3) Press the **TAP SYNC** Button. Each time you press the button, you will step through the **CHASE**.
- 4) Use the **BANK** Select Button to scroll through the **CHASES**.
- 5) Press and HOLD the **PROGRAM** Button for three (3) seconds to exit the Programming Mode

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### **RUNNING CHASES:**

#### **AUTO RUN CHASES:**

- 1) Press ANY or all of the 6 **CHASE** Buttons to select the desired **CHASE**.
- 2) Press and Release the **AUTO / Del. Button**. The corresponding **LED** will flash.
- 3) Adjust the **FADE** Time and **SPEED** to your desired setting. The **CHASE** will run according to your settings.
- 4) You can override the **Speed** and **Fade** time by tapping the **TAP SYNC / Display** button three (3) times. Then the **CHASE** will be run based on the time interval of your taps.

**NOTE A:** Never adjust the **FADE** TIME slower then the **SPEED** setting. Otherwise your **CHASES** will not be completed before a new **SCENE** is sent

**NOTE B:** If you wish to include all the **CHASES**, Press **AUTO / Del.** before selecting a **CHASE**.

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### **RUNNING CHASES:**

#### **MUSIC RUN CHASES:**

- 1) Press one of the six (6) **CHASE** Buttons to select the **CHASE** desired.

Press and Release the **MUSIC / Bank-Copy** Button

- 2) The corresponding **LED** will **FLASH** in the **LCD**.
- 3) The **CHASE** will now run via the **Sound / Music**.

**NOTE:** When you exit a **CHASE** by Pressing the **CHASE** Button, the Controller will automatically run the **SCENES** that are in the last bank accessed. To stop the movements of the light, either use the **BLACKOUT** button or Press **MUSIC** if in the Music Mode or in the **AUTO** Mode.

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### **MIDI CHANNEL SETTING**

#### **MIDI RUNNING**

- 1) Press and HOLD the **MIDI / Add Button**. The third and Fourth digits on the **LCD** display will **FLASH** – indicating **MIDI** Mode.
- 2) Use the **UP** or **Down** Buttons to select the Midi channel (1 – 16) you would like to use / run.
- 3) Press and Hold the **MIDI / Add Button** once more to end **MIDI** mode

3

### **MIDI CHANNEL SETTING**

**NOTE “ON”:** RECEIVE NOTE “ON” SIGNALS TO EXECUTE CORRESPONDING FUNCTIONS  
THE **SCENEMASTER** RECIEVES ONLY MIDI NOTES AND YOU MIGHT WANT TO TRANSPOSE YOUR KEYBOARD TO FIND THE PROPER **MIDI** NOTE.

### **ASSIGNING PAN & TILT CHANNELS TO THE JOYSTICK**

- 1) Press “**Program**” button for 2 seconds to enter Program Mode (LED flashes). Turn off **BLACKOUT** LED
- 2) Press “**FINE + MODE**, (together- twice) it will Display **SET 00 00 Up FI CH**
- 3) Press **SCANNER** Button, to select fixture assigning
- 4) Adjust the slider on **SPEED** to Channel 1
- 5) Adjust the slider on **FADE TIME** to **X** (almost to the top).
- 6) Press **Midi/Record** (one button) to confirm the **PAN** on Ch.1
- 7) Adjust the slider on **SPEED** to channel 2 (or whatever)
- 8) Adjust the **FADE SLIDER** to read **Y**  
Finished – Press **FINE + MODE** to exit

## **TROUBLE SHOOTING / OFTEN ASKED QUESTIONS:**

### **COLORS DON'T RESPOND WHEN FADERS ARE MOVE**

MAKE SURE DMX ADDRESS IS CORRECT / DIP SWITCHES  
IF XLR CABLE IS MORE THEN 30 METERS (100FT), CHECK  
TO SEE IF TERMINATED CORRECTLY.

### **MIRRORS DON'T RESPOND WHEN SLIDERS ARE MOVED**

MAKE SURE DMX ADDRESS IS CORRECT / DIP SWITCHES  
MAKE SURE SPEED IS ADJUSTED, IF AVAILABLE FOR  
FASTER MIRROR MOVEMENT. NOT ALL UNITS HAVE  
SPEED ADJUSTMENT

IF XLR CABLE IS MORE THEN 30 METERS (100FT), CHECK  
TO SEE IF TERMINATED CORRECTLY.

### **SCENES DON'T RUN AFTER RECORDING THEM**

MAKE SURE TO PRESS **MIDI / ADD** BUTTON BEFORE  
PRESSING SCENE BUTTON. LED'S SHOULD FLASH  
AFTER PRESSING EACH SCENE BUTTON.

BE SURE YOU ARE IN THE CORRECT BANK THAT THE  
SCENES WERE RECORDED IN.

### **SCENES DON'T RUN CORRECTLY AS RECORDED**

MAKE SURE ALL FIXTURES WERE RECORDED IN SCENE  
MAKE SURE YOU ARE IN THE CORRECT BANK THAT THE  
SCENES WERE RECORDED IN

### **CHASES DON'T RUN AFTER RECORDING THEM**

MAKE SURE TO PRESS THE MIDI/ADD BUTTON AFTER  
PRESSING THE SCENE BUTTON. LED SHOULD FLASH  
AFTER PRESSING MIDI / ADD.

BE SURE YOU ARE IN THE CORRECT CHASE THAT HAS  
THE STEPS RECORDED IN

IF IN AUTO MODE – DID YOU ADJUST SPEED AFTER  
SELECTING AUTO

FADE TIME IS TOO LONG FOR SPEED SELECTED

### **FIXTURES AREN'T DOING ANYTHING**

HAVE YOU READ THIS MANUAL COMPLETELY AND  
FOLLOWED ALL THE RECORDING STEPS FOR  
SCENES AND CHASES

DID YOU SET YOUR DIP SWITCHES ACCORDING TO THIS  
MANUAL

ARE ALL UNITS PROPERLY CONNECTED WITH POWER  
ON AND PROPERLY CONNECTED VIA DMX.

FOR TECHNICAL HELP / SUPPORT

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**EC DECLARATION OF CONFORMITY:** We declare that this product complies with the following specifications and bears CE mark in accordance with the provisions of Electro- Magnetic Compatibility (EMC) Directive 89/336/EEC EN55014-1:1994, EN61000-3-2:1995, EN61000-3-3:1995, EN55014-2:1997, **CATEGORY II** EN61000-4-2:1995, EN61000-4-3:1995, EN61000-4-4:1995, EN61000-4-5:1995, EN61000-4-6:1995, EN61000-4-11:1994 HARMONIZED STANDARD EN60598-1:1993 Safety of Household and similar electrical appliances Part 1: General Requirements Following the provisions of the Low voltage Directive 73/23 EEC and 93/68/EEC