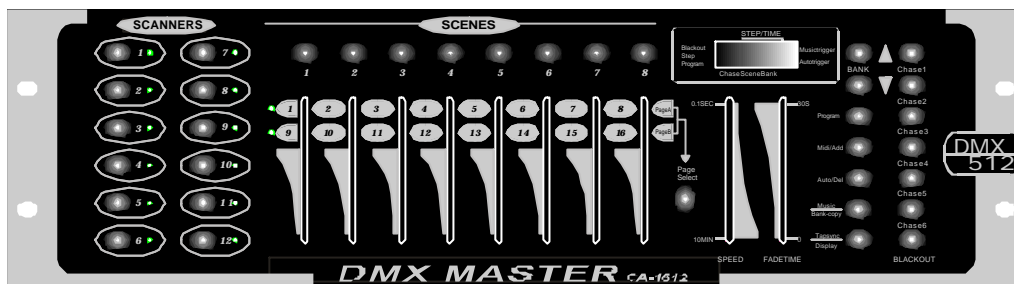


# DMX MASTER



## CA-1612 User Manual

**DMX512**

***Please read these instructions carefully before use***

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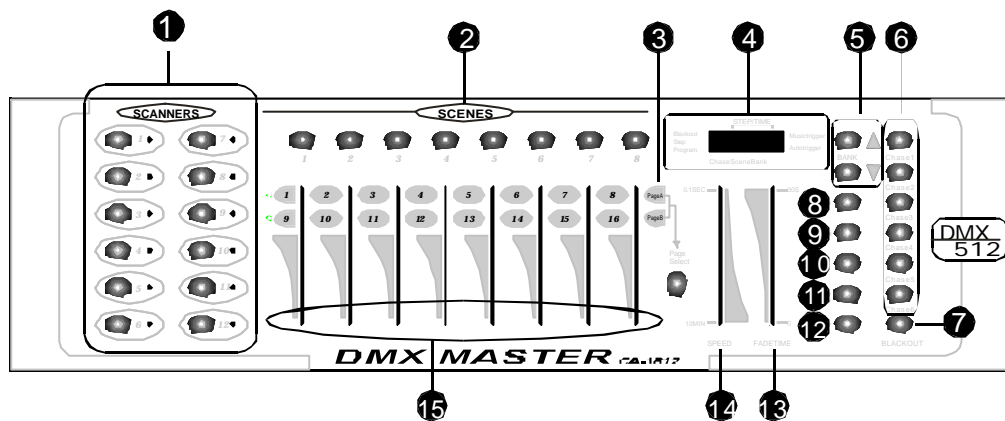
## 1.INTRODUCTION

Thank you for purchasing the DMXMASTER CA-1612. The DMXMASTER is a standard universal DMX512 controller, controlling up to 192DMX channels. Following are its main features:

- A.) 12 fixtures of up to 16 channels.
- B.) 30 banks of 8 scenes each for a total 240 scenes.
- C.) 6 chases each up to 240 scenes.
- D.) 8 faders adjust the DMX output level from 0~255.
- E.) 2 faders control chase speed and fade time.
- F.) MIDI control through MIDI interface.
- G.) Built in Microphone.
- H.) Blackout
- I.) Specification:

Power input: DC9~12V 300mA min.  
DMX Output: 3 pin female XLR.  
Size: 19"x5.25"x3"(inch).

## 2.FUNCTIONS

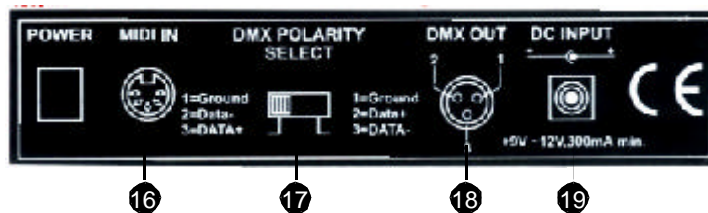


### Front Control Panel

- 1.) **Scanners:** To select any or all of 12 fixtures.
- 2.) **Scenes:** To store or run scenes.
- 3.) **Page Select :** To select page A for channel 1 to 8, or page B for channel 9 to 16.
- 4.) **LCD Display :** 4-digit showing values and settings chosen.
- 5.) **Bank ( up and down ):** 30 banks are available for selecting.
- 6.) **Chases:** To select 1~6 chases.

- 7.) **Black out**:Disables all channel outputs.
- 8.) **Program**:To activate the program mode.Display blinks when activated.
- 9.) **MIDI/Add** : To control MIDI operation or activates save function.
- 10.) **Auto/Del** :To select Auto run in chase mode or delete scenes and/or chases.
- 11.) **Music/Bank Copy** :To trigger 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 change LCD display value.
- 13.) **Fade Time Slider** : To adjust the Fade Time.Fade Time is the time it takes the DMXMaster to completely change from one scene to another.
- 14.) **Speed Slider** :To adjust the rate of chase speed in Auto Mode.
- 15.) **Faders(1~8)** :To adjust the output level from 0~255 or the intensity from 0%~100% of each channel.

### Rear Control Panel



- 16.) **MIDI in**: To receive MIDI data.
- 17.) **DMX Polarity Select** :Make sure the polarity of your fixture and set the DMX Master to the proper polarity.
- 18.) **DM XOutput** :To send DMXsignal to fixtures or packs.
- 19.) **DC Input** :To supply a DC9~12V power,300mA minimum.

## 3.OPERATION INSTRUCTIONS

### DMX 512 Addressing

Dip Switch setting:Each Dip switch has an address based on binary mode.

Dip Switch No.	1	2	3	4	5	6	7	8	9
Value	1	2	4	8	16	32	64	128	256

Select the address wanted by adding the total of Dip switches on.

Dip Switch no.10 is not used with DMX but normally to select some functions,i.e. Master/Slave,Sound activation, etc.

Each of the 12 fixtures is assigned 16 channels.The Dip switches are set as per the chart below:

Scanners	Channels	Dip switches on
1	1~16	0 or 1 based on scanner
2	17~32	1,5
3	33~48	1,6
4	49~64	1,5,6
5	65~80	1,7
6	81~96	1,5,7
7	97~112	1,6,7
8	113~128	1,5,6,7
9	129~144	1,8
10	145~160	1,5,8
11	161~176	1,6,8
12	177~192	1,5,6,8

**Note:**

**When addressing your fixtures, follow the starting address in this instruction not the addressing found in your fixture user manual.**

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### Scene Programming

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- 1.) Press and hold **Program** button for three seconds to activate program mode . The LCD next to "Program" blinks, indicating the program has been started.
- 2.) Select a fixture to program, by pressing any or all **Scanner** buttons 1 to 12.
- 3.) Adjust the faders to the desired output level for all channels (i.e. Color, Gobo, Pan, Tilt, etc) of selected fixture or fixtures. Press Page Select A/B if the fixture has more than 8 channels. When selecting from Page A to B, you have to move sliders to activate channels.
- 4.) If you have set the fixture to your liking and wish to program another fixture, press the **Scanner** button you have finished adjusting. This will hold the fixture in its final configuration. Select another fixture/s by pressing the target **Scanner** button and proceed to adjust the faders to achieve the settings you desire.
- 5.) Repeat steps 2 and 3 until you have set the fixtures the way you like.
- 6.) When entire scene is set to your liking, press and release 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 8 scenes per bank for a total of 240 scenes.

8.)Then press a **Scene** Button 1~8 to store the scene.All LEDs blink 3 times.

The LCD will display the bank and scene where your scene was stored.

9.)Repeat steps 2~8 to recordy our 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 seconds.

(When you exit programming,the Blackout LED is on, press **Blackout** button to de-function blackout.)

### **Scene Editing**

This function allows you to make changes in a previous program med scene .

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

2.)Use the **Bank** Up and Down button to select the bank that stores the scene you wish to edit.

3.)Select the scene you want to edit by pressing its **Scene** button.

4.)Use the faders to make your desired adjustments.

5.)Press the **MIDI/Add** button then followed by the **Scene** button that corresponds to the scene you editing to store it to memory.Note:You must select the same scene you selected earlier otherwise you may accidentally record over an existing scene.

### **Scene Copy**

This allows you to copy the setting so fone scene to another.

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

2.)Use the Bank **Button** Up and Down to locate the bank that stores the Scene to copy.

3.)Select 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 To store the copied scene.

5.)Press **MIDI/Add** followed by the **Scene** Button where you want to copy to.

### **Delete Scene**

This function will reset all DMX channels in incorporated with a scene to 0.

1.)Select the desired scene to delete.

2.)While pressing and holding Auto/Del,press the Scene button(1to8) you want to delete.

## **Erase All Scenes**

This will erase all scenes in all banks. All scenes are reset to 0.

- 1.) Press and hold down **Program** and **Bank** Down buttons while turning power off.
- 2.) Re-connect the power, all scenes should be erased!

## **Copy Bank**

This function enables you to copy the settings of one bank to another bank.

- 1.) Press and hold the **Program** Button for three seconds to activate the programming mode.
- 2.) Select the bank you want to copy.
- C.) Press and release the **MIDI/Add** button.
- D.) Select the bank into which you want to copy to.
- F.) Press the **Music/Bank-Copy** button. The LCD display will flash shortly to indicate the copy has been finished.

## **Delete A Bank**

- 1.) Press and hold the **Program** Button for three seconds to activate the programming mode.
- 2.) Select the bank to be deleted. Press the **Auto/Del** and **Music/Bank-Copy** at the same time to delete the Bank. The LCD will flash to indicate the function completion.

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## **Chase Programming**

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You have to program scenes before you can program chases.

- 1.) Press and hold the **Program** Button for 3 seconds to enter programming Mode.
- 2.) Choose any chase (1-6) to be programmed.
- 3.) Select the desired Scene from any bank. Scenes are run in the order that they are programmed into the chase.
- 4.) Press the **MIDI/Add** button, all the LED will flash 3 times.
- 5.) Repeat steps 3 and 4 as many as you want. You can record up to 240 Scenes into one chase.
- 6.) Press and hold the program Button for 3 seconds to exit programming Mode.

## **Copy a Bank to a Chase**

- 1.) Press and hold the Program Button for three 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.
- 4.) Press **Music/Bank-Copy**, and **MIDI/Add** simultaneously. The scenes of the bank are copied to the Chase.
- 5.) Press and hold the Program Button for three seconds to exit programming mode.

## **EDITTING CHASES**

### **Adding a Step to a Chase**

- 1.) Press and hold Program Button for three seconds to enter the programming mode.
- 2.) Select the chase 1~6 to which you wish to add a step.
- 3.) Press TAPSYNC/Display and the LCD shows the scene and bank. This is the bank containing the scene you wish to add.
- 4.) Press TAPSYNC/Display again and the LCD shows the Chase that you have selected.
- 5.) Use the Up and Down buttons to scroll through the chase to reach the step after which you wish to add a step.
- 6.) Press MIDI/Add, the LCD will read one step number higher.
- 7.) Press the Scene button you wish to add.
- 8.) Press MIDI/Add again to add new step.
- 9.) Press and hold the Program Button for three seconds to exit the programming mode.

### **Deleting a Step in a Chase**

- 1.) Press and hold the **Program** Button for three seconds to enter the programming mode.
- 2.) Select the **Chase** 1 to 6 from which you wish to delete a step.
- 3.) Press **TAPSYNC/Display** and the LCD shows the Chase that you have selected.
- 4.) Use the **Up/Down** buttons to scroll through the chase to reach the step you wish to delete.
- 5.) Press **Auto/Del** and the scene will be deleted.
- 6.) Press and hold the Program button for three seconds to exit the programming mode.



### **Delete Chases**(All Scenes are still available)

- 1.) Press and hold the **Program** button for three seconds.
- 2.) Press the **Chase** button that you want to delete.
- 3.) Press and hold the **Auto/Del** button and then press and hold the chase button of the chase to be deleted. The LEDs will flash three times.
- 4.) Release both buttons and the chase will be deleted.

### **Delete All Chases**(All scenes are still available)

- 1.) Press and hold down the **BankDown** and **Auto/Del** buttons while turning power off.
- 2.) Re-connect the power, all chases should be deleted.

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## **RUNNING SCENES**

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### **Manual Run Scenes**

- 1.) When the power is first turned on, the unit is in manual scene mode.
- 2.) If in Program mode, press and hold the Program button for three seconds and the program LED will go out. The controller is now in Manual mode.
- 3.) Be sure that the **Auto&Music** buttons' LEDs are off.
- 4.) Select the Bank, using the Up and Down Bank buttons that stores the scenes you wish to run.
- 5.) Press the Scene Button to run the scenes you selected.

### **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 and Down Bank** buttons 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. The fade setting should never be slower than the speed setting or the scenes will not be completed.
- 5.) You can change banks on the fly by pressing the **Up and Down Bank** buttons.

## Music Run Scenes

- 1.) Press the **Music/Bank-Copy** button and the corresponding indicator light will come on in LCD.
- 2.) Select desired bank that stores the scenes you wish to chase by using **Up** or **Down** buttons or you can control via MIDI signals.
- 3.) Press **Music/Bank-Copy** once more to exit.

## MIDI Run Scenes

- 1.) Select bank to run scenes using MIDI whenever it is in Manual, Auto or Music Run mode.

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## RUNNING CHASES

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### Manual Run Chases

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

- 1.) Press and hold the **Program** button for three seconds to enter programming mode.
- 2.) Start a chase by selecting one of the six **Chase** buttons.
- 3.) Press the **TAPSYNC** button. Each time you press the button, you will step through the chase.
- 4.) Use **Bank** select buttons to scroll through the chases.
- 5.) Press and hold the **Program** button for three seconds to exit programming mode.

### Auto Run Chases

- 1.) Press any or all of the six **Chase** button to select the desired chase.
- 2.) Press and release the **Auto/Del** button. The corresponding LED will flash.
- 3.) Adjust the **Speed** and **Fade Time** to your desired settings. The Chase will run according to your settings.
- 4.) You can override the speed and fade time by tapping the **TAPSYNC/Display** button three times. Then the chase will run based on the time interval of your taps.

Note: A.) Never adjust Fade time slower than the Speed setting otherwise your scenes will not be completed before a new step is sent!

B.) If you wish to include all the chases, press **Auto/Del** button before selecting **Chase**.

## Music Run Chases

- 1.) Press one of the six **Chase** buttons to select your desired chase.
- 2.) Press and release the **Music/Bank-Copy** button.
- 3.) The corresponding LED will flash in the LCD.
- 4.) Your chase will now run to the sound.

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 movement of the lights either use the Blackout button or press Music if in music mode or the Auto button.

## MIDI CHANNEL SETTING

### MIDI Running

- 1.) Press and hold the **MIDI/Add** button. The third and fourth digits of LED Display will blink, indicating MIDI mode.
- 2.) Use the **Up and Down** buttons to select the MIDI channel (1 to 16) you would like to run.
- 3.) Press and hold the **MIDI/Add** button once more to end MIDI mode.

### MIDI Channel settings

Note on: Receive Note On signals to execute corresponding function.

BANK	NOTE NUMBER	FUNCTION
Ban k1	00t o 07	1 to8 of Bank 1 on or off
Ban k2	08t o 15	1 to8 of Bank 1 on or off
Ban k3	16t o 23	1 to8 of Bank 1 on or off
Ban k4	24t o 31	1 to8 of Bank 1 on or off
Ban k5	32t o 39	1 to8 of Bank 1 on or off
Ban k6	40t o 47	1 to8 of Bank 6 on or off
Ban k7	48t o 55	1 to8 of Bank 7 on or off
Ban k8	56t o 63	1 to8 of Bank 8 on or off
Ban k9	64t o 71	1 to8 of Bank 9 on or off
Ban k 10	72t o 79	1 to8 of Bank 10 on or off
Ban k 11	80t o 87	1 to8 of Bank 11 on or off
Ban k 12	88t o 95	1 to8 of Bank 12 on or off
Ban k 13	96t o 103	1 to8 of Bank 13 on or off
Ban k 14	104 to 111	1 to8 of Bank 14 on or off
Ban k 15	112 to 119	1 to8 of Bank 14 on or off

Chases 120 to 125 1 to 6 chases  
BLACKOUT 126 BLACKOUT

The DMX Master receives only MIDI notes and you might have to transpose your keyboard to find the proper notes.

## 4.TROUBLE SHOOTING

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- A.)Colors don't respond when faders are moved.  
Make sure address is correct. If the XRL cable is more than 30 meters, check if it is terminated properly.
- B.)Mirrors don't respond when faders are moved.  
Make sure address is correct.Make sure speed is adjusted,if available, for faster movement.Not all fixtures have a speed adjustment. If the XRL cable is more than 30 meters,check if it is terminated properly.
- C.)Scenes don't run after record them  
Make sure to press MIDI/Add button before pressing Scene button.  
LED's should blink after pressing each Scene button.Be sure you are in the correct Bank that has scenes recorded.
- D.)Scenes don't run correctly as recorded them  
Made sure all fixtures were recorded.Make sure you are in the correct bank that has scenes recorded . If the XRL cable is more than 30 meters, check if it is term inated properly.
- E.)Chase don't run after record them  
Make sure to press MIDI/Add button after pressing Scene button . LED should blink after pressing MIDI/Add button.  
Be sure you are in the correct Chase that has steps recorded.If in Auto Mode,did you adjust speed after selecting Auto? Is Fade time to long for speed selected ? If the XRL cable is more than 30 meters,check if it is terminated properly.

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### ECD eclaration of Conformity

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We declare that our product complies with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility(EMC) Directive 89/336/EEC.

EN55014-1:1993,EN61000-3-2:1995,EN61000-3-3:1995  
EN55014-2:1997 CATEGORYII  
EN61000-4-2:1995,EN61000-4-3:1995,EN61000-4-4:1995  
EN61000-4-5:1995,EN61000-4-6:1995,EN61000-4-11:1994

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### Harmonized Standard

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EN60598-1:1993  
Safety of household and similar electrical appliances  
Part1:General requirements

Following the provisions of the Low Voltage Directive73/23/EEC and 93/68/EEC.