

Chroma-Q™ Playback Controller

User Manual



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PN: 125-0500

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Chroma-Q reserves the right to change or make alteration to devices and their functionality without notice due to our on going research and development.

The Chroma-Q Playback Controller has been designed specifically for the professional entertainment lighting industry. Regular maintenance should be performed to ensure that the products perform well in the entertainment environment.

If you experience any difficulties with any Chroma-Q products please contact your selling dealer. If your selling dealer is unable to help please contact support@chroma-q.com. If the selling dealer is unable to satisfy your servicing needs, please contact the following, for full factory service:

Outside North America:

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North America:

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For further information please visit the Chroma-Q website at www.chroma-q.com.

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1. Product overview

Chroma-Q 8 Channel Playback Controller is designed to give years of trouble free use, providing that it is regularly maintained and is used in accordance with the instructions detailed in this manual. It is designed to operate devices using the ANSI E1.11 USITT DMX 512-A data transfer protocol. This multiplexed serial data system allows for the individual addressing of multiple DMX controlled fixtures on one data cabling system.

The unit will store a maximum of 25 cues and play them back in sequence complete with fade and halt times for each cue. Each cue can store the individual channel values for 8 DMX channels (repeated up to 512). It is also possible to remotely trigger the unit from a set of external switch contacts, or to daisy chain units together for even more flexibility.

Apart from an external power supply, no extra peripheral equipment is needed as all the programming of the unit is done using the controls on the front panel. This small but powerful playback controller is ideal for small stand-alone displays, exhibition stands, storefront advertising, museum exhibits, etc.

2. Section Name

- 2.1 Unpacking the unit
- 2.2 Connections
- 2.3 Operating the unit
- 2.4 Programming the unit
- 2.5 Troubleshooting
- 2.6 Technical overview
- 2.7 Technical specifications

2.1 Unpacking the unit

The Chroma-Q Playback Unit package comes with the following items:

- Chroma-Q Playback Unit
- Universal power supply
- Power supply cord (N. America only)
- User manual

Note: The packing material protects the fixture during shipment; always use it to transport the fixture. Further copies of this manual may be downloaded from the Chroma-Q website - www.chroma-q.com.

2.2 Connections

Power supply

Insert the DC power jack from the power supply into the jack socket on the left side of the playback unit. Connect the power supply to an outlet using the power cord fitted with the correct style of plug for your location. The power supply is a universal type and requires no alteration for use on standard voltages worldwide.

DMX output

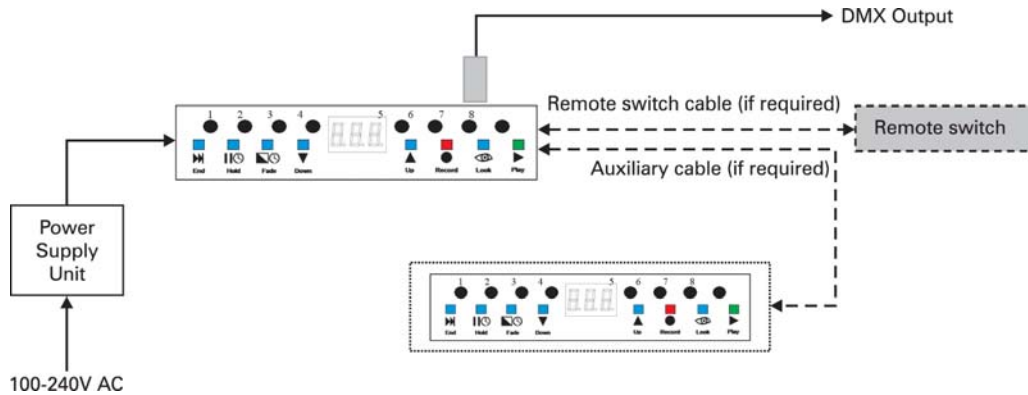
The DMX output is a 5-pin XLR connector wired to the ANSI E1.11 USITT DMX 512-A standard. Connect a suitable 5-pin XLR cable from the playback unit to the first fixture in your DMX chain, or the input of your DMX signal distribution system. Please ensure that your DMX cabling follows accepted guidelines and is suitably terminated.

Pin No	Function
1	Screen/shield (0 V)
2	Data comp. (-ve)
3	Data true (+ve)
4	Future developments
5	Future developments

Auxiliary

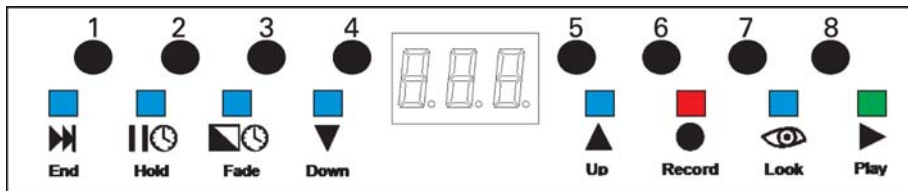
The auxiliary uses a 4-way RJ11 type connector to allow playback units to be daisy-chained, or to connect a set of (normally open) switch contacts for remote operation.

Pin No	Function
1	Ground
2	+V in
3	No connection
4	Sync



2.3 Operating the unit

All the unit functions are accessed using the eight push-button switches and eight rotary potentiometers on the front panel. The LED display shows the various functions as they are accessed, altered, recorded, and the chase running during playback.



Potentiometer operation




The eight rotary potentiometers are used to set the DMX values of the individual channels 1 through 8, which then repeat through to 512.

Pot No	DMX Channels					
1	1	9	17	25	33	Continues to channel 512
2	2	10	18	26	34	
3	3	11	19	27	35	
4	4	12	20	28	36	
5	5	13	21	29	37	
6	6	14	22	30	38	
7	7	15	23	31	39	
8	8	16	24	32	40	










Push button operation






The eight push buttons are used to access the various functions of the unit. For a more detailed description of the functions please refer to the section on function description.

Button			Basic Function
No.	Colour	Symbol	
1	Blue	End	End: Selects the total number of cues used. Range 2-25.
2	Blue	Hold	Hold: Selects the time a cue is halted between fades. Range = 0-99 seconds and 'Stop' (the unit will wait for the next push of the 'Go' button)
3	Blue	Fade	Fade: Selects the time that it takes to fade from one cue to another. Range = 0-99 seconds.
4	Blue	Down	Down: Decreases the value shown on the display.
5	Blue	Up	Up: Increases the value shown on the display.

6	Red	 Record	Record: Records the parameter value (e.g. last, halt, fade, cue or edit) shown on the display.
7	Blue	 Look	Look: Selects the cue number, so that you can record or edit the contents. Range = 1-25.
8	Green	 Play	Play: Starts and stops the cue sequence.

Function and display description

Function description	Display description	
End: Selects the total number of looks used. This should be set before starting the programming.	The display shows the last look used. Range 2-25.	
Hold: Selects the time a look is held between fades. If the hold time is set to infinity (H - -), nothing will change until the 'Play' button is pushed.	The display shows the hold time value in seconds, or when set to stop, the display shows two dashes. Range 0-99 seconds plus stop.	
		
Fade: Selects the time that it takes to fade from one look to another.	The display shows the fade time value in seconds. Range 0-99 seconds.	
Down: Decreases the value shown on the display.	Number shown on display decreases	
Up: Increases the value shown on the display.	Number shown on display increases	
Record: Records the parameter value (e.g. end, hold, fade, change or look) shown on the display.	If any function is accessed or altered, the last digit of the display will flash. Press the record button to store the information. The display will show "r" briefly on the first display digit to confirm action.	
Look: Selects the look number, so that you can record, or edit the contents. Pressing it will switch between standard and change mode. In change mode the channel level is set at its recorded level until the relevant potentiometer is moved past the recorded level.	The display shows the current look number. Range 1-25.	
		
Play: Starts and stops the sequence of looks. Note: When the sequence of looks is running, pressing the End button will switch between the active look number and last look that had been changed.	When the chase is running the lower left segment of the first digit will flash.	
Reset: To reset the unit, press the Fade and Hold for 1 second. This will erase all recorded settings and reset the unit to the factory default settings.	The display momentarily shows that the unit is reset.	

<p>Change mode: Press the Look button twice.</p>	<p>The display shows the look number being changed. Range 1-25.</p>	
<p>Specific Channel values: Holding down the Look button and pressing the Fade button will toggle the unit between the look number and the last used potentiometer number. A different potentiometer can be selected by using the Up/Down buttons. The relevant potentiometer can then be used to set a specific level for that channel, which will be shown on the last two digits of the display.</p>	<p>The display shows the channel number being changed (1 - 8). The second two digits show the channel level (1 - 99 and FL (full))</p>	
<p>Remote options: Pressing the Look and Hold buttons together will access the 3 remote options. Stand-alone: the unit will operate independently or with remote (normally open) contacts. Master: the unit acts as the master control unit when a number of playbacks are 'daisy-chained' together. Slave: the unit acts as a slave unit when a number of playbacks are 'daisy-chained' together.</p>	<p>The display shows that;</p>	
	<p>The unit is in stand-alone mode.</p>	
	<p>The unit is set as the master in a series of units.</p>	
<p>The unit is set as a slave in a series of units.</p>		

2.4 Programming the unit

It is recommended that some pre-planning be done before starting to programme the playback controller. This should include addressing fixtures, deciding the total number of cues required, approximate fade times, etc. These should be written down for easy reference during programming.

Reset the Playback Controller (see below) and turn all the potentiometers to their zero position (fully counter-clockwise) before connecting to the system. Once powered up, it is worth checking that the 8 potentiometers are controlling the channels as expected.

Reset

To reset the unit, press the Fade and Hold for 1 second. This will erase all recorded settings and reset the unit to the factory default settings.

Programming

- To set the number of Looks in a sequence length. Press the End button. The display will show the number of looks set for the sequence. Adjust the value using the Up and Down buttons. Press the Record button to store the setting.
(When the Record button is pressed, the first display digit will momentarily show an 'r' and the display will stop flashing).
- To record a Look. Press the Look button. The display will show 'L01', the first cue in the sequence. Use the relevant potentiometers to adjust the channels to the desired levels. Press the Record button to store the cue.
Note: when the channels are being adjusted the display will not flash.
(When the Record button is pressed, the first display digit will momentarily show an 'r' and the display will stop flashing.)
or
By holding down the Fade button and pressing the Look button will toggle the unit between the look number and the last used potentiometer number. A different

potentiometer can be selected by using the Up/Down buttons. The relevant potentiometer can then be used to set a specific level for that channel, which will be shown on the last two digits of the display. Press the Record button to store the cue. (When the Record button is pressed, the first display digit will momentarily show an 'r' and the display will stop flashing.)

3. To set a Fade time. Press the Fade button. The fade time is the length of time required to fade from the present look to the next look. The display will show 'F' followed by two digits denoting the fade time in seconds. Adjust the value using the Up and Down buttons. Press the Record button to store the setting. (When the Record button is pressed, the first display digit will momentarily show an 'r' and the display will stop flashing).
4. To set a Hold time. Press the Hold button. The hold time is the length of time a cue will remain before fading to the next cue. The display will show 'H' followed by two digits denoting the fade time in seconds. The hold time can also set for infinity 'H--', where once the fade into a particular look has been reached, that look will remain until the Go button is pressed. Adjust the value using the Up and Down buttons. Press Record to store the setting. (When the Record button is pressed, the first display digit will momentarily show an 'r' and the display will stop flashing).
5. Repeat steps 2-4 until all required cues are recorded.

Playback

To run a sequence. Press the Play button. The unit will playback the looks in sequence with the relevant hold and fade times.

To stop a sequence. Press the Play button.

Changing a look (Editing)

1. Stop the sequence
2. Press the Look button twice to enter the change mode. Adjust the potentiometers to the desired levels. Note: when changing looks, the potentiometers 1-8 will not have control until they are moved past their recorded levels.

or

By holding down the Fade button and pressing the Look button will toggle the unit between the look number and the last used potentiometer number. A different potentiometer can be selected by using the Up/Down buttons. The relevant potentiometer can then be used to set a specific level for that channel, which will be shown on the last two digits of the display. Press the Record button to store the cue.

Note: During playback, you can switch between the current look number and the last look that was changed (edited) by using the End button.

2.5 Troubleshooting

Symptom	Possible Cause	Solution
No display.	Power supply problem.	Check power supply output and replace if necessary.
	Playback unit problem.	Contact the selling dealer for further information.
No DMX signal.	Cabling problem.	Check DMX output at unit. If OK, check cables and signal distribution. Replace cables as necessary.
	Playback unit problem.	Contact the selling dealer for further information.
Fixture not responding to DMX signal.	Wrongly addressed.	Check fixture address.
	Cabling problem.	Check DMX output at unit. If OK, check cables and signal distribution. Replace cables as necessary.

2.6 Technical overview

Troubleshooting is a process of elimination. First, rule out the other field factors (faulty cables and power sources). For further technical advice please contact your selling dealer or the offices listed at the beginning of this user manual.

2.7 Technical specifications

Dimensions:

Playback unit: 168 x 72 x 39mm / 6.62 x 2.85 x 1.53 in
Power supply: 36 x 40 x 125mm / 1.40 x 1.57 x 4.90 in

Weight:

Playback unit: 0.210kg / 0.46lb
Power supply: 0.150kg / 0.33lb

Front panel size: 168 x 39 mm / 6.62 x 1.53 in

PSU input: Universal input, 100-240 V, 47-63 Hz, @ 0.4 A max

Output protocol: ANSI E1.11 USITT DMX 512-A

Output channels: 512

'Look' memories: 25

Chase steps: 25

Remote operation: Triggered via a set of N/O (normally open) 'Dry' contacts

Body material: Sheet aluminium

Unit colour: Black or white powder coat (other colours available, P.O.A.)

Connectors:

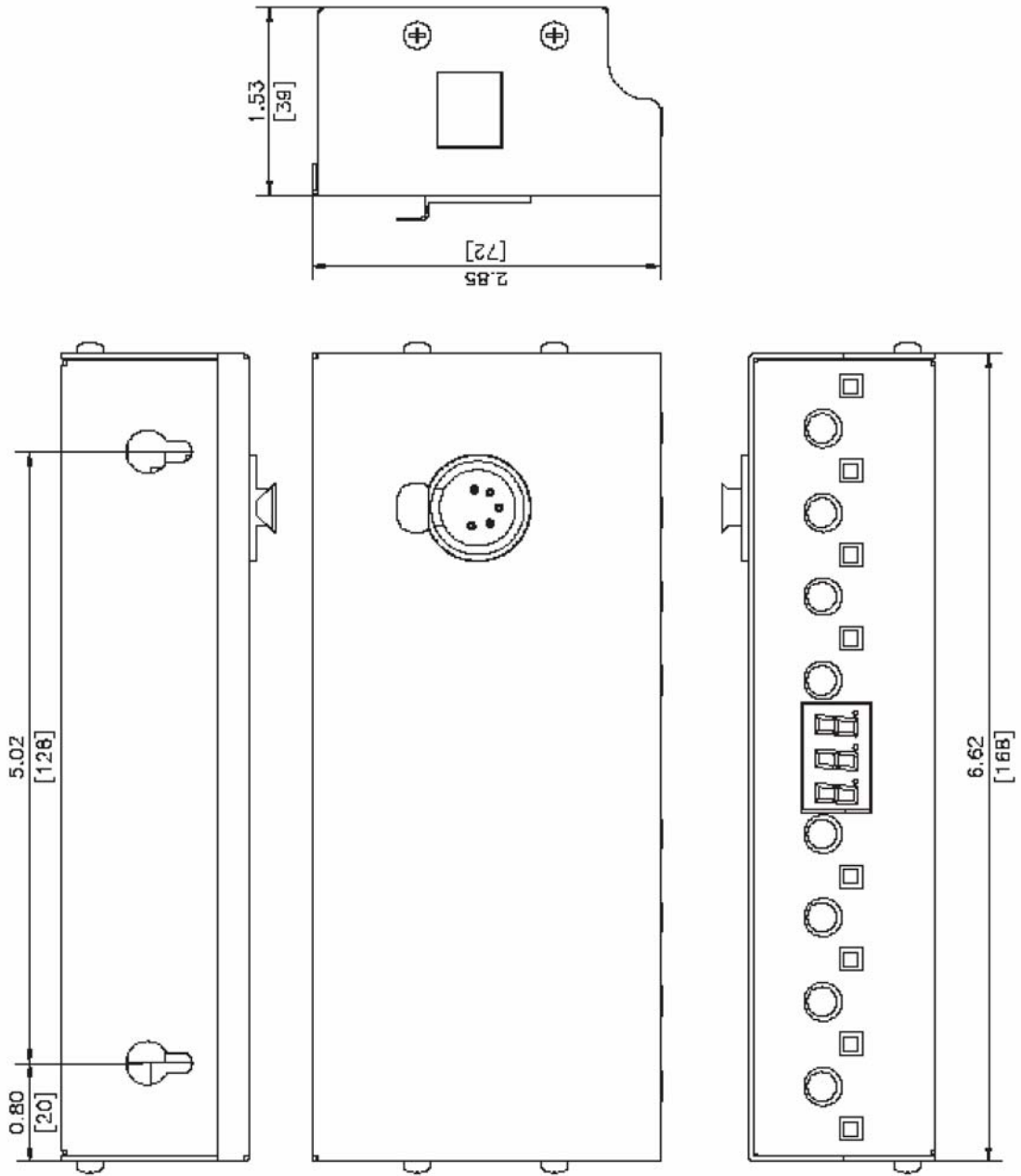
DC power: DC power jack (2.1 x 5.5 mm)
DMX output: XLR-5 (Female)
Auxiliary: RJ1

Approvals: IEC 60950, EN 55103-1 and 2, FCC Part 15 and ICES-003 Class A



3. Drawings

3.1 Outside dimensions



3.2 Instructions printed on rear of unit

Chroma-Q 8 channel playback controller

Programming

- (1) Press **End (E)** to set number of looks in the sequence. Press **Down** or **Up** to adjust value. Press **Record** to store.
- (2) Press **Look (L)** then **Down** or **Up** to select the look to be recorded. Adjust potentiometers 1-8 to create look. Press **Record**.
- (3) Press **Hold (H)** then **Down** or **Up** to adjust the time a look will hold before fading to the next look. Press **Record**.
- (4) Press **Fade (F)** then **Down** or **Up** to adjust the time a look will take to fade to the next look. Press **Record**.
- (5) Repeat steps 2-4 until all looks are recorded.

Playback

Press **Play** to run or stop the sequence.

Change

- (1) Stop the sequence.
- (2) Press **Look** twice (**C**) to enter change mode. Adjust the values to desired levels. Press **Record**.

Note: When changing looks, the potentiometers 1-8 will not have control until they are moved past the recorded levels.

Reset

Press **Fade** and **Hold** for 1 second to erase all recorded settings and reset unit to factory defaults.