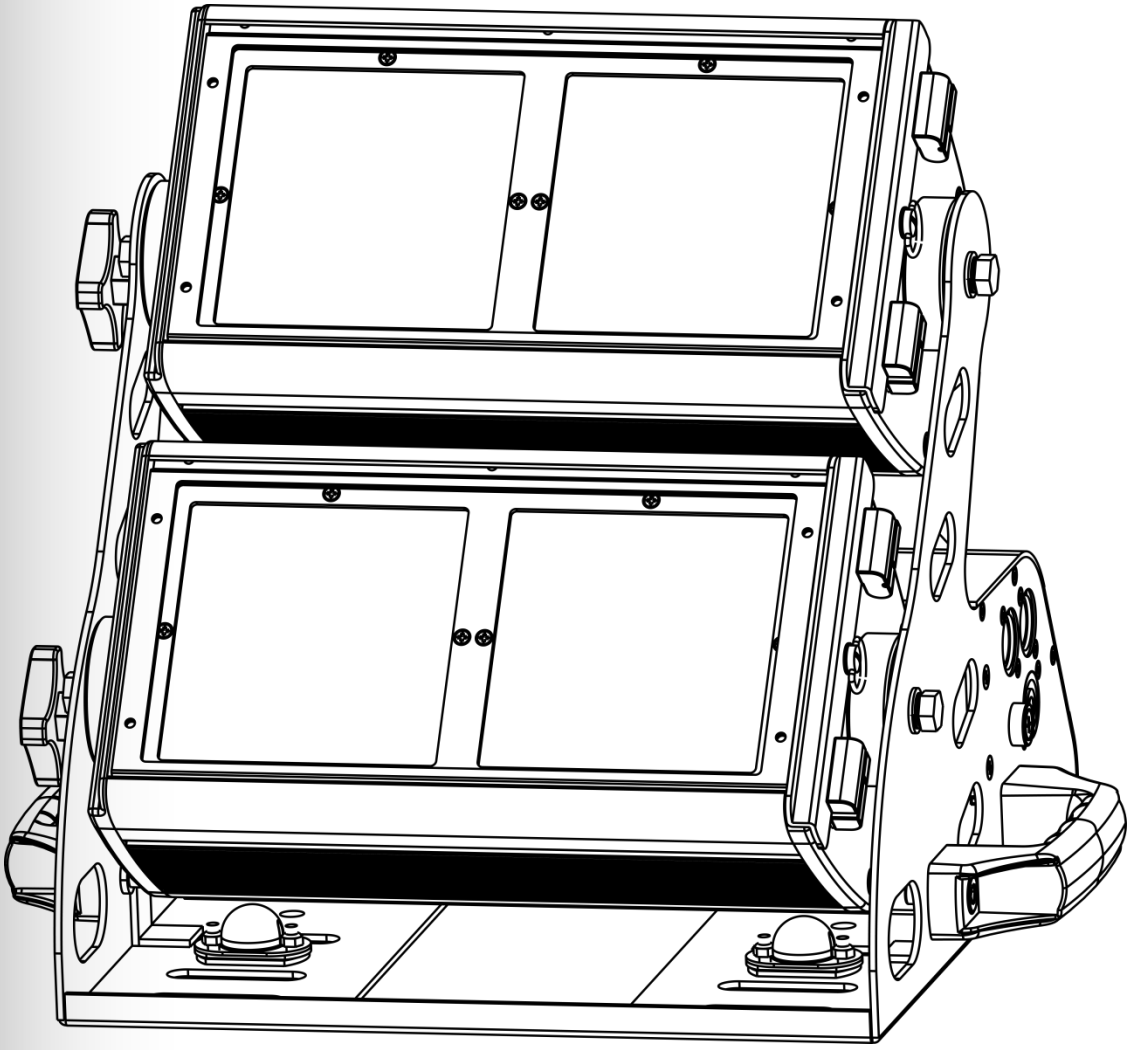
OVATION™ C-640FC

User Manual



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Edition Notes

The OVATION™ C-640FC User Manual Rev. 3 covers the description, safety precautions, installation, programming, operation, and maintenance of the OVATION™ C-640FC. CHAUVET® released this edition of the OVATION™ C-640FC User Manual in January 2014.

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Document Printing

For better results, print this document in color, on letter size paper (8.5 x 11 in), double-sided. If using A4 paper (210 x 297 mm), configure your printer to scale the content accordingly.

Intended Audience

Any person in charge of installing, operating, and/or maintaining this product should completely read through the guide that shipped with the product, as well as this manual, before installing, operating, or maintaining this product.

Disclaimer

CHAUVET® believes that the information contained in this manual is accurate in all respects. However, CHAUVET® assumes no responsibility for any errors or omissions in this document. CHAUVET® reserves the right to revise and make changes to the content of this document without obligation that CHAUVET® notify any person or company of such revision or changes. This does not in any way constitute a commitment by CHAUVET® to make such changes. CHAUVET® may issue a revision of this manual or a new edition to incorporate such changes.

Document Revision

The OVATION™ C-640FC User Manual Rev. 3 supersedes all previous versions of this manual. Discard any older versions of this manual and replace with this version.

Author	Date	Editor	Date
D. Couppe	01/21/14	A. Leon	01/21/14

Table of Contents

1. Before You Begin

What is Included

- OVATION™ C-640FC
- Neutrik® powerCON® power cord
- 2 Omega Brackets with Mounting Hardware
- 2 Gel Frames 5.32 x 9.65 in (135 x 245 mm)
- Safety Cable
- Warranty Card
- Quick Reference Guide

Claims

Carefully unpack the product immediately and check the box to make sure all the parts are in the package and are in good condition.

If the box or the contents (the product and included accessories) appear damaged from shipping or show signs of mishandling, notify the carrier immediately, not CHAUVET®. Failure to report damage to the carrier immediately may invalidate your claim. In addition, keep the box and contents for inspection.

For other issues, such as missing components or parts, damage not related to shipping, or concealed damage, file a claim with CHAUVET® within 7 days of delivery.

Manual Conventions

Convention	Meaning
1–512	A range of values in the text
50/60	A set of mutually exclusive values in the text
<SET>	A button on the product's control panel
Settings	A product function or a menu option
MENU>Settings	A sequence of menu options
1–10	A range of menu values from which to choose in a menu
Yes/No	A set of two mutually exclusive menu options in a menu
ON	A unique value to be entered or selected in a menu

Symbols

Symbols	Meaning
	Critical installation, configuration, or operation information. Failure to comply with this information may cause the product not to work, damage third-party equipment, or cause harm to the operator.
	Important installation or configuration information. Failure to comply with this information may keep the product from working.
	Useful information.

The term "DMX" used throughout this manual refers to the USITT DMX512-A digital data transmission protocol.

Product at a Glance

Use on Dimmer	X	Auto Programs	P
Outdoor Use	X	Auto-Ranging Power Supply	P
Sound-Active	X	Replaceable Fuse	P
DMX	P	User-Serviceable	X
Master/Slave	P	Duty Cycle	X

Safety Notes

Read all the following Safety Notes before working with this product. These notes include important information about the installation, usage, and maintenance of this product.

This product contains no user-serviceable parts. Any reference to servicing in this User Manual will only apply to properly trained CHAUVET® certified technicians. Do not open the housing or attempt any repairs.

All applicable local codes and regulations apply to proper installation of this product.

Personal Safety

- Avoid direct eye exposure to the light source while the product is on.
- Always disconnect this product from its power source before servicing.
- Always connect this product to a grounded circuit to avoid the risk of electrocution.
- Do not touch this product's housing during operation because it may be very hot.

Mounting and Rigging

- This product is for indoor use only! (IP20) To prevent risk of fire or shock, do not expose this product to rain or moisture.
- Mount this product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.
- Make sure there are no flammable materials close to this product while it is operating.
- When hanging this product, always secure to a fastening device using a safety cable.

Power and Wiring

- Always make sure you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- Never connect this product to a dimmer pack or rheostat.
- Never disconnect this product by pulling or tugging on the power cable.

Operation

- Do not operate this product if you see damage on the housing, lenses, or cables. Have the damaged parts replaced by an authorized technician at once.
- Do not cover the ventilation slots when operating to avoid internal overheating.
- The maximum ambient temperature is 113 °F (45 °C). Do not operate this product at a higher temperature.
- In case of a serious operating problem, stop using this product immediately!

In the unlikely event that your CHAUVET® product may require service, contact CHAUVET® Technical Support.

Expected LED Lifespan

LEDs gradually decline in brightness over time, mostly because of heat. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal, single-LED conditions. For this reason, using clustered LEDs at their fullest intensity significantly reduces the LEDs' lifespan. Under normal conditions, this lifespan can be 40,000 to 50,000 hours. If extending this lifespan is vital, lower the operating temperature by improving the ventilation around the product and reducing the ambient temperature to an optimal operating range. In addition, limiting the overall projection intensity may also help to extend the LEDs' lifespan.

2. Introduction

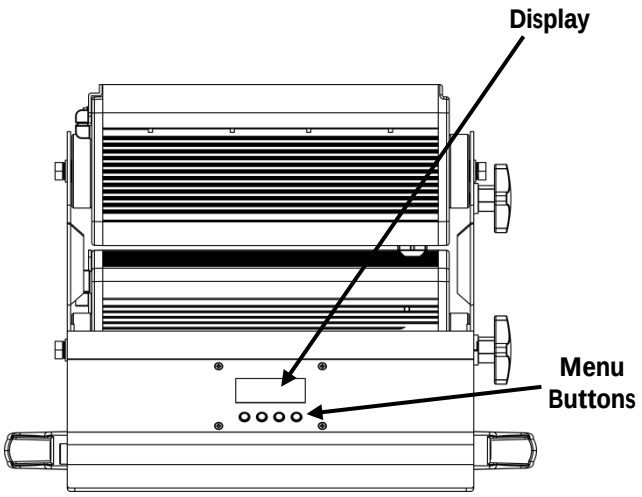
Description

The OVATION™ C-640FC is a compact cyclorama wash light capable of displaying a full spectrum of hues with RGBWA LEDs. It is theater-ready with16-bit dimming of the individual colors and the master dimmer. Control options include 12 DMX modes and static color mixing without DMX control. Two individually adjustable heads offer great coverage.

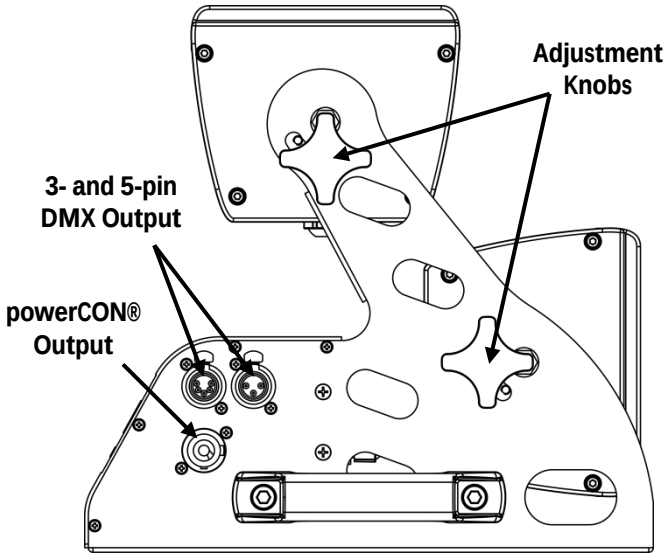
Features

- Compact cyclorama RGBWA LED wash
- Operating modes:
  - 3-channel (HSV): color hue, saturation, and value control
  - 4-channel (ARC.1): RGB and virtual color wheel control
  - 5-channel (AR1.D): RGB, virtual color wheel, and dimmer control
  - 5-channel (ARC.2): RGBW and virtual color wheel control
  - 6-channel (ARC.3): RGBWA and virtual color wheel control
  - 7-channel (AR3.D): RGBWA, virtual color wheel, and dimmer control
  - 8-channel (PIX1): RGB and virtual color wheel control (both with pixel 1 and pixel 2 control)
  - 8-channel (AR3.S): RGBWA, virtual color wheel, dimmer, and strobe control
  - 12-channel (TOUR): RGBWA, virtual color wheel, dimmer, strobe (classic and special), programs (auto and custom), auto speed, dimmer speed, color macro, and white balance control
  - 12-channel (PIX3): RGBWA and virtual color wheel control (both with pixel 1 and pixel 2 control)
  - 24-channel (PX16): RGBWA, fine RGBWA, virtual color wheel control (both with pixel 1 and pixel 2 control), dimmer, fine dimmer
  - 18-channel (TR16): RGBWA, fine RGBWA, virtual color wheel, dimmer, fine dimmer, strobe (classic and special), color macro, and white balance control
- Static color mixing without DMX control
- 16-bit dimming of master dimmer and individual colors
- Two individually adjustable heads
- 3- and 5-pin XLR data input and output connectors

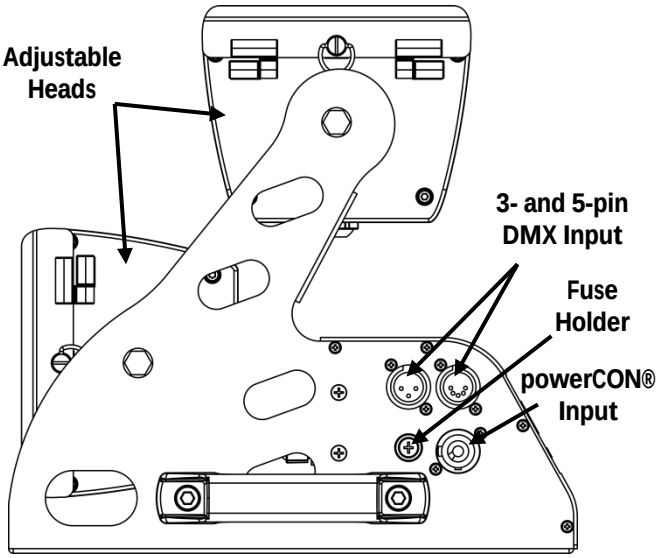
Overview



Rear View

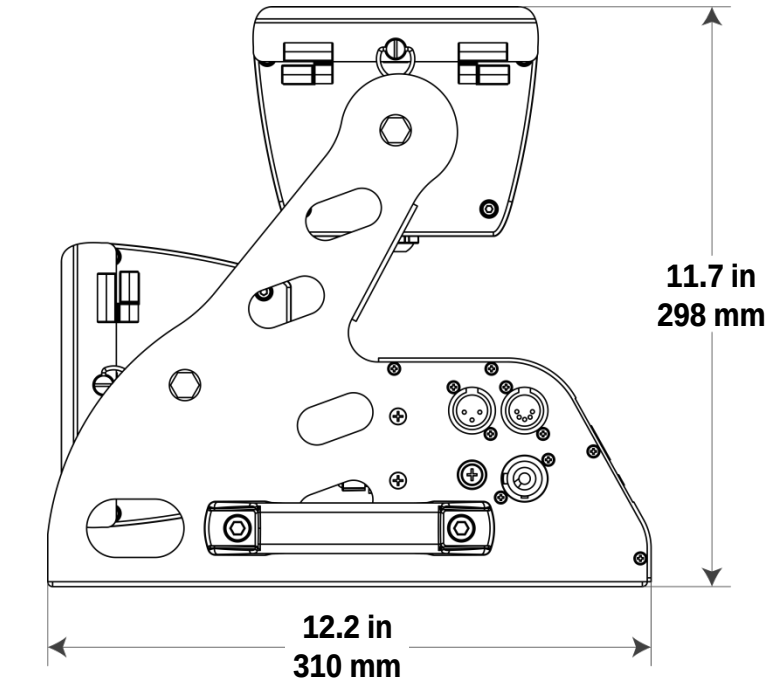


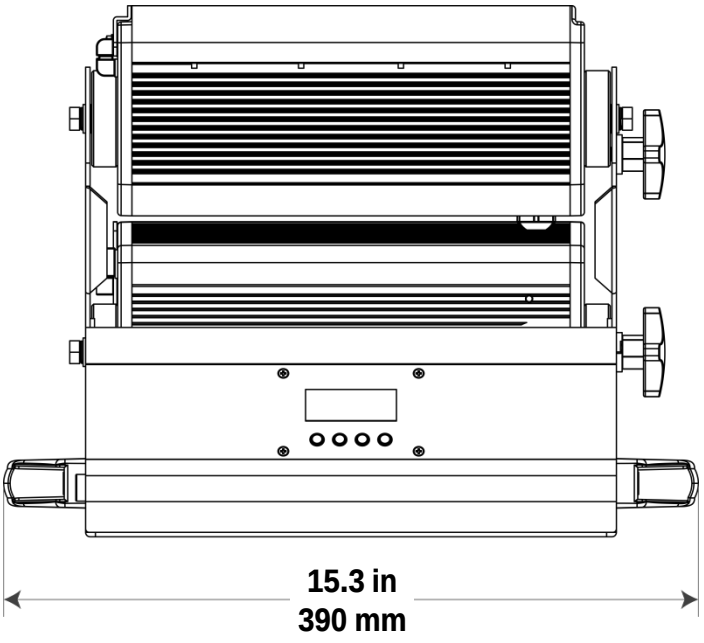
Left View



Right View

Dimensions





3. Setup

AC Power

Each OVATION™ C-640FC has an auto-ranging power supply that works with an input voltage range of 100~240 VAC, 50/60 Hz. To determine the power requirements for each OVATION™ C-640FC, refer to the label affixed to the product. You can also refer to the Technical Specifications chart in this manual.

The listed current rating indicates the maximum current draw during normal operation. For more information, you may download Sizing Circuit Breakers from the CHAUVET® website www.chauvetpro.com.

Always connect this product to a protected circuit with an appropriate electrical ground to avoid the risk of electrocution or fire.

Never connect this product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.

AC Plug

The OVATION™ C-640FC comes with a power input cord terminated with a Neutrik® powerCON® A connector on one end and an Edison plug on the other end (U.S. market). If the power input cord that came with your product has no plug, or if you need to change the Edison plug, use the table below to wire the new plug to the power input cord.

Connection	Wire (U.S.)	Wire (Europe)	Screw Color
AC Live	Black	Brown	Yellow or Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green

Fuse Replacement

Make sure to disconnect the product's power cord before replacing a blown fuse.

1. Disconnect this product from power.
2. Using a Phillips #2 head screwdriver, unscrew the fuse holder cap from the housing.
3. Remove the blown fuse and replace with another fuse of the same type and rating (T 5 A, 250 V).
4. Screw the fuse holder cap back in place and reconnect power.

Always replace the blown fuse with another of the same type and rating.

Power Linking

The OVATION™ C-640FC supports power linking. You can power link up to 9 units on 120 V; up to 16 units on 208 V; or up to 18 units on 230 V.

This product comes with a Neutrik® powerCON® input power cord. This product does not come with a power linking cable; however, a power linking cable is available as an option.

DMX Linking

You can link the OVATION™ C-640FC to a DMX controller using a standard DMX serial connection. If using other DMX-compatible products with the OVATION™ C-640FC, you can control each individually with a single DMX controller.

DMX Modes

The OVATION™ C-640FC uses the standard DMX data connection for its **TOUR**, **TR16**, **ARC.1**, **AR1.D**, **ARC.2**, **ARC.3**, **AR3.D**, **AR3.S**, **HSV**, **PIX1**, **PIX3**, and **PX16** DMX modes.

- Refer to the Introduction chapter for a brief description of these modes.
- Refer to the Operation chapter to learn how to configure the OVATION™ C-640FC to work in these modes.
- The DMX Values section provides you with detailed information regarding the DMX modes.

Master/Slave Connectivity

The Master/Slave mode allows a single OVATION™ C-640FC (the “master”) to control the actions of one or more OVATION™ C-640FC units (the “slaves”) without the need of a DMX controller to control the slaves. Once set and connected, the slaves will operate in unison with the master. For instructions on connecting and configuring this product, see Master/Slave Mode.

DO NOT connect a DMX controller to products operating in Slave mode. The DMX controller signals may interfere with the signals from the master product.

The Operation section of this manual provides detailed instructions on how to configure the master and slave products.

If you are not familiar with or need more information about DMX standards, master/slave connectivity, or the DMX cables needed to link this product to a DMX controller, download the *DMX Primer* from the CHAUVET® website: www.chauvetpro.com.

Mounting

Before mounting this product, read and follow the Safety Notes.

Orientation

Always mount this product in a safe position. The OVATION™ C-640FC may be mounted in any position; however, make sure there is adequate room for ventilation, configuration, and maintenance.

Rigging

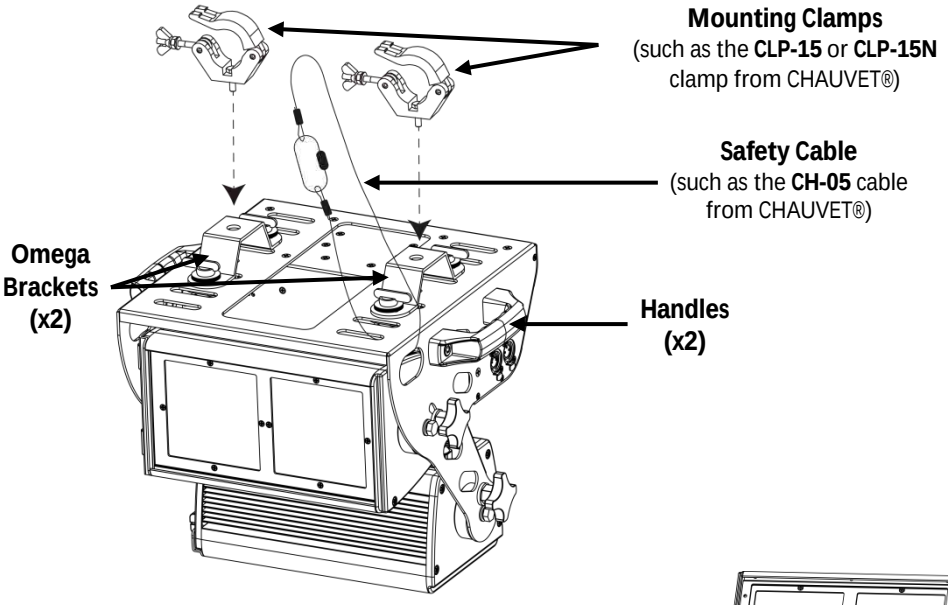
CHAUVET® recommends using the following general guidelines when mounting this product.

- When selecting an installation location, consider easy access to this product for operation, programming adjustments, and routine maintenance.
- Make sure to mount this product away from any flammable material as indicated in the Safety Notes.
- Never mount in places where rain, high humidity, extreme temperature changes, or restricted ventilation may affect the product.
- If hanging this product, make sure that the mounting location can support the product's weight. See the Technical Specifications for the weight-bearing requirements of this product.
- When hanging this product, always secure to a fastening device using a safety cable.

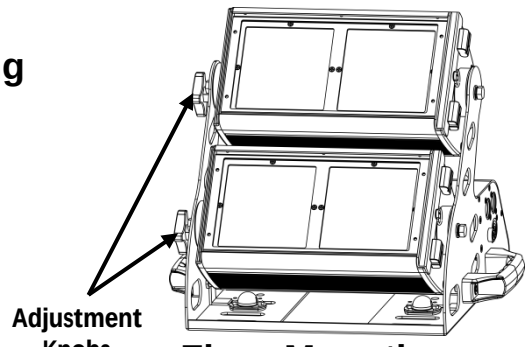
Procedure

The OVATION™ C-640FC comes with two omega brackets to which you can attach mounting clamps. You must supply your own clamps and make sure that they are capable of supporting the weight of this product. You will have to use two mounting points per product.

Mounting Diagram



Overhead Mounting



Floor Mounting

4. Operation

Control Panel Description

Button	Function
<MENU>	Exits from the current menu or function
<ENTER>	Activates the currently displayed menu option or sets the selected value in the current function
<UP>	Scrolls up the list of menu options or increases the numeric value when in a function
<DOWN>	Scrolls down the list of menu options or decreases the numeric value when in a function

Control Options

You can set the starting address of the OVATION™ C-640FC in the **001**–**512** DMX range. This enables control of up to 21 products in the 18-channel **PX16** personality.

Programming

Refer to the Menu Map for a description of your programming options. The menu map shows the main level and a variable number of programming levels for each option.

- Press **<MENU>** repeatedly to go to the desired main level. Press **<ENTER>** to select the main level and go to the first programming level for that option.
- Press **<UP>** or **<DOWN>** to scroll through the options or values within the current programming level. When the desired option shows on the display, press **<ENTER>** to select the option. If there are deeper programming levels, those options will show on the display.
- Press **<MENU>** repeatedly to exit to the previous level.

Menu Map

Main Level	Programming Levels		Description
STAT	RED	*X*.000–*X*.255	Combines red, green, blue, white, and amber to make a custom color (0–100%)
	GREN		
	BLUE		
	WHIT		
	AMBR		
	STRB	S.000–S.020	Selects the strobe frequency (0–20 Hz)
VCW	C90Y		Virtual Color Wheel simulates the output of each gel color from Rosco. Refer to the Color Chart section for specific values.
	R11		
	R312		
	R03		
	R18		
	R20		
	R21		
	R26		
	R27		
	R33		
	R337		
	R38		
	R41		
	R42		
	R44		
	R349		
	R54		
	R64		
	R364		
	R65		
	R80		
	R81		
	R82		
	R382		
	R83		
	R383		
	R91		
	R92		
	R93		
	R393		
	R90		

Menu Map (cont.)

Main Level	Programming Levels				Description
AUTO	AT.01–AT.10		P.000–P.255		Selects auto programs and auto program speed
	PR.01–PR.10				Selects customizable programs
RUN	DMX				Receives DMX signals from the DMX controller
	SLAV				Receives DMX signals from the master
ADDR	D.001–D.512				Sets the DMX starting address
PERS	TOUR				12-channel; RGBWA, VCW, dimmer, strobe, color macro, auto/custom, dimmer speed, auto speed
	TR16				18-channel: 16-bit- RGBWA, VCW, dimmer, strobe, color macro, auto/custom, dimmer speed, auto speed
	ARC.1				4-channel: RGB control, VCW
	AR1.D				5-channel: RGB, dimmer, VCW
	ARC.2				5-channel: RGBW control, VCW
	ARC.3				6-channel: RGBWA control, VCW
	AR3.D				7-channel: RGBWA, dimmer, VCW
	AR3.S				8-channel: RGBWA, dimmer, strobe, VCW
	HSV				3-channel: HSV control
	PIX1				8-channel: RGB pixel control, VCW
	PIX3				12-channel: RGBWA pixel control, VCW
	PX16				24-channel: 16-bit- RGBWA pixel control, dimmer, VCW
EDIT	PR.01–PR.10	SC.01–SC.30	RED	*X*.000–*X*.255	Combines red, green, blue, white and amber to generate a custom color (0–100%)
			GREN		
			BLUE		
			WHIT		
			AMBE		
			STRB	S.000–S.020	Selects strobe frequency (0–20 Hz)
			TIME	T.000–T.255	Defines the step duration (slow to fast)
			FADE	F.000–F.255	Defines the fade duration (slow to fast)

Menu Map (cont.)

Main Level	Programming Levels							Description
SET	KEY			ON				Sets to key lock (Passcode mode)
				OFF				
	UPLD			***** (Enter Passcode)	SEND	OK		Uploads custom programs to other OVATION™ C-640FCs
	REST			***** (Enter Passcode)	SEND	OK		Resets the fixture to factory defaults
	COLR			OFF				RGB set to **255**, max. output
				RGBW				RGB set to **255**, balanced white
				UC				Universal color balance
	DIMX			OFF				Selects dimming profiles from fast (**DIM1**) to slow (**DIM4**) or OFF
				DIM1				
				DIM2				
				DIM3				
				DIM4				
	DERR			BLAK				Blacks out fixture upon loss of DMX signals
				SAVE				Continues with last command upon loss of DMX signals
	SLCK			OFF				Sets menu-level access lock
				ON				
	STRB			SPEC				Selects strobe behavior displayed in **TOUR** and **TR16** personalities
				CLAS				
	MCON			SELF				No DMX signals are sent through DMX output
				MAST				Sends DMX signals to OVATION™ C-640FC slaves
CAL	***** (Enter Passcode)	CAL1	WH.01–WH.11	RED	*X*.000–*X*.255			Modifies the color macros used in the **TOUR** and **TR16** personalities
				GREN				
				BLUE				
				WHIT				
				AMBE				
		CAL2	RED					Defines the color temperature used when **COLR** is set to **RGBW**
			GREN					
			BLUE					
		CALR		***** (Enter Passcode)				Defaults **CAL** to factory settings

DMX Values

TOUR

Channel	Function	Value	Percent/Setting
1	**Dimmer**	000 ó 255	0–100%
2	**Red**	000 ó 255	0–100% (**Step Duration** if **Custom 1**–**10** active)
3	**Green**	000 ó 255	0–100% (**Fade Duration** if **Custom 1**–**10** active)
4	**Blue**	000 ó 255	0–100%
5	**White**	000 ó 255	0–100%
6	**Amber**	000 ó 255	0–100%
7	**Virtual Color Wheel**	000 ó 255	Refer to the Color Chart section for specific values
8	**Color Macro + White Balance**	000 ó 010	No function
		011 ó 030	R: 100% G: 0-100% B: 0
		031 ó 050	R: 100%-0 G: 100% B: 0
		051 ó 070	R: 0 G: 100% B: 0-100%
		071 ó 090	R: 0 G: 100%-0 B: 100%
		091 ó 110	R: 0-100% G: 0 B: 100%
		111 ó 130	R: 100% G: 0 B: 100%-0
		131 ó 150	R: 100% G: 0-100% B: 0-100%
		151 ó 170	R: 100%-0 G: 100%-0 B: 100%
		171 ó 200	RGBWA: 100%
		201 ó 205	White 1
		206 ó 210	White 2
		211 ó 215	White 3
		216 ó 220	White 4
		221 ó 225	White 5
		226 ó 230	White 6
		231 ó 235	White 7
		236 ó 240	White 8
		241 ó 245	White 9
		246 ó 250	White 10
		251 ó 255	White 11
9*	**Special Strobe**	000 ó 009	No function
		010 ó 099	Slow to fast
		100 ó 109	No function
		110 ó 179	Lighting effect, slow to fast
		180 ó 189	No function
		190 ó 255	Random
	Classic Strobe	000 ó 009	No function
		010 ó 019	1 Hz
		020 ó 029	2 Hz
		030 ó 039	3 Hz
		040 ó 049	4 Hz
		050 ó 059	5 Hz
		060 ó 069	6 Hz
		070 ó 079	7 Hz
		080 ó 089	8 Hz
		090 ó 099	9 Hz
		100 ó 109	10 Hz
		110 ó 119	11 Hz
		120 ó 129	12 Hz
		130 ó 139	13 Hz
		140 ó 149	14 Hz
		150 ó 159	15 Hz
		160 ó 169	16 Hz
		170 ó 179	17 Hz
		180 ó 189	18 Hz
		190 ó 199	19 Hz
		200 ó 255	20 Hz

*Select strobe function in the main menu under **SET > STRB**, then select **SPEC** or **CLAS**

DMX Values (cont.)

TOUR (cont.)

Channel	Function	Value	Percent/Setting
10	**Programs**	000 ó 040	No function
		041 ó 050	Auto 1
		051 ó 060	Auto 2
		061 ó 070	Auto 3
		071 ó 080	Auto 4
		081 ó 090	Auto 5
		091 ó 100	Auto 6
		101 ó 110	Auto 7
		111 ó 120	Auto 8
		121 ó 130	Auto 9
		131 ó 140	Auto 10
		141 ó 150	Custom 1
		151 ó 160	Custom 2
		161 ó 170	Custom 3
		171 ó 180	Custom 4
		181 ó 190	Custom 5
		191 ó 200	Custom 6
		201 ó 210	Custom 7
		211 ó 220	Custom 8
		221 ó 230	Custom 9
		231 ó 255	Custom 10
11	**Auto Speed**	000 ó 255	0–100%
12	**Dimmer Speed**	000 ó 009	Preset dimming profile from display menu
		010 ó 029	Linear dimmer
		030 ó 069	Nonlinear dimming profile 1 (fastest)
		070 ó 129	Nonlinear dimming profile 2
		130 ó 189	Nonlinear dimming profile 3
		190 ó 255	Nonlinear dimming profile 4 (slowest)

DMX Values (cont.)

TR16

Channel	Function	Value	Percent/Setting
1	**Dimmer**	000 ó 255	0–100%
2	**Fine Dimmer**	000 ó 255	0–100%
3	**Red**	000 ó 255	0–100%
4	**Fine Red**	000 ó 255	0–100%
5	**Green**	000 ó 255	0–100%
6	**Fine Green**	000 ó 255	0–100%
7	**Blue**	000 ó 255	0–100%
8	**Fine Blue**	000 ó 255	0–100%
9	**White**	000 ó 255	0–100%
10	**Fine White**	000 ó 255	0–100%
11	**Amber**	000 ó 255	0–100%
12	**Fine Amber**	000 ó 255	0–100%
13	**Virtual Color Wheel**	000 ó 255	Refer to Color Chart section for specific values
14	**Color Macro + White Balance**	000 ó 010	No function
		011 ó 030	R: 100% G: 0-100% B: 0
		031 ó 050	R: 100%-0 G: 100% B: 0
		051 ó 070	R: 0 G: 100% B: 0-100%
		071 ó 090	R: 0 G: 100%-0 B: 100%
		091 ó 110	R: 0-100% G: 0 B: 100%
		111 ó 130	R: 100% G: 0 B: 100%-0
		131 ó 150	R: 100% G: 0-100% B: 0-100%
		151 ó 170	R: 100%-0 G: 100%-0 B: 100%
		171 ó 200	RGBWA: 100%
		201 ó 205	White 1
		206 ó 210	White 2
		211 ó 215	White 3
		216 ó 220	White 4
		221 ó 225	White 5
		226 ó 230	White 6
		231 ó 235	White 7
		236 ó 240	White 8
		241 ó 245	White 9
		246 ó 250	White 10
		251 ó 255	White 11

DMX Values (cont.)

TR16 (cont.)

Channel	Function	Value	Percent/Setting
15*	**Special Strobe**	000 ó 009	No function
		010 ó 099	Slow to fast
		100 ó 109	No function
		110 ó 179	Lighting effect, slow to fast
		180 ó 189	No function
		190 ó 255	Random
	Classic Strobe	000 ó 009	No function
		010 ó 019	1 Hz
		020 ó 029	2 Hz
		030 ó 039	3 Hz
		040 ó 049	4 Hz
		050 ó 059	5 Hz
		060 ó 069	6 Hz
		070 ó 079	7 Hz
		080 ó 089	8 Hz
		090 ó 099	9 Hz
		100 ó 109	10 Hz
		110 ó 119	11 Hz
		120 ó 129	12 Hz
		130 ó 139	13 Hz
		140 ó 149	14 Hz
		150 ó 159	15 Hz
		160 ó 169	16 Hz
		170 ó 179	17 Hz
		180 ó 189	18 Hz
		190 ó 199	19 Hz
		200 ó 255	20 Hz
16	**Programs**	000 ó 040	No function
		041 ó 050	Auto 1
		051 ó 060	Auto 2
		061 ó 070	Auto 3
		071 ó 080	Auto 4
		081 ó 090	Auto 5
		091 ó 100	Auto 6
		101 ó 110	Auto 7
		111 ó 120	Auto 8
		121 ó 130	Auto 9
		131 ó 140	Auto 10
		141 ó 150	Custom 1
		151 ó 160	Custom 2
		161 ó 170	Custom 3
		171 ó 180	Custom 4
		181 ó 190	Custom 5
		191 ó 200	Custom 6
		201 ó 210	Custom 7
		211 ó 220	Custom 8
		221 ó 230	Custom 9
		231 ó 255	Custom 10
17	**Auto Speed**	000 ó 255	0–100%
18	**Dimmer Speed**	000 ó 009	Preset dimming profile from display menu
		010 ó 029	Linear dimmer
		030 ó 069	Nonlinear dimming profile 1 (fastest)
		070 ó 129	Nonlinear dimming profile 2
		130 ó 189	Nonlinear dimming profile 3
		190 ó 255	Nonlinear dimming profile 4 (slowest)

*Select strobe function in the main menu under **SET > STRB**, then select **SPEC** or **CLAS**

DMX Values (cont.)

ARC.1

Channel	Function	Value	Percent/Setting
1	Red	000 ó 255	0–100%
2	Green	000 ó 255	0–100%
3	Blue	000 ó 255	0–100%
4	Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values

AR1.D

Channel	Function	Value	Percent/Setting
1	Dimmer	000 ó 255	0–100%
2	Red	000 ó 255	0–100%
3	Green	000 ó 255	0–100%
4	Blue	000 ó 255	0–100%
5	Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values

ARC.2

Channel	Function	Value	Percent/Setting
1	Red	000 ó 255	0–100%
2	Green	000 ó 255	0–100%
3	Blue	000 ó 255	0–100%
4	White	000 ó 255	0–100%
5	Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values

ARC.3

Channel	Function	Value	Percent/Setting
1	Red	000 ó 255	0–100%
2	Green	000 ó 255	0–100%
3	Blue	000 ó 255	0–100%
4	White	000 ó 255	0–100%
5	Amber	000 ó 255	0–100%
6	Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values

AR3.D

Channel	Function	Value	Percent/Setting
1	Dimmer	000 ó 255	0–100%
2	Red	000 ó 255	0–100%
3	Green	000 ó 255	0–100%
4	Blue	000 ó 255	0–100%
5	White	000 ó 255	0–100%
6	Amber	000 ó 255	0–100%
7	Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values

DMX Values (cont.)

AR3.S

Channel	Function	Value	Percent/Setting
1	Dimmer	000 ó 255	0–100%
2	Red	000 ó 255	0–100%
3	Green	000 ó 255	0–100%
4	Blue	000 ó 255	0–100%
5	White	000 ó 255	0–100%
6	Amber	000 ó 255	0–100%
7	Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values
8	Classic Strobe	000 ó 009	No function
		010 ó 019	1 Hz
		020 ó 029	2 Hz
		030 ó 039	3 Hz
		040 ó 049	4 Hz
		050 ó 059	5 Hz
		060 ó 069	6 Hz
		070 ó 079	7 Hz
		080 ó 089	8 Hz
		090 ó 099	9 Hz
		100 ó 109	10 Hz
		110 ó 119	11 Hz
		120 ó 129	12 Hz
		130 ó 139	13 Hz
		140 ó 149	14 Hz
		150 ó 159	15 Hz
		160 ó 169	16 Hz
		170 ó 179	17 Hz
		180 ó 189	18 Hz
		190 ó 199	19 Hz
		200 ó 255	20 Hz

HSV

Channel	Function	Value	Percent/Setting
1	Hue	000 ó 255	0–100%
2	Saturation	000 ó 255	0–100%
3	Value	000 ó 255	0–100%

DMX Values (cont.)

PX16

Channel	Function	Value	Percent/Setting
1	Dimmer	000 ó 255	0–100%
2	Fine Dimmer	000 ó 255	0–100%
3	Pixel 1 Red	000 ó 255	0–100%
4	Pixel 1 Fine Red	000 ó 255	0–100%
5	Pixel 1 Green	000 ó 255	0–100%
6	Pixel 1 Fine Green	000 ó 255	0–100%
7	Pixel 1 Blue	000 ó 255	0–100%
8	Pixel 1 Fine Blue	000 ó 255	0–100%
9	Pixel 1 White	000 ó 255	0–100%
10	Pixel 1 Fine White	000 ó 255	0–100%
11	Pixel 1 Amber	000 ó 255	0–100%
12	Pixel 1 Fine Amber	000 ó 255	0–100%
13	Pixel 1 Virtual Color Wheel	000 ó 255	Refer to the Color Chart section for specific values
14	Pixel 2 Red	000 ó 255	0–100%
15	Pixel 2 Fine Red	000 ó 255	0–100%
16	Pixel 2 Green	000 ó 255	0–100%
17	Pixel 2 Fine Green	000 ó 255	0–100%
18	Pixel 2 Blue	000 ó 255	0–100%
19	Pixel 2 Fine Blue	000 ó 255	0–100%
20	Pixel 2 White	000 ó 255	0–100%
21	Pixel 2 Fine White	000 ó 255	0–100%
22	Pixel 2 Amber	000 ó 255	0–100%
23	Pixel 2 Fine Amber	000 ó 255	0–100%
24	Pixel 2 Virtual Color Wheel	000 ó 255	Refer to the Color Chart section for specific values

DMX Values (cont.)

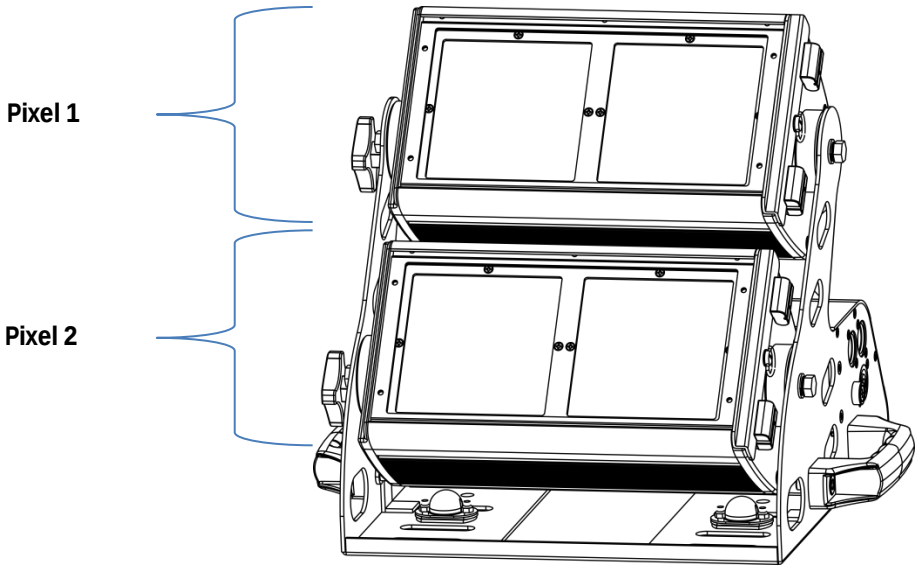
PIX1

Channel	Function	Value	Percent/Setting
1	Pixel 1 Red	000 ó 255	0–100%
2	Pixel 1 Green	000 ó 255	0–100%
3	Pixel 1 Blue	000 ó 255	0–100%
4	Pixel 1 Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values
5	Pixel 2 Red	000 ó 255	0–100%
6	Pixel 2 Green	000 ó 255	0–100%
7	Pixel 2 Blue	000 ó 255	0–100%
8	Pixel 2 Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values

PIX3

Channel	Function	Value	Percent/Setting
1	Pixel 1 Red	000 ó 255	0–100%
2	Pixel 1 Green	000 ó 255	0–100%
3	Pixel 1 Blue	000 ó 255	0–100%
4	Pixel 1 White	000 ó 255	0–100%
5	Pixel 1 Amber	000 ó 255	0–100%
6	Pixel 1 Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values
7	Pixel 2 Red	000 ó 255	0–100%
8	Pixel 2 Green	000 ó 255	0–100%
9	Pixel 2 Blue	000 ó 255	0–100%
10	Pixel 2 White	000 ó 255	0–100%
11	Pixel 2 Amber	000 ó 255	0–100%
12	Pixel 2 Virtual Color Wheel	000 ó 255	Refer to Color Chart section for specific values

OVATION™ C-640FC Sections for DMX Pixel Control



Virtual Color Wheel

The OVATION™ C-640FC includes a new feature called the Virtual Color Wheel (VCW). This feature is available as a stand-alone control mode for manual use and as a control channel in each of the product's DMX personalities. Over thirty pre-mixed colors based on popular gel colors from Rosco are available to call up for easier programming. When manually selecting the colors on the Virtual Color Wheel, the referenced gel number appears on the LED display for convenient selection and ease-of-use.

Color Chart

DMX Channel Value	Display Readout	Red Value	Green Value	Blue Value	White Value	Amber Value
000 ó 005		000	000	000	000	000
006 ó 013	**C90Y**	255	250	000	000	255
014 ó 021	**R11**	255	213	000	020	255
022 ó 028	**R312**	255	216	000	000	190
029 ó 035	**R03**	240	129	002	072	255
036 ó 043	**R18**	245	108	000	035	255
044 ó 051	**R20**	255	109	000	000	255
052 ó 059	**R21**	170	039	000	000	255
060 ó 067	**R26**	245	002	000	000	031
068 ó 075	**R27**	255	000	000	002	000
076 ó 083	**R33**	042	000	000	245	234
084 ó 091	**R337**	155	064	006	165	255
092 ó 099	**R38**	226	154	024	045	255
100 ó 107	**R41**	255	008	000	010	150
108 ó 115	**R42**	255	006	000	024	055
116 ó 121	**R44**	255	041	010	130	000
122 ó 130	**R349**	255	027	024	000	000
131 ó 138	**R54**	173	226	042	080	255
139 ó 146	**R64**	000	255	062	099	215
147 ó 154	**R364**	000	185	039	255	205
155 ó 162	**R65**	000	239	062	205	000
163 ó 170	**R80**	000	249	205	011	000
171 ó 178	**R81**	000	248	117	108	000
179 ó 186	**R82**	000	239	062	205	000
187 ó 194	**R382**	020	000	255	000	000
195 ó 202	**R83**	000	144	255	000	000
203 ó 210	**R383**	000	034	255	031	000
211 ó 218	**R91**	000	255	000	084	035
219 ó 226	**R92**	043	255	003	255	055
227 ó 234	**R93**	063	255	015	125	000
235 ó 242	**R393**	000	255	022	070	000
243 ó 250	**R90**	005	255	000	000	015
251 ó 255		000	000	000	000	000

The colors above are simulated renditions of the color output produced as compared to other similar incandescent products. CHAUVET® makes no guarantee of the color output accuracy.

DMX Personality

Set the DMX personality as follows.

1. Go to the **PERS** main level.
2. Select the desired personality (**TOUR**, **TR16**, **ARC.1**, **AR1.D**, **ARC.2**, **ARC.3**, **AR3.D**, **AR3.S**, **HSV**, **PIX1**, **PX16**, **PIX3**).

- **See the DMX Control section for the highest starting address you can select for each personality.**
- **Make sure that the starting addresses on the various products do not overlap due to the new personality setting.**

DMX Control

DMX Control allows you to assign each product to a unique starting address on the DMX controller. All products with the same starting address will respond in unison.

1. Select a DMX personality.
2. Set the running mode:
   - Go to the **RUN** main level.
   - Select **DMX**.

   Note: For information on the **SLAV** option, see Master/Slave Mode.
3. Set the starting address:
   - Go to the **ADDR** main level.
   - Select the starting address **D.001**–**D.512**.

The highest recommended starting address for each DMX mode is as follows:

DMX Mode	DMX Address	DMX Mode	DMX Address	DMX Mode	DMX Address
TOUR	501	**TR16**	495	**ARC.1**	509
AR1.D	508	**ARC.2**	508	**ARC.3**	507
AR3.D	506	**AR3.S**	505	**HSV**	510
PIX1	505	**PIX3**	501	**PX16**	489

Loss of Signal Setting

This setting controls how the product responds when the DMX signal is lost.

1. Go to the **SET** main level.
2. Select the **DERR** programming level.
   - Select **BLAK** to turn off the LEDs when the signal is lost.
   - Select **SAVE** to use the last command programmed when the signal is lost.

Dimming Profiles

Select the dimming profile of the OVATION™ C-640FC by selecting the **DIMX** programming level.

1. Go to the **SET** main level.
2. Select the **DIMX** programming level.
3. Select a dimming program **DIM1**–**DIM4** (fast to slow) or **OFF** (linear output).

Control Panel Lock

This setting enables you to activate or deactivate the control panel lock, which keeps non-authorized personnel from changing the product's settings.

1. Go to the **SET** main level.
2. To to the **KEY** programming level.
3. Select either **ON** (activate) or **OFF** (deactivate).

When the control panel lock is activated, after 30 seconds of control panel inactivity or after turning on the product, the product will prompt you to enter the passcode.

Passcode

After being prompted to enter the passcode:

· Press **<UP>**, **<DOWN>**, **<UP>**, **<DOWN>**, **<ENTER>**.

Note: Asterisks (*****) appear on the display when entering the passcode.

Passcode can not be changed.

Menu Access Lock

This setting enables you to activate or deactivate the menu access lock. Activating the menu access lock prevents non-authorized personnel from making any changes to the programming levels under the **SET** main level.

1. Go to the **SET** main level.
2. Go to the **SLCK** programming level.
3. Select either **ON** (activate) or **OFF** (deactivate).

When the menu access lock is activated, in order to access the SET programming levels, the product will prompt you to enter the passcode. Enter the passcode as described in Passcode.

Setting Color Balance

Color balance settings allow you to select the output as follows.

1. Go to the **SET** main level.
2. Go to the **COLR** programming level.
3. Select **OFF** (maximum output), **RGBW** (balanced white), or **UC** (universal color balance).

Strobe Options for TOUR and TR16

The strobe behavior displayed in the **TOUR** and **TR16** personalities is set to either classic or special. Classic strobe allows DMX control to select 1 to 20 Hz, while special strobe exhibits different strobe behaviors according to the DMX value selected (for details, see TOUR or TR16 DMX Values). To select the strobe option, follow the instructions below.

1. Go to the **SET** main level.
2. Go to the **STRB** programming level.
3. Select either **SPEC** (special) or **CLAS** (classic).

Color Macros and White Settings

These settings allow you to select and edit the temperature of the white colors used in the macros when in Channel 8 of the **TOUR** mode or Channel 14 of the **TR16** mode.

1. Go to the **CAL** main level.
2. Enter the passcode as described in Passcode.
3. Go to **CAL1**.
4. Select a white color (**WH.01**–**WH.11**).
5. Select a color **RED** (red), **GREN** (green), **BLUE** (blue), **WHIT** (white), or **AMBE** (amber).
6. Select a color value (***X*.000**–***X*.255**).
7. Repeat for the other colors.

White Calibration

This setting allows you to select the white color shown by the OVATION™ C-640FC when the color setting is **RGBW** and the DMX controller's red, green, and blue faders are set to **255**.

1. Go to the **CAL** main level.
2. Enter the passcode as described in Passcode.
3. Go to **CAL2**.
4. Select a color **RED** (red), **GREN** (green), or **BLUE** (blue).
5. Select a color value (***X*.000**–***X*.255**).
6. Repeat for the other colors.

When setting the white calibration (CAL2), you will only be able to define the red, green, and blue values.

Resetting the CAL Settings

To return the settings in **CAL1** and **CAL2** of the OVATION™ C-640FC to the factory defaults, follow the instructions below.

1. Go to the **CAL** main level.
2. Enter the passcode as described in Passcode.
3. Go to the **CALR** programming level and then the display becomes blank.
4. Enter the passcode as described in Passcode.

Configuration (Standalone)

Set the product in one of the standalone modes to control without a DMX controller.

- Connect the product to a suitable power outlet.

Never connect a product that is operating in any standalone mode (static, auto, or customizable programs) to a DMX string connected to a DMX controller. Products in standalone mode may transmit DMX signals that could interfere with the DMX signals from the controller.

Static Mode

To create a custom static color and select a strobe frequency, do the following:

1. Go to the **STAT** main level.
2. Go to the **RED** (red), **GREN** (green), **BLUE** (blue), **WHIT** (white), **AMBE** (amber), **STRB** (strobe frequency) programming levels.
3. Select the desired value for the programming levels as follows.
   - ***X*.000**–***X*.255** (0–100%) for each color
   - **S.000**–**S.020** (0–20 Hz) for strobe frequency

Auto and Customizable Programs

To enable the auto and customizable programs, follow the instructions below:

1. Go to the **AUTO** main level.
2. Select an auto program **AT.01**–**AT.10** or a customizable program **PR.01**–**PR.10**.
3. With the auto programs, also select the auto program speed **P.000**–**P.255**.

You cannot edit any of the auto programs (AT.01–AT.10); however, you can edit the custom programs (PR.01–PR.10). See Edit Custom Programs **for details.**

Selecting from the Virtual Color Wheel

The OVATION™ C-640FC offers over thirty pre-mixed colors based on Rosco gel colors. To select a Rosco gel color, do the following.

1. Go to the **VCW** main level.
2. Select the desired Rosco color (**C90Y**, **R11**, **R312**, **R03**, **R18**, **R20**, **R21**, **R26**, **R27**, **R33**, **R337**, **R38**, **R41**, **R42**, **R44**, **R349**, **R54**, **R64**, **R364**, **R65**, **R80**, **R81**, **R82**, **R382**, **R83**, **R383**, **R91**, **R92**, **R93**, **R393**,or **R90**).
   See the Color Chart section for details on specific values.

Edit Custom Programs

This setting allows the programming of up to 30 scenes for each of the 10 customizable programs, including colors and effects.

1. Go to the **EDIT** main level.
2. Select the desired custom program **PR.01**–**PR.10**.
3. Select the desired scene **SC.01**–**SC.30**.
4. Go to the **RED** (red), **GREN** (green), **BLUE** (blue), **WHIT** (white), **AMBE** (amber), **STRB** (strobe frequency), **TIME** (step duration), and **FADE** (fade duration) programming levels.
5. Select the desired value for the programming levels as follows.
   - ***X*.000**–***X*.255** (0–100%) for each color
   - **S.000**–**S.020** (0–20 Hz) for strobe frequency
   - **T.000**–**T.255** (slow to fast) to define the step duration
   - **F.000**–**F.255** (slow to fast) to define the fade duration
6. Repeat for the other colors or effects.
7. Return to the scene programming level (**SC.01**–**SC.30**).
8. Repeat the setting of colors and effects for the other scenes.

Do not disconnect the product from power before completing the editing process. Make sure to complete all steps when editing custom programs; otherwise, the OVATION™ C-640FC may lose any incomplete custom programming.

Reset

To reset the OVATION™ C-640FC to the factory default settings, follow the instructions below.

1. Go to the **SET** main level.
2. Select the **REST** programming level and then the display becomes blank.
3. Enter the passcode as described in Passcode. After successfully entering the passcode, **REST** blinks on the display during the reset process.
4. **OK** appears on the display when finished.

Master/Slave Mode

The Master/Slave mode allows a single OVATION™ C-640FC (the “master”) to control the actions of one or more OVATION™ C-640FC units (the “slaves”) without the need of a DMX controller. The master will be set to Master mode (**MAST**) and operate in a stand-alone mode, while the slaves will be set to operate in Slave mode (**SLAV**). Once set and connected, the slaves will operate in unison with the master.

Configure the units as indicated below.

The Slaves:

1. Go to the **RUN** main level.
2. Select **SLAV**.
3. Connect the DMX input of the first slave to the DMX output of the master.
4. Connect the DMX input of the subsequent slaves to the DMX output of the previous slave.
5. Finish setting and connecting all the slaves.

The Master:

1. Go to the **SET** main level.
2. Select the **MCON** programming level.
3. Select **MAST**.

   Note: If you select **SELF**, no DMX signals are sent to the slaves.
4. Set the master to operate in Static mode, an auto program or a customizable program.
5. Make the master the first product in the DMX daisy chain and the slaves will operate in unison with the master.

- **Do not connect a DMX controller to the products configured for slave operation. The DMX controller may interfere with signals from the master.**
- **Do not connect more than 31 slaves to the master.**

Program Upload

This option allows you to copy the custom programs of one OVATION™ C-640FC onto other OVATION™ C-640FCs by using the Master/Slave mode.

1. Configure and connect the products in a Master/Slave arrangement, where the master product has the custom programs you want to transfer to the slave products.
2. From the master product, go to the **SET** main level.
3. Go to the **UPLD** programming level and then the display becomes blank.
4. Enter the passcode as described in Passcode.
5. When **SEND** shows on the display, press **<ENTER>** to start the upload.
6. Wait for the upload process to finish. **END** will appear on the display when finished.

The Master/Slave products will provide the status of the process by lighting up as follows:

- **Yellow indicates that the upload process is running.**
- **Green indicates that the upload process completed successfully.**
- **Red indicates that the upload process failed due to an error. Recheck all cable connections and restart the process. If the issue persists, contact CHAUVET® Technical Support.**

DO NOT upload the data from an OVATION™ C-640FC to a different product. The other product may become inoperable.

5. Technical Information

Product Maintenance

Dust build-up reduces light output performance and can cause overheating. This can lead to reduction of the light source's life and mechanical wear. To maintain optimum performance and minimize wear, clean this product at least twice a month. However, usage and environmental conditions contribute to increased cleaning frequency.

To clean your product, follow the instructions below.

- Unplug the product from power.
- Wait until the product is at room temperature.
- Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external vents and components.
- Clean all external surfaces with a mild solution of non-ammonia glass cleaner or isopropyl alcohol.
- Apply the solution directly to a soft, lint-free cotton cloth or a lens cleaning tissue.
- Wipe any dirt or grime to the outside edges of the lens surface.
- Gently polish the lens surfaces until they are free of haze and lint.

Always dry the external surfaces thoroughly and carefully after cleaning them.

Do not spin the fan using compressed air because you could damage the product.

Technical Specifications

Dimensions and Weight

Length	Width	Height	Weight
15.3 in (390 mm)	12.2 in (310 mm)	11.7 in (298 mm)	22 lb (9.98 kg)

Note: Dimensions in inches rounded to the nearest decimal digit.

Power

Power Supply Type	Range	Voltage Selection
Switching (internal)	100 to 240 VAC, 50/60 Hz	Auto-ranging

Parameter	120 V, 60 Hz	230 V, 50 Hz
Consumption	175 W	173 W
Operating current	1.44 A	0.76 A
Power linking current (units)	13.6 A (9 units)	13.6 A (18 units)
Fuse	F 5 A, 250 V	F 5 A, 250 V

Power I/O	U.S./Worldwide	Europe
Power input connector	Neutrik® powerCON® A	Neutrik® powerCON® A
Power output connector	Neutrik® powerCON® B	Neutrik® powerCON® B
Power cord plug	Edison (U.S.)	Local plug

Light Source

Type	Power	Lifespan
LED	3 to 5 W	50,000 hours

Color	Quantity	Current
Red	16	850 mA
Green	16	850 mA
Blue	16	850 mA
White	8	850 mA
Amber	8	850 mA

Photo Optic

Parameter	
Illuminance @ 5 m	141 lx
Beam angle	35°
Field angle	65°

Thermal

Max. External Temperature	Cooling System
113 °F (45 °C)	Fan-Assisted Convection

DMX

I/O Connectors	Connector Type	Channel Range
3- and 5-pin XLR	Sockets	3, 4, 5, 6, 7, 8, 12 or 18

Ordering

Product Name	Item Code	UPC Number
OVATION™ C-640FC	01030723	781462210717

UL 1573
CSA C22.2 No. 166
E113093

Returns

You must send the product prepaid, in the original box, and with the original packing and accessories. CHAUVET® will not issue call tags.

Call CHAUVET® and request a Return Merchandise Authorization (RMA) number before shipping the product. Be prepared to provide the model number, serial number, and a brief description of the cause(s) for the return.

Clearly label the package with an RMA number. CHAUVET® will refuse any product returned without an RMA number.

DO NOT write the RMA number directly on the box. Instead, write it on a properly affixed label.

Once you have received the RMA number, include the following information on a piece of paper inside the box:

- Your name
- Your address
- Your phone number
- RMA number
- A brief description of the problem(s)

Be sure to pack the product properly. Any shipping damage resulting from inadequate packaging will be the customer's responsibility. FedEx packing or double-boxing is recommended.

CHAUVET® reserves the right to use its own discretion to repair or replace returned product(s).

Contact Us

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Outside the U.S., United Kingdom, Ireland, or Mexico, contact your dealer. Follow their instructions to request support or to return a product. Visit our website for contact details.