# ETC Installation Guide
ColorSource PAR v1.7

Overview

The ColorSource PAR is an affordable LED fixture that uses the RGB-L (red, green, blue, and lime) color system to provide a rich, bright light.

The ColorSource PAR is available in both original and Deep Blue variants. The Deep Blue uses an array that offers richer, more saturated blues and stronger magentas in exchange for the more jewel-toned blues like sky or turquoise. For more information, see the ETC website at etcconnect.com.

The ColorSource PAR is UL924 listed as a Directly Controlled Luminaire for use in emergency lighting systems when used with the ETC DMX Emergency Bypass Controller (DEBC).
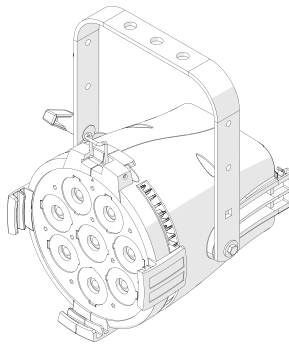
Note: *Features described in this document require the latest version of software. For information on updating fixture software, see Update the Fixture Software on page 11.*

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Safety

For professional use only. Read the entire manual before using this equipment.

WARNING:
- **Risk of eye injury. Do not stare directly into the light.**
- **Do not mount the fixture on or near a flammable surface.**
- **Disconnect the fixture from power and DMX and allow it to cool before installing accessories or performing any cleaning and maintenance.**

AVERTISSEMENT :
- **Risque de lésion oculaire. Ne fixez pas directement la lumière.**
- **Ne pas installer le projecteur sur ou à côté d'une surface inflammable.**
- **Débranchez le projecteur de son alimentation et du DMX et laissez-le refroidir avant d'installer des accessoires ou d'effectuer un nettoyage ou un entretien.**

WARNING: **The ColorSourcePAR is a Directly Controlled Luminaire suitable for use in emergency lighting applications in accordance with 2017 National Electrical Code section 700.24 when used with an ETC DMX Emergency Bypass Controller. Equipment intended for this purpose must be properly selected, installed, and maintained so that facility conformance can be obtained. Installation and servicing shall be performed by qualified service personnel.**

WARNING: **RISK OF ELECTRIC SHOCK! The light source in this luminaire is not user-replaceable, and must be replaced only by a qualified technician. Contact ETC Customer Support for assistance.**

AVERTISSEMENT : **RISQUE DE DÉCHARGE ÉLÉCTRIQUE! La source lumineuse de ce projecteur n'est pas remplaçable par l'utilisateur et ne doit être remplacée seulement par un technicien qualifié. Contactez le service client ETC pour obtenir de l'assistance.**
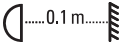
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IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- Do not use outdoors.
- Do not let power supply cords touch hot surfaces.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than intended use.

SAVE THESE INSTRUCTIONS

0.1 m	The luminaire must be installed at least 0.1 m (4.0 in) away from all lighted objects.	Le luminaire doit être installé à au moins 0,1 m (4,0 po) de tout objet éclairé.
	Do not mount the fixture on or near a flammable surface.	Ne pas installer le projecteur sur ou à côté d'une surface inflammable.
	Risk of electric shock	Risque de décharge électrique
	Do not stare at the operating light source.	Ne pas regarder la source de lumière lorsqu'elle fonctionne.
	This product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.	Ce produit ne doit pas être jeté avec les déchets ménagers mais doit être déposé dans une collecte de déchets électroniques ou dans un point de collecte.
	Protective earth (ground)	Protection Classe I Mise à la terre

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Environment

The ColorSource PAR operates in ambient temperatures of 0°C–40°C and comes with a variable-speed fan. The ColorSource PAR is for indoor use only.
- Maximum recommended ambient operating temperature: Ta = 40°C (104°F)
- Maximum anticipated external surface temperature at 40°C ambient: Tmax = 80°C (176°F)
- External temperatures after 5 minutes of full-brightness operation at 25°C (77°F) ambient: 30°C (86°F)
- External Temperature (steady state achieved) at 25°C (77°F): 41°C (106°F)

Electrical

- Operates between 100 V and 240 VAC at a frequency of 50/60 Hz.
- Maximum power consumption is 120 W.
- Up to 9 luminaires (15 A max) may be linked via power thru connector (10 luminaires total per circuit) when used with an R20 Relay Module or Unison Echo Relay Panel. Consult breaker trip curves when used with other equipment. Requires power from a non-dimmable source.
- Inrush:
  - 120 V: 35 A (first half-cycle)
  - 240 V: 49 A (first half-cycle)

Typical Power Consumption

	100 V		120 V		230 V	
	Power	Current	Power	Current	Power	Current
Idle	1.22 W	0.03 A	1.21 W	0.03 A	1.14 W	0.03 A
Direct at Full	107 W	1.07 A	106 W	0.88 A	104 W	0.46 A

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# Installation

Emergency Lighting Considerations

Luminaires that are used in emergency lighting applications must provide a minimum illumination level over the identified means of egress path in accordance with the Life Safety Code®, NFPA 101. A luminaire that is intended to serve this purpose must be mounted at a height where it will not readily be subjected to tampering by unauthorized personnel and where the minimum required illumination level over the egress path can be achieved. The ETC DMX Emergency Bypass Controller that is driving the luminaire upon loss of utility power must be programmed to drive the ColorSource PAR to full illumination.

Mounting

The ColorSource PAR ships with a standard yoke for mounting with a clamp. An expandable floor stand yoke is available as an optional accessory. Contact your local dealer for more information.

Safety Cable

A safety cable (or other approved safety device) must be attached to the fixture. Attachment loops are on the rear of the fixture. Take care to leave as little slack as possible in the safety cable to avoid catching the yoke of the fixture.

Safety cable attachment loop
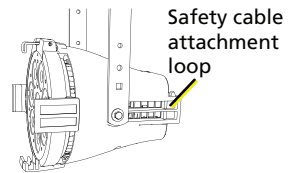
Connectors

- **Power:** Two powerCON® connectors for power in and thru
- **Data (DMX512/RDM):** Two five-pin XLR connectors OR two RJ45 connectors for data in and thru

Conversion cables are available from ETC. Please contact your ETC customer service representative and request part number W6538 for RJ45 to female XLR or part number W6539 for RJ45 to male XLR.

> **Note:** *This fixture is not Ethernet/data network compatible.*

> **Note:** *The ColorSource PAR is not self terminating. You must terminate the last fixture in line with a 120 Ohm resistor. To purchase a terminator, please contact ETC customer service and request part number N4086 (RJ45 terminator) or SGE1507 (XLR terminator).*

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Set Up the Fixture

1. Plug the power cord into the powerCON In connector on the rear of the fixture.
2. Make any power-thru cable connections prior to applying a power source.
3. Make any DMX connections, and if the fixture is the last in a DMX line, terminate the fixture. See *Connectors on the previous page*.
4. Plug the power cord into the power source.
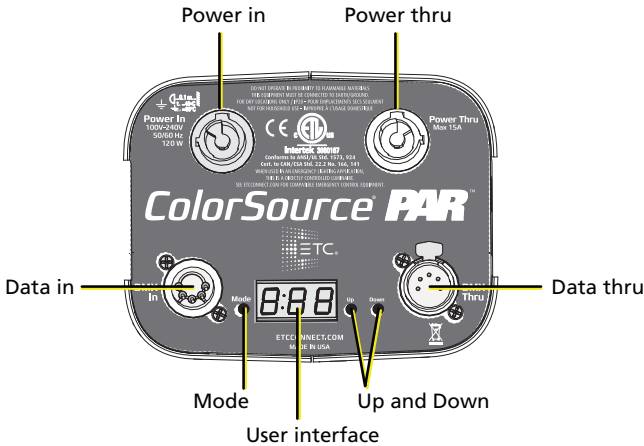
Power Up

Press any button to wake the display. The display shows the DMX address. See *Set the DMX Address on the facing page*.

You can press the **Mode** button to access the Presets/Sequences menu. See *Play Presets and Sequences on page 8*.

Adjust the Tilt

The fixture can be tilted up and down and rotated (panned) as needed.

1. Loosen, but do not remove the yoke locking knob.
2. Tilt the fixture to the desired angle.
3. Tighten the yoke locking knob.

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Set the DMX Address

1. Press any button to wake the display. The display shows the DMX address.
2. Use the **Up** and **Down** buttons to select the DMX address for the fixture.

You can also use RDM for DMX addressing. See .

Change the DMX Control Mode

You can set the DMX control mode for the fixture to one of four available mode options.

1. Press any button to wake the display. The display shows the DMX address.
2. Press and hold the **Mode** button for 3 seconds. The display shows the current DMX control mode.
3. Press the **Up** button or **Down** button to change the DMX control mode:
   - **5ch**: 5-channel mode (intensity, red, green, blue, and strobe). This is the default mode.
   - **dir**: Direct emitter control (intensity, red, green, blue, indigo, lime, and strobe).
   - **lch**: 1-channel mode controls the intensity of preset 1 (defaults to 3200 K White).
   - **rgb**: RGB mode (red, green, and blue).
4. Press the **Mode** button to confirm your selection.

The display will automatically return to the DMX address after 10 seconds of inactivity, and edits to the DMX control mode will not be saved. This cancels unsaved changes.

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DMX Control Channels

DMX Channel	5ch (5 channel)	dir (Direct)	1ch (1 Channel)	rgb (RGB)
1	Intensity	Intensity	Intensity	Red
2	Red	Red		Green
3	Green	Green		Blue
4	Blue	Blue/Indigo*		
5	Strobe**	Lime		
6		Strobe**		

*Original ColorSource PAR fixture uses blue in channel 4; Deep Blue fixture uses indigo in channel 4.

**Use DMX values of 0 or 255 for no strobe. Use values of 1–254 to increase the strobe rate from 1 per second up to 33 per second.

Data Loss Behavior

When DMX data is lost, the fixture does one of the following actions:
- If you selected a preset or sequence, that preset or sequence automatically plays.
- If no preset or sequence is active in the background, the fixture goes dark and the DMX start address flashes on the user interface.

Play Presets and Sequences

The fixture has twelve factory-configured presets and five factory-configured sequences. When you play a preset or sequence on a fixture:
- The same preset number or sequence number plays on any connected fixtures that are not receiving DMX.
- If you power down the fixture, the preset or sequence resumes when you power it on again.

You can re-record presets and sequences through an RDM device or manually on the fixture. See *Re-record Presets on the facing page*.

1. Press the **Mode** button to activate the Presets/Sequences menu. The last active preset or sequence plays automatically. (If DMX data is present, the current preset or sequence plays in the background and DMX data continues to take priority.)
2. Press the **Up** button or **Down** button as needed to scroll through the available presets and sequences.
3. To stop the selected preset or sequence, press the **Mode** button a second time. The display will revert to show the DMX start address.

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Pre-configured Presets

Preset	Name
1	3200 K White
2	5600 K White
3	Red
4	Green
5	Blue
6	Cyan

Preset	Name
7	Magenta
8	Yellow
9	Orange
10	Light Yellow
11	Light Blue
12	Light Pink

Pre-configured Sequences

Sequence	Name
1	Rainbow Fast
2	Rainbow Slow
3	Warm Colors Fast
4	Cool Colors Fast
5	Random

Re-record Presets

1. Using DMX, set the desired levels for the new preset.
2. Press the **Mode** button to access the Presets/Sequences menu.
3. Press the **Up** button or **Down** button to navigate to the preset number that you want to re-record.
4. Press and hold the **Mode** button for 3 seconds to confirm the preset selection. The user interface will show a 3-second countdown. The preset number blinks once to confirm that the preset has been recorded.

> ⓘ **Note:** *When the fixture is in Direct mode (d ır) or 1-channel mode (Ich), you cannot re-record presets.*
>
> *When you re-record presets with the fixture in RGB mode (r9b), the intensity is set to full and the strobe is turned off.*
> *See Change the DMX Control Mode on page 7.*

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Adjust the Intensity of Presets

1. Ensure that DMX data is not present.
2. Press the **Mode** button to access the Presets/Sequences menu, and then press the **Up** button or **Down** button to select the preset that you want to edit.
3. Press and hold the **Mode** button for 3 seconds. The display shows *L:* followed by either an intensity level from *0- 99* or *FL* for full.
4. Press the **Up** button or **Down** button to change the intensity level of the preset in real time.
5. Press the **Mode** button to confirm your selection and return to the Presets/Sequences menu.

The display will automatically return to the Presets/Sequences menu after 10 seconds of inactivity, and edits to the preset intensity will not be saved.

Lock the User Interface

After you have set up the fixture, you can lock the user interface to prevent additional changes.

1. Press and hold the **Up** button and **Down** button simultaneously for 3 seconds. The display will show *Loc* to indicate that the user interface is locked.
2. To unlock the user interface, press and hold the **Up** button and **Down** button simultaneously for 3 seconds.

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Update the Fixture Software

ETC recommends using UpdaterAtor software to manage software updates. For more information on UpdaterAtor, see the *UpdaterAtor Software Quick Guide*, which you can download for free from etcconnect.com.

When you add a ColorSource fixture running a newer software version or update a ColorSource fixture to a newer software version using UpdaterAtor, you can use that fixture to push the newer software version to all connected ColorSource fixtures, except for ColorSource Spot jr fixtures. ColorSource Spot jr fixtures can only update (and be updated by) other ColorSource Spot jr fixtures.

You can push newer software versions from a connected fixture only on ColorSource fixtures running software v1.3.0 or newer. Use UpdaterAtor to update individual fixtures running versions older than v1.3.0.

> **Note:** *If you have other types of fixtures in your DMX run, you do not need to disconnect them before pushing the updated fixture software. The update process will ignore any other fixture types in the DMX run.*

1. Remove power and DMX In from the fixture that is running the software version that you want to push to other fixtures.
2. Press and hold the **Up** button and **Down** button simultaneously while restoring power.
3. The display shows **Udt rdY** to indicate the update mode is selected.
4. Press the **Mode** button to start the update process.
   - The display alternates between **Udt** and the percentage complete while updating.
   - The display blinks once to indicate that the update is complete.
5. Reconnect DMX In on the fixture.

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Restore Factory Defaults

Press and hold the **Mode** button, **Up** button, and **Down** button simultaneously for 5 seconds. The DMX start address will blink once to confirm that defaults have been restored.

Error Codes

There are three error codes that may be shown on the user interface.

- CAL : Screen toggles between CAL and Err to indicate a problem with the color calibration. The fixture will need to be returned to the ETC factory; contact your local dealer to set up a repair.
- OtP: Screen toggles between OtP and Err to indicate that the fixture has gone into over-temperature protection mode to avoid damaging the fixture. Once the fixture has self-cooled, the error will automatically clear.
- no APP: Screen toggles between no and APP to indicate that the upgraded fixtures have a software issue. Reload software to clear the error. If the error persists, contact ETC.

RDM Values

Parameter	Fixture	Value	Description
Manufacturer ID	All	0x6574	Electronic Theatre Controls
Model ID	ColorSource PAR	0x0201	
	ColorSource PAR Deep Blue	0x0202	
DMX Start Address	All	0x00F0	Range = 1–512
DMX Personality	All	0x00E0	1 = 5 Channel 2 = Direct 3 = 1 Channel 4 = RGB
Output Frequency	All	0x8123	0 = Standard (1.2 kHz) 1 = High (25 kHz)