



# ColorBlast TRX

Advanced theatrical and rental LED wash fixture with intelligent RGBAW light

# ColorBlast TRX

## Advanced RGBAW LED wash light, optimized for theatrical and rental applications

ColorBlast TRX is a fully-featured RGBAW LED wash / flood / spotlight, offering a significantly enhanced color range, light output of up to 1577 lumens, and onboard addressing and configuration features for ease of use and control. Ideal for theatrical and rental distributors, exhibition houses, theaters, nightclubs, and other entertainment venues, rugged ColorBlast TRX fixtures are designed to withstand the rigors of demanding stage, set, and touring environments.

- Expanded color palette — Amber and neutral white LEDs seamlessly blend with red, green, and blue LEDs to produce a significantly expanded color palette, including intense yellows, high-quality whites, and a range of subtle pastel colors.
- Flexible color control — Color control modes include five-channel RGBAW in / out, three-channel RGB in / out, and three-channel RGB in mapped to five-channel RGBAW out. RGB modes offer consistent operation in installations with a mix of traditional LED fixtures.
- Full range of features — Accepts DMX input from the complete Philips line of controllers, as well as third-party controllers. Standalone mode offers a configurable pre-set Fixed Color effect. Adjustable dimming curves and LED transition speeds emulate the behavior of other Philips Color Kinetics fixtures and conventional theatrical fixtures.
- Superior color consistency and accuracy — Optibin, an advanced binning algorithm, sets a new standard for the color consistency and uniformity of LED sources used in manufacturing. Chromasync technology achieves unprecedented consistency of light performance and color precision across multiple fixtures in an installation, while maximizing intensity and color range.
- On-board controls — Touch-sensitive menus offer direct access to all on-board functions. Fixture self-test confirms proper fixture operation, while diagnostics display information such as serial number, operating temperature, and input voltage.
- Pivoting bezel and exchangeable lenses — The pivoting bezel and included 23° soft-focus and 10° clear tempered glass spread lenses let you switch quickly between soft-edge wash lighting and extended beam projection.
- Versatile mounting options — A pre-assembled mounting base easily accommodates truss clamps and other mounting and positioning options. Built-in 6 ft (1.8 m) power cables can be extended up to 175 ft (53.3 m) with standard color scroller or XLR patch cables.
- Accessories and additional spread lenses — City Theatrical Inc. offers a line of accessories, including top hats, half top hats, barndoors, egg crate louvers, and spread lenses. Locking accessory holder prevents accessories from falling out when fixture is hung upside down.



### Expanded Color Palette

Channels of amber and neutral white LEDs seamlessly blend with channels of red, green, and blue LEDs to produce a significantly expanded color palette. ColorBlast TRX adds intense yellows, high-quality whites, and a range of subtle pastel colors to the millions of saturated colors achievable with standard RGB lighting fixtures.

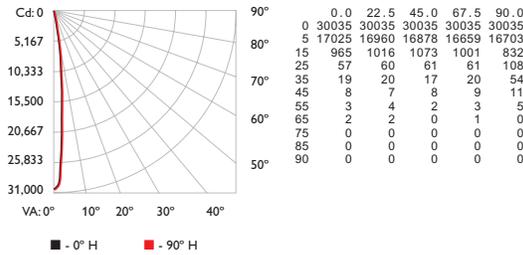
# Photometrics

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at [www.philipscolorkinetics.com/support/ies](http://www.philipscolorkinetics.com/support/ies).

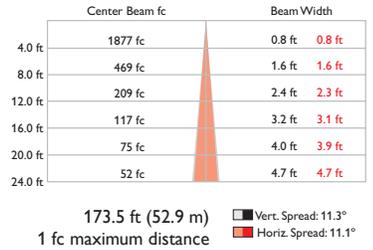
## ColorBlast TRX 10° beam angle

LED	Lumens	Efficacy
RGB	1577	27.0

### Polar Candela Distribution



### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	%Fixture
0- 30	1550	98.3
0- 40	1567	99.3
0- 60	1576	99.9
0- 90	1577	100.0
90-180	0	0.0
0-180	1577	100.0

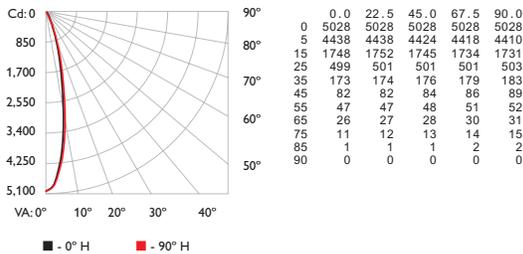
### Coefficients Of Utilization - Zonal Cavity Method

RC	Effective Floor Cavity Reflectance: 20%													
	80		70		50		30		10		0			
RM	70	50	30	10	70	50	30	10	50	30	10	0		
0	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	100		
1	116114113112	114112111110	108107107	105104103	101101100	99								
2	114111108107	112109107105	106105103	103102101	101100	99	98							
3	111108105103	110107104102	104102101	102100	99	100	99	98	97					
4	109105102100	108104102100	102100	99	101	99	98	99	98	97	96			
5	107103100	106102100	98	101	99	97	100	98	96	98	97	95		
6	106101	105101	98	96	100	97	96	99	97	95	97	96	94	
7	104100	103	99	97	95	98	96	94	98	96	94	97	95	94
8	103	99	96	94	102	98	96	94	97	95	93	96	94	93
9	102	97	95	93	101	97	94	93	96	94	92	95	93	92
10	101	96	94	92	100	96	93	92	95	93	91	94	93	91

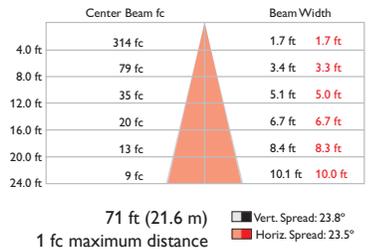
## ColorBlast TRX 23° beam angle

LED	Lumens	Efficacy
RGB	1372	23.5

### Polar Candela Distribution



### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	%Fixture
0- 30	1102	80.3
0- 40	1216	88.7
0- 60	1328	96.8
0- 90	1372	100.0
90-180	0	0.0
0-180	1372	100.0

### Coefficients Of Utilization - Zonal Cavity Method

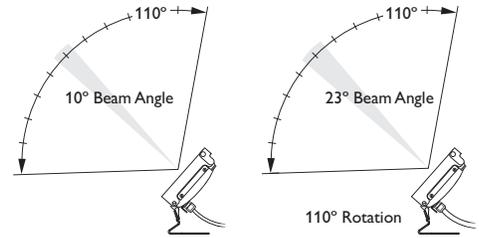
RC	Effective Floor Cavity Reflectance: 20%													
	80		70		50		30		10		0			
RM	70	50	30	10	70	50	30	10	50	30	10	0		
0	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	119119119119	100		
1	114111109107	111109107105	105103102	101100	99	98	97	96	94					
2	109104101	107103	99	96	99	97	94	97	94	92	94	92	89	
3	104	98	94	90	102	97	93	90	94	91	88	92	89	87
4	100	93	88	84	98	92	88	84	90	86	83	88	85	82
5	96	89	83	80	94	88	83	79	86	82	79	84	81	78
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74
7	89	81	76	72	88	80	75	72	79	75	72	78	74	71
8	86	78	73	69	85	77	72	69	76	72	69	75	71	68
9	83	75	70	66	82	74	70	66	73	69	66	73	69	66
10	80	72	67	64	79	72	67	64	71	67	64	70	66	63

For lux multiply fc by 10.7

# Specifications

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	10° Beam Angle	23° Beam Angle
Output	Beam Angle	10°	23°
	LED Channels	Red / Green / Blue / Amber / White	
	Lumens*	1577	1372
	Lumen Maintenance†	100,000 hours L50 @ 25° C 80,000 hours L50 @ 50° C	
Electrical	Input Voltage	24 VDC	
	Power Consumption	50 W maximum at full output, steady state	
Control	Interface	DMX via PDS-750 TRX or PDS-375 TRX. Fixture firmware addressable 8- or 16-bit control, RGBAW or RGB modes	
	Control System	Philips full range of controllers, including Light System Manager and iPlayer 3, or third-party controllers	
Physical	Dimensions (Height x Width x Depth)	8 x 14 x 3 in (203 x 356 x 76 mm)	
	Weight	7.25 lb (3.3 kg)	
	Housing	Die-cast aluminium, powder-coated black finish	
	Lens	Clear glass	Frosted glass
	Fixture Connections	6 ft (1.8 m) power / data cable with 4-pin XLR connector	
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage	
	Humidity	0 – 95%, non-condensing	
Certification and Safety	Maximum Cable Length	175 ft (53.3 m), with extension to built-in 6 ft (1.8 m) power cable	
	Certification	UL / cUL, FCC Class A, CE, PSE, CQC, C-Tick, SAA	
	Environment	Dry / Damp Location, IP22	



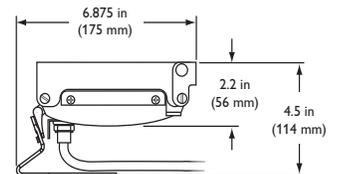
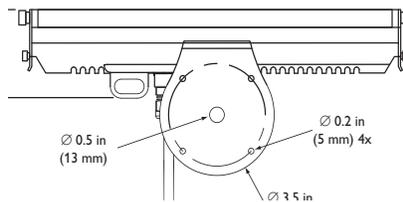
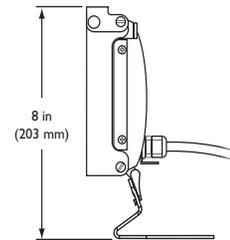
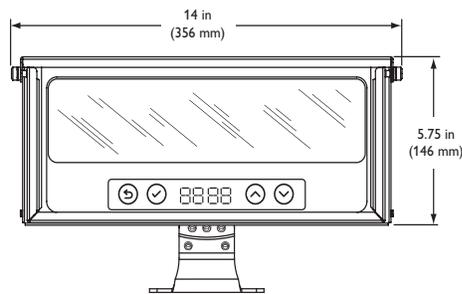
For details on the PDS-750 TRX and PDS-375 TRX power / data supplies, visit the City Theatrical Inc. website at [www.citytheatrical.com](http://www.citytheatrical.com).

\* Lumen measurement complies with IES LM-79-08 testing procedures



† L50 = 50% lumen maintenance (when light output drops below 50% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to [www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf](http://www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf) for more information.

CHROMACORE<sup>®</sup> | CHROMASYNC<sup>™</sup> | OPTIBIN<sup>®</sup>  
CKTECHNOLOGY | CKTECHNOLOGY | CKTECHNOLOGY



## Included in the box

ColorBlast TRX fixture with accessory holder and 6 ft (1.8 m) power cable

Frosted glass 23° lens

Clear glass 10° lens

(4) 6-32 stainless steel screws for lens bezel installation

3/32 in hex key wrench for fixture tilting and locking

Snap-on ferrite core for advanced EMI suppression

Installation Instructions

Replacement parts

Power / data supplies

## Fixtures, Power Supplies, and Controllers

ColorBlast TRX fixtures are part of a complete low-voltage system which includes one or more power / data supplies and any Philips DMX or third-party controller.

Item	Item Number	Philips 12NC
ColorBlast TRX	116-000029-00	910503701652
Replacement Accessory Holder	120-000110-00	910503701689
Replacement Tether Bracket	120-000111-00	910503701690
Replacement Cable Assembly	120-000112-00	910503701691
Replacement Hinge and Base	120-000113-00	910503701692
Replacement 10° Clear Lens with Gasket	120-000114-00	910503701693
Replacement 23° Frosted Lens with Gasket	120-000114-01	910503701694
Replacement Bezel with Two Adapter Plates	120-000115-00	910503701695
Replacement User Interface Module with Wire Harness	120-000116-00	910503701696
Replacement Optic Tray with Optics	120-000117-00	910503701697
Replacement Trim Piece Assembly	120-000118-00	910503701698
Replacement LED Board	120-000119-00	910503701699
Replacement Wire Harness for User Interface Module	120-000120-00	910503701701
PDS-750 TRX	109-000030-00	910503702319
PDS-375 TRX	109-000030-01	910503702284
XLR-to-RJ45 Adapter Cable	104-000005-00	910503700061

Use Item Number when ordering in North America.

## Accessories

Designed specifically for Blast fixtures, accessories provide additional options for controlling and dispersing light. Accessories slip into the accessory holder, which prevents accessories from falling out if the fixture is tipped or hung upside down.

City Theatrical Inc. offers a line of polycarbonate holographic lenses for ColorBlast TRX, with a range of symmetric and asymmetric beam angles. Visit [www.citytheatrical.com](http://www.citytheatrical.com) for details.



Item	Type	Item Number	Philips 12NC
Top Hats	Black	120-000005-04	910503702848
Half Top Hats	Black	120-000009-04	910503702844
Egg Crate Louvers	Black	120-000015-04	910503702852
Barndoors	Black	120-000019-04	910503702856
Horizontal Spread Lens*	36° (ribs out) / 50° (ribs in)	120-000025-00	910503703897
Horizontal / Vertical Spread Lens*	40° / 40°	120-000025-01	910503703898

\* Intended for use with Blast fixtures with 10° clear lens

Use Item Number when ordering in North America.

# Installation

ColorBlast TRX fixtures are designed for easy setup, configuration, and teardown. You can connect ColorBlast TRX fixtures directly to a power / data supply, such as the PDS-750 TRX, using the built-in 6 ft (1.8 m) power cable with standard XLR connector.

## Owner / User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate ColorBlast TRX fixtures in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

# Planning Your Installation

ColorBlast TRX is a highly flexible, capable LED lighting fixture with multiple points of control. Your approach to addressing, configuring, and mounting ColorBlast TRX fixtures will differ depending on your situation:

- In simple installations using pre-programmed light shows available through the power / data supply, a lighting board, or DMX controller, it may not be necessary to perform any onboard or per-fixture addressing and configuration. The PDS-750 TRX and PDS-375 TRX power / data supplies, designed by City Theatrical, Inc., specifically for ColorBlast fixtures, offer push-button configuration features that can automatically address all connected fixtures.
- In rental, touring, and other temporary installations, it's often advantageous to address and configure fixtures in a prep area before hanging or mounting them. Doing so requires you to power up the fixtures with a compatible power / data supply, configure the fixtures with the onboard controls, and install any spread lenses or other accessories. At the installation site, the fixtures must be hung or mounted and reconnected to power.
- In permanent installations, fixtures are likely to be installed in fixed locations and reconfigured for different purposes and events. In such situations, you can configure ColorBlast TRX fixtures in position using the onboard controls, or you can perform certain configurations over the lighting network using a personal computer and QuickPlay Pro addressing and configuration software.

Because it's the most common situation, the following sections describe the process for a rental or touring installation, where fixtures are addressed and configured in a prep area, then hung at the installation site.

# Create a Lighting Design Plan and Layout Grid

1. Determine the appropriate location of each power / data supply in relation to the light fixtures, and of the light fixtures in relation to each other.

ColorBlast TRX connects to the power / data supply over a built-in 6 ft (1.8 m) power cable with a standard 4-pin XLR male connector. The power cable can be extended with a standard XLR male to XLR female patch cable. The maximum run length per power / data supply port depends on the wire gauges of the patch cable:

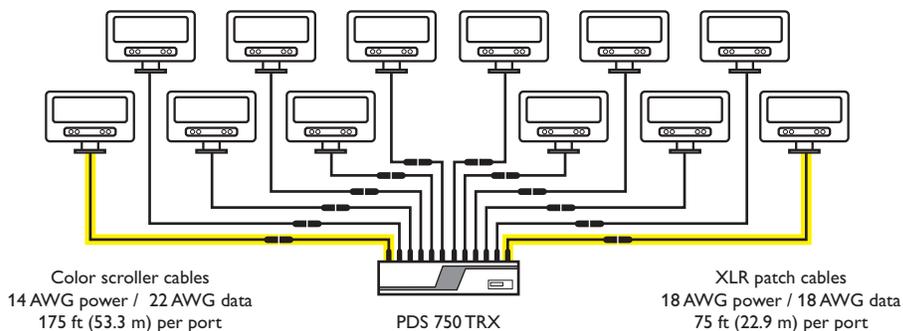
- Standard color scroller cables with two 14 AWG conductors for power and two 22 AWG conductors for data are highly recommended. With these cables, you can extend each fixture cable by up to an additional 175 ft (53.3 m).
- Cables with 18 AWG conductors may also be used to extend each fixture cable by up to an additional 75 ft (22.9 m).

✳ *The built-in power cable can be extended with a standard 4-pin XLR patch cable.*

✳ *Refer to the ColorBlast TRX Installation Instructions for specific warning and caution statements.*

✳ *For complete instructions on how to use the PDS-750 TRX and other compatible power / data supplies, refer to the Operator's Manual for the power / data supply.*

✳ *Some cable manufacturers offer cables with four 22 AWG conductors. These cables are not recommended, as they can extend fixture cables by a maximum of only 25 ft (7.6 m).*



The number of ColorBlast TRX fixtures that each power / data supply can support is determined by the such factors as the supply's capacity and number of available ports. The PDS-750 TRX, for example, offers power / data ports for connecting up to 12 ColorBlast TRX fixtures simultaneously.

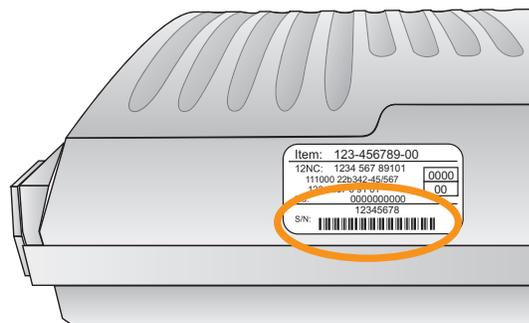
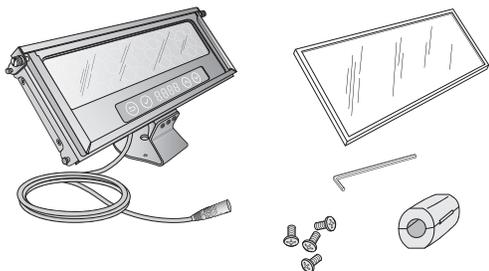
### Included in the box

- ColorBlast TRX fixture with accessory holder and 6 ft (1.8 m) power cable
- Frosted glass 23° lens
- Clear glass 10° lens
- (4) 6-32 stainless steel screws for lens bezel installation
- 3/32 in hex key wrench for fixture tilting and locking
- Snap-on ferrite core for advanced EMI suppression
- Installation Instructions

2. On an architectural diagram or other diagram that shows the physical layout of the installation, identify the locations of all switches, controllers, power / data supplies, fixtures, and cables.

## Unpack Fixtures

1. Carefully inspect the box containing ColorBlast TRX and the contents for any damage that may have occurred in transit.
2. Each ColorBlast TRX fixture comes pre-programmed with a unique serial number. As you unpack the fixtures, record the serial numbers in a layout grid (typically a spreadsheet or list) for easy reference and light addressing.



2. Assign each fixture to a position in the lighting design plan.
3. To streamline installation and aid in light show programming, you can affix a label identifying the order or placement in the installation to an inconspicuous location on each light fixture's housing.

# Address and Configure the Fixtures

Make sure the power is ON before addressing and configuring fixtures.

When in DMX mode, each ColorBlast TRX fixture uses a set of sequential DMX addresses. A ColorBlast TRX fixture uses 3, 5, 6, or 10 DMX channels depending on color control mode (3-channel or 5-channel DMX input) and fixture resolution (8-bit or 16-bit). In 8-bit mode, each LED channel uses one DMX address, while in 16-bit mode, each LED channel uses two DMX addresses, as follows:

*\* In 16-bit operation, two DMX channels are assigned to each LED channel, one for coarse control and one for fine control. The coarse channel allows values in multiples of 256, while the fine channel adds 256 additional values to each coarse channel value, resulting in a total of 65,536 individual steps or settings (256 x 256).*

RGB3 / RGB5 (3-channel RGB DMX input)						
8-Bit Mode	1		2		3	
	Red		Green		Blue	
16-Bit Mode	1	2	3	4	5	6
	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine

NORM (5-channel RGBAW DMX input)										
8-Bit Mode	1		2		3		4		5	
	Red		Green		Blue		Amber		White	
16-Bit Mode	1	2	3	4	5	6	7	8	9	10
	Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine	Amber Coarse	Amber Fine	White Coarse	White Fine

To address a ColorBlast TRX fixture, you set its DMX starting address. Sequential DMX addresses are automatically assigned to the fixture beginning with the starting DMX address. For instance, if you set a fixture to RGB3 mode, 8-bit operation, and starting DMX address 73, the fixture is automatically assigned three DMX addresses, 73 – 75. If you set a fixture to RGBAW (NORM) mode, 16-bit operation, and starting DMX address 400, the fixture is automatically assigned ten DMX addresses, 400 – 409.

*\* ColorBlast TRX fixtures come factory-addressed to starting DMX address 1.*

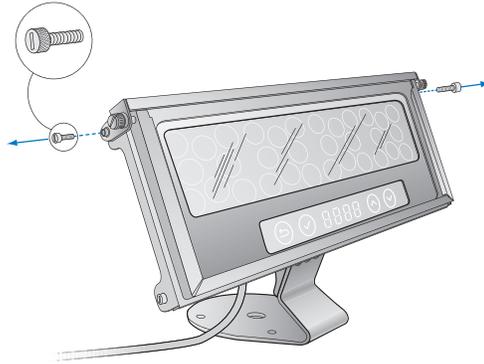
For lighting designs where fixtures work in unison, all fixtures can be assigned the same starting DMX address. For light show designs that show different colors on different fixtures simultaneously, you must assign starting DMX addresses to your fixtures such that the DMX addresses assigned to each fixture are unique and do not overlap.

- You can manually set the color control mode, fixture resolution, and starting DMX address of a ColorBlast TRX fixture using the onboard menus. Refer to “Using the ColorBlast TRX Onboard Menus” below for details.
- The PDS-750 TRX power / data supply from City Theatrical Inc. offers convenient, automatic addressing appropriate for many ColorBlast TRX installations. Using onboard controls, you can set a starting DMX address to automatically assign sequential DMX addresses to installed fixtures, or you can set starting DMX addresses individually per power port. If your fixtures were previously addressed for use in other installations, you can easily reset them using the power / data supply’s built-in controls. Refer to the PDS-750 TRX Operator’s Manual for details.
- You can connect a computer via SmartJack Pro to the DMX IN port on the PDS-750 TRX power / data supply, and address and configure your fixtures using QuickPlay Pro addressing and configuration software. For details, refer to “Addressing and Configuring ColorBlast TRX with QuickPlay Pro” below.

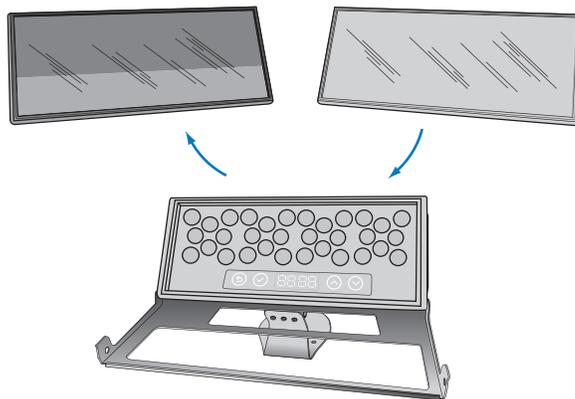
## Exchange ColorBlast TRX Lenses (Optional)

ColorBlast TRX is designed to let you quickly and easily exchange lenses. The clear 10° lens is designed for long throw and spotlighting applications, while the frosted 23° lens is designed for wash lighting applications. The 23° lens is factory installed, and the 10° lens is included in the box.

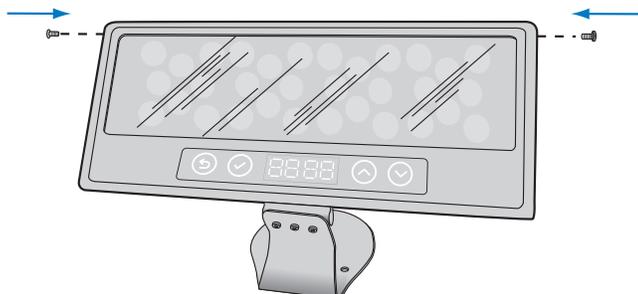
1. Using a flathead screwdriver, remove the two lockdown screws located on each side of the fixture at the top of the accessory holder. (Do not remove the screws on the edge of the accessory holder closest to the base.)



2. Grab the tabs at the top of the lens bezel and gently flex it apart until the tabs release from the fixture housing. Pivot the bezel and accessory holder forward to access the lens.



3. Remove the installed lens.
4. Clean both sides of the lens using a mild, non-abrasive cleaner. Handle the lens by the gasket, making sure not to touch or soil either surface. Place the lens in the fixture housing, making sure the gasket around the lens is properly fitted.
5. Pivot and press the lens bezel and accessory holder back in place, then replace and tighten the lockdown screws.

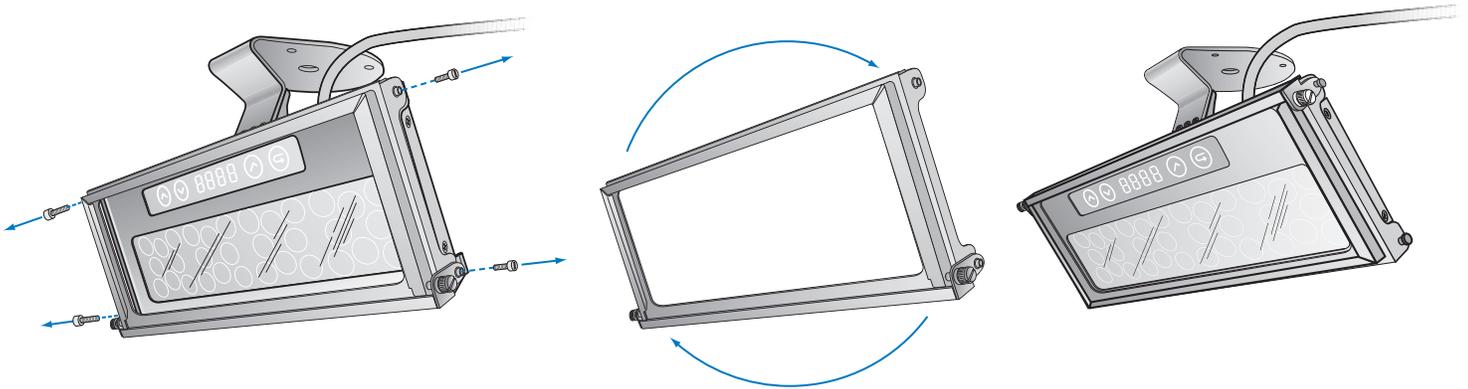


# Install Spread Lenses and Accessories

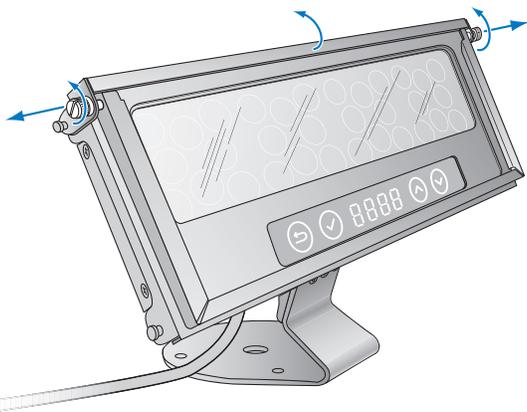
## (Optional)

Designed specifically for the family of Blast fixtures by City Theatrical, Inc., spread lenses and accessories provide additional options for controlling and dispersing light. Spread lenses and accessories slip into the accessory holder, which is designed to accommodate one spread lens and one accessory (barn door, top hat, half top hat, or egg crate louver) simultaneously. Captive thumbscrews hold spread lenses and accessories firmly in place, and prevent them from falling out if the fixture is tipped or hung upside down.

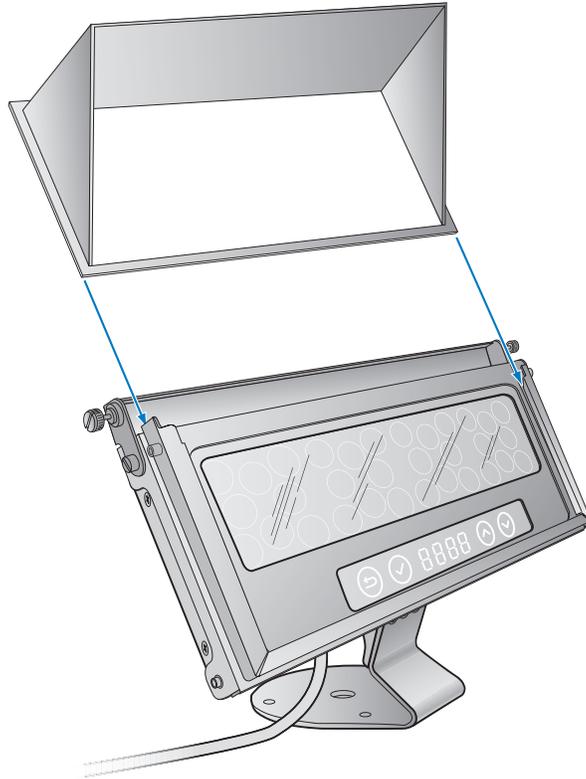
1. If hanging a ColorBlast TRX fixture upside down (clamped to a pipe, for example), flip the accessory holder as follows:
  - Using a flathead screwdriver, remove the lockdown screws from the four corners of the accessory holder.
  - Remove the accessory holder from the fixture housing, and reverse its orientation.
  - Re-install the accessory holder using the four lockdown screws.



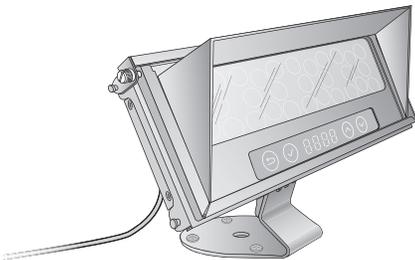
2. Loosen the two captive thumbscrews located on the upper edge of the accessory holder, and pivot the top of the accessory holder back to expose the slot.



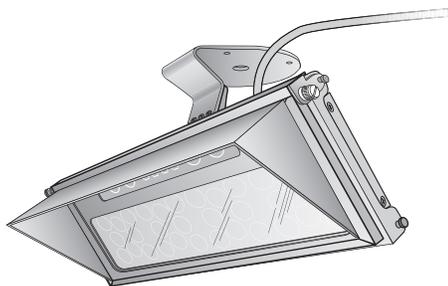
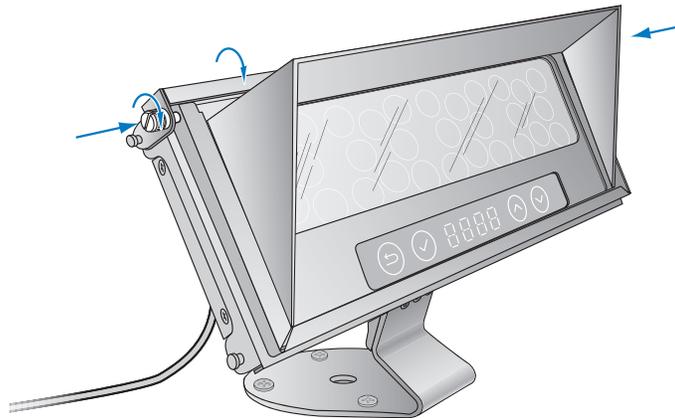
3. Slip the spread lens or accessory into the accessory holder slot.



4. Pivot the top of the accessory holder back in place, and tighten the captive thumbscrews.



**Fixture with accessories installed upright**

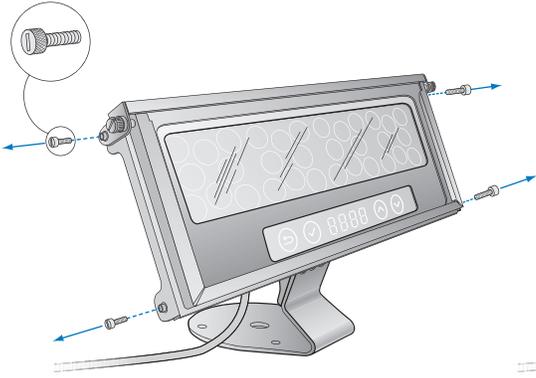


**Fixture with accessories hung upside down**

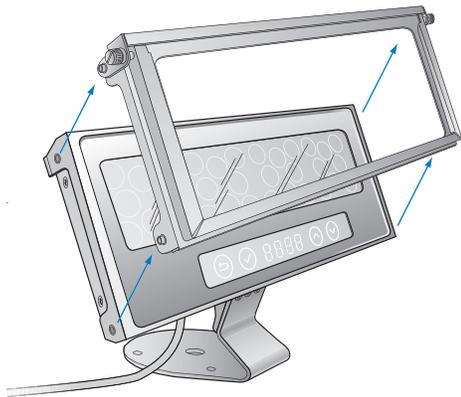
## Using ColorBlast TRX Without the Accessory Holder (Optional)

If you're not planning to use spread lenses or accessories, you can remove the accessory holder and secure the lens bezel to the fixture housing using the four included stainless steel screws,

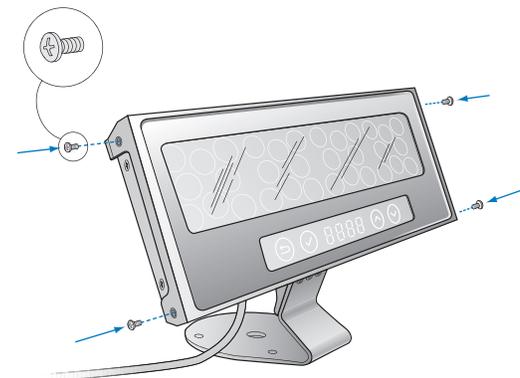
1. Using a flathead screwdriver, remove the lockdown screws from the four corners of the accessory holder.



2. Remove the accessory holder from the fixture housing.



3. Secure the lens bezel directly to the fixture housing using the four included 6-32 Phillips head stainless steel screws.



## Start the Installation

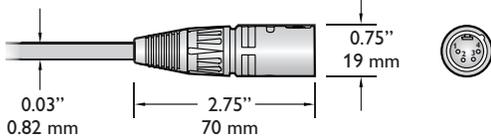
1. Install all power / data supplies, including any interfaces with controllers.
2. Verify that all additional supporting equipment (switches, controllers) is in place.
3. Ensure that all additional parts and tools are available, including:
  - The included 3/32 in hex key wrench for locking the fixtures in position
  - The included snap-on ferrite core for advanced EMI suppression, as needed
  - The included optional 6-32 stainless steel screws for installing the lens bezel without the accessory holder
  - XLR male to XLR female patch cables for extending fixture cables up to recommended lengths, as needed
  - C-clamps or bases for pipe, truss, or floor mounting, as needed

## Install the Fixtures

Make sure the power is OFF before mounting and connecting ColorBlast TRX fixtures.

1. The mounting base of each ColorBlast TRX fixture provides a clearance hole for a 1/2 in bolt for mounting to a pipe, truss, weighted base, or floor using a standard theatrical C-clamp or other mounting hardware. When mounting ColorBlast TRX, ensure that the installation is suitable and safe and that the hardware is properly rated for the task.
2. When mounting ColorBlast TRX fixtures on the floor or a base, ensure that the fixture sits flush to the surface and use mounting hardware suitable for the mounting surface.
3. Connect each ColorBlast TRX fixture to an available female 4-pin output on the power / data supply. ColorBlast TRX fixtures are provided with a permanently connected 6 ft (1.8 m) cable. The cable can be extended with a standard XLR male to XLR female patch cable, up to a maximum length of 175 ft (53.3 m) when using a standard color scroller cable.
4. For EMI suppression, snap the included ferrite core onto each fixture cable as close as possible to the power / data supply output port.

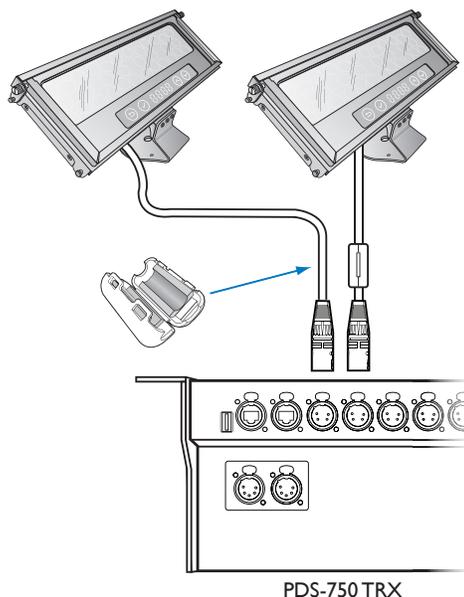
### Power Cable connector dimensions



### Power Cable pinouts

Pin	Signal	Wire Color
1	+24 VDC	Red
2	(not used)	
3	Data	White
4	DC Common	Black

✳ For complete instructions on how to wire the PDS-750 TRX, refer to the PDS-750 TRX Operator's Manual.

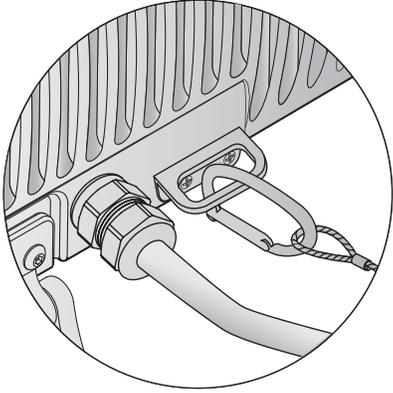


## Attach Safety Cable (Optional)

Each ColorBlast TRX fixture is designed for use with a safety cable to tether it to a secure anchor point. When dictated by local or state code or advised by a structural engineer, attach a safety cable to the bracket on the back of the fixture using a standard carabiner clip. Attach the safety cable to the mounting surface using a method that follows the code or engineer's requirements.

### Safety cable minimum requirements

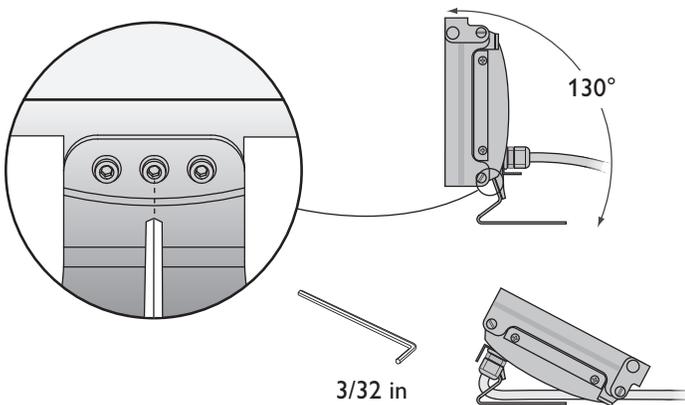
Material	316 Stainless Steel
Size	5/64 to 3/16 in (2 to 5 mm) nominal diameter. Minimum break load must be greater than 400 lbs (181 kg)
Construction	7 x 7 (49 wires) preformed stranded



## Aim and Lock the Fixtures

Using the included 3/32 in hex key wrench, loosen the tilting set screws located on the front of the fixture's mounting base. Aim the fixture by tilting the beam as desired. Optionally tighten the set screws to lock the fixture in place.

**\*** Do not look directly into the fixture when aiming and locking.



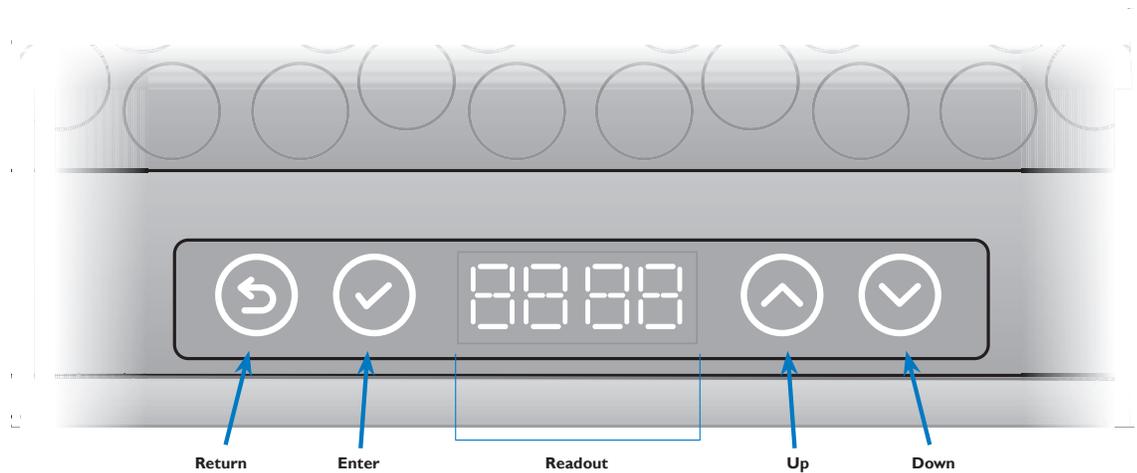
## Using the ColorBlast TRX Onboard Menu

ColorBlast TRX offers convenient onboard menus that give you fingertip control of all of the fixture's functions. You can put the fixture in standalone mode, set the fixture's starting DMX address, set the color control mode, fixture resolution, dimming curve, and LED transition speed. You can also display version and diagnostic information, such as current internal operating temperature and voltage consumption. For convenience, you can save and load profiles (groups of settings), or restore the factory default settings.

### Overview of the Onboard Menu

The ColorBlast TRX onboard menus appear in an LCD window below the LEDs on the face of the fixture. For unobstructed access to the menus, make sure that no accessories or spread lenses are installed. (You can access the menus with the clear or frosted lens installed.)

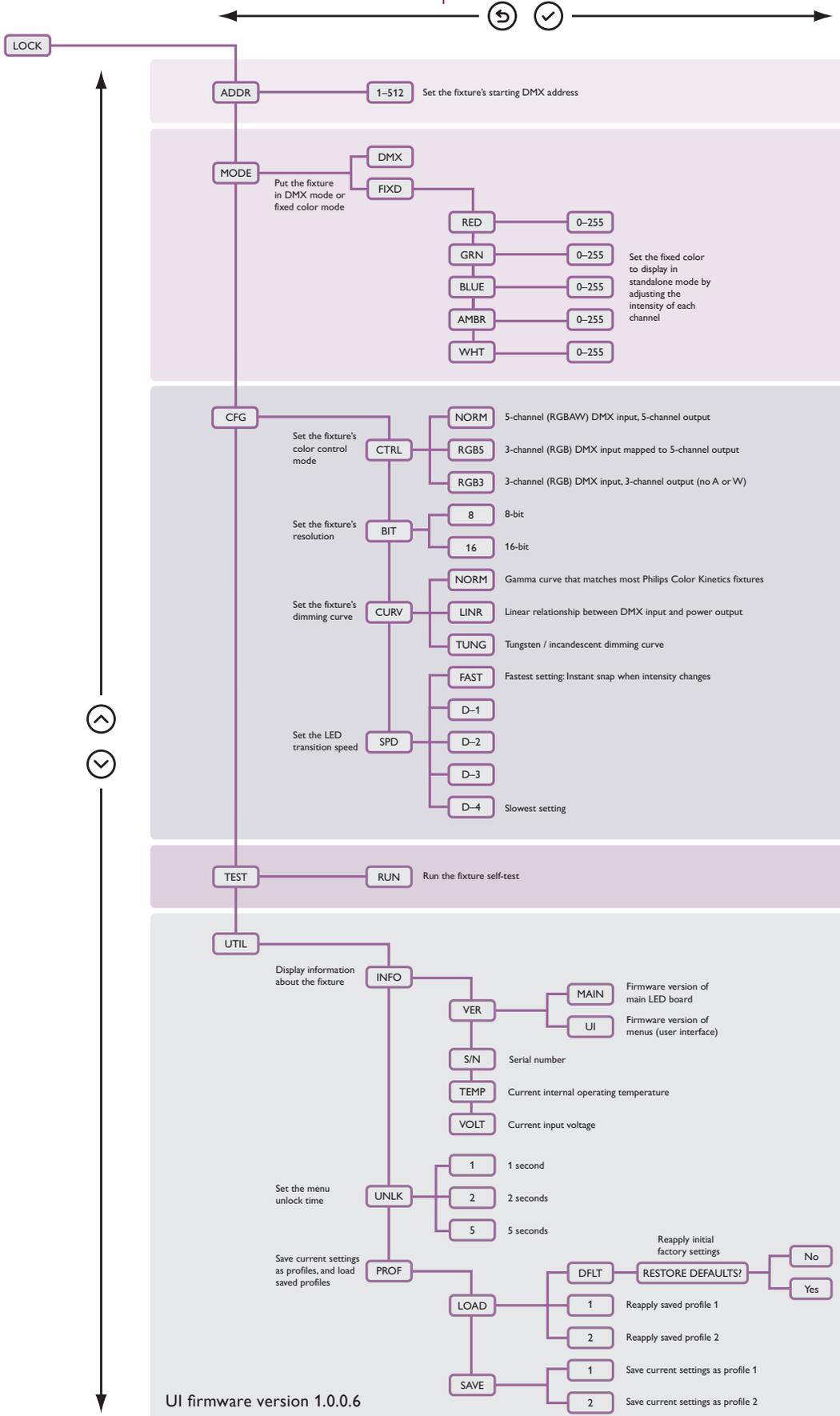
You can navigate the menus and make selections using four touch-sensitive buttons:



- Return returns to the previous menu (moves up one level in the menu tree)
- Enter advances to the next menu (moves down one level in the menu tree), or confirms your selection
- Up moves up in the current menu's set of options
- Down moves down in the current menu's set of options

The readout area displays menu option names, or fixture configuration or status information.

# ColorBlast TRX On-Board Menu Map



### Menu Button Behavior

- Return** Returns to the previous menu in the tree
- Enter** Advances to the next menu, or confirms selection
- Up** Moves up in the current menu's set of options
- Down** Moves down in the current menu's set of options

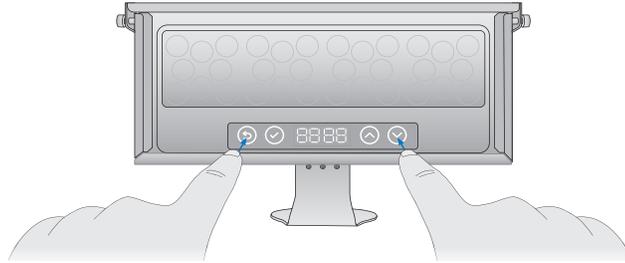
UI firmware version 1.0.0.6

## Locking and Unlocking Menus

For security, the ColorBlast TRX menu times out and locks after a short period of inactivity. When locked, the readout briefly displays LOCK when a button is touched, then displays the starting DMX address if in DMX mode, or FIXD if in standalone mode.

### ► To unlock the ColorBlast TRX menu:

- Press and hold the Return and Down buttons until the menu responds (displays ADDR or FIXD).



### ► To set the ColorBlast TRX menu unlock time:

1. Select UTIL > UNLK, then 1, 2, or 5, depending on how many seconds you want a user to hold Return and Down before the menu unlocks.
2. Press Enter to confirm your selection.

## Displaying and Setting Fixture Mode

ColorBlast TRX can work in either DMX mode or standalone mode. When in DMX mode, ColorBlast TRX responds to DMX data input from a controller or power / data supply. In standalone mode, ColorBlast TRX ignores any DMX data and displays a fixed color. You can set the fixed color by entering a brightness value (0 – 255) for each of the fixture's five channels (red, green, blue, amber, and white).

### ► To display the fixture's current mode:

- With the fixture locked, press any button.

If in standalone mode, LOCK briefly displays, followed by FIXD.

If in DMX mode, LOCK briefly displays, followed by the fixture's starting DMX address (1 – 512).

### ► To put a fixture in DMX mode:

1. Select MODE, then DMX.
2. Press Enter to confirm your selection.

### ► To put a fixture in standalone mode and set the fixed color to display:

1. Select MODE, then FIXD.
2. To set the fixed color to display, enter brightness settings for the red, green, blue, amber, and / or white channels.

For instance, to set the brightness for the green channel, select GRN, select a brightness level (0 – 255), then press Enter.

## Displaying and Setting the Starting DMX Address

By default, the starting DMX address of a ColorBlast TRX fixture is 1. You can manually set a fixture's starting DMX address using the onboard menus. You can also address ColorBlast TRX fixtures using the PDS-750 TRX power / data supply, or using QuickPlay Pro. (Refer to "Address and Configure the Fixtures" above for an overview of fixture addressing.)

ColorBlast TRX uses a set of consecutive DMX address, beginning with the starting DMX address. In RGBAW mode, ColorBlast TRX uses five or 10 consecutive channels. In RGB3 or RGB5 mode, it uses three or six consecutive channels. For proper operation, set the starting DMX address no higher than 503 for five-channel operation in 16-bit mode, no higher than 510 for three-channel operation in 8-bit mode, and so on.

### ► To display the starting address currently assigned to a fixture:

- With the fixture in DMX mode and the menus locked, press any button. LOCK briefly displays, followed by the starting DMX address (1 – 512).

If the fixture is in standalone mode, it retains the last starting DMX address assigned to it. To display the starting DMX address, select ADDR.

### ► To set a fixture's starting DMX address:

1. Select ADDR.
2. Select a starting DMX address (1– 512).
3. Press Enter to confirm your selection.

## Setting Color Control Mode

ColorBlast TRX offers three color control modes:

**RGBAW (NORM)** ColorBlast TRX accepts five channels of DMX data, and outputs to five channels of LEDs (red, green, blue, amber, and white)

**RGB3** ColorBlast TRX accepts three channels of DMX data (red, green, and blue), and outputs to three channels of LEDs (the amber and white channels are not used)

**RGB5** ColorBlast TRX accepts three channels of DMX data (red, green, and blue), and maps the input to five channels of LEDs (red, green, blue, amber, and white)

### ► To set a fixture's color control mode:

1. Select CFG > CTRL.
2. Select NORM, RGB5, or RGB3, then press Enter to confirm your selection.

## Setting Fixture Resolution

ColorBlast TRX can function in 8-bit or 16-bit mode. 16-bit mode affords finer control over brightness and color selection, but requires a 16-bit DMX controller.

### ► To set a fixture's resolution:

1. Select CFG > BIT.
2. Select 8 or 16, then press Enter to confirm your selection.

## Setting Fixture Dimming Curve

Dimming curves describe how slowly or quickly a fixture dims at different levels of input. For finer control, ColorBlast TRX offers three different dimming curves for use in different situations and applications:

**Normal (NORM)** The non-linear (gamma) dimming curve used in most Philips Color Kinetics LED lighting fixtures. Use this dimming curve to achieve consistent dimming behavior in an installation where ColorBlast TRX is installed alongside other Philips Color Kinetics lighting fixtures.

**Linear (LINR)** A dimming curve with a linear relationship between power input and DMX output.

**Tungsten / Incandescent (TUNG)** A non-linear dimming curve that emulates the dimming curve of incandescent lamps on a DMX dimmer. This curve offers the most control at low intensities.

### ► To set a fixture's dimming curve:

1. Select CFG > CURV.
2. Select NORM, LINR, or TUNG.
3. Press Enter to confirm your selection.

## Setting LED Transition Speed

Normally, LEDs react to DMX or other control data instantaneously. In some cases, you may want to slow down the reaction speed to achieve smoother transitions when the intensity of different LED channels changes. ColorBlast TRX offers five levels of decreasing LED transition speed, from FAST (instant snap changes) to D-4 (slowest transition speed).

### ► To set a fixture's LED transition speed:

1. Select CFG > SPD.
2. Select FAST, D-1, D-2, D-3, or D-4.
3. Press Enter to confirm your selection.

## Running Fixture Self-Test

ColorBlast TRX has a built-in self-test that lets you visually check that each LED channel is working properly. The self-test also tests the backlighting of each menu button and the readout area.

### ► To run the fixture self-test:

1. Select TEST.
2. Select RUN.

The test illuminates each menu button, each line segment in the readout area, then each LED channel in turn. The test then illuminates all LEDs simultaneously, then returns the fixture to its previous state.

## Displaying Fixture Information

The UTIL menu lets you display information about the fixture, including firmware versions, fixture serial number, current operating temperature, and current voltage consumption.

### ► To display fixture information:

1. Select UTIL > INFO.
2. Do one of the following:
  - To display the firmware version of the main LED board, select VER > MAIN.
  - To display the firmware version of the menus (user interface), select VER > UI.
  - To display the fixture's serial number, select S/N. The eight-digit serial number scrolls continuously across the four-character readout area until the menu times out.
  - To display the fixture's current internal operating temperature, select TEMP. The operating temperature, in degrees C followed by degrees F, scrolls across the readout area until the menu times out.
  - To display the fixture's current input voltage, select VOLT.

## Saving and Loading Profiles

You can save a fixture's current settings to one of two profiles, then load the saved profile to reapply the settings. Profiles can save you time if you often configure ColorBlast TRX fixtures in a similar manner for different applications, or if you often switch between the same two configurations. You can load the default profile at any time to restore the fixture's initial factory settings.

### ► To save the fixture's current settings to a profile:

1. Configure the fixture however you wish.
2. Select UTIL > PROF > SAVE.
3. Select 1 or 2.
4. Press Enter to confirm.

### ► To load a saved profile:

1. Select UTIL > PROF > LOAD.
2. Select 1 or 2.
3. Press Enter to confirm.

### ► To restore a fixture's initial factory settings:

1. Select UTIL > PROF > LOAD.
2. Select DFLT.
3. Select Restore Defaults?, then Yes?.
4. Press Enter to confirm.

# Addressing and Configuring ColorBlast TRX with QuickPlay Pro

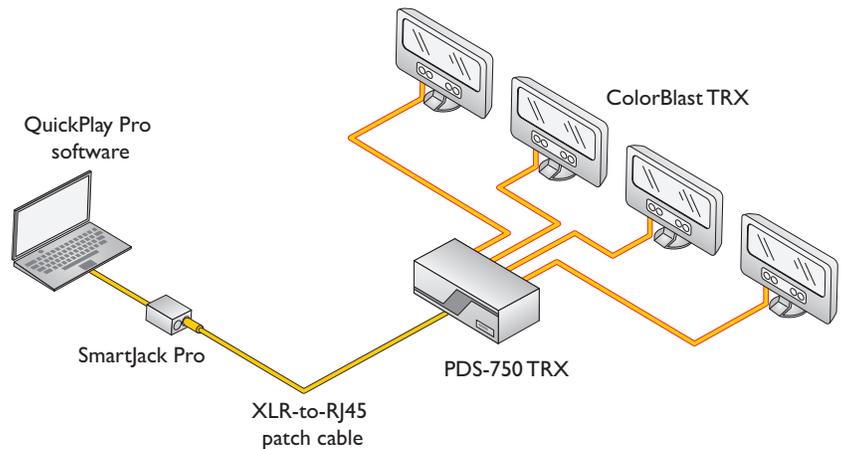
\* You can download QuickPlay Pro from [www.philipscolorkinetics.com/support/addressing](http://www.philipscolorkinetics.com/support/addressing).

You can address and configure ColorBlast TRX fixtures using SmartJack Pro and a computer running QuickPlay Pro addressing and configuration software.

1. Connect a computer and SmartJack Pro to your lighting network:

- Connect a computer to SmartJack Pro with a standard USB cable.
- If using a PDS-750 TR or PDS-750 TRX power / data supply, connect the DMX output port on SmartJack Pro to the DMX IN port on the power / data supply with a standard male-to-female XLR patch cable.
- If using a PDS-150e or PDS-60 24V power / data supply, connect the DMX output port on SmartJack Pro to the DMX IN port on the power / data supply with a male-XLR-to-RJ45 patch cable.

Alternatively, you can use an iPlayer 3 controller instead of SmartJack Pro to connect QuickPlay Pro to your lighting network. Connect a DMX output on iPlayer 3 to the DMX IN port on a PDS-750 TR or PDS-750 TRX with an RJ45-to-female-XLR patch cable, or to the DMX IN port on a PDS-150e or PDS-60 24V using a standard RJ45 patch cable.



2. Run QuickPlay Pro, and click Fixture Configuration.

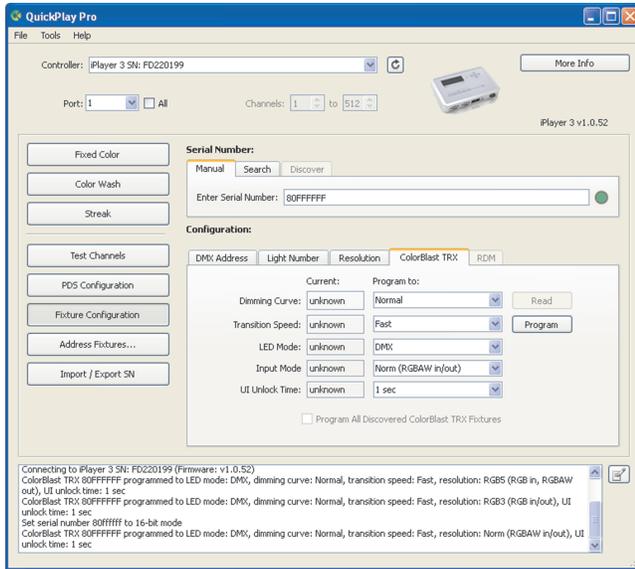
3. Enter the serial number of the fixture you want to configure in the Enter Serial Number text box, and press Enter. When QuickPlay Pro recognizes the fixture, a ColorBlast TRX tab appears in the Configuration area.

4. Do one or more of the following:

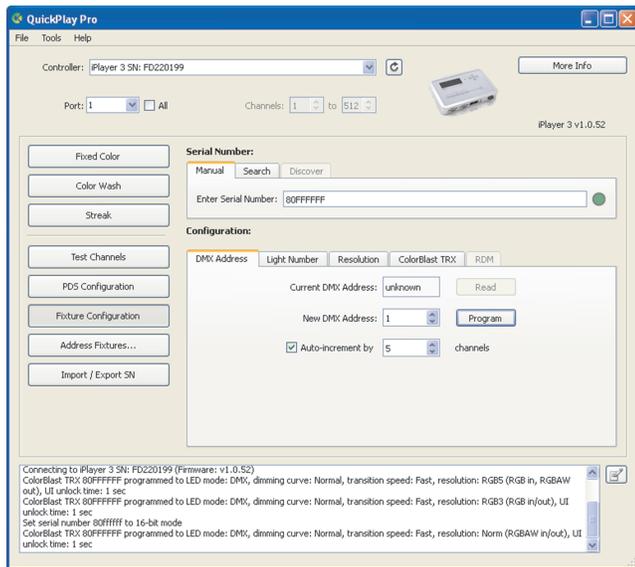
- To set the fixture's dimming curve, select Normal, Linear, or Tungsten from the Dimming Curve drop-down list, then click Program.
- To set the fixture's LED transition speed, select Fast, Delay-1, Delay-2, Delay-3, or Delay-4 from the LED Transition Speed drop-down list, then click Program.
- To set the fixture mode, select DMX or Fixed from the Fixture Mode drop-down list, then click Program.

\* Refer to "Using the Onboard ColorBlast TRX Menus" above for descriptions of each of these configuration options.

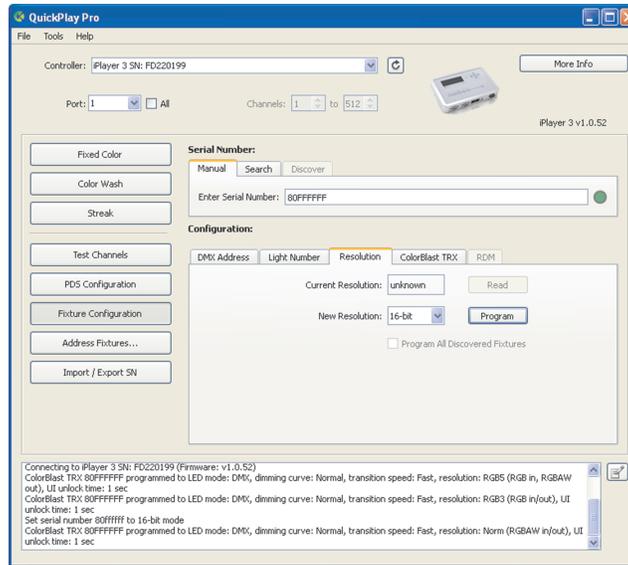
- To set the fixture's color control mode, select Normal (RGBAW in/out), RGB3 (RGB in/out), or RGB5 (RGB in, RGBAW out) from the Color Control Mode drop-down list, then click Program.
- To set the menu unlock time, select 1 sec, 2 sec, or 5 sec from the Menu Unlock Time drop-down list, then click Program.



4. To set the fixture's starting DMX address, click the DMX Address tab, enter a starting DMX address in the New DMX Address box, and click Program.



- To set the fixture's resolution, click the Resolution tab, select 8-bit or 16-bit from the New Resolution drop-down list, and click Program.



## Updating ColorBlast TRX Firmware

The ColorBlast TRX firmware image is periodically updated to improve system performance and functionality. To maximize system performance, make sure your ColorBlast TRX fixtures are running the most recent version of the firmware.

### Download ColorBlast TRX Firmware

If a more recent version of the ColorBlast TRX firmware is available, download the firmware file (.pck extension):

- Visit the Firmware Updates page at [www.philipscolorkinetics.com/support/downloads/firmware/](http://www.philipscolorkinetics.com/support/downloads/firmware/) to check for the latest firmware version.
- If a newer firmware image is available, click the link on the Firmware Updates page to download the firmware file to an accessible location on your computer.

### Download CK Firmware Updater

To update the firmware image on a ColorBlast TRX fixture, you must download and install the CK Firmware Updater application on your computer.

- Visit the Firmware Updates page at [www.philipscolorkinetics.com/support/downloads/firmware/](http://www.philipscolorkinetics.com/support/downloads/firmware/)
- Download the Firmware Updater Utility.
- Decompress the file to an accessible location on your computer and open it.
- Run the installer, and follow the on-screen instructions.

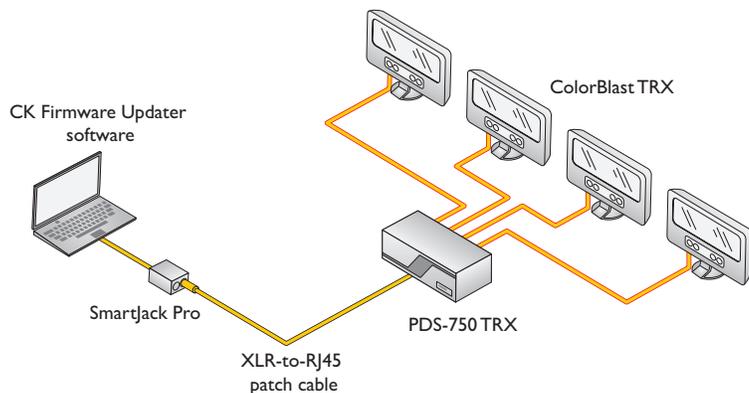
 You can check the version of the firmware installed on a ColorBlast TRX fixture using the UTIL > INFO > VER menu.

## Running a ColorBlast TRX Firmware Update

You can update ColorBlast TRX firmware using SmartJack Pro and a computer running CK Firmware Updater software.

1. Connect a computer and SmartJack Pro to your lighting network:
  - Connect a computer to SmartJack Pro with a standard USB cable.
  - If using a PDS-750 TR or PDS-750 TRX power / data supply, connect the DMX output port on SmartJack Pro to the DMX IN port on the power / data supply with a standard male-to-female XLR patch cable.
  - If using a PDS-150e or PDS-60 24V power / data supply, connect the DMX output port on SmartJack Pro to the DMX IN port on the power / data supply with a male-XLR-to-RJ45 patch cable.

✳ You can use an iPlayer 3 controller instead of SmartJack Pro to connect CK Firmware Updater to your lighting network. Connect the DMX 1 output port on iPlayer 3 to the DMX IN port on a PDS-750 TR or PDS-750 TRX with an RJ45-to-female-XLR patch cable, or to the DMX IN port on a PDS-150e or PDS-60 24V using a standard RJ45 patch cable.



2. Run CK Firmware Updater.
3. From the Interface Select drop-down list, select CKDMX Fixtures.
4. From Device Select drop-down list, select ColorBlast TRX.
5. Click File Select, navigate to the folder to which you downloaded the firmware file (.pck extension), and click Open.
6. Click Discover Enabler. CK Firmware Updater discovers the SmartJack Pro device.
7. Manually enter the serial number of a connected ColorBlast TRX fixture.
8. Click PROGRAM.
9. Repeat steps 7 and 8 for each ColorBlast TRX fixture you want to update.



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