



# -> blizzard

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# **1. GETTING STARTED**

## What's In The Box?

- 1 x ProPar<sup>™</sup> COB RGBAW LED Fixture
- An Ever-So-Handy Power Cord
- This Lovely User Manual

#### **Optional Accessories** (sold separately)

The following accessories are available for this fixture. But the lone wolves that they are, must be purchased separately. Contact an authorized Blizzard Lighting dealer for pricing!

• BARNDOOR-PROPAR COB: Barndoor attachment

#### Getting It Out Of The Box

Congratulations on your purchase of the way cool ProPar<sup>™</sup> COB RGBAW LED fixture! Now that you've got your ProPar<sup>™</sup> COB (or hopefully, COBs), you should carefully unpack the box and check the contents to ensure that all parts are present and in good condition. If anything looks as if it has been damaged in transit, notify the shipper immediately and keep the packing material for inspection. Again, please save the carton and all packing materials. If a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

#### Powering Up!

All fixtures must be powered directly off a switched circuit and **cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch**.

AC Voltage Switch - Not all fixtures have a voltage select switch, so please verify that the fixture you receive is suitable for your local power supply. See the label on the fixture or refer to the fixture's specifications chart for more information. A fixture's listed current rating is its average current draw under normal conditions. Check the fixture or device carefully to make sure that if a voltage selection switch exists that it is set to the correct line voltage you will use.

Warning! Verify that the voltage select switch on your unit matches the line voltage applied. Damage to your fixture may result if the line voltage applied does not match the voltage indicated on the voltage selector switch. All fixtures must be connected to circuits with a suitable Ground (Earthing).

#### Getting A Hold Of Us

If something is wrong, please just visit our website at www.blizzardpro.com/ support and open a support ticket. We'll be happy to help, honest.

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# **SAFETY INSTRUCTIONS**



Please read these instructions carefully. They include important information about the installation, usage and maintenance of this product.

• Please keep this User Guide for future use. If you sell the unit to someone else, be sure that they also receive this User Guide.

• ALWAYS make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.

- This product is intended for indoor use only.
- To prevent risk of fire or shock, do not expose fixture to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.

• The unit must be installed in a location with adequate ventilation, at least 20in (50cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.

• ALWAYS disconnect from the power source before servicing or replacing fuse and be sure to replace with same fuse size and type.

• ALWAYS secure fixture using a safety chain. NEVER carry the fixture by its head. Use its carrying handles.

• DO NOT operate at ambient temperatures higher than 104°F (40°C).

• In the event of a serious operating problem, stop using the unit immediately. NEVER try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.

- NEVER connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

**Caution!** There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please open a support ticket at www. blizzardpro.com/support.

# 2. MEET THE PROPAR<sup>™</sup> COB RGBAW

# MAIN FEATURES:

- Light source: 200W RGBAW COB LED, 100,000 hours
- RGBAW color mixing in standalone, master/slave and DMX modes
- Built-in auto programs via master/slave, standalone
- Built-in sound activate modes via master/slave, standalone
- Flicker Free, constant current LED driver (1.2KHZ dimming)
- Easy-to-use 4-button LCD digital control panel
- Wide 45° beam angle
- Heavy-duty composite housing
- Rear downrod mounting point connection
- Dual mounting yokes allow flexibility in positioning
- User selectable 2/3/5 or 10-channel DMX modes
- 5-pin DMX in/out connections
- Optional barndoor available (sold separately)

10-CH		5CH	
Channel	What It Does	Channel	What It Does
1	Dimmer	1	Red Intensity
2	Strobe	2	Green Intensity
3	Red Intensity	3	Blue Intensity
4	Green Intensity	4	White Intensity
5	Blue Intensity	5	Amber Intensity
6	White Intensity		
7	Amber Intensity		
8	Built-in Programs		
9	Dimming Curves		
10	Device Settings		

#### DMX Quick Reference (10/5-Channel Mode)

### DMX Quick Reference (3-Channel Mode)

3CH - 1		3CH - 2		
Channel	What It Does	Channel	What It Does	
1	Dimmer	1	Red Intensity	
2	Strobe	2	Green Intensity	
3	Color Macros	3	Blue Intensity	

## DMX Quick Reference (2-Channel Mode)

2CH			
Channel	What It Does		
1	Dimmer		
2	Color Macros		

# Figure 1: The ProPar<sup>™</sup> COB RGBAW Pin-Up Picture



# Figure 2: The Rear Connections



# 3. SETUP



# Fuse Replacement

Using a screwdriver, remove the fuse holder from its housing. Take out the damaged fuse out from its holder and replace with exact same type fuse. Insert the fuse holder back in its place and reconnect power.

# Connecting A Bunch of ProPar<sup>™</sup> COB RGBAW Fixtures

You will need a serial data link to run light shows using a DMX-512 controller or to run shows on two or more fixtures set to sync in master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Fixtures on a serial data link must be daisy chained in one single line. Also, connecting more than 32 fixtures on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal. The maximum recommended cable-run distance is 500 meters (1640 ft). The maximum recommended number of fixtures on a serial data link is 32 fixtures.

# Data/DMX Cabling

To link fixtures together you'll need data cables. You should use datagrade cables that can carry a high quality signal and are less prone to electromagnetic interference.

For instance, Belden© 9841 meets the specifications for EIA RS-485 applications. Standard microphone cables will "probably" be OK, but note that they cannot transmit DMX data as reliably over long distances. In any event, the cable should have the following characteristics:

2-conductor twisted pair plus a shield Maximum capacitance between conductors – 30 pF/ft. Maximum capacitance between conductor & shield – 55 pF/ft. Maximum resistance of 20 ohms / 1000 ft. Nominal impedance 100 – 140 ohms

## **Cable Connectors**

Cables must have a male XLR connector on one end and a female XLR connector on the other end. (Duh!)



A Word on Termination: DMX is a resilient communication protocol, however errors still occasionally occur. Termination reduces signal errors, and therefore best practices include use of a terminator in all circumstances. If you are experiencing problems with erratic fixture behavior, especially over long signal cable runs, a terminator may help improve performance.

To build your own DMX Terminator: Obtain a 120-ohm, 1/4-watt resistor, and wire it between pins 2 & 3 of the last fixture. They are also readily available from specialty retailers.



**CAUTION:** Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

## 3-Pin??? 5-Pin??? Huh?!?

If you use a controller with a 5-pin DMX output connector, it's no problem! Just use the installed 5-pin DMX input and/or output connections found on the back of your fixture(s).

Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data 1- (Primary Data Link)	Pin 2	Pin 2
Data 1+ (Primary Data Link)	Pin 3	Pin 3
Data 2- (Optional Secondary Data Link)	Pin 4	Pin 4
Data 2+ (Optional Secondary Data Link)	Pin 5	Pin 5

# Take It To The Next Level: Setting Up DMX Control

**Step 1:** Connect the male connector of the DMX cable to the female connector (output) on the controller.

**Step 2:** Connect the female connector of the DMX cable to the first fixture's male connector (input). *Note:* It doesn't matter which fixture address is the first one connected. We recommend connecting the fixtures in terms of their proximity to the controller, rather than connecting the lowest fixture number first, and so on.

**Step 3:** Connect other fixtures in the chain from output to input as above. Place a DMX terminator on the output of the final fixture to ensure best communication.



# Fixture Linking (Master/Slave Mode)

1. Connect the (male) 3/5-pin connector side of the DMX cable to the output (female) 3/5-pin connector of the first fixture.

2. Connect the end of the cable coming from the first fixture which will have a (female) 3/5-pin connector to the input connector of the next fixture consisting of a (male) 3/5-pin connector. Then, proceed to connect from the output as stated above to the input of the following fixture and so on.



A quick note: Often, the setup for Master-Slave and Standalone operation requires that the first fixture in the chain be initialized for this purpose via either settings in the control panel or DIP-switches. Secondarily, the fixtures that follow may also require a slave setting.

Check the "**Operating Adjustments**" section in this manual for complete instructions for this type of setup and configuration.

### Mounting & Rigging

This fixture may be mounted in any SAFE position provided there is enough room for ventilation.

It is important never to obstruct the fan or vents pathway. Mount the fixture using a suitable "C" or "O" type clamp. The clamp should be rated to hold at least 10x the fixture's weight to ensure structural stability. Do not mount to surfaces with unknown strength, and ensure properly "rated" rigging is used when mounting fixtures overhead.

Adjust the angle of the fixture by loosening both knobs and tilting the fixture. After finding the desired position, retighten both knobs.

• When selecting installation location, take into consideration lamp replacement access (if applicable) and routine maintenance.

• Safety cables MUST ALWAYS be used.

• Never mount in places where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.

# 4. OPERATING ADJUSTMENTS

# The Control Panel

All the goodies and different modes possible with the ProPar<sup>™</sup> COB RGBAW are accessed by using the control panel on the rear of the fixture. There are 4 control buttons below the LCD display which allow you to navigate through the various control panel menus.

# <MENU>

Is used to navigate to the previous higher-level menu item.

# <UP>

Scrolls through menu items and numbers in ascending order.

# <DOWN>

Scrolls through menu items and numbers in descending order.

# <ENTER>

Is used to select and confirm/store the current selection.



The control panel LCD display shows the menu items you select from the menu map on page #11. When a menu function is selected, the display will show immediately the first available option for the selected menu function. To select a menu item, press **<ENTER>**.

Use the **<UP/DOWN>** buttons to navigate the menu options. Press the **<ENTER>** button to select the menu function currently displayed, or to enable a menu option. To return to the previous option or menu, press the **<MENU>** button.

# **Control Panel Menu Structure**

Mode	Address	001-512	Choose the starting DMX address of 1-512
	DMX Mode	2Ch	To run in 2-channel mode
		3CH1	To run in 3-channel (1) mode
		3Ch2	To run in 3-channel (2) mode
		5Ch	To run in 5-channel mode
		10Ch	To run in 10-channel mode
	Static	Dimmer	Dimmer (0% <> 100%)
		Strobe	Flash / strobe speed (0-255)
		Red	Red intensity (0% <> 100%)
		Green	Green intensity (0% <> 100%)
		Blue	Blue intensity (0% <> 100%)
		White	White intensity (0% <> 100%)
		Amber	Amber intensity (0% <> 100%)
	Macro	01-15	Built-n color macros
	Jumping	Speed	Macro jump speed, slow to fast (000-255)
		Strobe	Strobe, 0-20Hz (000-255)
	Fading	Speed	Macro fade speed, slow to fast (000-255)
		Strobe	Strobe, 0-20Hz (000-255)
	Auto	<enter></enter>	Auto Mode
	Sound	Sens	Sound active mode + mic sensitivity adjustment (00-99)
	Slave	<enter></enter>	Slave mode
Settings	<b>js</b> Display	On	Menu display continually on
		Off	Menu display turns off after 30s of inactivity
	DMX Fail	Hold	Hold last command upon loss of DMX signal
		Blackout	Blackout upon loss of DMX signal
	Dimmer	Linear	The light intensity increases linearly with the DMX value.
	Curve	Exp	Adjustment of the light intensity is finer in the lower DMX value range, and coarser in the upper DMX value range.
		Log	Adjustment of the light intensity is coarser in the lower DMX value range, and finer in the upper DMX value range.
		S-Curve	Adjustment of the light intensity is finer in the lower and upper DMX value ranges, and coaster in the middle DMX value range.
	DimRespe	LED	Dimming responds abruptly to the changes in the DMX value.
	(dimmer response)	Halogen	Dimming behaves in a manner similar to that of a halogen lamp, with gentle changes in brightness.
	WhiteBal	Red	Cross-operating mode white balance setting: Red (0-255)
		Green	Cross-operating mode white balance setting: Green (0-255)
		Blue	Cross-operating mode white balance setting: Blue (0-255)
		White	Cross-operating mode white balance setting: White (0-255)
	FanSet	Regular	Normal fan operation
		Silent	Silent mode (automatic reduced brightness may occur)
	Test	On	Step-by-step function test of LEDs
		Off	Stops the function test
	Factory	On	Reset to factory settings
	Resel	Off	Do not perform factory reset
System	Firmware	<enter></enter>	Display the device software version
1110	Temp info	LED Temp	Display current LED board temperature
		Temp Unit	Display temperature in Fahrenheit or Celsius
	Time info	Power On	Displays the total operating time in hours
		Last Run Hrs	Displays the operating time since the last operation

#### DMX Mode

Allows the unit to be controlled by any universal DMX controller.

#### Set the Starting DMX Address:

- 1.) Navigate the main menu until you reach Mode, press <ENTER>.
- 2.) Use the <UP/DOWN> buttons to highlight Address, and press <ENTER>.
- 3.) Now use the **<UP/DOWN>** buttons to select a channel from **1-512**.
- 4.) Press the **<ENTER>** button to confirm.

#### Select the DMX Channel Mode:

- 1.) Navigate the main menu until you reach Mode, press <ENTER>.
- 2.) Use the <UP/DOWN> buttons to highlight DMX Mode, press <ENTER>.
- 3.) Now use the <**UP/DOWN>** buttons to highlight a channel mode.
- 4.) Press the **<ENTER>** button to confirm your selection.

#### Slave Mode:

- 1.) Navigate the main menu until you reach Mode, press <ENTER>.
- 2.) Use the <UP/DOWN> buttons to highlight Slave, press <ENTER>.

#### Auto, Sound Active, & Manual Adjustments

Allows a single or Master/Slaved units to run factory installed programs at user selectable speeds.

#### **Color Macros:**

- 1.) Navigate the main menu until you reach Mode, press <ENTER>.
- 2.) Use the <UP/DOWN> buttons to highlight Macro, press <ENTER>.
- 3.) Now use the **<UP/DOWN>** buttons to select a program from **1-15**.
- 4.) Press the **<ENTER>** button to confirm your selection.

5.) To run a color macro with either color jumping or color fade, navigate the menu to **Mode > Jumping** or **Mode > Fading**. From here, you can adjust the program speed (slow to fast), and add a strobe effect with adjustable 0-20Hz rate.

#### Auto Mode:

- 1.) Navigate the main menu until you reach Mode, press <ENTER>.
- 2.) Use the <UP/DOWN> buttons to highlight Auto, press <ENTER>.

#### Sound Active Mode:

- 1.) Navigate the main menu until you reach Mode, press <ENTER>.
- 2.) Use the <UP/DOWN> buttons to highlight Sound, press <ENTER>.
- 3.) Now adjust the mic sensitivity from **0-99**, then press **<ENTER>**.

#### Static Colors:

- 1.) Navigate the main menu until you reach Static, press <ENTER>.
- 2.) Use the **<UP/DOWN>** buttons to highlight your choice, press **<ENTER>**.
- 3.) Adjust the intensity level (or strobe speed) by selecting a value from 0-255.
- 4.) Press the **<ENTER>** button to confirm your selection.

#### System Settings

Adjust system settings, access system test function, and factory reset functions.

#### **Display Settings:**

- 1.) Navigate the main menu until you reach Settings, press <ENTER>.
- 2.) Use the <UP/DOWN> buttons to highlight Display, and press <ENTER>.
- 3.) Now use the  ${<}\textbf{UP/DOWN}{>}$  buttons to highlight On which keeps the menu display on
- continually, or **Off** which turns the menu display off after 30s of inactivity.
- 4.) Press the **<ENTER>** button to confirm your selection.

#### DMX Fail Settings:

1.) Navigate the main menu until you reach Settings, press <ENTER>.

Use the <UP/DOWN> buttons to highlight DMX Fail, and press <ENTER>.

3.) Now use the **<UP/DOWN>** buttons to highlight **Hold** which holds the last command upon loss of a DMX signal, or **Blackout** which turns the LEDs off upon the loss of a DMX signal.

4.) Press the **<ENTER>** button to confirm your selection.

#### **Dimming Mode Settings:**

Allows users to set the fixture to use 1 of 4 dimming curve settings for smoother (and slower) dimming capabilities.



1.) Navigate the main menu until you reach Settings, press <ENTER>.

2.) Use the <UP/DOWN> buttons to highlight Dimmer Curve, and press <ENTER>.

3.) Now you can use the <UP/DOWN> buttons to highlight Linear, Exp (exponential), Log

(logarithmic), or S-Curve.

4.) Press the **<ENTER>** button to confirm your selection.

#### Dimmer Response:

1.) Navigate the main menu until you reach Settings, press <ENTER>.

2.) Use the **<UP/DOWN>** buttons to highlight **DimRespe**, and press **<ENTER>**.

3.) Now use the **<UP/DOWN>** buttons to highlight **LED** which the dimming responds abruptly to DMX changes, or **Halogen** which is similar to that of a halogen lamp, with more gentle changes in brightness. Press **<ENTER>** to confirm your selection.

#### White Balance:

1.) Navigate the main menu until you reach Settings, press <ENTER>.

Use the <UP/DOWN> buttons to highlight WhiteBal, and press <ENTER>.

3.) Now use the **<UP/DOWN>** buttons to highlight **Red**, **Green**, **Blue**, or **White** and press **<ENTER>**. Now you can adjust each from 0-255, and press the **<ENTER>** button.

#### Fan Settings:

1.) Navigate the main menu until you reach Settings, press <ENTER>.

2.) Use the <UP/DOWN> buttons to highlight FanSet, and press <ENTER>.

3.) Now use the **<UP/DOWN>** buttons to highlight **Regular** for normal fan operation, or **Silent** which provides minimal noise level, but reduced LED brightness may automatically occur to prevent the fixture from overheating. Press **<ENTER>** to confirm your selection.

#### Test Mode:

1.) Navigate the main menu until you reach **Settings**, press **<ENTER>**. Then use the **<UP/DOWN>** buttons to highlight **Test**, and press **<ENTER>**.

3.) Now use the **<UP/DOWN>** buttons to highlight **On** which is a step-by-step function test of the LEDs, or **Off** to cancel the test. Press the **<ENTER>** button to confirm.

#### Factory Reset:

1.) Navigate the main menu until you reach **Settings**, press **<ENTER>**. Then use the **<UP/DOWN>** buttons to highlight **Factory Reset > On**, and press **<ENTER>**.

Channel	Value	What It Does
1	000 <> 255	Dimmer (0% <-> 100%)
2		Built-in Programs
	000 <> 005	No Function
	006 <> 009	2700K White
	010 <> 013	3200K White
	014 <> 017	4200K White
	018 <> 021	5600K White
	022 <> 025	6500K White
	026 <> 029	7500K White
	030 <> 033	9000K White
	034 <> 037	Red
	038 <> 041	Green
	042 <> 045	Blue
	046 <> 049	White
	050 <> 053	Amber
	054 <> 057	Yellow
	058 <> 061	Cyan
	062 <> 065	Lavender
	066 <> 069	Pink
	070 <> 073	Light Green
	074 <> 077	Magenta
	078 <> 081	Turquoise
	082 <> 085	Orange
	086 <> 089	Cool White
	090 <> 093	Warm White
	094 <> 163	Color Jump (slow <-> fast), Colors 1-12
	164 <> 233	Color Fade (slow <-> fast), Colors 1-12
	234 <> 255	Sound Active

# DMX Values In-Depth (2-Channel Mode)

# DMX Values In-Depth (3-Channel Mode, 3CH - 1)

Channel V	/alue	What It Does
1 0	000 <> 255	Dimmer (0% <-> 100%)
2 0 0 0 0 2	000 <> 005 006 <> 010 011 <> 250 251 <> 255	Strobe Open Close Strobe (slow <-> fast), 1-20Hz Open
3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000 <> 005   006 <> 009   016 <> 013   114 <> 013   114 <> 017   118 <> 021   122 <> 025   126 <> 029   130 <> 033   134 <-> 037   138 <> 041   142 <> 045   154 <> 053   154 <> 055   156 <> 065   166 <> 065   166 <> 063   174 <-> 077   178 <> 081   182 <> 083   190 <> 093   194 <> 233   344<<> 233	Built-in Programs No Function 2700K White 3200K White 4200K White 5600K White 5600K White 7500K White 9000K White 9000K White Red Green Blue White Amber Yellow Cyan Lavender Pink Light Green Magenta Turquoise Orange Cool White Warm White Color Jump (slow <-> fast), Colors 1-12 Color Fade (slow <-> fast), Colors 1-12 Sound Active

# DMX Values In-Depth (3-Channel Mode, 3CH - 2)

Channel	Value	What It Does
1	000 <> 255	Red Intensity (0% <-> 100%)
2	000 <> 255	Green Intensity (0% <-> 100%)
3	000 <> 255	Blue Intensity (0% <-> 100%)

## DMX Values In-Depth (5-Channel Mode)

Channel	Value	What It Does
1	000 <> 255	Red Intensity (0% <-> 100%)
2	000 <> 255	Green Intensity (0% <-> 100%)
3	000 <> 255	Blue Intensity (0% <-> 100%)
4	000 <> 255	White Intensity (0% <-> 100%)
5	000 <> 255	Amber Intensity (0% <-> 100%)

# DMX Values In-Depth (10-Channel Mode)

Channel	Value	What It Does
1	000 <> 255	Dimmer (0% <-> 100%)
2		Strobe
	000 <> 005	Open
	006 <> 010	Close
	011 <> 250	Strobe (slow <-> fast), 1-20Hz
	251 <> 255	Open
3	000 <> 255	Red Intensity (0% <-> 100%)
4	000 <> 255	Green Intensity (0% <-> 100%)
5	000 <> 255	Blue Intensity (0% <-> 100%)
6	000 <> 255	White Intensity (0% <-> 100%)
7	000 <> 255	Amber Intensity (0% <-> 100%)
8		Built-in Programs
	000 <> 005	No Function
	006 <> 009	2700K White
	010 <> 013	3200K White
	014 <> 01/	4200K White
	018 <> 021	SOUK White
	022 <> 025	7500K White
	020 <> 029	9000K White
	034 <> 037	Red
	038 <> 041	Green
	042 <> 045	Blue
	046 <> 049	White
	050 <> 053	Amber
	054 <> 057	Yellow
	058 <> 061	Cyan
	062 <> 065	Lavender
	066 <> 069	Pink
	0/0 <> 0/3	Light Green
	074 <> 0//	Magenta
	0/0 <> 001	Orange
	086 <> 089	
	090 <> 093	Warm White
	094 <> 163	Color Jump (slow <-> fast). Colors 1-12
	164 <> 233	Color Fade (slow <-> fast), Colors 1-12
	234 <> 255	Sound Active
9		Dimming Curves
	000 <> 005	No Function
	006 <> 063	Linear
	064 <> 127	Exponential
	128 <> 191	Logarithmic
10	197 <> 722	
10	000 <> 005	No Eurotion
	006 <> 003	Dimmer Response (LED) Hold for 3 seconds
	064 <> 127	Dimmer Response (Halogen) Hold for 5 seconds
	128 <> 191	Fan Regular Mode, Hold for 3 seconds
	192 <> 255	Fan Silent Mode, Hold for 5 seconds

# 5. APPENDIX

# A Quick Lesson On DMX

DMX (aka DMX-512) was created in 1986 by the United States Institute for Theatre Technology (USITT) as a standardized method for connecting lighting consoles to lighting dimmer modules. It was revised in 1990 and again in 2000 to allow more flexibility. The Entertainment Services and Technology Association (ESTA) has since assumed control over the DMX512 standard. It has also been approved and recognized for ANSI standard classification.

DMX covers (and is an abbreviation for) Digital MultipleXed signals. It is the most common communications standard used by lighting and related stage equipment.

DMX provides up to 512 control "channels" per data link. Each of these channels was originally intended to control lamp dimmer levels. You can think of it as 512 faders on a lighting console, connected to 512 light bulbs. Each slider's position is sent over the data link as an 8-bit number having a value between 0 and 255. The value 0 corresponds to the light bulb being completely off while 255 corresponds to the light bulb being fully on.

DMX data is transmitted at 250,000 bits per second using the RS-485 transmission standard over two wires. As with microphone cables, a grounded cable shield is used to prevent interference with other signals.

There are five pins on a DMX connector: a wire for ground (cable shield), two wires for "Primary" communication which goes from a DMX source to a DMX receiver, and two wires for a "Secondary" communication which goes from a DMX receiver back to a DMX source. Generally, the "Secondary" channel is not used so data flows only from sources to receivers. Hence, most of us are most familiar with DMX-512 as being employer over typical 3-pin "mic cables," although this does not conform to the defined standard.

DMX is connected using a daisy-chain configuration where the source connects to the input of the first device, the output of the first device connects to the input of the next device, and so on. The standard allows for up to 32 devices on a single DMX link.

Each receiving device typically has a means for setting the "starting channel number" that it will respond to. For example, if two 6-channel fixtures are used, the first fixture might be set to start at channel 1 so it would respond to DMX channels 1 through 6, and the next fixture would be set to start at channel 7 so it would respond to channels 7 through 12.

The greatest strength of the DMX communications protocol is that it is very simple and robust. It involves transmitting a reset condition (indicating the start of a new "packet"), a start code, and up to 512 bytes of data. Data packets are transmitted continuously. As soon as one packet is finished, another can begin with no delay if desired (usually another follows within 1 ms). If nothing is changing (i.e. no lamp levels change) the same data will be sent out over and over again. This is a great feature of DMX -- if for some reason the data is not interpreted the first time around, it will be re-sent shortly.

Not all 512 channels need to be output per packet, and in fact, it is very uncommon to find all 512 used. The fewer channels are used, the higher the "refresh" rate. It is possible to get DMX refreshes at around 1000 times per second if only 24 channels are being transmitted. If all 512 channels are being transmitted, the refresh rate is around 44 times per second.

In summary, since its design and evolution in the 1980's DMX has become the standard for lighting control. It is flexible, robust, and scalable, and its ability to control everything from dimmer packs to moving lights to foggers to lasers makes it an indispensable tool for any lighting designer or lighting performer.

## Keeping Your ProPar<sup>™</sup> COB RGBAW As Good As New

The fixture you've received is a rugged, tough piece of pro lighting equipment, and as long as you take care of it, it will take care of you. That said, like anything, you'll need to take care of it if you want it to operate as designed. You should absolutely keep the fixture clean, especially if you are using it in an environment with a lot of dust, fog, haze, wild animals, wild teenagers or spilled drinks.

Cleaning the optics routinely with a suitable glass cleaner will greatly improve the quality of light output. Keeping the fans free of dust and debris will keep the fixture running cool and prevent damage from overheating.

In transit, keep the fixtures in cases. You wouldn't throw a prized guitar, drumset, or other piece of expensive gear into a gear trailer without a case, and similarly, you shouldn't even think about doing it with your shiny new light fixtures.

Common sense and taking care of your fixtures will be the single biggest thing you can do to keep them running at peak performance and let you worry about designing a great light show, putting on a great concert, or maximizing your client's satisfaction and "wow factor." That's what it's all about, after all!

## Returns (Gasp!)

We've taken a lot of precautions to make sure you never even have to worry about sending a defective unit back, or sending a unit in for service. But, like any complex piece of equipment designed and built by humans, once in a while, something doesn't go as planned. If you find yourself with a fixture that isn't behaving like a good little fixture should, you'll need to obtain a Return Authorization (RA).

Don't worry, this is easy. Just go to our website and open a support ticket at www.blizzardpro.com/support, and we'll issue you an RA. Then, you'll need to send the unit to us using a trackable, pre-paid freight method. We suggest using USPS Priority or UPS. Make sure you carefully pack the fixture for transit, and whenever possible, use the original box & packing for shipping.

When returning your fixture for service, be sure to include the following:

- 1.) Your contact information (Name, Address, Phone Number, Email address).
- 2.) The RA# issued to you
  - 3.) A brief description of the problem/symptoms.

We will, at our discretion, repair or replace the fixture. Please remember that any shipping damage which occurs in transit to us is the customer's responsibility, so pack it well!

### **Shipping Issues**

Damage incurred in shipping is the responsibility of the shipper, and must be reported to the carrier immediately upon receipt of the items. Claims must be made within seven (7) days of receipt.

# **Tech Specs!**

Weight & Dimensions					
Width	11.4" (288 mm)				
Depth	10.7" (272 mm), 15.6" w/bracket (397 mm)				
Height	8.4" (221.9 mm)				
Weight	11.7 lbs. (5.3 kg)				
Power					
Operating Voltage	100V-240VAC, 50-60Hz				
Power Consumption	187W, 2.4A, PF: .67				
Light Source					
LED	1x 200W RGBAW 5-in-1 COB LED				
Optical					
Beam Angle	45 degree beam angle				
Thermal					
Max. Operating Temp.	104 degrees F (40 degrees C) ambient				
Control					
Protocol	USITT DMX-512				
DMX Channels	2/3/5 or 10-channel DMX modes				
Input/Output	5-pin XLR Male/Female				
Warranty	2-year limited warranty, does not cover malfunction caused by damage to LEDs.				

# **Photometric Data**



#### Luminous Intensity:

1-meter	2-meter	3-meter	4-meter	5-meter
12,178 lux	3,612 lux	1,607 lux	975 lux	609 lux
1131.3 fc	335.5 fc	149.3 fc	90.6 fc	56.6 fc

# **Dimensional Drawings**





DISCLAIMER:

The power connectors fitted to the fixture and fixture cord are designed for compatibility with products manufactured by Neutrik AG, Neutrik USA and their related entities, however they are not manufactured by, affiliated with or endorsed by Neutrik AG, Neutrik USA, or any related entity. Neutrik® and power-CON® are registered trademarks of Neutrik AG.



Enjoy your product! Our sincerest thanks for your purchase! --The team @ Blizzard Lighting