RAVEN

POE TWO-UNIVERSE ARTNET/SACN NODE

user manual


prepare
to
soar

safety

- Use only one method of powering the device at a time. Do not use PoE and USB-C simultaneously.
- Inspect all cables for damage prior to use.
- Not suitable for outdoor or moist conditions.
- No user serviceable parts. Do not open or disassemble.

overview

- Art-Net and sACN DMX over ethernet.
- Up to two universes of DMX/RDM output with extender.
- Configuration and DMX control via Bluetooth.
- Power via USB-C or PoE.
- DHCP or static IPv4 network configuration.
- Data failsafe mode including scene recording.
- HTP or LTP merging of two network sources.
- Supports unicast or multicast E1.31 packets.

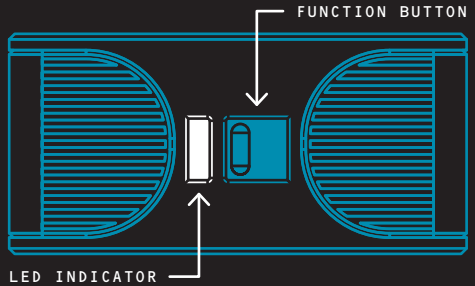

using
your
raven

CONNECTION MODES

The RAVEN has two operating modes: WIRED MODE and BLUETOOTH MODE. Pressing the FUNCTION BUTTON twice switches between the two connection modes.

In WIRED MODE the LED INDICATOR is GREEN and the device will attempt to connect to a wired network with the RJ45 port. See the NETWORK (pg.08) section for more information on configuring the wired connection.

In BLUETOOTH MODE the LED INDICATOR is BLUE and the device can be discovered by the At Full mobile app. Within At Full, go to Device Config, then click on the device to pair and configure over bluetooth.



GREEN (PULSING): Waiting for wired connection

GREEN (SOLID): Connected to wired network

BLUE (BLINKING): Waiting for wireless connection

BLUE (SOLID): Paired to wireless device

RED (SOLID): Factory reset pending

operation

POWER

The device can be powered through either the USB-C connector or RJ45 utilizing PoE. Do not use both power inputs at the same time.

USB-C	POWER OVER ETHERNET (POE)
Use a 5V DC power source capable of supplying at least 1A.	The device can be powered through Type 1 PoE (IEEE802.3af). The recommended operating input voltage is 42V – 57V DC during startup.

NETWORK PROTOCOL

The RAVEN supports Art-Net with optional sACN (E1.31) conversion. In the default mode the device listens to ArtDMX data packets.

In sACN mode the device listens to E1.31 data packets unicast to the device's IP address or the configured universe's multicast address. ArtDMX packets are ignored in this mode. Other Art-Net related functionality, such as RDM and device configuration, is available in either mode.

MULTI-UNIVERSE OPERATION

The RAVEN can send two universes of DMX data at a time through its shared 5-pin XLR connector. Port 1 of the device uses the traditional first three pins, while the second port uses pins 4 (data -) and 5 (data +). The included extender conveniently splits the device's single output port into two standard 5-pin XLR ports.

UNIVERSE ADDRESSING

Both configurable ports share the same net switch and sub-net switch values. The RAVEN will keep the most recent values configured for either port, so changing the net switch or sub-net switch for one port will change the 15-bit universe value for the other port.

If either port's 15-bit universe address is 0 when switching to sACN mode that port's universe will automatically be updated to 1.

NETWORK

The RAVEN uses DHCP by default. Disable DHCP to configure the device's static IP address, subnet mask, and gateway. If DHCP is disabled and a static IP address has not been configured the device will default to a 10.X.X.X address based on its MAC address as specified in the Art-Net 4 protocol. Similarly, the subnet mask and gateway address will default to the following values until they are configured for the first time:

DEFAULT NETWORK SETTINGS - DHCP DISABLED

Default Static IP Address: 10.X.X.X

Default Subnet Mask: 255.0.0.0

Default Gateway: 10.0.0.1

In BLUETOOTH MODE the device will report the currently configured static IP, subnet mask and gateway.

DMX TRANSMISSION STYLES

The RAVEN has two ways of transmitting DMX: CONTINUOUS or ON CHANGE.

CONTINUOUS: The last received network data will be sent as DMX at regular intervals.

ON CHANGE: DMX will only be sent from the XLR port when a network message is received and the data is different from the previously received message.

Using the CONTINUOUS transmission style is the default setting and generally recommended. ON CHANGE mode may result in unexpected behavior in network environments with very frequent or infrequent messages.

DATA FAILSAFE MODES

The RAVEN has four configurable failsafe modes. Each port individually enters failsafe mode after not receiving a signal from the network for a certain period of time. In Art-Net mode this is 10 seconds, while in sACN mode the timeout is 2.5 seconds. Note that failsafe mode DMX is only transmitted when the transmission style is CONTINUOUS.

HOLD: Maintains the last received network data

BLACKOUT: Sets all channels to 0

WHITEOUT: Sets all channels to 255

SCENE: Loads a recorded universe of DMX data

HOLD is the default failsafe mode.

RECORDING A SCENE

To save the current data as the recorded scene, use the Record Scene button in the Failsafe Mode configuration card in the At Full mobile app. Scenes can also be recorded from other Art-Net controllers with the ArtAddress AcFailRecord command. When recording a scene, the DMX data currently transmitted on each port is saved. If the failsafe mode is set to scene, all ports will transmit that DMX upon signal loss.

DMX MERGE

The RAVEN has two merge modes: HTP and LTP. HTP is the default merge mode.

HTP: Highest takes precedence. The highest value is accepted for each channel in the universe.

LTP: Latest takes precedence. The most recently received universe is transmitted.

Each port will merge up to two distinct network sources. Any further sources will be ignored. In sACN mode, E1.31 priority will determine the active source. The port will only merge E1.31 data if two sources are transmitting at maximum priority.


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SOFTWARE UPDATES

Updates may be periodically available for additional features or bug fixes. Check for new updates with the Update button of the Admin Tools card in the At Full mobile app. Make sure the network your mobile device is connected to has access to the internet when checking for updates. Updates can be performed over WIRED MODE or BLUETOOTH MODE, but a wired connection is recommended.

FACTORY RESET

Tap the FUNCTION BUTTON three times to enter reset mode. The LED INDICATOR will turn RED. Hold the FUNCTION BUTTON until the LED turns WHITE to factory reset the device. To leave reset mode, tap the FUNCTION BUTTON three times.

MOUNTING

The threaded insert on the top of the RAVEN accepts an M10, 1.5mm pitch bolt. Bolts should not exceed 20mm threaded length.

RETURNS

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 device that isn't behaving like a good little accessory 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.BLIZZARDLIGHTING.COM/TICKETS, 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.

RETURNS

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

1.) Your contact information (Name, address, phone number, email address).

2.) The RETURN AUTHORIZATION (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!

thanks!



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