NETRON EP4 Obsidian Control Systems Instruction Manual

NEUTRON is a comprehensive data distribution range of rugged, reliable, and easy to configure devices, offering affordable, smart solutions for the professional lighting and AV markets.

NEUTRON devices support applications from live production and venue installations to architectural environments. Our products are developed with the user in mind, combining tough hardware with smart software, for fast setup and solid performance.

- Simple and efficient configuration via the on-board web interface or device OLED display
- Instant Plug & Play through the interactive presets for recall of NEUTRON or user configurations
- Advanced Cue Engine for standalone or backup operation
- Remote Input Triggers for external control
- Device start and signal loss logic ensures your venue is never in the dark
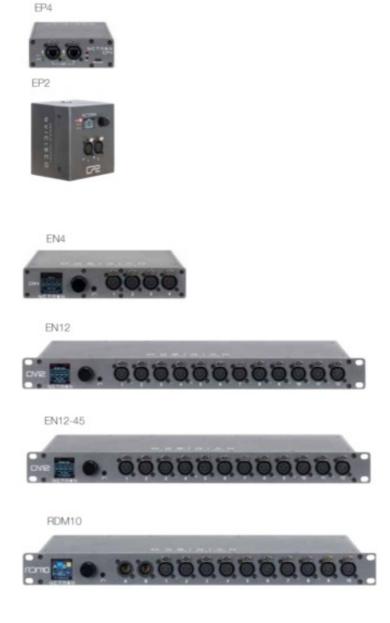
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NEUTRON is built solid for life on the road or the daily abuse in your venue.
The scratch-resistant powder coating is rated for hurricane-force winds and constant exposure to the elements. We chose this thermally fused finish for superior protection and to ensure that NEUTRON devices look their best across many years of service. Precision milled aluminum chassis gives NEUTRON devices incredible strength while being lightweight and extremely impact resistant.

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EN12

The NEUTRON EN12 is a powerful high-density Ethernet to DMX gateway with twelve RDM compatible ports. Easy to configure with a range of integrated presets plus a wide array of advanced merge and routing features, it is the ideal device for live production or installations requiring a lot of physical DMX ports. Contact closures allow for the recall of presets, routings, mergers, or any of the internal cues. EN12-45 version offers 12 Locking RJ45 DMX/RDM Optically Isolated Ports.

Key Features
¬ RDM, Art-Net, and sACN support
¬ Factory and user presets for plug and plays setups
¬ POE or Line Voltage powered
¬ 1.8" OLED Display with a rotary knob
¬ Customizable routing and merging options
¬ Remote configuration via internal webpage
¬ Contact closures for a cue or preset recall
¬ Powder-coated aluminum rack mount housing
¬ 99 Internal cues with fade and delay time*
¬ Unlocks ONYX NOVA 4 Universe License*

Connections

EN12 FRONT

- (12) 5pin DMX/RDM optically isolated ports

EN12-45 FRONT

- (12) RJ45 Locking DMX/RDM optically isolated ports
- Ports are bidirectional for DMX In and Output
- Full-color OLED display
- Encoder w. Push to Select / Exit Button BACK
- (2) Locking RJ45 Ethernet network In
- (10) Contact Closures (Terminal Block)
- Locking Power In/Thru

Physical

- Length: 482.5 mm (19 in.)
- Width: 146 (5.7mm)
- Height: 44 mm (1.7 in.)
- Weight: 1.82 kg (4 lbs)

Electrical

- 100-240 V nominal, 50/60 Hz
- POE 802.3af

EN4

The NEURON EN4 is a powerful Ethernet to DMX gateway with four RDM compatible ports. Easy to configure with a range of integrated presets plus a wide array of advanced merge and r outing features, it is the ideal device for live production or installations with flexible mounting options to cover any situation.

Key Features

¬ RDM, Art-Net, and sACN support
¬ Factory and user presets for plug and plays setups
¬ POE or Line Voltage powered
¬ 1.8" OLED Display with a rotary knob

¬ Customizable routing and merging options
¬ Remote configuration via an internal web page
¬ Powder-coated aluminum ½ rack housing
¬ 99 Internal cues with fade and delay time *
¬ Unlocks ONYX NOVA 4-Universe License*

Connections
FRONT

- (4) 5pin DMX/RDM optically isolated ports
- Ports are bidirectional for DMX In and Output
- Full-color OLED display
- Encoder w. Push to Select / Exit Button

BACK

- Locking Power In/Thru
- (2) Locking RJ45 Ethernet network connections (1x POE)

Mounting

- Standalone
- Truss-mount (M10 or M12 mounting hole)
- Wall-mount horizontal or vertical (included)
- DIN Rail horizontal or vertical (included)
- Rack-mount option (requires NET Shelf) (See page 13)

Physical

- Length: 215 mm (8.5 in.)
- Width: 139 mm (5.5 in.)
- Height: 42 mm (1.65 in.)
- Weight: 1 kg (2.2 lbs)

Electrical

- 100-240 V nominal, 50/60 Hz, 10W
- POE 802.3af

EP2

The Netron EP2 is a compact Ethernet to DMX gateway with two RDM compatible ports designed for wall mount, truss mount, and standalone installations.
It is configurable via the integrated OLED display and encoder, or the internal web remote. EP2 is powered over Ethernet or via a convenient USB-C connection.

Key Features

¬ RDM, Art-Net, and sACN support
¬ Factory and user presets for plug and plays setups
¬ POE or USB-C powered
¬ 1.3" OLED Display with a rotary knob
¬ Remote configuration via internal webpage
¬ Powder-coated compact metal housing
¬ In-Wall, On-Wall, Truss, and Standalone mounting
¬ Unlocks ONYX NOVA 4-Universe License*

Connections
FRONT

- (2) 5pin DMX/RDM optically isolated ports
- Ports are bidirectional for DMX In and Output SIDE
- (1) Locking RJ45 Ethernet network connections (POE)
- USB-C power option (5V, 2A)

Mounting

- Standalone (back box included)
- Truss-mount (M10 + M12 mounting hole)
- In or On-wall 2-Gang (US) or 50mm round (EU)

  (See page 13)

Physical
Length: 4.6 in. (117.6mm)
Width: 4.5 in. (114.0mm)

Height: 3.5 in. (89.1mm)
Weight: 1.76lbs. (0.8kg)

Electrical

- USB-C 5V
- POE 802.3af

EP4
The NEUTRON EP4 is a powerful Ethernet to DMX gateway with four RDM compatible ports. Easy to configure with a range of integrated presets plus a wide array of advanced merge and routing features, it is the ideal device for live production or installations with flexible mounting options to cover any situation.

Key Features
¬ RDM, Art-Net, and sACN support
¬ Factory and user presets for plug and plays setups
¬ POE or USB-C powered
¬ Remote configuration via internal webpage
¬ Powder-coated aluminum housing
¬ 99 Internal cues with fade and delay time*
¬ Unlocks ONYX NOVA 4 Universe License*

Connections
FRONT. (4) 5pin DMX/RDM optically isolated ports

- Ports are bidirectional for DMX In and Output BACK
- (2) Locking RJ45 Ethernet network connections (1x POE)
- USB-C power option (5V, 2A)

Mounting

- Standalone
- Truss-mount (M10 or M12 mounting hole)
- Wall-mount horizontal or vertical (included
- DIN Rail horizontal or vertical (included)

Physical

- Width: 118 mm (4.6 in.)

- Height: 42 mm (1.65 in.)
- Length: 133.5mm (5.3in.)
- Weight: 0.5 kg (1.1 lbs)

Electrical

- USB-C 5V
- POE 802.3af

RDM 10 HYBRID

The NEUTRON RDM 10 is a first-of-its-kind hybrid splitter. Dual DMX input, 10 port RDM Splitter, Merger, and EtherDMX Gateway are unified into the RDM10, with an advanced feature set to cover a wide variety of applications. 99 internal cues, factory, and user presets plus external contact closures provide a unique combination of multiple devices to solve many tasks in one powerful unit.

Key Features
¬ 1.8" OLED Display with a rotary knob
¬ Contact closures for a cue or preset recall
¬ Powder-coated aluminum rack mount housing
¬ Lightweight and rugged rackmount housing
¬ 99 Internal cues with fade and delay time*

RDM Data Splitter Key Features
¬ Dual A/B 5pin XLR DMX inputs for backup and signal loss options
¬ 10 assignable isolated DMX outputs
¬ A/B routing per output port
¬ LED feedback for In/Out/ A/B /Power

EtherDMX Gateway Node Key Features

¬ 2 Universe RDM, Art-Net, and sACN support
¬ Factory and user presets for plug and plays setups
¬ Configurable DMX refresh rate
¬ POE or Line Voltage powered
¬ Customizable routing and merging options
¬ Remote configuration via internal webpage
¬ Unlocks ONYX NOVA 4 Universe License*

Connections
FRONT

- (2) 5pin DMX Input

- (10) 5pin Opto-Isolated DMX Outputs

- Full-color OLED display

- Encoder w. Push to Select / Exit Button

BACK

- (2) 5pin DMX Input (parallel with the front)

- (2) 5pin DMX Through

- (2) Locking RJ45 Ethernet Network In

- (10) Contact Closures (Terminal Block)

- Locking Power In/Thru

Physical

- Length: 482.5 mm (19 in.)

- Width: 146 mm (5.7 in.)

- Height: 44 mm (1.7 in.)

- Weight: 1.82 kg (4 lbs)
  Electrical
- 100-240 V nominal, 50/60 Hz, 10W

- POE 802.3af

RDM Splitters

RDM6XL

RDM645

RDM10

DMX-10-3

DMX-10-5

RDM6

The NEUTRON RDM6 is a rugged and compact DMX/RDM Splitter. Designed for live production and installations, it features six optoisolated outputs and flexible mounting options to cover any situation. Power and Data allow for clean cable management. With 2 versions to choose from, you can work with either 5pin XLR or Locking RJ45 ethernet systems.

Key Features

¬ (6) Optically isolated outputs
¬ DMX and RDM compliant
¬ Power / DMX Through connectors
¬ Powder-coated aluminum ½ rack housing

Mounting

- Standalone
- Truss-mount (M10 or M12 mounting hole)

- Wall-mount horizontal or vertical (included)
- DIN Rail horizontal or vertical (included)
- Rack-mount option (requires NET Shelf) See page 13

Mounting

- Standalone
- Truss-mount (M10 or M12 mounting hole)
- Wall-mount horizontal or vertical (included)
- DIN Rail horizontal or vertical (included)
- Rack-mount option (requires NET Shelf) See page 13

Physical

- Length: 215 mm (8.5 in.)
- Width: 139 mm (5.5 in.)
- Height: 42 mm (1.65 in.)
- Weight: 1 kg (2.2 lbs)

Electrical

- 100-240 V nominal, 50/60 Hz, 10W
- Length: 215 mm (8.5 in.)
- Width: 139 mm (5.5 in.)
- Height: 42 mm (1.65 in.)
- Weight: 1 kg (2.2 lbs)

Electrical

- 100-240 V nominal, 50/60 Hz, 10W

Connections RDM 6XL

FRONT

- 5pin DMX Input
- (6) 5pin Opto-Isolated DMX Outputs
- RDM Enable

BACK

- 5pin DMX Input (parallel with the front)
- 5pin DMX Through
- Terminate

- Locking Power In/Thru

Connections RDM 645
FRONT

- Locking RJ45 Ethernet DMX Input
- (6) Locking RJ45 Ethernet Opto-Isolated DMX Outputs
- RDM Enable

BACK

- Locking RJ45 Ethernet DMX Input (parallel with the front)
- Locking RJ45 Ethernet DMX Through
- Terminate
- Locking Power In/Thru

DMX10
The DMX10-5 is a rackmount 10-port DMX Splitter with dual inputs and freely assignable 5pin XLR DMX outputs. The DMX10-3 is a rackmount 10-port DMX Splitter with dual inputs and freely assignable 3pin XLR DMX outputs. Utilizing long-life toggle switches, every port is routed to either the A or B input, providing flexibility to accommodate any situation. The NEUTRON DMX10 is made from a rugged metal chassis featuring impact-resistant paint and a lightweight yet solid construction. The DM10 is ideally suited for installations and touring applications that do not require RDM communication.

Key Features DMX10
¬ Dual A/B XLR DMX Input
¬ 10 isolated XLR DMX Outputs
¬ A/B routing per output port
¬ LED feedback for In/Out/A/B/Power
¬ Industrial-strength powder-coated finish
¬ Lightweight and rugged rackmount housing

Connections
DMX 10-5 FRONT

- (2) 5pin DMX Input
- (10) 5pin Opto-Isolated DMX Outputs

DMX 10-3 FRONT

- (2) 3pin DMX Input
- (10) 3pin Opto-Isolated DMX Outputs

BACK

- Locking Power In

Physical

- Length: 482.0 mm (19 in.)
- Width: 155 mm (6.1 in.)
- Height: 44 mm (1.7 in.)
- Weight: 1.50kg (3.31 lbs)

Electrical

- 100-240 V nominal, 50/60 Hz
- cETLus / CE / IP20 (pending)

DMX-10-5

DMX-10-3

ACCESSORIES

INCLUDED ACCESSORIES FOR EN4, EP2, EP4, RDM6XL, RDM645

WALL MOUNT PLATES

M10-M12

DIN RAIL CLIPS

NETSHELF

EN4   RDM6XL

RDM645   RDM6XL

EN4   EN4

EN4   RDM645

¬ Optional 19" 1U Rackmount shelf

¬ Industrial strength powder-coated finish

¬ Limitless configurations

INTERNAL CUES
+ ONYX NOVA LICENSE

– 99 internal cues with fade and delay time
– Unlocks ONYX NOVA 4 -Universe license

The device supports 99 cues with fade and holds times, plus a link option to loop multiple cues together. A cue is a full static snapshot of all DMX values of all ports. This allows small "mini" cue lists to be created. Cues are used for standalone operation, as a backup for signal loss, or can be assigned to one of the switch inputs. This is often used for fire alarm situations where a system has to go to a defined state and stop all console playback. Cues can be sent as Ethernet Universes so one device can drive many other NEUTRON nodes.

Although cues can be recorded with any lighting console, NEUTRON Gateway Ethernet Nodes unlock the ONYX NOVA license. The ONYX NOVA license features 4 Full Universes (2,048 parameters) and then can be used to run live shows or used to program internal cues in NEUTRON Gateway Nodes.

UNLOCKS ONYX NOVA 4 UNIVERSE LICENSE

Obsidian Device	DMX Ports	EtherDMX Universes	ONYX PC Mode
NEUTRON Nodes	12-Apr	Universe 1-4	NOVA

REFINED BY PASSION
Obsidian Control Systems combines over 25 years of experience developing professional entertainment lighting control solutions for automated and theatrical lighting fixtures.

ONYX
The lighting control software engine that powers the entire system. The ONYX platform scales from the simple setup to complex touring shows with ease. Multiple hardware choices from USB wings to powerful consoles allow users to select the best surface for the budget and application. One simple platform, no simplistic feature-limited editions. ONYX is designed to grow with the user and shows, offering smart options and affordable solutions along the way.

DYLOS

The advanced pixel composer and media engine powering ONYX. Create the most powerful FX with remarkable ease. Access hundreds of variations of any media file or effect. DYLOS gives the operator a full media engine without limitations. Fully integrated into the workflow of ONYX. DYLOS truly breaks new ground in combining a traditional lighting console with an advanced media engine in a totally integrated system.

obsidiancontrol.com

Documents / Resources

[NETRON EP4 Obsidian Control Systems](#) [pdf] Instruction Manual
EP4 Obsidian Control Systems, EP4, Obsidian Control Systems

References

- 🖵 **[Obsidian Control Systems](#)**