# Prospero v3 Mini Desktop DMX Cue Light Controller



# **User Manual**

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# **Unpacking your Prospero Mini**

#### What's in the Box?

A standard Prospero Mini unit includes:

- Prospero Mini cue light panel (1) with (9) permanent switches
- PoE power injector (1)

#### Connectors

On the rear of the Prospero Mini case are two connectors:



- XLR F-5P: this is a 5-pin female XLR connector for direct DMX connections
- etherCON: This is an etherCON connector for configuration, sACN data, and PoE power

#### Connecting Power

To power the unit:

• **PoE (802.3af Class 0, or 48VDC passive):** Connect the unit to a PoE switch or power injector via the unit's ethernet port. The device is on whenever it is plugged in.

When you connect power, all the LEDs should light up from the center outward. Then DMX output will start, and the LEDs will reflect the switch state.

#### **Connecting Data**

There are two options for connecting data to the unit.

- DMX: The DMX ports on the back of the device are a straight pass through rather than a DMX In and DMX Out, they're both connected to a DMX transmitter as long as the panel is switched on. This lets you hardwire backups inline: which device is in control is determined simply by which one is turned on.
- **Ethernet:** The Mini uses ethernet for configuration settings, as well as outputting sACN universes to control cue lights. If ethernet is already connected for PoE, you're all set. If not, connect the unit to your network switch via the ethernet port on the back.

These options can be used individually or simultaneously - see <u>Page 6</u> for details on data output and configuration.

#### Turning the Panel On

The unit will turn on as soon as power is available.

When you turn the panel on, all the LEDs should light up from the center outward. Then DMX output will start, and the LEDs will reflect the switch state.

## **Programming and Configuration**

#### Connecting to Web Interface

To use Prospero's web configuration interface, the unit must be connected to your network or computer via the ethernet port on the back of the device. See <u>Page 4</u> for instructions on connecting data via ethernet.

#### Signing In

Sign into the web interface by opening a browser and typing **10.1.0.20** into the URL bar. You may need to adjust your computer's network settings to put it on the same subnet as this.

Additionally, the Prospero's IP address can be changed. If you have changed it, please substitute that IP address for the default address here. If configuration has been reset, it will default back to 10.1.0.20.

# **Configuring Device and Network Settings**

The first section of configuration settings controls the device as a whole.

#### Save Settings

This button appears at the top and bottom of the Web Interface. Changes are not saved until you press the button.

#### **Identify Mode**

Checking this box will cause the device LEDs to flash on and off, but will not blink the outputs. Unchecking the box will stop this behavior.

This is helpful if you have multiple Prosperos on a network, to ensure that you are talking to the correct one.

#### **Device Label**

This is a label used to identify the device, with a maximum of 32 characters or octets (i.e., if you use unicode it may be less than 32 characters). This information shows up in the sACN label.

#### **IP Address**

This shows the current IP address and allows you to edit the IP address if needed. Be aware that you will need to access the web interface through the new IP address to restore connection after changing the unit's IP address.

Additionally, if you change the IP address, it will not take effect until you reboot the unit.

#### Netmask

This should match the subnet settings on your network.

#### Gateway Address (optional)

This is the address for your default router, if needed.

#### **OSC Port**

This is the port for OSC packets, but is currently unimplemented.

#### sACN Default Universe

This is the default universe for output. The default universe is always output from the DMX connectors on the back of the device. If this value is set to 0, the default universe will not output through sACN, only through DMX.

See <u>Page 9</u> for more details on default universe configuration.

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Save Settings Identify Mode

Configuration Options

Donoou	na Hothon Cottango
Device Label	Prospero
IP Address	10.1.0.20
Netmask	255.255.0.0
Gateway Addr	ess 10.1.0.1
OSC Port	9000
sACN Default	Universe 1
sACN Priority	100
Group Switch	ID (0 all independent): 0

#### **sACN** Priority

This is the priority 1-200 for the data output from the device. Prospero does not support perchannel priority.

#### **Group Switch ID**

- If set to 0, all of the switches operate independently.
- If set to a value 1-9, that switch will control all other switches. If the group switch is off, all switches are output as 0. If the group switch is on, all switches will output based on their value.
- Note that the Group Switch can also be patched into an output.

#### **Reboot Controller**

This button reboots the controller. When changing the IP address, the controller must be rebooted for the change to take effect. Additionally, some changes to the switch output settings will require a reboot to take effect, so it is generally a good idea to reboot after changing settings.

Save Settings Reboot Controller

# **Configuring Switch Settings**

The Switch Settings section settings allows you to configure color and output information for each switch.

Sw	itch Setti	ings
#	Color	Address
		Defaults to specified universe. See manual for advanced addressing features.
1		
2		
3		
4		
5		
6		
7		
8		
9		

## **Color Settings**

The color picker next to each switch specifies the color of that switch's LED when turned on.

Click on the color picker box, then choose the color for that switch.



Using the RGB fields allows you to set a specific color, so you can easily set multiple switches to the same color.



# **Output Settings**

**Simple addressing** allows you to easily set a single address to on (100%) or off (0) with each switch.

Advanced addressing allows for more complex programming of switches, including:

- Controlling multiple addresses with a single switch
- Setting each address to a specific level, rather than on/off

See details below on how to configure switch addresses.

## Simple Addressing

- If a number 1-512 is put in the box next to the switch, it will patch that switch in the default universe. Note that the default universe is also output from the DMX port on the back of the controller.
- In the screenshot at right, each switch is patched to its own DMX address (so switch 1 is 1, switch 2 is 2, etc.). If we entered "45" for switch 3, then switch 3 would control DMX address 45.

Address	
Defaults to specified universe. See manual for advanced addressing features.	
1	
2	
3	
4	
5	
6	
7	
	Address Defaults to specified universe. See manual for advanced addressing features.          1         2         3         4         5         6         7

If you do not need more than one universe output, it is recommended to set things up this way with the sACN Default Universe set to the universe you want output, and the switches patched as needed.

With this notation, when a switch is off, it outputs 0; when a switch is on, it outputs 100%.

## Addressing Outside the Default Universe

The Prospero v3 can output multiple universes. At the moment, this is capped at 9 universes, and the default universe is always in the first one.

All universes are output as multicast.

There are two ways to notate addresses in universes other than the default universe:

- **Absolute address:** 513 is the first address in universe 2
- **Slash notation:** 2/1 is the first address in universe 2.



If sACN Default Universe is not set to 1, absolute addresses 1-512 will be mapped into the default universe. For addresses in universe 1, slash notation (1/1 - 1/512) must be used.

# Advanced Addressing

#### Setting Levels

 Using the simple addressing method above, a number with no other delimiters or punctuation sets that slot to 255, or 100%.

**Ex:** "312" is the same as "312 @ 255".

 To set an address to a level between 0 and 255, use an @ symbol between the address and level. All whitespace in the address field is ignored, so "312@127" is the same as "312 @ 127".

Values above 255 or 100% are invalid and will set the level to 255.

Ex: To have Switch 1 set address 312 to 127, input"312 @ 127" in the address field for Switch 1.

 The level can also be set as a percentage of 255 by including a % symbol after the level number.

Ex: "312 @ 50%" is valid syntax and is the same as "312 @ 127".

#### Addressing Ranges

• Addresses can be specified as inclusive ranges using the "-" operator.

**Ex:** "312-314" specifies the addresses 312 through 314, including both ends (312, 313 and 314)

• Ranges may be combined with the "@" operator to set a range to a specific level:

**Ex:** "312-314 @ 50%" will set addresses 312, 313 and 314 to 50%.

 Ranges may not span universes. "510-514" is not a valid range. In this case, use the complex syntax below to specify multiple ranges for the same switch.

#### Complex Syntax

• "Address @ level" phrases can be combined with semicolons

**Ex:** "312 at 100%", "313 at 50%" and "314 at 25%" can be written: "312 @ 100%; 313 @ 50%; 314 @ 25%".

 Semicolons and dashes can be combined as well, to include ranges rather than single addresses:

Ex: "311-316; 317 @ 127; 515 @ 10%" will set addresses 311, 312, 313, 314, 315, and 316 (in the default universe) to full, slot 317 to 127, and universe 2 address 3 to 25 (10%).

 To specify a range across multiple universes, separate the addresses into a range for each universe, and combine with a semicolon:

**Ex:** To specify the range "510-514", use "510-512; 513-514" (absolute addressing) or "510-512; 2/1-2" (slash notation).

#### **Notes and Limitations**

- There is a hard limit of 100 address in any switch (that is, 1-100 is fine, but 1-101 will only control 1-100)
- Address specifications are limited to 100 characters per switch
- Output is currently capped at 9 universes. If you address more than 9 universes, the first 9 used in configuration will be output, while additional universes will be ignored silently.

#### **Finishing Configuration**

 The controller must be rebooted after all configuration changes are complete.

Save Settings Reboot Controller

- First click the "Save Settings" button.
- Then, click the "Reboot Controller" button at the bottom of the Configuration page.
- The controller can also be rebooted by power cycling.

**NOTE:** The web interface has not been tested with every possible long address string, so it is possible to crash the controller if using a very complicated address string.



If the controller is still working after reboot, but a specific switch isn't functioning, try rewriting the address field for that switch.

If the controller crashes on reboot, you will need to use the factory reset function to clear the configuration and start over.

If you have problems with a particular syntax crashing the system, please email us at **support@benpeoples.com** to report the bug!

# Factory Reset

The Prospero v3 Mini does not have a full factory reset feature. However, if you get into a situation where you can't connect to the configuration web interface because you don't know the unit's IP address, you can use the Temporary Reset feature to gain access.

This feature will reset the device's IP address to 10.1.0.20 and boot the device into a safe mode where none of the configuration data is parsed. The configuration data will not be wiped, but you can bypass it to get access and then edit the data yourself.

#### Performing a Temporary Reset

- Power the unit on with all switches in this configuration:
  - Switch 1: ON
  - Switch 2: OFF
  - Switch 3: ON
  - Switch 4: OFF
  - Switch 5: OFF
  - Switch 6: ON
  - Switch 7: ON
  - Switch 8: OFF
  - Switch 9: OFF
- Access the device's configuration interface by entering 10.1.0.20 into a connected computer's browser.
- Under Configuration Options, set the IP Address to your desired IP.
- Power the unit off.
- Reset switches into any other configuration and power back on.

You should now have access to the configuration interface using the IP you set!

# **More Information**



Having problems? Check out the <u>Prospero Troubleshooting page</u> on our website for up-to-date solutions to common problems!

How-to videos and Prospero setup tutorials can be found in our <u>Online Prospero Manual</u>.





Need spare parts? Consult our Visual Guide to Prospero Parts to figure out what you need!