SmartShow Pro-ONE User Guide

Accompanying Firmware Version : 2.00 | ©SmartShow UK Ltd 2024

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1. Introduction [back to top]

Thank you for purchasing this SmartShow Pro-ONE product, we hope it gives you many years of trouble-free use and enjoyment.

This User Guide will help you get started with connecting your Pro-ONE to a Network, configuring its Network IP, adding Power, Pixels & DMX.

If you find a problem with the product (manufacturing defect or otherwise) please contact us on mailto:sales@smartshow.lighting and we will endeavour to assist you.

Our warranty terms and conditions are available at https://smartshow.lighting
Please register your product with us at https://smartshow.lighting/register

2. Product Overview [back to top]

The SmartShow Pro-ONE will drive up to 1020 RGB (768 RGBW) Pixels from each of its 8 Pixel ports. It can consume up to 32 Art-Net Universes, or 28 sACN/E1.31 Universes, from data sent over an Ethernet network. Alternatively, the Pro-ONE can be configured to output 4 differential DMX512 streams, or a 'Hybrid' combination of Pixel and DMX outputs.

An Integrated Ethernet Switch allows several Pro-ONEs to be daisy-chained together on a network. Device IP, Art-Net/sACN Universe configuration, and Port output settings are adjustable directly via a standard web-browser interface.

Two 5-way rising-clamp connectors are provided to allow connection of 8 Pixel outputs (plus common) ground. An additional 2-way rising-clamp connector is provided for 5-24V power input.

Operational mode is indicated by a red 7-segment display, and a 4-way navigation button allows easy IP adjustment directly from the front panel.

3. Specifications [back to top]

- Integrated 10/100M Ethernet Switch with IEEE 802.3/802.3u Auto-negotiation.
- Dual RJ45 Ethernet connection with integrated magnetics.
- WebUI configuration server and UDP Client modes.
- Consumes up to 32 Art-Net II/III/IV Universes (16,384 channels), or 28 sACN(E1.31) Universes (14,336 channels).
- Maximum Pixel ports : 8.
- Maximum Differential DMX ports : 4.
- Each Port can output up to 1020 RGB Pixels, or 768 RGBW Pixels.
- Maximum channels in DMX Mode is 512.
- Input power range : 5-24V with reverse-polarity protection.
- Fully dimmable Fascia LEDs.
- Overall Pixel Brightness control.

4. Pixel Connections (Pixel & Hybrid Modes) [back to top]

Ports A-H are Pixel 'Data' Connections
Each Pixel Connection requires the local 0V GROUND (GND) to also be connected.

The Connections are as follows:

A - Pixel Data
B - Pixel Data
GND (common ground for all pixel ports)
C - Pixel Data
D - Pixel Data

E - Pixel Data
F - Pixel Data
GND (common ground for all pixel ports)
G - Pixel Data
H - Pixel Data

5. DMX Connections (DMX & Hybrid Modes) [back to top]

In ALL cases, the GND connection must be made between the Pro-ONE and the DMX.

DMX Output 1

Use Port 'A' as 'DMX+'
Use Port 'B' as 'DMX-'

DMX Output 2
Use Port 'C' as 'DMX+'
Use Port 'D' as 'DMX-'

DMX Output 3
Use Port 'E' as 'DMX+'
Use Port 'F' as 'DMX-'

DMX Output 4
Use Port 'G' as 'DMX+'
Use Port 'H' as 'DMX-'

Please note the DMX will require termination at the end of your fixture chain using a 120 Ohm DMX terminator.
The DMX outputs 1 to 4 will take data from the universes as assigned in the WebUI : 'Output Port Set-Up / Hardline DMX Ports', when in 'Hybrid' or 'DMX-only' modes.

6. Output Activity Indication [back to top]

Below each of the connections there is an LED which shows port/output activity.
For Pixel Ports, the LED will only flicker when there is pixel output available.
For DMX Ports (differential pairs), the LED pair will appear as if they are virtually permanently lit.

7. Powering up your Pro-ONE [back to top]

Once power has been applied (either via Power screw terminals at rear, or via USB) the 7 segment display will show a sequence:
1. A powerup cyclic display is shown while the Pro-ONE is booting.
2. The display will show either "P", "d" or "H", referring to the Device Output Mode that it was last set to: Pixel Mode, dMX Mode, or Hybrid Mode
3. The display will show its IP address as four x three-digit numbers, each separated by a hyphen.
4. The display will finally show either an 'A' or an 'S' for the Protocol it is set to receive, A=Art-Net, S=sACN(E1.31).
5. If the display is flashing "o", see section 11 for more details.

8. Setting Device IP from Front Panel [back to top]

The Pro-ONE has a 4-way Navigation Switch and a 7-segment Config display, which can be used together to set the IP of the device.
To access manual adjustment of the devices' IP number, press and hold the CONFIG/Enter button until 'C' is shown on the display, then release.

If we use the default IP of '192.168.1.200' as an example, each subsequent press of RIGHT will take you through the digits of the IP address:
C ⇨ 1 ⇨ 9 ⇨ 2 ⇨ - ⇨ 1 ⇨ 6 ⇨ 8 ⇨ - ⇨ 0 ⇨ 0 ⇨ 1 ⇨ - ⇨ 2 ⇨ 0 ⇨ 0 ⇨ A

Therefore, starting from 'C'..

Pressing RIGHT will move one place to the right, starting with the 'hundreds' digit of the first octet of the IP address ('1').
Pressing UP will increase IP digit value (rolling round 9 to 0).
Pressing DOWN will decrease IP digital value (rolling round 0 to 9).
Pressing LEFT will step backwards through the digits.
Press and hold of CONFIG/Enter will exit at any time.
Please note: The 'hundreds' digit will only allow 0, 1 and 2.

Once you have reached the final digit (the 'units' value of octet 4), if you have changed any IP value then the device pressing one more RIGHT will reboot using the new IP settings.

You can manually exit without changes at any time, by pressing and holding CONFIG/Enter for 1 second, where the device will reboot.

9. Inverting the Config Display and Navigation Button Usage [back to top]

If you are mounting the Pro-ONE on a DIN rail, or to a wall where the display will appear upside-down, you can easily invert the display and operation of the navigation button to it reads the correct way up.

From Data Mode ('A' or 'S'), press and hold the navigation button in the UP position for 2 seconds (do the same operation to revert)

10. Browser Configuration (WebUI) [back to top]

IMPORTANT: To access the Pro-ONEs WebUI, you must either be in normal (NON-Extended) mode (see 'Output Configuration' below), or DMX Only mode, or if the device is in Extended mode you must press and hold the CONFIG/Enter button until 'C' appears on the display.

Open a new browser page and type the IP of the device in the URL bar and press enter, the Pro-ONE will then deliver its WebUI page.

On initial loading of the WebUI, all the tabs will be closed. Tabs can be opened and closed just by clicking on each PURPLE heading. Multiple tabs can be open at once, as you may need to see several items of information at once without being overwhelmed with everything on screen at once.

Many of the parameters have tooltips available (if enabled), these can be viewed by hovering your mouse over the GREEN parameter titles, or some of the entry boxes and buttons.

10.1 Network Settings [back to top]

Device Name:

Name your device with up to 20 alpha-numeric characters. This name will also appear in the Art-Net discovery process.

[Identify]

Pressing this will flash an arrows pattern on 'this' device, helping you identify a specific Pro-ONE among several.

IP Address:

It is possible to set the IP address of the Pro-ONE to almost any value.
Many Art-Net devices use standard IP addresses of 10.x.x.x or 2.x.x.x.
A value range of 0-223 can be used for the first octet, and 0-254 for the remaining 3 octets.

SubNetMask:

Generally only Class A, B or C SubNetMasks are used.
Class A = 255.0.0.0, Class B = 255.255.0.0, Class C = 255.255.255.0

MAC Address:

This is not adjustable and is a unique number assigned to the ethernet controller.

[Apply]

Save changes made.

Note: Saving the configuration will write the Device Name, Device IP and SubNetMask values to the Pro-ONE's internal memory.
If any IP number changes were made then the WebUI URL will need to be changed to match this.

10.2 Protocol Set-Up [back to top]

eDMX Protocol:

Select either Art-Net or sACN(E1.31) to match the DMX Data Protocol coming from the host application or console.

Pixel Starting Universe:

These values can be configured to match the requirements of your system.
Art-Net Universe range: 0-32767 (also shown as Net & Uni values).
sACN(E1.31) Universe range: 1-63999.
Note: Any out-of-range values, will result in an error message being displayed.

Pixel Ending Universe:

This value is for reference and is calculated based on the Pixel Starting Address plus the number of universes that are available in the mode that is selected.

[Apply]

Save changes made.

10.3 Output Configuration [back to top]

Device Output Mode:

8 Pixel Ports:
All 8 outputs can send independent pixel data.

Hybrid A (6 Pixel Ports / 1 DMX Port):
Ports A-F are allocated to sending Pixel Data, Port pair G/H are a differential DMX output.

Hybrid B (4 Pixel Ports / 2 DMX Ports):
Ports A-D are allocated to sending Pixel Data, Port pairs E/F and G/H are differential DMX outputs.

Hybrid C (2 Pixel Ports / 3 DMX Ports):

Ports A & B are allocated to sending Pixel Data, Port pairs C/D, E/F and G/H are differential DMX outputs.

4 DMX Ports:
Port pairs A/B, C/D, E/F and G/H are a differential DMX outputs.

ALL DMX Output connections are grouped in pairs, each pair also requiring a ground connection (see 'DMX Connectivity'). The Universe numbers for these outputs can be configured in the WebUI (Output Port Set-Up / Hardline DMX Ports section).

Extended Mode: ('8 Pixel Ports' & 'Hybrid' Modes Only)

Normal Mode (unchecked)
In this mode, the number of available universes is always 16 for ArtNet, and 14 for sACN(E1.31).
The WebUI can be accessed at any time

Extended Mode (checked)
In this mode, the number of available Universes will double to 32 for ArtNet, and 28 for sACN(E1.31).

The IMPORTANT caveat in Extended Mode is that the WebUI is NOT available UNLESS you manually press and hold the CONFIG/Enter button on the Pro-ONE until 'C' is shown on the 7 segment display. After this you may access the WebUI in the usual way, but during this time Pixel/DMX data will not be processed. To exit Config 'C' mode, just press the CONFIG/Enter button again which restarts the device.

DMX Refresh Rate: ('4 DMX Ports' Mode Only)

DMX Output rate, select from 40Hz or 25Hz. This affects ALL DMX outputs.
NOTE: In all Hybrid Modes, the DMX refresh rate is fixed at 25Hz.

Default Pixel Type: ('8 Pixel Ports' & 'Hybrid' Modes Only)

Select the Pixel Type you want to be known as 'Default'. Any Ports that have their Pixel Type set to 'default' will use this Pixel Type.

Note that some of the pixels have a different colour order, number of colour emitters, and maybe require One(data) or Two(clock+data) wire connections.

One-Wire Pixel options:
GS8208, SK6812GRB, SK6812GRBW, SK6812GRB+W*, UCS2903, UCS2904, UCS2904RGB+W*, WS2811, WS2812, WS2812B, WS2813, WS2815
* Any pixels marked '+W' means that the white(fourth) pixel element is interpolated from

the RGB components.

Two-Wire Pixel options:
APA102, HD107S, NS107, SK9822, WS2801
Please note that you must also select 'Pixel CLOCK' on a port to go with the Pixel Data.
Clock speed is fixed at 800KHz.

Default Colour Order: ('8 Pixel Ports' & 'Hybrid' Modes Only)

The default colour order of the Pixel Emitters can be adjusted. Any Ports that have their individual Colour Order set to 'default' will use this Colour Order.

Main Pixel Brightness: ('8 Pixel Ports' & 'Hybrid' Modes Only)

Master Pixel brightness control, range 10% to 100%
This will be applied in addition to any other brightness that has been set per output port. This scales the maximum brightness of all data outputs from the Pro-ONE to the level defined.

Gamma Correction: ('8 Pixel Ports' & 'Hybrid' Modes Only)

Gamma Correction compensates for non-linearity in the eyes perception of LED colours, to enable Gamma Correction check the box.

[Apply]

Save changes made

10.4 Output Port Set-Up [back to top]

When the Pro-ONE is in Pixel or Hybrid Mode, each pixel output can be tailored to its own requirements.
NOTE: The maximum length of output is limited to 3072 channels [1024 RGB pixels / 768 RGBW pixels] (this includes null pixels, grouping, and number of channels per pixel).

Universe Management: ('8 Pixel Ports' & 'Hybrid' Modes Only)

This option dictates the contents of 'Output Port Set-up' and how the Pro-ONE converts eDMX Data to Pixel Data on the output ports.

CASCADE UNIVERSES :
In this mode, each ports pixel stream will start at 'Start Universe' and cascade into the next ascending universe, until the Pixel Count or the last Universe has been reached.

SELECTABLE UNIVERSE ORDER :

In this mode, each ports' pixel stream can be configured to output universes in any order (see 'Universe Order' in 'Output Port Set-Up').

Port/Port Test:

Each port is Indicated by a letter (A to H) on the left of the display, this also doubles up as a test button.
Pressing this port button will start a colour cycling test on that port, multiple ports can be tested at once. A second click on the port test button switch that port test off. This feature is useful for checking that your port/pixel configurations are matching in colour order and may assist in get the port brightness correct.
Switching the last port test off will clear all outputs.

Port Enable/Disable (On/Off):

Each port pixel stream can be switched on or off, this helps with testing and debugging your system.
If the box is checked then the port is Enabled (On), you will need to apply the changes to the line for the changes to appear at the outputs.
If a port is disabled (Off), then the parameters will also be disabled, indicated by being greyed-out.

Port Name:

Up to 10 alpha-numeric characters can be used to name each port.

Pixel Type:

Select the type of pixels you want to drive from this Port.
Selecting 'Default' will use the Default Pixel Type as previously described in the 'Device Output Mode' section.
If you select a TWO-Wire Pixel-Type, then you will also require a CLOCK line. Any output can be selected as a CLOCK line, please select 'Pixel CLOCK' for this.

Colour Order:

Select the Colour Order you want this Port to output.
Selecting 'Default' will use the Default Colour Order as previously described in the 'Device Output Mode' section.

Null Pixels:

Add the number of 'null' pixels (off) you want to include BEFORE the Universe data starts to appear at your pixels. The minimum is Zero, and maximum is 1023. Adding a large number of null pixels with a long pixel output stream may significantly reduce the overall pixel refresh frame rate (Default=0).

Pixel Grouping:

Set the number of times you want each RGB (or RGBW) pixel to be repeated.
Note: increasing this value above 1 will increase the number of channels (and pixels) proportionally that will be output on this port. The maximum number of pixels can be restricted with the 'Pixel Count' setting below. Setting a high grouping number will not increase the number of physical LEDs the Pro-ONE can control, this simply reduces the number of eDMX input channels required.

Pixel Count:

Set the maximum number of pixels the port should control. This can be useful when trimming output stream lengths to assist with frame/refresh rate.

Port Start Universe (when Universe Manager is set to 'Cascade Universes'):

Starting Universe for this port only. All other universes on this port will run in sequence from this Universe. The Universe Numbering will be limited by:
(a) the devices 'Starting Universe' (see 'Protocol Set-Up'), and
(b) the Maximum number of universes the device can consume, based on protocol and if 'Extended mode' is enabled:
- NON-Extended Mode : 16 Universes ArtNet / 14 Universes sACN.
- Extended Mode : 32 Universes Art-Net / 28 Universes sACN.

Start Channel:

The first channel of the first received on this port.

Universe Count (when Universe Manager is set to 'Selectable Universe Order'):

Select the number of universes you require in the 'Universe Order'. (minimum 1, maximum 6).

Universe Order (when Universe Manager is set to 'Selectable Universe Order'):

A number of Universe boxes will be revealed depending on what 'Universe Count' is set to. Into each box, a universe value can be entered that is within the range from the devices 'Starting Universe' and up to the maximum number of universes for the Mode (see Port Starting Universe information above).

The Universes can be in any order you chose, and can also repeat if you choose, and be used on several different outputs, this way an output can have any universes you desire as long as they are within the boundaries of Starting Universe number to maximum universe number.

End Address (when Universe Manager is set to 'Cascade Universes'):

This shows an indication of Start Channel + (Pixel Count x Pixel Channels).
For example: for 340 RGB Pixels starting at channel 100, the end address will be 1120 : 100 + (3 x 340).

[X] Restore values to defaults on this port only.

[Save] Save changes made to this port only.

MAX Achievable Frames-per-second (FPS): This is calculated maximum achievable FPS, based on the port with the longest NullPixels plus PixelCount/Grouping. This can be useful when tailoring the Pixel output to match pixel application software, or vice-versa This value is normally calculated while pixel data is being converted. If you are not sending any pixel data (and 'unknown' is being shown) then press [Re-Calculate] to simulate the sending of one null frame (based on the current configuration) which will be timed, and an FPS value will then be shown.

Port Stream-size Limitations: The Pro-ONE will output a maximum of 3072 channels, after which the output will be stopped.
The following are taken into consideration : Number of Colours per Pixel, Null Pixels, Pixel Grouping and Pixel Count.
If the ((PixelGrouping*PixelCount)+NullPixels)*nColours > 3072 then some or all of the Ports input boxes may turn RED to signify an error.
Recalculating and reducing your overall stream size will return these box colours back to white.

Hardline DMX Ports: When the Device Output Mode is set to either Full DMX Mode, or one of the Hybrid Modes, you will be able to enter the desired Universe(s) here for each of the DMX output port pairs A/B, C/D, E/F and G/H.

Ignore Art-Sync: When the device mode is set to one of the Hybrid Modes and the protocol is set to receive Art-Net, you could be in a situation where your pixel data and DMX data are coming from two different sources (or applications). This is fine if neither of these sources/applications are sending out Art-Sync, but if your DMX source is sending out Art-Sync whenever the DMX data changes, and that Art-Sync inadvertently triggers pixel output, this could create very undesirable results. Therefore you can opt to Ignore Art-Sync entirely, which will almost certainly clean up your pixel output stream consistency.

[Apply]

Save changes made.

10.5 Universe Sizes ('8 Pixel Ports' & 'Hybrid' Modes Only) [back to top]

If your application is unable to set the size of the Universes, then each universe size can be entered into the boxes, one for each of the universes. This value will override any value that is sent by the application.
For example, if you are using WS2812 Pixels then this would normally occupy a maximum of 170 pixels per universe (or 510 channels). If your application only every sends 512 channels per universe, then your colours will be out of order by 2 channels on each subsequent universe. Adjusting the universe size will correct this error and align all the colours correctly.

To restore the universe to automatically use the universe size sent from the application, enter '0' into the universe size box.

[Apply]

Save changes made.

10.6 Pixel LED Test ('8 Pixel Ports' & 'Hybrid' Modes Only) [back to top]

Buttons have been provided for testing connected Pixel-LEDs. (All output connections are tested at the same time).

Pressing RGB-[1],[2] or [3] will test individual RGB channels.
Pressing RGBW-[1],[2],[3] or [4] will test individual RGBW channels.
Pressing [X] will clear all colour channels.

10.7 Device Settings [back to top]

Disable ToolTips:

Ticking the checkbox will disable all ToolTips that appear on the main WebUI page.

Fascia LED Brightness:

The rear output LED indicators, ethernet activity LEDs, and 7 segment Config display can all be dimmed from 100% to Off.
Note: At all times on power-up, the device will run through the standard IP announcement at full brightness.

Invert Config Display:

Ticking the checkbox will invert the 7segment Config Display on the front panel of the Pro-ONE, this is useful if you have mounted your Pro-ONE on a bulkhead or in a place where the natural viewing of the display is upside-down.

Reset to Factory Settings:

To Reset to factory settings, check the box and press [Apply]. You will be presented with another box to confirm your choice before pressing [Apply] again. Once complete the device will reboot. A holding page will be visible whilst the reboot takes place, allowing you to click the device IP link to reload the WebUI page.

For a comprehensive list of factory default settings, see 'Manual Reset to Factory Settings' (below).

Reboot Device:

To Reboot the device, check the box and press [Apply]. A holding page will be visible while the reboot takes place, allowing you to click the device IP link to reload the WebUI page.

[Apply]

Save changes made.

10.8 Pro-ONE Network [back to top]

If any other Pro-ONEs (with firmware V2.0 or later) are found on the network then they will be shown here in a list. You can press [Refresh] at any time, to ensure that all devices have responded correctly. The device you are currently viewing will always be shown in the list along with other Device Names, Device IPs, Product Types, Protocols, Device Output Modes, Firmware Versions and if they are 'Available' to be viewed via a web browser.

With each device found in the list (including 'This' device), you will be able to identify its location by pressing the [ID] button next to the IP number, the targeted device will then flash with two arrows on its display for 10 seconds.

If a particular device is NOT available (because it is in 'Extended Mode'), then a [Force UI] button will be shown. If you press this button, the target device will put itself into Configuration Mode which allows a connection via the web browser. If you want to Reboot this same device (to get it out of Configuration Mode) just press the [Reboot] button.

All 'Available' devices found on the network will be shown with a clickable IP link, which

will open up 'that' devices WebUI in a NEW browser tab. All devices will be sorted in ascending IP order. All devices will retransmit their Pro-ONE Network information every minute. Any devices that disappear from the network for more than 90 seconds, they will be removed from the list.

10.9 Save & Load Configurations [back to top]

You can create four individual memory slots for saving special configurations you may want to swap between, this saves a lot of setup time when using your Pro-ONE in different venues or installations.
NOTE: Your devices' IP and SubNetMask will never be overwritten.

Slot 1/2/3/4 Name:

You can name each of your slots with up to 22 characters.
Press [Apply] to save any name changes made.

Load Configuration from Slot 1/2/3/4:

Loading from any slot will instantly transfer all your saved parameters from that slot into your current memory locations.
The Pro-ONE will then reboot to ensure those changes take effect immediately, and your WebUI will go to a holding page, refresh your WebUI to continue.

Saving Configuration to Slot 1/2/3/4:

This will save your current set of parameters to the selected slot, there will be no changes to your current parameters.

Reset Slot 1/2/3/4:

This will load default values into the selected slot, it will also clear the slot name.

11. Pixel Data Over-Run [back to top]

If you send data to the Pro-ONE faster than it is capable of converting and outputting the pixel data streams, then you may see an 'o' start to flash on the 7-segment config display. When this is happening you may find that some pixel frames are skipped causing an uneven or intermittent pixel display.
You can remedy this by either reducing your longest pixel count, or by reducing the frame rate at the host application until the 'o' stops flashing and returns to flashing either 'A' or 'S'.

12. Private Wired Network Connection [back to top]

It is highly recommended that you use the Pro-ONE on a wired network without internet connectivity to ensure predictable network traffic. Internet traffic and wireless networks can negatively effect the consistency of Art-Net/sACN data, and may cause visual disturbances of your Pixel-LED timing and stability.

Setting your computer to a Static IP address
To set your computer to a static IP address move the Pro-ONE to a direct-wired network follow these instructions (Microsoft Windows):

- Go to Control Panel, select Network and Internet, then select Network and Sharing Centre.
- In the left hand column, click on 'Change Adapter Settings'.
- 'Local Area Connection' should be shown, double click on it.
- Under the 'Networking' tab, select the line that says 'Internet Protocol Version 4 (TCP/IPv4)', then click 'Properties'.
- Click the radio button beside 'Use the following IP address'.
- Enter your required IP address for the PC/Host (e.g. 192.168.1.1) & Subnet mask (e.g. 255.255.255.0) in the fields provided.
- Leave the DNS Settings blank, click 'OK' then click 'Close'.

13. Multiple Device Connections [back to top]

If required, you can add several Pro-ONE's to your network and have them controlled from the same application. Each Pro-ONE would need to have a different IP address (x.x.x.1, x.x.x.2, x.x.x.3 etc) and be added to your application as a new device and patched accordingly into its own area of the matrix. The Pro-ONE's ethernet can be daisy-chained through the dual RJ45 ports on the front chassis.

14. Manual Reset to Factory Settings [back to top]

If you need to do a full 'factory' reset, press and hold the CONFIG/Enter button until you see THREE Horizontal Bars, then release the button.

Factory Settings are:

NETWORK SETTINGS
Device Name: Blank

IP Address: 192.168.1.200
SubNetMask: 255.255.255.0

PROTOCOL SET-UP
eDMX Protocol: Art-Net
Pixel Starting Universe: 0
OUTPUT CONFIGURATION
Device Output Mode: 8 Pixel Ports
Extended Mode: Off (unchecked) DMX Refresh Rate: 40Hz
Default Pixel Type: WS2812b
Default Colour Order: 1-2-3
Pixel Brightness: 100%
Gamma Correction: Off (unchecked)

OUTPUT PORT SET-UP
Port On/Off: On (checked)
Port Name: Blank
Pixel Type: Default
Colour Order: Default
Null Pixels: 0
Grouping: 1
Pixel Count: 340
Start Uni (Cascading Mode): 0, 2, 4, 6, 8, 10, 12, 14
Start Chan: 1
Universe Count (Universe Ordering mode): 2
Universe Order (Universe Ordering mode): 0/1, 2/3, 4/5, 6/7, 8/9, 10/11, 12/13, 14/15
Port Brightness: 100%
DMX 1 (A/B) Universe: 100
DMX 2 (C/D) Universe: 101
DMX 3 (E/F) Universe: 102
DMX 4 (G/H) Universe: 103
Ignore Art-Sync: Off

UNIVERSE SIZES
All sizes set to '-' (take size from incoming universe packet)

DEVICE SETTINGS
ToolTips Visible: On (checked)
Fascia LED Brightness: 100%
Invert Config Display: Off

15. Manual Test Mode ('8 Pixel Ports' & 'Hybrid' Modes Only) [back to top]

When the device is in Pixel or Hybrid Mode, the connected pixels can be tested manually without the need for any network connection.

From the devices' front fascia, press the CONFIG/Enter button three times in quick succession, this should then show 't' on the display.

Pressing LEFT, RIGHT or DOWN will drive all outputs with a test colour respectively.
- If using RGB Pixels should would see Red, Green or Blue on each press.
- If using RGBW Pixels you will see an alternating pattern on each press.

Pressing UP will clear all pixels.
To Exit Test Mode, see 'Manual Reboot' below.

16. Manual Reboot [back to top]

A One-Second press & hold of the CONFIG/Enter button will restart the device. Please also note that the integral network switch will also be restarted.

17. Art-Net Broadcast & sACN Unicast Multicast [back to top]

In Pixel Output mode, it is recommended only using Unicast. Do not use Art-Net broadcast or sACN Multicast mode.
In DMX output Mode, Art-Net/sACN Unicast, or sACN Multicast can be used. DO NOT use Art-Net Broadcast.

18. Art-Net Device Discovery & DHCP [back to top]

There is the ability to discover IP addressing and device configuration using Art-Net ArtPollRequest.
There is no DHCP function as IP addressing is Static. Pro-ONE utilises client port 6454 for Art-Net, and 5568 for sACN.

19. Art-Net Art-Sync Universe Syncronisation [back to top]

If the Pro-ONE is set to receive Art-Net pixel data, it will automatically detect if Art-Sync is being sent by the host application/console.
The advantage of using Art-Sync ensures all devices receiving the sync will load the pixels at exactly the same time. This removes any problems associated with image-

tearing on larger displays and produces a much smoother result. Additionally, some applications can be set to only output universes that contain new/updated pixel data, this can lead to cases where application universe data can be sporadic and inconsistent, causing intermittent Pixel output updates. If the application has the ability to send Art-Sync and this is switched on then this will ensure that Pixel Output updates will always happen as intended.

Please Note: When using Hybrid Modes (A/B/C), please be aware that any DMX device sending Art-Sync as broadcast as well as the DMX data itself, this may have the consequence of triggering your pixel frame early and causing the pixel data to stall, this can be remedied by switching off Art-Sync from your DMX Data source. If this does not remedy the issues or you cannot switch off Art-Sync, consult the "Ignore Art-Sync" information at the bottom of the Output Port Set-Up section

20. Mounting Accessories [back to top]

Included with the Pro-ONE:
- 35mm DIN Rail Mount
- Flush Mount Adaptor (for screwing the device directly to a panel)
- 4 non-slip rubber feet

To fit the DIN Rail Mount, use the two M4 x 8 screws provided to securely screw the mount to the rear of the Pro-ONE. The DIN Rail Mount clips onto 35mm DIN Rail by firstly placing the spring part behind the rail, then brace against the spring whilst latching the opposite part of the mount onto the rail.

To fit the Flush Mount Adaptor, screw it to the rear of the Pro-ONE using the M4 x 8 screw provided, ensuring that the screw-head goes into the countersunk side of the adaptor. The adaptor has two 4mm holes which can accept most general screws (not provided).
Be careful to not damage the casing of the Pro-ONE when screwing to a panel.

If you require a desktop mounting of your Pro-ONE, the Rubber feet come as one piece and can be separated and mounted in each corner on the underside of the Pro-ONE, in the areas provided.

21. Dimensions & Weight [back to top]

Pro-ONE (device only): 140mm length, 80mm wide, 30mm high. Weight: 250g
Pro-ONE Retail option (with box & accessories): 175mm length, 125mm wide, 50mm

high. Weight: 440g
Pro-ONE Trade option (boxed only): 200mm length, 130mm wide, 40mm high. Weight: 280g

22. Software Compatibility [back to top]

Pro-ONE works with all free and commercial Art-Net/sACN compatible software: Madrix, Resolume, MadMapper, Chamsys MagicQ, ELM, Jinx, XLights and many others.

23. Firmware Upgrades [back to top]

From time to time, firmware upgrades will become available, the information of this will be available on the smartshow.lighting website and an upgrade package can be downloaded onto your windows PC, and deployed to your Pro-ONE to update it. More information will be supplied with the update itself. The user manual (this) will automatically be updated with the new firmware.

24. Technical Support [back to top]

email : sales@smartshow.lighting

25. Warranty enquiries [back to top]

email : waranty@smartshow.lighting
