



# User Manual

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## PixelGate Arma

PXA-P-2E8SPI, PXA-M-2E8SPI, PXD-1-2E8SPI, PXB-1-2E8SPI

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# Specifications

Control interface	ArtNet, sACN
Supported LEDs	WS2812, WS2811
LED outputs	8, TTL 3/5V L
Ethernet ports	2 10/100 Base-TX
Ethernet connectors	2 LSA-PLUS® connectors
Setup	Web interface
Power supply	5/12/24/48 VDC
Operating Temperature	-40...+70°C
IP Rating	IP65 for outdoor use
Dimensions, mm	115(D) x 55(H) x 65(W)

## Safe operation

To ensure safe and reliable operation of the devices, please observe the following requirements

Use the device only for its intended purpose

Do not use devices that show signs of malfunctioning

Avoid strong physical impacts on the device

Protect devices and cables from contact with corrosive liquids

Whenever a fault is detected in the device, please contact the manufacturer.

### Warning!

The device uses hazardous voltage AC 100-250V

## General information

«PixelGate Arma» is a pixel strip controller for pixel mapped projects at indoor and outdoor installations when you need to convert ArtNet (DMX over Ethernet) or sACN data to 1 or 2 wire interface. IP65 case makes the device resistant to water, dust, fog, and smoke.

## Advantages

Die-cast, waterproof metal case

No buttons

Time-tested in severe weather conditions

Integrated splitter

2 Ethernet ports for chaining the devices

# Installation

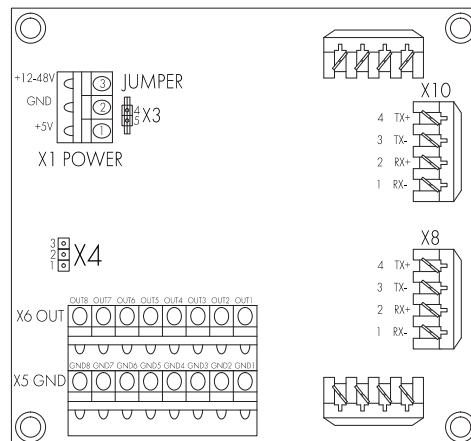
1. Ensure the device has no damage due to transportation
2. Remove device's lid after unscrewing the four screws
3. When using 12-48V power source, set the jumper at X3 connector. When using 5V power source, jumper is not installed
4. When using 5V output signal: set the jumper at 1 and 2 pins of X4 connector  
When using 3.3V output signal: set the jumper at 2 and 3 pins of X4 connector
5. Connect Ethernet input and output to X10 and X8 sockets respectively
6. Connect LED stripes control and ground signals to X6 and X5 terminal blocks respectively
7. Connect Power supply to X1 terminal block
8. Set lid back and tighten all screws

## Warning!

Before mounting and turning on the power, you need to make sure protective ground cable connections and places of their connection

5  
4 X3

3  
2  
1 X4



## Warning!

Incorrect jumper connection may cause device malfunction.

**Pic. 1**  
Jumpers location

# Web interface settings

PixelGate Arma devices support configuring most of their parameters through the web interface using HTTP protocol (TCP port 80).

# Device settings

To access the settings page enter the IP address of the device to the browser. Main settings page of the Pixelate Arma device will be displayed.

The screenshot shows the 'PixelGate Control Panel' with three tabs: 'Device Settings', 'Network Settings', and 'Firmware Update'. The 'Device Settings' tab is active, showing fields for Device Name (PixelGate), Device Description (PixelGate, 8-output), Output protocol (WS2812), Color order (R-G-B), and Network protocol (ArtNet). Below this is a 'Channels settings' table with 8 channels. Each channel has two input fields for 'Subnet \* 16 + Universe' and 'Start Address', both containing the value '1'. A 'Save' button is at the bottom.

PixelGate Control Panel		
Device Settings		
Device Name	PixelGate	
Device Description	PixelGate, 8-output	
Output protocol	WS2812	
Color order	R-G-B	
Network protocol	ArtNet	
Channels settings		
Channel	Subnet * 16 + Universe	Start Address
Channel 1	0	1
	0	1
Channel 2	1	1
	1	1
Channel 3	2	1
	2	1
Channel 4	3	1
	3	1
Channel 5	4	1
	4	1
Channel 6	5	1
	5	1
Channel 7	6	1
	6	1
Channel 8	7	1
	7	1

**Pic. 2**  
Device settings

## Device settings:

- Device name** Editable device name (up to 18 characters)
- Device description** Editable device description (up to 64 characters)
- Output protocol** Output protocol signal (WS2812 or WS2811)
- Color order** Sequence of colors in LED stripe
- Network protocol** Type of Network protocol (ArtNET or sACN)

## Channels settings:

- Channel** Number of channel (1-8)
- Subnet\*16+ Universe** Subnet and Universe number(for ArtNET) or Universe number (for sACN)
- Start Address** Starting DMX address for first and second universe in the channel

For each output channel you can specify two universe for output. If the LED stripe requires to control more than 512 DMX channels, device puts the data of second universe after channel 512 of first universe, providing maximum number of 1024 DMX channels.

To save the changes in device settings, click **«Save settings»**.

# Network settings

To edit the network settings of the device, click on the link **“Network”**.

PixelGate Control Panel	
<a href="#">Device Settings</a>	<a href="#">Network Settings</a>
Item	Setting
Static IP Address	<input type="text" value="2.0.0.138"/>
Subnet Mask	<input type="text" value="255.0.0.0"/>
Default Gateway	<input type="text" value="2.0.0.1"/>
Primary DNS Server	<input type="text" value="0.0.0.0"/>
Secondary DNS Server	<input type="text" value="0.0.0.0"/>
<input type="button" value="Save settings"/>	

**Static IP Address** - view/edit network address of the device

**Subnet Mask** - view/edit IP subnetwork mask

**Default Gateway** - view/edit gateway IP address

**Primary DNS Settings** - primary DNS address

**Secondary DNS Settings** - secondary DNS address

To save the changes in network settings, click **«Save settings»**.

# Firmware update

For profile operations, click on the link **“Firmware”**.

PixelGate Control Panel	
<a href="#">Device Settings</a>	<a href="#">Firmware Update</a>
Current Firmware Revision: 1.2	
<b>Upload new firmware:</b>	
<input type="button" value="Browse..."/>	No file selected.
<input type="button" value="Upload firmware"/>	

**Browse** - browse for new firmware's file

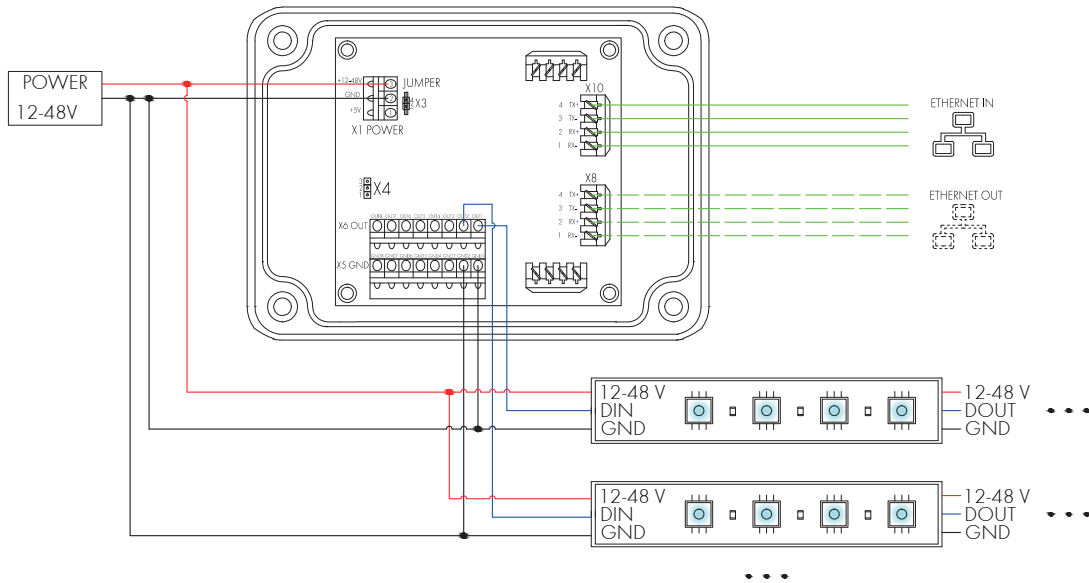
To start updating press button **«Upload firmware»**.

## Warning!

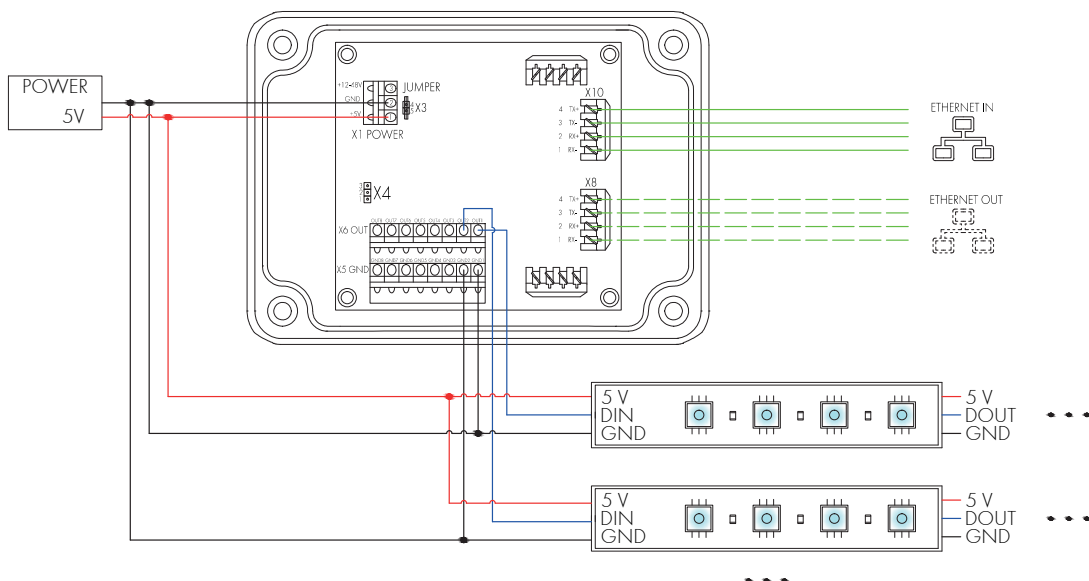
To update firmware of the device, click on the link **“Firmware”**

# Connection scheme

## Power supply 12V



## Power supply 5V





# Technical maintenance

Maintenance the device, search and troubleshooting should be performed by service personnel. The device should be free from dirt, dents, connecting cables and wires must be intact and securely fastened.

## Notes

# Notes

# Notes



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Sundrax Electronics  
6008, First Central 200  
2 Lakeside Drive, Park Royal, London  
NW10 7FQ United Kingdom  
+ 44 (0) 208 991 33 19  
[office@sundrax.com](mailto:office@sundrax.com)  
[www.sundrax.com](http://www.sundrax.com)