

## PIXIE DRIVER 2000 V2 User Manual

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## Europe Energy Saving Notice <br> Energy Saving Matters (EuP 2009/125/EC)

Saving electric energy is a key to help protecting the environment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!

## DOCUMENT VERSION



Due to additional product features and/or enhancements, an updated version of this document may be available online.
Please check www.adj.com for the latest revision/update of this manual before beginning installation and/or programming.

| Date | Document <br> Version | Software <br> Version | DMX Channel Mode | Notes |
| :---: | :---: | :---: | :---: | :--- |
| $12 / 13 / 21$ | 1.0 | 3.00 | Not Applicable | Initial Release |
| $12 / 27 / 21$ | 1.1 | N/C | Not Applicable | Updated Driver Output Limitations, <br> System Menu |
| $12 / 29 / 21$ | 1.2 | N/C | Not Applicable | Updated System Menu |
| $01 / 11 / 22$ | 1.3 | 3.01 | Not Applicable | Updated Software Version |
| $05 / 31 / 22$ | 1.4 | 3.02 | Not Applicable | Updated Fade Channel |
| $07 / 17 / 23$ | 1.5 | 4.00 | Not Applicable | Updated Features, System Menu, Driver <br> Output Limitation, Specifications; Added <br> RDM |
| $08 / 10 / 23$ | 1.6 | N/C | Not Applicable | Updated System Menu |

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## GENERAL INFORMATION

## INTRODUCTION

Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this device. These instructions contain important safety and use information.
This product is intended for use by professionally trained personnel only, and is not suitable for private use.

## Unpacking

Every device has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton is damaged, carefully inspect the device for damage, and be sure all accessories necessary to install and operate the device have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this device to your dealer without first contacting customer support. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

## BOX CONTENTS

Twist-Lock power cable
19-inch rack mount ears
4-pin data cable

## CUSTOMER SUPPORT

Contact ADJ Service for any product related service and support needs.
Also visit forums.adj.com with questions, comments or suggestions.

## ADJ SERVICE USA - Monday - Friday 8:00am to 4:30pm PST

323-582-2650 I Fax: 323-832-2941 I support@adj.com
ADJ SERVICE EUROPE - Monday - Friday 08:30 to 17:00 CET
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REPLACEMENT PARTS please visit parts.adj.com

THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT.
DO NOT ATTEMPT ANY REPAIRS YOURSELF; DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO WARRANTY CLAIMS AND/OR REPAIRS.

## LIMITED WARRANTY (USA ONLY)

A. ADJ Products, LLC hereby warrants, to the original purchaser, ADJ Products, LLC products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.
B. For warranty service, you must obtain a Return Authorization number (RA\#) before sending back the product-please contact ADJ Products, LLC Service Department at 800-322-6337. Send the product only to the ADJ Products, LLC factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, ADJ Products, LLC will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, ADJ Products, LLC shall have no liability whatsoever for loss of or damage to any such accessories, or for the safe return thereof.
C. This warranty is void of the serial number has been altered or removed; if the product is modified in any manner which ADJ Products, LLC concludes, after inspection, affects the reliability of the product, if the product has been repaired or service by anyone other than ADJ Products, LLC factory unless prior written authorization was issued to purchaser by ADJ Products, LLC; if the product is damaged because not properly maintained as set forth in the instruction manual.
D. This is not a service contact, and this warranty does not include maintenance, cleaning or periodic check up. During the period specified above, ADJ Products, LLC will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warrant service and repair labor by reason of defects in material or workmanship. The sole responsibility of ADJ Products, LLC under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of ADJ Products, LLC. All products covered by this warranty were manufactured after August 15, 2012, and bear identifying marks to that effect.
E. ADJ Products, LLC reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.
F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by ADJ Products, LLC in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and/or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall ADJ Products, LLC be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.
G. This warranty is the only written warranty applicable to ADJ Products, LLC Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

## LIMITED WARRANTY PERIODS

- Non L.E.D. Lighting Products = 1-year (365 days) Limited Warranty (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding LED and lamps)
- Laser Products = 1 Year ( 365 Days) Limited Warranty (excludes laser diodes which have 6 month limited warranty)
- L.E.D. Products = 2-year ( 730 days) Limited Warranty (excluding batteries which have a 180 day limited warranty) Note: 2 Year Warranty only applies to purchases within the United States.
- StarTec Series = 1 Year Limited Warranty (excluding batteries which have a 180 day limited warranty)
- ADJ DMX Controllers = 2 Year ( 730 Days) Limited Warranty


## FEATURES

- Power / data supply for ADJ Lighting Pixie Strip 30, Pixie Strip 60, and Pixie Strip 120
- Manual RGB mode
- Internal programs
- Manual Dimming and Strobe Control
- Full Pixel Mapping Control
- 2,040 Pixels via Kling-Net, Art-Net, and sACN (streaming ACN)
- OLED screen with 4-button menu
- USB port for Firmware Updates

Included Items:

- Twist-Lock power cable
- 19-inch Rack Mount Ears
- 4-Pin Data Cable


## WARRANTY REGISTRATION

The Pixie Driver 2000 V2 carries a 2 year limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items, whether under warranty or not, must be freight pre-paid and accompanied by a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain an R.A. number by contacting our customer support team. All packages returned to the service department not displaying an R.A. number on the outside of the package will be returned to the shipper.

## SAFETY GUIDELINES

For Your Own Personal Safety, Please Read and Understand This Manual Completely Before You Attempt To Install Or Operate This Unit!

- Be sure to save the packing carton in the unlikely event the device may have to be returned for service
- Do not spill water or other liquids into or on to the device.
- Be sure that the local power outlet matches the required voltage for the device
- Do not open up the device under any conditions. There are no user serviceable parts inside
- Disconnect the device's main power when left unused for long periods of time
- Never connect this device to a dimmer pack
- Do not attempt to operate this device if it has been damaged in any way
- Never operate this device with the cover removed
- To reduce the risk of electrical shock or fire, do not expose this device to rain or moisture
- Do not attempt to operate this device if the power cord has been frayed or broken. Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short
- Disconnect from main power before making any type of connection
- Never block the ventilation holes. Always be sure to mount this device in an area that will allow proper ventilation. Allow about 6 " $(15 \mathrm{~cm})$ between this device and a wall
- This unit is intended for indoor use only. Use of this product outdoors voids all warranties
- Always mount this unit in a safe and stable matter
- Please route your power cord out of the way of foot traffic. Power cords should be routed so they are not likely to be walked on, or pinched by items placed upon or against them

Ambient operating temperature ranges is from $-4^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$. Do not operate this device when ambient temperature falls outside of this range!

## Keep flammable materials away from this fixture!

IP20 Rating: Fixture is protected against solids approximately the size of an adult finger, or larger. FIXTURE IS NOT PROTECTED AGAINST LIQUID INTRUSION OF ANY KIND!

- The device should be serviced by qualified service personnel when:
A. The power-supply cord or the plug has been damaged.
B. Objects have fallen on, or liquid has been spilled into, the device.
C. The device has been exposed to rain or water.
D. The appliance does not appear to operate normally or exhibits a marked change in performance.


## OVERVIEW



## INSTALLATION

## FLAMMABLE MATERIAL WARNING!

Keep drive a minimum of 5.0 feet (1.5m) away from flammable material and/or pyrotechnics.

## ELECTRICAL CONNECTIONS

A qualified electrician should be used for all electrical connections and/or installations.

## DO NOT INSTALL THE DEVICE IF YOU ARE NOT QUALIFIED TO DO SO!

The driver MUST be installed following all local, national, and country commercial electrical and construction codes and regulations.

Before installing or mounting any device, a professional equipment installer MUST be consulted to determine whether the mounting structure or surface is properly certified to safely support the combined weight of the device and any relevant accessories.

Ambient operating temperature range is from $-4^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$. Do not operate this device when ambient temperature falls outside this range.

The device should be installed in areas outside walking paths, seating areas, or away from areas where unauthorized personnel might be able to reach the device by hand.

## INSTALLATION

## RACK MOUNTING

This device can be mounted in a standard 19-inch rack using the mounting brackets located on each side of the device. Make sure to use mounting hardware that fits the mounting holes on the device as well as the rack itself. Use all four (4) points on the mounting brackets to ensure that the device is mounted securely. Please see the illustration above for reference.


## INSTALLATION

## MULTIPLE DRIVERS

Up to five (5) Pixie Driver 2000 devices may be daisy-chained directly together and linked to a single controller. See the image below for reference. Do NOT daisy-chain more than five (5) devices directly together.


If more than five (5) devices are required, a one-gigabit ethernet switch may be used to expand the size of the network. However, even in this case, no more than ten (10) branches from the ethernet switch are allowable, with each branch containing up to five (5) daisy-chained devices. This permits a maximum of fifty (50) devices to be linked to a single controller, as shown in the image below.
Do NOT exceed this number of devices!


## ALLOWABLE CABLE LENGTHS

16-AWG 4-pin extension cable may be used to link multiple devices. However, please take note of maximum allowable cable lengths, as listed below.

- Max length of cable connecting a controller and a device: 59 feet (18m)
- Max length of cable connecting two devices: 32 feet (10m)
- Max total cable length in a single chain: 98 feet ( 30 m ) including the lengths of the lighting strip(s)


## REMOTE DEVICE MANAGEMENT (RDM)

NOTE: In order for RDM to work properly, RDM enabled equipment must be used throughout the entire system, including DMX data splitters and wireless systems.

Remote Device Management (RDM) is a protocol that sits on top of the DMX512 data standard for lighting, allowing the DMX systems of the device to be managed, modified, and monitored remotely (hence, remote device management). This protocol is ideal for fixtures installed in locations that are not easily accessible.

With RDM, the DMX512 system becomes bi-directional, allowing a compatible RDM enabled controller to send out a signal to devices on the wire, as well as allowing the fixture to respond (known as a GET command). The controller can then use it's SET command to modify settings that would typically have to be changed or viewed directly via the unit's display screen, including the DMX Address, DMX Channel Mode, and Temperature Sensors.

| RDM Code | Device ID | Device Model ID | Personality ID |
| :---: | :---: | :---: | :---: |
| 1900 | $0000-F F F F$ | 0007 | N/A |

Please be aware that not all RDM devices support all RDM features, and therefore it is important to check beforehand to ensure that the equipment that you are considering includes all of the features that you require.
The following parameters are accessible in RDM on this device:

| [0x0001] Disc Unique Branch |
| :--- |
| [0x0002] Disc Mute |
| [0x0003] Disc Un Mute |
| [0x0050] Supported Parameters |
| [0x0060] Device Info |
| [0x0081] Manufacturer Label |
| [0x0082] Device Label |
| [0x00C0] Software Version Label |
| $[0 x 00 \mathrm{E} 0]$ DMX Personality |
| [0x00F0] DMX Start Address |

## DRIVER OUTPUT LIMITATIONS

There is a limitation to how many pixels can be controlled by each driver output port, which in turn determines the maximum number of lighting fixtures that can be controlled by a single output or driver.

The values listed in the following tables for number of fixtures per driver port/driver unit are representative of the maximum number of fixtures that can be connected if the fixtures used are all of the same model type, with individual pixel control.

For example, if you connect only Pixie Strip 30s to the driver, and operate the driver in Kling-Net mode, you can connect up to 34 units of that model type to each driver port. This is defined by the fact that each driver port can handle a maximum of 1020 pixels, and each Pixie Strip 30 fixture is made up of 30 pixels. Therefore, you have 1020 pixels per driver port, divided by 30 pixels per fixture, which equals 34 fixtures per driver port.

It is possible to mix and match Pixie Strip model types that are attached to a single driver port. In this case, the important thing to keep in mind is the maximum number of pixels per driver port.

As long as this value is not exceeded, any combination of Pixie Strip 30s, 60s, and 120s may be used.

## PIXIE STRIP 30/60/120

| MODEL | TOTAL PIXELS | TOTAL CONTROL CHAN. | KLING-NET / ARTNET / sACN MAX PIXELS PER PORT = 1020 MAX PIXELS PER DRIVER $=2040$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | MAX FIXTURES per DRIVER PORT | MAX PIXELS per DRIVER PORT | MAX FIXTURES per DRIVER UNIT | MAX PIXELS per DRIVER UNIT |
| Pixie Strip 30 | 30 | 90 | 34 | 1020 | 68 | 2040 |
| Pixie Strip 60 | 60 | 180 | 17 | 1020 | 34 | 2040 |
| Pixie Strip 120 | 120 | 360 | 8 | 960 | 16 | 1920 |

## DRIVER OUTPUT LIMITATIONS

Your Pixie Driver 2000 V2 is programmed not to allow Pixie Strip fixtures to be added in such a way that the maximum number of pixels per port would be exceeded. This is done by limiting the number of Pixie Strip units that can be selected in the System Menu based on what has already been set up on the unit.

If we look at the example from the previous section, where 34 Pixie Strip 30s have been set up on a single port in Kling-Net mode, the System Menu will not allow any further fixtures to be set up on that port, regardless of model. This is because 34 fixtures, times 30 pixels per fixture, occupies 1020 pixels. If we then tried to set up a Pixie Strip 60, the System Menu would not allow any values other than "0" to be selected, because the port has no remaining free pixel capacity.
If you are having trouble adding the desired number of fixtures to a driver port, double check the number of fixtures of other Pixie Strip models that have been set up to see if they are using up all of the available pixel space on that port.

| PIXELS IN USE |  | PIXELS FREE |
| :---: | :---: | :---: |
| $34 \times$ Pixie Strip 30 | 1020 pixels |  |
| $0 \times$ Pixie Strip 60 | 0 pixels | -1020 pixels in use |
| $0 \times$ Pixie Strip 120 | 0 pixels | 0 pixels free |
|  | 1020 total pixels in use |  |

In this case, we would first need to "make room" on this driver port by reducing the number of Pixie Strip 30s that are set up. If we reduce the number of Pixie Strip 30s by two units, we then have a total free pixel capacity of 60 pixels on this port.

| PIXELS IN USE |  | PIXELS FREE |
| :---: | :---: | :---: |
| $32 \times$ Pixie Strip 30 | 960 pixels | 1020 pixel capacity |
| $0 \times$ Pixie Strip 60 | 0 pixels |  |
| $0 \times$ Pixie Strip 120 | 0 pixels |  |
|  | 960 total pixels in use | 60 pixels free |

Now that we have freed up pixels on this driver port, we are able to add the Pixie Strip 60, as desired. The System Menu now allows you to increase the number of Pixie Strip 60s on this driver port to 1, but it will not allow you to increase the number any higher because there are not enough pixels free to add more than 1 Pixie Strip 60. Notice, too, that the only selectable value for Pixie Strip 120s is "0" due to the fact that 60 free pixels is not enough to run a single Pixie Strip 120.

| PIXELS IN USE |  | PIXELS FREE |
| :---: | :---: | :---: |
| $32 \times$ Pixie Strip 30 | 960 pixels |  |
| $1 \times$ Pixie Strip 60 | 60 pixels | -1020 pixels in use |
| $0 \times$ Pixie Strip 120 | 0 pixels | $\mathbf{0}$ pixels free |

If you are having trouble adding the desired number of fixtures to a driver port, double check the number of fixtures of other Pixie Strip models that have been set up to see if they are using up all of the available pixel space on that port.

## RGB PIXEL CONTROL

This feature gives the user the ability to adjust the RGB Pixel Control configuration of the device. Individual pixels may be controlled independently for finer control over the resolution of the device's lighting display. Alternately, multiple individual pixels may be grouped together under a common set of control channels in order to reduce the number of required control channels. This also reduces the effective pixel count for each fixture, thereby allowing an increased number of fixtures to be operated off of the same driver port (see the Driver Output Limitations section). The downside to this is the reduced resolution of the lighting display.

For example, if the user is setting up a Pixie Strip 30 containing thirty (30) individual pixels, the finest level of control would be $1 \times 30$, which signifies 30 groups of 1 pixel each. In a $1 \times 30$ pixel control configuration, each of the 30 pixels is controlled independently, giving the lighting display a fine degree of resolution. However, each individual pixel requires 3 control channels (Red, Green, and Blue), and therefore 90 control channels are required to operate the device in this configuration, in addition to the need for the driver port to have free capacity to control at least 30 pixels.

If using fewer control channels or less driver port pixel capacity is desired, the user may opt for a different pixel control configuration, such as $2 \times 15$. This configuration separates the lighting display into 15 groups, each containing 2 individual pixels, with each group being controlled by a single set of control channels. Thus, the requirement for number of control channels is reduced to 45 ( 15 groups each requiring 3 control channels for Red, Green, and Blue). Moreover, each group of 2 pixels can now be treated effectively as a single large pixel, reducing the required driver port free pixel capacity to just 15 pixels. This is particularly useful when operating in Art-Net or sACN mode, where each driver port can accommodate a relatively limited number of pixels.

## RGB PIXEL CONTROL

## PIXEL CONTROL MODES, FULL LIST

| Pixel Count | Pixel Group Options |
| :---: | :---: |
| 1 | 1x1 |
| 2 | $1 \times 2,2 \times 1$ |
| 3 | 1x3, 3x1 |
| 4 | 1x4, 2x2, 4x1 |
| 5 | 1x5, $5 \times 1$ |
| 6 | 1x6, 2x3, 3x2, 6x1 |
| 7 | 1x7 |
| 8 | 1x8, 2x4, 4x2, 8x1 |
| 9 | $1 \times 9,3 \times 3,9 \times 1$ |
| 10 | 1x10, 2x5, 5x2, 10x1 |
| 11 | 1x11 |
| 12 | 1x12, $2 \times 6,3 \times 4,4 \times 3,6 \times 2,12 \times 1$ |
| 13 | 1×13 |
| 14 | 1x14, 2x7, 7x2, 14x1 |
| 15 | 1x15, 3x5, 5x3, 15x1 |
| 16 | 1x16, 2x8, 4x4, 8x2, 16x1 |
| 17 | 1x17 |
| 18 | 1x18, 2x9, 3x6, 6x3, 9x2, 18x1 |
| 19 | 1x19 |
| 20 | 1x20, $2 \times 10,4 \times 5,5 \times 4,10 \times 2,20 \times 1$ |
| 21 | 1x21, 3x7, 7x3, 21x1 |
| 22 | 1x22, 2x11, 11x2, 22x1 |
| 23 | 1x23 |
| 24 | 1x24, 2x12, 3x8, 4x6, 6x4, 8x3, 12x2, 24x1 |
| 25 | 1x25, 5x5, 25x1 |
| 26 | 1x26, 2x13, 13x2, 26x1 |
| 27 | 1x27, 3x9, 9x3, 27x1 |
| 28 | $1 \times 28,2 \times 14,4 \times 7,7 \times 4,14 \times 2,28 \times 1$ |
| 29 | 1x29 |
| 30 | $\begin{aligned} & 1 \times 30,2 \times 15,3 \times 10,5 \times 6,6 \times 5,10 \times 3,15 \times 2, \\ & 30 \times 1 \end{aligned}$ |
| 31 | 1x31 |


| Pixel Count | Pixel Group Options |
| :---: | :---: |
| 32 | $1 \times 32,2 \times 16,4 \times 8,8 \times 4,16 \times 2,32 \times 1$ |
| 33 | 1×33, 3x11, 11×3, 33x1 |
| 34 | 1x34, 2x17, 17x2, 34x1 |
| 35 | 1x35, 5x7, 7x5, 35x1 |
| 36 | $\begin{aligned} & \begin{array}{l} 1 \times 36,2 \times 18,3 \times 12,4 \times 9,6 \times 6,9 \times 4,12 \times 3, \\ 18 \times 2,36 \times 1 \end{array} \\ & \hline \end{aligned}$ |
| 37 | 1x37 |
| 38 | 1x38, 2x19, 19x2, 38×1 |
| 39 | 1x39, 3x13, 13x3, 39x1 |
| 40 | $\begin{aligned} & 1 \times 40,2 \times 20,4 \times 10,5 \times 8,8 \times 5,10 \times 4,20 \times 2, \\ & 40 \times 1 \end{aligned}$ |
| 41 | 1x41 |
| 42 | $\begin{aligned} & 1 \times 42,2 \times 21,3 \times 14,6 \times 7,7 \times 6,14 \times 3,21 \times 2, \\ & 42 \times 1 \end{aligned}$ |
| 43 | $1 \times 43$ |
| 44 | 1x44, 2x22, 4x11, 11x4, 22x2, 44x1 |
| 45 | $1 \times 45,3 \times 15,5 \times 9,9 \times 5,15 \times 3,45 \times 1$ |
| 46 | 1x46, 2x23, 23x2, 46x1 |
| 47 | 1x47 |
| 48 | $\begin{aligned} & 1 \times 48,2 \times 24,3 \times 16,4 \times 12,6 \times 8,8 \times 6,12 \times 4, \\ & 16 \times 3,24 \times 2,48 \times 1 \end{aligned}$ |
| 49 | 1x49, 7x7, 49x1 |
| 50 | $1 \times 50,2 \times 25,5 \times 10,10 \times 5,25 \times 2,50 \times 1$ |
| 51 | 1x51, 3x17, 17x3, 51x1 |
| 52 | 1x52, 2x26, 4x13, 13x4, 26x2, 52x1 |
| 53 | 1x53 |
| 54 | $\begin{aligned} & 1 \times 54,2 \times 27,3 \times 18,6 \times 9,9 \times 6,18 \times 3,27 \times 2, \\ & 54 \times 1 \end{aligned}$ |
| 55 | 1×55, $5 \times 11,11 \times 5,55 \times 1$ |
| 56 | $\begin{aligned} & 1 \times 56,2 \times 28,4 \times 14,7 \times 8,8 \times 7,14 \times 4,28 \times 2, \\ & 56 \times 1 \end{aligned}$ |
| 57 | 1x57, 3x19, 19x3, 57x1 |
| 58 | 1x58, 2x29, 29x2, 58x1 |
| 59 | 1x59 |

## RGB PIXEL CONTROL

## PIXEL CONTROL MODES, FULL LIST (continued)

| Pixel Count | Pixel Group Options |
| :---: | :---: |
| 60 | $\begin{aligned} & 1 \times 60,2 \times 30,3 \times 20,4 \times 15,5 \times 12,6 \times 10,10 \times 6, \\ & 12 \times 5,15 \times 4,20 \times 3,30 \times 2,60 \times 1 \end{aligned}$ |
| 61 | $1 \times 61$ |
| 62 | 1x62, 2x31, 31x2, 62x1 |
| 63 | 1x63, 3x21, $7 \times 9,9 \times 7,21 \times 3,63 \times 1$ |
| 64 | $1 \times 64,2 \times 32,4 \times 16,8 \times 8,16 \times 4,32 \times 2,64 \times 1$ |
| 65 | $1 \times 65,5 \times 13,13 \times 5,65 \times 1$ |
| 66 | $\begin{aligned} & 1 \times 66,2 \times 33,3 \times 22,6 \times 11,11 \times 6,22 \times 3,33 \times 2, \\ & 66 \times 1 \end{aligned}$ |
| 67 | 1x67 |
| 68 | 1x68, $2 \times 34,4 \times 17,17 \times 4,34 \times 2,68 \times 1$ |
| 69 | 1x69, 3x23, 23x3, 69x1 |
| 70 | $\begin{aligned} & 1 \times 70,2 \times 35,5 \times 14,7 \times 10,10 \times 7,14 \times 5,35 \times 2, \\ & 70 \times 1 \end{aligned}$ |
| 71 | 1x71 |
| 72 | $\begin{array}{\|l} \hline 1 \times 72,2 \times 36,3 \times 24,4 \times 18,6 \times 12,8 \times 9,9 \times 8, \\ 12 \times 6,18 \times 4,24 \times 3,36 \times 2,72 \times 1 \end{array}$ |
| 73 | 1x73 |
| 74 | 1x74, 2x37, 37x2, 74x1 |
| 75 | $1 \times 75,3 \times 25,5 \times 15,15 \times 5,25 \times 3,75 \times 1$ |
| 76 | $1 \times 76,2 \times 38,4 \times 19,19 \times 4,38 \times 2,76 \times 1$ |
| 77 | 1x77, $7 \times 11,11 \times 7,77 \times 1$ |
| 78 | $\begin{aligned} & 1 \times 78,2 \times 39,3 \times 26,6 \times 13,13 \times 6,26 \times 3,39 \times 2, \\ & 78 \times 1 \end{aligned}$ |
| 79 | 1x79 |
| 80 | $\begin{aligned} & 1 \times 80,2 \times 40,4 \times 20,5 \times 16,8 \times 10,10 \times 8,16 \times 5, \\ & 20 \times 4,40 \times 2,80 \times 1 \end{aligned}$ |
| 81 | 1x81, 3x27, 9x9, 27x3, 81x1 |
| 82 | 1x82, 2x41, 41x2, 82x1 |
| 83 | $1 \times 83$ |
| 84 | $\begin{aligned} & 1 \times 84,2 \times 42,3 \times 28,4 \times 21,6 \times 14,7 \times 12,12 \times 7 \text {, } \\ & 14 \times 6,21 \times 4,28 \times 3,42 \times 2,84 \times 1 \end{aligned}$ |
| 85 | 1x85, 5x17, 17x5, 85x1 |
| 86 | 1x86, 2x43, 43x2, 86x1 |
| 87 | 1x87, 3x29, 29x3, 87x1 |


| Pixel Count | Pixel Group Options |
| :---: | :---: |
| 88 | $\begin{aligned} & 1 \times 88,2 \times 44,4 \times 22,8 \times 11,11 \times 8,22 \times 4,44 \times 2 \\ & 88 \times 1 \end{aligned}$ |
| 89 | $1 \times 89$ |
| 90 | $\begin{aligned} & 1 \times 90,2 \times 45,3 \times 30,5 \times 18,6 \times 15,9 \times 10,10 \times 9, \\ & 15 \times 6,18 \times 5,30 \times 3,45 \times 2,90 \times 1 \end{aligned}$ |
| 91 | 1x91, $7 \times 13,13 \times 7,91 \times 1$ |
| 92 | 1x92, $2 \times 46,4 \times 23,23 \times 4,46 \times 2,92 \times 1$ |
| 93 | 1x93, 3x31, 31x3, 93x1 |
| 94 | 1x94, 2x47, 47x2, 94x1 |
| 95 | 1x95, $5 \times 19,19 \times 5,95 \times 1$ |
| 96 | $\begin{aligned} & 1 \times 96,2 \times 48,3 \times 32,4 \times 24,6 \times 16,8 \times 12,12 \times 8, \\ & 16 \times 6,24 \times 4,32 \times 3,48 \times 2,96 \times 1 \end{aligned}$ |
| 97 | $1 \times 97$ |
| 98 | 1x98, $2 \times 49,7 \times 14,14 \times 7,49 \times 2,98 \times 1$ |
| 99 | $1 \times 99,3 \times 33,9 \times 11,11 \times 9,33 \times 3,99 \times 1$ |
| 100 | $\begin{aligned} & 1 \times 100,2 \times 50,4 \times 25,5 \times 20,10 \times 10,20 \times 5, \\ & 25 \times 4,50 \times 2,100 \times 1 \end{aligned}$ |
| 101 | 1×101 |
| 102 | $\begin{aligned} & 1 \times 102,2 \times 51,3 \times 34,6 \times 17,17 \times 6,34 \times 3, \\ & 51 \times 2,102 \times 1 \end{aligned}$ |
| 103 | $1 \times 103$ |
| 104 | $\begin{array}{\|l} \hline 1 \times 104,2 \times 52,4 \times 26,8 \times 13,13 \times 8,26 \times 4, \\ 52 \times 2,104 \times 1 \end{array}$ |
| 105 | $\begin{aligned} & 1 \times 105,3 \times 35,5 \times 21,7 \times 15,15 \times 7,21 \times 5, \\ & 35 \times 3,105 \times 1 \end{aligned}$ |
| 106 | 1x106, 2x53, 53x2, 106x1 |
| 107 | 1x107 |
| 108 | $1 \times 108,2 \times 54,3 \times 36,4 \times 27,6 \times 18,9 \times 12$, $12 \times 9,18 \times 6,27 \times 4,36 \times 3,54 \times 2,108 \times 1$ |
| 109 | 1x109 |
| 110 | $\begin{array}{\|l} 1 \times 110,2 \times 55,5 \times 22,10 \times 11,11 \times 10,22 \times 5, \\ 55 \times 2,110 \times 1 \end{array}$ |
| 111 | 1x111, 3x37, 37x3, 111x1 |
| 112 | $\begin{aligned} & 1 \times 112,2 \times 56,4 \times 28,7 \times 16,8 \times 14,14 \times 8, \\ & 16 \times 7,28 \times 4,56 \times 2,112 \times 1 \end{aligned}$ |
| 113 | 1x113 |
| 114 | $\begin{array}{\|l} \hline 1 \times 114,2 \times 57,3 \times 38,6 \times 19,19 \times 6,38 \times 3, \\ 57 \times 2,114 \times 1 \end{array}$ |

## RGB PIXEL CONTROL

## PIXEL CONTROL MODES, FULL LIST

| Pixel Count | Pixel Group Options |
| :---: | :---: |
| 115 | $1 \times 115,5 \times 23,23 \times 5,115 \times 1$ |
| 116 | 1x116, 2x58, 4x29, 29x4, 58x2, 116x1 |
| 117 | 1x117, 3x39, 9x13, 13x9, 39x3, 117x1 |
| 118 | 1x118, 2x59, 59x2, 118x1 |
| 119 | 1x119, 7x17, 17x7, 119x1 |
| 120 | $1 \times 120,2 \times 60,3 \times 40,4 \times 30,5 \times 24,6 \times 20$, $8 \times 15,10 \times 12,12 \times 10,15 \times 8,20 \times 6,24 \times 5$, $30 \times 4,40 \times 3,60 \times 2,120 \times 1$ |
| 121 | 1x121, 11x11, 121x1 |
| 122 | 1x122, 2x61, 61x2, 122x1 |
| 123 | 1x123, 3x41, 41x3, 123x1 |
| 124 | 1x124, 2x62, 4x31, 31x4, 62x2, 124x1 |
| 125 | 1x125, 5x25, 25x5, 125x1 |
| 126 | $1 \times 126,2 \times 63,3 \times 42,6 \times 21,7 \times 18,9 \times 14$, $14 \times 9,18 \times 7,21 \times 6,42 \times 3,63 \times 2,126 \times 1$ |
| 127 | 1x127 |
| 128 | $\begin{aligned} & 1 \times 128,2 \times 64,4 \times 32,8 \times 16,16 \times 8,32 \times 4, \\ & 64 \times 2,128 \times 1 \end{aligned}$ |
| 129 | 1x129, 3x43, 43x3, 129x1 |
| 130 | $\begin{aligned} & 1 \times 130,2 \times 65,5 \times 26,10 \times 13,13 \times 10,26 \times 5, \\ & 65 \times 2,130 \times 1 \end{aligned}$ |
| 131 | 1x131 |
| 132 | $1 \times 132,2 \times 66,3 \times 44,4 \times 33,6 \times 22,11 \times 12$, $12 \times 11,22 \times 6,33 \times 4,44 \times 3,66 \times 2,132 \times 1$ |
| 133 | 1x133, 7x19, 19x7, 133x1 |
| 134 | 1x134, 2x67, 67x2, 134x1 |
| 135 | $\begin{aligned} & 1 \times 135,3 \times 45,5 \times 27,9 \times 15,15 \times 9,27 \times 5, \\ & 45 \times 3,135 \times 1 \end{aligned}$ |
| 136 | $\begin{aligned} & 1 \times 136,2 \times 68,4 \times 34,8 \times 17,17 \times 8,34 \times 4, \\ & 68 \times 2,136 \times 1 \end{aligned}$ |
| 137 | 1x137 |
| 138 | $\begin{aligned} & 1 \times 138,2 \times 69,3 \times 46,6 \times 23,23 \times 6,46 \times 3, \\ & 69 \times 2,138 \times 1 \end{aligned}$ |
| 139 | 1x139 |
| 140 | $1 \times 140,2 \times 70,4 \times 35,5 \times 28,7 \times 20,10 \times 14$, $14 \times 10,20 \times 7,28 \times 5,35 \times 4,70 \times 2,140 \times 1$ |
| 141 | 1x141, 3x47, 47x3, 141x1 |


| Pixel Count | Pixel Group Options |
| :---: | :---: |
| 142 | 1x142, 2x71, 71x2, 142x1 |
| 143 | 1x143, 11x13, 13x11, 143x1 |
| 144 | $1 \times 144,2 \times 72,3 \times 48,6 \times 36,8 \times 24,9 \times 18$, $12 \times 16,16 \times 12,18 \times 9,24 \times 8,36 \times 6,48 \times 3$, $72 \times 2,144 \times 1$ |
| 145 | 1x145, 5x29, 29x5, 145x1 |
| 146 | 1x146, 2x73, 73x2, 146x1 |
| 147 | 1x147, 3x49, $7 \times 21,21 \times 7,49 \times 3,147 \times 1$ |
| 148 | 1x148, 2x74, 4x37, 37x4, 74x2, 148x1 |
| 149 | 1x149 |
| 150 | $1 \times 150,2 \times 75,3 \times 50,5 \times 30,6 \times 25,10 \times 15$, $15 \times 10,25 \times 6,30 \times 5,50 \times 3,75 \times 2,150 \times 1$ |
| 151 | 1x151 |
| 152 | $\begin{aligned} & \hline 1 \times 152,2 \times 76,4 \times 38,8 \times 19,19 \times 8,38 \times 4, \\ & 76 \times 2,152 \times 1 \\ & \hline \end{aligned}$ |
| 153 | 1x153, 3x51, 9x17, 17x9, 51 $\times 3,153 \times 1$ |
| 154 | $\begin{array}{\|l} 1 \times 154,2 \times 77,7 \times 22,11 \times 14,14 \times 11,22 \times 7, \\ 77 \times 2,154 \times 1 \end{array}$ |
| 155 | 1x155, 5x31, 31x5, 155x1 |
| 156 | $\begin{array}{\|l\|} \hline 1 \times 156,2 \times 78,3 \times 52,4 \times 39,6 \times 26,12 \times 13, \\ 13 \times 12,26 \times 6,39 \times 4,52 \times 3,78 \times 2,156 \times 1 \\ \hline \end{array}$ |
| 157 | 1x157 |
| 158 | 1x158, 2x79, $79 \times 2,158 \times 1$ |
| 159 | 1x159, 3x53, 53x3, 159x1 |
| 160 | $1 \times 160,2 \times 80,4 \times 40,5 \times 32,8 \times 20,10 \times 16$, $16 \times 10,20 \times 8,32 \times 5,40 \times 4,80 \times 2,160 \times 1$ |
| 161 | 1x161, 7x23, 23x7, 161x1 |
| 162 | $\begin{aligned} & 1 \times 162,2 \times 81,3 \times 54,6 \times 27,9 \times 18,18 \times 9, \\ & 27 \times 6,54 \times 3,81 \times 2,162 \times 1 \end{aligned}$ |
| 163 | 1x163 |
| 164 | 1x164, 2x82, 4x41, 41x4, 82x2, 164×1 |
| 165 | $\begin{array}{\|l\|} \hline 1 \times 165,3 \times 55,5 \times 33,11 \times 15,15 \times 11,33 \times 5, \\ 55 \times 3,165 \times 1 \end{array}$ |
| 166 | 1x166, 2x83, 83x2, 166x1 |
| 167 | 1x167 |

## RGB PIXEL CONTROL

## PIXEL CONTROL MODES, FULL LIST

| Pixel <br> Count | Pixel Group Options |
| :---: | :--- |
| 168 | $1 \times 168,2 \times 84,3 \times 56,4 \times 42,6 \times 28,7 \times 24$, <br> $8 \times 21,12 \times 14,14 \times 12,21 \times 8,24 \times 7,28 \times 6$, <br> $42 \times 4,56 \times 3,84 \times 2,168 \times 1$ |
| 169 | $1 \times 169,13 \times 13,169 \times 1$ |
| 170 | $1 \times 170,2 \times 85,5 \times 34,10 \times 17,17 \times 10,34 \times 5$, <br> $85 \times 2,170 \times 1$ |

## SYSTEM MENU

The device includes an easy to navigate system menu control panel display where all necessary settings and adjustments are made (see image below).

- The MODE button is used to cycle through main menu options, or to return to the previous menu.
- The SETUP button is used to select an option in either the main menu or the sub-menu of any main menu item, and to cycle through the sub-menu options.
- The UP and DOWN buttons are used to adjust the values of the sub-menu options.



## DMX ADDRESS FOR PIXIE STRIPS SETUP

When setting up this driver to control Pixie Strips in either ArtNet Mode or sACN Control Mode, the user has the ability to manually select the DMX address by navigating to the "Pixie Strip Setup" submenu, then selecting the "DMX Channel" option. However, selecting this value manually is NOT necessary, as this driver is intelligent enough to assign the DMX addresses automatically according to the number of control channels required by each device being controlled.

| MODE | SET UP | UP/DOWN | DESCRIPTION |
| :---: | :---: | :---: | :---: |
| MANUAL MODE | Red Dimmer | Manual Control Red: xxx | Adjust intensity of red color |
|  | Green Dimmer | Manual Control Green: xxx | Adjust intensity of green color |
|  | Blue Dimmer | Manual Control Blue: xxx | Adjust intensity of blue color |
|  | Output Enable or Disable Set | Manual Control: Out1: Enable / Disable | Enable or disable output 1 |
|  |  | Manual Control: Out2: Enable / Disable | Enable or disable output 2 |
| KLINGNET MODE | Pixie Strip Setup | Klingnet Out x Pixie Strip xxx | Select which Pixie Strip model will be connected to each output. <br> - x = Output Port (1 or 2) <br> - $\mathrm{xxx}=$ Pixie Strip model ( 30,60 , or 120 ) |
|  |  | Klingnet Out x xxx Number xx | Select the number of individual Pixie Strip units that will be connected to each output. - xx = number of units |
|  |  | Klingnet Out x xx X xx RGB Pixels | Select the RGB Pixel Control mode. See the RGB Pixel Control section of this manual for a full list of selectable values. |
| ARTNET MODE | IP Address Set | IP Address Out $X$ xxx:xxx:xxx:xxx | Set IP address of each output. |
|  | DMX Universe Set | Universe Out $x$ U:xxxxx | Set DMX universe of each output. |
|  | Pixie Strip Setup | Artnet Out X Pixie Strip xxx | Select which Pixie Strip model will be connected to each output. <br> - x = Output Port (1 or 2) <br> - xxx = Pixie Strip model (30, 60, or 120 ) |
|  |  | Artnet Out x xxx Number xx | Select the number of individual Pixie Strip units that will be connected to each output. - xx = number of units |
|  |  | Artnet Out x xx X xx RGB Pixels | Select the RGB Pixel Control mode. See the RGB Pixel Control section of this manual for a full list of selectable values. |
|  |  | DMX Address | Set the DMX start address of the connected device for each port |
| sACN CONTROL MODE | DMX Universe Set | sACN Out $x$ U:xxxxx | Set the DMX universe of each output (x). |
|  | Pixie Strip Setup | sACN Out x Pixie Strip xxx | Select which Pixie Strip model will be connected to each output. <br> - x = Output Port (1 or 2) <br> - xxx = Pixie Strip model (30, 60, or 120 ) |
|  |  | sACN Out x xxx Number xx | Select the number of individual Pixie Strip units that will be connected to each output. - $\mathrm{xx}=$ number of units |
|  |  | sACN Out x xx X xx RGB Pixels | Select the RGB Pixel Control mode. See the RGB Pixel Control section of this manual for a full list of selectable values. |
|  |  | DMX Address | Set the DMX start address of the connected device for each port |

## SYSTEM MENU

| MODE | SET UP | UP/DOWN | DESCRIPTION |
| :---: | :---: | :---: | :---: |
| BUILT INPROGRAM MODE | Program Play Set | Programs Program xx | Select a built-in program. |
|  |  | Programs Speed xx | Set the program speed. |
|  |  | Programs Fade $x$ | Set the program fade speed, 0-16 Fastest to Slowest |
|  |  | Programs Phase Time xx | Set the phase time. |
|  | Pixie Strips Setup | Program Out x Pixie Strip xxx | Select which Pixie Strip model will be connected to each output. <br> - x = Output Port (1 or 2) <br> - xxx = Pixie Strip model ( 30,60 , or 120 ) |
|  |  | Program Out x xxx Number xx | Select the number of individual Pixie Strip units that will be connected to each output. $\mathrm{xx}=$ number of units |
| SETUP OPTIONS | LCD Backlight On/Off | Setup Options BLGT: On | LED backlight always on |
|  |  | Setup Options BLGT: Off | LED backlight off after 20 sec |
|  | LCD Standard / Reverse | Setup Options Display: Std | Upright display orientation |
|  |  | Setup Options Display: Rev | Inverted display orientation |
|  | System Reset | SysReset | Reset unit to factory settings |
| SOFTWARE VERSION | Software Version Display | Software Version Port1 Vx.x | Display software version of port 1 |
|  |  | Software Version Port2 Vx.x | Display software version of port 2 |
| SERVICE | Software Update | Yes / No | Passcode is 011. Then press SETUP to enter into software update menu. |

## SOFTWARE UPDATES

To update the unit via the USB port, follow the directions shown below:

1. Begin by loading the software provided by ADJ onto an empty USB flash drive (4GB or smaller is recommended).
2. In the system menu, navigate to Service > Passcode > Update Software, then select "Yes." The passcode is "011". Refer to the System Menu section of this manual.
3. The software update should begin once the "Yes" option is selected. When the software update has been completed, the screen will display the message "Software Update OK".
4. Remove the USB, turn the unit off, then turn it back on. The unit should now operate with the updated software installed.

## SPECIFICATIONS

## Control Features:

- Power / data supply for ADJ Lighting Pixie Strip 30, Pixie Strip 60, and Pixie Strip 120
- Manual RGB mode
- Internal programs
- Manual Dimming and Strobe Control
- Full Pixel Mapping Control
- 2,040 Pixels per driver via Kling-Net, Art-Net, or sACN (streaming ACN)
- OLED screen with 4-button menu
- RDM compatible
- USB port for Firmware Updates


## Control Quantity:

- KlingNet/Art-Net/sACN: max 34x Pixie Strip 30; 17x Pixie Strip 60; 8x Pixie Strip 120 per port


## Connections:

- Power: PowerLock Input
- Two KlingNet / Artnet ethernet ports
- Two 4-pin DC24V power/data outputs to Pixie Strips


## Mounting Options:

- Bolt to add a clamp to hang from truss (clamp and truss not included)
- Includes 19-inch rack mount ears
- Safety eye


## Electrical:

- Multi-voltage operation: AC $100-240 \mathrm{~V}, 50 / 60 \mathrm{~Hz}$
- Power Consumption: 400W max
- $-4^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(-20^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$


## Dimensions / Weight:

- Dimensions (LxWxH): 18.9" x 7.11 " x 2.91 " / 480x180.8x74mm
- Weight: 5.6 lbs / 2.5 kg .


## What's Included:

- Twist-Lock power cable
- 19-inch rack mount ears
- 4-pin data cable

Approvals:

- CE

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Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

## DIMENSIONAL DRAWINGS

## Dimensions may not be drawn to scale.



## ACCESSORIES

| Order Code | Description |
| :---: | :--- |
| PIX158 | 1-foot Pixie Strip Link Cable |
| PIX174 | 3-foot Pixie Strip Link Cable |
| PIX188 | 5-foot Pixie Strip Link Cable |
| PIX200 | 10-foot Pixie Strip Link Cable |
| PIX213 | 15-foot Pixie Strip Link Cable |
| PIX229 | 25-foot Pixie Strip Link Cable |
| PIX242 | 50-foot Pixie Strip Link Cable |

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