

# ***Pknight***

Art-Net <-> DMX512 Network Converter



**ART  
NET**  
ETHERNET



## **CR011R**

Art-Net <sup>™</sup> Designed by and Copyright Artistic Licence Holdings Ltd

# Contents

|                                      |       |
|--------------------------------------|-------|
| 1. Introduction.....                 | 03    |
| 2. Customer Support: .....           | 03    |
| 3. Technical Specs.....              | 04    |
| 4. Name Your buddy.....              | 05    |
| 5. Oled Control System.....          | 06    |
| 6. Front and Rear Panel.....         | 07    |
| 7. Settings.....                     | 08~11 |
| 7.1 Menu setting parameter.....      | 08    |
| 7.2 Table 1 .....                    | 09    |
| 7.3 Table 2 .....                    | 10    |
| 7.4 Error Message and solutions..... | 11    |
| 8.Troubleshooting.....               | 11~12 |

# **1. Introduction**

Thank you for purchasing our bi-direction artnet controller CR011R which can convert the Artnet network data package into DMX512 data or DMX512 data into Artnet , The device is a powerful mini box with artnet 4, easy to set up via the Oled display and four buttons,no need any application or browser.

There is also a funny feature - NYB(name your buddy),we can customize the text of startup display via application (DMX-Workshop), very easy to set up.

## **2. Customer Support:**

Pknight Products,LLC provides a toll free customer support,to provide set up help and to answer any question should you encounter problems during your set up or initial operation.You may also visit us on the web at

[www.pknightpro.com](http://www.pknightpro.com)

for any comments or suggestions.

E-mail: [info@pknightpro.com](mailto:info@pknightpro.com)

We will contact you within 24 hours

### **3. Technical Specs**

|                          |                                      |
|--------------------------|--------------------------------------|
| Power input:             | 5Vdc / 500ma                         |
| Input signal:            | Artnet / DMX512                      |
| Output signal:           | DMX / 512Artnet                      |
| DMX channels:            | 1 universe / 512 channels            |
| DMX connection:          | 3-pin XLR female                     |
| Network connection:      | RJ45                                 |
| network card speed:      | 100Mbps                              |
| Isolation ethernet port: | Total Isolation                      |
| Isolation power input:   | Total Isolation                      |
| Working temperature:     | -30℃ ~65℃                            |
| Dimension :              | L90×W47×H40mm<br>L3.5×W1.8×H1.6inch  |
| Package size:            | L110×W70×H55mm<br>L4.3×W2.7×H2.1inch |
| Weight (G.W):            | 291g<br>10.3oz                       |

## 4. Name Your buddy

Download the app: **DMX-Workshop**

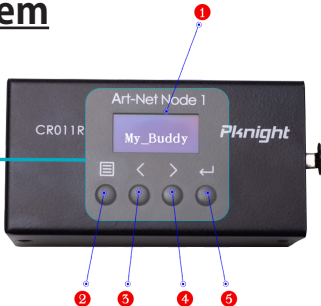
from [www.artisticlicence.com/product/dmx-workshop/](http://www.artisticlicence.com/product/dmx-workshop/)

### Video tutorial



## 5. Oled Control System

Oled Control System



① Oled Screen

② Menu Button

--Click to switch the menu option

③ Backward or Minus Button

--To go backward or minus in the selected function or parameter

④ Forwardward or Plus Button

--To go forward or plus in the selected function or parameter

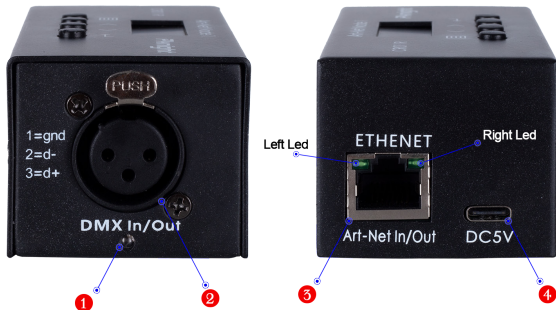
⑤ Enter Button

--Click to choose function or parameter

--Press and hold for 3 seconds to submit

**\*Note\***

## 6. Front and Rear Panel



### ① Blue LED Indicator

- Stays off always: Standby mode, waiting to operate in dmx-(in/out) mode
- Stays on always (no blinking): signifies dmx-out mode, now the unit will convert Artnet to DMX output
- Blinks continuously: signifies dmx-in mode, now the unit will convert DMX input to Artnet

### ② Female XLR Port (3 Pin)

### ③ RJ45 Port (ArtNet In/Out)

- Green LED on the left : link LED
- Green LED on the right : Activity LED
- Blink Fast~ There is activity on this port
- Off~NO Data

### ④ Power Port (Typ-c)

- Power Supply: 5 V DC
- Can be powered by 5v adapter, pc usb and power bank via USB to Typ-c cable(cable included)

# 7. Settings

## 7.1 Menu setting parameter

| NO. | display          |                                           | function                          |
|-----|------------------|-------------------------------------------|-----------------------------------|
|     | option           | details                                   |                                   |
| 1   | < Local IP >     | T1*                                       | Set the ip address of the device  |
| 2   | <Subnet Mask>    | T1*                                       | Set the subnet mask of the device |
| 3   | <Port universe>  | T2*                                       | Set the universe of the device    |
| 4   | < Port SubNet>   | T2*                                       | Set the subnet of the device      |
| 5   | < Port Net>      | T2*                                       | Set the net of the device         |
| 6   | < Transmit mode> | Artnet -> dmx or Artnet <- dmx            |                                   |
| 7   | <Ethernet MAC>   | Set the MAC address of the device         |                                   |
| 8   | < Version>       | V2.5 (display the current latest version) |                                   |
| 9   | <Default Set>    | set to "yes" to restore factory settings  |                                   |

T1\* refer to Table 1,T2\* refer to Table 2



## 7.2 Table 1

| <i>Recommended Network Parameters</i> |                    |                          |
|---------------------------------------|--------------------|--------------------------|
| <i>IP addr</i>                        | <i>subnet mask</i> | <i>Broadcast address</i> |
| 2.x.x.x                               | 255.0.0.0          | 2.255.255.255            |
| 10.x.x.x                              | 255.0.0.0          | 10.255.255.255           |
| 192.168.x.x                           | 255.255.255.0      | 192.168.x.255            |

### note:

- "x" refer to range 0~255.
- the last digit can not be 255 or 0
- The ip address cannot be the same as the broadcast address
- The ip address set by the device cannot be the same as other devices under the LAN (local area network)

## 7.3 Table 2

| <i>Port Address Parameters</i> |              |
|--------------------------------|--------------|
| <i>Port addr</i>               | <i>value</i> |
| Net                            | 0~127        |
| SubNet                         | 0~15         |
| Port Universe                  | 0~15         |

### **Artnet 4 Available**

Art-Net 4 was released in September 2016. It is the most powerful and flexible version to date and, in recognition of this fact, gained a PLASA Award for Innovation.

- Transports up to 32,768 DMX universes over a single network
- Uses standard ethernet technology equipment
- One IP address per gateway (up to 1000 DMX ports)
- All DMX ports can be assigned a fully independent universe
- Free network tools(DMX-Workshop)
- Protocol is free-of-charge
- Perfect for large scale LED installations

## 7.4 Error Message and solutions

| <i>Display</i>                               | <i>Reason</i>                                                 | <i>Solution</i>                                               |
|----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| <b>!!Local ip: hosted<br/>can't is 0!!</b>   | Set the host address<br>to 0                                  | change the 0 to other<br>number                               |
| <b>!Local ip: hosted<br/>can't all is 1!</b> | Set the IP address<br>to the same as the<br>broadcast address | change ip address,<br>Different from the broadcast<br>address |

## 8. Troubleshooting

- Set IP address

Each node - CR011R must have a unique IP address (not occupied by other network devices) and the specific subnet mask, otherwise the network will not work properly

- set subnet mask

The subnet mask is 255.x.y.z, no need to modify x, y, z individually, we provide the subnet mask table in the system, there are 23 subnet masks that may be used

- Set the subnet number

There are 16 subnets in Artnet which is ranged from 0 to 15. Select the subnet number you want to set.

- Set the net number

There are 128 nets in Artnet which is ranged from 0 to 127. Select the net number you want to set.

- Transmit mode setting

< Transmit mode >

- if convert Artnet to DMX then set the mode to "Artnet -> dmx"
- if convert DMX to Artnet then set the mode to "Artnet <- dmx"

- Set the MAC address of CR011R

Each node must have a unique MAC address such as d-4d-48-c9-06-64, When we change the IP address, the MAC address will also change at the same time, so it can effectively prevent MAC address conflict. If there is still a network card conflict, the user can modify the second and third bytes of the MAC address.

- reset

Set to "yes" to restore factory settings!

- Hold the "enter" button to submit

Please keep in mind about "enter" button that ["Click to choose function or parameter, Press and hold for 3 seconds to submit"](#)