PX357

Gate 4
DMX

MANUAL

PXM®

TABLE OF CONTENTS

The manufacturer reserves the right to change the operation and handling of the device in order to improve the product.

1. OVERVIEW

Gate 4 DMX converts Art-Net signal to four output DMX512 ports.

It has two modes of merging signals: HTP and LTP. Protocol version is Art-Net II.
The device is protected against mechanical damage by robust metal housing. DMX 512 ports are optical isolated XLR connectors, resistant to mechanical damage.
Additional mounting kits are available for installing a single P357 unit in a RACK system, two units side by side in a RACK system, or for suspending a PX357 from e.g. a grid structure.

The device is equipped with an Ethernet interface running in 10/100BaseTX standard.
In addition, the device has four status LEDs that show device modes.
The gate is powered from 230 V AC.

The device comes with an application that enables the configuration of Ethernet settings, as well as the configuration of timing parameters of DMX protocol, such as: Brake, MAB, MBF, WAIT and the amount of transmitted DMX channels.

2. SAFETY CONDITIONS

Gate PX357 is powered directly from standard 230 V AC grid what can cause electric shock when safety rules are not observed.

Therefore it is necessary to observe the following:
1. Installation, particularly power connection, should be performed by a person holding the appropriate qualifications, according to instruction manual.
2. Gate can be connected only to grid, which has protecting instalation in working order (3-wire grid).
3. All the conductors should be protected against mechanical and thermal damage.
4. In the event of damaging any conductor, it should be replaced with a conductor of the same technical data and attestations.
5. Device with visible mechanical damage cannot be connected to the mains.
6. All repairs, should be made with cut off power supply.
7. The device should be strictly protected against water and other liquids.
8. All sudden shocks, particularly dropping, should be avoided.
9. The device cannot be used in places with temperature lower than 2°C or higher than 40°C.
10. The device cannot be turned on in places with humidity exceeding 90%.
11. Clean with damp cloth only - gate should be made with cut off power supply.
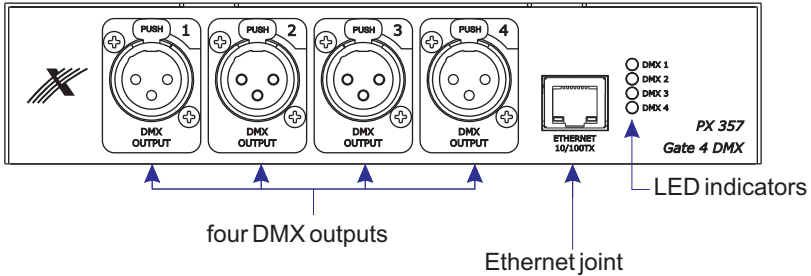
3. GATE STRUCTURE OVERVIEW

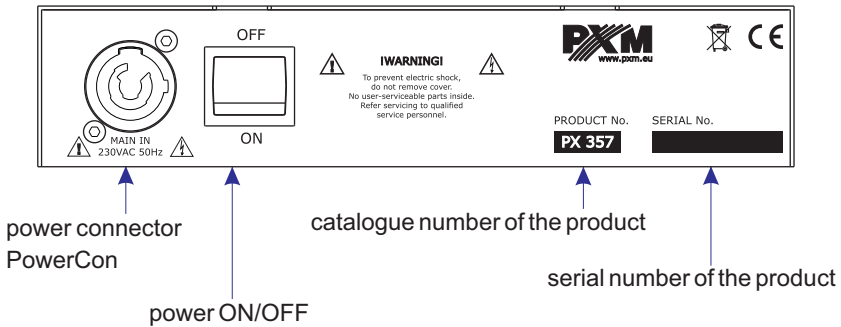PX357 is equipped with four DMX outputs, Ethernet joint, LED indicators.

LEDs located in the front indicate the status of the device:
- diode flashing 1 time per **3 seconds** indicates that the device is idle
- diode flashing 1 time per second (**1 Hz**) – the device is connected with a set-up programme
- diode flashing at a frequency of **4 Hz** – the port sends DMX signal

THE FRONT OF THE DEVICE:

four DMX outputs

Ethernet joint

LED indicators

THE REAR OF THE DEVICE:

power connector
PowerCon

power ON/OFF

catalogue number of the product

serial number of the product

# 4. BASIC INFORMATION ON THE DMX512 PROTOCOL

BREAK – length of the low status on line at the beginning of the DMX packet transmission.

MAB (Mark **A**fter **B**reak**)** – MAB Length – interval after Break, present in each packet according to DMX-512 standard.

MBF (**M**ark **B**etween **F**rames) – interval between DMX512 frames (channels). MBF separates stop bits of one channel from the start bit of another.

WAIT – interval between the next DMX packets.

Channels nbr – the number of channels; by using this function, you can reduce the number of channels sent by the device. The minimum is 24 channels, and the maximum is 512 (set by default).

full "pakiet" DMX
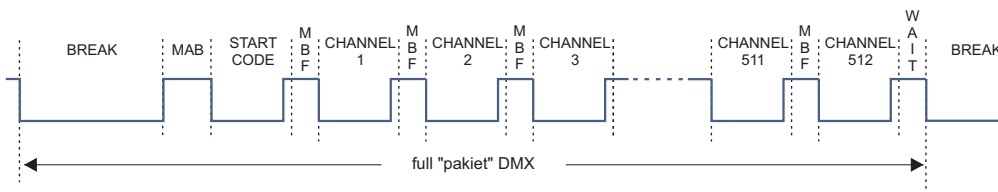
5. SOFTWARE INSTALLATION

PX357 software can be installed on Windows® XP, VISTA™, Windows® 7 oraz Windows® 8. Software installation procedure may vary depending on the computer's operating system. Windows® 7 is presented as an example here.

The installation is as follows:

1. Open an installation file, click [**Next**] to go to the software installation.

The installation file is attached to the driver on the CD, or available for download from the website:
   http://pxm.pl

2. From the drop-down menu, select the language for the installation and confirm by clicking [**OK**].

3. Carefully read the license agreement; if you agree to the terms of this agreement, click [**I agree**] to continue the installation.

4. Select the components you want to install, then click [**Next**].

5. Select the folder in which you want to install the software. Confirm your selection by clicking [**Next**].

6. Select the start menu in which you want to create a shortcut to the programme. You can also rename the folder, then click [**Install**].

7. When installation complete window pops up, press [**Finish**] to exit the installation wizard.

8. Windows® displays a system security alert; to be able to use the PX357 software, you need to allow access.

6. STRUCTURE OF THE APPLICATION WINDOW

information on the device selected from the list, network settings
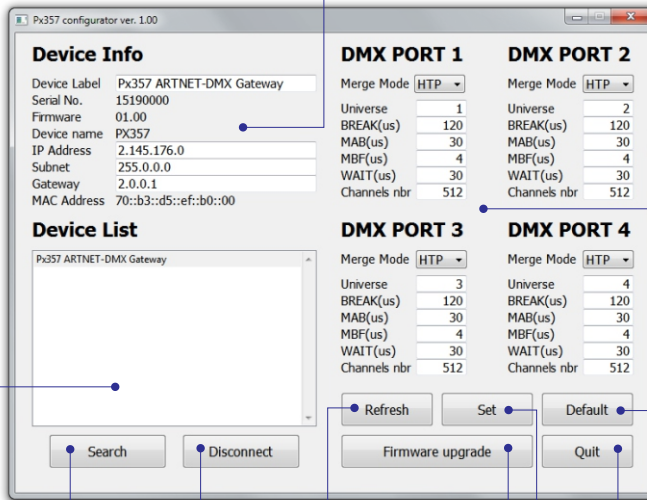
DMX port options

choose the default settings

close the application

send configuration to the device

upload new software version

download current device settings

searching for devices available in the local network

connect/disconnect with the device

list of devices available in the network

7. DEVICE CONFIGURATION

1. Ensure that the computer is on the same network as the device.

By default, the device operates within subnet 2.0.0.0/8, which means that it takes IP address 2.x.x.x with subnet mask 255.0.0.0 (where "x" values, according to the Art-Net standard, are generated based on the MAC address).
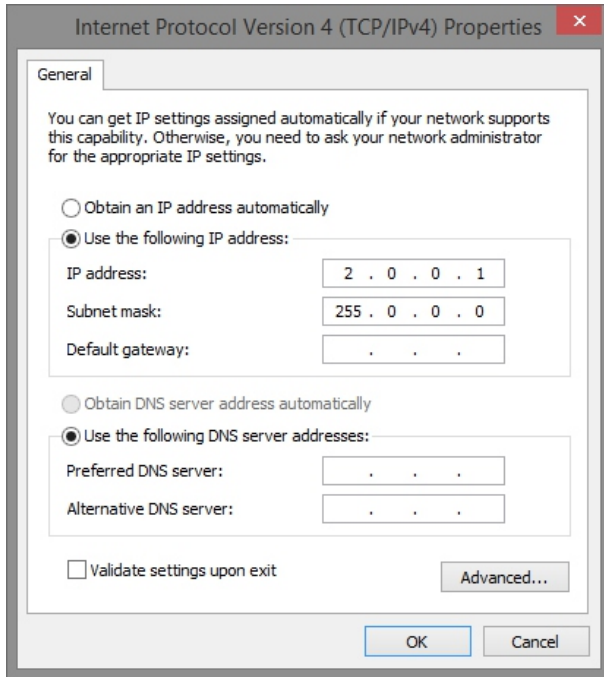In order to connect to the device, you need to modify the network adapter configuration.
The IP address should be within the range 2.0.0.1 - 2.255.255.254 and should differ from the IP address of the device (the default gate IP address is provided on the label on the device).
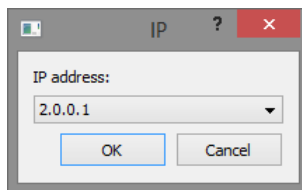The mask should be set to 255.0.0.0.

By way of example:

IP: 2.0.0.1
mask: 255.0.0.0

2. Run the application, you will see a list of available network interfaces [**IP**]. From the list, select the IP address to be used by the application.

3. Click [**Search**] to search for devices available in the network.

In case of problems, make sure that the computer is in the same subnet as the device.

NOTE: By default, the device operates in 2.0.00/8 subnet.

4. Select a device from the list [**Device List**].
5. Click [**Connect**] to connect with the selected device.

The connection is also possible by double-clicking on the name of the device.
Upon connection, the right panel of the application window displays the timing parameters of the DMX signal for four DMX ports, and four LEDs (located on the front panel of the device) flash at a frequency of 1 Hz.

6. If necessary, change network and port settings.
For each of the four DMX ports, Universe can be set, from which values are to be sent to the port, DMX signal timing parameters and amount of channels sent.

7. Click [**Set**] to send the configuration

If you change network settings, the device is disconnected and you should search for it again.
If you want to cancel settings change, click [**Refresh**] to re-read the current settings.
The default IP address of the device can be found on a sticker located on the device housing.
The user can select from the two modes of merging signals: HTP (highest value) and LTP (last value).

7.1. Restoring default settings

To restore default settings:
   - when connected to the device: click [**Default**]
   - no connection to the device: press the physical button located on the device housing and hold
     it for about 3 seconds. If the LEDs are continuously lit up, it means that default settings are
   restored.

push and hold
for 3 seconds
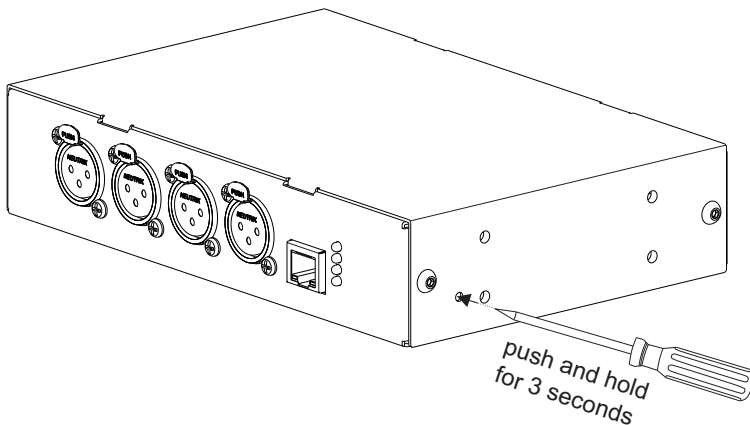
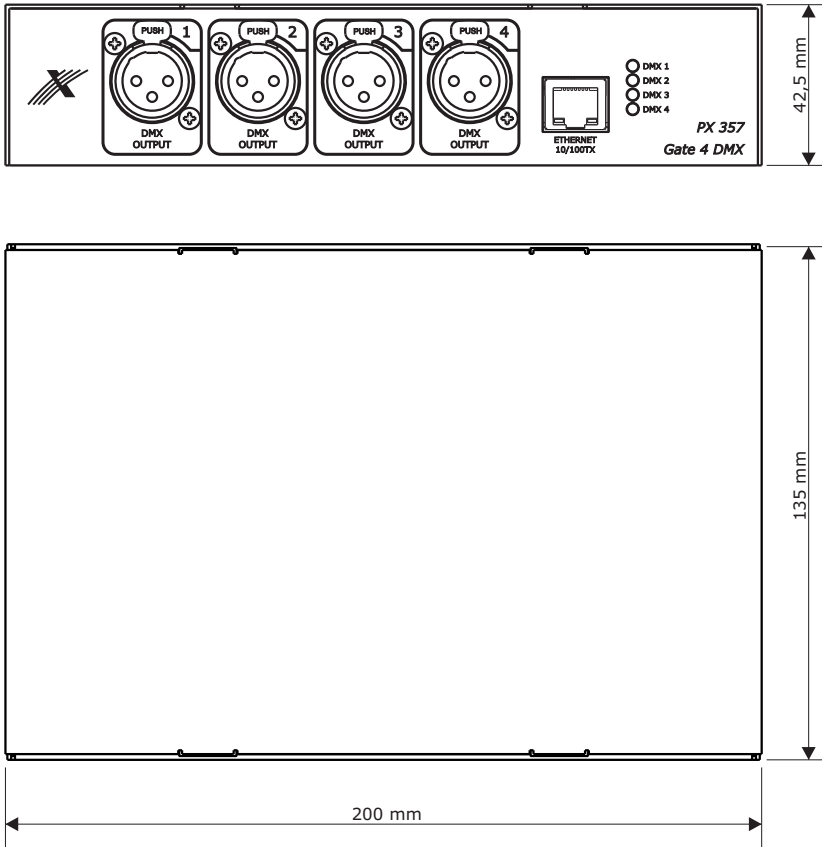## 7.2. Troubleshooting connection problems

In case of connection problems, make sure the device is properly plugged.
Then, check whether your computer is in the same subnet as the device and the settings of the Windows® firewall do not block the programme.

8. CONNECTION SCHEME

230 V AC

DMX OUTPUT DMX OUTPUT DMX OUTPUT DMX OUTPUT ETHERNET 10/100TX

PC

Driver
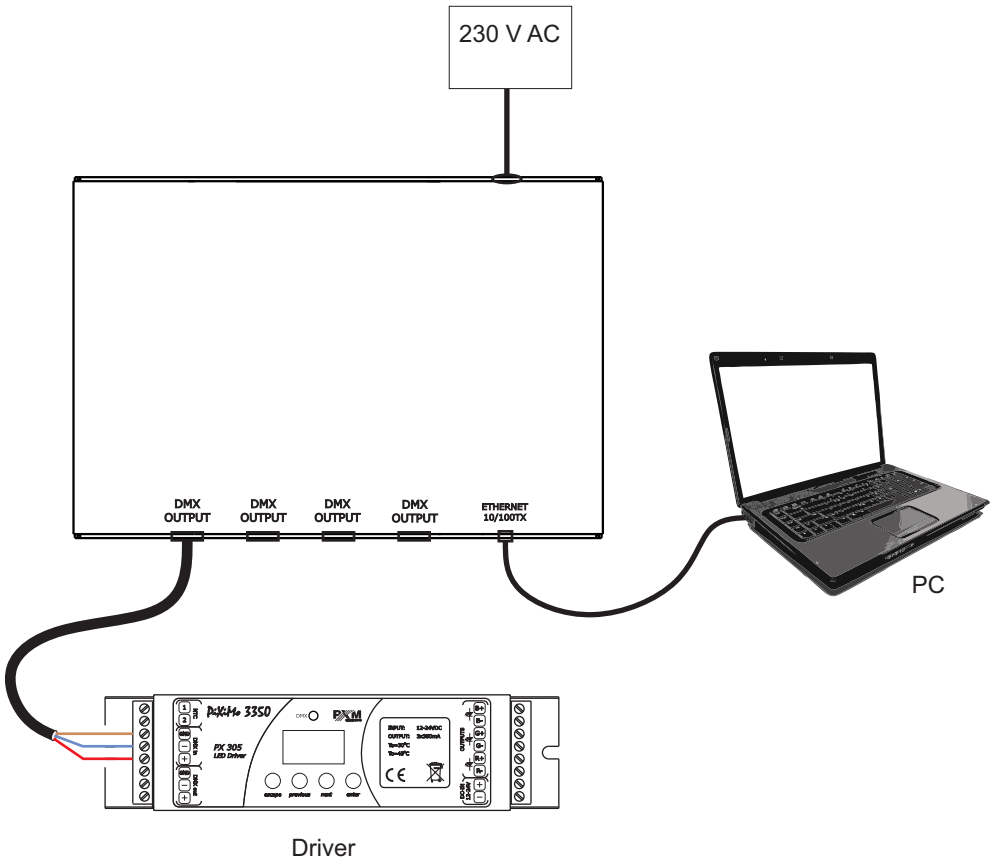
9. DIMENSIONS

10. TECHNICAL DATA

Type:	PX357
- DMX lines:	4
- optically isolated DMX line:	yes
- overvoltage protection:	yes
- configuration via PC:	through Ethernet interface
- Ethernet interface:	with standard 10/100BaseTXXLR
- DMX output:	3-Pin or 5-Pin Plug Seat
- power connector:	PowerCon
- power supply:	230 V AC
- power consumption:	5 W
- weight:	1,1 kg
- dimensions:	
- width	200 mm
- height	42,5 mm
- depth	147 mm

PXM

ul. Przemysłowa 12   tel: 12 626 46 92   e-mail: info@pxm.pl
30-701 Kraków   fax: 12 626 46 94   http://www.pxm.pl

DECLARATION OF CONFORMITY
according to guide lines 2004/108/WE and 2006/95/WE

Name of producer: PXM Marek Żupnik sp. k.

Manufacturer's address: ul. Przemysłowa 12
                          30-701 Kraków

We declare that our product:

Product name: **Gate 4 DMX**

Product code: **PX357**

complies with the following standards:

LVD: **PN-EN 60065:2004**

EMC: **PN-EN 61000-6-1:2008**
                    PN-EN 61000-6-3:2008
                    PN-EN 61000-4-2:2011

Additional information: The DMX-512 output must be shielded and the
                            shielding must be connected to the ground
                            responding to the DMX connectors.

PXM

Marek Żupnik spółka komandytowa
30-701 Kraków, ul. Przemysłowa 12
NIP 677-002-54-53

Krakow, 15.07.2015

mgr inż. Marek Żupnik (M.Sc. Eng.)