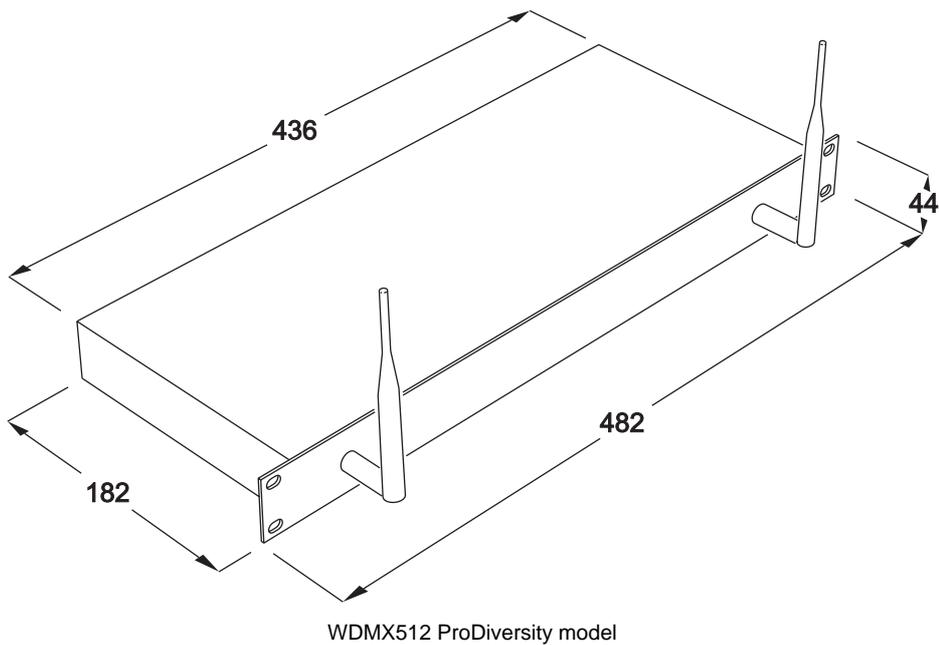
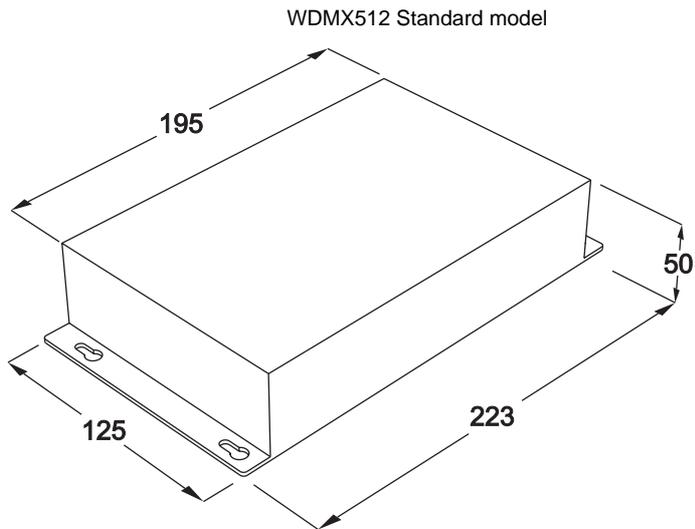


WDMX-512

user manual



Measurements are in millimeters.



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Part number 35000145, Revision D

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INTRODUCTION

Thank you for selecting the WDMX-512. The WDMX-512 comes in two models which will function together in any combination:

- WDMX-512 ProDiversity, a 19” rack 1 unit model with 2 external antennas, display and 8 control buttons.
- WDMX-512 Standard, with internal antennas, mounting base for easy installation on vertical and horizontal surfaces and LED indication.

All parameters, for both versions, such as transmitter/receiver option, WLAN channel and more are easy to setup using a standard PC with serial port. On ProDiversity models, these options can also be changed using the control buttons and display.

The WDMX-512 is expandable. Up to 13 WDMX sets (DMX-512 universes) or 6656 DMX channels can operate within the same area.

The wireless DMX link operates on standard WLAN 802.11b protocol, ensuring flexibility, low cost, instant compatibility and maximum performance. The WDMX-512 operates with or without a standard WLAN access point.

The receiver is tolerant of any DMX input refresh rate and automatically truncates the output to approx. 44 Hz and converts the output to standard DMX-512 (512 channels).

For the latest updates of product documentation and software, please visit the Martin web site at www.martin.com.

Key features

All WDMX-512 models have the following features:

- A DMX refresh rate of approx. 44 Hz on all 512 DMX channels.
- Expandable up to 6656 DMX channels.
- Transmits via radio signal -line of sight not required.
- Multiple WDMX sets (DMX512 universes) can operate within the same area.
- Works on 2.4 GHz license free band.
- Operates on standard 802.11.b WiFi technology.
- Converts any DMX signal from the receiver to standard DMX-512.
- Diversity receiver, ensuring maximum performance and sensitivity.

ProDiversity models offer the following additional features:

- Intuitive display indicating signal strength, DMX refresh rate, transmitter or receiver status and usage of Access point.
- Easy selection of channel, receiver/ transmitter mode and usage of Access point without using a PC.

- External antennas ensuring longer range and enables optional use of remotely placed antennas.

Included items

Unpack the package and inspect closely to make sure the following components are present:

- WDMX-512 Standard or WMDX-512 ProDiversity.
- SUBD 9 pole serial cable.
- 2 5-to-3 pole XLR converters.
- PCMCIA WLAN card (only supplied with the Standard model)
- Power cable
- HyperTerminal Configuration diskette and CD

Safety information

Warning! This product is for indoor and professional use only. It is not for household use.

This product presents risks of lethal or severe injury due to fire, heat, electric shock, and falls. **Read this manual** before powering or installing the unit, follow the safety precautions listed below and observe all warnings in this manual and printed on the unit. If you have questions about how to operate the unit safely, please contact your dealer.

Protection from electric shock

- Disconnect the unit from AC power when replacing the fuses, or opening the device.
- Always ground (earth) the unit electrically.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.
- Do not expose the unit to rain or moisture.
- Refer any service operation to a qualified technician.
- Never operate the unit with missing or damaged covers.
- Replace the unit if it becomes defective or worn out, or before usage exceeds the maximum service life.

Protection from safety and fire.

- Never attempt to bypass the fuses. Always replace defective fuses with ones of the specified type and rating.
- Keep flammable materials well away from the unit.
- Do not modify the unit.
- Do not operate the unit if the ambient temperature (Ta) exceeds 40° C (104° F)

Legal DMX Universes/Channels

To comply with the local rules and regulations regarding the frequency channels (also referred as DMX-Universes) that are legal to use, please refer to the table below when configuring the WDMX-512. If your country is not on the list, please consult the local authority for information about the local rules and regulations.

| DMX-universe/ Channel number. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|----------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|
| Canada (IC) | X | X | X | X | X | X | X | X | X | X | X | - | - |
| North America (FCC) | X | X | X | X | X | X | X | X | X | X | X | - | - |
| Europe (ETSI) | X | X | X | X | X | X | X | X | X | X | X | X | X |
| France | - | - | - | - | - | - | - | - | - | X | X | X | X |
| Spain | - | - | - | - | - | - | - | - | - | X | X | - | - |

WARNING: *Violation of these restrictions can lead to prosecution or/and fines from the local authority.*

AC POWER

WARNING! For protection from electric shock, the fixture must be grounded (earthed). The AC mains supply shall be fitted with a fuse or circuit breaker and ground-fault protection.

Important! Verify the power supply setting before applying power.

Mains

Mains voltage and frequency for the WDMX-512 Standard and the ProDivisity:

US-model: 103VAC-125VAC (50Hz-60Hz)

EU,SP,FR-model: 210VAC-250VAC (50Hz-60Hz)

Installation

This device shall be located near the outlet socket. The outlet socket is functioning as the mains disconnection device. Use only the mains cable included with the product.

Wall mount



When mounting the device on the wall, ensure appropriate fastening. The device must be fastened so it can carry 5 times its own weight. Make sure that the device is only mounted in the orientation illustrated above.

Fuses

- **Standard models** come with double pole/neutral fusing, located next to the power connector, that protect both neutral and phase.
- **ProDiversity models** have a single fuse, accessible from the rear panel, that protects the phase.

US-model: *125mA(T)/ 250VAC*

EU,SP,FR-model: *63mA(T) / 250VAC*

Never attempt to bypass the fuses. Always replace defective fuses with ones of the specified type and rating.

Power connection

Important! ***Connect the WDMX-512 directly to AC power.***

If the product is not an US product, you need to install a cord cap that fits your supply on the power cable. A 3-prong grounding-type plug must be installed following the manufacturer's instructions. The following table shows some possible pin identification schemes; if the pins are not clearly identified, or if you have any doubts about proper installation, consult a qualified electrician.

| Wire Color | Pin | Symbol |
|-------------------|------------|---------------|
| brown | live | L |
| blue | neutral | N |
| yellow/green | ground | PE |

DATA

The WDMX-512 has 5-pin XLR sockets for DMX input and for DMX output.

Connect a DMX control device to a WDMX-512 acting as a transmitter, and a DMX network with DMX fixtures to a WDMX512 acting as a receiver.

DMX in

When configured as a transmitter, apply a 5 pins female XLR plug from a DMX master to this input. Use the included 5 to 3 pole adaptor, if a 3 pins XLR cable is used.

If configured as a receiver, apply a termination of 120 ohm between pin 2 and pin 3 to this input.

| Pin | Description |
|-------|---------------|
| Pin 1 | GND (shield) |
| Pin 2 | Cold (-) |
| Pin 3 | Hot (+) |
| Pin 4 | No Connection |
| Pin 5 | No Connection |

DMX out

When configured as receiver, apply a 5 pins female XLR plug from this output to one or more DMX devices. Use the included 5 to 3 pole adaptor, if a 3 pins XLR cable is used. Remember to terminate the DMX link with a 120 ohm termination at the end of the link.

If configured as a transmitter, apply a termination of 120 ohm between pin 2 and pin 3 to this output.

| Pin | Description |
|-------|---------------|
| Pin 1 | GND (shield) |
| Pin 2 | Cold (-) |
| Pin 3 | Hot (+) |
| Pin 4 | No Connection |
| Pin 5 | No Connection |

Tips for reliable data transmission

Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters (1000 ft). Heavier gauge cable and/or an amplifier is recommended for longer runs.

Do not overload the link. Up to 32 devices may be connected on a serial link.

Terminate the link by installing a termination plug in the output socket of the last fixture. The termination plug, which is a male XLR plug with a 120 ohm, 0.25 watt resistor soldered between pins 2 and 3, “soaks up” the control signal so it does not reflect and cause interference. If a splitter is used, terminate each branch of the link.

CONFIGURATIONS

The WDMX-512 can be configured in two different ways:

1. Direct connection (also called ad-hoc network) where the transmitter communicates directly to the receiver(s), or
2. Using an Access Point (also called an infrastructure network) where the transmitter communicates to an AP that repeats the signal to the receiver(s).

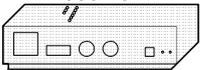
Direct connection

This is the simplest way to transfer wireless DMX. The WDMX-512 transmits directly to the receiver(s). This does not require an Access Point and is recommended for stable use. NOTE: The WDMX-512 will work in any combination of the Standard and ProDiversity models.

WDMX-512 Standard/
ProDiversity
Receiver 1



WDMX-512 Standard/
ProDiversity
Receiver n



DMX Universe
1-13



WDMX-512 Standard/
ProDiversity
Transmitter



Connection via an access point

A way to increase the range is to use an Access Point between the transmitter and the receiver(s).

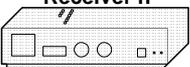
- The Access Point repeats the wireless signal from the transmitter to the receiver, which means that the range can be extended of up to twice the length.
- Access Points are of different quality, be careful when selecting a type.

NOTE: The use of Access points is NOT recommended and is only included for user flexibility. Access Points are 3rd party products and are NOT supported by Martin Professional A/S.

WDMX-512 Standard/
ProDiversity
Receiver 1



WDMX-512 Standard/
ProDiversity
Receiver n



DMX Universe
1-13



DMX Universe
1-13



WDMX-512 Standard/
ProDiversity
Transmitter



CONFIGURING A WDMX-512

This chapter contains the following sections:

- Pre-requisites
- Connect the WDMX-512 to the PC
- Prepare HyperTerminal
- Configure the WDMX-512 using HyperTerminal on page 17
- Setup Access point on page 22

Pre-requisites

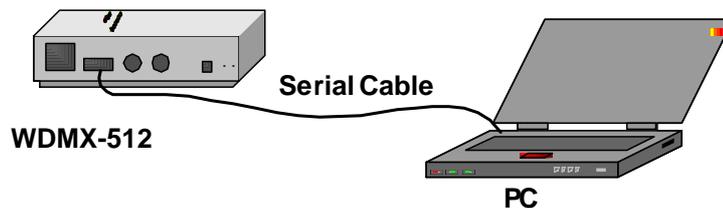
You need a PC running HyperTerminal or another terminal program to configure a Standard model, or to configure a ProDiversity model in advanced mode.

The ProDiversity model can be configured without HyperTerminal in normal mode using the buttons on the front panel:

| | |
|--------------|--|
| AP | Toggles between normal and Access point mode. |
| CH↑ | Increments the current channel number by one. |
| CH↓ | Decrements the current channel number by one. |
| Rx/Tx | Toggles between receiver (Rx) and transmitter (Tx) mode. |

Connect the WDMX-512 to the PC

Connect the 9-pole serial cable from the RS-232 port, on the WDMX-512, to a 9 pole serial port on the PC. If there is only a 25 pole serial port available on your PC then a SUBD25 to SUBD9 converter can be used (not included).



Prepare HyperTerminal

HyperTerminal is a standard terminal program included in Windows. HyperTerminal is used to configure the WDMX-512. Before the WDMX-512 can be configured the HyperTerminal has to be setup correctly. Other standard terminal programs can be used as well.

There are two ways to do it; the:

1. First is to set up HyperTerminal manually (not recommended)

2. Second, and easiest way is to copy the contents of the WDMX-512 setup diskette or CD-ROM to your local drive and double click on the appropriate sample setup file.

Setup HyperTerminal manually

1. Open HyperTerminal.
2. Create a "New connection" this can be done by clicking the Hypertrm.exe icon or via the menu within HyperTerminal "File→New Connection".
3. Type in a name for the connection (for example, WDMX-512).
4. Under "Connect using" select "Direct to Com 2" if your available Com port is Com 2 otherwise select the appropriate Com port.
5. Set "Bits per second" to 115200.
6. Set "Data Bits" to 8.
7. Set "Stop Bits" to 2.
8. Set "Flow control" to None.
9. Click OK - the HyperTerminal screen should appear.
10. Select properties from the menu bar.
11. Under "File" menu select "Save As" and save the configuration file to a convenient folder.

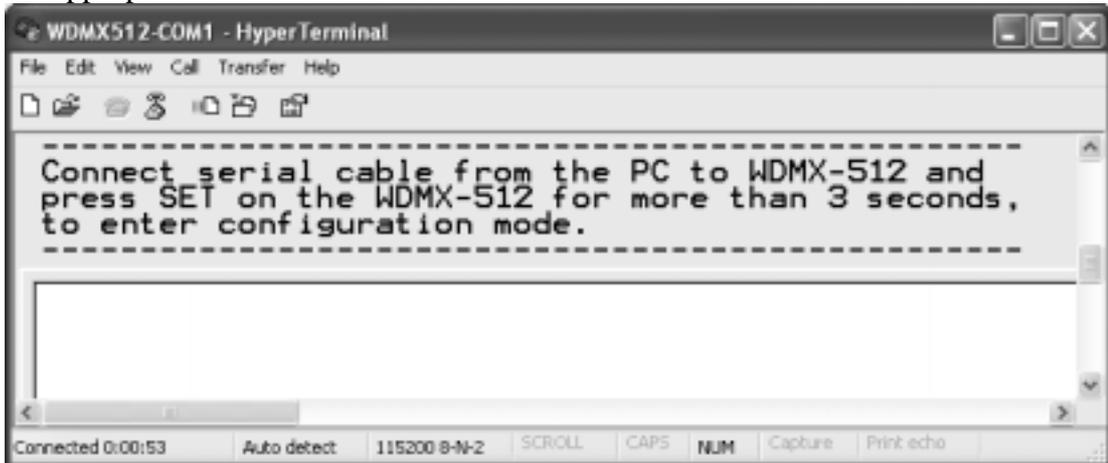
You can create a shortcut to the configuration file and put it on the desktop. The configuration files have a naming convention of *.ht where star is the name you chose when setting up the new connection. For example, "WDMX-512.ht".

Setup HyperTerminal using sample files

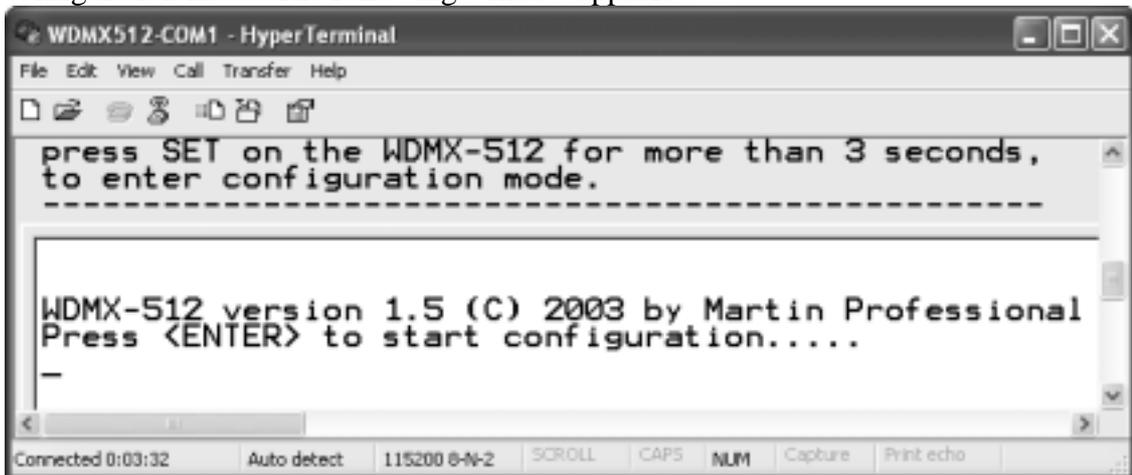
1. Copy the files from the CD-ROM or diskette into a local folder on the PC. **Do not execute the file directly from the CD-ROM or floppy disk; it will result in an error message in windows.** There are four HyperTerminal setup files on the disk:
 - a. "WDMX512-COM1.ht" – use if WDMX-512 is connected to serial port number 1
 - b. "WDMX512-COM2.ht" – use if WDMX-512 is connected to serial port number 2
 - c. "WDMX512-COM3.ht" – use if WDMX-512 is connected to serial port number 3
 - d. "WDMX512-COM4.ht" – use if WDMX-512 is connected to serial port number 4
2. Execute the file that corresponds to the COM port connected to the WDMX-512. The *.ht files on this media is a shortcut to HyperTerminal.

Configure the WDMX-512 using HyperTerminal

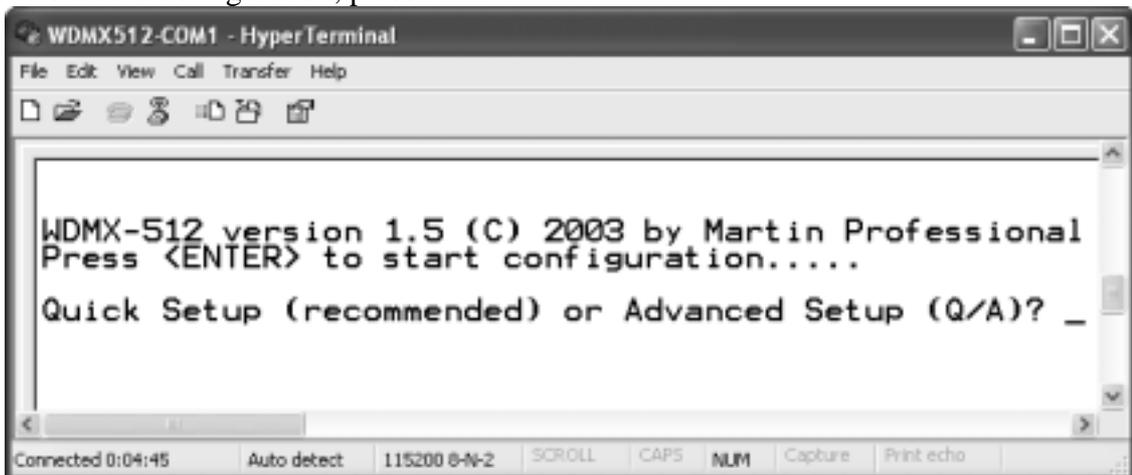
1. Connect the WDMX-512 to the PC with the serial cable, and start the HyperTerminal using the appropriate shortcut file.



2. Using a pointed object, press the “SET” button on the rear panel of the WDMX-512, for approximately 3 seconds or until the signal LED’s are flashing. The WDMX-512 is now in configuration mode. The following window appears .



3. To start the configuration, press enter.

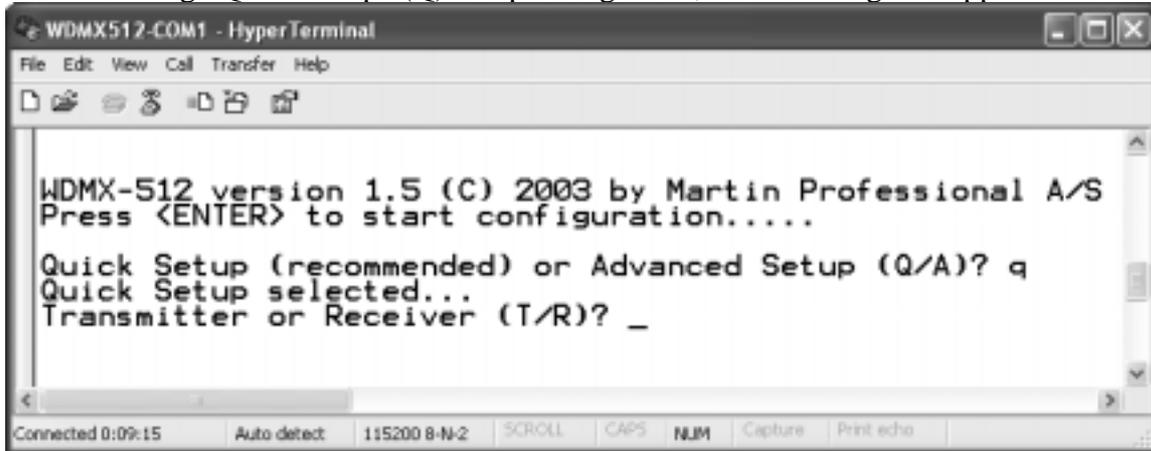


4. There are two methods of configuration:
 - a. “**Quick Setup**” is for regular users and is recommended. This is described in the following section.

- b. “**Advanced Setup**” is for experienced users only and is **NOT** intended for normal users. This is described in Advanced Setup on page 19

Quick Setup

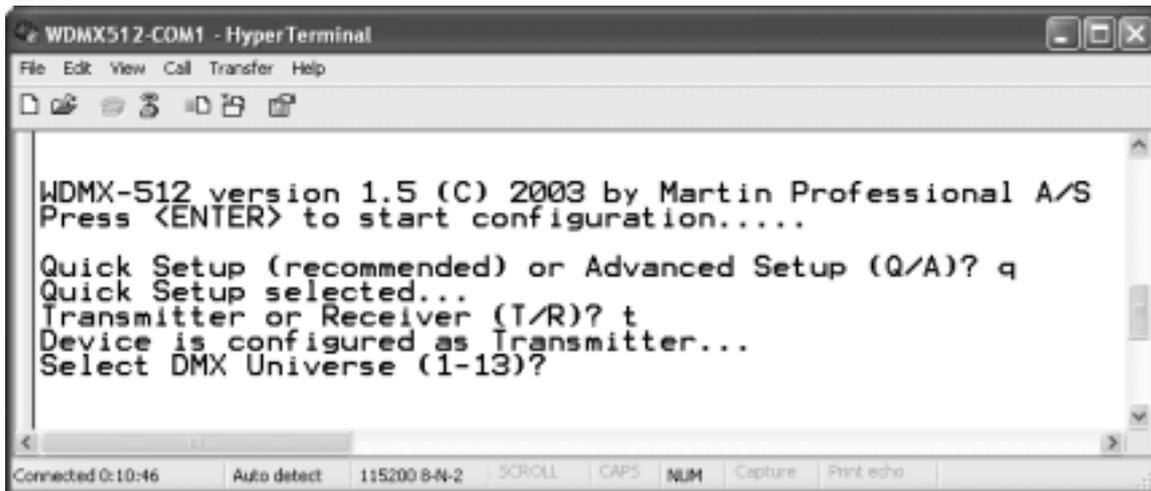
1. After selecting “Quick Setup” (Q) and pressing Enter, the following will appear:



```
WDMX-512 version 1.5 (C) 2003 by Martin Professional A/S
Press <ENTER> to start configuration.....

Quick Setup (recommended) or Advanced Setup (Q/A)? q
Quick Setup selected...
Transmitter or Receiver (T/R)? _
```

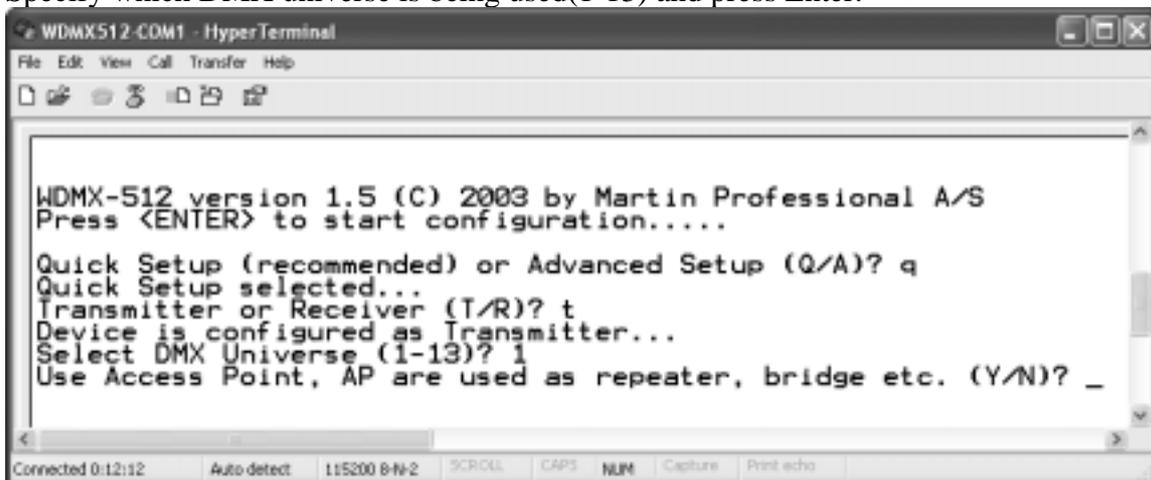
2. Chose if you want the WDMX-512 to be a transmitter or a receiver (T or R), and press Enter.



```
WDMX-512 version 1.5 (C) 2003 by Martin Professional A/S
Press <ENTER> to start configuration.....

Quick Setup (recommended) or Advanced Setup (Q/A)? q
Quick Setup selected...
Transmitter or Receiver (T/R)? t
Device is configured as Transmitter...
Select DMX Universe (1-13)?
```

3. Specify which DMX universe is being used(1-13) and press Enter.



```
WDMX-512 version 1.5 (C) 2003 by Martin Professional A/S
Press <ENTER> to start configuration.....

Quick Setup (recommended) or Advanced Setup (Q/A)? q
Quick Setup selected...
Transmitter or Receiver (T/R)? t
Device is configured as Transmitter...
Select DMX Universe (1-13)? 1
Use Access Point, AP are used as repeater, bridge etc. (Y/N)? _
```

Note that only one transmitter is allowed to send on each DMX-Universe, and multiple receivers are allowed to receive on each DMX-Universe.

- Specify if you are using a standard Access Point (not included in this package) (Y/N)



```
WDMX512.COM1 - HyperTerminal
File Edit View Call Transfer Help
-----
Select DMX Universe (1-13)? 1
Use Access Point, AP are used as repeater, bridge etc. (Y/N)? n
Configured as Adhoc network, not using AP...

----- Quick Setup Settings -----
Device is configured as : Transmitter
DMX Universe             : 1
Use AP (repeater)       : No

----- Advanced Setup Settings -----
Device is configured as : Transmitter
Current IP               : 226.0.1.1 (Multicast IP)
Remote IP                : 226.0.2.1 (Multicast IP)
Subnet mask              : 255.0.0.0
Network Type             : Adhoc
Network Name (SSID)     : WDMX1
Network Channel (Freq.) : 1
WLAN MAC                 : 0060B38098A1
WLAN Multicast MAC      : 01005E000201

----- Errors and Warnings -----

Total: 0 Warning(s) and 0 Error(s)
-----
Connected 0:14:04 Auto detect 115200 8-N-2 SCROLL CAPS NUM Capture Print echo
```

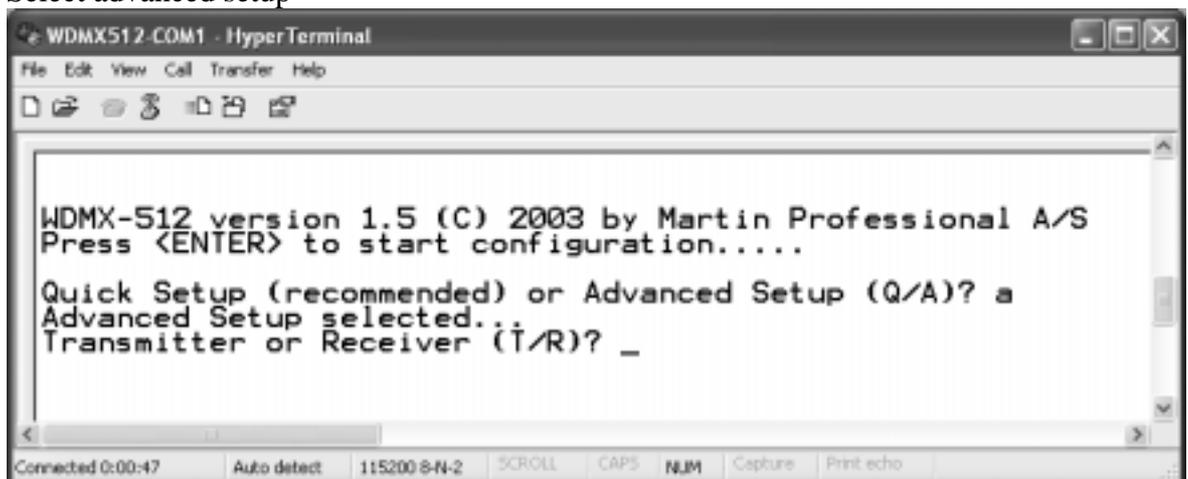
- The WDMX-512 is now configured and ready for use. You can exit HyperTerminal and disconnect the WDMX-512 from your PC.

Advanced Setup

Advanced setup is ONLY for people with experience in wireless networking. This setup is made for flexibility only and is not necessary to setup for the system to work.

When the ProDiversity model is configured with Advanced Setup, “Advanced Mode” will be displayed on the first line of the unit’s display. To return to normal operating mode, configure the device with quick setup using HyperTerminal. It is not possible to exit Advanced mode using the buttons on the unit.

- Select advanced setup

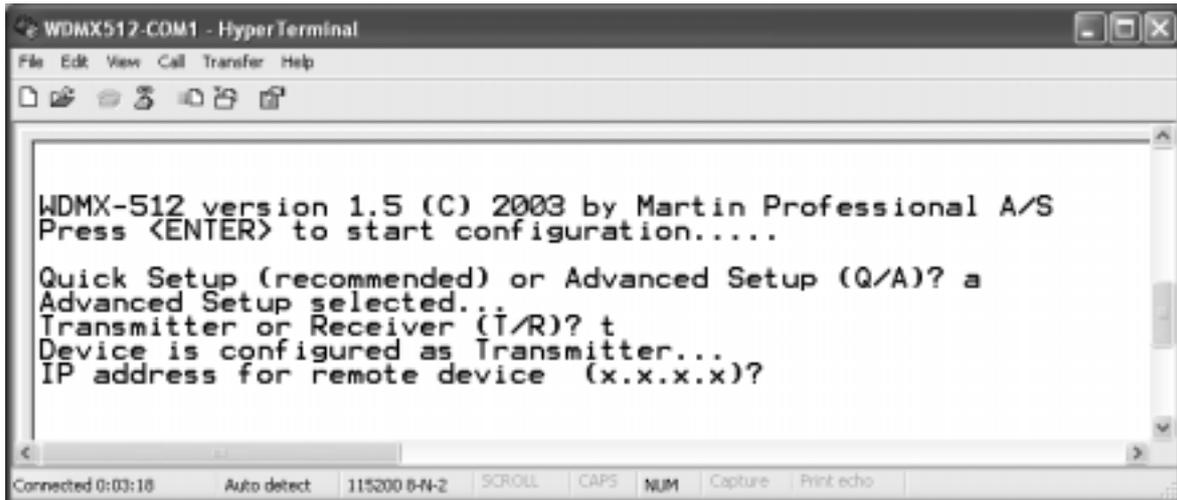


```
WDMX512.COM1 - HyperTerminal
File Edit View Call Transfer Help
-----
WDMX-512 version 1.5 (C) 2003 by Martin Professional A/S
Press <ENTER> to start configuration.....

Quick Setup (recommended) or Advanced Setup (Q/A)? a
Advanced Setup selected..
Transmitter or Receiver (T/R)? _

Connected 0:00:47 Auto detect 115200 8-N-2 SCROLL CAPS NUM Capture Print echo
```

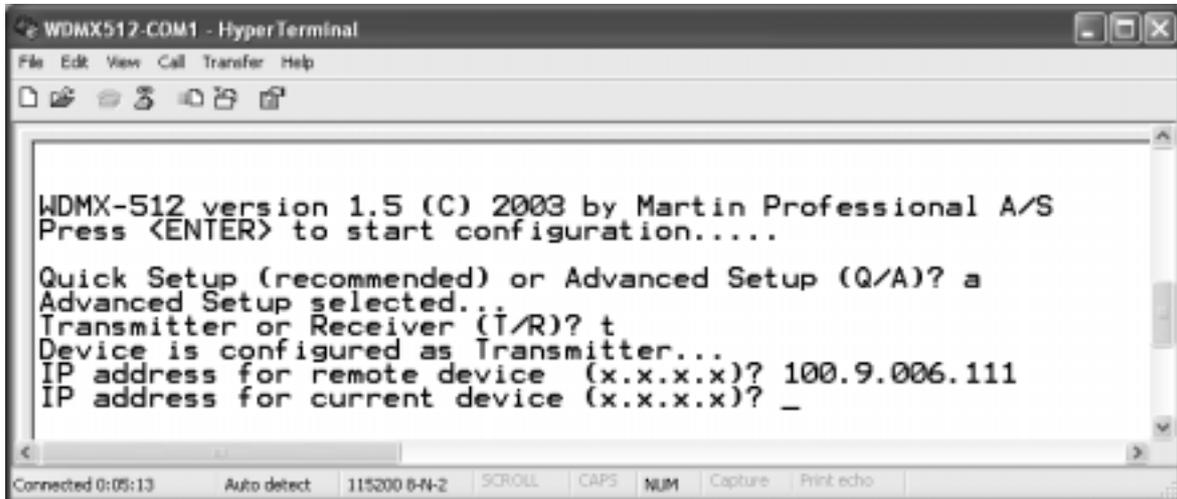
- Specify if you want the WDMX-512 to be a transmitter or a receiver (T or R), and press Enter.



```
WDMX-512 version 1.5 (C) 2003 by Martin Professional A/S
Press <ENTER> to start configuration.....

Quick Setup (recommended) or Advanced Setup (Q/A)? a
Advanced Setup selected...
Transmitter or Receiver (T/R)? t
Device is configured as Transmitter...
IP address for remote device (x.x.x.x)?
```

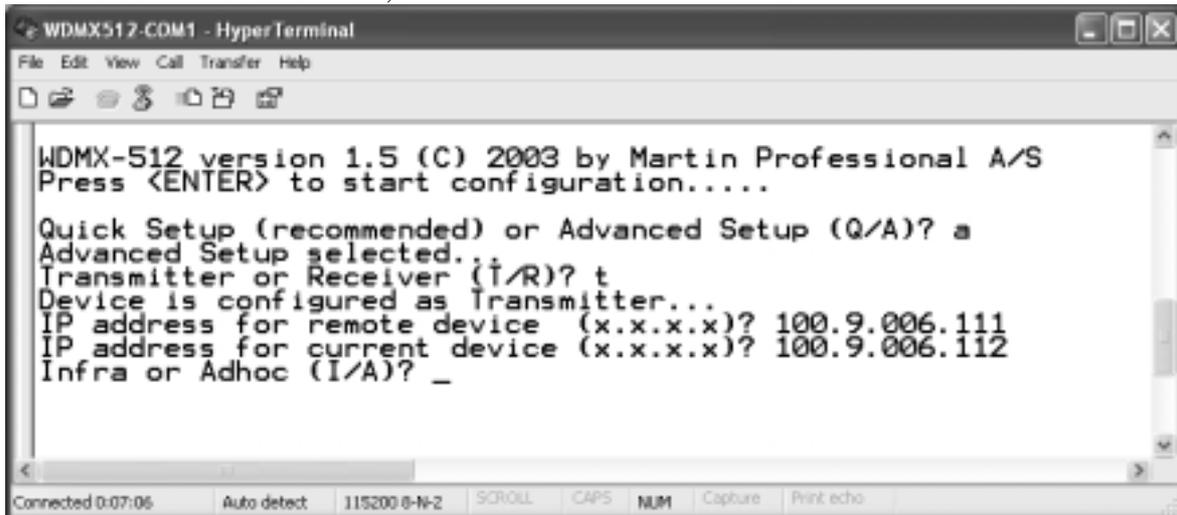
- Specifies the IP address for the remote WDMX-512 device. Press Enter, and the IP address for the current device.. Both Unicast and Multicast IP addresses are valid.



```
WDMX-512 version 1.5 (C) 2003 by Martin Professional A/S
Press <ENTER> to start configuration.....

Quick Setup (recommended) or Advanced Setup (Q/A)? a
Advanced Setup selected...
Transmitter or Receiver (T/R)? t
Device is configured as Transmitter...
IP address for remote device (x.x.x.x)? 100.9.006.111
IP address for current device (x.x.x.x)? _
```

- Specifies what kind of network that is being used. Normally this will be an ad-hoc network, but if an Access Point is used, choose infrastructure network.

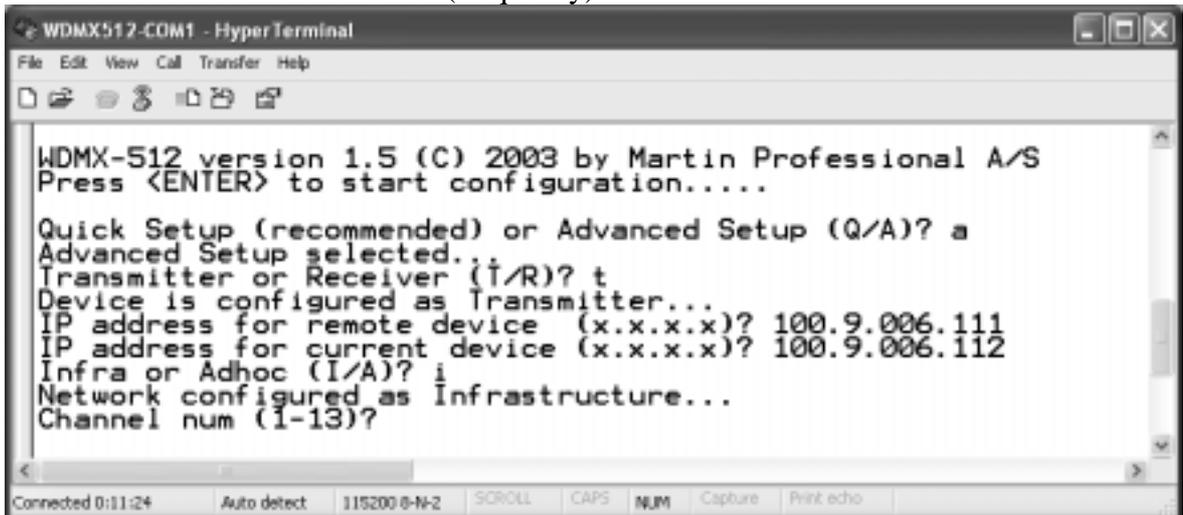


```
WDMX-512 version 1.5 (C) 2003 by Martin Professional A/S
Press <ENTER> to start configuration.....

Quick Setup (recommended) or Advanced Setup (Q/A)? a
Advanced Setup selected...
Transmitter or Receiver (T/R)? t
Device is configured as Transmitter...
IP address for remote device (x.x.x.x)? 100.9.006.111
IP address for current device (x.x.x.x)? 100.9.006.112
Infra or Adhoc (I/A)? _
```

- Specify the channel (frequency) to transmit or receive on and press Enter. Please note that only one transmitter is allowed to send on each channel (frequency), and multiple receivers

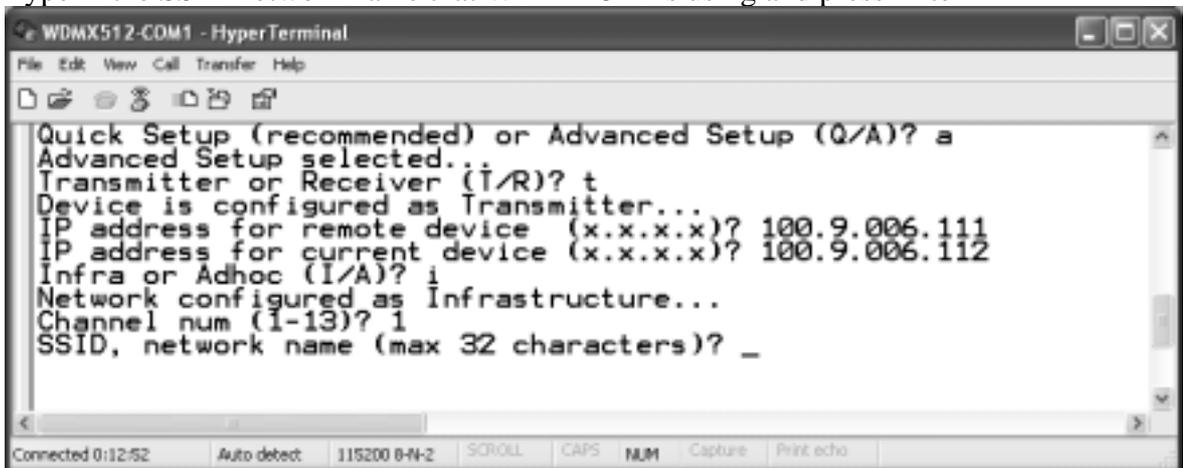
are allowed to receive on channel (frequency).



```
WDMX-512 version 1.5 (C) 2003 by Martin Professional A/S
Press <ENTER> to start configuration....

Quick Setup (recommended) or Advanced Setup (Q/A)? a
Advanced Setup selected.
Transmitter or Receiver (T/R)? t
Device is configured as Transmitter...
IP address for remote device (x.x.x.x)? 100.9.006.111
IP address for current device (x.x.x.x)? 100.9.006.112
Infra or Adhoc (I/A)? i
Network configured as Infrastructure...
Channel num (1-13)?
```

6. Type in the SSID network name that WDMX-512 is using and press Enter



```
Quick Setup (recommended) or Advanced Setup (Q/A)? a
Advanced Setup selected.
Transmitter or Receiver (T/R)? t
Device is configured as Transmitter...
IP address for remote device (x.x.x.x)? 100.9.006.111
IP address for current device (x.x.x.x)? 100.9.006.112
Infra or Adhoc (I/A)? i
Network configured as Infrastructure...
Channel num (1-13)? 1
SSID, network name (max 32 characters)? _
```

7. The WDMX-512 is now configured and ready for use. You can exit HyperTerminal and disconnect the WDMX-512 from your PC.



```
Network configured as Infrastructure...
Channel num (1-13)? 1
SSID, network name (max 32 characters)? Netowrk2
Updating WDMX configuration...

----- Advanced Setup Settings -----
Device is configured as : Transmitter
Current IP               : 100.9.6.112 (Unicast IP)
Remote IP                : 100.9.6.111 (Unicast IP)
Subnet mask              : 255.0.0.0
Network Type             : Infrastructure
Network Name (SSID)     : Netowrk2
Network Channel (Freq.) : 1
WLAN MAC                 : 0060B38098A1

----- Errors and Warnings -----

Total: 0 Warning(s) and 0 Error(s)
```

Setup Access point

When using a standard Access Point, as repeater, refer to the product user's guide and configure it with the following settings:

- **SSID** in the AP has to be set to WDMX<DMX-Universe> e.g. WDMX7 for the WDMX-Universe 7 or WDMX2 for the WDMX-Universe 2.
- **Channel** has to be set to the same number as the WDMX-Universe number on the WDMX-512 (1-13).

No web-encryption or security settings should be used or enabled.

OPERATION

This chapter contains the following sections:

- Guidelines
- Resetting the unit
- Standard model operation
- ProDiversity model operation on page 24

Guidelines

To get the best performance out of the system, the following guidelines should be taken into consideration.

- Keep the transmitter and receiver as close as possible.
- Obstacles like: walls, metal etc. reduces performance and range of the system.
- Any objects less than 1 meter (3 feet) from the antennas will reduce performance and range, so keep as clear as possible.
- To achieve maximum range, keep the transmitter and receiver in the same level and in line of sight.
- Make sure to keep at least 2 bars in the signal strength indicator, to maintain a stable DMX signal.

Resetting the unit

In the event of a disturbance or error it is possible to quickly reset the unit by pressing the:

- **Reset** button on the front panel of the ProDiversity model
- **RST** button on the back of the Standard model (with a pointed object)

Standard model operation

PCMCIA WLAN card

For operation insert the PCMCIA card into this socket. Do **not** use other WLAN cards than the original type included in the WDMX-512 Standard package.

Remove the card from the unit when it is not in use or when the unit is being transported.

Operational indicators

Power LED

This LED indicates that power is applied to the WDMX-512.

DMX LED

When power is applied to the unit the DMX LED blinks as many times as the selected channel number. If the unit is set to channel four, the LED will blink four times.

The DMX LED has the following functionality.

| Configured as | Functionality |
|---------------|--|
| Transmitter | When configured as a transmitter the DMX LED indicates that it's transmitting the wireless DMX signal. |
| Receiver | When configured as receiver the DMX LED indicates that it is receiving the wireless DMX signal. |

Transmitter LED

| Configured as | Functionality |
|---------------|---|
| Transmitter | When the LED is lit the WDMX-512 is configured as a transmitter. |
| Receiver | When the LED is not lit the WDMX-512 is configured as a receiver. |

Signal strength LED's

| Configured as: | Functionality |
|----------------|--|
| Transmitter | - |
| Receiver | This indicates the receiving signal level. |

NOTE:

- 1) *If all the signal strength LEDs are flashing the WDMX-512 Standard is in configuration mode.*
- 2) *If the signal strength LEDs are chasing, the WDMX-512 Standard has detected a WLAN Card error.*

ProDiversity model operation

Antennas

The WDMX-512 ProDiversity uses two external antennas. The two antennas should be connected to the reversed TNC connectors on the front panel named: B (primary) and A (secondary). The antennas operate in diversity mode, ensuring optimal sensitivity.

If operating by a single external antenna, antenna B should be used. This is the primary antenna.

Display

The display indicates the actual channel number, transmitter/ receiver status, access point mode and the DMX refresh rate. It also shows the signal strength of the radio communication when in receiver mode.



Display description

| | |
|---|---|
|  | Antenna |
|  | Signal strength |
| N/A | Signal strength not available (e.g. in transmitter mode). |
|  | Access point mode |
| Ch.: | Current channel number/ universe. |
| Mode: | Rx: Receiver mode/ Tx: Transmitter mode |
| DMX: | DMX refresh rate. |
| - - | No DMX input/ output. |
| ?? | Non standard DMX input/ DMX refresh rate truncated. |

Buttons

The keyboard offers you easy access to set all parameters of the WDMX-512 ProDiversity, such as channel number, transmitter/ receiver mode, access point mode, reset, display contrast and backlight.

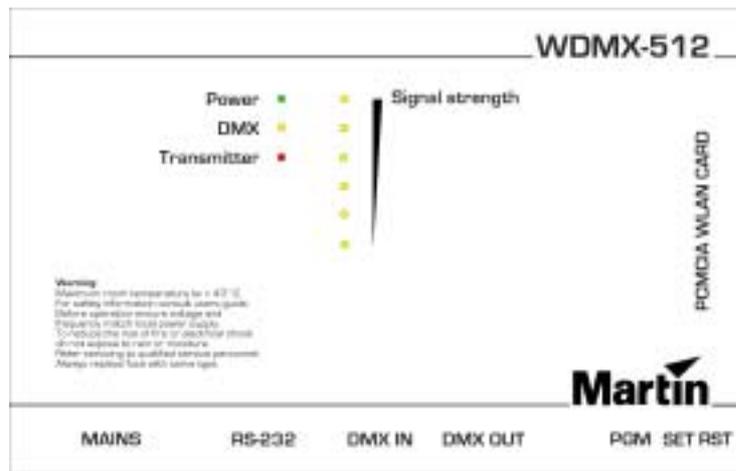
Button description

| | |
|---|--|
|  | Turns the backlight on and off. |
| AP | Toggles between normal and Access point mode. |
|  | Increases the contrast. |
|  | Decreases the contrast. |
| CH↑ | Increments the current channel number by one. |
| CH↓ | Decrements the current channel number by one. |
| Rx/Tx | Toggles between receiver (Rx) and transmitter (Tx) mode. |
| Reset | Resets the transceiver. |

STANDARD MODEL INTERFACES

This section describes the user interface for the WDMX-512 Standard model.

Top Panel



Power LED

This LED indicates that power is applied to the WDMX-512.

DMX LED

When power is applied to the unit the DMX LED blinks as many times as the selected channel number. If the unit is set to channel four, the LED will blink four times.

The DMX LED has the following functionality.

| Configured as | Functionality |
|--------------------|--|
| Transmitter | When configured as a transmitter the DMX LED indicates that it's transmitting the wireless DMX signal. |
| Receiver | When configured as receiver the DMX LED indicates that it is receiving the wireless DMX signal. |

Transmitter LED

| Configured as | Functionality |
|--------------------|---|
| Transmitter | When the LED is lit the WDMX-512 is configured as a transmitter. |
| Receiver | When the LED is not lit the WDMX-512 is configured as a receiver. |

Signal strength LED's

| Configured as | Functionality |
|---------------|--|
| Transmitter | - |
| Receiver | This indicates the receiving signal level. |

NOTE:

- 1) If all the signal strength LEDs are flashing the WDMX-512 Standard is in configuration mode.
- 2) If the signal strength LEDs are chasing, the WDMX-512 Standard has detected a WLAN Card error.

Rear panel

Mains connector

This is the main power connection. For protection from electric shock, the unit **must** be grounded.

The color code for the power cord is:

| Color | Description |
|--------------|--------------|
| Yellow/Green | Earth/Ground |
| Brown | Live |
| Blue | Neutral |

Fuses

The WDMX-512 Standard comes with two fuses **F1** and **F2** that protects both neutral and phase.

The WDMX-512 ProDiversity has a single fuse **F1** protecting the phase.

F1, (F2): 63mA (T) / 250V (for 230V models).

F1, (F2): 125mA (T) / 250V (for 115V models).

Never attempt to bypass the fuses. Always replace defective fuses with ones of the specified type and rating.

RS-232

This is a serial interface and is only used to configure the WDMX-512 Standard, and the WDMX-512 ProDiversity in "Advanced mode". For further details about the configuration see Configure the WDMX-512 using HyperTerminal on page 17.

DMX in

When configured as a transmitter, apply a 5 pins female XLR plug from a DMX master to this input. Use the included 5 to 3 pole adaptor, if a 3 pins XLR cable is used.

If configured as a receiver, apply a termination of 120 ohm between pin 2 and pin 3 to this input.

Pin Description

- Pin 1 GND (shield)
- Pin 2 Cold (-)
- Pin 3 Hot (+)
- Pin 4 No Connection
- Pin 5 No Connection

DMX out

When configured as receiver, apply a 5 pins female XLR plug from this output to one or more DMX devices. Use the included 5 to 3 pole adaptor, if a 3 pins XLR cable is used. Remember to terminate the DMX link with a 120 ohm termination at the end of the link.

If configured as a transmitter, apply a termination of 120 ohm between pin 2 and pin 3 to this output.

| Pin | Description |
|-------|---------------|
| Pin 1 | GND (shield) |
| Pin 2 | Cold (-) |
| Pin 3 | Hot (+) |
| Pin 4 | No Connection |
| Pin 5 | No Connection |

PGM

This is for service purpose only, and should **NOT** be connected.

Buttons

These “Pin buttons” are located next to the connectors. Due to security reasons these buttons can only be activated by a paper clip or similar object.

SET

If this button is pressed for more than 3 seconds the WDMX-512 is in configuration mode and the signal LED’s will be flashing/ display showing “Setup using serial port”. To cancel configuration mode press RST or turn the power off and on.

RST

If this button is pressed the WDMX-512 will reset.

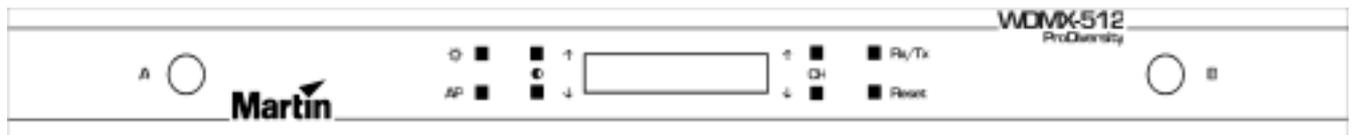
PCMCIA WLAN CARD

Insert the PCMCIA card into this socket (WDMX-512 Standard ONLY). Do **not** use other WLAN cards than the original type included in the WDMX-512 Standard package. Remove the card from the unit when it is not in use.

PRODIVERSITY MODEL INTERFACES

The following chapter describes the user interface for the DMX-512 ProDiversity model.

Front Panel



Display

The display indicates the actual channel number, transmitter/ receiver status, access point mode and the DMX refresh rate. It also shows the signal strength of the radio communication when in receiver mode.



Display description

| | |
|---|---|
|  | Antenna |
|  | Signal strength |
| N/A | Signal strength not available (e.g. in transmitter mode). |
|  | Access point mode |
| Ch.: | Current channel number/ universe. |
| Mode: | Rx: Receiver mode/ Tx: Transmitter mode |
| DMX: | DMX refresh rate. |
| -- | No DMX input/ output. |
| ?? | Non standard DMX input/ DMX refresh rate truncated. |

Buttons

The keyboard offers you easy access to set all parameters of the WDMX-512 ProDiversity, such as channel number, transmitter/ receiver mode, access point mode, reset, display contrast and backlight.

Button description

| | |
|---|---|
|  | Turns the backlight on and off. |
| AP | Toggles between normal and Access point mode. |
|  | Increases the contrast. |
|  | Decreases the contrast. |

- CH↑** Increments the current channel number by one.
- CH↓** Decrements the current channel number by one.
- Rx/Tx** Toggles between receiver (Rx) and transmitter (Tx) mode.
- Reset** Resets the transceiver.

Antennas

The WDMX-512 ProDiversity uses two external antennas. The two antennas should be connected to the reversed TNC connectors on the front panel named: A (primary) and B (secondary). The antennas operate in diversity mode, ensuring optimal sensitivity.

If operating by a single external antenna, antenna A should be used, which is the primary antenna.

Rear panel

Mains connector

This is the main power connection. For protection from electric shock, the unit **must** be grounded.

The color code for the power cord is:

| Color | Description |
|--------------|--------------|
| Yellow/Green | Earth/Ground |
| Brown | Live |
| Blue | Neutral |

Fuses

The WDMX-512 Standard comes with two fuses **F1** and **F2** that protects both neutral and phase.

The WDMX-512 ProDiversity has a single fuse **F1** protecting the phase.

F1, (F2): 63mA (T) / 250V (for 230V models).

F1, (F2): 125mA (T) / 250V (for 115V models).

Never attempt to bypass the fuses. Always replace defective fuses with ones of the specified type and rating.

RS-232

This is a serial interface and is only used to configure the WDMX-512 Standard, and the WDMX-512 ProDiversity in “Advanced mode”. For further details about the configuration see Configure the WDMX-512 using HyperTerminal on page 17.

DMX in

When configured as a transmitter, apply a 5 pins female XLR plug from a DMX master to this input. Use the included 5 to 3 pole adaptor, if a 3 pins XLR cable is used.

If configured as a receiver, apply a termination of 120 ohm between pin 2 and pin 3 to this input.

| Pin | Description |
|-------|--------------|
| Pin 1 | GND (shield) |

- Pin 2 Cold (-)
- Pin 3 Hot (+)
- Pin 4 No Connection
- Pin 5 No Connection

DMX out

When configured as receiver, apply a 5 pins female XLR plug from this output to one or more DMX devices. Use the included 5 to 3 pole adaptor, if a 3 pins XLR cable is used. Remember to terminate the DMX link with a 120 ohm termination at the end of the link.

If configured as a transmitter, apply a termination of 120 ohm between pin 2 and pin 3 to this output.

| Pin | Description |
|------------|--------------------|
| Pin 1 | GND (shield) |
| Pin 2 | Cold (-) |
| Pin 3 | Hot (+) |
| Pin 4 | No Connection |
| Pin 5 | No Connection |

PGM

This is for service purpose only, and should **NOT** be connected.

Buttons

These “Pin buttons” are located next to the connectors. Due to security reasons these buttons can only be activated by a paper clip or similar object.

SET

If this button is pressed for more than 3 sec. the WDMX-512 is in configuration mode and the signal LED’s will be flashing/ display showing “Setup using serial port”. To cancel configuration mode press RST or turn the power off and on.

RST

If this button is pressed the WDMX-512 will reset.

SPECIFICATIONS – WDMX-512

Standard model

| | |
|-------------------------------------|---|
| Mains inlet (US)..... | 103 VAC-125VAC, 50-60Hz(IEC Connector) |
| Mains inlet (EU,SP,FR) | 210VAC- 250VAC, 50-60Hz(IEC Connector) |
| Power consumption..... | ~10W |
| Current consumption (US) | ~80mA |
| Current consumption (EU,SP,FR)..... | ~40mA |
| Protocol | DMX512 |
| Communication distance..... | up to 200 m (666 ft), outdoor, without repeater |
| DMX Refresh rate | Approx 44 Hz |
| DMX I/O | 5 pin XLR |
| Expandability | up to 13 DMX-512 universes |
| WLAN Card | 802.11B, PCMCIA |
| Size (h, w, d) | 50 x 195 x 125 mm (1.96 x 7.68 x 4.9 inch) |
| Weight..... | 1.5 kg (53 oz.) |
| Temperature operating range | 0°-40° C (32°-104° F) |

ProDiversity model

| | |
|-------------------------------------|---|
| Mains inlet (US)..... | 103 VAC-125VAC, 50-60Hz(IEC Connector) |
| Mains inlet (EU,SP,FR) | 210VAC- 250VAC, 50-60Hz(IEC Connector) |
| Power consumption..... | ~10W |
| Current consumption (US) | ~80mA |
| Current consumption (EU,SP,FR)..... | ~40mA |
| Power consumption..... | 10 W |
| Protocol | DMX512 |
| Communication distance..... | up to 300 m (1.000 ft), outdoor, without repeater |
| DMX Refresh rate | Approx 44 Hz |
| DMX I/O | 5 pin XLR |
| Expandability | up to 13 DMX-512 universes |
| WLAN Card | 802.11B, PCMCIA |
| Size (h, w, d) | 44 x 482 x 182 mm (1.73 x 19.00 x 7.17 inch) |
| Weight..... | 3.5 kg (124 oz.) |
| Temperature operating range | 0°-40° C (32°-104° F) |