MQS4588/1013

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When installing your wireless transmitter it is important to position your device in such a way as to optimize the antenna location with what's known as the "Fresnel Zone".

FRESNEL ZONE

TRANSMITTER   RECEIVER

Fresnel Zone

NOTE:

No co-location with other radio transmitters is allowed. By definition, co-location is when another radio device or its antenna is located within 20 cm of your receiver/transmitter and can transmit simultaneously with your unit.

Multiple Transmitters

When using one transmitter with one receiver, there is no need to change the channel number. However, one receiver can communicate with multiple transmitters (up to 12) one at a time by changing the channel number of the receiver module to match the transmitter module. So if there are five transmitters, they should be configured to channels 1 thru 5.

Then the receiver can be set to channel 1 to communicate with transmitter #1, or channel 2 to communicate with transmitter #2, and so on and so forth.

Maximizing Transmission Range

Position your receiver in a central location.
When multiple transmitter are in operation, position your receiver unit in a central space if possible in equal distance to each wireless transmitter.

Move your system components higher off the floor and away from exterior walls. Avoid installing your system components too close to the floor or near your building's exterior walls. The closer your transmitter and receiver unit are the greater the interference and loss of signal strength will be.

Maintain a line of sight between transmitter/receiver.
Maintaining a clear line of sight between your transmitter and receiver unit will produce improved signal strength over a system that has obstacles blocking it.

6

RS232 Cable Connections

RJ12 to DB9 connector (female)

RJ12 Pin #	DB9 Pin #
Normal (Config)	
3 RX (TX)	2 RX
4 TX (RX)	3 TX
5 GND	5 GND
1 Power	——

Specifications
Wireless Transmitter, WRS232-USB

Operating Ambient Conditions:	0 to 50ºC (32 to 122ºF) 0 to 95% Relative Humidity (Non-Condensing)
Device Interface:	RS232
RS232 Cable:	RJ12 to DB9 connector (Female)
RS232 Communication:	9600 BPS, 8 Bits of Data, 1 Stop Bit, No Parity
RF Transmitter Carrier:	ISM 2.4 GHz, Direct sequence spread spectrum, License free world wide
RF Data Packet Standard:	IEEE 802.15.4 open communication architecture
RF Output Power:	10 dBm (10 mW)
RF Range:	Up to 40 m (130') indoor/urban Up to 120 m (400') outdoor/line of sight
Supply Voltage:	External 9 Vdc, or Powered thru RJ12 connection
Supply Current:	60 mA
AC Adapter:	100-240 Vac, 50-60 Hz, UL, CE, FCC marked
Output Voltage:	9 Vdc @ 1.7A
Output Plug:	Center positive, coax 2.0/5.5/10 mm
Enclosure:	ABS Plastic, Bone color
Dimensions:	70 x 51 x 20 mm (2.75" x 2" x 0.80")
Weight:	60 g

For complete product manual:
www.omega.com/manuals/manualpdf/M4588.pdf

WUSB WIRELESS RECEIVER

WRS232 WIRELESS TRANSMITTER

WRS232-USB
Universal Wireless RS232 to USB Receiver, WRS232 Wireless Transmitter, WUSB Wireless Receiver
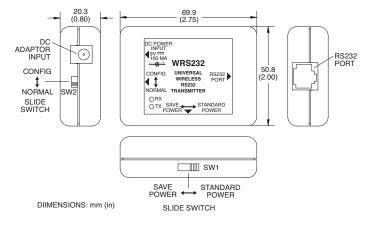
Using This Quick Start Manual

Use this Quick Start Manual with your WRS232-USB universal wireless RS232 to USB transceiver for quick installation and basic operation. For detailed information, refer to the User's Guide (Manual # M4588).
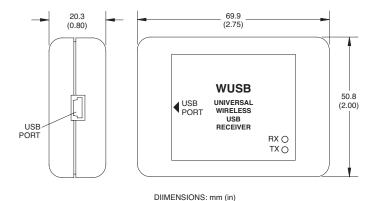
General Information

OMEGA's new universal wireless RS232 to USB transceiver interfaces to any RS232 device, and makes it wireless. The wireless transmitter module connects to an RS232 device. The wireless receiver module connects to the PC via USB interface. The PC communicates with the RS232 device though the wireless receiver module. The wireless transmitter/receiver modules are transparent to the PC as if it is directly connected to the RS232 device.

The transmitter/receiver module comes with two LED indicators. The green LED indicates wireless data transmission (TX). The red LED indicates wireless data reception (RX).

WRS232 Wireless Transmitter Module

WUSB Wireless Receiver Module

Connect to PC

Connect to Wireless Receiver Module

USB Cable Connections

USB Driver Installation

To install the USB software drivers that are required for your wireless receiver to operate correctly follow these procedures.

1. Connect the wireless receiver to your computer with the USB cable provided in the box with your device. You should get a notice box that indicates that your computer "Has Found New Hardware".

2. Your computer will then launch the Found New Hardware Wizard. Follow the instructions indicated on the Wizard boxes.

NOTE:

After completing the Found New Hardware Wizard your system will ask that you repeat this process. This is normal. You should repeat the steps outlined here twice. After the second driver is installed you should then get the "New Hardware Ready For Use" notice.

Wireless Transmitter Module

The transmitter module is connected to an RS232 device with the RJ12 to DB9 connector cable provided. There are two slide switches on the unit:

SW1

• **Standard Power** – The RF module is powered on continuously. The transmitter module can communicate wireless at any time.

• **Save Power** – The RF Module is powered n only when there is data activity on the RS232 port, otherwise the RF module is set to sleep mode to save power. This mode may be selected when the wireless transmitter is connected & powered by a battery powered device. While the RF module is in sleep mode, there is no wireless communication between the transmitter & receiver modules. The RF module can only be wakened from the RS232 device when there is data activity.

SW2

• **Normal** – The slide switch should be set to Normal when the transmitter is connected to an RS232 device.

• **Config** – The slide switch should be set to Config when the transmitter is connected to the PC for configuration.

The transmitter can be powered either directly thru the RJ12 connection by the RS232 device, or can be powered by an external 9 Vdc adaptor. The DC adaptor
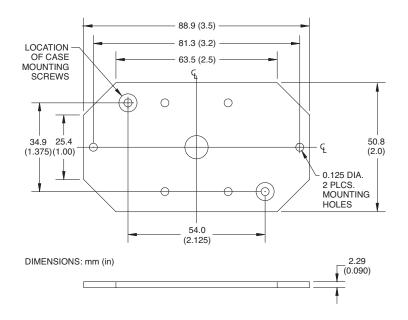
Transmitter/Receiver Configuration

The Configuration CD comes with "wizard" software which allows the user to read or change the configuration of the transmitter/receiver. You need to install the software by following the menus. Once the software is installed, you can configure the transmitter (thru RS232 connection) or receiver (thru USB connection) from the PC software.
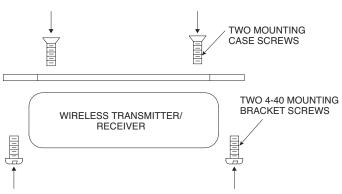
You can change the baud rate and/or the channel number for the transmitter/receiver using the wizard software. The baud rate and channel number for the transmitter should always match the receiver settings, otherwise the two modules will not communicate.
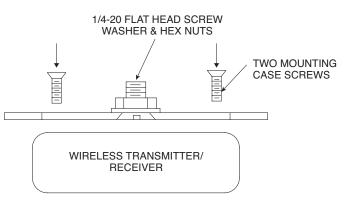
Mounting Bracket & Installation

The wireless transmitter/receiver can be mounted using the optional mounting bracket. In order to assemble the mounting bracket to the module, the two case module screws are used.
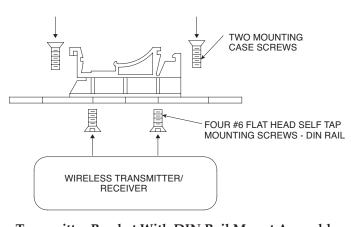

General Dimensions - Mounting Bracket

Transmitter Mounting Bracket Assembly

Transmitter Bracket With 1/4-20 Mounting Screw For Tripod Mount

Transmitter Bracket With DIN Rail Mount Assembly

When mounting your wireless transmitter, care should be taken to make sure it is as far away from any metal objects. Otherwise, it has the potential to interfere with the way the unit radiates and may cause signal loss or possibly even the inability to communicate at all with your receiver.