

**\*\*\* IMPORTANT NOTE \*\*\***

Due to major changes in the way USB devices are supported in Mac OSX Version 10.11 (El Capitan) and higher, the WL60 will only work on Macs with OSX 10.10 or lower

# **WL60 MK3 LONG RANGE Wi-Fi ADAPTOR**

Installation and instruction Manual



## 1. Introduction

Congratulations on the purchase of your WL60 MK3 Wireless Adaptor/Antenna. This unit is designed for quick and simple DIY installation on a yacht or power boat and can be permanently installed on deck. The WL60 MK3 is supplied with an integral 5m USB cable that should not be cut, modified or extended.

**i** *On Window's PCs, do not plug in the WL60 MK3 until you have installed the correct USB drivers, otherwise it will be an "Unknown Device" and you will need to update the drivers in Device Manager.*

## 2. Before you start

The WL60 MK3 requires that the computer it is connected to has compatible USB drivers installed on it. The WL60 MK3 shares the same USB drivers as its "bigger brother" the WL70. Computer operating systems are changing all of the time, we recommend that you visit the following website to download the latest drivers for your operating system.

<http://www.digitalyachtamerica.com/index.php/en/support/support-manuals/utilities>

On this site, you will find two files for the WL70 which should also be used for the WL60 MK3;

- WL70 Version 2 Drivers for Windows XP®, Vista®, 7, 8 and 10®
- WL70 Drivers for Apple Mac OS X 10.4, 10.5, 10.6, 10.7, 10.8, 10.9 or 10.10

Drivers for the WL60 MK3 are already built-in, to all of the latest LINUX distributions and Raspberry Pi operating system, so you do not need to install any drivers and can simply plug in the WL60 MK3 for easy "plug and play" operation.

## 3. Mounting the WL60 MK3 Antenna

The WL60 MK3 should be mounted outside, with the best possible line of sight of the wireless hotspot antenna that you wish to connect to. There are two methods of mounting the WL60 using the kit of parts included in the box;

- Sucker Cup Mount
- Pole Mount

**i** *Neither of these two mounting methods should be used when the vessel is in motion.*

### Sucker Cup Mounting

The most common mounting method is to use the four sucker cups to temporarily stick the WL60MK3 to the outside of the boat.

First, feed the USB cable through the two aluminium tube clips and then place one tube clip at the bottom of the WL60 MK3 tube body and one tube clip towards the top of the tube body just touching the pan head screw – see photo. Secure the clips by gently tightening the fixing bolts – do not over-tighten

Insert and secure a sucker cup in each of the four holes in the aluminium tube clips, using the supplied clear plastic thumb nuts.

After first ensuring that the surface of the GRP where you wish to mount the WL60 MK3 is clean, lightly moisten each sucker cup and then gently push the antenna on to the boat's side until the sucker cups are flat.



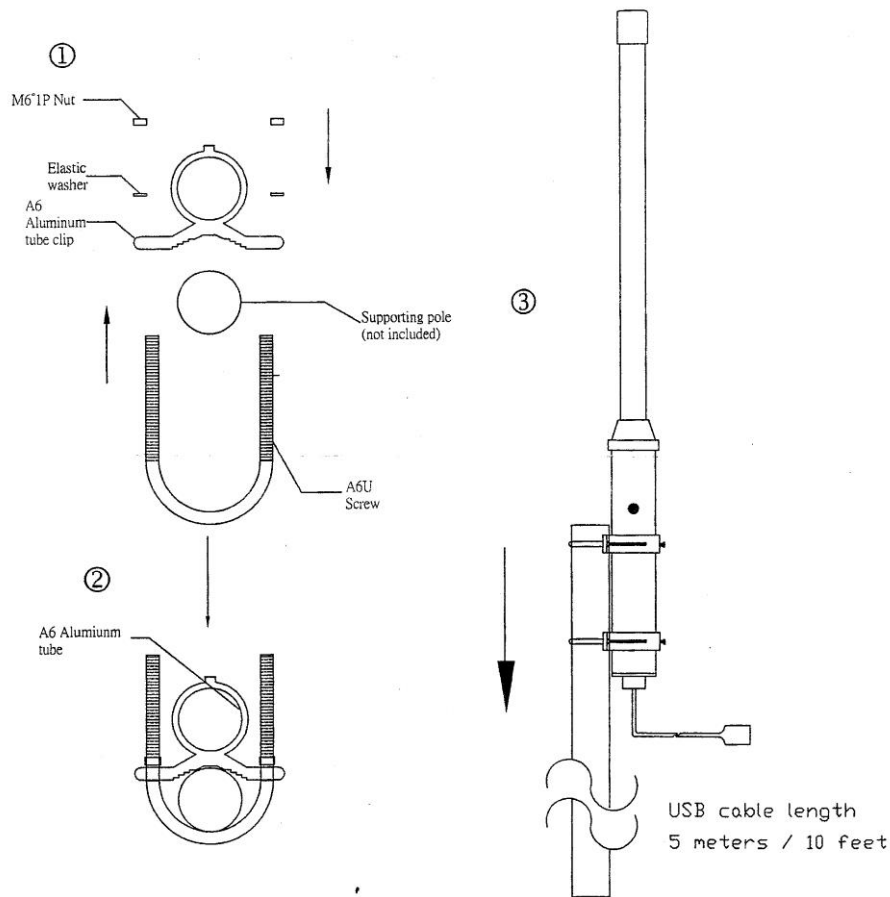


This method of mounting is ideal for yachts and power boats and the WL60 can stay mounted in this manner for many days. Removal is quick and simple by gently inserting a finger nail under each sucker cup and levering them off one by one.

## Pole Mounting

For a more permanent mounting arrangement or when you need to use a pole to get more height, it is possible to mount the WL60 MK3 using the U bolts, nuts and washers supplied.

The diagram below shows the three steps to mounting the WL60 MK3 on a suitable pole (up to 50mm in diameter). Please note that the mounting pole is not supplied.





## 4. Installing the WL60 MK3 on Windows

### Windows Vista/7/8/10 “On-Line” Installation

By far the easiest method of installation, if your PC is running Windows Vista or Windows 7/8/10, is to connect the PC to the internet, as you would normally do, using the internal wireless adaptor and then plug the WL60 MK3 in to a spare USB port on the laptop.

Windows will detect the new hardware and display the message shown in Figure 3 if a Vista or Win7 installation but if Win8 or Win10 you will probably just see an icon appear in the task bar. Windows will now automatically search the on-line Windows Update server for the correct drivers. Depending upon the speed of your PC and internet connection this should take between 20 seconds and a couple of minutes to complete.

You can click on the message/icon and the Window in Figure 4 should be displayed giving you the status of the driver installation.

After the correct driver has been found, downloaded and installed the WL60 MK3 will appear in the “Network Adaptor” section of the Windows Device Manager as shown in Figure 5. If it is not shown in this section or you see a “Unknown Device” or a device with a Yellow Exclamation mark next to it, then you should try to install the drivers manually by following the procedure shown in the next section for Off-Line installation.

If the drivers, are installed correctly and you are ready to use the WL60 MK3 to find and connect to a wireless hotspot, proceed to the “Operating WL60 MK3 on Windows Vista and Windows 7/8/10” section.

### “Off-Line” Installation (All versions of Windows)

If you cannot connect to the internet or you have Windows XP, you can install the drivers manually using the USB Driver Installer that we recommended you to download from our website (see “Before you Start” section on page 2).

Extract the single EXE file in to a folder on your PC and then right click this file and select “Run as administrator” from the options menu. This is important so that Windows allows the installation program the necessary security permissions to copy the USB driver files to the Windows System folder.

The installer program will install the USB drivers and if required an optional Wi-Fi Utility program that can be used instead of the normal Windows Wireless Connection Manager that you see in the right hand side of the task bar. This utility is only recommended for Windows XP which had a very poor wireless manager and for all other versions of Windows we recommend selecting “Install Driver Only” as shown in Fig 7.

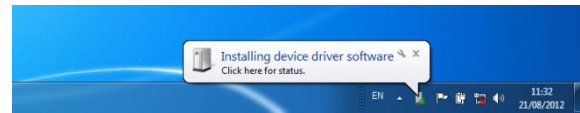


Figure 3

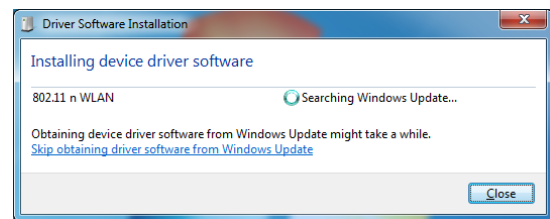


Figure 4

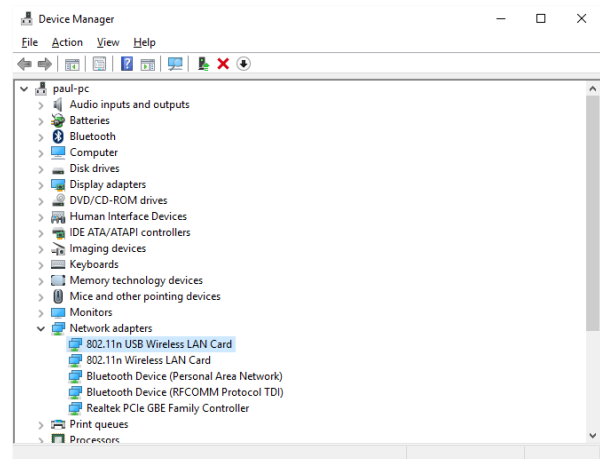


Figure 5

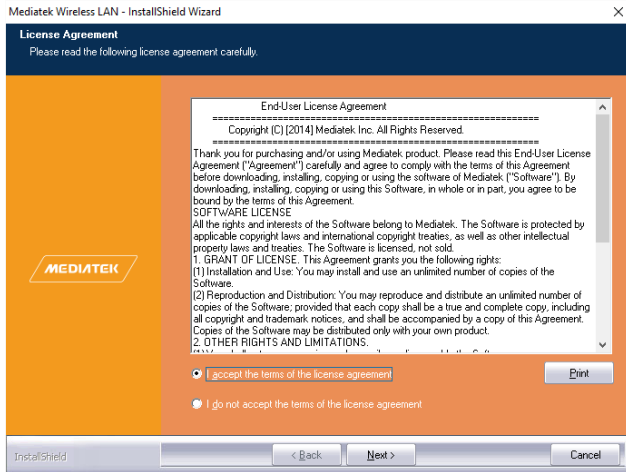


Figure 6

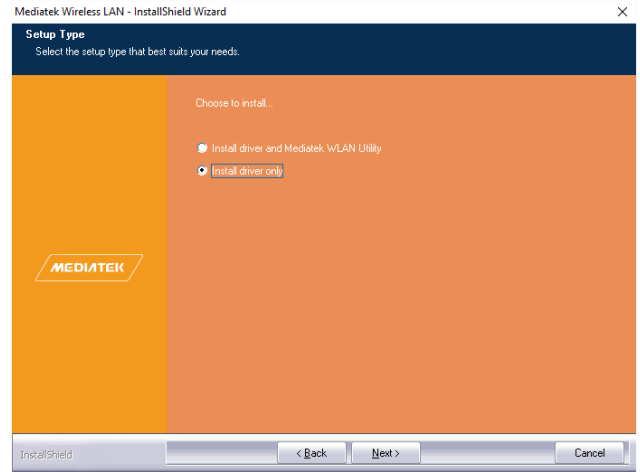


Figure 7

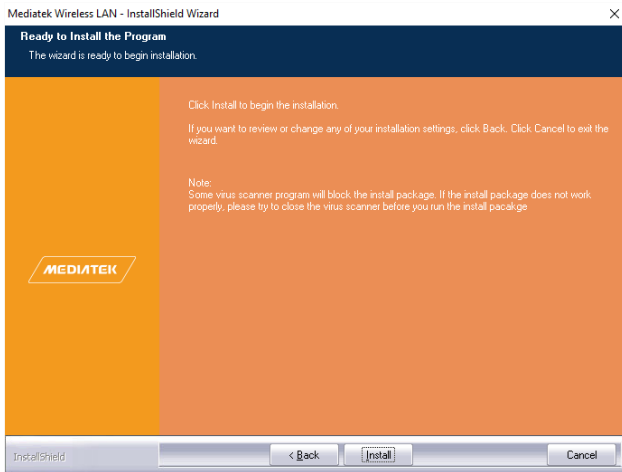


Figure 8

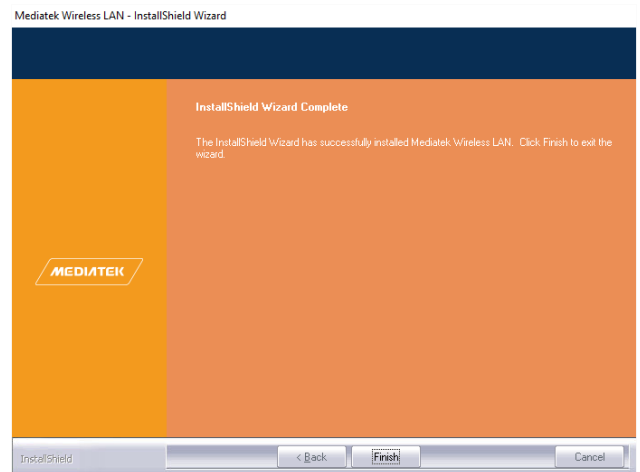


Figure 9

After you start the installation, you will be asked to agree to the terms and conditions (Fig 6), then given the option of installing just the USB drivers or also the WI-Fi Utility (Fig 7) before having to click the “Install” button to start the installation. Now you will see a progress bar move across the screen before you see the Installation Complete screen (Fig 9) at which point you can click the “Finish” button and plug the WL60 MK3 in to a spare USB port on the computer.

At this stage, the new hardware function should start and if you are using Windows Vista/7 a pop up window will appear saying that it is Installing the drivers and if you are using Windows 8/10 you may just see an icon appear briefly in the task bar.

When completed the pop up will change to say that the device software has been installed successfully. The WL60 MK3 is now ready to use and you can proceed to the next section on operating the WL60 MK3.

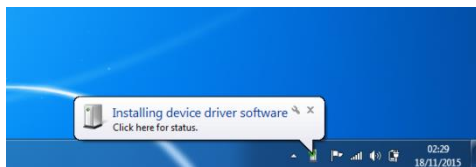


Figure 10



Figure 11



## 5. Operating the WL60 MK3 on Windows

**IMPORTANT NOTE** - It is always best to turn off (disable) the internal wireless adaptor on your laptop before using the WL60 MK3. The exact method to do this, varies from PC to PC, but some laptops have a dedicated button in or around the keyboard area or a special keyboard combination e.g. pressing the Fn + F8 keys.

### Operating the WL60 MK3 on Windows Vista/7/8

Click on the Wireless Networks icon in the task bar (lower right hand side of the screen) and a list of the available wireless networks (hotspots) will be displayed. Your laptops internal wireless adaptor is usually named “Wireless Network Connection” and the WL60 MK3 will automatically be named “Wireless Network Connection 2” or possibly another number if other adaptors have been used previously.

It is possible to rename this connection to something more meaningful by going in to the “Network and Sharing Center” and then clicking in the “Change Adaptor Settings” option. From this screen you can right click on the WiFi 2 network adaptor (or whatever name the WL60 MK3 has been given) and select the Rename option, just like renaming a file. Giving the new Network Adaptor a name like “WL60 MK3 Wi-Fi Adaptor” or similar, will make it much easier to differentiate the WL60 MK3 from the internal wireless adaptor – as shown in Fig 11.

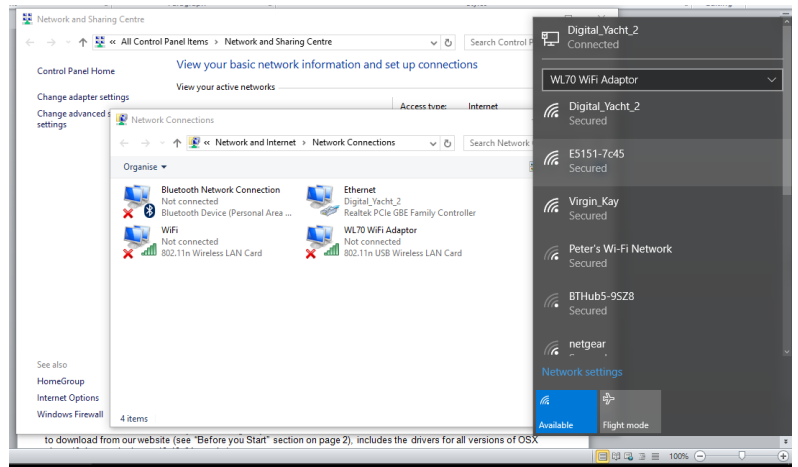


Figure 11

Click on the wireless network you wish to connect to and click the “Connect” button that will appear. You may be asked to enter a password or confirm if the network is a Public, Work or Private network (to set security levels) and then the wireless connection should be made and you will be able to connect to the internet.

## 6. Installing and Operating the WL60 MK3 on a Mac

Mac OSX has been regularly updated over the last few years and it is important that you install the correct driver that matches the version of OSX that you are using on your Mac. The WL60 MK3 Mac Driver file that we recommended you to download from our website (see “Before you Start” section on page 2), includes the drivers for all versions of OSX since 10.7 up to 10.10.

Unfortunately Macs with OSX 10.11 (El Capitan) or higher cannot work with the WL60 and you need to use the WL60 with one of our iKConnect mini wireless routers in these situations or to work with iPhones/iPads.

Double click the DMG file that you downloaded and inside is an Installer.pkg and an Uninstaller.pkg file. Double click on the Installer.pkg file to start the driver and Wireless Utility installation.

When you run the Installer.pkg file, the first screen that you see will be the one shown in Fig 12. Click “Continue” for this screen and the next couple of screens that are displayed. You will be asked to enter your Administrator password and then the installation will start and you will see a progress bar as shown in Fig 13.

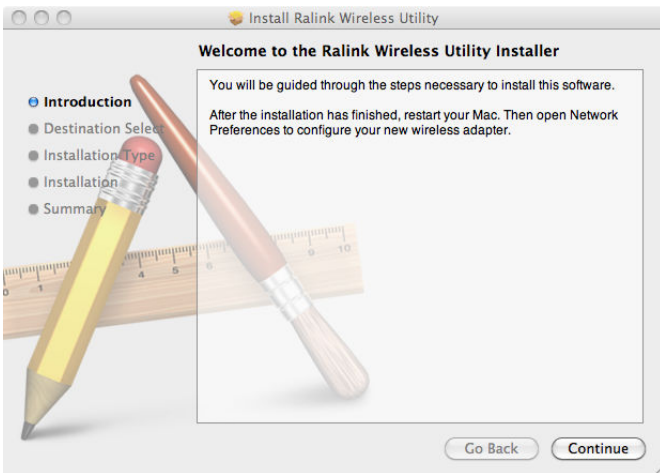


Figure 12

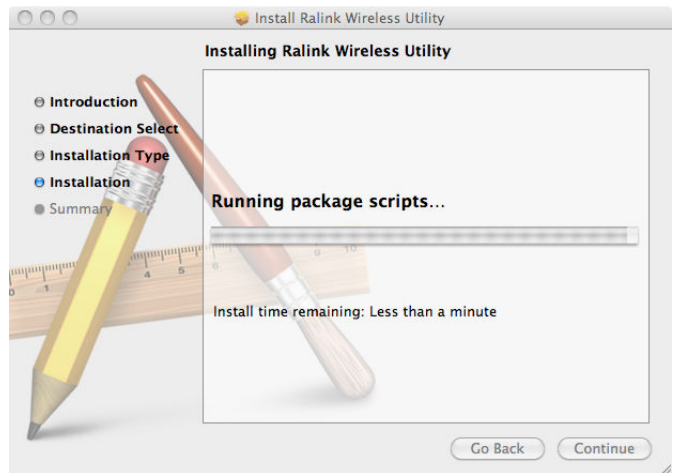


Figure 13

Once the installation is completed you will see the screen shown in Fig 14. Make sure any important programs or documents are saved and closed properly and then click “Restart”. The Mac will now close down and restart again.

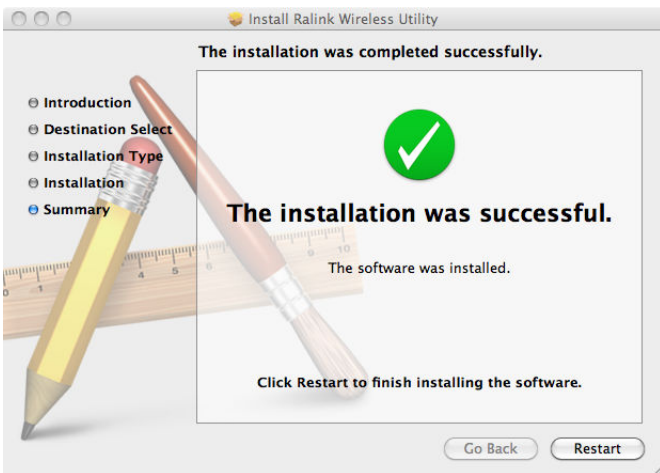


Figure 14



Figure 15

Before plugging in the WL60 MK3, it is always good practice to turn off the Mac’s own internal Wi-Fi, the Airport, To do this click on the wireless icon in the task bar at the top right of the screen and click on “Turn Airport Off”. This will avoid any problems with the WL60 MK3 and Airport interfering with each other (Fig 15)..

Once the Mac has restarted, plug the WL60 MK3 in to a free USB port on the Mac and two things will happen. A new Icon will appear in the Taskbar (Fig 16) and a new Wireless Utility application will open with a message saying that a new network interface has been detected (Fig 17).

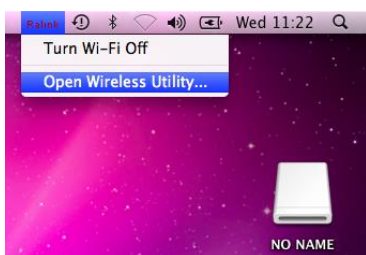


Figure 16

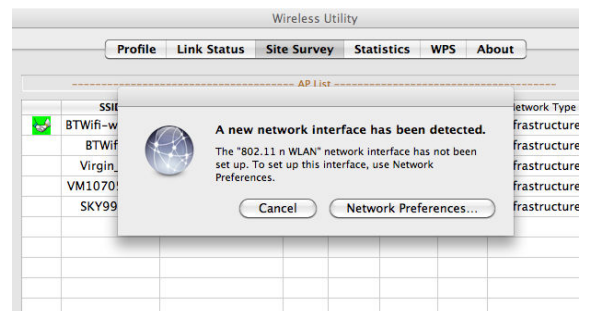


Figure 17



You can click on the “Network Preferences” button and then see the WL60 MK3 now listed in the network adaptors list as “802.11 n WLAN” (Fig 18).

The status indicator will be Yellow and there will be no IP address shown, as the WL60 MK3 is currently not connected to any wireless networks.

Close the Network Preferences window and return to the new Wireless Utility window.

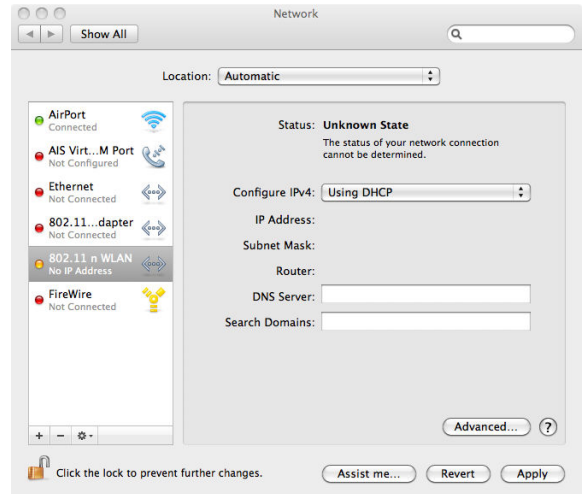


Figure 18

You use the Wireless Utility whenever you want to connect the WL60 MK3 to a wireless network. Go to the Site Survey tab (Fig 19) and click the “Scan” button to scan for all available wireless networks. Select the wireless network that you want to connect to and click “Connect”. You will now see a window like the one shown in Fig 20. Enter the password of the network (if applicable) in the WPA Pre-Shared Key box and click “OK”.

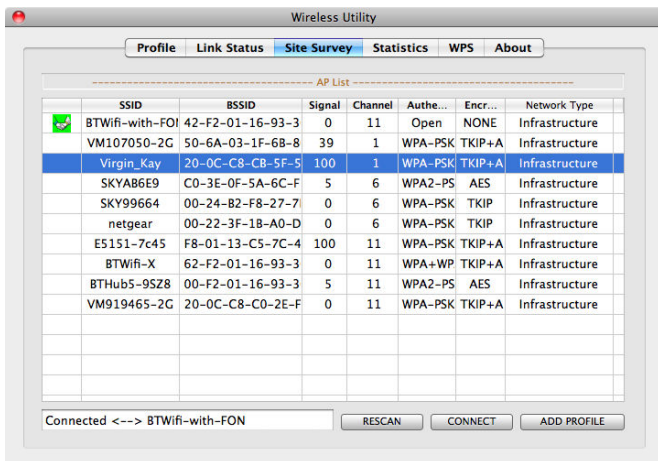


Figure 19

The WL60 MK3 should now connect to the selected wireless network and display a green icon with two shaking hands to show that you are joined.

You can click the Link Status tab shown in Fig 21, to see what the signal strength and link quality are.

The network details plus the password can be stored as a profile which is remembered in case you return to the network again. To create a profile, select the network you are joined to in the Site Survey tab (Fig 19) and click on the “Add Profile” button.

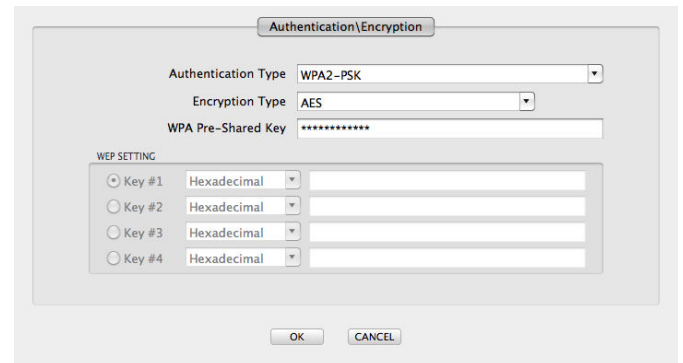


Figure 20

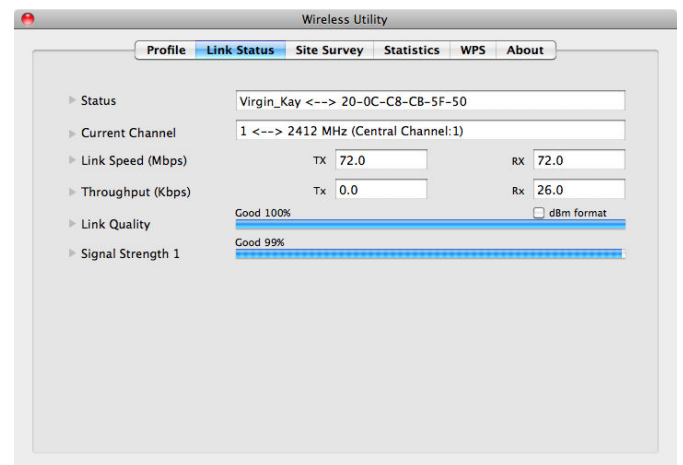


Figure 21





You will now see the screen shown in Fig 22 and you simply type in the name that you want to give the profile, Home in the example below) and then click the “OK” button. If you now click on the “Profiles” tab you will see the new profile that you have created in the Profile list (Fig 23).

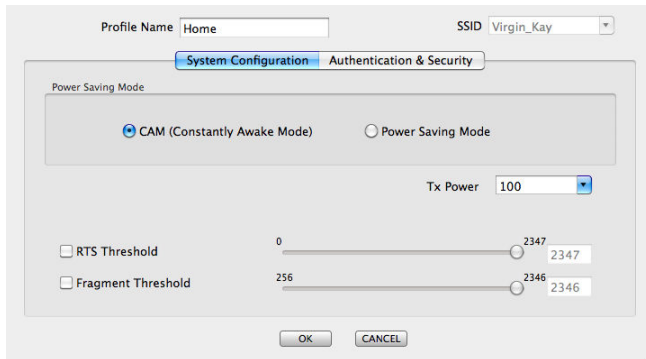


Figure 22

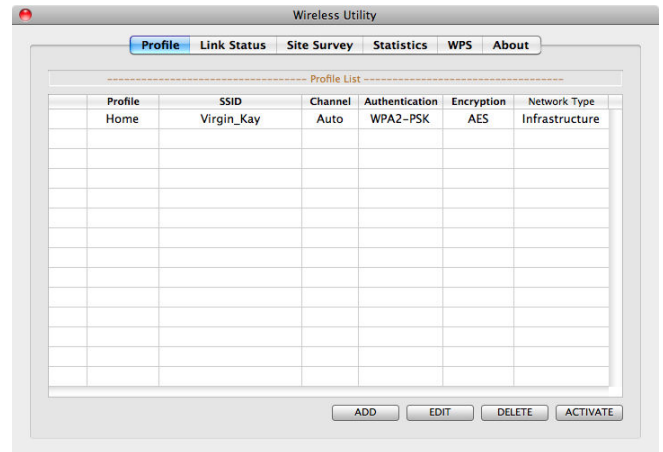


Figure 23

If you have a version of OSX higher than 10.9, please contact [support@digityacht.co.uk](mailto:support@digityacht.co.uk). With new releases of OSX, Apple are regularly making changes to the USB drivers and security systems and new drivers and work arounds are being developed all of the time to try and keep the WL60 MK3 compatible with new versions of OSX

## 7. Installing and Operating the WL60 MK3 on a LINUX PC or Raspberry Pi

Generally the drivers for the WL60 MK3 are included in the LINUX kernel and it should just be a case of plugging the WL60 MK3 in to a spare USB port and LINUX will find the correct driver and enable the wireless adaptor.

The Raspberry Pi is also based on a LINUX distribution and so the WL60 MK3 makes a very useful long range WI-Fi adaptor for the Raspberry Pi.