

Basic User Manual KS-60 USB WiFi Antenna



1. Introduction

Thank you for purchasing the Scout KS-60 USB WiFi antenna, a professional marine antenna with 100% waterproof technology (learn more on **www.scoutantenne.com**). The KS-60 is specifically designed for the marine environment and for outdoor installation, to allow long range WiFi connectivity for any computer with a USB port.

The KS-60 is compatible with the following operating systems:

- Microsoft Windows XP, Windows Vista, Windows 7 and Windows 8
- Apple Mac OS X 10.4, 10.5, 10.6, 10.7 and 10.8

Attention: do not plug in the KS-60 to the USB port of your computer before you have installed the drivers.

2. Installing the KS-60 on Windows

To operate the KS-60 on Windows you need first to download the drivers and the Realtek Wireless Lan Utility, following the steps below.



If the operative system installed on your computer is Windows Vista, Windows 7 or Windows 8 and you are connected to the internet you can skip the following procedure and directly plug in the KS-60 to the USB port, it will detect the driver automatically and start the download.

Step 1 - go to www.scoutantenne.com > Products > WiFi Antennas > KS-60 and select the Windows driver from the driver list (Figure 1).

Specifiche tecniche		Download
Bus Type	USB Version 2.0	Desia Lleas Manuel
USB Cable Length	5 m	Basic User Manual
IEEE Protocol	802.11b/g/n	
Operating Frequency	2400 to 2484 MHz	Driver
Data Rate	Up to 300 Mbps	Windows XP / Vista / Win7 / Win8
Operating Power	5.0V (USB Only)	MAC OSX 10.4
Gain	12 dB	MAC OSX 10.5
Security	WPA, WPA2	MAC OSX 10.6
Height	1,2 m	MAC OSX 10.7

Figure 1

Step 2 - save the file to your desktop and open it, then launch the Setup.exe (Figure 2).

Irganize 🔻 🛅 Open Sl	hare with 🔻 Burn New folder				8== 🔻 🗋	4
Favorites	Name	Date modified	Туре	Size		
Marktop	DATA	07/11/2012 23:10	File folder			
〕 Downloads	EAP	07/11/2012 23:10	File folder			
3 Recent Places	🔉 IM	07/11/2012 23:10	File folder			
🗘 Dropbox	Release notes	07/11/2012 23:10	File folder			
	RTWLANU_Driver	07/11/2012 23:10	File folder			
a Libraries	🚳 _Setup.dll	10/05/2008 14:27	Application extens	326 KB		
Documents	🔚 data1	07/11/2012 17:55	Archivio WinRAR	8.416 KB		
👌 Music	📑 data1	07/11/2012 17:55	HDR File	63 KB		
E Pictures	🔚 data2	07/11/2012 17:55	Archivio WinRAR	16.442 KB		
Videos	🚳 Install	07/11/2011 11:32	Windows Batch File	1 KB		
	IsConfig	05/03/2015 10:06	Configuration sett	6 KB		
💐 Homegroup	ISLangUni	02/02/2012 21:41	Configuration sett	86 KB		
	ISSetup.dll	11/09/2008 19:26	Application extens	543 KB		
Computer	layout.bin	07/11/2012 17:55	BIN File	1 KB		
🏭 Local Disk (C:)	Setup	10/11/2010 16:46	Application	391 KB		
💼 Local Disk (D:)	😹 setup	07/11/2011 11:32	Icon	2 KB		
🖵 meropew (\\User2) (Z:)	Setup	26/09/2012 10:45	Configuration sett	1 KB		
	💼 setup	07/11/2012 17:55	InDesign XML Inte	357 KB		
Network	setup.iss	07/11/2011 11:32	ISS File	1 KB		
	🚳 UnInstall	07/11/2011 11:32	Windows Batch File	1 KB		
	Uninstall.iss	07/11/2011 11:32	ISS File	1 KB		

Step 3 - press "Next" to start the installation process, that takes only few seconds. When the installation is finished you need to Restart the computer (Figure 5).

REALTEK USB Wireless LAN Driv	ver and Utility	REALTEK USB Wireless LAN Driver and Utility	23
	REALTEK USB Wireless LAN Driver and Utility	Setup Status	1
	The InstallShield Wizard will install REALTEK USB Wireless LAN Driver and Utility on your computer. To continue, click Next.	REALTEK USB Wireless LAN Driver and Utility is configuring your new software installation.	
		Installing	
		C:\PROGRA~2\REALTEK\USBWIR~1\ReStart.exe	
		- InstallShield	
	< Back Next > Cancel	Cance	
	Figure 3	Figure 4	
	-		
REALTEK USB Wireless LAN Driv	ver and Utility		
	InstallShield Wizard Complete		
	The InstallShield Wizard has successfully installed REALTEK USB Wireless LAN Driver and Utility. Before you can use the program, you must restart your computer.		
	Yes, I want to restart my computer now.		
	No, I will restart my computer later.		
	Remove any disks from their drives, and then click Finish to complete setup.		
	< Back Finish Cancel		

- Figure 5
- Step 4 once the computer has fully rebooted, plug in the KS-60 to the USB port. A pop up window will inform you that the device driver software is going to be installed (Figure 6). When the installation is completed another pop up window informs you that the device driver software has been installed successfully (Figure 7). The KS-60 is now ready to use.

Installing device driver software 🌂 🗙		Realtek RTL8188CU Wireless L	AN 802.11n USB 2.0 Networ	k Adapter 🔦 🤉	×	
Click here for status.	▶ 12:27 ♦) 12:27 05/03/2015	Device driver software installed successfu	illy.	Ш IT _		- 12 () G
Figure 6			Figure 7			

3. Operating the KS-60 on Windows

To operate the KS-60 on Windows you can use either the Windows Wireless Connection Manager (Figure 8) or the Realtek Wireless LAN Utility, which you downloaded together with the driver (Figure 9). Both options are fine, just consider that the Realtek Wireless LAN Utility offers more features than the tool supplied by Windows.



Attention: to avoid confusion with using the KS-60 is always better to disable the internal wireless adaptor on your laptop. You can do it through the Network and Internet functions of the Control Panel (Figure 10).



Figure 10

Operating the KS-60 with the Windows Wireless Connection Manager

Click on the Wireless Networks icon in the task bar and a list of available wireless networks will be displayed. Your laptops internal wireless adaptor is usually named "Wireless Network Connection" and he KS-60 will automatically be named "Wireless Network Connection 2" or possibly another number if other adaptors have been used previously.

It is always a good idea to rename this connection by going in to the "Network and Sharing Center" and change its name to something more meaningful (for example "KS-60"), so that you can be certain of which wireless adaptor you are using (Figure 11).

Select the network you would like to connect by clicking on it. If the network lists an encryption type or Network authentication you will need a network key or password to gain access.



Operating the KS-60 with the Realtek Wireless LAN Utility

To connect to a wireless network you must run the "Realtek USB Wireless LAN Utility" from your desktop icon (Figure 9) or Program Folder in the Start Menu. You must have your KS-60 connected to your PC's USB port to open the utility. The utility will not open if it does not detect the antenna.

The screen that will appear when the utility has been opened is the one displayed in Figure 12, which shows that you are not connected to a wireless network. To begin, select the "Available Network" tab and select the network you would like to connect by double clicking on it (Figure 13).

😹 REALTEK USB Wireless L	AN Utility		3	🕺 REALTEK USB Wireless LA	AN Utility						×
Refresh(R) Mode(M) A	bout(A)			Refresh(R) Mode(M) Ab	iout(A)						
B- VyComputer	General Profile Available Network Status Wi-Fi Protect Setup			B- S MyComputer	General Profile A	vailable Netwo	rk Status Wi-Fi Prote	ect Setup			
Realtek RTL818	Status: Not Associated			Realtek RTL818	Available Network	k(s)					
	Speed: N/A				CCID		Sharand Commission	Manual Authoritan	Cinnel	Teres	DC
	Type: N/A				P) WIND WIELD	657	1 TKID/AES	WDA Bro Shared Key	Signal A9%	Type	24
	Encryption: N/A				1 ⁹⁾ 101	0.007	6 TKIP	WPA Pre-Shared Key/	62%	Infrastructure	00
	SSID:				FASTWEB-1-	-YlKfI	11 TKIP	WPA Pre-Shared Key	100%	Infrastructure	64
	Signal Strength:				P Telecom-748	828777	11 TKIP/AES	WPA Pre-Shared Key/	44%	Infrastructure	00
	Link Quality:				A"WGCN		12 TKIP	WPA Pre-Shared Key	10%	Infrastructure	00
	Network Address: MAC Address: 5C:F3:70:14:95:3E ReNew JP				<	Rei	m fresh join/create profile.	Add to Profi	le		Þ
Show Tray Icon	Dicable Adapter			Show Tray Icon			icable Adaptor			<u> </u>	
Radio Off	Virtual WiFi allowed	Close		Radio Off			/irtual WiFi allowed			Clo	se
								-			

Figure 12



If the network lists an encryption type or Network authentication you will need a network key or password to gain access. If "None" is listed, you can connect without providing a password (Figure 14).

If you click on the "General" tab you will see the window shown in Figure 15 which gives the wireless connection status.

REALTEK USB Wireless	LAN Utility		_ 0 X	REALTEK USB V	Vireless LAN Utility	
Refresh(R) Mode(M) A	bout(A)			Refresh(R) Mode	e(M) About(A)	
B- V MyComputer	General Pro	file Available Network Status Wi-Fi Protect Setup		B- 🖁 MyCompu	ter General Profile Available Network Status Wi-Fi Protect Setu	P
Realtek RTL818	Avaibble			Realtek	RTL818 Status: Associated	
		Wireless Network Properties:			Speed: Tx:54 Mbps Rx:54 Mbps	
	Profile N	This is a computer-to-computer(ad hoc) network; wireless	Au		Type: Infrastructure	
		Profile Name: EASTWER-1-YKftY1wASon	Remove		Encryption: TKIP	
					SSID: FASTWEB-1-YKfIY1wASgn	
		Network Name(SSID): FASTWED-1-TRUT 1WASgn	Eda		Signal Strength:	98%
		Channel: 11 (2462MHz) -	Euk		Link Quality:	100%
		Wireless network security	Duplicate			
		Network Authentication: WPA-PSK				
		Data appruntion: mun	Set Default		Network Address:	
					MAC Address: 5CF3:/0:14:95:3E	
		ASCII PASSPHRASE				
		Key index (advanced): 1				
		Network key:				
	•	Confirm network key:				
		OK Cancel			Debley	. 10
			,		Kenev	V 1P
< Þ				<		
Show Tray Icon		Disable Adapter	Close	Show Tray Io	con 📃 Disable Adapter	Close
Radio Off		Virtual WiFi allowed		Radio Off	Virtual WiFi allowed	
				· · · · · ·		
		Figure 14			Figure 15	

At this point, you should be connected to the selected network and be able to access the network's resources (i.e. internet, printers, other network devices).

3. Installing the KS-60 on a Mac

To operate the KS-60 on a Mac you need first to download the drivers and the Realtek Wireless Lan Utility, following the steps below.

Step 1 - go to www.scoutantenne.com > Products > WiFi Antennas > KS-60 and select the Mac driver from the driver list (Figure 16).

Specifiche tecniche		Download
Bus Type	USB Version 2.0	Desis Hass Manual
USB Cable Length	5 m	Basic User Manual
IEEE Protocol	802.11b/g/n	
Operating Frequency	2400 to 2484 MHz	Driver
Data Rate	Up to 300 Mbps	Windows XP / Vista / Win7 / Win8
Operating Power	5.0V (USB Only)	MAC OSX 10.4
Gain	12 dB	MAC OSX 10.5
Security	WPA, WPA2	MAC OSX 10.6
Height	1,2 m	MAC OSX 10.7
Weight	0,50 kilo	MAC OSX 10.8

Figure 16

Step 2 - save the file to your desktop and open it, then double click on the Installer.pkg. Follow the installation instructions as shown in Figure 17 and Figure 18.







Step 3 - once the Mac has restarted, plug the KS-60 in to the USB port and two things will happen. A new icon will appear in the Dock (Figure 20), a new application will open and a window will be displayed (Figure 21) - this is the Realtek Wireless Network Utility.



Figure 20

Link Status	Profiles	Available Network	Advanced Setting	WPS	Information
MAC	Address :	5cf37014953e			
	SSID :				
	BSSID :				
:	Security :	None			
Con	nection :	Disconnected			
Netwo	rk Type :				
(Channel :				
Link Speed	d(Mbps) :	TX RX			
	HT Info :				
Signal S	trength :				0%
				Turn	Radio OFF



Step 4 - turn off your internal Airport wireless adaptor, then click on the Available Networks tab to display a list of the wireless networks or wireless hotspots within range of your KS-60. If the network lists an encryption type or Network authentication you will need a network key or password to gain access. If "None" is listed, you can connect without providing a password (Figure 22). To connect to a network, select the network and click "Connect".

		Wirele	ess Network Utility	1	wpc.	1.6
LINK Stati	is profiles Ava	allable Net	work Advance	a Setting	WPS	Informatio
Associated	SSID	Channel	Network Type	Encryption		BSSID
	Alice-55061361	1	Infrastructure	WPA2-PSK	ГКІР	0025531724a8
	wi-fiTech	6	Infrastructure	WPA2-PSK /	AES	7cd1c3cdf3b0
	pippo	11	Infrastructure	WPA(2)-PSK	AES	0014c1189870
	CONAD	11	Infrastructure	WPA-PSK TH	KIP	001b11c0eac3
	FASTWEB-1-2Jg2M	1	Infrastructure	WPA(2)-PSK	AES	8426152fb492
	TP-LINK	2	Infrastructure	WPA2-PSK	AES	a0f3c13de002
	Vodafone-21237379	1	Infrastructure	WPA2-PSK	AES	002489c0ace6
	InfostradaWiFi-f80	1	Infrastructure	WPA(2)-PSK	AES	84c9b2f8065d
	Refres	ih)	Connect		Add to	Profile

Figure 22

Profile Name SSID : wi-fiTech This is a computer-to-computer (AdHoc) network: wireless access points are not used Channel : 1 Å Wireless Network Security Properties This network requires a key for the following Network Authentication : WPA2_PSK 🛟 Data Encryption : AES \$ ASCII Key index (advanced) : 1 Network key : Confirm network key : Cancel se enter Key strings before clicking on [OK] to co

Wireless Network Security Properties

Figure 23

0	> O Wireless Network Utility							
Link Status	Profiles	Available Network	Advanced Setting	WPS	Information			
MAC Ad	ddress :	5cf37014953e						
	SSID :	wi-fiTech						
	BSSID :	7cd1c3cdf3b0						
Se	curity :	WPA2-PSK AES						
Conn	ection :	Connected						
Network	c Type :	Infrastructure						
Cł	nannel :	6						
Link Speed(Mbps) :	TX 58 RX 58						
н	T Info :	BW:20MHz GI:short	MCS:5					
Signal Str	rength :	*******	*******	* * *	100%			
				Turn	Radio OFF			

The first time your KS-60 connects to any given wireless network, you will need to create a profile that saves the settings (SSID, Network Name, Network Key). If the network requires a password, you will enter it in the "Network Key" field and confirm below. Click "OK" when finished to connect (Figure 23).

At this point, you should be connected to the selected network and be able to access the network's resources (i.e. internet, printers, other network devices) (Figure 24).

KS-60 Technical Specifications

Frequency	2400-2500 MHz
Antenna gain	12 dBi
V.S.W.R.	< 1,5:1
Polarization	Vertical
Impedance	50 Ohm
Radiation	Omnidirectional
WLAN standards	IEEE 802.11b: 11 Mbit IEEE 802.11g: 54 MBit IEEE 802.11n: 150 MBit
Operating Power	5.0V (USB only)
Transmit Power (EiRP)	29 dBm
Receive Sensitivity	-80dBm@11MBit -70dBm@54MBit -64dBm@150MBit
Security	WEP, TKIP, AES, WPA, WPA2
Operating Temperature	-10° to 45°
Chipset	Realtek RTL8188CUS
Whip material	Fiberglass
Cable	5 m USB cable 2.0
Mounting	1" x 14 thread
Length	1,2 m
Weight	0,50 kilo

KS-60 Suggested Mounts



PA-3 Four way solid nylon ratchet mount



PA-81

Stainless steel bracket with brass mount



PA-30 Four way stainless steel ratchet mount



PA-41 Detachable chrome brass rail mount



PA-40 Stainless steel universal mount



PA-82 Stainless steel masthead standoff bracket



PA-43 Two way chrome brass ratchet rail mount



Scout S.r.l. | Via Toscanini 148, 41019 Soliera, Italy tel. +39 059 566650 | fax +39 059 565949 web: www.scoutantenne.com | e-mail: scout@scoutantenne.com **SCOUT** is a registered trademark. Reg. n. 009799602

Technical specifications here included may change without prior notice.