

# WEBWatch™

Wi-Fi, Cellular Data  
 and HDTV antenna



## WCT-1 & WC-1 User Guide

Introduction	1 - 3
Register your Product	1
Download the App	2
Theory of Operation	3
Selecting A SIM Card	4
Installation	5 - 7
Configuration Options	5
You will Need	6
Mounting Notes	6
Instructions	7
Usage	8 - 17
Connect to WebWatch	8
First Time Only	8
WebWatch Setup Page	11
Hotspot and Ethernet Settings	12
Wi-Fi, Cellular or Auto Setting	12
Configure Cellular Function	13
Connecting to Wi-Fi Network	15
Deleting a Saved Network	16
The Status Page	17
Changing Admin Password	17
Installing Updates	18
WebWatch App	19
Troubleshooting	20 -21
Compliance Information	22

## Register your Product Warranty

Please register your product for warranty and notifications for available software updates at:

<http://shakespeare-ce.com/marine/register/>

or

Scan the below QR code



See label under the device for MAC ID & IMEI Number

**Please record your device details here for future reference:**

MAC ID: \_\_\_\_\_

IMEI Number \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Customer ID (will be mailed to you once registered online): \_\_\_\_\_

# INTRODUCTION

---

## Download the WebWatch™ App

The WebWatch has both, an iPhone® app and an Android™ app that can be downloaded to manage your device more easily (highly recommended).



Look for the “WebWatch” app on the respective app stores.



Congratulations on purchasing the WebWatch. Take your entertainment wherever you go. WebWatch lets you access the Internet from a nearby Wi-Fi® Hotspot or cellular network (separate data plan and SIM card required) with up to 4G speeds and share it wirelessly with the built in wireless hotspot or through the Ethernet cable. Now, you don't need another antenna for your TV. Access your favorite local TV channels through the WebWatch's built in HDTV antenna (for WCT-1 only). Web and Watch, on your boat, recreational vehicle, cabin or anywhere else.

This guide contains all the information you need to get your WebWatch system up and running.

## Which model do you own?

The only difference between the WCT-1 and WC-1 is the built-in HDTV antenna which is present only in the WCT-1. This manual is common to both models. Please ignore the sections regarding the TV antenna in case you own a WC-1.

**Please register your product warranty at:**

<http://shakespeare-ce.com/marine/register/>

**We strive to keep improving the user experience for you. We will keep you posted when software updates are available for your product.**

## Theory of Operation

The WebWatch as its name suggests, brings to you the Web and the TV Watching experience (not in WC-1) to your boat or anywhere else that you may install it.

The device has a built in high gain Omni-directional Wi-Fi antenna and a cellular modem that allows it to access the internet either from a Wi-Fi hotspot (if in the proximity of one) or a cellular network if Wi-Fi is unavailable. The device automatically switches depending on the availability of Wi-Fi. In case required, the device can also be switched manually using either the WebWatch phone app or the device's built-in web interface.

The Internet can then be accessed locally using either its built-in Wi-Fi hotspot or over an Ethernet cable. The local Wi-Fi hotspot's range can be increased by either using Wi-Fi repeaters or connecting to other Wi-Fi access points/router using the Ethernet connection.

The WebWatch's web browser based interface (referred to as "WebWatch setup site" in this manual) and WebWatch phone app can be used to control the functions of the Wi-Fi receiver, cellular receiver and built in Wi-Fi hotspot.



Just like any other antenna, the WebWatch will best perform with a clear line of sight with the Wi-Fi, cellular and TV (if applicable) towers.

The TV antenna does not need any external amplifiers. The antenna may be plugged straight into a TV as long as the WebWatch is powered. Check out the host of Shakespeare TV antenna accessories at <http://shakespeare-ce.com/marine>

Wi-Fi® is a registered trademark of the Wi-Fi Alliance®

# SELECTING THE RIGHT SIM CARD

**Tip:** It is recommended to have an easily accessible switch to turn off the device when a reboot may be required. Below is a list of carriers that can be used with the WebWatch:

3G AT&T, T-Mobile  
4G AT&T

For an updated list of supported carriers, please visit:  
[Shakespeare-ce.com/marine/product/wct-1](http://Shakespeare-ce.com/marine/product/wct-1)

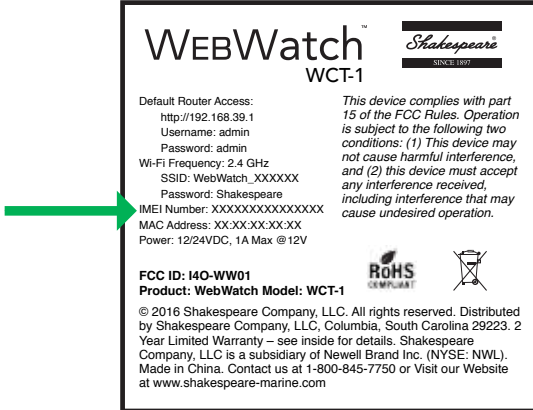
Here is some information that you will need to carry with you when you go to purchase your plan:

**Type of connection:** Data-only connection

**Type of device:** USB Modem/Mobile hotspot (these devices work similarly to the WebWatch from the perspective of your carrier. You do not need to buy a device but, just the SIM card and plan for this type of device)

**IMEI number:** The IMEI number of the device can be found on the label under the product.

**Tip:** You may not be asked for an IMEI number since most carriers may help you activate your simcard with the IMEI number of an in-store device. This is the easiest way to activate your simcard.



To get the WebWatch to connect to a cellular network, just like a phone, the WebWatch needs APN settings. These settings may change with operator and geographical region.

**Note:** Before leaving the store, please request for the "APN settings" that you will need to use with the SIM card.

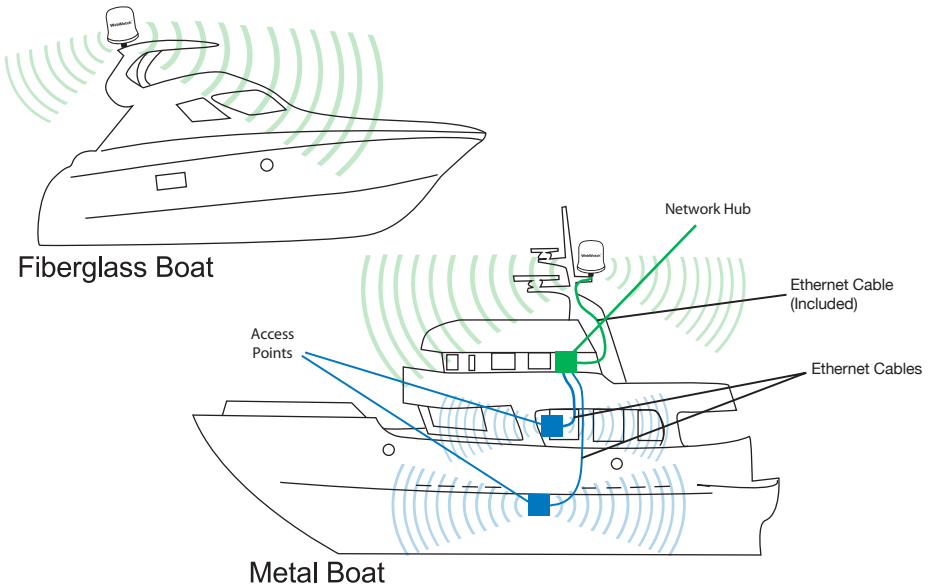
Please refer to the "Configuring cellular function" section for more details on how to configure the device for your SIM card.



**Warning:** Please read through the Compliance information section of the manual to ensure that your install is compliant with the FCC and other regulatory requirements.

## Configuration Options:

1. Since Wi-Fi signals are blocked by metal surfaces, on metal crafts, it is necessary to place a Wi-Fi access point inside the boat connected to the WebWatch via its Ethernet cable.
2. Connect multiple access points through a network hub.
3. Wi-Fi routers have access points and hubs built into them. In that case you will not need a separate hub.
4. The Wi-Fi router inside the WebWatch can be used for the Wi-Fi coverage outside the boat as long as there are no obstructions between the WebWatch and area of use. See below images for examples on how you can configure them.



# INSTALLATION

---

## You will Need:

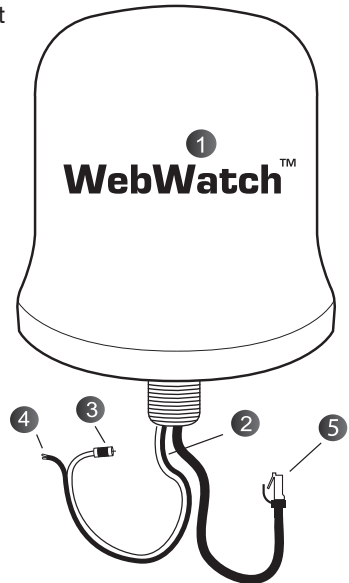
1. WebWatch
2. 1"-14 thread mount. A simple flange mount is best recommended for this device. See Shakespeare website (<http://shakespeare-ce.com/marine/>) for available mounting options
3. SIM card (please see "Selecting the right SIM card" section of this manual).

## Additionally required, in case of an Ethernet installation:

Other devices and cables may be required depending on the configuration you choose. Please see "Configuration Options" section of this manual to see possible configurations.

## Parts in the Illustration:

1. WebWatch
2. Siamese cable (not present in WC-1)
3. F-Connector for TV (not present in WC-1)
4. Twin wire for power
5. Ethernet Cable



## Mounting Notes:

1. Due to its heavy weight, it is recommended to mount the device as close to the boat's center of gravity as possible.
2. Always mount the device such that the dome is pointing vertically upward and is in clear line of sight with the Wi-Fi, cellular, and TV (if applicable) transmitting towers.
3. If the device interferes with your radio or other electronic receivers, move the device further away from those devices.

**Note:** The ingress rating of this WebWatch product is IPX4. It is designed to operate safely during rains and light water sprays. It is not intended to be used where it might be subject to constant water sprays or powerful water jets. Shakespeare shall not responsible for unsafe or faulty operation due to failure to install properly. Installing the WebWatch near or above a metal surface may result in significant reduction of the Wi-Fi and 3G/4G signal strength.

## Instructions:

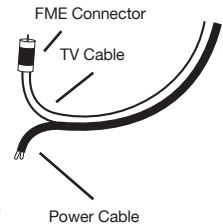
1. Install the separately purchased mount as per its installation instructions.
2. Open the cap under the housing of your WebWatch and insert the SIM card into the slot as shown until you hear a click:

**Note:** Ensure that the SIM card is inserted into the WebWatch BEFORE powering up.



3. Replace cap and snap tight to ensure that the device stays splash proof.
4. Pass the cables through the mounting hole of the mount.
5. Screw the antenna onto the mount. Ensure that the cables are able to rotate freely with the device when mounting.

6. Route the power cable through your vehicle so that the end is available at the power supply/ switch. Route the TV cable so that the F-connector is available at a TV port/ TV (if applicable). If your WebWatch model has TV functionality, the power cable will be part of the Siamese cable with the TV cable. The power and TV parts can be split to go in different directions at any length that you require by simply pulling the ends apart.

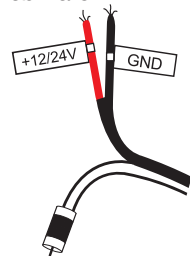


7. Route the Ethernet cable through your vehicle such that the end is available at an Ethernet wall port, wireless router or other network device like a hub (depending on install configuration).
8. Power up the WebWatch as per the power supply instruction below. Once powered up, you will see a blue light at the base of the WebWatch.
9. To tune to TV channels, ensure that the WebWatch is connected to the "antenna" or "antenna/cable" socket behind your TV. Set the TV to "antenna" mode and run a channel scan on your TV to find channels picked up by the WebWatch.

## Power supply:

The WebWatch is rated at:  
Voltage: 12-24 VDC  
Current: 1A Max @ 12 VDC

It is recommended that the WebWatch is powered from a fused accessory panel that can fulfill the above requirements.



**Warning:** The red lead must be connected to the positive and black lead to negative power supply. Polarity reversal on the power supply will damage the WebWatch. Damage due to error in installation will not be covered under warranty.



## A: Connect To The WebWatch:

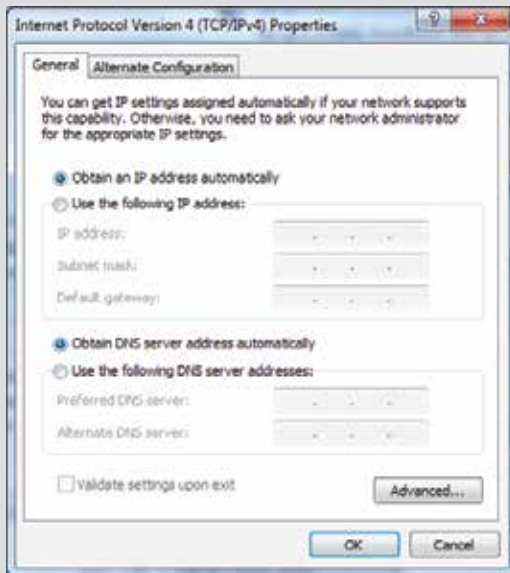
You have two options to connect to the WebWatch device: Via Wi-Fi (recommended) and via Ethernet.

### Via Wi-Fi (Recommended):

1. Ensure that the Wi-Fi is turned on your laptop or other Wi-Fi enabled device.

### First Time Only (or if network settings have been changed recently):

2. If you are using a laptop, ensure that the IPV4 settings for the Wireless Network Connection is on “Obtain an IP address automatically” and “Obtain DNS server address automatically”. This is usually the default unless something was changed. You can skip this step for mobile devices.  
(See Step 3 to continue.)

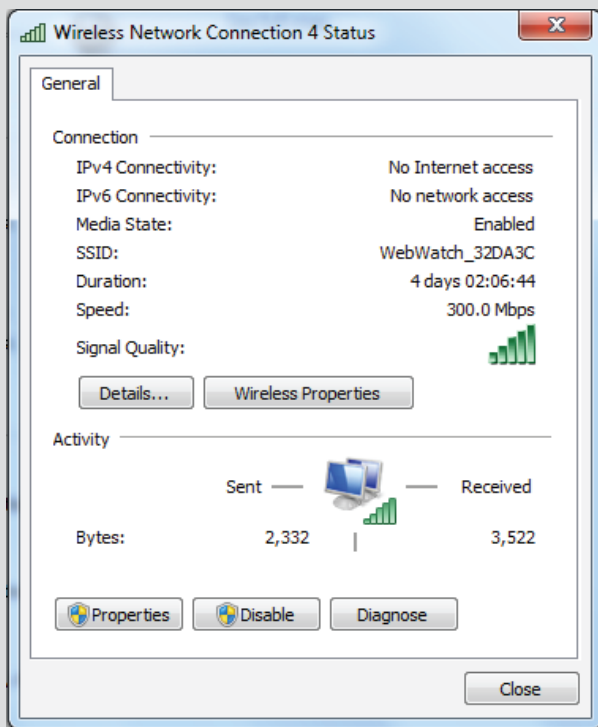


You can find it under:

Control Panel > Network and Internet > Network and Sharing Centre > Wireless Network Connection > Properties

For MAC:

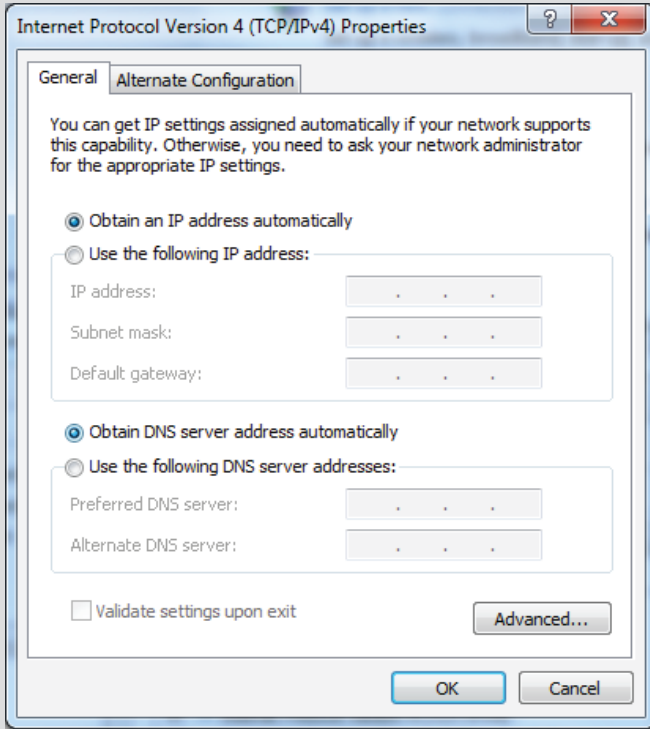
System Preferences > Network > Wi-Fi > Configure IPv4: Using DHCP



3. Search and connect to the Wi-Fi Network named “WebWatch\_XXXXXX”.
  - A. Default Password: Shakespeare
4. If not using Ethernet, skip next section “Via Ethernet” and continue reading.

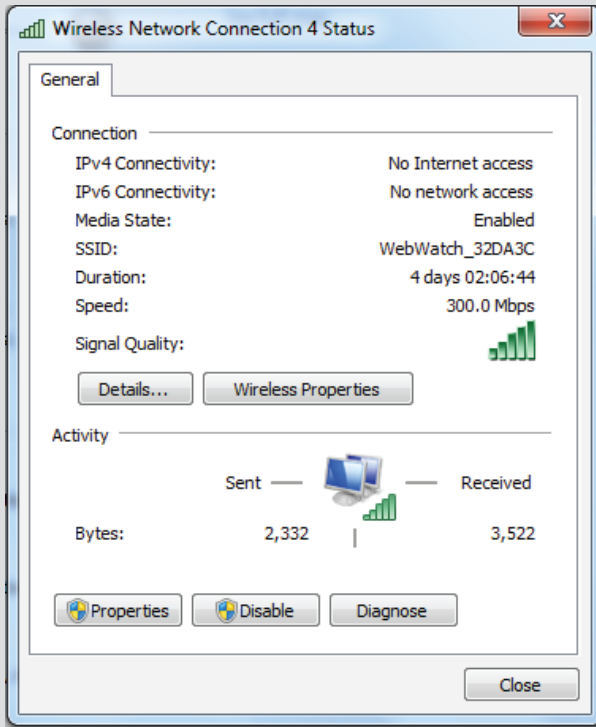
## Via Ethernet:

1. Ensure that Wi-Fi is disabled on your laptop (not just turned off).
2. Ensure that the IPV4 settings of the Local area connection is on “Obtain an IP address automatically” and “Obtain DNS server address automatically”.



You can find it under:  
Control Panel > Network and Internet > Network and Sharing Centre > Local Area Connection > Properties

For MAC:  
System Preferences > Network > Ethernet > Configure IPv4: Using DHCP



B: Opening The WebWatch Setup Page:

1. Using a web browser, open the page 192.168.39.1

**Tip:** Add page 192.168.39.1/apclient.asp to bookmark bar for fast access to the setup page



2. Follow on-screen instructions to login  
 Default username: admin  
 Default password: admin

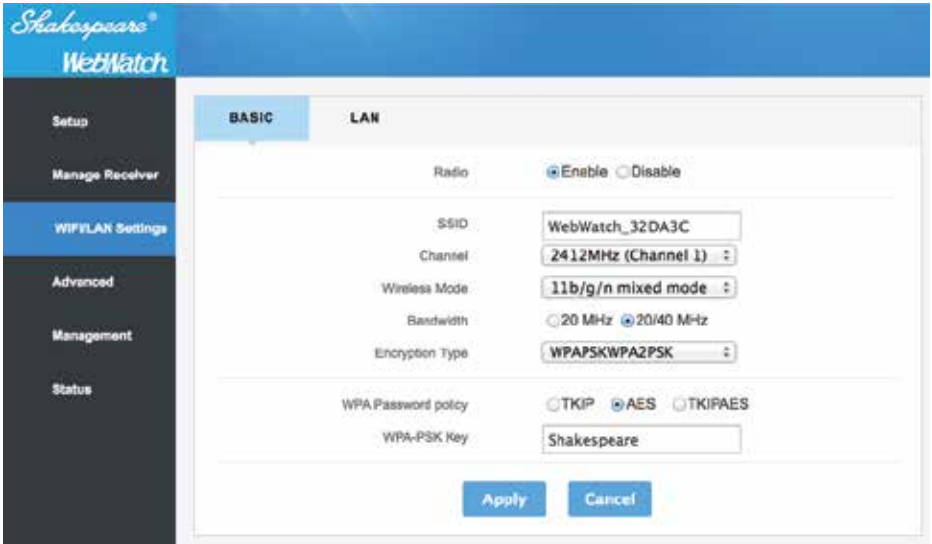
**Tip:** Save login details to browser for fast access.

## C: Changing Settings Of The Wi-Fi Hotspot And Ethernet:

The settings of the WebWatch's hotspot can be changed under the WIFI/LAN Settings > BASIC page, including the hotspot name and password.

SSID: Hotspot Name

WPA-PSK KEY: Password



Other advanced settings for WIFI can be found on this same page and settings for the Ethernet connection (if Ethernet is connected) can be found on the LAN tab.

The basic settings can also be changed on the app at:

Router Settings > Wireless Settings (or) LAN Settings

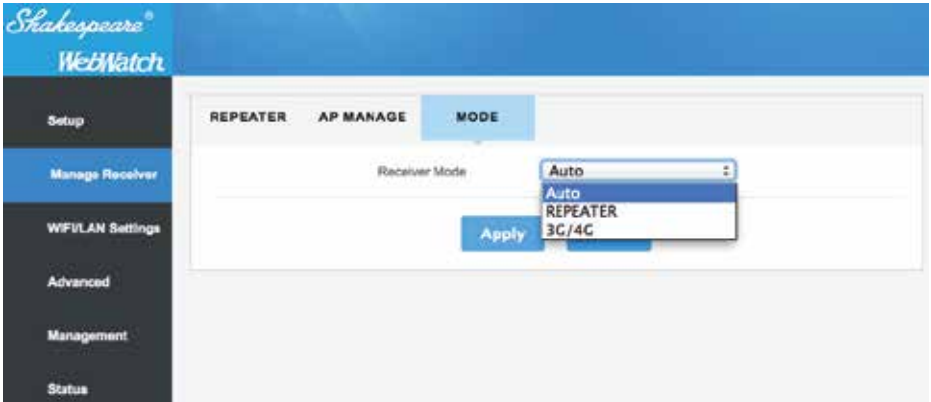
## D: Selecting Between Wi-Fi, Cellular And Auto Source Picking:

**Auto:** The device automatically searches and connects to available Wi-Fi connections that have previously been used and saved. If none are available, the device automatically switches over to a cellular network.

**3G/4G:** The WebWatch will stay connected only to cellular networks.

**Repeater:** The WebWatch will only connect to Wi-Fi connections that have previously been used and saved.

These three options can be found on the WebWatch setup site at Manage Receiver > Mode > Network Mode



After changing the network mode, allow about 10 seconds for the change to take effect.

The network mode can be found on the app at Internet Setting > Internet source

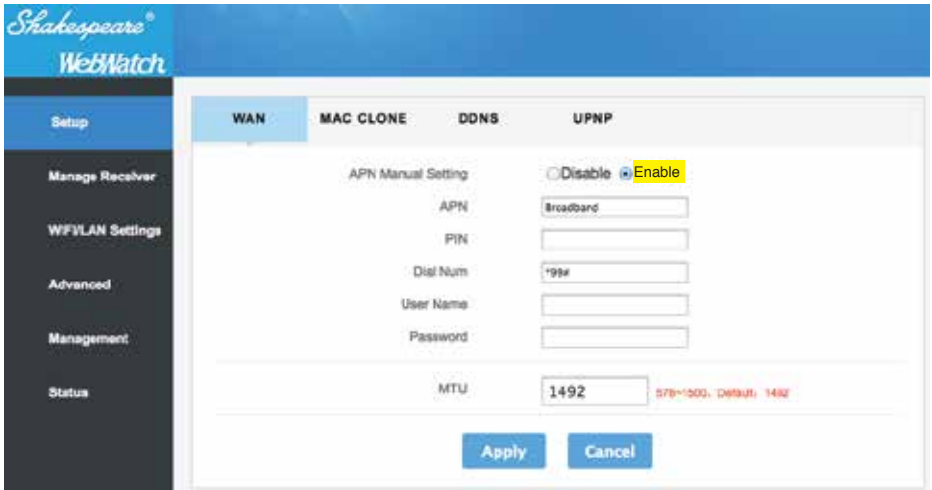
#### E: Configuring Cellular Function:

If you have not yet purchased a SIM card for this device, please read the section “Selecting the right SIM card” of this manual.

To get the WebWatch to connect to a cellular network, just like a phone, the WebWatch needs APN settings. These settings may change with the carrier and geographical region. You will need to get these APN settings from your cell operator.

# USAGE

The APN settings required to be filled in are as below:



\* The settings listed in the above image were tested with AT&T.

This page can be found on the WebWatch setup page at Setup > WAN. It can also be found in the app at Internet Settings > Cellular Settings

Settings for other carriers:

T-Mobile:

APN: fast.tmobile.com

You will need to keep the rest of the settings at the default value. See defaults below.

For an updated list of carriers and their default APNs please visit:  
[Shakespeare-ce.com/marine/product/wct-1](http://Shakespeare-ce.com/marine/product/wct-1)

### Defaults of various settings:

The WebWatch has the APN already saved to memory for certain carriers. If the settings automatically used does not match that provided by your carrier, you will need to ENABLE the APN Manual Setting before entering the settings as per the defaults below.

**APN:** Request your carrier for APN

**Pin:** Not required unless SIM card is locked with a pin

**Dial Num:** Usually \*99#. Check with your carrier if this does not work.

**User Name:** Not required unless carrier requires it

**Password:** Not required unless carrier requires it

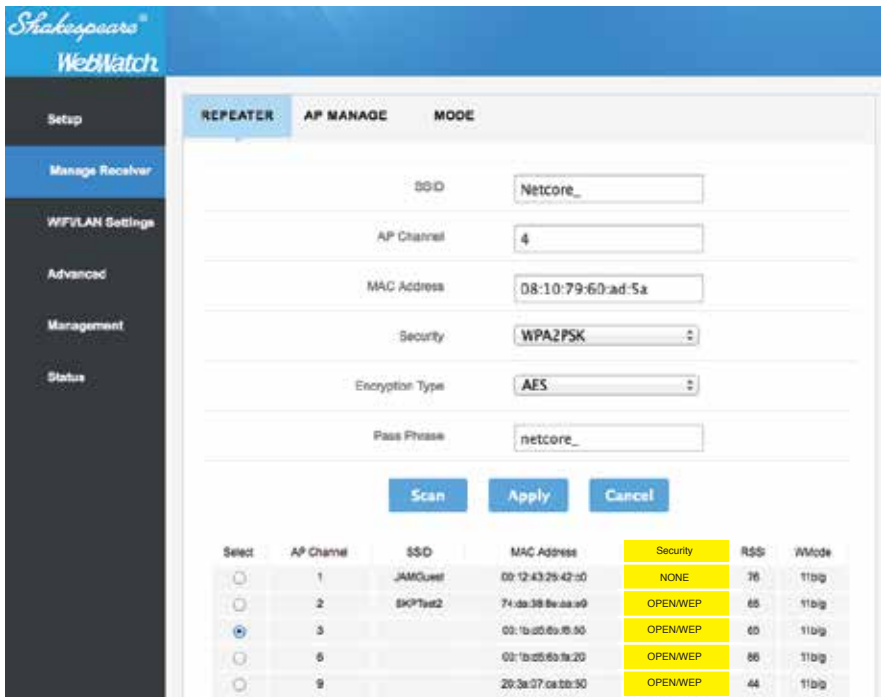
**MTU:** 1492 (leave at this default)

F: Connecting To A WI-FI Network:

The WebWatch stores the password of up to 3 Wi-Fi hotspots at any given time. You can see/manage the list of stored Wi-Fi hotspots on the Manage Receiver > AP Manage page. The WebWatch uses this list to automatically switch between Wi-Fi hotspots when the one that you are connected to becomes unavailable.

To connect the WebWatch to a new Wi-Fi hotspot in the area or force the WebWatch to connect to a specific Wi-Fi hotspot, follow the instructions in this section.

You can find the list of all available networks in the WebWatch setup page at Manage Receiver > Repeater



1. **Select the network** of choice by clicking an option under the “Select” column.
2. **Enter in the password** for the Wi-Fi network into the “Pass Phrase” field (not required if "Security" is "NONE". See highlighted column in image). If the password of the Wi-Fi hotspot was previously saved, the WebWatch should automatically populate its details.



# USAGE

---

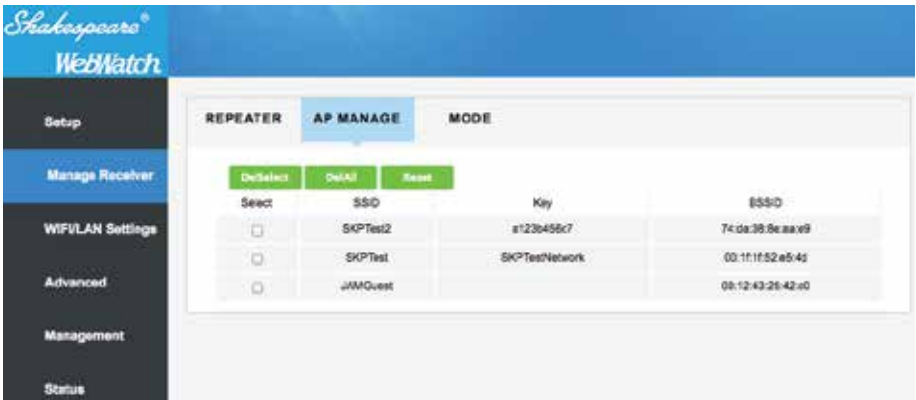
3. Select **Apply**.

4. If connected successfully, the Wi-Fi SSID will become visible under the "Status" page > Connected AP

**Note:** This can also be found in the app at Internet Setting> Wi-Fi Networks

G: Deleting A Saved Network:

You can manage your saved networks on the WebWatch setup site by going to Manage Receiver > AP Manage



1. **Select the network(s)** that you would like to delete by clicking the "select" check box.

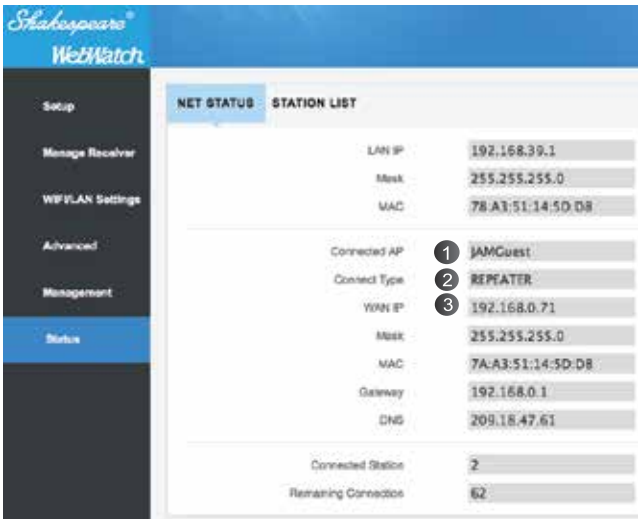
2. **Click "DeSelect"**

You can find this on the app by going to Internet Setting > Wi-Fi Networks > Record



H: The Status Page:

The status of the WebWatch can be seen on the "Status" page. Below is a summary of various fields.



1. Name (SSID) of Wi-Fi
2. Source of internet connection  
3G/4G: for cellular  
Repeater: for Wi-Fi
3. If successfully connected to the internet, you will see a value other than 0.0.0.0

I: Changing Admin Password:

1. **If you have forgotten your password**, you may try the default password to verify that you have not already changed the password earlier.

Default username: admin  
Default password: admin

If this doesn't work, follow the "Conduct a physical factory reset" method outlined in the "Troubleshooting" section of this manual.

2. **If you have not forgotten your password** and need to change it,

- A. Go to the "Management" menu.
- B. Select the "Admin" tab.
- C. Type in the new password and repeat it once more in the "confirm password" field.
- D. Select "Apply"

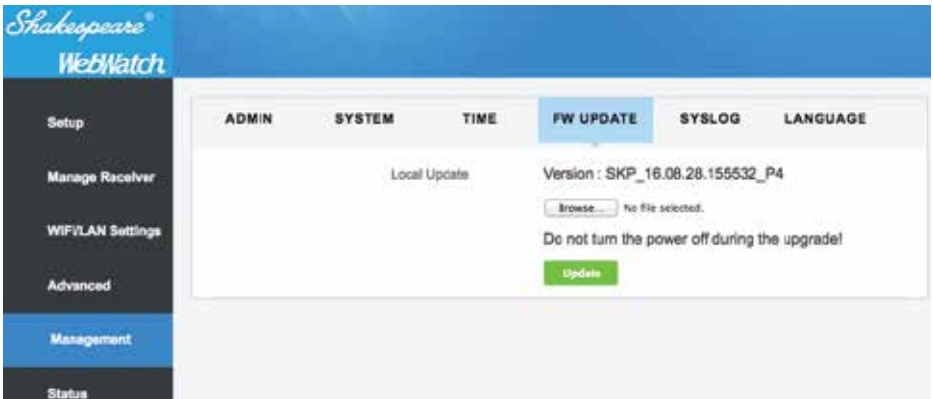
# INSTALLING UPDATES

---

## For your WebWatch device:

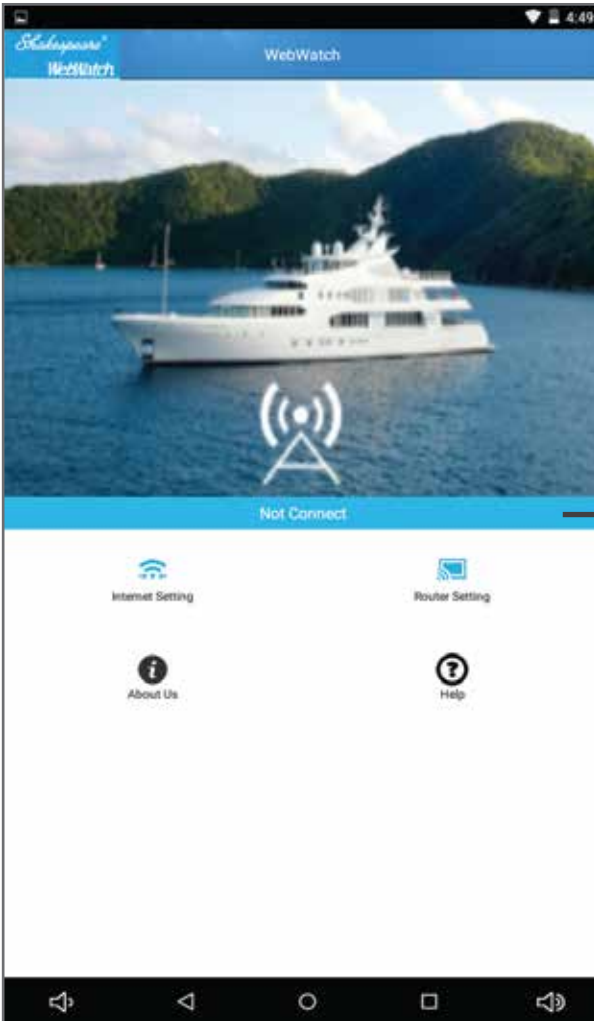
In case you would like to update your device with the latest firmware that you received either by email or from the Shakespeare website, you will need to

1. Download the latest firmware file onto your computer
2. Connect the computer to the WebWatch and open the WebWatch setup page
3. Go to Management > FW update
4. Click the browse button to select the location of the firmware file
5. Once you have selected the file, select “Update”



**Note:** Please note that when you update the firmware on your WebWatch, all your preferences and saved networks may be lost.

The “WebWatch” app can be downloaded from the apple app store and google play stores. Various functions of the WebWatch can be controlled through the WebWatch app. The instructions are laid out in respective sections of this manual.



When mobile device is not connected to WebWatch, it will show: "WebWatch not found"

When mobile device is connected to WebWatch and, WebWatch is connected to Wi-Fi, it will show: "Repeater: WiFi Name"

When mobile device is connected to WebWatch and, WebWatch is connected to cellular, it will show: "Cellular"

When mobile device is connected to WebWatch and, no Wi-Fi is available and, it is unable to connect to 3G, it will show: "Internet unavailable"

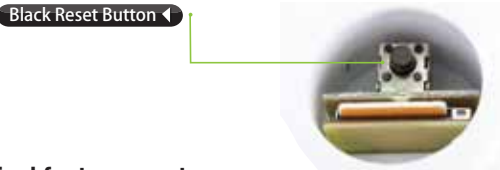
# TROUBLESHOOTING

## Frequent problems and their resolution:

Problem	Possible Cause	Resolution
Wi-Fi signal strength from hotspot is varying abnormally/ internet connection is consistently intermittent	Interference from other devices: other radio equipment, microwave ovens, cordless phones, wireless headsets, Bluetooth devices, surveillance cameras operating in the 2.4 gigahertz (GHz) range	1. Increase distance of separation between WebWatch and other devices that may be causing interference. 2. Change "channel" of the WebWatch's Wi-Fi hotspot. Find the settings on the setup page > Wi-Fi/ LAN Settings > Basic > Channel.
Internet connection from a Wi-Fi source is intermittent	Wi-Fi source strength is poor	Visit the lists of available Wi-Fi networks on the WebWatch setup page and select a Wi-Fi hotspot with the best signal strength. You can find a list of available Wi-Fi networks on the WebWatch setup site at Manage Receiver > Repeater. The signal strength of various connections is listed under the "RSSI" column on a scale of 0-100, 100 being high and 0 being low.
Don't know if the WebWatch is connected to Cellular or Wi-Fi		On WebWatch Setup Page: Go to the page, Status>NET STATUS. See the "Connection type" field. On App: See the blue status bar on the home page, in the middle of the screen. It will read "Repeater:<Wi-Fi name>", if connected to Wi-Fi & "3G/4G" if connected to cellular.
Don't know what Wi-Fi the WebWatch is connected to		If connected to a Wi-Fi, the name (SSID) of the Wi-Fi will be populated in the "Connected AP" field on the Status page of the WebWatch setup site.
Don't know if the WebWatch successfully connected to the internet		Once connected via Wi-Fi or Cellular, to the internet, a non-zero WAN IP will populate in "WAN IP" field on the Status page of the WebWatch setup site.
App not responding/ app not showing that WebWatch is connected	If you recently made a change to the settings, the device may be restarting	If the WebWatch doesn't reconnect within 30 seconds, 1. Exit the app (just using the home button on your mobile device will not work) 2. Go back to your device's Wi-Fi settings and connect to the WebWatch 3. Restart the WebWatch app.
WebWatch is not responding through setup page and app	Device may need to be restarted	Restart the device by turning off the power supply and wait 15 seconds before turning it back ON.
Forgot Wi-Fi hotspot password and cannot log in		Either connect the WebWatch to a laptop via an Ethernet cable and access the setup site or, conduct a physical factory reset by following the instructions in the "Conduct a physical factory reset" section of this manual.

## **Conduct a physical factory reset:**

With the device connected to the power, push the small black reset button next to the SIM card slot under the cap at the bottom of the device and hold for about 10 seconds until the WebWatch Wi-Fi hotspot disappears from the list of available networks on your laptop or mobile device.



## **Conduct a physical factory reset:**

**If the device is responding** and you are able to connect your laptop or mobile device app to the WebWatch, you can restore the factory defaults of the device by going to the WebWatch setup page, then

Management > System > Reset To Factory Configuration

On the app, this option can be found under, Router Setting > Advanced Setting > Restore Factory Defaults

**If the device is not responding**, you will need to conduct a physical reset as described in the “conduct a physical factory reset” section of this manual.

## **Reboot device:**

**If the device is responding** and you are able to connect your laptop or mobile device app to the WebWatch, you can reboot the device by going to the WebWatch setup page, then

Management > System > Reboot

On the app, this option can be found under, Router Setting > Advanced Setting > Reboot

**If the device is not responding**, you will need to turn off the power supply to the device, wait for about 15 seconds and then turn it back ON.

## **Avoiding interference:**

If the device interferes with your radio or other electronic receivers, move the device further away from those devices.

# COMPLIANCE INFORMATION

---

## **FCC**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## **Warnings:**

1. Changes or modifications to device or method of installation not expressly approved by Shakespeare could void the user's authority to operate the equipment.
2. These devices **MUST** be installed at least 20 cm (8 Inches) from any person.
3. You **MUST** cease operating this device immediately if requested by the FCC or a licensed wireless service provider

## Receiver Technical Specs

<b>Model No.</b>	<b>WCT-1 &amp; WC-1</b>
<b>Power Supply &amp; Consumption</b>	DC12V/24V, 1A Max @12 VDC
<b>Device Management</b>	iPhone® app, Android™ app and web browser
<b>Internet access through</b>	Wi-Fi® hotspot or Ethernet port
<b>Number of Users</b>	Up to 32 on Wi-fi and cellular
<b>Connectors</b>	<b>WCT-1:</b> 1 x male "F" connector (TV), 1 x Ethernet (LAN) <b>WC-1:</b> 1t x Ethernet (LAN)
<b>Wire</b>	<b>WCT-1:</b> 25ft (7.62m) RG-59 coax cable/power siamese cable <b>WC-1:</b> 25ft (7.62m) Ethernet cable
<b>RoHS Compliant</b>	Yes
<b>Dimensions</b>	Dia. 11.75 in x 13 in (29.84cm x 33.02cm)
<b>Weight</b>	3.85lbs (1.74kg)
<b>Wireless Approvals &amp; Certifications</b>	FCC
<b>Operating Frequencies</b>	LTE FDD bands: B2/B4/B5/B17, all bands with diversity DC-HSPA+/HSPA+/HSPA/WCDMA B2/B4/B5 (1900MHz/1700MHz/850MHz) with diversity Wi-Fi: 2.4 GHz TV antenna (in WCT-1 only): AM: 520-1719 KHz FM: 88-108MHz VHF: 87.5-230MHz UHF: 470-700MHz

**Product:** WebWatch WCT-1/WC-1

**FCC ID:** I4O-WW01