

TATA Photon Wi-Fi SER8189

Portable Router User Guide

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Introduction

Thank you for purchasing the TATA Photon Wi-Fi SER8189 portable router. This device doesn't need wires, cables, or software to configure it through your Web browser.



This guide describes the browser Interface that allows you to configure the TATA Photon Wi-Fi SER8189. For information about setting up your device, device maintenance and care, etc., consult the printed Quick Start Guide that comes with this device.

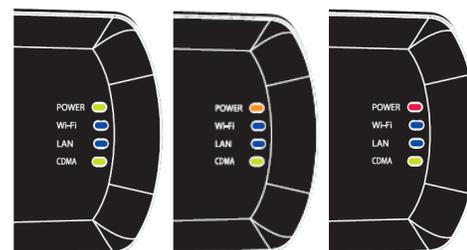
We recommend that you read this manual before you start using the TATA Photon Wi-Fi SER8189.

Charging the TATA Photon Wi-Fi SER8189 Device

Note.

The battery should be fully charged before using the TATA Photon Wi-Fi SER8189 for the first time.

We recommend an initial charge time of approximately 2 hours. When fully charged, a solid green light will appear next to 'Power' display on the device.



<Green>

<Orange>

<Red>

A red or orange light indicates you need to re-charge. Included in your TATA Photon Wi-Fi SER8189 package is an AC-Adapter.

Opening the Browser Interface

How to Connect to the TATA Photon Wi-Fi SER8189 (Windows Users / MAC Users)

1. Turn on the TATA Photon Wi-Fi SER8189 and ensure your WiFi is enabled on your PC or laptop. You can view your available wireless networks by going through the following path **Control Panel -> Network and Sharing Center -> Connect to a network** OR **system tray (lower right hand corner of your screen)**.

Note.

For MAC users: You can view your available wireless networks by going through the following path **Airport ->**

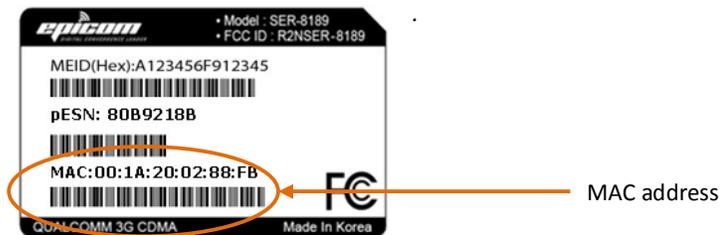
Open Network Preferences -> Advanced -> Airport

For Linux users: Follow the page from 11 to 16 of this User Guide.

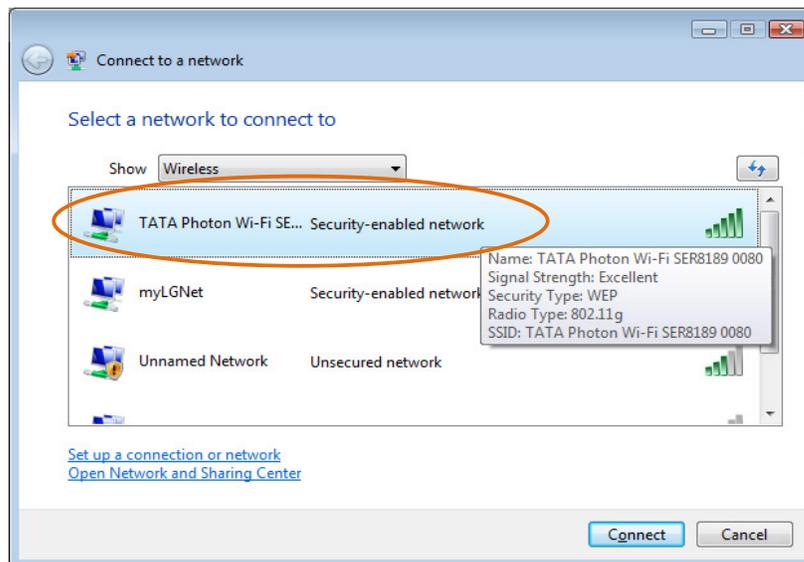
2. Select "TATA Photon Wi-Fi SER8189 XXXX" as your wireless network.

Note.

The last 4 digits, 'XXXX' of the SSID are the last four digits of your MAC (Media Access Control) address. You can find the MAC address of your TATA Photon Wi-Fi SER8189 on the label under the battery.



3. Click **Connect**.

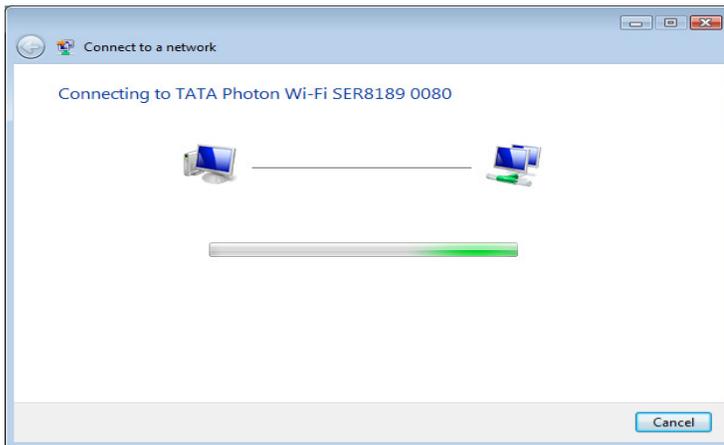
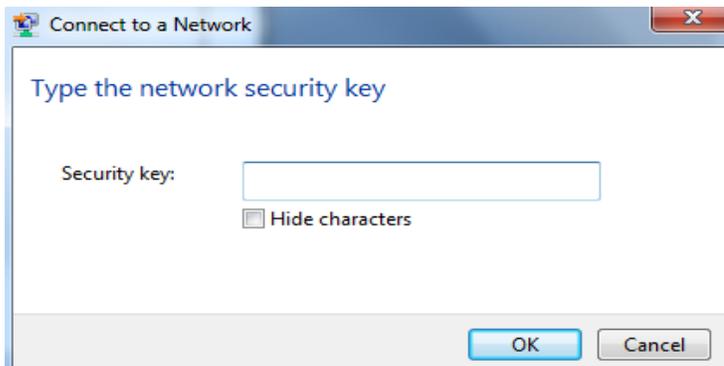


The default security for the TATA Photon Wi-Fi SER8189 is WEP 64-bit. The default security key is "12345." Enter 12345 to continue connecting to the TATA Photon Wi-Fi SER8189.

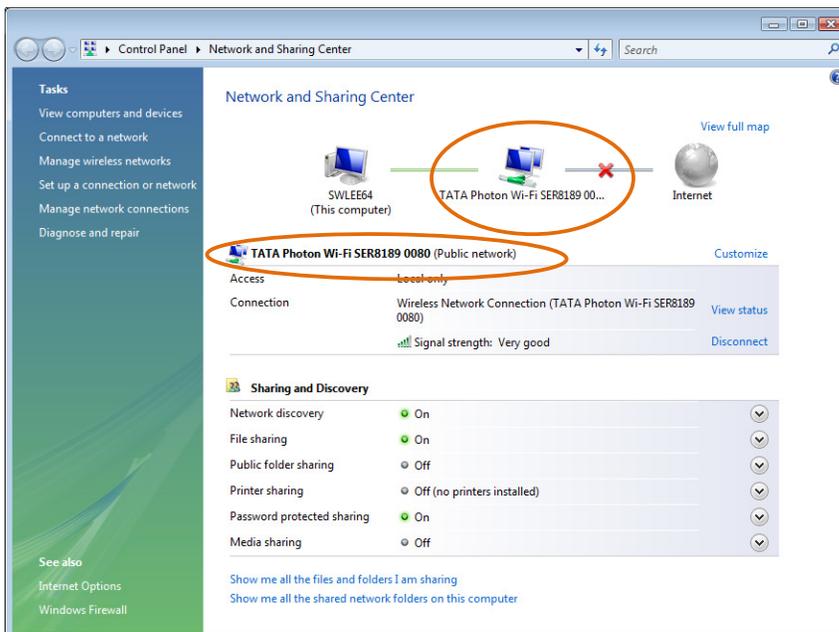
Note.

If you would like to change this security setting after you have activated your device, see the **WiFi > Secure Profile**

of this document for changing security settings.



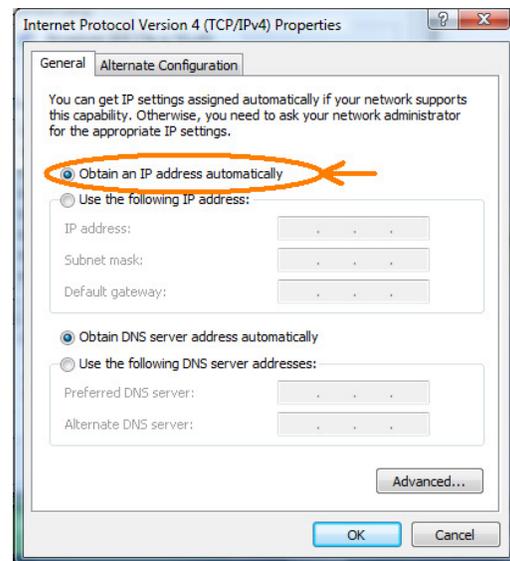
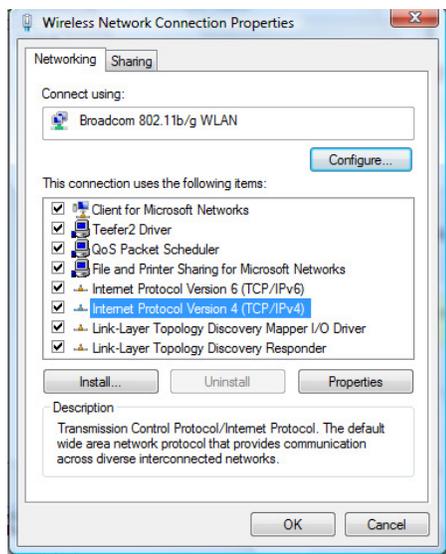
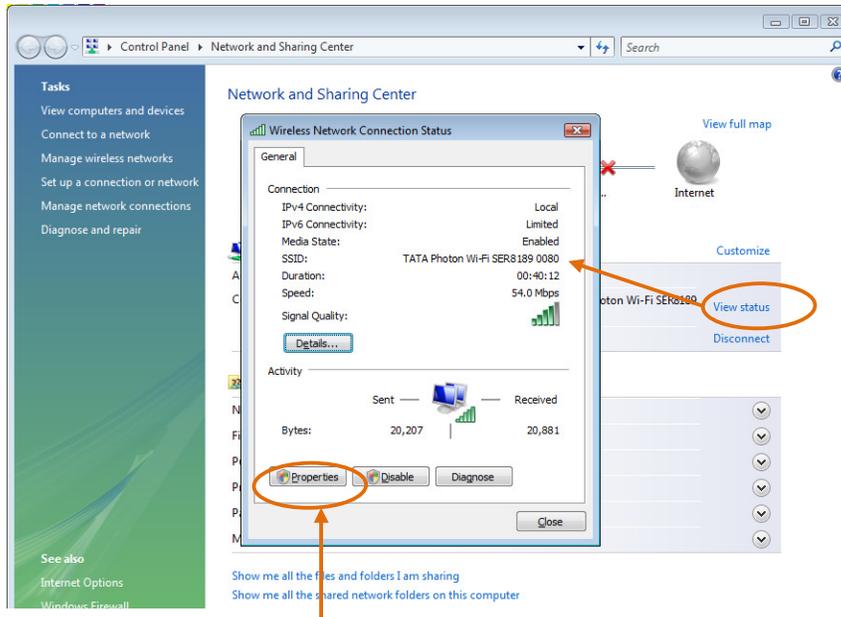
4. When connected to the TATA Photon Wi-Fi SER8189 you will see the connection as 'TATA Photon Wi-Fi SER8189 XXXX' – as shown below.



5. Before proceeding, ensure your wireless connection properties are set to 'Obtain an IP Address Automatically.'

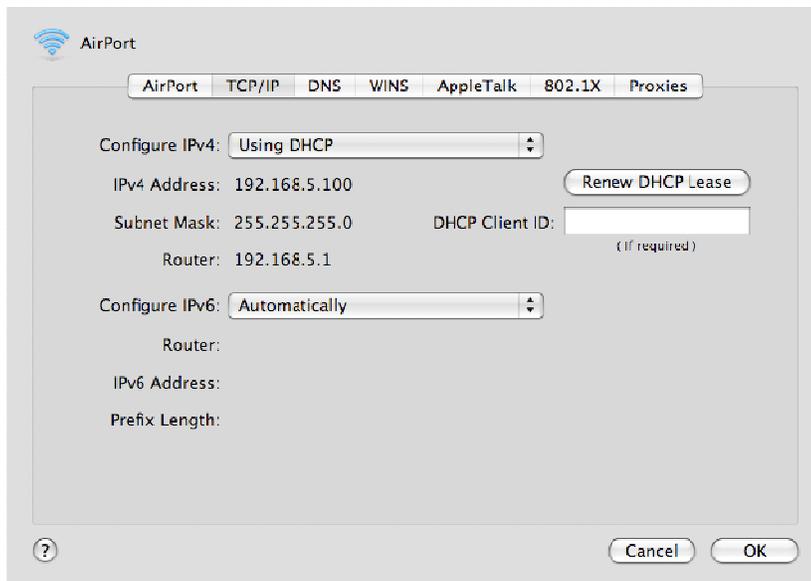
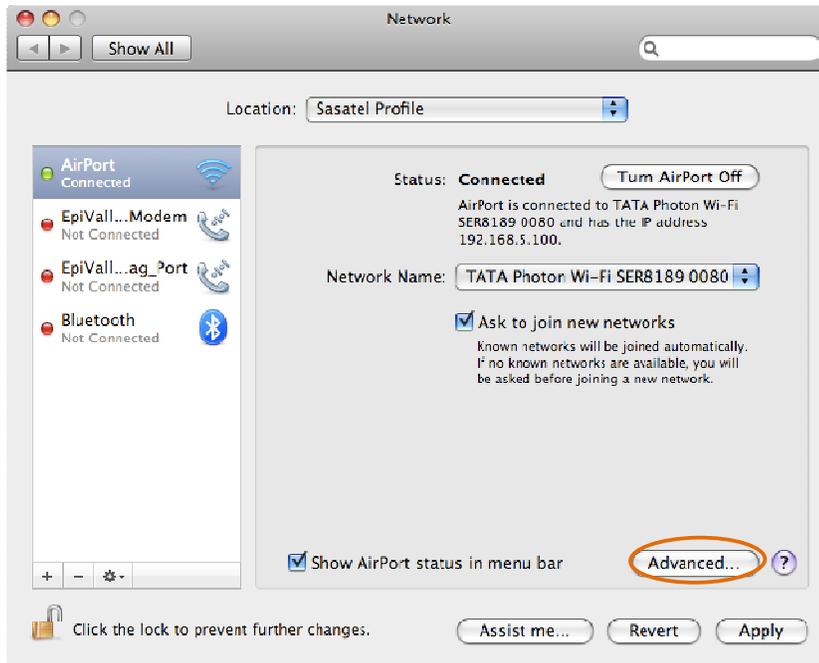
The screenshots for the steps are shown below.

For Windows XP and Vista 32-bit users, you can right-click on your wireless network, select properties, then TCP/IP properties. For Windows Vista 64-bit and Windows 7 users, you can click on 'View Status' as shown below.

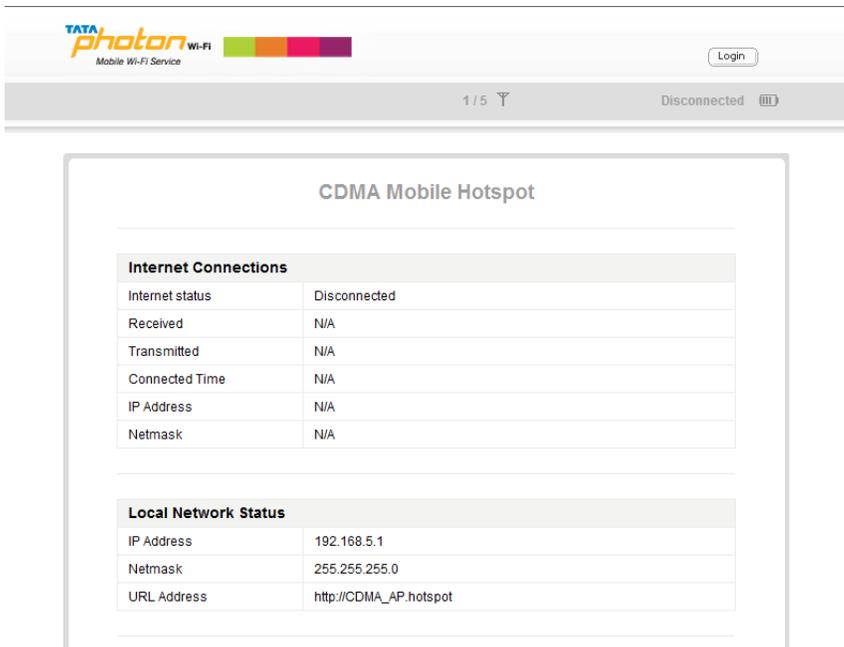


Note.

For MAC users: Ensure your wireless connection set as 'Using DHCP' as shown below.



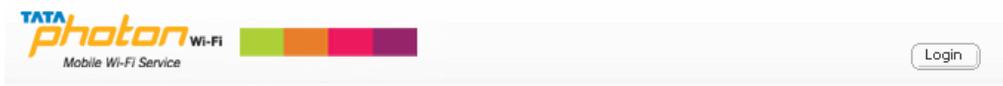
6. Next, open your web browser to <http://192.168.5.1>. This will bring you to the web user interface of the TATA Photon Wi-Fi SER8189.



Device Activation (Windows)

If your device has not been activated at time of purchase, you must activate now.
Before you activate, you need 14 digit PIN code received from the Service Provider.

Click *Login* button on the top right of the web user interface.



You will be prompted to enter your username and password.
The default Username and Password is admin/admin.

Click *OK*. Then, you will see the pop up screen requiring Activation.

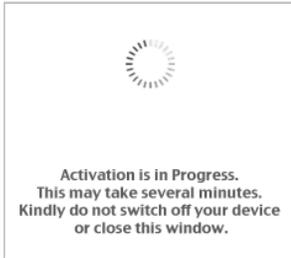
Note.

See **Advanced > Management > Account** of this document for changing the default Username and Password.

- Choose Prepaid OR Postpaid option and input the 14 digits PIN code and click Activate button.

Activation	
Account Type	<input type="radio"/> PrePaid <input checked="" type="radio"/> PostPaid
Enter Pin	<input type="text" value="12345678901234"/>

Activate



Note.

During the activation, please do not switch off your device or close the web user interface.

If the Pin code is incorrect, you will be prompted as shown in the window below (Activation Failed). Please contact your service provider.



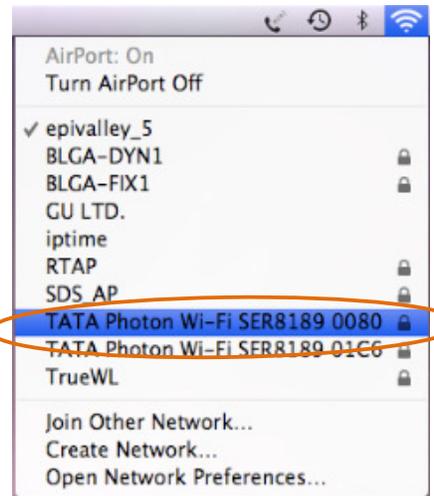
Device Activation (Mac Users Only)

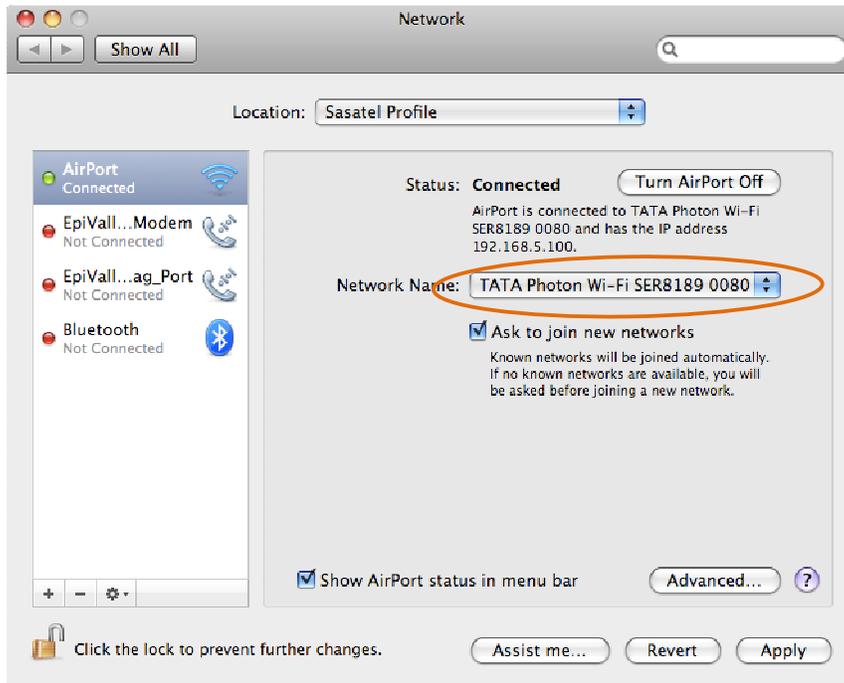
1. Go to Airport Icon at the right upper corner of desktop tap menu and click to open.



Ensure your Airport mode is turned on to allow your computer to search for available WiFi networks.

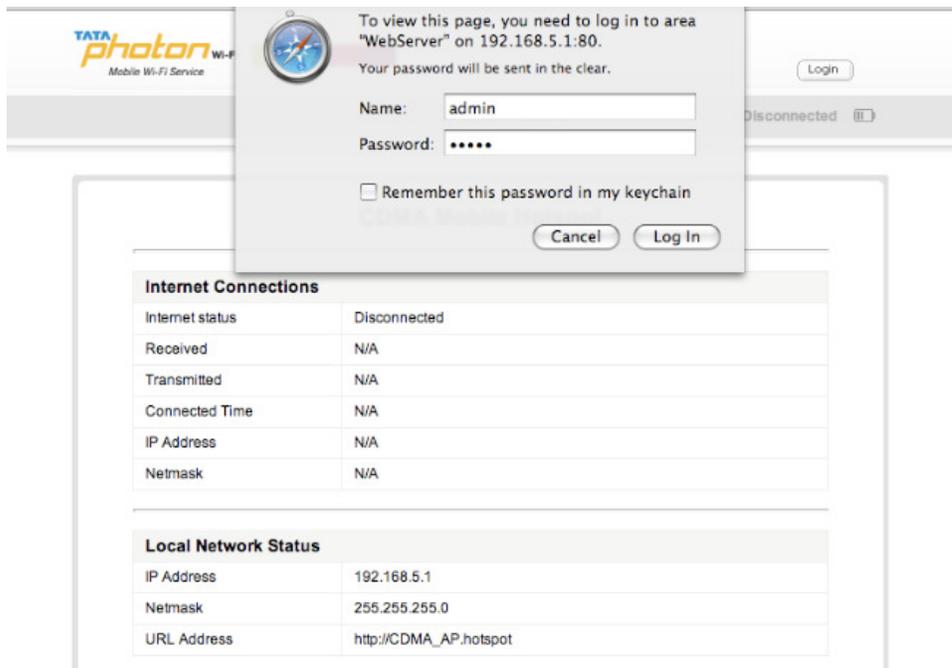
2. Choose "Open Network Preferences" on the drop-down menu and select "TATA Photon Wi-Fi SER8189 XXXX" of your Wi-Fi network and apply it.





Open your web browser to <http://192.168.5.1>. This will bring you to the web user interface of the TATA Photon Wi-Fi SER8189.

Click *Login* button. You will be prompted to enter your username and password. The default Username and Password is admin/admin.



- Choose Prepaid OR Postpaid option and input the 14 digits PIN code and click Activate button.

Activation	
Account Type	<input type="radio"/> PrePaid <input checked="" type="radio"/> PostPaid
Enter Pin	<input type="text" value="12345678901234"/>

Activate



Note.

During the activation, please do not switch off your device or close the web user interface.

If the Pin code is incorrect, you will be prompted below window (Activation Failed).

Please contact your service provider.

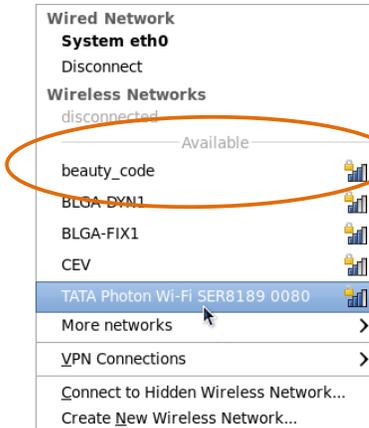


Opening the Browser Interface and Device Activation for LINUX

Below are the Wi-Fi detection guide for 3 different versions of Linux OS - 'Fedora12', 'Ubuntu10.04' and 'CentOS5.5'

Fedora12

1. Go to icon  at the right upper corner of desktop menu and click to open.



2. Select "TATA Photon Wi-Fi SER8189 XXXX" of your Wi-Fi network and apply it. (If this SSID does not appear, then click 'More networks'.)

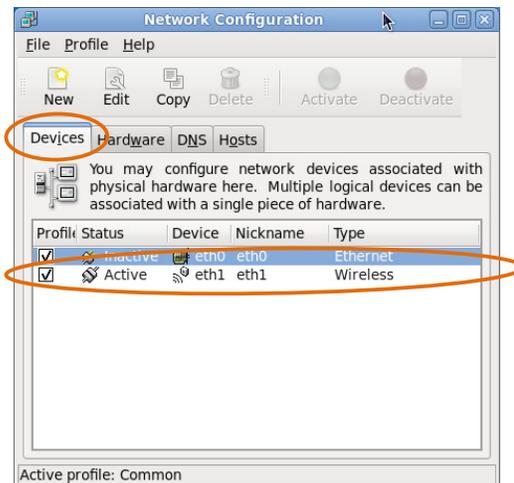
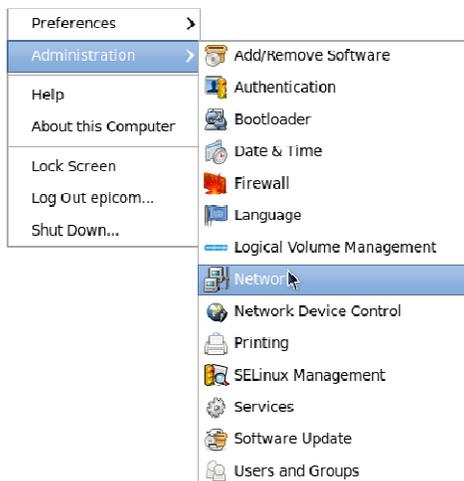
3. The default security for the TATA Photon Wi-Fi SER8189 is WEP 64-bit. The default security key is "12345". Enter the key to continue connecting to the TATA Photon Wi-Fi SER8189.

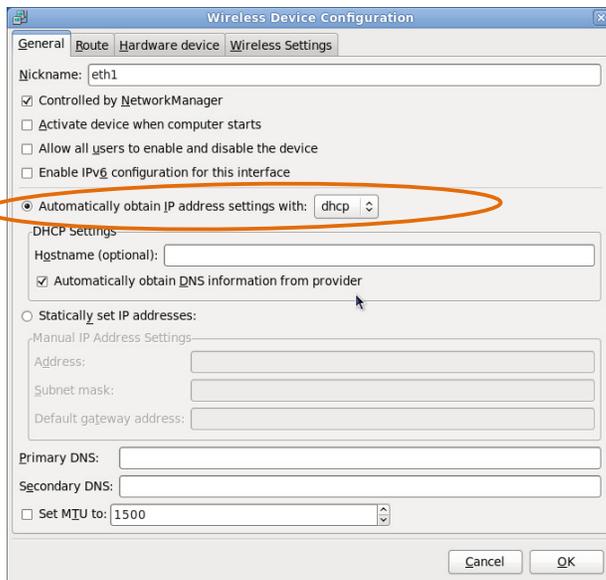


Note.

Please ensure your wireless connection set as "Automatically obtain IP address settings with DHCP" by going through **System -> Administration -> Network -> (Network Configuration Window, choose 'Devices' tab, double click Wireless) -> (Wireless Device Configuration Window, choose DHCP, Click OK)**

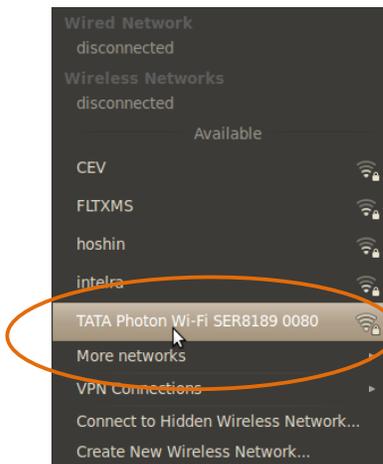
The screenshots for the steps are shown below.





Ubuntu10.04

1. Go to icon  at the right upper corner of desktop menu and click to open.



2. Select "TATA Photon Wi-Fi SER8189 XXXX" of your Wi-Fi network and apply it. (If this SSID does not appear, then click 'More networks'.)

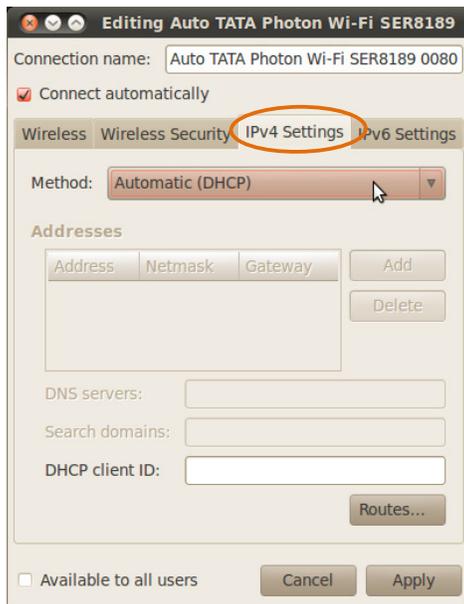
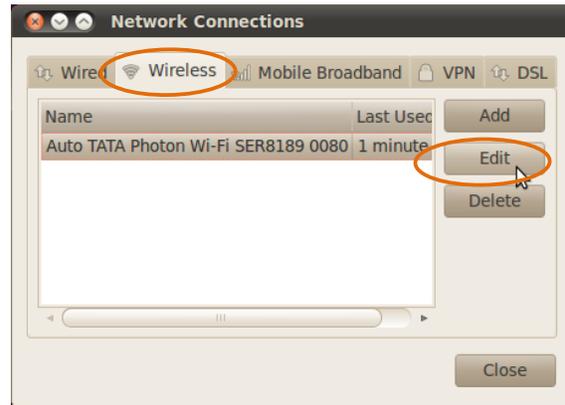
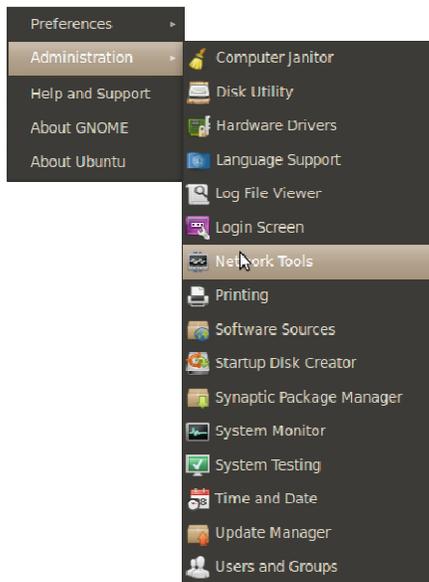
3. The default security for the TATA Photon Wi-Fi SER8189 is WEP 64-bit. The default security key is "12345". Enter the key to continue connecting to the TATA Photon Wi-Fi SER8189.



Note.

Please ensure your wireless connection set as "Automatic (DHCP)" by going through **System -> Administration -> Network Tools -> (Network Connections Window, choose 'Wireless' tab, click Edit) -> (Editing Auto TATA Photon Wi-Fi SER8189 Window, choose IPv4 Settings tab, choose Automatic (DHCP), Click Apply)**

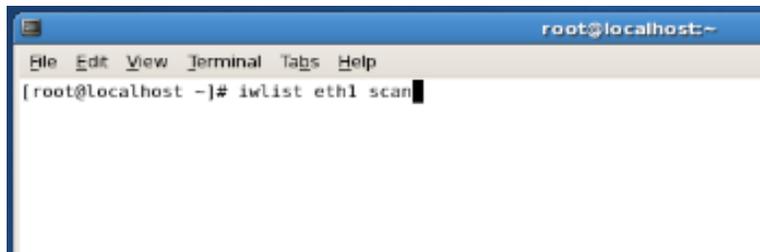
The screenshots for the steps are shown below.



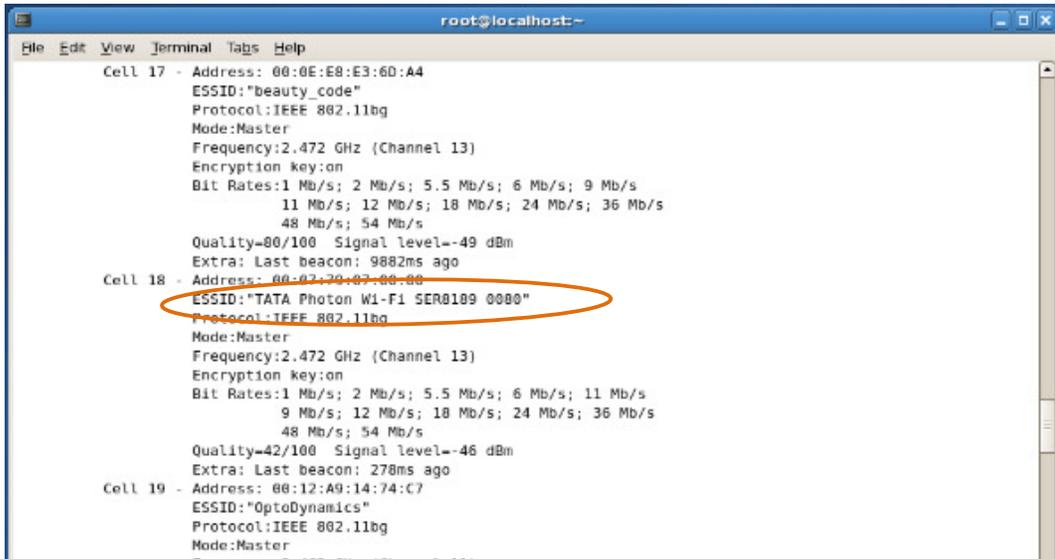
CentOS5.5

1. Go to **Applications -> Accessories -> Terminal**. Command '**iwlist eth1 scan**'

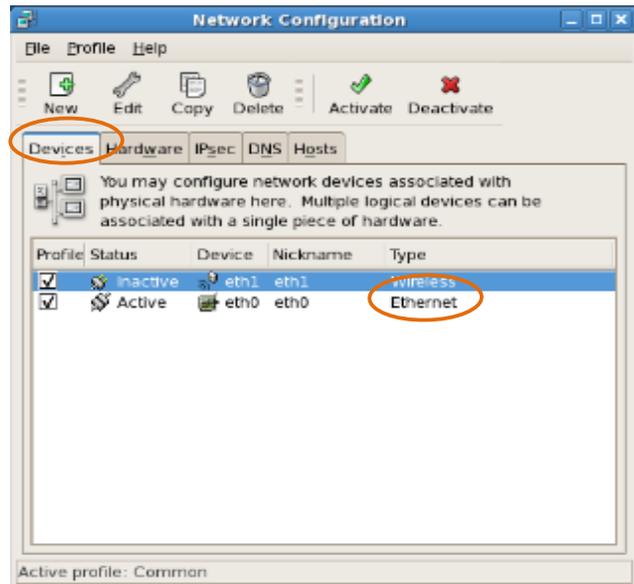
Note. 'Wireless Tool Package' should be installed in your computer to use the above command.



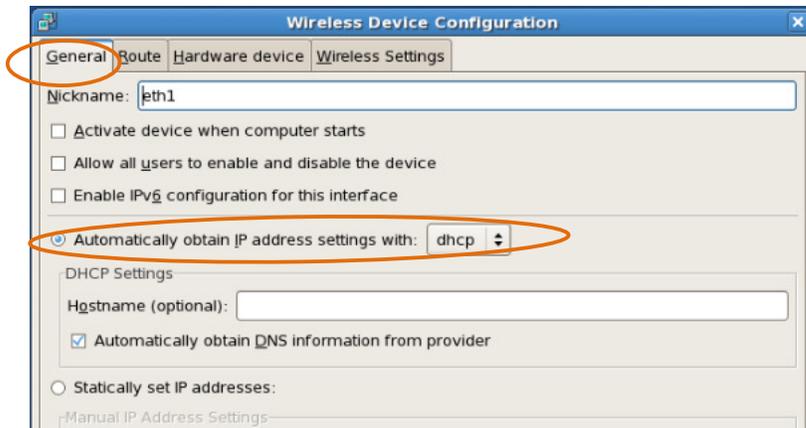
You will see wireless SSIDs and 'TATA Photon Wi-Fi SER8189 XXXX' should be shown as below.



2. Go to System -> Administration -> Network -> (Network Configuration Window, choose 'Devices' tab, select wireless profile and double click)

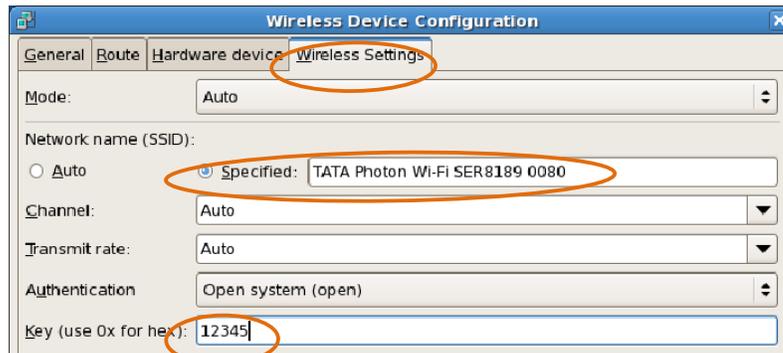


(Wireless Device Configuration Window, choose 'General' tab, select 'Automatically obtain IP address settings with DHCP')

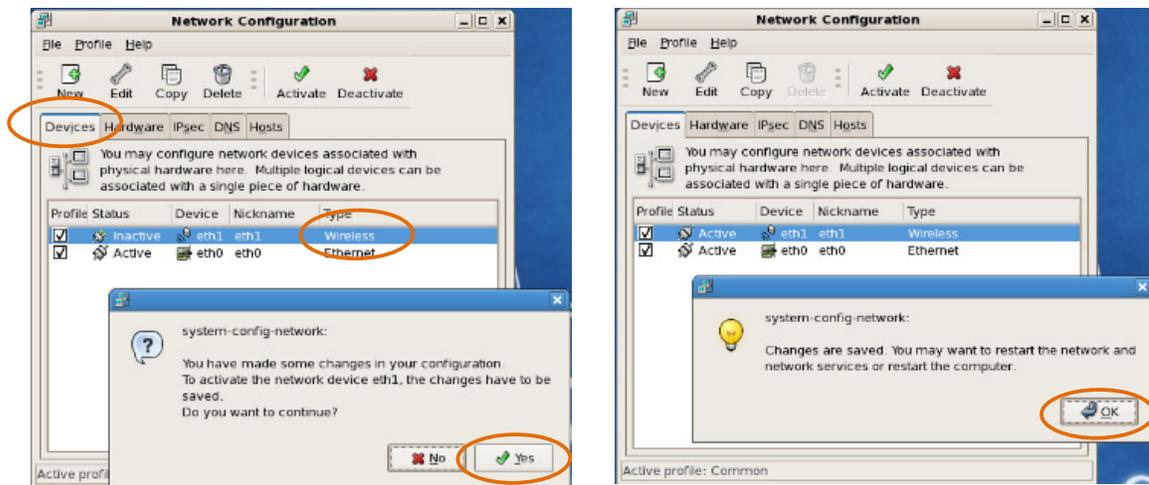


(Choose 'Wireless settings' tab, input the SSID (TATA Photon Wi-Fi SER8189 xxxx))

The default security for the TATA Photon Wi-Fi SER8189 is WEP 64-bit. The default security key is "12345"

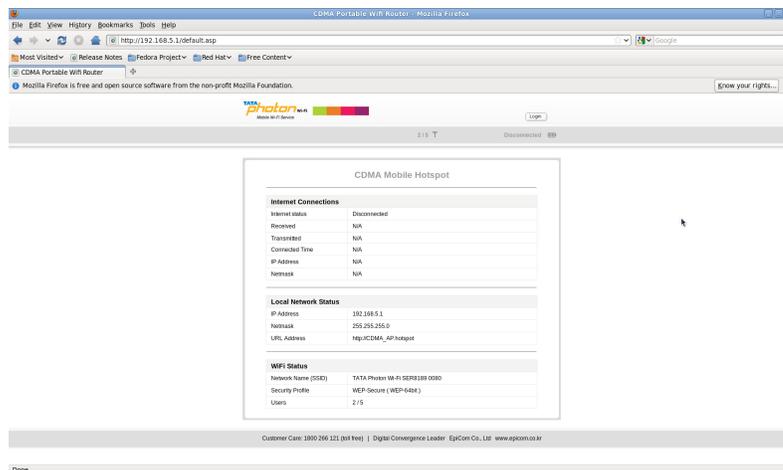


3. (Network Configuration Window, choose 'Devices' tab, select wireless profile, click 'Activate' button and 'Yes' and 'OK')

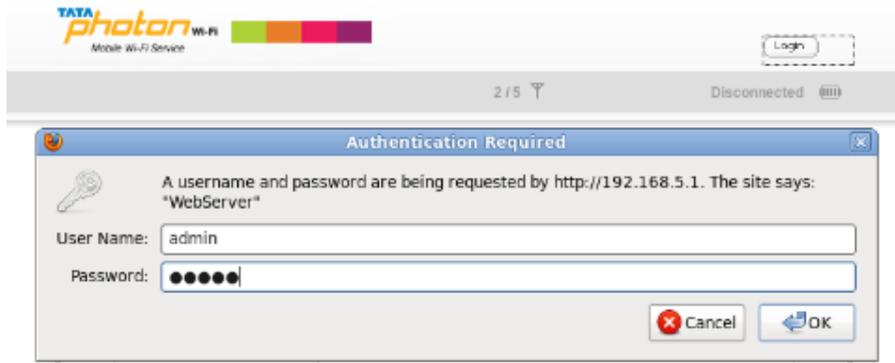


Your PC/Laptop has detected TATA Photon Wi-Fi SER8189. Follow the common procedure below.

4. Open your web browser and enter <http://192.168.5.1> into the address window.



5. Click Login button on the right top of the browser. The default ID and Password is admin/admin.

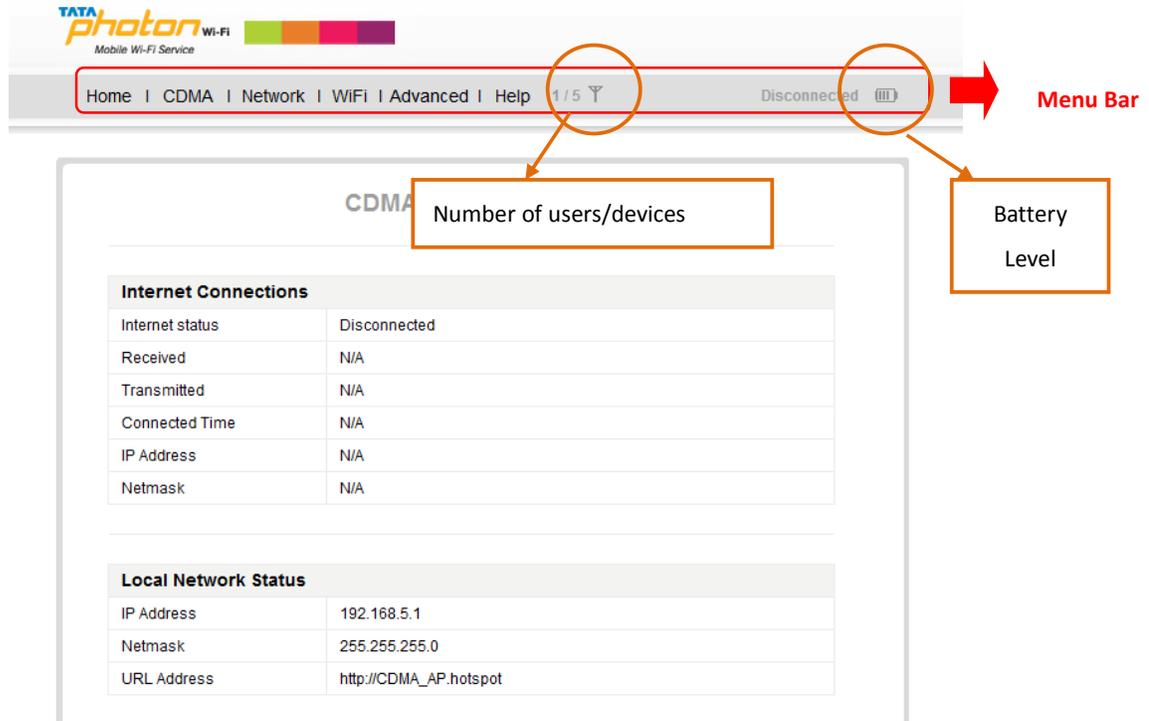


6. For Activation, follow page 7 (or page 10) of this User Guide.

The Browser Interface and Settings

1. Open your Web browser and enter <http://192.168.5.1> into the address window.

The browser interface will open.



Your TATA Photon Wi-Fi SER8189 uses a browser interface to configure the device.

The browser interface lets you:

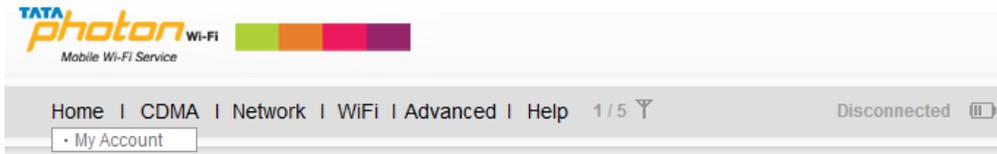
- View the status of aspects of your network.
- Set up Activation, Internet Profile, WEP or WPA security, MAC filtering, Port Filtering and Port Forwarding
- Set up a hotspot to allow a maximum of five connections to your device without having to share your network name and network key.

Home

The Home screen is the first screen you see after logging in to the browser interface. It is the main point of entry for all your work in the browser interface. The menu bar runs horizontally along the top of the browser interface. It shows how many users or WiFi embedded devices are connected. It also displays information about your device's connection strength and battery level.

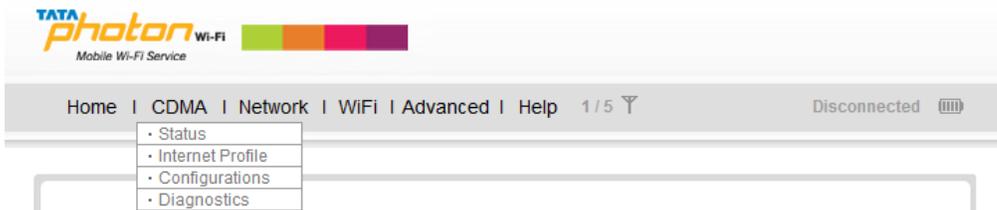
- *My Account*

Click *My Account* to see your tariff and data usage, it will redirect your service provider's webpage.



CDMA

The CDMA menu allows you to set your authentication, Internet profile, network option and Internet connection information.



● Status

Click *Connect* to connect to your network.

The TATA Photon Wi-Fi SER8189 comes pre-configured with the information required to connect to the network. It will not normally require any additional configuration to the basic settings unless you are using the device behind a corporate firewall, and this may require the appropriate proxy server settings to be modified.

It displays the following information:

- Number of bytes received and transmitted
- Duration of the current connection
- The device's IP address and netmask
- Gateway IP address
- DNS server IP address

Internet Connections	
Internet Profile	TATA Photon Plus Postpaid <input type="button" value="View"/>
Internet Status	Disconnected <input type="button" value="Connect"/>
Connection Status	Disconnected
Roaming	Home
Received	N/A
Transmitted	N/A
Connected Time	N/A
IP Address	N/A
Netmask	N/A
Gateway	N/A
DNS	N/A

- *Internet Profile*

Internet Profile menu allows you to add / edit / delete your Profile name.

Internet Profiles	
Profile Name	TATA Photon Plus Postpaid ▾
UserID	internet
Password	internet
Access number	#777

Add

Edit

Delete

- *Configuration*

Auto Connection Enable: The device will be connect to the CDMA network automatically when it is turned on.

Options	
Auto Connection	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

Apply

Hybrid: Device will operate in dual mode with Photon+ and Photon Whiz periodically depending on network strength

Photon Whiz: Device will operate only in Photon Whiz mode

TATA Photon Plus : Device will operate only in Photon+ mode

Network settings	
Mode preference	<input checked="" type="radio"/> Hybrid <input type="radio"/> TATA Photon Whiz <input type="radio"/> TATA Photon +

Apply

- *Diagnostics*

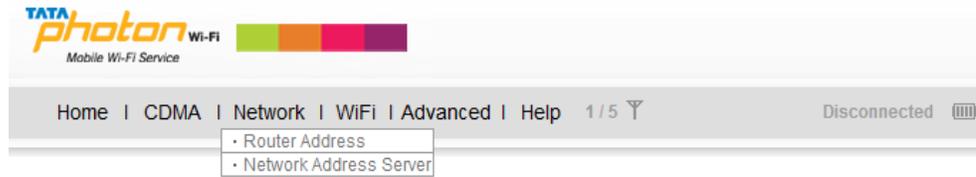
This menu gives you the information of the device.

CDMA Connections	
Connection Status	Disconnected
Service Type	
Roaming	Home
RSSI	-125dBm

CDMA Modem	
Manufacturer	EpiCom
Model	SER-8189
Firmware Version	SB8189DT01
ESN	00000000
MEID	00000000000000
MDN	1234567890
PRL Version	0
Battery Level	100 %

Network

The Network menu allows you to set domain name of the wireless browser interface and DHCP (Dynamic Host Configuration Protocol)



● Router Address

The wireless browser interface's default URL address is http://CDMA_AP.hotspot.

The address can be used instead of IP address (192.168.5.1) at your convenience.

The URL address also can be changed.

Local Network Setup	
IP Address	192.168.5.1
Netmask	255.255.255.0
MAC Address	00:07:79:07:00:01
URL Address	<input type="text" value="http://CDMA_AP"/> .hotspot

Apply

● Network Address Server

This menu allows you to modify WiFi DHCP IP range.

Local Network Setup	
DHCP Server	Enable ▾
DHCP IP Range	192.168.5. <input type="text" value="100"/> ~ <input type="text" value="110"/>

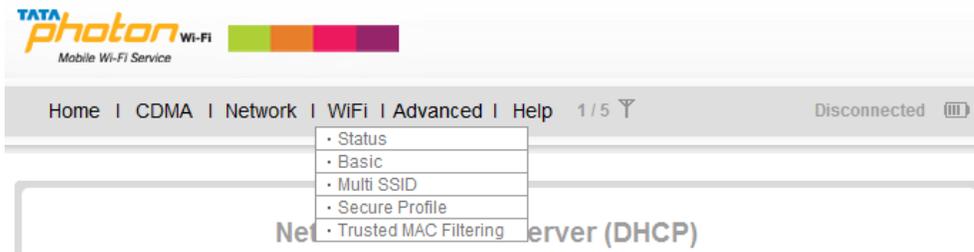
Apply

Note.

DHCP Server: Enabling DHCP server allows the device to automatically assign a local IP address to a new device joining your network (such as wireless printer or an additional laptop). When DHCP server is disabled, you will have to assign static IP address to all devices on your network.

Wi-Fi

The WiFi menu allows you to view status information for your WiFi network and configure your hotspot.



- **Status**

This Status menu gives you following status information:

- Network Name (also known as SSID)
- Security method in use
- Users (clients) information currently connected to the device

WiFi Status	
Network Name (SSID)	TATA Photon Wi-Fi SER8189 0080
Security Profile	WEP-Secure (WEP-64bit)

WiFi Clients			
Hostname	MAC Address	IP Address	Connection Type
swlee64	00:15:AF:8A:AC:F1	192.168.5.100	DHCP

- **Basic**

This menu allows you to modify WiFi and Secure Profile.

Basic Setup	
Network Mode	802.11b/g mixed mode ▾
Network Name(SSID)	TATA Photon Wi-Fi SER <input type="checkbox"/> Don't broadcast SSID
Frequency (Channel)	<input checked="" type="radio"/> Auto <input type="radio"/> Manual 2412MHz (Channel 1) ▾
Secure Profile	WEP-Secure (WEP-64bit) ▾ <input type="button" value="View"/>

Network Mode: You can choose a type of wireless networking.

Network Name (SSID): You can rename SSID. Default SSID is TATA Photon Wi-Fi SER8189 xxxx.

Frequency: It is recommended to set in Auto always.

Secure Profile: It shows a type of security that is being used in the device. You may modify Secure Profile by clicking *View* button.

- **Multi SSID**

You can use Multi SSID with another secure profile. Enable Mode logically allows your device to be divided into two. When you want to share network with a certain user in a limited way, Multi SSID can be useful

Multi SSID Setup	
Mode	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Multi SSID	<input type="text"/> <input type="checkbox"/> Dont broadcast SSID
Secure Profile	OPEN_SYSTEM (NONE) <input type="button" value="View"/>

● Secure Profile

This menu allows you to modify Secure Profile.

Secure Profiles	
Profile Name	OPEN_SYSTEM (NONE) <input type="button" value="View"/>
Security Method	NONE

Click *Add*, define Secure Profile. You can set Profile Name, Security Method, Encryption and Passphrase.

Secure Profiles	
Profile Name	<input type="text"/>
Security Method	WPA-PSK <input type="button" value="View"/>
Encryption	<input checked="" type="radio"/> TKIP <input type="radio"/> AES <input type="radio"/> TKIP/AES
Passphrase	<input type="text"/> * 8 ~ 63 ASCII Characters

- WPA-PSK/WPA2-PSK: New WiFi certification program mode
- WEP(68bit or 128bit): Traditional WiFi certification program mode
- TKIP/AES: Data encryption mode

1. Type secure profile name in the Profile Name box.
2. Select a security protocol from the Security Method. (The Encryption box displays the corresponding encryption level.)
3. Enter a new network key in the Passphrase box (Permissible characters are listed in gray just under the box.)
4. Click *Apply*.

Note.

When you click *Apply*, you will need to reconnect to your router by closing your current view and re-opening a browser connection to <http://192.168.5.1>.

● Trusted MAC Filtering

MAC Filter allows you to limit access to your device to only those devices with a specified MAC address (a unique

code assigned to hardware such as network adapters).

Trusted MAC Filtering

Mode Enable Disable

Trusted Mac List

ex) 00:01:02:03:04:05

Add

Delete Delete All

Apply

Finding the MAC Address

The MAC Address is also known as a hardware or physical address for a device, usually a network adapter.

It consists of six pairs of numbers and letters (for example, 00:21:9B:1C:64:34).

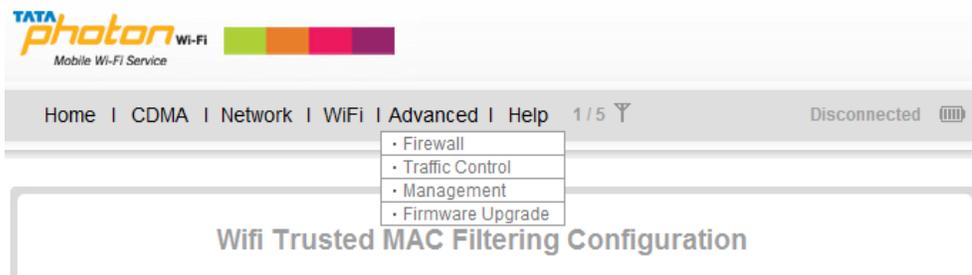
You can view the MAC address for any device connected to the TATA Photon Wi-Fi SER8189 device in the WiFi Clients section of the WiFi Status screen. (See “WiFi Clients” on page 15.)

Note.

When you enable this feature for the first time, ensure you add your wireless MAC first, then click Apply.

Advanced

This menu allows you to configure your device to enable Port Filtering, VPN Passthrough, Port Forwarding, DMZ (Demilitarized Zone) Backup Configuration, Power Management, Activation, WiFi Firmware upgrade etc.



● Firewall

1) Port Filtering

Port filtering allows you to conserve bandwidth by preventing non-business applications from accessing the Internet, and to prevent applications such as online games from accessing the Internet.

- Input the application value in the Name, Port and Protocol boxes.

Add Rule	
Name	<input type="text"/>
Port	<input type="text"/> ~ <input type="text"/> Select Well-Known Port ▾
Protocol	TCP&UDP ▾

Rule Lists				
No.	<input type="checkbox"/>	Name	Port	Protocol

2) VPN Passthrough

It is required if you are going to connect to a VPN. (Such as a corporate system)

VPN Pass Through	
L2TP passthrough	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
IPSEC passthrough	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
PPTP passthrough	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

- *Traffic Control*

1) Port Forwarding

Port Forwarding allows designated users or applications to reach specified servers, such as FTP and DNS servers on your computer. Also, some online games require incoming access to work properly.

Add Rule	
Name	<input type="text"/>
Port	<input type="text"/> ~ <input type="text"/> Select Well-Known Port ▾
Protocol	TCP&UDP ▾
Destination IP Address	192. 168. 5. <input type="text"/>

Rule Lists					
No.	<input type="checkbox"/>	Name	Port	Protocol	IP Address

Note.

You cannot use port forwarding with some standard data accounts. To use port forwarding, you may need to request a static IP address from your carrier / service provider..

2) DMZ (Demilitarized Zone)

DMZ function is a host on the internal network that has all ports exposed, except those ports otherwise forwarded. Set mode as Enable and enter the local static IP address.

DMZ Configuration	
Mode	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
IP Address	192. 168. 5. <input type="text"/>

● *Management*

Note.

When you change the default settings, keep your new information in a safe place.

1) Account

Create or change administrator's name and password.

Account Setup	
Account	<input type="text" value="admin"/>
Password	<input type="text"/>
Confirm Password	<input type="text"/>

2) Backup & Restore

Backup menu allows you to save your settings to your PC, memory card, CD etc. And Restore menu allows you to restore previous saved settings.

Backup Configuration	
Export	<input type="button" value="Backup"/>

Restore Configuration	
File Location	<input type="text"/> <input type="button" value="Browse..."/>

3) Power Management

Enable Ethernet port when you want to connect your computer directly to the device using a LAN (RJ45) cable.

Ethernet Port	
Setting	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Power Saving	
Radio Off	Never
Power Off	Never

Apply

- Radio Off - You can use the Radio Off mode to customize your device to switch to a low power mode when not in use. There are 10 minute increments from 10-60 minutes. Select *Never* to disable this power saving feature. If you want to switch the WiFi Radio on earlier than the time you set in this menu, you can push the power button of the device one time lightly. A blue WiFi LED will appear that WiFi devices are ready to connect.
- Power Off - The Power Off mode allows you to choose when your device will automatically power off, to save battery life, due to inactivity. There are 10 minute increments from 10-60 minutes you can select. Select *Never* to disable this power saving feature.

4) Factory Default

Click *Update* to reset your device to the default factory settings.

Load Factory Defaults	
Load Default Button	Update

5) Activation

Please refer page #6-9 for Activation procedure.

Activation	
Account Type	<input type="radio"/> PrePaid <input checked="" type="radio"/> PostPaid
Enter Pin	12345678901234

Activate

6) Manual Activation

Please contact your service provider for this menu.

Manual Activation Step 1 of 2	
Activation Code	

Apply

Manual Activation Step 2 of 2	
MDN	1234567890
MIN	••••••••

Apply

- *Firmware Upgrade*

You can upgrade your device's configuration file to your computer.

Firmware Upgrade	
Version	W_8189_ITS_1.0
File Location	<input type="text"/> <input type="button" value="Browse..."/>

Help

Help menu gives you the information about customer service, User Guide, FAQ and Troubleshooting.

- *Customer Service*
- *User Guide*
- *FAQ*
- *Troubleshooting*

Part 2

FAQ



Q: What is the TATA Photon Wi-Fi SER8189's main purpose unlike other routers?

A: The TATA Photon Wi-Fi SER8189 is a portable WiFi router that fits in the palm of your hand. It will allow you to connect up to 5 devices to access the Internet, such as laptops, digital cameras, portable game consoles or mobile phones.

Q: What networks does the TATA Photon Wi-Fi SER8189 operate on?

A: The TATA Photon Wi-Fi SER8189 operates on 3G wireless networks.

Q: What are the air holes on the both side of the TATA Photon Wi-Fi SER8189?

A: The air holes are designed to reduce the heat generated by the device itself while it used. Keep the device away from open flames, dusty conditions, and keep it dry for optimal performance.

Q: What kind of security is available with the TATA Photon Wi-Fi SER8189?

A: The TATA Photon Wi-Fi SER8189 supports advanced WiFi security protocol through standard methods such as WiFi Protected Access (WPA & WPA2) and the previous method of Wired Equivalent Privacy (WEP).

More advanced settings are available in the Web based user interface.

Q: What if the user forgets their TATA Photon Wi-Fi SER8189 password?

A: The TATA Photon Wi-Fi SER8189 can be reset by powering on the device, remove the battery cover, and depress the small button near the bottom of the battery using a paper clip or pen and hold for 3 seconds. The Power LED will turn off-and-on twice to indicate reset is successful. The unit will power up with the factory default configuration.

Q: What might the owner of the TATA Photon Wi-Fi SER8189 need to be aware of before sharing with multiple devices?

A: With multiple devices or used as a temporary hotspot:

- If there are several heavy data users on at the same time, you may notice a degradation in performance
- Users are not allowed to access more than 5 devices to the TATA Photon Wi-Fi SER8189 in order to keep the devices' data speed stable enough to be communicated without a problem.
- Be aware these users are contributing to your data usage. You may want to check your account online to see how much of a difference it is making and how close you are to any usage caps that may apply under your network connection plan.
- If all are accessing TATA Photon Wi-Fi SER8189 that is using the battery, the battery will drain faster than the average of 3 hours usage time for one user.

Q: Can a user connect the TATA Photon Wi-Fi SER8189 to their computer with a USB cable?

A: When the TATA Photon Wi-Fi SER8189 is tethered via a USB cable to a computer, the device will not function as a hotspot. In this mode the TATA Photon Wi-Fi SER8189 can be charged, or re-charged only.

Q. What is the LAN port of TATA Photon Wi-Fi SER8189 can be used for?

A: The LAN Port of the TATA Photon Wi-Fi SER8189 is for users who have a laptop or desktop which does not have WiFi capability.

Q: What is the average battery usage time?

A: The battery will have on average 3 hours of active use time when connected to a single device and will discharge more rapidly as additional devices are connected (up to 5 WiFi devices are acceptable). There is 9 hours of standby time.

Q: Why the TATA Photon Wi-Fi SER8189 turns off while in used and it wouldn't turn on again?

A: The red solid power LED indicates the battery is below 20% and if it's blinking, it indicates the TATA Photon Wi-Fi SER8189 will turn off very soon. After the battery has run down, it turns off automatically. So you need to charge the battery using AC-DC adaptor.

Please refer to the Quick Start Guide on page 12.

Q: How close does the user's WiFi enabled device need to be from the TATA Photon Wi-Fi SER8189?

A: The device will need to be within 5 meters of the WiFi device to work. So a user can keep the TATA Photon Wi-Fi SER8189 in their pocket, laptop bag, or sitting on a desk or window ledge across a room (for better coverage).

Q: Does the TATA Photon Wi-Fi SER8189 support voice calls, fax and/or text messaging?

A: Voice calls, text messaging and fax are not supported.

Q: Can the TATA Photon Wi-Fi SER8189 be used for memory storage?

A: The TATA Photon Wi-Fi SER8189 does not support onboard or removable memory storage.

Q: How long does a user need to charge the battery before they begin using?

A: The battery must be fully charged before using the TATA Photon Wi-Fi SER8189 for the first time. We recommend a minimum of 3 hours charging time before first use. After the initial use and set-up, you may use with the battery alone or with the battery and the AC power.

Q: Does the TATA Photon Wi-Fi SER8189 require software installation?

A: The TATA Photon Wi-Fi SER8189 comes with a browser URL that allows the user to configure the device. You can activate, select a profile, establish security and set more advanced settings without installing any software.

Q: What does the user of the TATA Photon Wi-Fi SER8189 need to begin to do configuration and activation?

A: See "Device Activation" of this manual for activation instructions. (page 7 ~10)

Q: What if the TATA Photon Wi-Fi SER8189 can not access the internet even though the unit has been activated?

A: Verify your network & signal strength for optimal performance.

Q: When will a user of the TATA Photon Wi-Fi SER8189 need to access the browser interface?

A: The TATA Photon Wi-Fi SER8189 browser interface will only need to be accessed or used when configuring your device for the first time or changing the security settings or establishing more advanced settings.

Q: Why does the TATA Photon Wi-Fi SER8189 gets warm?

A: The TATA Photon Wi-Fi SER8189 has two radios inside: the 3G CDMA radio and the WiFi radio. In fringe areas of low 3G coverage, the transmit power will be at the max and therefore generate more heat. The device has been environmentally tested and approved by the FCC.

- **802.11 (b, g, n)** — A set of WLAN communication standards in the 2.4, 3.6 and 5 GHz frequency bands.
- **Access Point (AP)** — A device that allows wireless communication devices to connect to a wireless network using a standard such as WLAN.
- **DHCP** — Dynamic Host Configuration Protocol. A network application protocol used to obtain configuration information for an Internet Protocol network.
- **DHCP Server** — A server that uses DHCP to obtain configuration information for operation in an Internet Protocol network.
- **DNS** — Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.
- **ESN** — Electronic Serial Number. A unique 32-bit number embedded in a wireless device that identifies the device.
- **MEID** — Mobile Equipment Identifier. The unique second-generation serial number assigned to the TATA Photon Wi-Fi SER8189 for cellular network use.
- **Firmware** — A program that internally controls an electronic device.
- **FTP** — File Transfer Protocol. A network protocol for exchanging files over a TCP network.
- **Gateway** — A network point that acts as an entrance to another network that uses a different protocol.
- **Host Name** — The unique name by which a network-attached device is known on a network.
- **Hotspot** — A WLAN access point or area for connecting to the Internet.
- **HTTP** — Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web over the Internet.
- **IP address** — Internet Protocol address. The address of a device attached to an IP network (TCP/IP network).
- **LAN** — Local Area Network. A type of network that lets a group of computers, all in close proximity (such as inside an office building), communicate with one another.
- **MAC Address** — A number that uniquely identifies a given network adapter on a LAN. MAC addresses are 12-digit hexadecimal numbers.
- **MIN** — Mobile Identification Number. It refers to the 10-digit unique number that a wireless operator uses to identify the mobile phone. A MIN is a number that uniquely identifies a mobile working under TIA standards for Cellular and PCS technologies
- **MSID** — Mobile Station ID. A number provisioned by a service provider to a mobile phone that identifies that phone to the network.
- **MSL** — Master Subsidy Lock. A numeric code for accessing certain phone settings.
- **NAI** — Network Access Identifier. A standard way of identifying users who request access to a network.
- **Network Mask** — A number that allows IP networks to be subdivided for security and performance.
- **NNTP** — Network News Transfer Protocol. An Internet application protocol for reading and posting Usenet

(newsgroup) articles.

- **POP** — Post Office Protocol. An Internet protocol for retrieving email from a remote server over a TCP/IP connection.
- **Port** — A virtual data connection used by programs to exchange data.
- **Port Forwarding** — A process that allows remote devices to connect to a specific computer within a private LAN.
- **Port Number** — A number assigned to a user session and server application in an IP network.
- **Protocol** — A standard that enables connection, communication, and data transfer between computing endpoints.
- **PPTP** — Point-to-point Tunneling Protocol. A method for implementing virtual private networks that does not provide confidentiality or encryption.
- **PRL** — Preferred Roaming List. A list that your wireless phone or device uses to determine which networks to connect with when you are roaming.
- **RFB** — Remote Frame Buffer. A protocol for remote access to graphical user interfaces.
- **Router** — A device that connects two networks.
- **RTP** — Real-time Transport Protocol. A packet format for streaming multimedia over the Internet.
- **SMTP** — Simple Mail Transfer Protocol. An Internet standard for email transmission across IP networks.
- **SSID** — Service Set Identifier. The name assigned to a WLAN network.
- **TCP** — Transmission Control Protocol. A core protocol for transmitting and receiving information over the Internet.
- **TCP/IP** — Transmission Control Protocol/Internet Protocol. A communications protocol developed under contract from the U.S. Department of Defense to internetwork dissimilar systems.
- **Telnet** — Telecommunication Network. A network protocol used on the Internet or on local area networks.
- **TFTP** — Trivial File Transfer Protocol. A file transfer protocol with a subset of FTP functionality.
- **UDP** — User Datagram Protocol. A simple transport protocol used to transfer information on the Internet.
- **VNC** — Virtual Network Computing. A graphical desktop sharing system that uses the RFB protocol to remotely control another computer.
- **VPN** — Virtual Private Network. A secure private network that runs over the public Internet.
- **VPN Passthrough** — A feature that allows a client to establish a tunnel only with a specific VPN server.
- **WAN** — Wide Area Network. A public network that extends beyond architectural, geographical, or political boundaries (unlike a LAN, which is usually a private network located within a room, building, or other limited area).
- **WEP** — Wired Equivalent Privacy. An IEEE standard security protocol for 802.11 networks. Superseded by WPA and WPA2.
- **WLAN** — Wireless Fidelity. Any system that uses the 802.11 standard developed and released in 1997 by the IEEE (Institute of Electrical and Electronics Engineers).
- **WLAN Client** — A wireless device that connects to the Internet via WLAN.
- **WLAN** — WLAN LAN. A typically low-power network that transmits a wireless signal over a span of a few hundred feet and usually only to stationary devices.
- **WPA/WPA2** — WLAN Protected Access. A security protocol for wireless 802.11 networks from the WLAN

Alliance.

- **WWAN** — Wireless Wide Area Network. Wireless connectivity to the Internet achieved using cellular tower technology. This service is provided through cellular providers. WWAN connectivity allows a user with a laptop and a WWAN device to surf the Internet, check email, or connect to a virtual private network (VPN) from anywhere within the regional boundaries of the cellular service.