

TetherBox v2

Product Guide

(Version 0.3 - Monday, 05 October 2015)

Product description:

TetherBox is a networking device that allows your vehicle's infotainment system to get online to the internet via WiFi. TetherBox is designed to work on VAG cars (Bentley, Bugatti, Lamborghini, Audi, Porsche, SEAT, Škoda and Volkswagen) that come with MMI (*Multi Media Interface*) or MIB (*Modular Infotainment Platform*).

General Usage:

- ✓ TetherBox has a unique hardware that is automatically recognised without any additional driver installation, this works on QNX, Linux, Windows etc.
- ✓ TetherBox has been extensively tested on Audi MMI 3G Plus and Volkswagen RNS850 Systems, on these systems it allows the infotainment system to receive Traffic (TMC Online) and enable online features such as Audi Connect and GoogleEarth navigation.
- ✓ TetherBox makes a great gateway to get into MIB systems to allow SSH access and various other connections.
- ✓ TetherBox is a bidirectional networking device, that has capability to act as Client, AP, Router, Gateway, Switch, etc.

What's new in Version 2:

- The WiFi chipset has been improved to handle multiple connections, automatically detect and follow WiFi channels.
- No power is needed, AMI port powers and controls everything. TetherBox Starts when you unlock your car and sleeps when Infotainment systems sleeps.
- The product comes with Scripts for MMI 3G Plus systems.
- New OpenWRT image, very stylish HTML 5 configuration page for easy configuration.

What's typically in the package:

1. TetherBox v2 box
2. Product Guide*
3. MMI 3G Plus Script**
4. AMI to USB Cable***

* Guide is only provided in hard copy format when you specifically ask for it.

** This is typically provided via download, as the script is a living file that gets improved every now and then.

*** This is only provided after you specifically ask and pay for it.

What support is available?

The support provided with this product is limited to the **connectivity only** – this means we will only ensure the device is recognised by your infotainment system, and an IP address is provided via DHCP service. We will not go an extra mile to enable any features on your car's infotainment system. We assume you have a good level of technical knowledge, and you're able to research 'solutions' relevant for what you need on the internet.

Setup Guide:

The installation of the TetherBox is done via **3 simple steps**, before we get to that, make sure you have the following:

- PC with Windows or MAC with OSX (Work instructions tested on Windows only)
- Hotspot enabled (iPhone Tethering, Samsung Hotspot, Home WiFi etc.)
- 1GB SD Card – formatted with FAT32 file system

Step 1 - TetherBox learns how to get online.

In this step we will configure TetherBox to connect to WiFi network, follow these

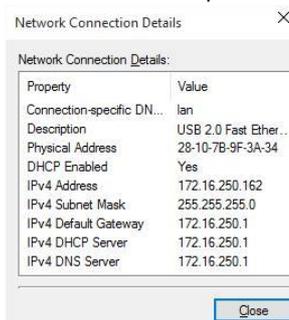
steps: A. Connect TetherBox to your computers USB port



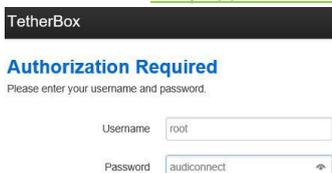
B. Wait until TetherBox comes up with the following Network Connection:



C. TetherBox Adapter Properties show the following:



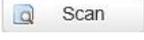
D. Browse to <http://172.16.250.1> or <http://TetherBox.LAN>



E. Click

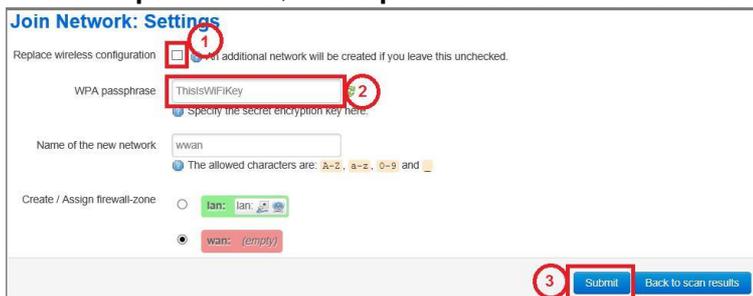
F. Make sure your Hotspot is enabled and broadcasting SSID



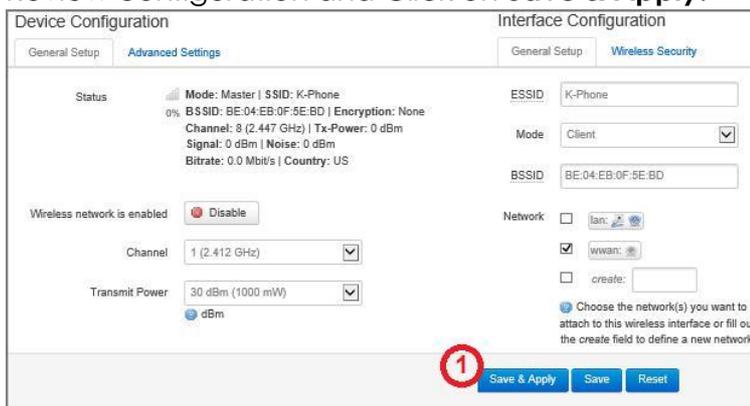
G. On the Wireless Overview page, click  button and join Network



H. **Untick Replace** box, **enter password** and Click **Submit** button



I. Review configuration and Click on **Save & Apply**.



J. After few seconds you will see iPhone showing a blue tethering bar:



K. You can now Unplug TetherBox from your computer

Step 2 - TetherBox tells infotainment how to get online

After succeeding step number 1, you can now go ahead and connect the TetherBox to your car's AMI port.

- A. Connect TetherBox's USB cable into USB <-> AMI cable



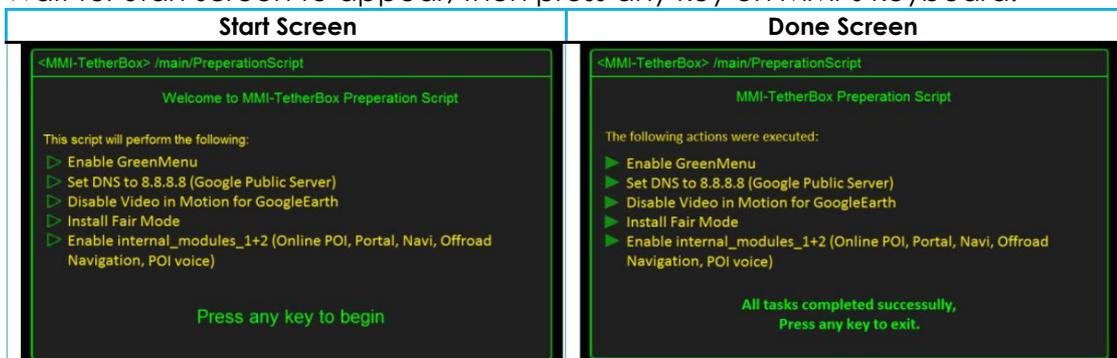
- B. Enter Hidden Menu (aka GreenMenu), go to Config, and click on Show Adapter Settings and verify the TetherBox USB connection is valid:

```
<EM 1.0t> /config/Console
----- adapter (en5)-----
en5: flags=80008a43<UP,BROADCAST,RUNNING,ALLMULTI,SIMPLE
  address: 00:80:c8:38:e2:bb
  media: Ethernet 10baseT full-duplex
  status: active
  input: 147 packets, 9060 bytes, 146 multicasts
  output: 3 packets, 156 bytes
  inet 172.16.250.248 netmask 0xffff0000 broadcast 172.16.255.255
```

Step 3 – Enable Infotainment features (Example Only)

Due to large number of different variations of infotainment systems out there, we provide absolutely no support in this area. It's up to you to research and decide on what features to enable. Having said that, here is an example on how to enable GoogleEarth, StreetView, Audi Connect, TMC Online on Audi MMI 3G Plus systems:

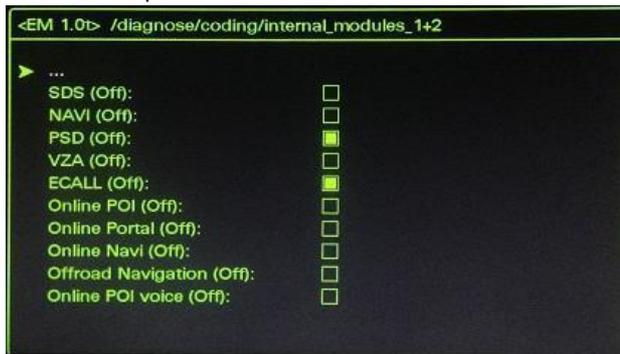
- A. Unzip MMI-Prep-Script-for-3G-Plus.zip to SD Card that is formatted FAT32
B. Insert into MMI 3G Plus
C. Wait for Start screen to appear, then press any key on MMI's keyboard.



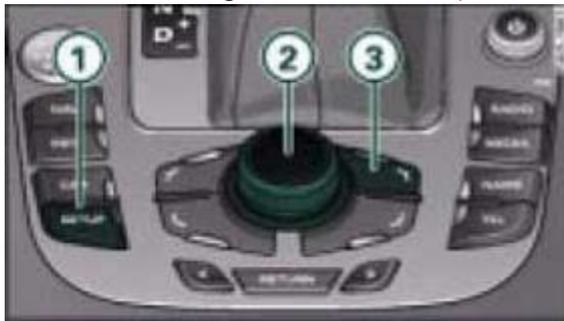
Now the script has automated the enablement of many features, there are some more steps to follow.

D. Enter Greemenu and Change config:

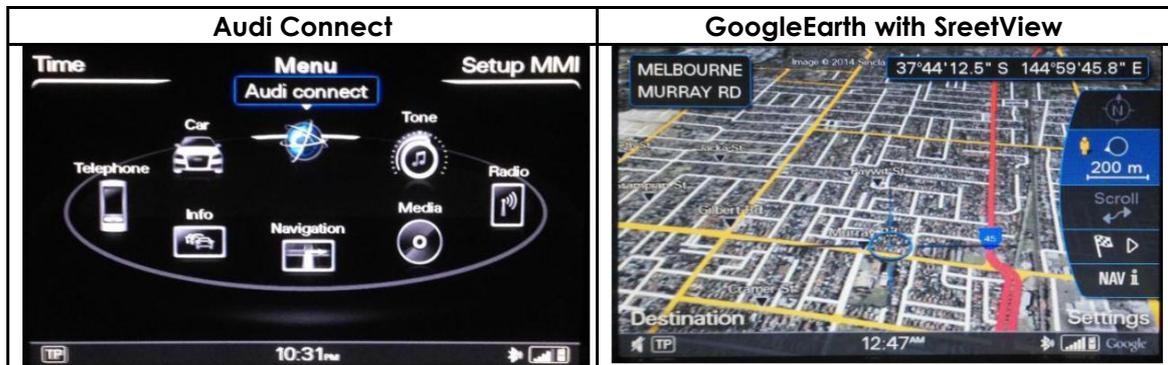
Go to Diagnose -> Coding -> internal_modules_1+2 and untick all boxes with exception to PSD and ECALL.



E. Restart MMI using the 3 reboot keys



F. If all works well, you will see this:



Contact us:

Website: <http://autofidelity.com.au/>

Email: solutions@autofidelity.com

OtherLinks:

- Audi MMI: https://en.wikipedia.org/wiki/Multi_Media_Interface
- VW RNS850: <http://www.volkswagen.co.uk/technology/navigation-and-entertainment-systems/rns-850>
- Bentley: <http://www.bentleymotors.com/en/models/continental/continental-gt-v8/model-features/technology.html>