Getting More out of your WDMI-32

Once you are happy with simple operation using either iPhone or Android, you really must consult the full manual for information about the great features available. For example, you can:

- Use the WDMI-32 web pages to set up your locomotive roster (one loco) with a custom name so that you can easily select it on your iPhone or Android. You'll also be able to set each function button to show the correct text for the locomotive and decoder.
- Use the Home Net option. That way you can leave you phone or tablet connected to your home network. When you power up your locomotive, your phone or tablet will connect to its WiThrottle server much more quickly.
- Drive more than one train while connecting to this module or a gateway module.
- Access the WDMI-32 Manual at http://www.wifitrax.com/manuals/WDMI-32/WDMI-32-Manual.pdf

More Information

Other resources:
http://www.wifitrax.com/appNotes/howToArticles.html

WifiTrax products are made in Australia using globally-sourced components and services. Check our website for warranty information.

WifiTrax   **www.wifitrax.com**

WDMI-32 Getting Started Guide

This document is online at http://www.wifitrax.com/appNotes/quickStart/WDMI-32-Quick-Start.pdf.
Please consult the full WDMI-32 manual for much more detail at http://www.wifitrax.com/manuals/WDMI-32/WDMI-32-Manual.pdf

Package Contents
1 x WDMI-32 Module in Static Shielding Bag, this document.

WDMI-32 Wi-Fi/DCC Interface Module

12V +
12V -
DCC 1
DCC 2
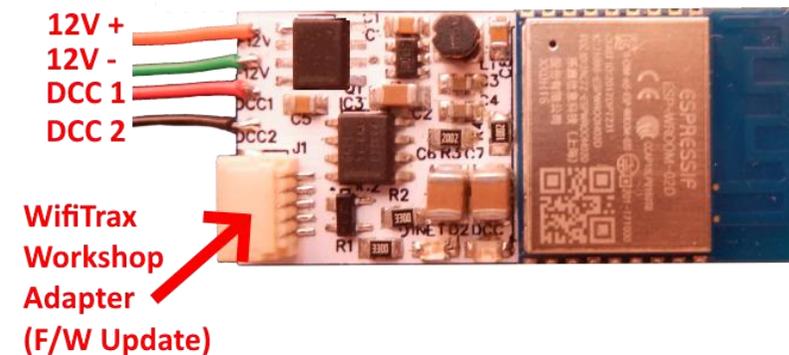
WifiTrax
Workshop
Adapter
(F/W Update)

Figure 1. WDMI-32 Connections

This product is not a toy. Keep away from children. It is not suitable for use by persons under 14 years of age.
Warning: This product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.
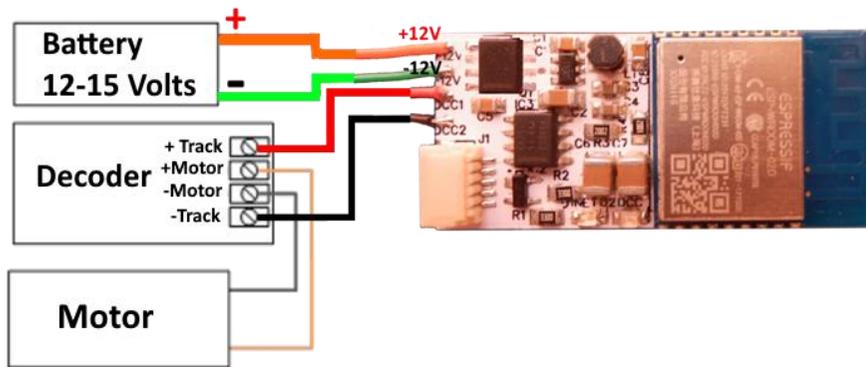
Figure 2. Connections to the WDMI-32

What does WDMI-32 Wi-Fi/DCC Interface Module do?

The WDMI-32 may be mounted in an HO or other small locomotive. It provides an ability to control a NMRA-compatible DCC decoder over a Wi-Fi network. The DCC Out connector provides NMRA compatible DCC power/track signals exactly as you would find on track supplied by an NMRA standard booster driven from a DCC Command Controller.

- You can drive trains using a smart phone or tablet as a hand-held controller provided it has Wi-Fi capability and you have installed one of the recommended apps in Table 1

- WDMI-32 provides a Wi-Fi Access Point (Wi-Fi network). Four throttles at a time can join.

- You can also use the UWT-100 Universal Wi-Fi Throttle manufactured by TCS. You can use a Windows or Apple computer, such as a laptop or desktop, with a recommended app from Table 1 installed.

If you have been using an app on your phone to drive trains, via a computer running JMRI, you can now bypass JMRI and connect your phone directly to the WDMI-32.

- **You don't need to install JMRI to use the WDMI-32**

(10) When you want to drive a different loco, you need to first connect to the new locomotive's Wi-fi Network as in steps (3) and (4), then connect to its WiThrottle Server as in step (6). Then select the DCC address of the loco as in steps (7) and (8).

More Tips

Making Wi-Fi Connection Easier: If you normally drive the same locomotive, go back to your Android Setting and tap the wftrx_WDMI32_6_XXXXXXXX_7 Wi-Fi network. Make sure the Auto Connect option is turned on. On your other Wi-Fi connections make sure the Auto Connect option is turned off. That way your Android device will always connect to the module if its powered on.

Auto Connecting in Engine Driver: Tap the "three dots" in the top right and select Preferences from the menu. Find "Connect Preferences" and "Auto Connect to First Throttle Server". Tap the check box to turn it on. That way Engine Driver will connect to the WDMI-32's WiThrottle Server once you have connected to its Wi-Fi network.

Avoiding Hang-ups: It's best to release your loco before powering down your WDMI-32. When you power up again, Engine Driver should reconnect, but if not, you may have to restart Engine Driver.

Please consult the Engine Driver "About" menu for more information about the app. It is possible to select different display appearances and preferences. Consult the website for more information:

https://enginedriver.mstevetodd.com/

Please note that Engine Driver, has many features that may vary according to the version that you install. WifiTrax has no control over the features of Engine Driver, but has tested carefully its operation with our product. If you have trouble working with Engine Driver and our module, please email us your problem rather than using the Engine Driver support. The author of Engine Driver is not likely to know details about WifiTrax products, so please do not expect it. Support email: wifitrax@steveshrimpton.com or check our website

(8) On the Select/Release Loco screen, check the "DCC Address" option and type the DCC address of your locomotive either short or long. Tap Acquire.

(9) The Throttle screen appears again with your DCC address as the selected loco. Try the function buttons and throttle slider to make sure your loco responds.

Installation Instructions

Figure 2 shows how to connect the WDMI-32 to your locomotive and battery

(1) The module is intended to receive power from a 12-15 Volt battery when mounted in a locomotive. It is not fitted with a rectifier so its Input Power leads must not be connected to the track since if the loco is turned around, power would be reversed!
(2) Mount the unit suitably in your locomotive. Be sure that no part of the unit is touching any metal part of the locomotive.
(3) Connect the DCC-Out leads to the +Track and – Track (Track Right, Track Left) inputs to your decoder as shown in Figure 2. These are the decoder connections that would normally be connected to the track. Now, the WDMI-32 acts in place of the pickups from the track.
(4) Connect the +Motor and -Motor outputs from your decoder to the connections on the locomotive motor in the usual way.
(5) Connect the function outputs and speaker if applicable according to the instructions supplied with your decoder.
(6) Connect the WDMI-32 power input + and – leads (orange +, Green -) to the + and – terminals of your 12 V battery using a suitable switch if required. **Take great care to connect these correctly. The Orange wire must be connected to the positive battery terminal and the Green wire must be connected to the negative terminal. A series FET prevents damage if they are connected the wrong way around but it's better not to rely on it!**

Choosing and Installing your App

App Name	Author	Get From:	System	Advanced Features
WiThrottle	Brett Hoffman	Apple Store	Apple IOS	Via web page.
Engine Driver	Steve Todd	Google Play Store	Android	Via web page.
Loco Operator 3	WifiTrax	Microsoft Store Google Play Store	Windows 10 Android	YES *
Train Throttle	Drew Hoffman	Microsoft Store	Windows 10	No, Use browser

Table 1 Recommended Apps that work with the WDMI-32

* WifiTrax Loco Operator 3 provides setup for the more advanced features such as Home Net operation, Rosters and Automatic Function Labels. This configuration may also be achieved via the web page using WiThrottle, Engine Driver or just a browser at the URL http://192.168.7.1 once you have connected your computer or tablet to the WDMI-32's Wi-Fi network.

You need to install an app on your phone, tablet or computer to use the WDMI-32, Table 1 lists some recommended apps. Make your choice from Table 1 then make sure you are connected to the internet, visit the app store for your device manufacturer:

Microsoft Windows Store: Apple App Store: Google Play Store:

Search for the app by name then download and install the app.

Getting Started with WiThrottle on Apple IOS

There is a much more detailed description in the manual:
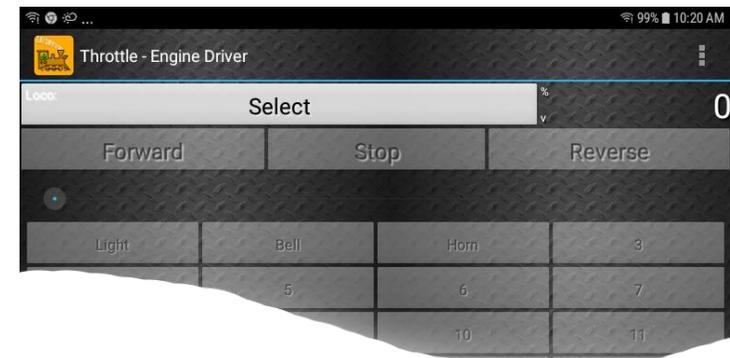http://www.wifitrax.com/manuals/WDMI-32/WDMI-32-Manual.pdf

(1) Before opening the app, make sure your WDMI-32 is properly connected, power is supplied and the locomotive has a known DCC address.

(5) Open the Engine Driver app on your Android phone or tablet, go through its setup accepting all the defaults and allowing the privileges it requests.

(6) After setup, you should see the "Connect to Server" page with your WDMI-32 listed as a "Discovered Server". The WDMI-32 acts as a WiThrottle server, similar to JMRI. Tap on it to connect.
If for some reason it is not discovered, you must type the IP Address of the WDMI-32 unit, always 192.168.7.1 in the "Server Address" box at the top-left and the port value of 12090 in the port textbox, then tap the "Connect" button.

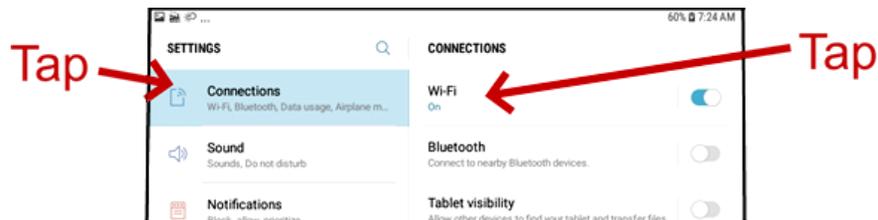(7) The Throttle screen should appear – ready to select a loco and drive. Tap the Select button.

Getting Started with Engine Driver on Android

(1) Make sure the WDMI-32 is connected, power is supplied and the locomotive has a known DCC address.

(2) Press the Home button and tap the settings icon on your Android phone or tablet:

(3) Find the Wi-Fi option. On Android 7, you tap Connections on the left, then Wi-Fi on the right.

(4) You see a list of available Wi-Fi Connections on the right. Look for one like wftrx_WDMI32_1_XXXXXXXX_7, where XXXXXXXX is the serial number of your unit that appears on its label. Tap on that – no password is required – and wait for it to connect.
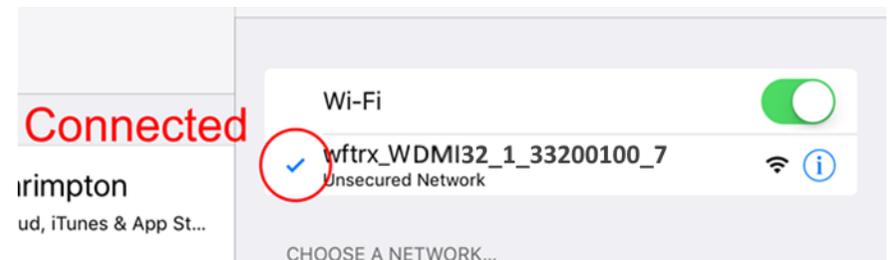

(2) Tap the Settings icon on your iPhone or iPad, etc.

(3) Tap Wi-Fi on the left-hand menu. Under CHOOSE A NETWORK on the right, the list should include one like wftrx_WDMI32_1_XXXXXXXX_7, where XXXXXXXX is the serial number of your unit that appears on its label. Tap that Wi-Fi Network. **You must always connect to this Network otherwise WiThrottle will not see the WDMI-32.**
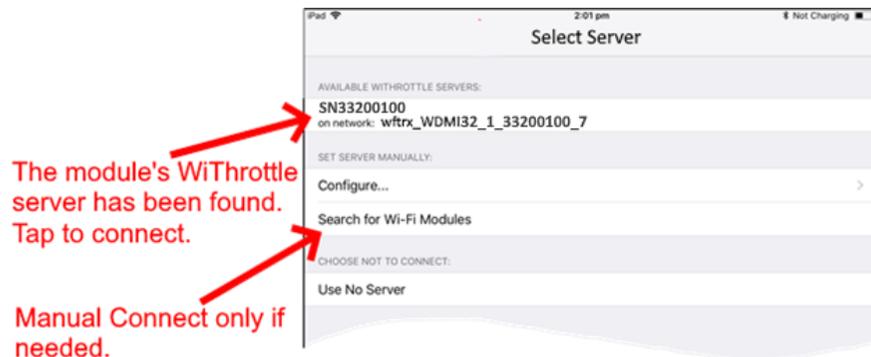

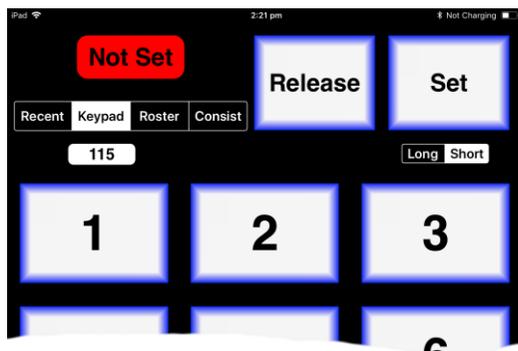(4) No password is required and after a few moments you should see that it has connected.

(5) Open the WiThrottle app. This app has some tabs at the bottom to select screens:

(6) You should see the connection screen headed by Select Server. If not, tap the Settings tab at the bottom right, then Server Configuration at the middle left, then Current Server at the top right.

(7) The WDMI-32 is a WiThrottle Server. It should appear in the AVAILABLE WITHROTTLE SERVERS section, identified by its serial number SNXXXXXXXX. If it is visible, tap it and continue at (9).

The module's WiThrottle server has been found. Tap to connect.

Manual Connect only if needed.

(8) If for some reason it does not appear, Set Server Manually. Tap "Search for Wi-Fi Modules". The IP Address and port are pre-entered as 192.168.7.1 and 12090, so just tap "Connect".

(9) Now tap the Address tab at the bottom to show the Address screen. Tap Keypad at the top-left, type the DCC address of the locomotive in which the module is installed and tap Set.

(10) Tap the Throttle tab at the bottom-left of the screen and you can begin driving.

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More Tips

Making Wi-Fi Connection Easier: Go back to your Apple Settings and tap the wftrx_WDMI32_6_XXXXXXXX_7 Wi-Fi network. Make sure the Auto Join option is turned on. On your other Wi-Fi connections make sure the Auto Join option is turned off. That way your Apple device will always connect to the module if its powered on.

Auto Connecting in WiThrottle: Tap the "Settings" tab at the bottom right, then "Server Configuration" on the left, then turn on "Use automatic network configuration". That way WiThrottle will connect to your WDMI-32's WiThrottle Server whenever it is available.

Avoiding Hang-ups: It's best to release the loco before powering down your WDMI-32 system. When you power up again, WiThrottle should reconnect, but you may be asked, on a pop-up, to select the wftrx_WDMI32_XXXXXXXX network again. If WiThrottle does not reconnect, you may have to restart it by going back to the Home screen and tapping its icon.

You can kill an app completely in Apple IOS by swiping up from the bottom of the home screen to show the switcher screen, then swiping its icon off the screen. Then you can restart it from the home screen.

Please consult the WiThrottle manual for more information and tips:

https://www.withrottle.com/html/manual.html

Please note that WiThrottle, has many features that may vary according to the version that you install. WifiTrax has no control over the features of WiThrottle, but has tested carefully its operation with our product. If you have trouble working with WiThrottle and our module, please email us your problem rather than using the WiThrottle support. WiThrottle support people do not know details of WifiTrax products, so please do not expect it. Support email: wifitrax@steveshrimpton.com or check our website

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