Loco Operator 3 App

This document is available at http://www.wifitrax.com/appNotes/quickStart/Loco-Operator-Quick-Start.pdf. The Loco Operator 3 app is an upgrade from the Loco Operator app and allows you to drive one or two locomotives fitted with a WifiTrax Loco Controller such as WMH-20 or WMR-10. It also allows you to drive DC locomotives using a product such as WUFP-40 which appears like two locomotives. In addition, Loco Operator 3 provides driving of DCC locomotives equipped with a Wi-Fi/DCC module or DCC locomotives under control of a Wi-Fi/DCC Trackside module such as WFD-25. Loco Operator 3 also provides easier install of new modules via its Install Wizard. You can download and install the app from the Microsoft Store for Windows 10 or the Google Play Store for Android. Go to our website to find the current version:

http://www.wifitrax.com/products/product-loco-operator-app-detail.html

Android Only: When the app starts for the first time you may be asked to accept that the app will access files and the device location. You must accept these, then the screen goes black for a few seconds. Wait for the Install Wizard to appear. This is standard Android behavior. Be advised that Loco Operator absolutely does not access your pictures, any personal files or any files, other than those it generates, and no data is uploaded to the internet. Also, the need to access your location is required to work with Wi-Fi. Loco operator does automatically connect your computer to the Wi-Fi access points of WifiTrax modules that you have installed and to your Home Network transparently, without prompting. When you have finished driving trains, you may have to reconnect to your home network to access the internet or other devices such as your printer. WifiTrax privacy policy is available at http://www.wifitrax.com/privacy.html

Wi-Fi - Direct and Infrastructure Modes

There are two ways of driving your loco over Wi-Fi: Direct Mode and Infrastructure Mode.

In direct mode, your computer, tablet or phone must be connected to the Wi-Fi Access Point within the loco (or trackside module). In this mode, you can only operate one locomotive controller with each installation of Loco Operator on a computer, tablet or phone. In Infrastructure Mode, the locomotive and your computer, tablet or phone all connect as *Wi-Fi Stations* to your network router. You can then build a full model railroad network with many locos, computers, tablets and phones. You can drive two locos with each installation of Loco Operator.
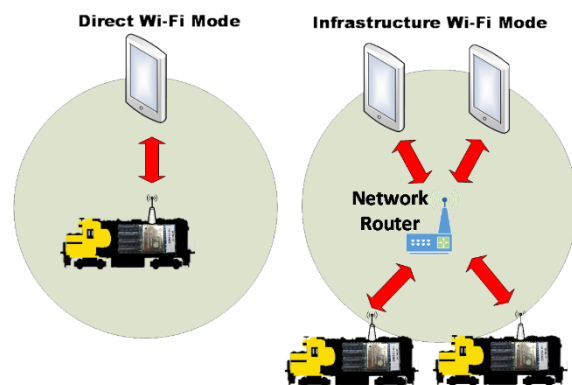

Install Wizard

The figure shows the steps that the Install Wizard will take you through for Direct Mode Set-up and Infrastructure Mode Set-up. It's much easier to set up in Direct Mode first.

You can re-enter the install wizard at any time by clicking the wizard symbol at the top right of the main screen. You can use the wizard to set up your Home Net or change it. You can install new locomotives on your Home Net and scan for new locomotives that have been installed.
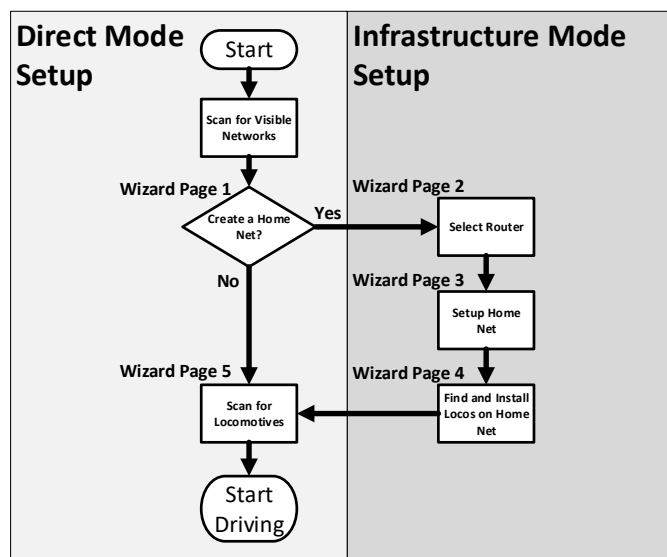

Quick Start – Driving in Direct Wi-Fi Mode

The easiest way to get your locomotive running and give it a test drive is in direct mode.

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(1) Power up your WifiTrax-installed locomotive on a track, or your Wi-Fi/DCC or WUFP product.

(2) Start the Loco Operator App on your computer, tablet or phone. If you are starting the app for the first time the Install Wizard will automatically run and you will see a screen called Install Wizard 1. This screen asks whether you want to define a Home Network. Click No to this option for now. You can come back to this screen later.
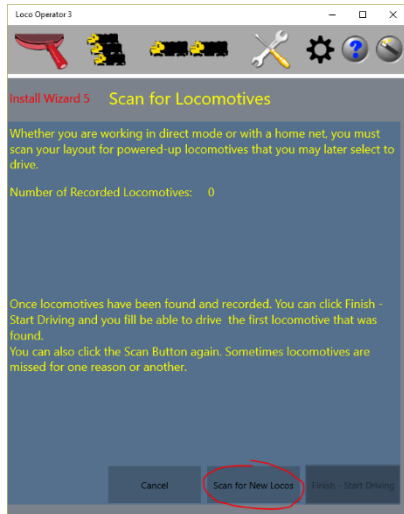
(3) You now see the Install Wizard 5 screen. This screen allows you to scan for locomotives or other WifiTrax controllers. Click the Scan for New Locos button and click Continue on the pop-up. Your new locomotive should now appear as an entry in a list. If it is a DCC locomotive, there is a pop-up allowing you to select the DCC Decoder that you have installed. The default is Generic-Sound. When you have made your selection click Done.
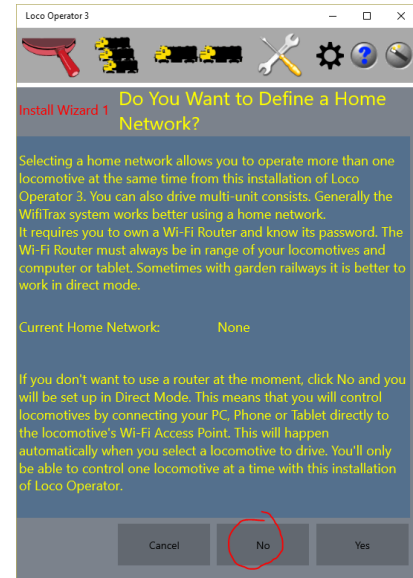
(4) Install Wizard 5 Screen now shows one locomotive recorded. You can now click Finish-Start Driving and you will be taken straight to the Drive Screen with the locomotive selected.

Locomotives Fitted with Wi-Fi Loco Controllers such as WMH-20 or WMR-10

(5) You will see a speedometer, a throttle slider, a Headlight and Rear Light button and a direction button. Other buttons are described in the help pages.

(6) Check the lights work OK by tapping the front and rear light buttons to switch between Off, On and Auto. Leave them both on Auto.

(7) Next you can make the Loco move forward by touching the throttle slider and gently moving it upwards. Your loco should move forward. The front light should come on.
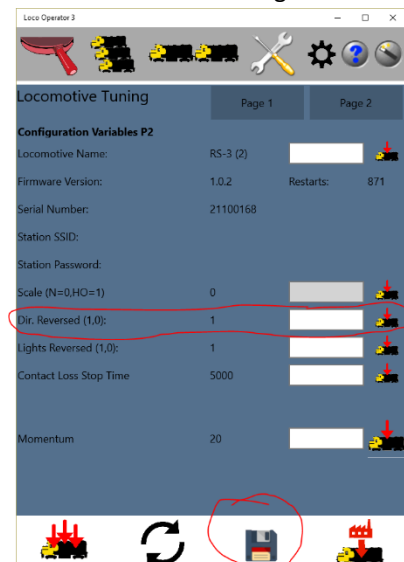
(8) Stop your loco and change direction by tapping the Direction button. Now you should be able to move the throttle up and the Loco should move backwards. The rear light should come on. You can get ultra-fine control by tapping the region of the throttle control above or below the slider. This will tap the speed up or down.

(9) If your loco moves in the wrong direction, go to the Tuning tab and Page 2, and change the Direction Reversed setting between 1 and 0 – check the Loco Operator Help for full details. You must tap the "Send to Loco" button and then the Save button to fix the changes in the Loco's flash memory. Similarly, if the wrong light comes on, change the Lights Reversed value from 0 to 1.

(10) Back on the Drive page, If you want to drive faster, tap the Driving Mode button to Main Line. The speedometer must show zero before these buttons are enabled.

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Locomotives Fitted with Wi-Fi/DCC Modules (and DCC Decoders) or Wi-Fi/DCC Trackside

(11) Loco Operator 3 assumes by default that it is connected to a DCC decoder set at the default address 03. If your DCC decoder has been used before, it may have a different address. If you are using a WFD-25 Wi-Fi/DCC Trackside module, move the loco to the programming track. To make sure your Wi-Fi/DCC module knows the address of the decoder, click on the Keys button and then on the DRCV button to enter Direct Mode Programming.
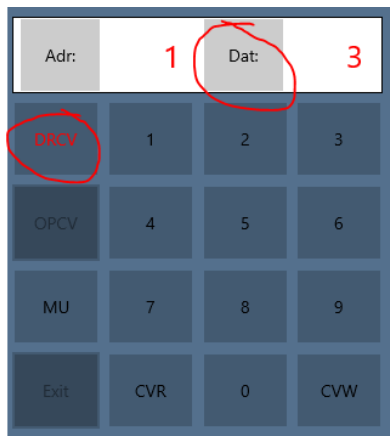
(12) CV 1 will be chosen by default. Click CVR to read the DCC decoder Address.

(13) Click the Dat button and use the numeric keys to choose the address you want. Then click CVW and Continue on the pop-up to send the address to the loco and its decoder.

(14) Make sure that the address you requested comes back and reappears in the Dat box, then click the DRCV button, to exit Direct Mode Programming, and the Exit button to leave the DCC Keyboard.

(15) You will not see a speedometer or Headlight and Rear Light buttons. Instead on the left you will see a bank of labelled buttons such as Headlight, Bell, Horn etc. These send the matching DCC function code to the locomotive. Test the lights, bell and horn.

(16) Set Direction as required and test that the Throttle slider makes the locomotive move.

(17) When you are done, click the Release button – the red broken link at the top – to release the locomotive.
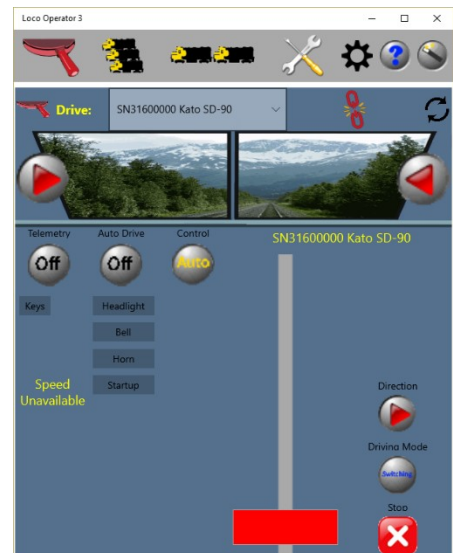
Infrastructure Mode

You can stay in Direct mode if you just want to operate one locomotive from each tablet with Loco Operator 3, but for more versatility you can set up infrastructure mode as long as you have a Wi-Fi router in your household.

(1) To do this, make sure you have released the locomotive, then click the Wizard button at the top right.
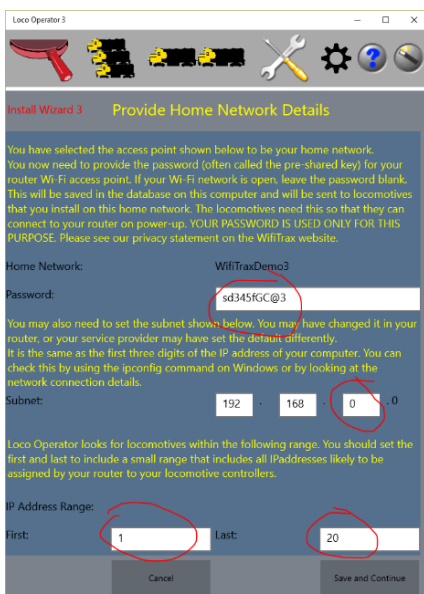
(2) The Install Wizard 1 page is displayed. This time click Yes to define a Home Network.

(3) Select the network in the list that corresponds to the name of your home Wi-Fi access point. This is called the SSID. You will use the same SSID when you connect your phone or tablet to your home Wi-Fi network. When you have selected the right network, click Continue.
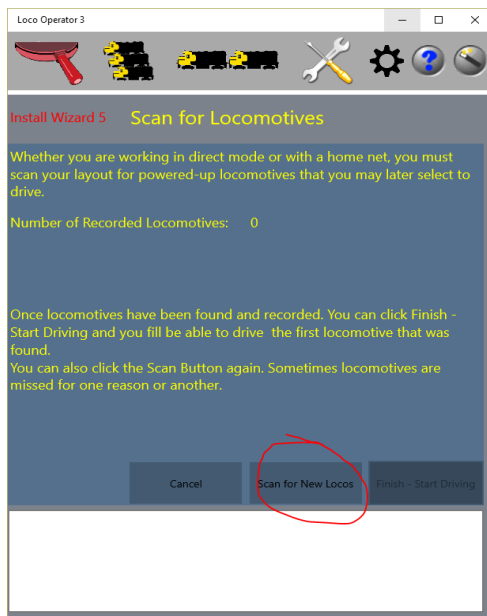
(4) You now need to provide some details for your Home Network.

a. You must provide the Password (called the Shared Key). This password will be stored on your computer and sent to all locomotives that you want to install onto your Home Network.

b. Next you need to make sure that the correct subnet is shown. Most home subnets begin with 192.168 but sometimes it is different. The third digit defaults to zero but again it may be different for your
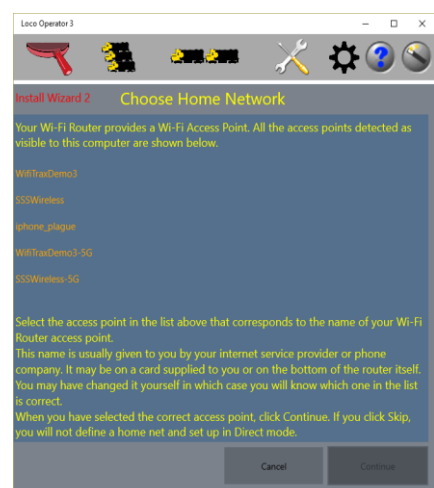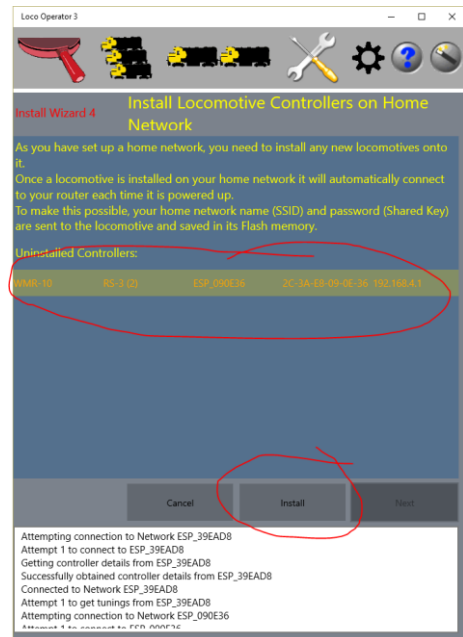
network. The best way to find out the subnet is to check the IP address on your computer. The subnet is the first three digits of the IP address, with the fourth being zero.

    c.   Lastly make sure the IP Address Range is set to cover addresses likely to be assigned by your router to locomotives. Usually the default, 1 -20 is OK.

    d.   Finally click Save which completes the setup of your Home Net.

(5)   You now see the Install Wizard 4 screen. When the screen enters, any powered-up, uninstalled locomotives are discovered. Uninstalled locomotives are those that have not been given the SSID and Password to enable them to connect to your Home Network. Select them one by one and click the Install button. Then click Next.

(6)   Now you see Install Wizard 5. By this time, your Wi-Fi Router should have allocated IP addresses to your locomotives. Click the Scan for New Locos button. And Continue on the pop-up. Your computer will connect to your Home Net and test each IP Address in the range to find locomotives.

(7)   Once one or more locomotive has been found click the Finish-Start Driving button and you can perform the same tests as you did in Direct Mode.

More Information

Loco Operator Detailed Help Pages:

    http://www.wifitrax.com/help/locoOperator/help.html

Article about Wi-Fi/DCC:

    http://www.wifitrax.com/appNotes/WiFi-DCC.pdf

Access all the articles:

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

WifiTrax products are made in Australia from globally-sourced components

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