

## Factory Reset

You can factory reset the module by pressing and holding down the Factory Reset button until the Green LED flashes. The module will then reset.

## Getting More out of your WFD-46

Access the WFD-46 Manual at <http://www.wifitrax.com/manuals/WFD-46/WFD-46-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.

**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.**

# WifiTrax

[www.wifitrax.com](http://www.wifitrax.com)



## WFD-46 Getting Started Guide

This document is online at <http://www.wifitrax.com/appNotes/quickStart/WFD-46-Quick-Start.pdf>. Please consult the full WFD-46 manual for much more detail at <http://www.wifitrax.com/manuals/WFD-46/WFD-46-Manual.pdf>

### Package Contents

1 x WFD-46 Module in Static Shielding Bag, this document, mounting Kit

## WFD-46 5 Amp Wi-Fi/DCC Trackside Adjustable Booster with Auto-Reverse

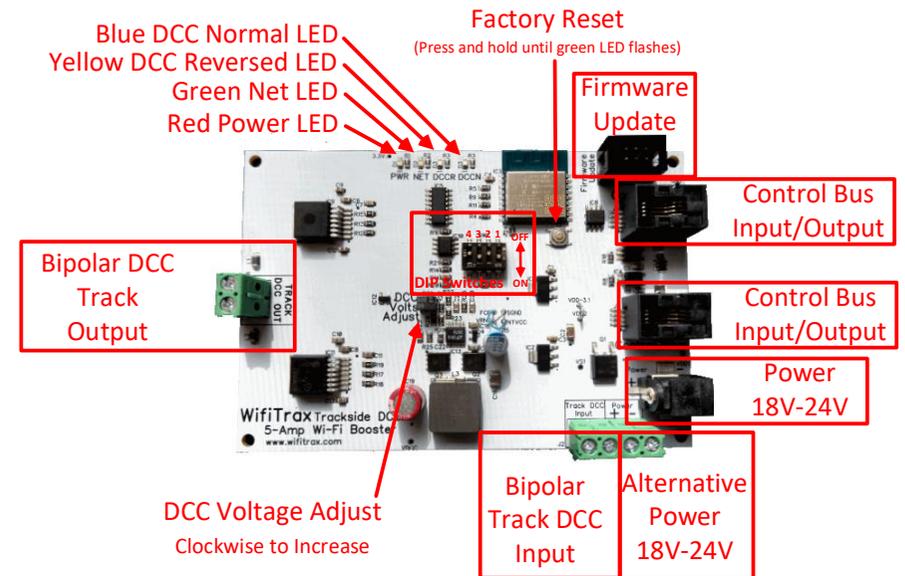


Figure 1. WFD-46 Connections

## What does WFD-46 Wi-Fi/DCC Trackside Command Station/Booster do?

The WFD-46 Wi-Fi/DCC Booster is a 5 Amp/3 Amp DCC Booster that receives a DCC signal from a DCC Command Station and delivers DCC Track Power to a Power District consisting of a section of track isolated by a gap in both rails. Here is a summary of its features:

- 5 Amp continuous capability
- Variable DCC Output Voltage approx. 9.8 – 20 Volts peak-to-peak in two ranges
- 3 Amp or 5 Amp Overcurrent Protection
- Input from Track DCC or DCC Control Bus
- Auto-reversing for return loops, wye etc.
- Wi-Fi Monitoring of Status and approximate current load

## LED Indicators

Red LED: Lights as soon as power is applied to the module.

Blue LED: Lights when the module receives a valid DCC input and is supplying DCC to its track outputs. Flashes slowly if there is insufficient Power Supply voltage to provide the desired output voltage. Flashes quickly when an over-current or short condition is detected.

Amber LED: Lights instead of the blue when the Track Output is reversed.

Green LED: Flashes when Wi-Fi traffic occurs. Lights continuously when module is connected to a home network router.

## Getting Started

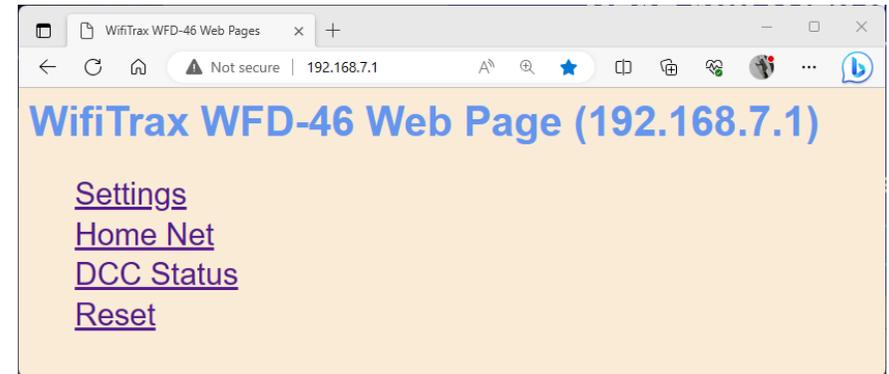
If this is your first purchase of a WFD-46, you have various options to connect it to your layout:

- Connect the control bus of your existing DCC Command Station to the WFD-46 as in Figure 2, or

- (4) Once your device has connected to the WFD-46 Wi-Fi, open a browser such as Google Chrome and type the IP Address of the module:

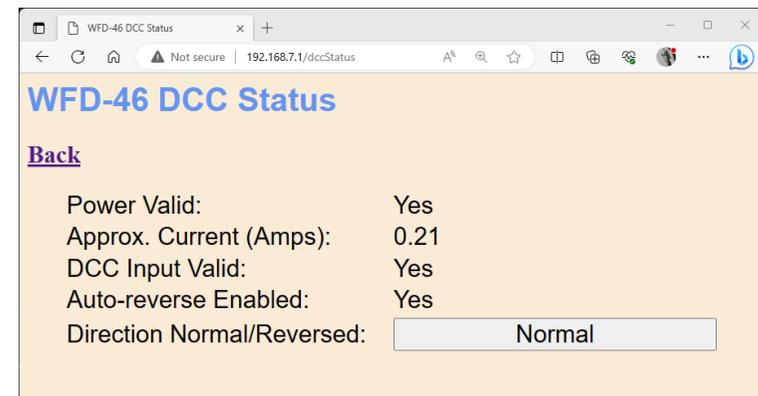
192.168.7.1

- (5) The main menu is displayed as below.



Click on any of the menu items to make changes to the configuration of the WFD-46 module. The details of the Settings and other pages are described in the WFD-46 Manual.

As an example, the DCC Status page is shown below:



## Using The Wi-Fi Features of WFD-46

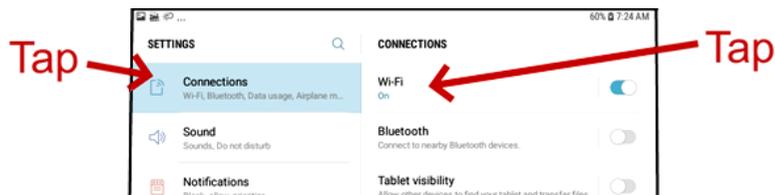
The WFD-46 displays a web page containing a menu of features. This web site is internally generated and does not need a connection to the internet.

To connect to the WFD-46 web page using Android follow these steps:

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



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



- (3) You see a list of available Wi-Fi Connections on the right. Look for one like wftrx\_WFD46\_1\_XXXXXXX\_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.



- Use the track DCC (bipolar DCC) output from your existing command station/booster to your WFD-46 as in Figure 3. You then connect its track outputs to a new DCC Power District.

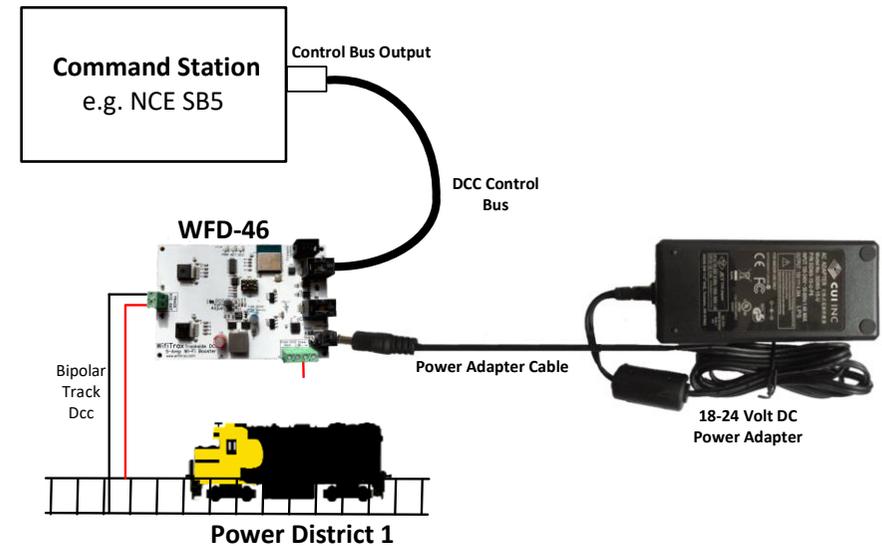


Figure 2 Connecting a WFD-46 to a Command Station. You can use any command station

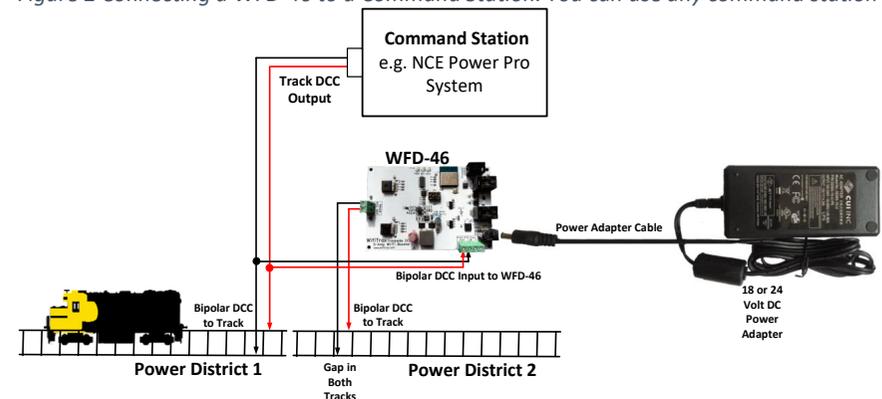


Figure 3 Connecting a WFD-46 to a WFD-27 Wi-Fi Command Station/Booster. You can use the output of any booster.

Switch	Function	Setting	Remarks
1	Output Voltage Range	On	Range 1: 9.5 to 15 V Output. 18 Volts DC Input Required.
1	Output Voltage Range	Off	Range 2: 12 to 20 Volts Output. 24 Volt Input Required.
2	Overcurrent Shutdown	On	3 Amp Shutdown
2	Overcurrent Shutdown	Off	6 Amp Shutdown
3	DCC Input Source	On	Control Bus Input
3	DCC Input Source	Off	Bipolar Track DCC Input
4	Auto Reverse Enable	On	Auto Reverse Disabled
4	Auto Reverse Enable	Off	Auto Reverse Enabled

Table 1 WFD-46 DIP Switch Settings for Simple Single Power District Operation

## Installation Instructions

- (1) Connect your WFD-46 according to either Figure 2 or Figure 3. You can use Wifitrax or any manufacturer's compatible product to provide DCC as you wish. Just remember to distinguish between Control Bus inputs and Bipolar Track DCC inputs.
- (2) Set the DIP switches on your WFD-46 according to your requirements as in Table 1.
  - If you want to use range 1, supply 18 volts DC. If you want to use Range 2, supply 24V DC. **Do not exceed the maximum DCC voltage for the decoders on your layout.** 14V DCC Peak to Peak is the normal standard for HO.
  - Set the Over-Current Shutdown to 3 Amp or 6 Amp.

- Select the DCC Input Source to Control Bus or Bipolar Track DCC according to whether you are wired as in Figure 2 or Figure 3.
  - Select either Auto-Reverse Enable or Disable. If you disable Auto-Reverse you need to make sure any existing Power Districts are wired with the same polarity as the WFD-46. Do not enable Auto-Reverse in two adjacent Power Districts supplied by WFD-46 or they will both try to reverse and defeat each other.
- (3) Connect a suitable Power Adapter to your WFD-46. If you are using Output Voltage Range 1 (9.5 to 15V) 18V is recommended. You can use somewhat less but too little voltage may not allow a full 15V DCC output voltage to be achieved. If you are using the Output Voltage Range 2 (12 to 20V), a 24V Power Adapter is recommended. **Do not exceed the maximum DCC voltage for the decoders on your layout.**
  - (4) Turn on your command station and WFD-46 Booster. The Red LED should light immediately followed by either the blue or amber. The green will only light when you use the Wi-Fi features of your booster.