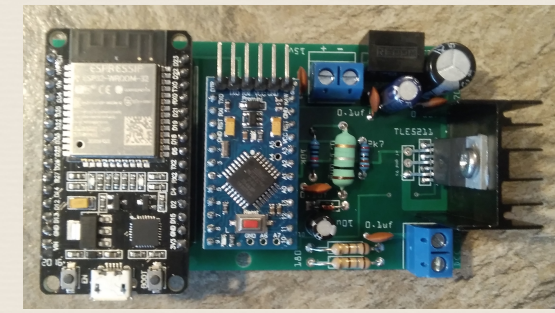# LocoMotive DCC 3 WiFi

DCC_E001

Safe use of this product:
DO NOT USE an AC voltage supply.
Suitable for use by persons over 14 years old only. For indoor use only, do not expose to water or moisture.
Maximum environment temperature: 35 degrees Celsius
Ensure you use a safe 14 or 15 volt regulated DC power supply.
Power supplies with isolated outputs must be used. Isolated means that the output terminals of the supply are not electrically connected to the ground and/or neutral wires of the AC mains supply circuit.

LocoMotive DCC 3 WiFi - Disposal:
The enclosure for this product consists of 3D printed PLA.
Disposal of the enclosure :
Recycling: can be recycled using chemical or mechanical methods.
The printed circuit board and components should be taken to your local recycling centre to obtain advice on correct disposal or recycling.

LocoMotive DCC 3 WiFi

2.5 Amp version

DC Power supply: DC only not AC
Do not use a model railway DC controller as a supply source - unless it is a true DC regulated 14v or 15v connected to V+ and V- terminals.
Any DC regulated 14/15v power adapter with a load rating of => 2 amps is ideal. The controller is set to trip at a load of just under 2 amps.

Please ensure the correct polarity of leads from the power supply before connecting.


LocoMotive DCC_3 WiFi
Full App Operating instructions
This App is available on the Google Play Store: Search for "LocoMotive DCC 3 WiFi"

If your device has a SIM card i.e. mobile phone, then go to Settings and turn OFF 'Mobile Data' as this may stop the WiFi communicating with the controller.
Go to Settings, Connections, WiFi.
Ensure WiFi is enabled and select 'DCC_E001" and enter password 123456789 ,
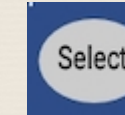
Contact : bill.falkland@gmail.com
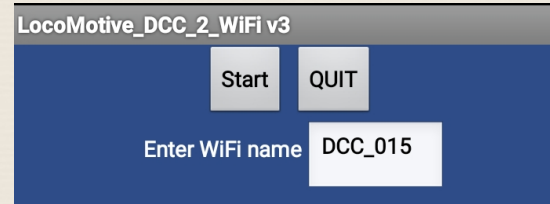
Go to App and press 'Start' button.

Configure each loco:
Press 'Config' to set up your roster of locos

On the this layout, press 'Select'.

Choose a roster entry and enter the loco number, name and max speed. Tick all of the required functions for visibility and momentary action. Edit each function name . Remember to 'Save' before proceeding.

Controls layout:
Once the configuration of your locos is completed, the roster list is available and you may now select a loco to run on the layout by pressing the 'Get' button.
Up to 4 locos may be run from the controls at any time. Many more can be selected and run in the background.
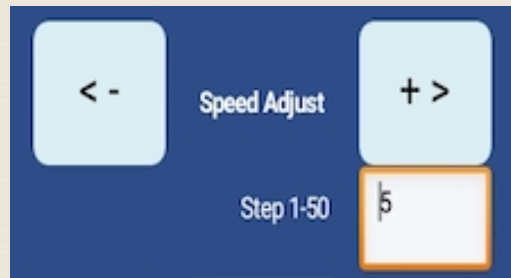
Adjust the speed steps by changing the value in the 'Step 1-50' box.
Press <- or +> to decrease or increase the speed steps. Hold one of these buttons to activate continuous steps.
Press the 'tick' button to make that loco the one under control. Speed, direction, lights and functions relating to that loco will be visible.
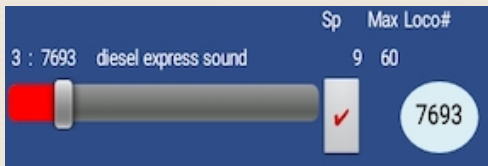
When using more than one phone/tablet device to connect via WiFi, ensure each device is controlling separate locos. To clear the speed bars, press 'Del' button. This will delete all of the data from transmission of DCC packets from the current locos on that device.
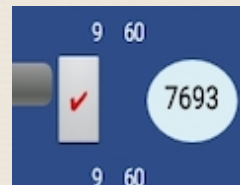

Example of locos under control on this device.
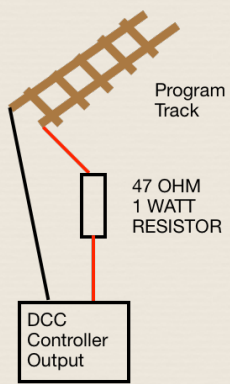Press 'Del' and the speed bars are cleared as below.

Read/Write CV's:
Place your loco on the program track i.e. an isolated piece of track connected to the controller with no other connections. Connect a 47 ohm 1 watt resistor in series with one of the output wires to the programming track.

Program Track

47 OHM
1 WATT
RESISTOR

DCC
Controller
Output

13

On the main layout, Press the **'Set CV's'** button
Ensure your device is the only one connected to WiFi. You can read and write CV's including the read and write of each loco address in short or long (4 digit) form.
To 'Write' an address, press the 'Select' button and select a loco from the roster list. To write this address to the loco on your program track, press 'Write'
To read the address of the current loco on the program track, press 'Read'
Wait until completed after up to 30 seconds.

14

Select Address: Select

Set Loco to this Address: Write

Read Address for this Loco: Read

Loco Address:

15

On the Read / Write CV's section, pressing 'Clear' will empty all of the boxes of data. Select CV number 1-1024 press 'Read'.

Enter CV Num
1-1024

Wait for a few seconds and the value will appear in the 'CV Value' box.
To write a new CV value, enter the new value (1-255) to be written into the 'New Value' box and press 'Write'

New Value
#1-255
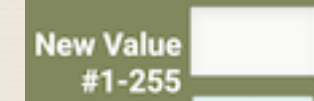
16

CV Sensitivity:
Normally a value of 60 applies to most decoders,

If an incorrect reading is suspected, increase this value and if an error is reported, check track to wheels connection and if ok, try reducing this value.

Enter 30 to 120
60 Go
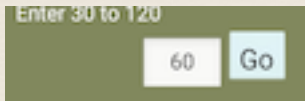
17

Basic CV's:
CV1 = Primary Address : CV2 = Vstart.
CV3 = Acceleration : CV4 = Decceleration
CV7 = Manf Version num : CV8 = Manufacturer ID
CV29 = Mode - basic values:-

DC	F0	Direction	CV29 value
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	0	0	4
1	0	1	5
1	1	0	6
1	1	1	7

18

Turnout control:
Press 'T1-16' for the turnout buttons to appear. Any turnout address from 1 to 256 may be individually activated by entering the number in the 'Turnout number' box then press 'Tx' button.

Turnout/Acc Address: Main Addr 1-63
Buttons T1-T4   1
T4=Main Address X 4
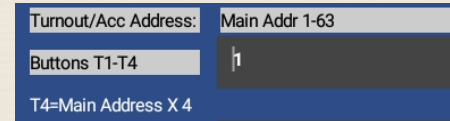
Turnout Address:
Press 'T-Addr' to set up the addresses for turnout/accessories.

19

For accessory switching, the default main addresses are given as 1 and and 2 which will operate decoder addresses 1 through 8. Main addresses up to 64 may be entered, giving up to 256 turnout switches.

The number of packets sent to DCC system may be changed by entering 1 to 5 in 'Qty of packets sent'
The names on buttons T1 to T16 may be edited here also. Press 'Return' to main layout.

Press 'F1-F28' to make the turnout buttons invisible.

20

Program on the Main (PoM):
Operations mode is activated from the 'PoM' button. This allows most CV's to be written to the current loco under control on the main line. Exceptions being CV1, 29, 17, and 18 (these control the loco address which can only be changed on the program track) Otherwise, the range of CV's available on program on the main is 1 to 1024
To access CV's above 256, decoders use an index system. For the CV's 257-512, CV 31 is set to 16 and CV 32 is set to 1 (indexed page 1). Then select CV 257-512 Please refer to the decoder data sheet for details on these CV's

21

Programme
on main   19   0   Set

                              Dir

To make a consist:
  Enter '19' into 'CV num'
  Enter 'Consist Address number' into 'CV Value
  Press 'Set'
  To alter direction of a loco, click 'Dir'

22

'Consists' may be setup here, where 2 or more locos respond to a single address. Select 19 in the 'CV num' box and the consist address in the 'CV Value' field Consist address is limited to 1 - 100. For example if you want locos 3 and 9 in a consist controlled by address 12, select loco 3 and with 19 in the CV num box and 12 in the CV Value box. Press 'Set' a few times. Repeat for loco 9
If you want to reverse the direction of a loco in the consist, tick the 'Dir' box.

23

To change CV's while a loco is on the main line, use the PoM feature.
Please refer to the specification for your decoder to find all CV's that can be controlled such as acceleration or deceleration. Where fitted, sound decoders can have the volume changed.

24