G Scale Hobbies – BlueRail DCC install

The BlueRail DCC board provides control of DCC locomotives (and tenders) from an app on an iPhone or iPad.

The board allows power input from the track (either DC or AC) or battery.

Since many LGB locos have decoders installed, the BlueRail DCC board provides an opportunity to use DCC with battery power.

The first installs by G Scale Hobbies use a 4S LiPo battery (on the trailing wagon) connected to a BlueRail DCC board (in the tender), to control the loco (and tender) by the BlueRail Trains app.

Other combinations of power and DCC control are planned. For example, power from the battery OR track to the BlueRail DCC board, via a switch on the tender.

Demonstration Locos explained

The LGB Mogul #71 has an LGB 55021 motor decoder in the loco and an LGB 65001 sound decoder in the tender.

The LGB Nicki-Frank S has a Massoth XLS sound decoder in the tender and a Massoth XL motor decoder in the loco.

In both locos and tenders, the power pickups from the track have been disconnected from the motor block in the loco and the power board in the tender.

The existing connection between the tender and loco (cable that plugs into the front of the tender) is still intact.

The DCC output from the BlueRail DCC board has been connected to these wires, so that it can control both the tender sound/motor decoder and the loco motor decoder.

Power is input to the BlueRail DCC board by the two wires that extend from the rear of the tender.

In summary:-

1. DC power from the battery on the trailing wagon, connects to the BlueRail DCC board.
2. The BlueRail DCC board receives commands from the app on the iPhone.
3. The DCC commands are sent to the decoders, from the DCC output on the BlueRail DCC board, via the existing power pickup wiring in the loco and tender. These wires have been disconnected from the track pickup.

For enquiries about BlueRail DCC boards please contact Rod Williamson at G Scale Hobbies (gscalehobbies@bigpond.net.au) or 0418 624 426

For enquiries about the installs discussed above, contact Nev Stone – neville.stone@outlook.com

Function Button	Mogul #71 (LGB 65001)	Nicki-Frank S (Massoth XLS)
F1	Whistle – long	Bell
F2	Brakes	Whistle – Short
F3	Bell	Whistle – long
F4	All Aboard	Announcement (German)
F5	Air Pump	Aggregate
F6	Coal Shovelling	Mute
F7		Smoke
F8	Mute	Switching Speed
F9		Brake
F10		Generator
F11		
F12		Coal Shovelling
F13		
F14		
F15		
F16		

Notes

1. The sounds in the Mogul cannot be changed to different Function Keys due to limitations in the programming of the 65001 decoder.
   This means the three symbols on the app main screen do not match the sounds, i.e. bell plays the long whistle.
2. The Massoth XLS decoder in the Nicki -Frank S has been reprogrammed so the first three sounds match the symbols on the app main screen.
   Further programming and testing of Function Keys to Sounds is required.
3. Sometimes, older wifi repeaters interfere with the initial Connect process between the BlueRail DCC board and the iPhone or iPad.
4. The LiPo battery alarm sound when any cell, in the battery to which they are attached, gets down to 3.3 volts. The battery must be recharged at this point and should not be used until it is charged.
5. Further development is required for powering the BlueRail DCC board from the track. At this stage, 18Volts is the recommended input voltage.
   This means some voltage regulation would be required to run the BlueRail DCC board from the LGB/Massoth AC track power.