

G3 to G4 Firmware Upgrade



Link LEM G3 and LinkPlus G3 ECUs have the ability to be upgraded to run G4 firmware. Please contact your nearest Link dealer for upgrade pricing. Completely read through the whole upgrade procedure before commencing.

WARNING

This upgrade process can take several hours and is only recommended for experienced users.

Extreme care must be taken to maintain the existing tune. Please carefully read the following instructions.

The following upgrade process is recommended:

Preparation

1. Contact your nearest Link dealer with your G3 ECU serial number to purchase a 4 digit code to be used to enable the upgrade procedure.
2. If not installed already, download and install PCLink version 3.40 and Firmware version 1.9.2. Both can be downloaded from www.linkecu.com.
3. Connect the ECU to the PC with the USB cable, power up the ECU (Ignition switch on). Open the firmware updater and follow the prompts. The ECU is now running firmware version 1.9.2.
4. Open PCLink V3.40 and connect to the ECU (press F3). Save the ECUs basemap in a safe place (File > Save as).
5. Disconnect PCLink V3.40 from the ECU (press F3), but keep PCLink V3.40 open and minimise.

Upgrade

6. Unplug all fuel injectors and ignition modules while performing this upgrade.
7. Download the latest version of PCLink G4 from www.linkecu.com and install. Open PCLink G4 and run the 'Firmware Updater' from the 'ECU Controls' menu. You will be prompted for an unlock code, enter the 4 digit code provided. Follow the prompts to complete the firmware upgrade, cycle the power to the ECU **once** only when prompted.
8. When the firmware update procedure is finished connect to the ECU with PCLink G4 (press F3). Some 'settings' windows may open, select the appropriate setting for each window. If you are unsure of the correct setting speak to a Link dealer for advice.
9. Select 'Restore to Factory Settings' from the 'ECU controls' menu, all data will be reset in the ECU to default settings. DO NOT skip this step.

Putting the G3 tune into the upgraded ECU

These steps can be skipped if doing a new install.

10. Minimise PCLink G4 and open PCLink V3.40, open the basemap you saved in step 4 (File > Open). Begin copying the settings from the basemap in PCLink V3.40 to PCLink G4. This must be done manually. There are some settings that did not exist on the G3 firmware, for these settings select the appropriate setting for your setup or contact a Link dealer for advice. Remember to store the settings to the ECU after you finish changing each setting (press F4).

- All table axis must be configured to exactly match the G3 axis. The copy and paste function works between tables once the axis have been correctly setup.
- G3 ECUs have a parameter named 'Dwell Edge'. In G4 ECUs this is now called 'Spark Edge'. A rising 'Dwell Edge' is the same as a falling 'Spark Edge' and a falling 'Dwell Edge' is the same as a rising 'Spark Edge'.
- G3 ECUs have channels named Load Input. G4 ECUs have renamed these as AnVolt channels. This causes G3 AnVolt channel numbers to differ from G4 AnVolt channel numbers. For example Load1 becomes AnVolt1, Load2 becomes AnVolt2, Load3 becomes AnVolt3, AnVolt1 becomes AnVolt4, AnVolt2 becomes AnVolt5... etc.

11. If you want to keep your tune as close to the G3 tune as possible:

- Open Loop AFR Target must be turned off on the G4 firmware (ECU Settings > Fuel > Fuel Setup > Fuel Main).
- Fuel Equation must be set to Load = MAP on the G4 firmware (ECU Settings > Fuel > Fuel Setup > Fuel Main).
- Master Fuel Trim must be set to 0% on the G4 firmware (ECU Settings > Fuel Setup > fuel Main).

12. After transferring all setting to PCLink G4 perform a 'Store' (by pressing F4).

13. Re-connect all fuel injectors and ignition modules.

14. If the engine will not run, contact a Link dealer for advice.

15. The engine tune will have changed during the update process. It is recommended that you have it checked by a Link tuner to ensure everything is operating correctly.