



GPR-DI PACKAGE - VERSION MIGRATION

GPR-DI Package Version Migration July 2015 to February 2016

→ Migration to the new Package requires a new Licence for the February 2016 version (GPR-DI Part 23008). There is no charge for the new Licence.

Many improvements have been made to the GPR-DI Package since July 2015.

This Technical Note details the improvements, added features and the strategy to migrate to the February 2016 version.

Legend

Name in July 2015 versionName in February 2016 versionParameter value

▶ IMPROVED FEATURES

The February 2016 Package provides the following improved features:

- Switched outputs now support inverted polarities.
- Coolant fans: Duty cycle minimum/maximum values can be specified.
- Fuel primary injectors: Additional settings to drive the injectors have been added.
- **Fuel Pressure Direct Bank N Pump** : some settings have been extended to tables (previous parameters).
- Fuel secondary injectors: If located before the throttle, the reference pressure can be further specified as either ambient or boost pressure.
- The number of supported forward gears has been increased from 6 to 7.
- **Driver Gear Shift Switch** : Can be used to manually disable gear shift support with cuts/blip. If no switch is allocated, the Default value must be **On** for gear shifts to be processed.
- **Gear Lever Diagnostic** has been added. Make sure **Gear Lever Diagnostic Delay** is greater than zero.
- **Gear Shift Throttle Aim Minimum Duration** has been introduced.
- **Gear Shift Throttle Aim Clutch Lockout** can be used to allow throttle blips also when the clutch is disengaged. To achieve the same behaviour as with the previous Package, this parameter must be set to **Enabled** .
- As stated in the **Data Migration** section, the process for handling shifts has been modified slightly, especially for power off upshifts. It is advisable to read the help on **Gear Shift State** to compare against the previous Package.
- **Inlet Air Temperature Sensor Trim** can be used for simple sensor correction (for example, when experiencing heat soak problems at engine start).
- Added - **Nitrous** system with two activation stages and additional fuel pumps, bottle heater control and pressure sensor.
- Added - **Transmission Brake** control ('bump') functionality for perfect positioning of cars.
- Added - **Turbocharger Wastegate Pressure** control with pressure sensor and two PWM outputs.
- Added - **Transmission Pressure** sensor.
- Added - **Turbocharger Inlet/Outlet Temperature** sensors.
- Added - **Turbocharger Wastegate Position** sensor.
- Wheel circumferences can be changed using a **Driver** switch, to support wet/dry tyres for example.

▶ DATA MIGRATION

In addition to auto-migration ([Tools > Migrate Package](#)) the following manual adjustments are necessary to achieve the same behaviour as with the July 2015 version.

New parameters that are not mentioned in the list that follows must remain at their initial value (0). Tune migration summary warnings can be ignored when following this procedure.

⇒ Objects will be shown as different in the M1 Tune Migration window if their names are different, even if their values have been successfully migrated (new Packages now have a function that allows migration of data from predecessor objects with different names).

The following tables require manual migration since axis channels have changed:

- [Gear Shift Timing](#)
- [Gear Shift Ignition Cut Main](#)
- [Gear Shift Fuel Cut Main](#)
- [Gear Shift Ignition Timing Retard](#)

Additional settings to drive the injectors have been added:

- [Fuel Injector Primary Boost Hold Time](#) : set to zero
- [Fuel Injector Primary Boost Recirculation Time](#) : set to 1us
- [Fuel Injector Primary Open Time](#) : set to the same value as Fuel Injector Primary Shot Time (to see this parameter it may be necessary to set [Fuel Injector Primary Calibration](#) to [Manual](#) .

The process for [Upshift Power Off](#) has also been changed (see help on [Gear Shift State](#)), so the timings for this type must be adjusted.