



Harrop Supercharger Kit – Toyota FJ Cruiser 2010 Onwards

Harrop engineering develops and manufactures premium supercharger kits in Melbourne, Australia. Through 60 years of automotive performance Engineering, Harrop Engineering have successfully manufactured and supplied Superchargers to Automotive OEM programmes including TRD, Lotus Cars and Ford Australia.

Harrop Engineering is certified to meet ISO 9001 standards of quality. OEM Quality, performance and vehicle integration are the foundation of Harrop Supercharger kits.

Overview: Harrop TVS1900 Supercharger Kit for Toyota 4.0 Litre Dual VVT-i V6 1GR-FE Toyota FJ Cruiser

Part number: 99-KSM65K52 **Description:** SCK FDFI1900 Toyota FJ Cruiser 1GR

Includes all components required for installation onto a standard Toyota FJ Cruiser with the Dual VVT-i 1GR engine:

- Supercharger intake manifold including charge-air intercooler
- Harrop TVS1900 FDFI Supercharger
- Supercharger idler brackets Pulleys and Supercharger drive belt
- Plug-in wiring looms for all necessary engine sensors – IAT breakout from MAF sensor and Intercooler pump loom
- Front-mount intercooler radiator, Electric Intercooler pump, Coolant Reservoir and moulded hoses
- Interfaces with OE throttle body, Airbox and FEAD
- Retains all factory ancillaries including A/C, Viscous engine fan, Power Steering etc
- Detailed installation instructions – for FJ Cruiser with Dual VVT-i 1GR-FE engines only
- Recalibration of the ECU is necessary for all versions and not included

Tech Guide

Harrop 1GR-FE FJ Cruiser Supercharger



04/05/2022



Technical specifications:

- Eaton TVS1900 supercharger technology.
- Integrated Supercharger Bypass system which relieves boost under light load conditions, reducing drive loss and improving fuel economy
- High density water to air intercooler system:
- Front mount heat exchanger: Close pitch core matrix at 27mm thick. Overall size is 565x267mm
- In-manifold intercooler: High density fin at 36mm thick
- Minimum 98-RON (93-AKI) fuel must be used
- Re-calibration of the ECU is required
- Supercharger Pulley Ø80, Harrop part number 99-PLY14883
- Supercharger Belt 6PK2010

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Performance:

- Power and Torque gains of around 35% are typical for the standard TVS1900 kit, with a boost pressure of 7 psi* with Ø80 Drive Pulley.
- OE power was measured at 166 kW (223 hp) @ 6100 RPM and 300 Nm (221 lb-ft) @2500 RPM

Harrop FJ Cruiser 1GFE Supercharger Testing:

- Harrop TVS1900
- Boost 7 psi*
- Pulley Ø80 mm
- Wheel Power 223 kW (299hp) @ 6100 rpm
- Wheel Torque 410 Nm (302lb-ft) @2500 rpm

*Boost pressure can vary 1.0-1.5 PSI depending on ambient conditions and other modifications

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