

eco-shot
LPG for Diesels

The benefits of a shot of gas.

A reduction in your diesel cost by as much as 20%.

Mixing a shot of LPG with the air through the turbo improves the burn efficiency of the diesel in the combustion chamber. Your everyday diesel combustion burns approximately 75% of the diesel in the chamber; by adding a shot LPG into the combustion chamber it increases that efficiency to 95%. You now have a more efficient combustion process that is using less diesel fuel thereby saving you money.

The benefits of a shot of gas.

Extended service intervals.

Cleaner oils. With the improved combustion created by eCo-shot's shot of LPG you now don't have the excess diesel dropping into the sump and dirtying up your oil. In the case of the C12 CAT within 8 weeks the oil change went from 20,000 to 30,000 k's.

The benefits of a shot of gas.

Improved pulling power

With the improved combustion created by eCo-shot's shot of LPG you now have a better combustion in the chamber giving your increased horsepower and torque.

Examples:

eCo-shot Nissan Navara – 73 kilowatts to 92 kilowatts

80 Series Land Cruiser – 76 kilowatts to 116 kilowatts

2004 Holden Rodeo – 290 Nm to 400 Nm

The benefits of a shot of gas.

Reduced greenhouse gas emissions.

The improved combustion also means a reduction in CO₂ by as much as 10%, harmful NO_x by as much as 50% and black smoke emissions.

You are also reducing carbon emissions through the fuel you have not used 2.7kg for every litre of diesel you do not burn.

eCo-shot has been available in Australia since March 2007 it is installed on over 900 vehicles across Australia.

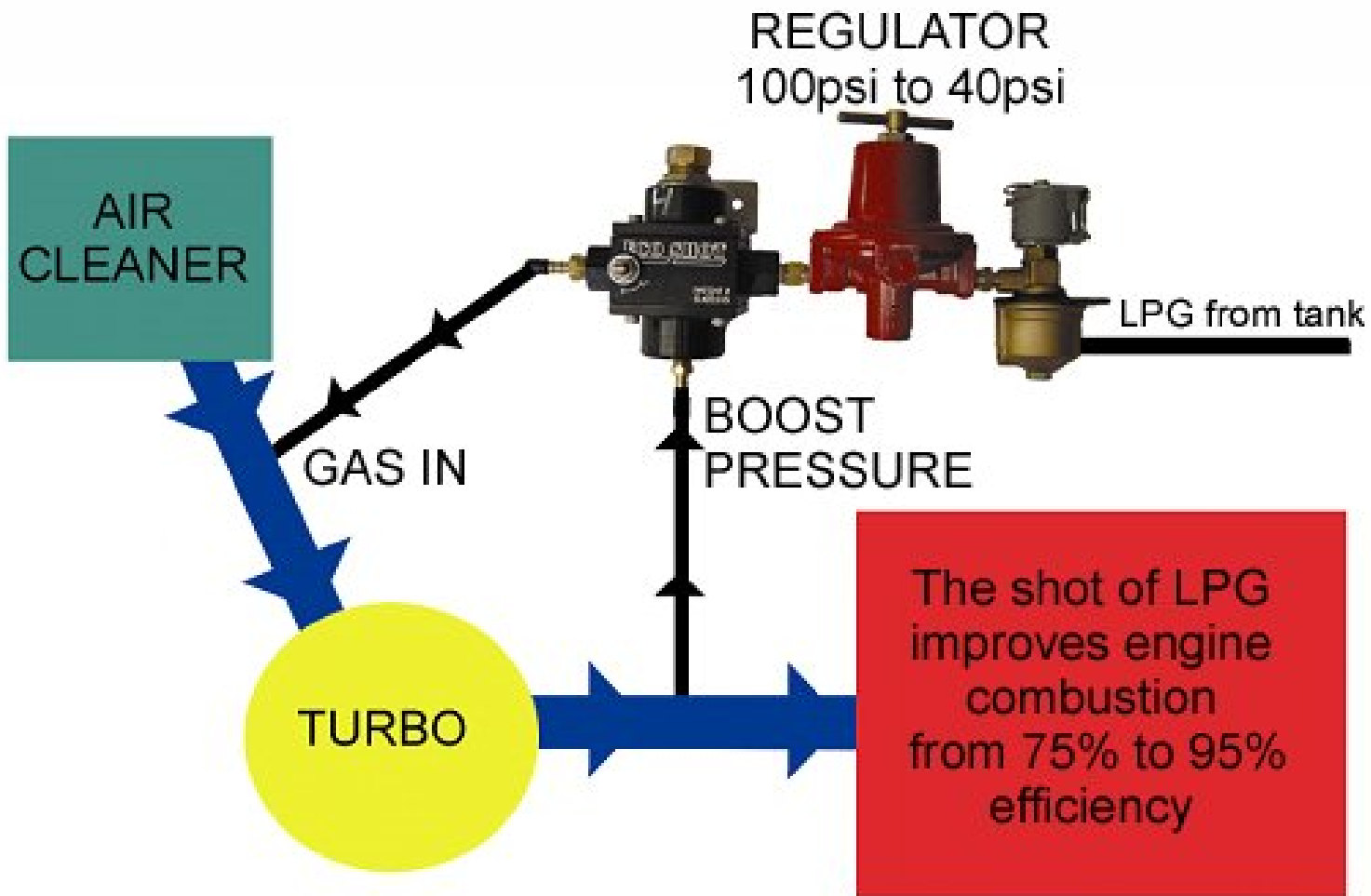
Has been sold in the US market for 12 years and is well and truly tried and tested. (US brand name – Powershot)

Has been trialing for 8 years in Australia on a 1983 Mercedes Benz truck and has proven itself with power increases and fuel savings AS MUCH AS 30%

How does the eCo-shot System work?

- ❖ The eCo-shot LPG Injection System is boost pressure activated.
- ❖ It is controlled, activated and proportionate to the boost pressure of the engine.
- ❖ The eCo-shot comes on slow and steady and as the boost increases, so does the flow of gas.
- ❖ This innovative design is only activated when the vehicle ignition is on and the engine is running, a distinct safety advantage.
- ❖ The system installs under bonnet and requires no permanent modifications to the vehicle or engine.

Its innovative and patented design and method of LPG delivery, is what makes this system unique to other systems on the market and has overcome many of the drawbacks encountered with earlier designed injection systems. No boost pressure no LPG flows, it will only inject LPG when boost reaches our pre-set poundage (this will vary for each engine and usage).



No computers.

**No tapping into your
vehicles cooling system.**

**No remapping your
vehicles fuel system.**

Will LPG damage my engine long term? not from what these examples show us



The eCo-shot Ute was purchased and fitted with gas in March 2007 with 190,000k's on it. It has now done another 150,000k's on gas and has not missed a beat.



The 1983 Benz has had an eCo-shot on it for over 7 years and has driven over 800,000k's on gas. It also has not missed a beat.

The eCo-shot LPG injection system for turbo diesel owners who are looking for more power for towing, increased mileage and throttle responsiveness out of their vehicles.

The eCo-shot is an infinitely variable-stage vapour injection system. It is controlled, activated and proportionate to the boost pressure of the engine.

The eCo-shot comes on slow and steady and as the boost increases, so does the flow of gas.

more boost = more gas = more power!

The eCo-shot LPG Injection System is boost pressure activated, injecting gas in increasing amounts as the boost pressure level of the engine increases, producing power you are guaranteed to feel behind the wheel.

This innovative design is only activated when the vehicle ignition is on and the engine is running, a distinct safety advantage.

Some Fuel Facts

Our 2003 Nissan Navarra

- * gets 1150 kilometres from 20 litres of LPG
- * diesel only 500 kilometres from 63 litres
- * **eCo-shot on now get 714 kilometres from 63 litres**
- * was 7.94 kilometres per litre
- * **now 11.33 kilometres per litre**
- * was 12.60 litres per 100 kilometres
- * **now 8.51 litres per 100 kilometres**

Landrover TD5

- * from 12.5 litres per 100 kilometres.
- * **now 8.11 litres per 100 kilometres.**

100 Series Landcruiser

- * **an extra 2 kilometres per litre.**

Nissan Patrol

- * from 15 litres per 100 kilometres.
- * **now 10.5 litres per 100 kilometres.**

MAZDA BT50 (2.5 litre)

- Trip of 525 kilometres with 600kg load**
- * **35 litres of diesel**
- * **15 litres of LPG**
- * **30% saving on diesel usage before eCo-shot installed**

Some DYNO results:-

- * 2004 Holden Rodeo – 290 Nm increased to 410Nm of torque.
- * 80 Series Landcruiser – 95.4 Kw increased to 116 Kw.
- * Nissan Navarra – 76 Kw increased to 92 Kw.
- * One Holden Rodeo went from 349 Nm to 717 Nm.

eCo-shot Nissan Navara

Year 2003 / Engine – ZD30 / Purchased – March 2007 /

Total Kilometres when purchased – 190,000 / Kilometres since eCo-shot installed – 155,000

Performance from a tank of diesel

Before eCo-shot – 63 litres = 500 kilometres = 7.9 k's per litre = 12.6 litres per 100 k's

eCo-shot installed – 63 litres = 700 kilometres = 11.11 k's per litre = 9 litres per 100 k's

LPG usage per 63 litres diesel = 12 litres LPG = 58.3 ks per litre = 1.7 litres per 100k's

Fuel Savings per 100 kilometres

Before eco-shot cost per 100 kilometres = 12.6 litres @ \$1.26 = \$15.86

eCo-shot installed cost per 100 kilometres = 9.0 litres @ \$1.26 = \$11.34

LPG cost per 100 kilometres = 12.0 litres @ \$0.55 = \$0.93

Total running cost per 100 kilometres dual fuel = \$12.27

Fuel Savings over life of vehicle

345,000 kilometres diesel @ \$15.86 per 100 kilometres = \$54,717

345,000 kilometres dual fuel @ \$12.27 per 100 kilometres = \$42,331

Total saving = \$12,386

Weekly Saving = \$39.69



\$1750 Federal Government Rebate for LPG Vehicles.

The Australian Government has established the LPG Vehicle Scheme to assist private use motorists with the purchase.

of a new LPG vehicle or the conversion of a new or used petrol or diesel vehicle to LPG.

A grant of \$2,000 will be paid following the LPG conversion of a new or used petrol or diesel motor vehicle.

An eligible vehicle

- * Is for private use (not commercial or business use).*
- * Is a passenger or light commercial vehicle less than 3.5 tonnes Gross Vehicle Mass.*
- * Must be registered in the Australian state or territory of residence of claimant.*
- * Is not subject to a novated lease or salary sacrifice arrangement.*
- * Must be registered for private use in NSW, VIC, QLD, WA, and the ACT.*
- * Must be declared for private use if registered in SA, TAS and NT.*

Visit

www.ausindustry.gov.au

www.greenhouse.gov.au/transport/afcp/

for more information.



Toyota Hilux at
the VIPAC Test
Cell



Toyota Hilux



New style heat exchanger



Injection point

POWER AT: WHEEL/S

ATMOSPHERIC CORRECTION APPLIED: YES

