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**Just**Light

- *System features* -

## GENERAL CHARACTERISTICS

The Just Light system is a simplified version of the Just system which is set for those vehicles that do not require particular regulation procedures or engine tuning after installation.

The qualitative standard, the control strategies and the micro-controller are the same used in the Just system.

The simplifications, which have allowed a cost reduction and a major simplicity of installation, have been aimed at parts not indispensable of the system, particularly for a certain range of vehicles.

Furthermore there are two distinct versions of ECU studied, dedicated at the injection and at the carburettor vehicles.

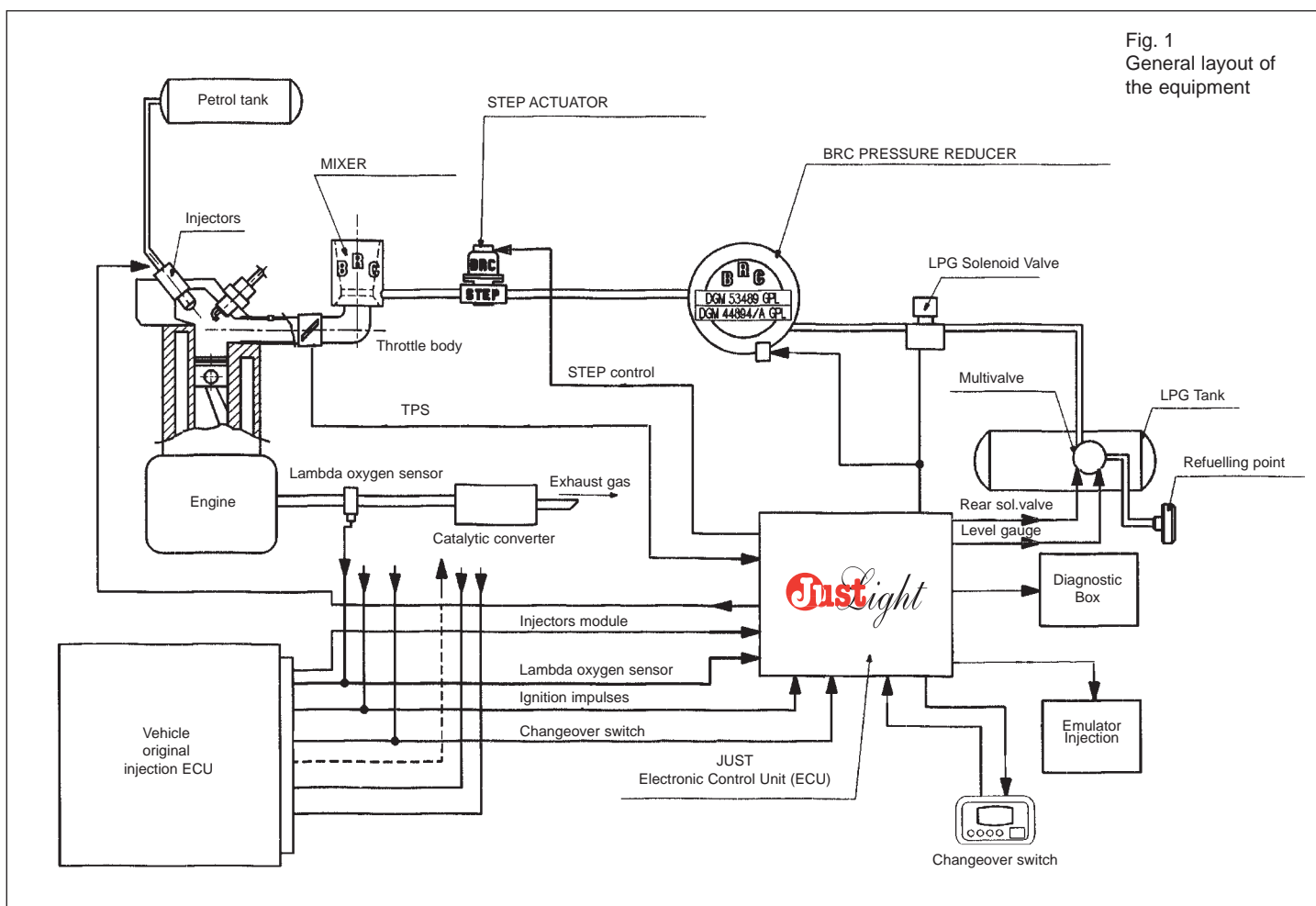
In the picture it has been reported the general scheme of a Just Light equipment (Injection version).

For a more detailed description of the single parts of the system we refer you at the manual of installation of the Just system.

## SYSTEM FUNCTIONS

The functions of the system (see the manual of installation of the Just system for a more detailed description) are the following :

- › Functions of the changeover standard for injection system (petrol forced, automatic changeover, gas forced, primer and safety).
- › Functions of the changeover standard for carburettor system (petrol forced, manual changeover with filling up and emptying, gas forced, primer and safety).
- › Automatic petrol re-changeover in out of range condition.
- › Function of indication of the standard threshold on the four green leds of the changeover, with reserve signalling by first green flashing led.



- › Outlet alimentation of a external device to cut and to emulate of the injectors, with control of overlap fuels time (injection systems).
- › Control of the petrol solenoid valve (carburettor systems).
- › Function of emulating the configurable Lambda sensor signal (percentage of the duty cycle of the sensor signal emulated ,configurable with a 1% resolution).
- › Control of gas quantity by the same control strategies of the step actuator used for the Just system.
- › First acquisition, calibration and fine tuning by changeover and diagnostic box.
- › Auto-configuration of the system at the signals of the vehicle.
- › Auto-adaptively of the system following the variations of the conditions and the vehicles working characteristics.
- › General system check-up at every shutdown.
- › Errors or breakdowns signal by coding on the changeover leds.

## COMPARISON WITH THE JUST SYSTEM

The main differences from the Just system are the following :

- › Calibration and fine tuning of the system only by changeover or diagnostic box (absence of the PC interface).
- › Two specific versions of ECU for injection and carburettor vehicles.
- › Lambda sensor is not configurable, but two Ecu versions for sensor 0-1 V and 0-5 V .
- › Absence of function of memories control of the petrol ECU (NP) and NC relay contact (NC1/NC2).
- › Absence of signal of the solenoid valve and TPS anomalies.
- › Possibility to not use the TPS (with changeover automatically set on deceleration and control strategies set on consequence).
- › Procedure of first acquisition and simplified auto-configuration.
- › Possibility to correct the percentage of reset of cut off from changeover (apart from the working reset of the actuator).
- › Same 24 paths connector and same wiring harness, in which the white, white/orange (NP/NC) and white/violet (TPS) wires are eventually not used.
- › Body of same width and height of the Just (same front), but shorter (modular depth).

## WIRING HARNESS AND ELECTRIC CONNECTIONS

The connectors present on the Just light ECU are same already used for the Just one (same front );more precisely : the 24 paths connector for the main wiring harness and the 5 paths connector for the diagnostic box.

As main wiring harness, it can be used further to that one specifically developed for the Just Light System (description below), also that one for the Just System (for specifications make reference to the Just handbook) (both only with startend modular and with startend plus reset connector).

The wires included in the main harness and the relative connection are the following (see the Just handbook for a more

detailed description):

- › 10 paths connector for embedding changeover.
- › 4 paths connector for the step control actuator.
- › Sheath with free wires harness (referred to the Just Light harness):

COLOUR	TYPE ( IN = INLET ; OUT = OUTLET )	DESCRIPTION
Black	in	Engine ground
Red	in	Positive battery ( with 7,5 A. fuse )
Green	out	Gas solenoid valve
Brown	in	+12 V under key contact
Grey	in	Engine ignition impulses
Yellow	in	Lambda sensor signal
Light blue	out	Lambda emulated signal
White	Not used	Cut and isolate
White/Orange	Not used	Cut and isolate
White/Violet	in	TPS (Cut and isolate if it is not used)
White/Black	in	connect to the sensor of resistive level
White/Green	out	input device: Modular (Injection version) Petrol S.V. (Carburettor version)

## CALIBRATION PROCEDURES

See Just Light calibration papers.