

Europäisches Patentamt European Patent Office Office européen des brevets



(11) **EP 1 441 119 A8**

(12) CORRECTED EUROPEAN PATENT APPLICATION

Note: Bibliography reflects the latest situation

(15) Correction information:

Corrected version no 1 (W1 A2)

INID code(s) 72

(51) Int Cl.⁷: **F02D 41/38**, F02D 41/30, F02D 41/14, F02D 41/24

(48) Corrigendum issued on: **27.10.2004 Bulletin 2004/44**

(43) Date of publication: 28.07.2004 Bulletin 2004/31

(21) Application number: 04000881.5

(22) Date of filing: 16.01.2004

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR Designated Extension States: AL LT LV MK

(30) Priority: 17.01.2003 JP 2003009924

(71) Applicant: Denso Corporation Kariya-chi, Aichi-pref, 448-8661 (JP) (72) Inventors:

- Fukushima, Takayuki Kariya-city, Aichi-pref., 448-8661 (JP)
- Ishizuka, Kouzi
 Kariya-city, Aichi-pref., 448-8661 (JP)
- (74) Representative: Leson, Thomas Johannes Alois, Dipl.-Ing. Tiedtke-Bühling-Kinne & Partner GbR, TBK-Patent, Bavariaring 4

80336 München (DE)

(54) Fuel injection system for internal combustion engine

(57)An electronic control unit (ECU) (10) of a fuel injection system for an internal combustion engine performs feedback control of a fuel discharging quantity in both of normal control and learning control based on a pressure deviation between a target fuel pressure and an actual fuel pressure. In the learning control, the ECU (10) calculates a difference between first demand driving current and second demand driving current as a current learning value for learning and correcting target driving current. The ECU (10) renews and stores the current learning value in a memory. The first demand driving current is converted from the fuel discharging quantity as a target discharging quantity calculated through the above feedback control based on a reference property. The second demand driving current is converted from a known idling fuel discharging quantity.

FIG. 1

