

# Engine Control Unit MS 15.1



- ▶ 8 injection output stages
- ▶ For solenoid injectors
- ▶ 60 data inputs

The MS 15.1 is an ECU for Diesel engines with up to 8 cylinders. It is developed for use with solenoid injectors from Bosch.

## Application

Engines with the following numbers of cylinders are supported:	3, 4, 5, 6, 8, <3 on request
Injector type	Solenoid injectors
Control strategy	Quantity based
Injection timing	2 pilot injections
	2 main injections
	1 post injection
Turbo boost control	Single or Bi-Turbo
Lambda measurement	
Traction control	Optional
Gear cut for sequential gearbox	
Speed limiter	
Optional function packages available	
Interface to Bosch Data Logging System	
Max. vibration	Vibration profile 1 (see Appendix or <a href="http://www.bosch-motorsport.com">www.bosch-motorsport.com</a> )

## Technical Specifications

### Mechanical Data

Aluminum housing
4 connectors in motorsport technology with high pin density, 187 pins
Vibration damped circuit boards

8 housing fixation points	
Size	210 x 199 x 36 mm
Protection Classification	IP67 to DIN 40050, Section 9, Issue 2008
Weight	1,780 g
Temperature range	-20 to 85°C

### Electrical Data

Power consumption w/o inj.	Approx. 5 W at 14 V
Power consumption	Approx. 140 W at 14 V

### Inputs

2 inputs for thermocouple exhaust gas temperature sensors
2 lambda interfaces LSU
4 inputs for wheel speed sensors; basic design for inductive sensors
4 inputs for turbo speed sensors; basic design for inductive sensors
1 input for inductive crankshaft sensor
1 input for Hall-effect camshaft sensor
3 system inputs 0 to 5 V
13 universal inputs 0 to 5 V, fixed pull-up
27 universal inputs 0 to 5 V, switchable pull-up
3 digital inputs

### Outputs

8 injection power stages
12 power stages (low side)
2 power stages for lambda heater
2 H-bridges
2 sensor supplies 5 V/system use

3 sensor supplies 5 V/300 mA

3 sensor supplies 10 V/100 mA

### Software Tools (free download)

Data Analysis tool WinDarab V7

System Configuration tool RaceCon 2.7.0.9 or later

### Optional Functionality

Traction control SW upgrade F02U.V00.778-01

Chassis SW upgrade F02U.V00.779-01

Two bank hydraulic control SW upgrade F02U.V00.949-01

### Environment (not included)

Programming interface MSA-Box II F02U.V00.327-03

Data logger C 70 F02U.V02.302-01

Display DDU 9 F02U.V02.300-02

### Mating Connectors (not included)

Mating Connector I F02U.000.466-01

AS616-35SN

Mating Connector II F02U.000.468-01

AS616-35SB

Mating Connector III F02U.000.469-01

AS616-35SC

Mating Connector IV F02U.000.445-01

AS612-35SD

### Communication

3 CAN interfaces (dash, application, customer use)

2 FireWire interfaces for external communication

### Installation Notes

Inspection services recommended after 110 h or 1 year, internal battery to be replaced during service.

Depending on your experiences with calibration of ECUs we recommend calibration support from Bosch Motorsport.

Please remember that the mating connectors and the programming interface MSA-Box II are not included and must be ordered separately.

### Ordering Information

#### Engine Control Unit MS 15.1

Order number **F01T.A20.022-01**

#### Software Options

#### SW Upgrade Traction Control

Order number **F02U.V00.778-01**

#### SW Upgrade Chassis

Order number **F02U.V00.779-01**

#### SW Upgrade Two Bank Hydraulic Control

Order number **F02U.V00.949-01**

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