

## Display DDU 8

The display DDU 8 integrates a programmable full color dash board display with a data logging system for motorsports applications. This allows for synchronized acquisition and visualization of engine data from the ECU and chassis data from up to 24 analog and 4 digital input channels. Additional input devices can be connected via the Ethernet and CAN buses. Recorded data from the internal 2 GB flash memory can be downloaded via high-speed Ethernet or via wireless connection with the BT 60 burst telemetry system.

As a base system the DDU 8 is sold as display only. Software upgrades for the DDU 8 (field upgradable by entering a key) activate data logger functionality, additional recording on USB Flash drive, CCP-Master and additional input channels.



Application
800 x 480 pixel high resolution 5" full graphics color display
Multiple user configurable display pages
Multicolor (RGB) gearshift lights
8 kHz AD converters with digital low pass filter
Configurable math channels
User configurable CAN in/out messages
Up to 1,000 Hz acquisition rate for all channels
Online data compression
Up to 200 kB/s data acquisition rate
Up to 720 recording channels
1,000 kB/s upload rate
3-port network switch
Additional recording on USB Flash drive
CCP-Master, data acquisition from ECU that support CAN calibration protocol

Mechanical Data	
Size	161 x 111 x 31 (49) mm
Weight	675 g
Dust and splash water proof aluminium housing	
Operating temperature (internal)	-20 ... +60 °C
Max. vibration	Vibration profile 1 (see Appendix or <a href="http://www.bosch-motorsport.com">www.bosch-motorsport.com</a> )

Connectors	
Autosport connectors double density	2 x 41 pin
Mating connector (Red)	
AS DD 6-12-41SN	F 02U 002 216-01
Mating connector (Yellow)	
AS DD 6-12-41SA	F 02U 004 180-01

Software
Configuration via RaceCon over Ethernet or MSA-Box II

### Electrical Data

Supply voltage 8 to 18 V

Max. power consumption (w/o loads) 14 W at 14 V

#### Inputs

Page/brightness selection 2

Analog channels 4

Input range 0 to 5 V

Resolution 12 bit

Switchable pull up resistor 3 kOhm

#### Outputs

PWM outputs (Low side switch, 2 A each) 4

Sensor supply 5 V/350 mA 1

#### Communication Interfaces

CAN 2

Ethernet 100BaseT 3

Laptrigger input (on yellow connector, always active) 1

### Accessories

External switch for page selection (12 step switch)  
**B 261 209 658**

External switch for brightness adjustment or page selection (6 step switch)  
**B 261 209 659**

USB Flash drive 2 GB, preformatted with Bosch File System (BFS)  
**F 02U V00 867-01**

Ruggedized USB Flash drive and connector are available on request.

### Application Hints

Internal battery for data preservation included

Required service interval 12 months (internal battery is replaced)

### Software Upgrades

#### Software Upgrade 1 **F 02U V00 701-01**

Activation of internal data logger 2 GB

Telemetry support BT 60

Long range telemetry support FM 40

Interface for telemetry (on yellow connector) RS232

#### Software Upgrade 2 **F 02U V00 702-01**

Yellow connector unlocked

GPS input

20 additional analog channels

Additional rotational channels (Input Hall/inductive) 4

Additional sensor supplies 5 V/350 mA 3

Additional sensor supply 10 V/350 mA 1

Additional sensor supply 10 V/1 A non regulated 1

Interface for GPS RS232

#### Software Upgrade 3 **F 02U V00 796-01**

CCP-Master (ASAP2 file from ECU manufacturer required)

#### Software Upgrade 4 **F 02U V00 871-01**

Requires Software Upgrade 1

USB-Port unlocked (USB Flash drive 2 GB Bosch File System (BFS) format included, works with Bosch File System (BFS) preformatted USB Flash drives only)

### Part Number

Display DDU 8 **F 02U V00 873-05**