

# User Manual



**AV100\_SD**  
**AV100\_USB**

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## Legend



Usefull information for user (INFO).



Special Warning for the user (WARNING)



Dangerous situation (ALLARM)

## Introduction

AVJ1939Recorder 100 allows data logging of engines equipped with J1939 communications system Canbus / FMS standard.

The data collection allows further processing with external software, processing useful to perform a precise monitoring of engine use.

In conjunction with the installation software AVJ1939Configurator

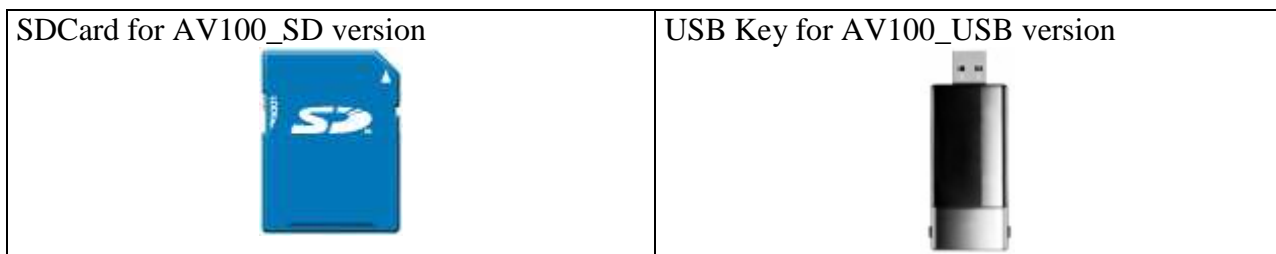
## Functionality

The use of the motor is monitored by sniffing/scanning the following parameters:

Level, RPM, torque, speed in TCO1, accelerator pedal position, engine temperature, average fuel consumption, instantaneous fuel consumption, road traveled in kilometers, liters fuel consumed, the wheel speed.

The collected data are time-stamped, and then with time and date.

Registration takes place on a physical medium standards:



The data is formatted according to the standard .csv, then open and read with the most common spreadsheets.

The data is sampled with a sampling rate of up to 1 sec.



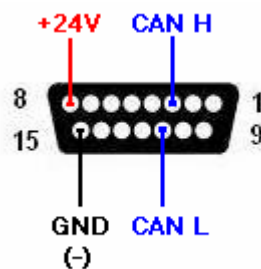
Information: every manufacturer provides different data, please check the manufacturer documentattion for data available.

## Installation

### Board Installation

AV100 provides a DB15 connector with the following connections to be made:

- Pin 8-> +24V
- Pin 15-> GND
- Pin 3 -> CAN H
- Pin 11-> CAN L



The AV device is equipped with three LEDs with the following meaning::



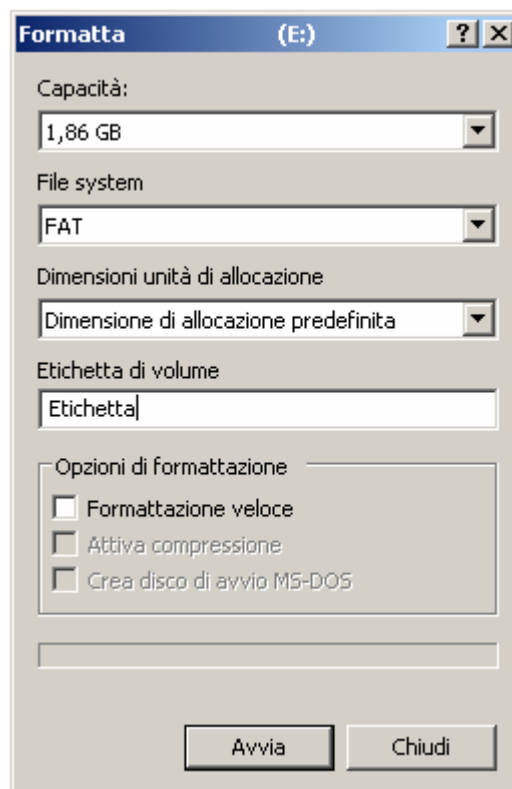
LED GREEN Power\_ON: If turned on, the module is powered.

YELLOW LED Sampling: Power pulse during the pulse module logs

LED RED Error: If turned on, an error has been detected..

## SD Card Configuration

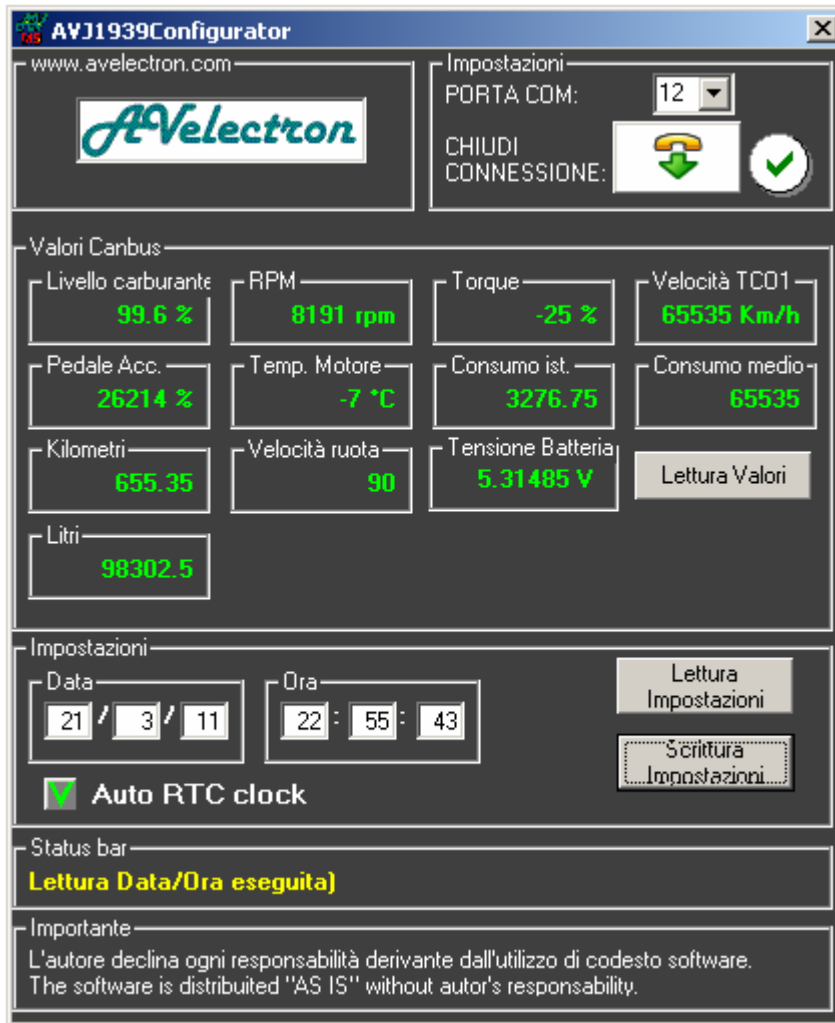
If you buy SD Card, it is recommended to format the SD Card with FAT16 second illustration below.



## AVJ1939Configurator

With the software AVJ1939Configurator can do the following:

- O Reading data in realtime Canbus
- O Setting the clock-calendar
- O General Settings



Connect the USB cable to your PC and check the COM port acquired.  
 The COM port can be seen to be gained from START -> Control Panel-> System-> Device Manager -> Com Ports.  
 The USB cable supplied power to the module allows for the configuration off-line, and therefore without the aid primary supply.  
 When installing the module, you can make the analysis of J1939 parameter measured using the USB cable in bridge mode. The mode is configured simply by inserting in the middle the bridge between the module and AV connector to the vehicle.  
 Setting the clock-calendar is necessary because the present one unit with its own internal RTC frequency. Please remember to update the date and time in switching between standard time and daylight saving time.

## Data

The data is saved in. Csv file using the following table::

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Data	Ora	Livello [%]	RPM	Torque [%]	Velocità TCO1 [Km/h]	Acceleratore [%]	Temp motore[°C]	Consumo medio[L/h]	Consumo istantaneo[Km/l]	Strada percorsa [Km]	Litri consumati[L]	Velocità [Km/h]	Batteria [V]
2	24/03/2011	23.18.22	99,6	1250	1	60	33	40	20	2	1000	500	60	24
3	24/03/2011	23.18.23	99,6	1250	1	60	33	40	20	2	1000	500	60	24
4	24/03/2011	23.18.24	99,6	1250	1	60	33	40	20	2	1000	500	60	24
5	24/03/2011	23.18.25	99,6	1250	1	60	33	40	20	2	1000	500	60	24
6	24/03/2011	23.18.26	99,6	1250	1	60	33	40	20	2	1000	500	60	24

The files are saved as **yymmddxx.csv**

Ove:

- yy : year
- mm: month
- dd : days
- xx : number.

Example: 11040103 = 3° Log of 1st April 2011.



Information: Copy the data inside the PC , Working directly on SD Card or USB Key may be not so fast.

## Characteristics

### Functional

Maximum sampling rate: 1 second

Support SDCard: 1 GB to 8 GB, FAT16 Formatting

Support USB Key: 1 GB to 32 GB FAT32 Formatting



The data refer to the last recorded data passed in the last period since the previous sampling

FMS Standard codes:

ID	Byte	Parametro rilevato	Unità misura	Scala	Unità Scheda
FEFC	1	Fuel level	%	0-100%	
F004	3,4	Engine RPM	rpm		
F004	2	Torque	%		
FE6C	7	Speed	KM/h		
F003	1	Accelerator pedal	%		
FEFE	0	Temperature	°C	-40 +125°	°C
FEF2	1,2	Consumption			
FEF2	3,4	Consumption istantaneous			

FEC1	3,4,5,6	Road traveled	m	KM
FEE9	3,4,5,6	Fuel used	l	

## Electric Characteristics

**Power supply:** +10 VDC ... +36 VDC

**Consumption :** 1 W

**Temperature :** -20...+60°C

## Mechanics Characteristics

**Housing:** Alluminium

**Dimension :** 100x86x39 mm (LxLxH)

## Allegato 1



By request is possibile to customizza the Hardware, Firmware, Software.

## Attention



No responsabilità on product installation.



We reserve the right to make changes without notice and warning