

EFI Europe
Euro 4 Auto V150 ECU



INTRODUCTION

AIM has developed special applications for many of the most popular ECUs: by special applications we mean user-friendly systems which allow to easily connect your ECU to our high tech data loggers: user needs only to install harness between the **logger** and the ECU.

Once connected, the logger displays (and/or records, depending on the logger and on the ECU data stream and configuration) values like RPM, engine load, throttle position (TPS), air and water temperatures, battery voltage, speed, gear, lambda value (air/fuel ratio) analog channels...

All AIM loggers include – free of charge – **Race Studio 2** software, a powerful tool to configure the system and analyze recorded data on your PC.

Warning: once the ECU is connected to the logger, it is necessary to set it in the logger configuration in Race Studio 2 software.

Select Manufacturer “EFI EUROPE” Model “Euro 4 AUTO V150”.

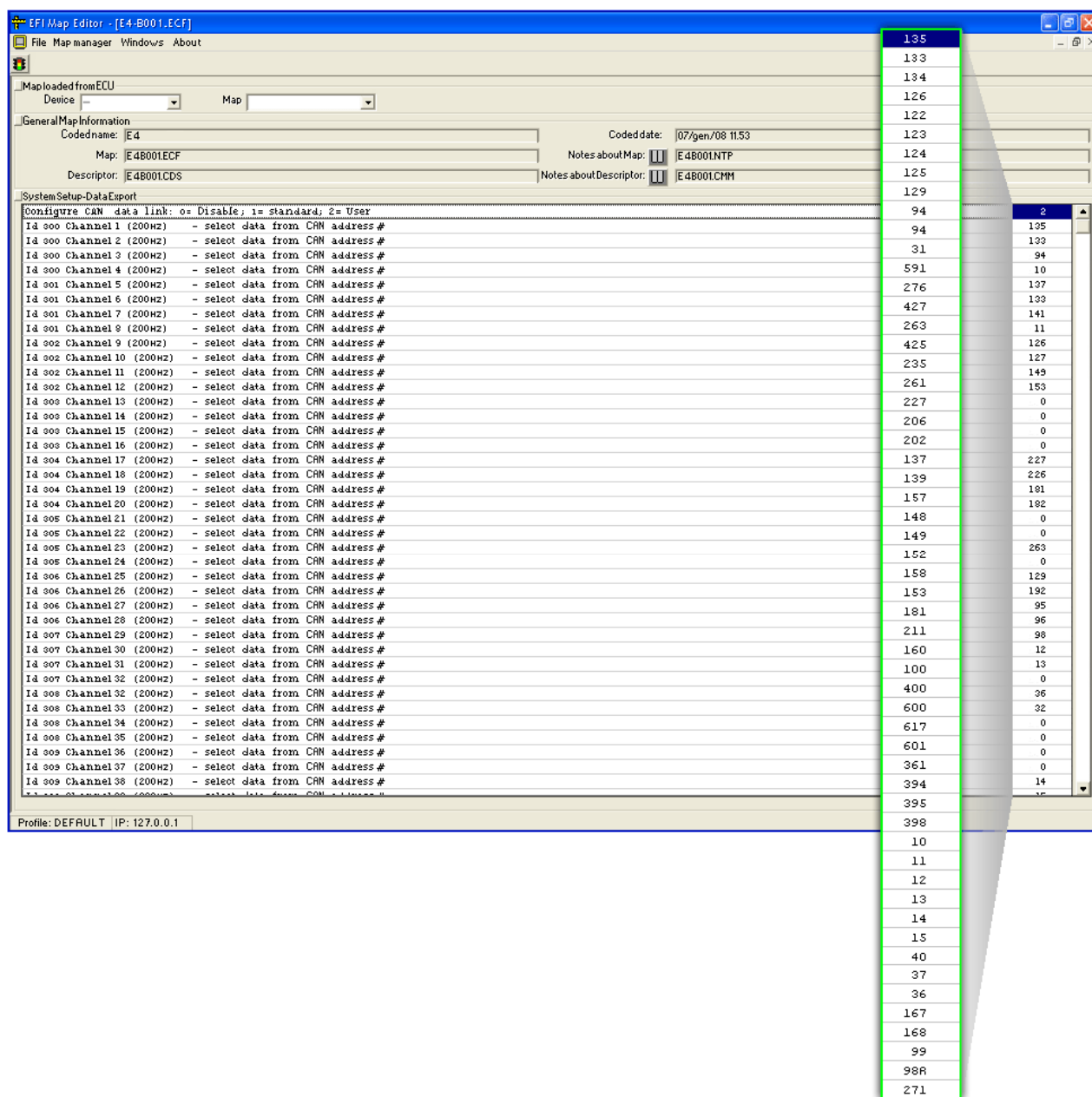
Refer to Race Studio Configuration user manual for further information concerning the loggers configuration.

1 – Technical communication notes

EFI Euro 4 Auto V150 (firmware version 150) is an ECU developed for car applications that can communicate to AIM loggers through the CAN bus.

1.1 – Software check

EFI ECU comes with a dedicated software whose data export table is to be set to allow the ECU communicating with AIM loggers. The image below shows the correct codes (in the green box) to be filled in.



2 – Connection to AIM loggers

EFI Euro 4 Auto V150 ECU is equipped with two male connectors. The CAN bus is on the left one (CNR). Connect:

- AIM cable labelled “CAN+” to pin F3 of the right connector;
- AIM cable labelled “CAN-” to pin E4 of the right connector.



3 – Communication protocol

Channels received by AIM loggers connected to EFI Euro 4 Auto V150 ECU are:

ID	CHANNEL NAME	FUNCTION
ECU_1	E4_RPM	RPM
ECU_2	E4_TPS_1	Throttle Position Sensor 1
ECU_3	E4_TPS_2	Throttle Position Sensor 2
ECU_4	E4_CAR_SPEED	Vehicle speed
ECU_5	E4_FR_SPEED	Front right wheel speed
ECU_6	E4_FL_SPEED	Front Left wheel speed
ECU_7	E4_RR_SPEED	Rear right wheel speed
ECU_8	E4_RL_SPEED	Rear Left wheel speed
ECU_9	E4_GEAR	Engaged gear
ECU_10	E4_MAP	Manifold Air pressure
ECU_11	E4_BOOST	Boost Pressure
ECU_12	E4_KNOCK	Knock counter
ECU_13	E4_LAMBDA_TEMP	Lambda sensor temperature
ECU_14	E4_LAMBDA1	Lambda sensor 1
ECU_15	E4_LAMBDA2	Lambda sensor 2
ECU_16	E4_CLC_1	Closed loop control 1 (injection)
ECU_17	E4_CLC_2	Closed loop control 2 (injection)
ECU_18	E4_LEARN_1	Fuel correction coefficient for auto mapping
ECU_19	E4_FUEL_C_L	Open/Closed fuel
ECU_20	E4_T_INJ_BASE	Terog injection base
ECU_21	E4_T_INJ_U	Upper injectors injection time
ECU_22	E4_T_INJ_L	Lower injectors injection time
ECU_23	E4_D_TPS_1	Throttle position sensor 1 derivative
ECU_24	E4_D_MAP	Manifold air pressure derivative
ECU_25	E4_TC_STATUS	Traction control status
ECU_26	E4_TC_SLIP	Traction control slip
ECU_27	E4_TC_SLIP_CALC	Slip calculation for traction control
ECU_28	E4_TC_SLIP_TRIM	Slip multiplier for traction control
ECU_29	E4_TC_CUT	Cut for traction control
ECU_30	E4_TC_SA_OFFSET	Osa slip
ECU_31	E4_SA_BASE	Spark advance base

ECU_32	E4_SA	Spark advance
ECU_33	E4_SHIFT_CUT	Shift cut
ECU_34	E4_SYNC	Sync
ECU_35	E4_ECU_MEM	Logger memory
ECU_36	E4_VTC1_TARGET	VCTAspTarget
ECU_37	E4_VTC2_POS	VCTAsp2Position
ECU_38	E4_VTC1_POS	VCTAspPosition
ECU_39	E4_IDLE_DC	Idle DC Out
ECU_40	E4_BOOST_TARG	Target boost pressure
ECU_41	E4_BOOST_ERROR	Error map boost
ECU_42	E4_BOOST_WG_OUT	Boost waste gate output
ECU_43	E4_ANALOG_1	Analog channel 1
ECU_44	E4_ANALOG_2	Analog channel 2
ECU_45	E4_ANALOG_3	Analog channel 3
ECU_46	E4_ANALOG_4	Analog channel 4
ECU_47	E4_ANALOG_5	Analog channel 5
ECU_48	E4_ANALOG_6	Analog channel 6
ECU_49	E4_ANALOG_7	Analog channel 7
ECU_50	E4_ANALOG_8	Analog channel 8
ECU_51	E4_VBATT	Battery supply
ECU_52	E4_P_BRAKE_R	Rear brake pressure
ECU_53	E4_P_BRAKE_F	Front brake pressure
ECU_54	E4_P_CLUTCH	Clutch pressure
ECU_55	E4_P_BARO	Air pressure
ECU_56	E4_FUEL_USED_LTR	Used fuel in litres
ECU_57	E4_FUEL_REM_LTR	Remaining fuel in litres
ECU_58	E4_T_H2O	Water temperature
ECU_59	E4_T_OIL	Oil temperature
ECU_60	E4_T_AIR	Air temperature
ECU_61	E4_T_SPARE	Spare temperature
ECU_62	E4_P_OIL	Oil pressure
ECU_63	E4_P_FUEL	Fuel pressure
ECU_64	E4_SEL_MAP	Selected map