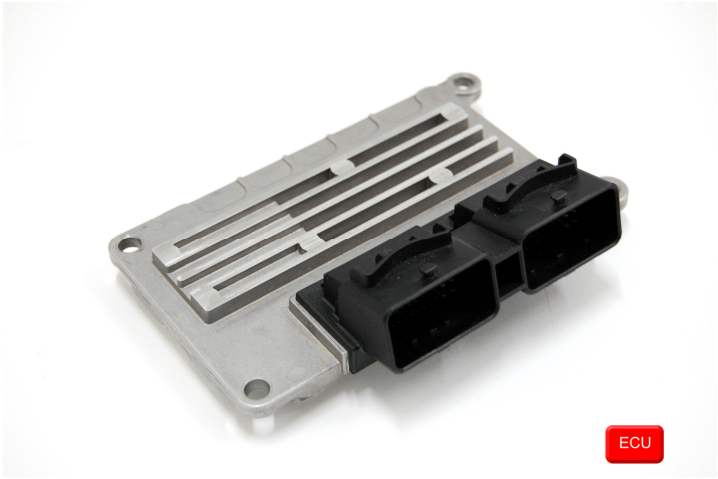
AiM Infotech

EFI EURO 4 AutoV150 ECU

Release 1.01



This tutorial explains how to connect EFI EURO 4 ECUs to AiM devices.

1 Supported models

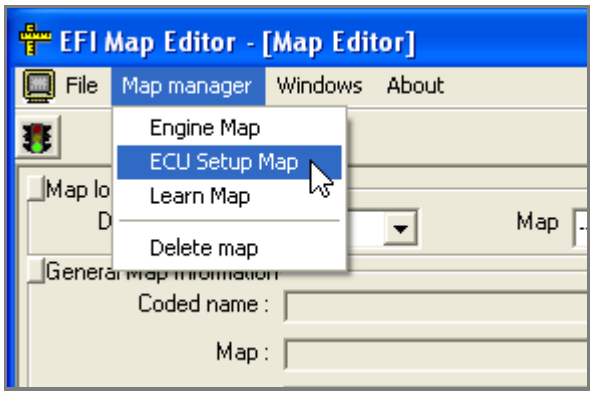
Supported EURO 4 ECU is:

- EURO 4 Auto Firmware version 150

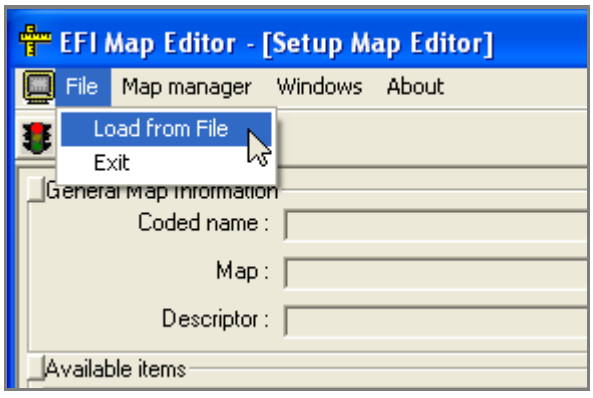
2 Software setup

EFI EURO 4 Auto V150 ECU comes with the dedicated "ECT_MOD" software to be used for setting the ECU.

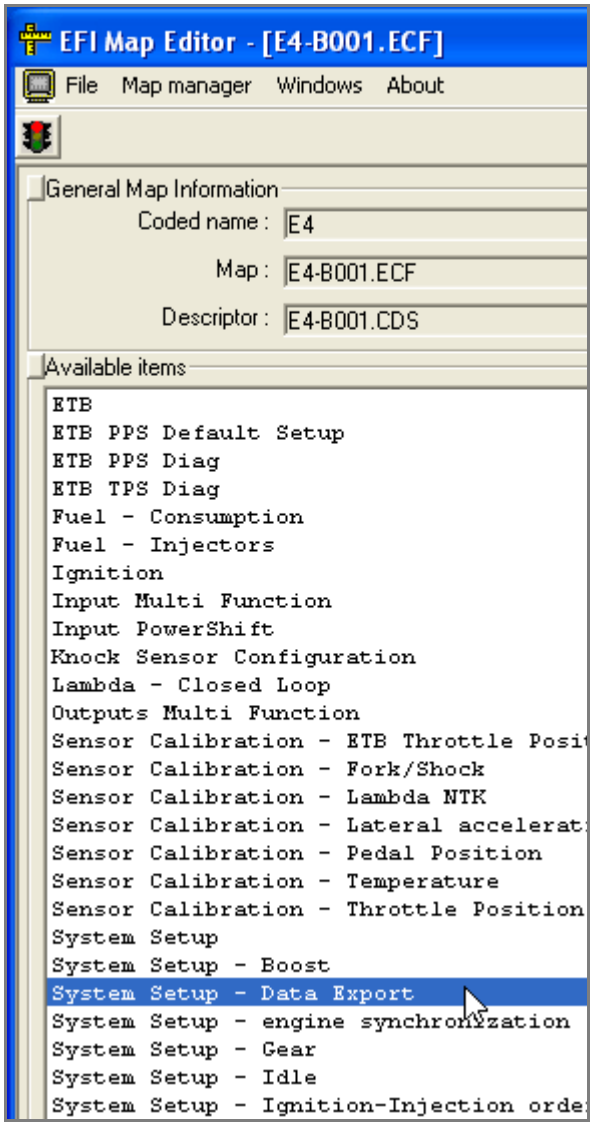
- Run the software
- Load EURO4_Auto150 ECU
- Open Map Editor
- Follow the path: "Map Manager –> ECU Setup Map"



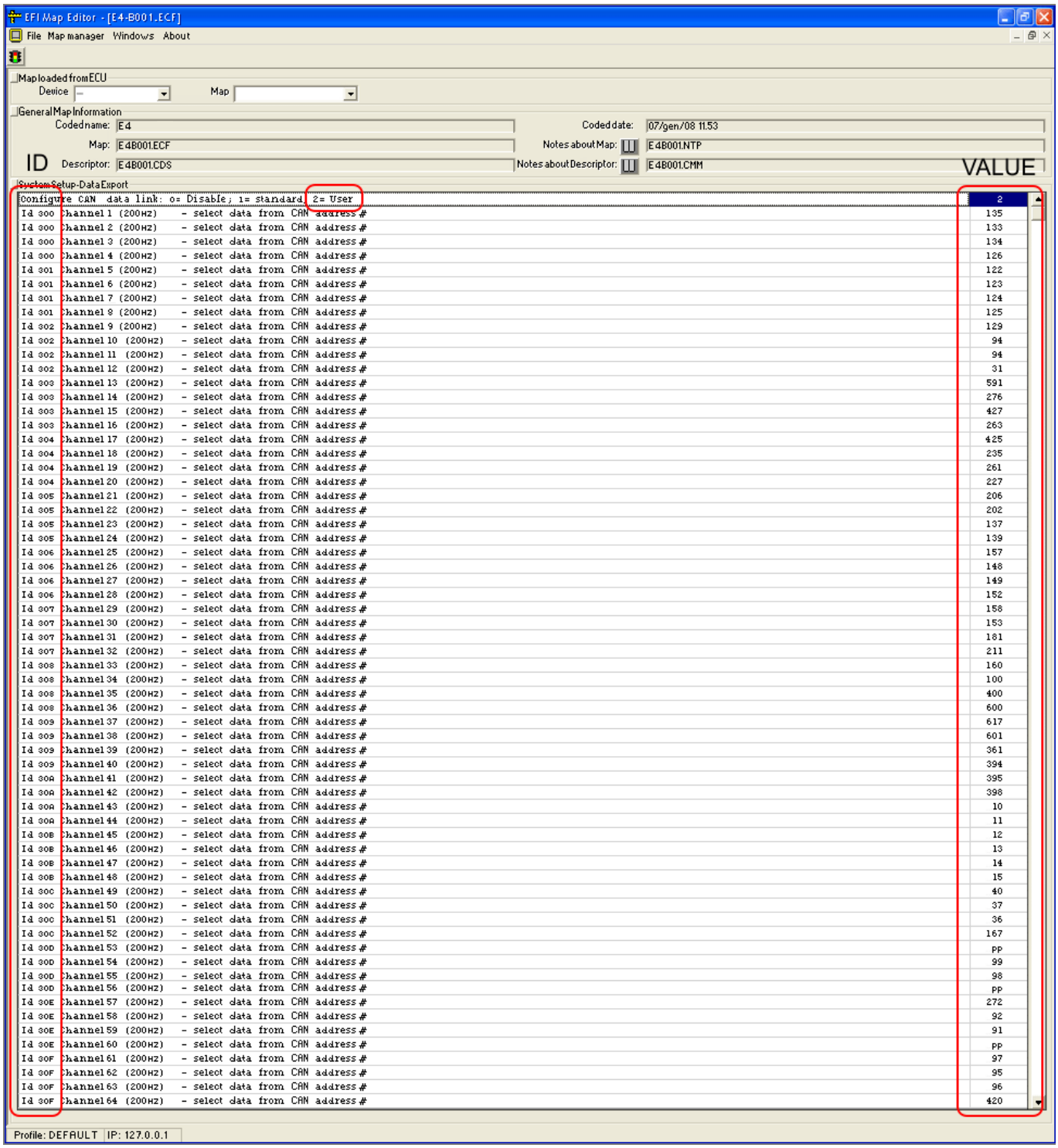
- Follow this path: "File" –> "Load from file"



- Select ".ECF" file
- Select ".CDS" file and the map is loaded
- Click "System setup – data export"



This way "Data export" table, shown below, is loaded



- set the first row on "2=User"

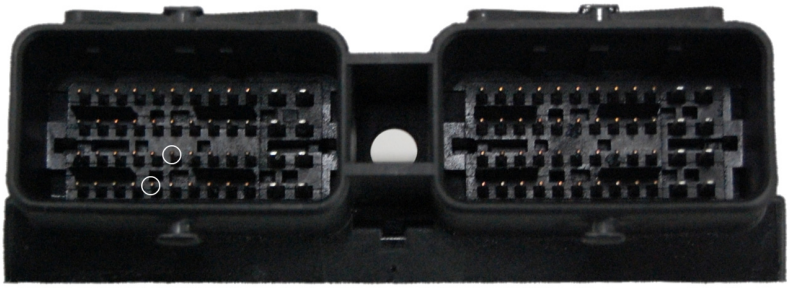
- check that "ID" and "Value" digits are as in the following table

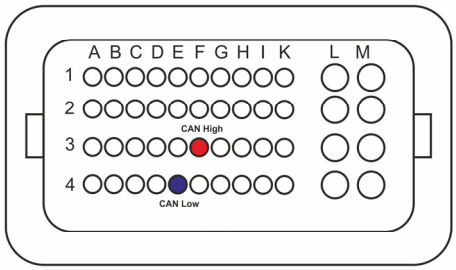
ID	VALUE		ID	VALUE		ID	VALUE
300	135		305	137		30B	12
300	133		305	139		30B	13
300	134		306	157		30B	14
300	126		306	148		30B	15
301	122		306	149		30C	40
301	123		306	152		30C	37
301	124		307	158		30C	36
301	125		307	153		30C	167
302	129		307	181		30D	168
302	94		307	211		30D	99
302	94*		308	160		30D	98
302	31		308	100		30D	271
303	591		308	400		30E	272
303	276		308	600		30E	92
303	427		309	617		30E	91
303	263		309	601		30E	93
304	425		309	361		30F	97
304	235		309	394		30F	95
304	261		30A	395		30F	96
304	227		30A	398		30F	420
305	206		30A	10			
305	202		30A	11			

* Gauge boost (1bar gauge = 2000 mbar ABS map)

3
Wiring connection

EFI Euro4 Auto V150 ECU features a bus communication protocol based on CAN on the 48 pins front left male connector. Here below it is shown with its pinout. Below is connection table.





EFI connector pin	Pin function	AiM cable
F3	CAN High	CAN+
E4	CAN Low	CAN-

4
AiM Logger configuration

Before connecting the device to the ECU set it up as follows:

- Run Race Studio 2 software and follow this path:
- Device Configuration –> Select the device you are using;
- select the configuration or press “New” to create a new one;
- select ECU manufacturer “EFI_EUROPE” and ECU Model "EURO_4_AUTO_V150"
- transmit the configuration to the device pressing “Transmit”.

5
Available channels

Channels received by AiM devices connected to "EFI EUROPE" "EURO_4_AUTO_V150" protocol 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 Map boost
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	Intake 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