



**AiM Infotech**

**MAN truck from 2011**

**Release 1.01**

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**ECU**



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This tutorial explains how to connect MAN truck ECU to AiM devices. Supported years are:

- MAN truck from 2011 onwards

# 1

## INTRODUCTION

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Starting from 2011 MAN trucks are equipped with a Bosch EDC 7C32D26 ECU. Its communication protocol as well as the software version changes according to the truck production year; to say:

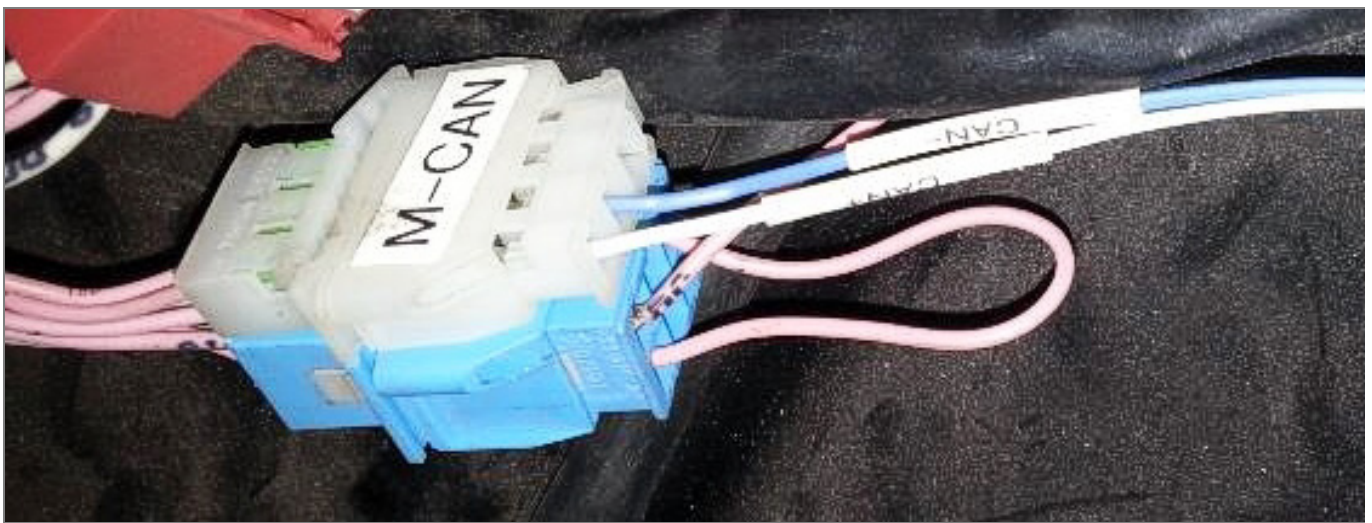
- MAN truck 2011-2012:
  - communication protocol EDC CAN Bus
  - software version 1.39;
- MAN truck 2013:
  - communication protocol EDC CAN BUS\_2
  - software version: 3.0.4.

## 2

# CAN connection

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MAN trucks from 2011 onwards ECU are equipped with a CAN communication protocol. This CAN is available on the white connector placed in the cabin between the two seats. Here below you see the connector and the connection table.



| Connector pin | Pin function | AiM cable |
|---------------|--------------|-----------|
| 1             | CAN High     | CAN+      |
| 2             | CAN Low      | CAN-      |

### 3

## AiM Logger configuration

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Before connecting the logger to the ECU, set up the logger as follows:

Run Race Studio 2 software and select:

- Device Configuration -> Select the device you are using;
- select the configuration or press "New" to create a new one;
- select ECU manufacturer "MAN TRUCK" and ECU Model
  - EDC CAN BUS for MAN truck 2011-2012
  - EDC CAN BUS\_2 for MAN truck from 2013 onwards
  
- transmit the configuration to the device pressing "Transmit".

## 4

# Available channels

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Channels received by AiM devices changes according to the selected protocol.

## 4.1

# Channels received with EDC CAN BUS protocol

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Channels received by EDC CAN BUS protocol are.

| <b>ID</b> | <b>CHANNEL NAME</b> | <b>FUNCTION</b>            |
|-----------|---------------------|----------------------------|
| ECU_1     | TK_RPM              | RPM                        |
| ECU_2     | TK_VEH_SPEED        | Vehicle speed              |
| ECU_3     | TK_WHEEL_FL         | Front left wheel speed     |
| ECU_4     | TK_WHEEL_FR         | Front right wheel speed    |
| ECU_5     | TK_WHEEL_RL         | Rear left wheel speed      |
| ECU_6     | TK_WHEEL_RR         | Rear right wheel speed     |
| ECU_7     | TK_PPS              | Pedal position sensor      |
| ECU_8     | TK_GEAR             | Engaged gear               |
| ECU_9     | TK_LAMBDA           | Lambda value               |
| ECU_10    | TK_WATER_TEMP       | Engine coolant temperature |
| ECU_11    | TK_FUEL_TEMP        | Fuel temperature           |
| ECU_12    | TK_OIL_TEMP         | Oil temperature            |
| ECU_13    | TK_ATM_TEMP         | Atmospheric temperature    |
| ECU_14    | TK_EXHGAS_TEMP      | Exhaust gas temperature    |
| ECU_15    | TK_IN_AIR_TEMP      | Intake air temperature     |
| ECU_16    | TK_WATER_PR         | Water pressure             |
| ECU_17    | TK_IN_AIR_PR        | Intake air pressure        |
| ECU_18    | TK_OILP_PR          | Oil pressure               |
| ECU_19    | TK_ATM_PR           | Atmospheric pressure       |



|        |                |                           |
|--------|----------------|---------------------------|
| ECU_20 | TK_EXHGAS_PR   | Exhaust gas pressure      |
| ECU_21 | TK_BATT_VOLT   | Battery supply            |
| ECU_22 | TK_FUELHIGH_PR | Fuel high pressure        |
| ECU_23 | TK_FUELLOW_PR  | Fuel low pressure         |
| ECU_24 | TK_FUEL_CONS   | Fuel consumption          |
| ECU_25 | TK_ENG_LOAD    | Engine load               |
| ECU_26 | TK_FULL_LOAD   | Full load                 |
| ECU_27 | TK_DRVR_LOAD   | Driver demand load        |
| ECU_28 | TK_CURR_LOAD   | Current engine load       |
| ECU_29 | TK_MAN_SW1     | MAN switch 1              |
| ECU_30 | TK_MAN_SW2     | MAN switch 2              |
| ECU_31 | TK_H_IDLE_CTRL | High idle control         |
| ECU_32 | TK_FUELIM_CTRL | Fuel limitation control   |
| ECU_33 | TK_L_IDLE_CTRL | Low idle control          |
| ECU_34 | TK_SMOKECTRL   | Smoke control             |
| ECU_35 | TK_IDLE_SW     | Idle switch               |
| ECU_36 | TK_CLUTCH_SW   | Clutch switch             |
| ECU_37 | TK_RACECTRL_SW | Race control switch       |
| ECU_38 | TK_DIA_LAMP    | Diagnosis lamp status     |
| ECU_39 | TK_MAN_CONF    | MAN configuration         |
| ECU_40 | TK_TURBO       | Turbo speed               |
| ECU_41 | TK_ACC_CTRL    | Acceleration control flag |

**Technical note:** not all data channels outlined in the ECU template are validated for each manufacturer model or variant; some of the outlined channels are model and year specific, and therefore may not be applicable.

## 4.2

# Channels received with EDC CAN BUS\_2 protocol

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Channels received by EDC CAN BUS\_2 protocol are.

| <b>ID</b> | <b>CHANNEL NAME</b> | <b>FUNCTION</b>              |
|-----------|---------------------|------------------------------|
| ECU_1     | TK_RPM              | RPM                          |
| ECU_2     | TK_FUE_QTY_MOD      | Fuel quantity mode           |
| ECU_3     | TK_DRIVE_AB_QTY     | Driveability quantity        |
| ECU_4     | TK_LAMBDA           | Lambda value                 |
| ECU_5     | TK_V_BATT           | Battery supply               |
| ECU_6     | TK_RAIL_PRESS       | Rail pressure                |
| ECU_7     | TK_THROTTLE1        | Throttle channel 1 position  |
| ECU_8     | TK_THROTTLE2        | Throttle channel 2 position  |
| ECU_9     | TK_THROTTLE_TOT     | Resulting throttle position  |
| ECU_10    | TK_MANIF_AIR_P      | Manifold air pressure        |
| ECU_11    | TK_WATER_PRES       | Water pressure               |
| ECU_12    | TK_OIL_PRESS        | Oil pressure                 |
| ECU_13    | TK_FUEL_PRESS       | Fuel pressure                |
| ECU_14    | TK_BARO_PRES        | Barometric pressure          |
| ECU_15    | TK_INT_AIR_TEMP     | Intake air temperature       |
| ECU_16    | TK_AMBIENT_TEMP     | Ambient temperature          |
| ECU_17    | TK_ENGINE_TEMP      | Engine coolant temperature   |
| ECU_18    | TK_OIL_TEMP         | Oil temperature              |
| ECU_19    | TK_FUEL_TEMP        | Fuel temperature             |
| ECU_20    | TK_GEAR             | Engaged gear                 |
| ECU_21    | TK_CLUCH            | Clutch switch                |
| ECU_22    | TK_SPD_MODE         | Speed mode                   |
| ECU_23    | TK_STACK_SPD        | Stack GPS active speed value |
| ECU_24    | TK_VEH_SPD_LIMIT    | Vehicle speed limiter        |
| ECU_25    | TK_GEAR_REV         | Gearshift revolution counter |



|        |                 |  |
|--------|-----------------|--|
| ECU_26 | TK_GAUGE_SPD    | Gauge speed                                |
| ECU_27 | TK_INJ_QTY      | Injection quantity                         |
| ECU_28 | TK_AVG_INJ_QTY  | Average injection quantity                 |
| ECU_29 | TK_VEH_SPD_QTY  | Vehicle speed limiter quantity             |
| ECU_30 | TK_DEMD_RAIL_P  | Demanded rail pressure                     |
| ECU_31 | TK_GPS_h        | GPS hours                                  |
| ECU_32 | TK_GPS_min      | GPS minutes                                |
| ECU_33 | TK_GPS_sec      | GPS seconds                                |
| ECU_34 | TK_PRESS_VALVE  | Pressure regulating valve status           |
| ECU_35 | TK_WASTE_GATE   | Waste gate overpressure status             |
| ECU_36 | TK_LAMBDA_DEV   | Lambda deviation                           |
| ECU_37 | TK_ENGINE_LOAD  | Engine load                                |
| ECU_38 | TK_SMOKE_UP_QTY | Smoke upper quantity                       |
| ECU_39 | TK_PUMP_H_PRESS | high pressure pump pre control duty cycle. |

**Technical note:** not all data channels outlined in the ECU template are validated for each manufacturer model or variant; some of the outlined channels are model and year specific, and therefore may not be applicable.