AIM Infotech

Mercury 849849 AXX
849849 Axx_New+FCR12
ECUs

Release 1.06

ECU

1
Supported models

This document explains how to connect AiM devices to the Engine Control Unit (ECU) datastream. Supported models are:

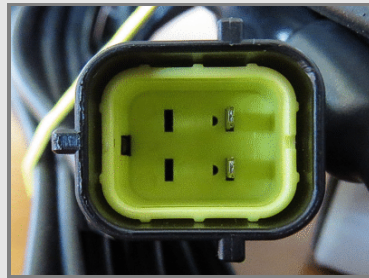- 849849_AXX
- 849849_AXX_New
- FCR12 with firmware version FCR12

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Wiring connection

Mercury 849849 ECUs feature a serial communication protocol. To connect AiM device to these ECU a dedicated AiM interface cable is needed. This cable part number is: **X50EN849849**. Here below it is shown.
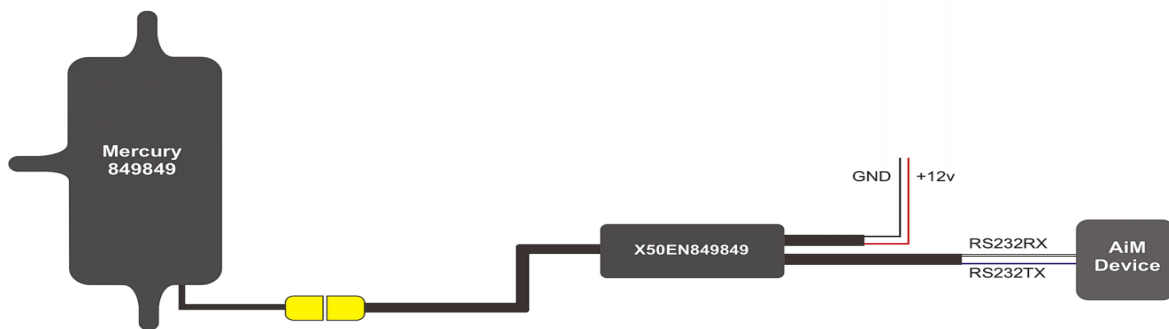

Mercury 849849 ECUs are equipped with a 4 pins AMP female connector that must be connected to AiM interface male one shown here below.

Mercury 849849 AXX interface cable has four flying leads you can connect to AiM devices.

Please refer to your device pinout to know the pins to be used. Here below you find wiring diagram and connection scheme

Cable Function	AiM cable colour	AiM device
RS232RX	White	RS232RX/ECU RS232TX
RS232TX	Blue	RS232TX/ECU RS232RX
+12V	Red	+12V
GND	Black	GND

Please note:
AiM wiring harnesses supplied after September 2018 have the following labels:
ECU RS232TX (white) to be connected to **ECU TX** pin
ECU RS232RX (blue) to be connected to **ECU RX** pin (if indicated in the connection table above)

AiM wiring harnesses supplied before September 2018 have the following labels:
RS232RX (white) to be connected to **ECU TX** pin
RS232TX (blue) to be connected to **ECU RX** pin (if indicated in the connection table above)

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Race Studio configuration

Before connecting AiM devices to the ECU, set all functions using AiM software Race Studio. The parameters to set in the device configuration are:

- ECU manufacturer   **Mercury**
- ECU Model according to your ECU version or to its firmware version: **849849_Axx**
                                                                                       849849_Axx_New
                                                                                       FCR12

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"Mercury Serial" protocols

Channels received by AiM devices connected to "Mercury - 849849_Axx", "849849_Axx_New" or "FCR12" protocol are the same and here below they are listed:

CHANNEL NAME	FUNCTION
MER_RPM	RPM
MER_TAIR	Intake air temperature
MER_TENG	Engine temperature
MER_MAP	Manifold air pressure
MER_INJT	Injection time
MER_ECU_TRIM	ECU Trim
MER_FUEL_GRP1	Injection volume for injectors group 1
MER_FUEL_GRP2	Injection volume for injectors group 2
MER_FUEL_GRP3	Injection volume for injectors group 3
MER_FUEL_A	Number after air temperature compensation
MER_FUEL_B	Number after engine compensation
MER_FUEL_C	Number after dynamic acceleration compensation
MER_FUEL_D	Number after cold piston compensation

MER_FUEL_T	Fuel temperature
MER_ECU_TEMP	ECU Temperature
MER_ONTIMECONS	Real time consumption
MER_ECU_BATT	Battery supply