## AiM InfoTech

## K-M-P - GCU2

# Release 1.00







1

## Software configuration

This document explains how to connect third party CAN expansion modules to AiM devices CAN2 bus.

The driver here documented allows to read data from a K-M-P GCU-2 module programmed with default settings on the calibration software K-M-P GCU-2 interface. To correctly communicate with the AiM device, it is necessary to check if the module is set with the following default parameters. Refer to the manufacturer for additional details on the configuration procedure.

Baudrate: 1Mbit/s (1000kbit/s)

CAN ID 1: 2000 (0x7D0)
CAN ID 2: 2001 (0x7D1)
CAN ID 3: 2002 (0x7D2)
CAN ID 4: 2003 (0x7D3)
CAN ID 5: 2004 (0x7D4)

**Please note**: In case this module is going to be used with different parameters, the user can set up a custom driver from the **CAN Protocols** section of the AiM configuration software Race Studio 3. Check the dedicated manual from the AiM website www.aim-sportline.com, Documentation – Firmware/Software area.



2

# Wiring connection

These modules feature a bus communication protocol based on CAN, this data stream is accessible through a 2-way DTM06-2S-E007 connector (right picture below) located on the universal loom or through the main 37-way connector of the GCU-2. In this case the mating part AS614-35SN is pictured below (left), and the connection table for both options follows.



35-pin Deutsch	2-pin Deutsch	Function	AiM wire label
Pin nr	Pin nr		(optional harness)
10	1	CAN High	CAN2 +
11	2	CAN Low	CAN2 –



3

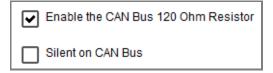
## AiM device configuration

Before connecting the kit to the AiM device set this up using AiM Race Studio software. The parameters to select in the device configuration are:

ECU manufacturer: KMP

• ECU Model: GCU2 (Only RS3 – CAN2 Stream)

If there is only the AiM device connected to this module, enable the CAN Bus 120 Ohm Resistor.



4

# "KMP – GCU2" protocol

Channels received by AiM loggers configured with "KMP - GCU2" protocol are:

CHANNEL NAME	FUNCTION
GEAR POT	Gear potentiometer voltage
SYS PRESSURE	System pressure
COMP TEMP	Compressor temperature
ERROR CODE CNT	Error code counter
ERR CODES	Error code
UP	Upshift valve
DOWN	Downshift valve
BLIP	Blip valve
IGN CUT	Engine cut active
COMPRESSOR	Compressor active

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VP SWITCH Paddle switch

EMERG SW Emergency switch active

VC GEAR Gear number

VC RPM RPM

RPM Vx Downshift RPM

TPS Throttle position

NEUTRAL Neutral switch active

SHIFT STATUS Shift status

AUTOCALIB ST Autocalibrationstatus

CLUTCH FLAG Clutch active

CLUTCH PRESS Clutch pressure

AUTOSHIFT FLAG Autoshift flag

SHIFT LIGHT Shift light active

VEH SPEED Vehicle speed

CALC GEAR RATIO Calculated gear ratio

SHF CHK FLAG Shift check flag

REVERSE Reverse switch active

BLIP LEV Blip level (variable blip)

CAN OK CAN-bus ok check

DEBUG MODE Debug mode active