AiM User Guide

Microtec M206 for SoloDL

Release 1.00







This user guide explains how to connect Microtec M206 ECU to AiM SoloDL. It is an aftermarket ECU installed on Kawasaki and Suzuki bikes only. Please refer to Microtec website "www.microtec.cc" to know supported bike models.

1 Installation notes

To install SoloDL on your bike you can use a bar pad. AiM provides the two optional bar pads shown below:

- bar pad for handle bar with cross brace part number: **DNKTKPMSOL1** (image on the left);
- bar pad for handle bar without cross brace part number: **DNKTKPMSOL0** (image on the right).







Microtec M206 ECU can be connected to SoloDL using an interface cable shown here below. Its part number is: **V02569260**.



M206 ECU is placed under the number plate as shown below. The connector used to communicate with external devices is highlighted here below on the right.





Please note: Microtec ECU powers SoloDL. It is thereby unnecessary to check SoloDL battery status.



In case Microtec ECU is already connected to an external device it is possible to maintain this connection using AiM cable. As explained in the drawing below, M206 ECU can be connected to AiM cable male connector labelled "To the ECU" and the third device can be connected to the ECU through AiM cable female connector labelled "To other devices".



ECU connector has a cap on it. If the ECU is connected just to SoloDL remove the cap and place it on AiM cable female connector (labelled "to other devices" here above) and connect AiM cable male connector to the ECU female connector.

2 ECU Software setup

Before connection to SoloDL, Microtec ECU needs to be setup via MON software. ECU channel frequency is to be set on 50 or 100Hz value. Please refer to MON software user guide to know how to perform this operation. As an example we are showing here below Channel frequency setting page of MON172 software.

XX M Cor	ion172 v2. nfiguration	16 A (CAN-acqu	uisition)
Frame	e ID (hex)	Frequency	Channel
1	200	0ff	RPM Revolution
3	208	✓ 50 N	Throttle
4	200	100 Hz V	Advance
5	210	200 Hz 500 Hz	ig High 1/PV Terog Lov



3 SoloDL configuration

Before connecting SoloDL to the ECU, set it up using Race Studio 2 software. Run the software and press "Device Configuration" on the software left keyboard: select "SoloDL" in the panel that shows up as here below.





The software shows SoloDL configuration page: press "Configuration Manager" and select the configuration you want to use or press "New" to create a proper one. In this second case "New configuration" panel appears: select ECU Manufacturer "Microtec" and ECU Model "M206" as here below.

📓 RaceStudio 2.47.05H											- P 🛛
Elle Device Configuration Download Data	Import SmartyCam Data	a A <u>n</u> alysis Devi	:e In£o _Qnline Device ⊆	alibration Customize Sens	or Language 2						
	📓 System manag	ger									
(III)	Current configuration	• /									
		ismit	Beceive]							
AIM Sportline			ц <u>а</u>]							
The World Leader in Data Acquisition	Configuration	Installation name			Logger	ECU Manufacturer	ECU Model			Created	Total Frequency
4000	Manager	DEFAULT			SULU DL	SUZUKI	YUSHIMURA_09			February 19, 2013	402 (H2)
A <u>n</u> alysis	Channels of current of	configuration									
	Channel identifier	Enabled/	Channel name		Sampling fre	quency Sensor type		Measure unit		SmartyCam Fur	ctions setting
	CH_1	M	Internal Battery		1 Hz	Voltage sensor		V .01			
Download Data	CALC_GEAR	Configurati	on Manager							ear sensor]]
	ACC_1 ACC_2	A	2.2							None	Calculated
Import SmartyCam	ACC_3		W Br Dei	ete 📥 Lic	ine 🛛 💾 in	nport				ECU Highest o	jear number 0
microSD Data	BATT	N Inst	allation name	New configuration				reated			
	ECU_1	1 DEF	AULT	New conniguration			9 × F	February 19, 2013			
	ECU_2			Data logger type							/
Device Configuration	ECU 4			New configuration name	DEFAL	LT	L				
	ECU_5			ECU Manufacturer	MICRO	TEC 💌			-		
	ECU_6			ECU Model	M206	~			2		/
Device Into	ECU_7			Speed measure unit	km/h	~	4		- E		
	ECU_8			Temperature measure ur	nit °C	v					
	ECU_9			Pressure measure unit	har						
<u>online</u>	ECU_11				DG		⁹		5		
	ECU_12			FOLOR					2		
	ECU_13			112 %							
Device Calibration	ECU_14			1.42.76					걸		
	ECU_15			0000					H		
	EC0_18					V QK 🔄 Çancel					
Customize <u>S</u> ensor ti	ECU_18						-	🗸 ок	7		
	ECU_19							L			
1773	ECU_20	v	YOSHI_ADV_4		10 Hz	🗾 Angle sensor		deg .01	<u> </u>		
Language	ECU_21		YOSHI_QINJ_1		10 Hz	 Raw value 		# .01	-		
	ECU_22		YOSHL_QINJ_2		10 Hz	Raw value		# .01	-		
	ECU 24		YOSHL OINJ 4		10 Hz	Raw value		# .01	-		
	ECU_25	7	YOSHI_FR_BRAKE		10 Hz	Pressure sensor		bar .1	•		
	ECU_26	2	YOSHI_BOOST_PRESS		10 Hz	Pressure sensor		kPa .1	•		
aim-sportline.com	ECU_27		YOSHI_WATER_TEMP		10 Hz	Temperature sensor		°C	<u> </u>		
8 2007 AIM SRL	JECH 28	V	YOSHI AIR TEMP		10 Hz	 Temnerature sensor 		1 o C	×1.		
ALL HIGHTS RESERVED	Add L	CU-ONE CAN									
CERNUSCO SUL NAVIGLIO, HILAN - ITALY	La	oringeration									

Confirm pressing "OK" in both panels and transmit the configuration to SoloDL pressing "Transmit" as here below.

🕌 System manager	System manager			
Current configuration		Receive		
Configuration Manager D Channels of current conf	istallation name EFAULT iguration			
Channel identifier	Enabled/	Channel name		
CH_1		Internal Battery		
CALC GEAR	1	Calculated Gear		



4 Microtec "M206" protocol

Channels received by SoloDL connected to Microtec M206 protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	ECU_RPM	RPM
ECU_2	ECU_RPM_MEAN	Mean RPM
ECU_3	ECU_PROG_RPM	Programmed RPM value
ECU_4	ECU_THROTTLE	Throttle position
ECU_5	ECU_THROT_VAR	Throttle variation
ECU_6	ECU_LAMBDA	Lambda value
ECU_7	ECU_ENGINE_TEMP	Engine temperature
ECU_8	ECU_AIT_TEMP	Intake air temperature
ECU_9	ECU_BARO_PRES	Barometric pressure
ECU_10	ECU_VACUUM	Vacuum sensor
ECU_11	ECU_MIN_MAP_AT_ON	Minimum manifold air pressure at power on
ECU_12	ECU_MAX_MAP_AT_ON	Maximum manifold air pressure at power on
ECU_13	ECU_MAP_SAD_AT_ON	Manifold air pressure at power on
ECU_14	ECU_MAP_INDX_AT_ON	Manifold air pressure index at power on
ECU_15	ECU_RPM_AT_BARO	RPM Value corrected at barometric pressure
ECU_16	ECU_TPS_AT_BARO	Throttle position at barometric pressure
ECU_17	ECU_RAW_BARO	Raw barometric pressure
ECU_18	ECU_RAW_BARO_AD	Row barometric pressure AD
ECU_19	ECU_GEAR	Engaged gear
ECU_20	ECU_TEROG	Erogation time
ECU_21	ECU_TEROG_BASE	Erogation time base
ECU_22	ECU_ADVANCE	Ignition advance
ECU_23	ECU_TETA_BASE	Ignition base angle
ECU_24	ECU_KJ_TH2O	Injection time correction from water temperature
ECU_25	ECU_KA_TH2O	Offset advance from water temperature



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ECU_26	ECU_KJ_TAIR	Injection time correction from air temperature
ECU_27	ECU_KA_TAIR	Offset advance from air temperature
ECU_28	ECU_KJ_PAIR	Injection time correction from air pressure
ECU_29	ECU_KA_PAIR	Offset advance from air pressure
ECU_30	ECU_KJ_AUX	Injection time auxiliary correction
ECU_31	ECU_KA_AUX	Auxiliary offset advance
ECU_32	ECU_KJ_GEAR	Injection time correction from gear
ECU_33	ECU_KA_GEAR	Offset advance from gear
ECU_34	ECU_KJ_ACC	Injection time correction from acceleration
ECU_35	ECU_KA_ACC	Offset advance from acceleration
ECU_36	ECU_KJ_CRANK	Injection time correction from Crank angle
ECU_37	ECU_OFFSVBATT	Injection time offset from battery voltage
ECU_38	ECU_DWELL	Dwell time
ECU_39	ECU_DJD_INT_RPM	Injection offset from RPM transient
ECU_40	ECU_DJD_INT_TH2O	Injection offset from engine cooling temperature
ECU_41	ECU_DJD_IN_T	Total injection offset from transient
ECU_42	ECU_DAD_IN_T	Advance offset from ignition transient
ECU_43	ECU_INJ_TRANS	Transient injection
ECU_44	ECU_ADV_TRANS	Transient advance
ECU_45	ECU_PHASE	injection phase
ECU_46	ECU_PHASE_BASE	injection phase base
ECU_47	ECU_VCAMM_ERR	error counter from virtual cam
ECU_48	ECU_VCAMM_ACC	period of tooth during acceleration
ECU_49	ECU_VCAMM_DEC	period of tooth during deceleration
ECU_50	ECU_REV	Rev counter
ECU_51	ECU_SMOT_ERR	Error counter from smooth
ECU_52	ECU_ENGINE_ACC	Engine acceleration