AiM Infotech

Car/bike speed sensor – Race Studio 2 configuration

Release 1.00









1 Introduction

When the sensor has been physically connected to one channel of AiM device it is necessary to load it in the device configuration using AiM configuration software . In this datasheet it is loaded using **Race Studio 2** software.

2 Configuration with Race Studio 2

To load the sensor in AiM logger configuration:

- run the software
- select the logger in use and the configuration where to load the sensor (in the example EVO4)
- enter "Channels" layer
- if speed channels are enabled you can fill in the related panels highlighted here below.

RaceStudio 2.55.56									X	
File Device Configuration Download Dat	ta Import SmartyCam	Data Analysis Device	Info Online Device	Calibration Customize S	ensor Language ?					
System manager										
Racing Data Power	Transr	ii 💦	Receive	CAN-Net info	Smarty(Cam Functions setting	Set acquisition system time]		
AIM Sportline	Current configuration									
The World Leader in Data Acquisition	Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	4	
	DEFAULT	EVO4 - 5 channels	BMW - BMW_PT6	Optical	DEFAULT	5.40.19 (h.m.s) 4.04.37 (h.m.s)	409 (Hz)		
A <u>n</u> alysis	Select configuration	Channels System configura	tion Display CAN-Expa	nsions configurator						
	Speed1	Spee	d2							
Download Data	Wheel circumference	(mm) 1666 Whee	d circumference (mm)	1666						
	Puises per wheel revo	Puise	s per wheel revolution							
Import SmartyCam	Channel identifier	Enabled/dicabled	Channel name		Sampling frequ	ency Sensor	2/06		Measure	
microSD Data	RDM		Engine		10 Hz	Findine I	avolution sneed		rom	
	SPD 1	Fnabled	Speed1		10 Hz	I Sneed	evolution speed	•	km/h_1	
Device Configuration	SPD 2		Speed2		10 Hz	Speed		•	km/h .1	
Server Server	CH 1	Fnabled	Channel 1		10 Hz	■ Generic	linear 0-5 V	•	V .1	
	CH 2	Enabled	Channel 2		10 Hz	⊥ Zero ba	sed potentiometer	•		
Device Info	CH 3	Enabled	Channel 3		10 Hz	⊥ AiM 0-1	00 bar (X05SNP31100R)	•	bar	
	CH 4	Enabled	Channel 4		10 Hz	→ AiM 0-1	0 bar (X05SNP31010R)	•	bar	
(CH_5	Disabled	Channel_5		10 Hz		bar (X05SNP31004A)	-	bar	
Online	CALC_GEAR	Disabled	Calculated_Gear		10 Hz	I Calculat	ted Gear		#	
ц <u></u>	ACC_1	Enabled	Lateral_acc		10 Hz	⊥ Lateral a	accelerometer	•	g .01	
	ACC_2	Disabled	Longitudinal_acc		10 Hz	・ Longitu	dinal accelerometer	•	g .01	
Device Calibration	ACC_3	Enabled	Vertical_acc		10 Hz	✓ Vertical	internal accelerometer	•	g .01	
	LOG_TMP	Enabled	Datalogger_Temp		10 Hz	🖃 Cold joi	nt		°C	
	BATT	Enabled	Battery		1 Hz	⊥ Battery			V .1	
	ECU_1	Enabled	RPM		10 Hz	I Engine	speed sensor		rpm	
Customize <u>S</u> ensor	ECU_2	Enabled	PEDAL_POSITION		10 Hz	I Percent	age sensor		%.1	
	ECU_3	Enabled	SPEED_BMW		10 Hz	⊥ Speed s	ensor		km/h .1	
Languago	ECU_4	Enabled	SPEED2_BMW		10 Hz	✓ Speed s	ensor		km/h .1	
	ECU_5	Enabled	WHEEL_SPD_FR_LF		10 Hz	✓ Speed s	ensor		km/h .1	
	ECU_6	Enabled	WHEEL_SPD_FR_RH		10 Hz	✓ Speed s	ensor		km/h .1	



• Select the speed channel where to set the sensor on and select "Speed" in "Sensor Type" column as shown here below. Fill in the related panel.

eStudio 2.55.56									X
Device Configuration Download D	ata Import SmartyCam	Data Analys	is Device Info Online	Device Calibration Cust	omize Sensor Language	?			
am	System manager								
Racing Data Power	Transi	mit	Receive	CAN-N	et info Sma	rtyCam Functions setting	Set acquisition system time	•	
AIM Sportline	Current configuration								
World Leader in Data Acquisition	Installation name	Data logger	type Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	У
	DEFAULT	EV04 - 5 c	hannels BMW - BMW_P	T6 Optical	DEFAULT	5.40.19 (h.m.s)	4.04.37 (h.m.s)	409 (Hz)	
A <u>n</u> alysis	Select configuration	Chappele Syst	em configuration Display	AN-Expansions configurator	1				
	Speed1		Speed?						
L	Speed 1	() 166	Speed2	(
Download Data	Wheel circumference	(mm) 100	Wheel circumference	(mm) 1000					
	Pulses per wheel reve	plution 1	Pulses per wheel revolu	ution 1					
Import SmartyCam		-							
microSD Data	Channel identifier	entifier Enabled/disabled Channel name		1e	Sampling fre	equency Sensor ty	Sensor type		Measure
		Disabled	1 Engine		10 Hz	Engine re	volution speed		rpm
Device Configuration			Speed1		10 Hz	Speed		-	km/n .1
		Enabled	Speeuz Channel 1		10 Hz	— Speed ↓ Detonation	on S		
			Channel 2		10 112	Revolutio	n speed		v .1
Device lefe		Enabled	Channel 3		10 Hz	ABS spee	d sensor	+	har.
Device mio	CH 4	Fnabled	Channel 4		10 Hz	AiM 0-10	bar (X05SNP31010R)	•	bar l
	CH 5	Disabled	Channel 5		10 Hz	⊥ AiM 0-4 t	oar (X05SNP31004A)	•	bar
Online	CALC GEAR	Disable	Calculated G	ear	10 Hz	⊥ Calculate	d Gear	_	#
Omme	ACC 1	Enabled	Lateral acc		10 Hz	⊥ Lateral ac	celerometer	•	a .01
	ACC_2	Disable	Longitudinal	acc	10 Hz	⊥ Longitud	inal accelerometer	•	g .01
Doulos Collibration	ACC 3	Enabled	Vertical acc	-	10 Hz	⊥ Vertical in	ternal accelerometer	•	g .01
Device Cambradon	LOG_TMP	Enabled	Datalogger_T	emp	10 Hz	I Cold join	t		°C
	BATT	Enabled	Battery		1 Hz	➡ Battery			V .1
Customizo Sonsor	ECU_1	Enabled	RPM		10 Hz	🖃 Engine sp	eed sensor		rpm
Customize <u>s</u> ensor	ECU_2	Enabled	PEDAL_POSIT	TION	10 Hz	 Percenta 	je sensor		% .1
	ECU_3	Enabled	SPEED_BMW		10 Hz		nsor		km/h .1
Longuago	ECU_4	Enabled	SPEED2_BMV	V	10 Hz	Speed ser	nsor		km/h .1
	ECU_5	Enabled	WHEEL_SPD_	FR_LF	10 Hz	Speed ser	nsor		km/h .1
	ECU_6	Enabled	WHEEL_SPD_	FR_RH	10 Hz	I Speed ser	nsor		km/h .1
	ECU_7	Enabled	WHEEL_SPD_	RR_LF	10 Hz	Speed set	nsor		km/h .1
	ECU_8	Enabled	WHEEL_SPD_	RR_RH	10 Hz	Speed set	nsor		km/h .1
	ECU_9	Enabled	STEER_ANGL	E	10 Hz	🖃 Angle ser	isor		deg
	ECU_10	Enabled	CLUTCH_SW	псн	10 Hz	🖃 Raw valu	2		#
	ECU_11	Enabled	BRAKE_SWIT	сн	10 Hz	Raw valu	2		#
	ECU_12	Enabled	BRAKE_PRESS	5	10 Hz	Pressure	sensor		bar .1
aim-sportline.com	ECU_13	Enabled	BRAKE_PR_FF	₹_LF	10 Hz	Pressure :	sensor		bar .1
8 2007 AIM SRL	LECIL 14	Finabled	RRAKE DR FR	2 RH	10 Hz	• Drecoure	encor		har 1
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Transmit the configuration to the logger pressing "Transmit".

RaceStudio 2.55.56										
File Device Configuration Download Da	ata Import SmartyCam D	ata Analysis Device Ir	nfo Online Device Ca	alibration Customize S	ensor Language ?					
	🥁 System manager									
Racing Data Power	Transmit		Receive CAN-Net info SmartyCam Functions setting Set acquisition system time							
AIM Sportline	AIM Sportline Current configuration									
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A <u>n</u> alysis	Select configuration Channels System configuration Display CAN-Expansions configurator Speed1 Speed2									
Download Data	Wheel circumference	(mm) 1666 Wheel	circumference (mm)	1666						