



TCR TECHNICAL BULLETIN - ENDURANCE

21/08/2024

The current Technical Bulletin is with immediate application, and valid until further notice (modifications in **bold**).

The Endurance Technical Bulletin will refer also to any regulation changes/updates published on the TCR Technical Bulletins.

TCR Certified Car List:

BRAND	MODEL	ECU Type*
AlfaRomeo	Giulietta Veloce TCR	M
AlfaRomeo	Giulietta RF TCR	M
Audi	RS3 LMS SEQ	R
Audi	RS3 LMS DSG	R
Audi	RS3 LMS TCR	C
Cupra	TCR SEQ	R
Cupra	TCR DSG	R
Cupra	Leon Competicion TCR	C
Cupra	Leon VZ TCR	C
Honda	Civic FK7 TCR	M
Honda	Civic FL5 TCR	C
Hyundai	Elantra N TCR	C
Hyundai	i30 N TCR	M
Hyundai	Veloster N TCR	M
Lada	Vesta Sport TCR	M
Lada	Vesta NG TCR	C
Lynk&Co	03 TCR	M
Lynk&Co	03 TCR	C
Lynk&Co	03 FL TCR	C
MG	6 XPOWER TCR	M
Peugeot	308 TCR	M
Renault	Megane RS TCR	M
Subaru	WRX STI TCR	M
Toyota	Corolla GRS TCR	C
VW	Golf GTI TCR SEQ	R
VW	Golf GTI TCR DSG	R
* R: Road Car ECU; M: Motorsport ECU; C: Common ECU		
** Temporary Technical Form / Currently Under certification		



List of Changes:

- Engine Parameters:
 - Hyundai Elantra N TCR: Calibration Change for knock parameters.
 - Toyota Corolla GRS TCR: Calibration Change for knock parameters.

General Secretary of the Technical Department
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BoP for ENDURANCE races only (Modifications in bold):

Brand	Model	ECU Type & Power Level	Target Racing Weight	Assigned Ballast	Minimum Racing Weight	Ground Clearance
Alfa-Romeo	Giulietta Veloce TCR	M3	1210 kg	- 5kg	1205 kg	70 mm
Alfa-Romeo	Giulietta RF TCR	M4	1210 kg	- 5kg	1205 kg	70 mm
Audi	RS3 LMS SEQ	R3	1210 kg	- 5kg	1205 kg	70 mm
Audi	RS3 LMS DSG	R4	1185 kg	+ 10kg	1195 kg	70 mm
Audi	RS3 LMS TCR	C3	1210 kg	- 5kg	1205 kg	70 mm
Cupra	TCR SEQ	R3	1210 kg	0kg	1210 kg	70 mm
Cupra	TCR DSG	R4	1185 kg	0kg	1185 kg	70 mm
Cupra	Leon Competición TCR	C3	1210 kg	- 5kg	1205 kg	70 mm
Cupra	Leon VZ TCR	C3	1210 kg	0kg	1210 kg	70 mm
Honda	Civic FK7 TCR	M3	1210 kg	+ 10kg	1220 kg	70 mm
Honda	Civic FL5 TCR	C3	1210 kg	+ 5kg	1215 kg	80 mm
Hyundai	i30 N TCR	M2	1210 kg	+ 15kg	1225 kg	80 mm
Hyundai	Veloster N TCR	M2	1210 kg	+ 15kg	1225 kg	90 mm
Hyundai	Elantra N TCR	C2	1210 kg	+ 5kg	1215 kg	80 mm
Lada	Vesta Sport TCR	M3	1210 kg	+ 20kg	1230 kg	80 mm
Lada	Vesta NG TCR	C3	1210 kg	0kg	1210 kg	80 mm
Lynk&Co	03 TCR	M2	1210 kg	0kg	1210 kg	80 mm
Lynk&Co	03 TCR	C2	1210 kg	0kg	1210 kg	80 mm
Lynk&Co	03 FL TCR	C2	1210 kg	0kg	1210 kg	80 mm
MG	6 XPOWER TCR	M3	1210 kg	0kg	1210 kg	70 mm
Peugeot	308 TCR	M3	1210 kg	- 25kg	1185 kg	70 mm
Renault	Mégane RS TCR	M3	1210 kg	- 5kg	1205 kg	70 mm
Subaru	WRX STI TCR	M3	1210 kg	- 5kg	1205 kg	70 mm
Toyota	Corolla GRS TCR	C4	1210 kg	+ 5kg	1215 kg	70 mm
VW	Golf GTI TCR SEQ	R3	1210 kg	- 5kg	1205 kg	60 mm
VW	Golf GTI TCR DSG	R4	1185 kg	- 5kg	1180 kg	60 mm

¹Endurance Target Racing Weight is car's generic dry weight without driver.

²Endurance Minimum Weight is car's imposed minimum dry weight without driver.

Agreed principles:

Assigned Ballast for Endurance Races will be 50% of the Assigned Ballast for TCR Races. For any TCR Series or class with a participation of DSG cars over the 40% of the total number of cars on grid, the Target Racing Weight of the SEQ cars may be increased by the Series Promoter from 10 to 40 kg maximum. Promoters are requested to inform WSC in written form.





Imposed parameters for certified software

Alfa Romeo

Alfa Romeo		Giulietta Veloce TCR	Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		FPT	4000	2455	-
ECU Make (Type)		Life Racing (Motorsport)	4250	2460	-
Gearbox		any	4500	2515	-
ECU Type & Power Level		M3	4750	2585	-
Calibration File		AL-FPT-M3-S-S_1.1.2.1.lrc	5000	2635	-
Calibration File (with ABS)		AL-FPT-M3-S-E_1.1.2.1.lrc	5250	2640	-
Correction [mbar/°C]		1	5500	2655	-
Checksum	crcHigh	49387	5750	2640	-
	crcLow	2535	6000	2645	-
Checksum (with ABS)	crcHigh	51983	6250	2635	-
	crcLow	2521	6500	2610	-
			6750	2605	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6900	2570	-
			7000	2570	-
			7200	2570	-

Alfa Romeo		Giulietta RF TCR	Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		FPT	4150	2460	-
ECU Make (Type)		Life Racing (Motorsport)	4400	2485	-
Gearbox		any	4650	2590	-
ECU Type & Power Level		M4	4900	2670	-
Calibration File		AL-FPT-M4-S-S_1.1.2.1.lrc	5150	2685	-
Calibration File (with ABS)		AL-FPT-M4-S-E_1.1.2.1.lrc	5400	2700	-
Correction [mbar/°C]		1	5650	2695	-
Checksum	crcHigh	17392	5900	2690	-
	crcLow	52036	6150	2695	-
Checksum (with ABS)	crcHigh	19988	6400	2670	-
	crcLow	52022	6650	2655	-
			6900	2750	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			7050	2750	-
			7150	2700	-
			7200	2700	-





Audi, Cupra, VW

Audi	RS3 LMS SEQ	Limit Support Points		
		fEngRpm	pManifold	rLambda
Cupra	Cupra TCR SEQ			
VW	Golf GTI TCR SEQ	3800	2125	-
		4050	2100	-
Engine	EA888Evo3	4300	2085	-
ECU Make (Type)	Continental (Roadcar)	4550	2055	-
Gearbox	Sadev	4800	2195	-
ECU Type & Power Level	R3	5050	2400	-
Calibration File	-	5300	2535	-
Correction [mbar/°C]	9	5550	2530	-
Checksum	5F6906259AL	5800	2565	-
		6050	2480	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		6300	2420	-
		6550	2340	-
		6700	2305	-
		6800	2230	-

Audi	RS3 LMS DSG	Limit Support Points		
		fEngRpm	pManifold	rLambda
Cupra	Cupra TCR DSG			
VW	Golf GTI TCR DSG	4000	2025	-
		4250	1995	-
Engine	EA888Evo3	4500	1970	-
ECU Make (Type)	Continental (Roadcar)	4750	1950	-
Gearbox	DSG	5000	2090	-
ECU Type & Power Level	R4	5250	2275	-
Calibration File	-	5500	2430	-
Correction [mbar/°C]	5	5750	2445	-
Checksum	5F6906259T	6000	2430	-
		6250	2355	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		6500	2325	-
		6750	2175	-
		6900	1990	-
		7000	1930	-





Audi	RS3 LMS TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Cupra	Leon Competición TCR				
			4000	1970	-
Engine		EA888Evo4	4250	1985	-
ECU Make (Type)		TCR ECU (Common)	4500	1980	-
Gearbox		Hewland	4750	1980	-
ECU Type & Power Level		C3	5000	2040	-
Calibration File		CU-EA888Evo4-C-H-S_2.1.0.clx	5250	2225	-
Correction [mbar/°C]		8	5500	2350	-
Checksum	crcAPP	0x56B994BD	5750	2405	-
	crcPartSign	0x44CB857B	6000	2380	-
	crcPartZero	0x370887BB	6250	2335	-
	crcPartOne	0xE7E98586	6500	2285	-
			6750	2235	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6900	2210	-
			7000	2140	-

Audi	RS3 LMS TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		EA888Evo4	4000	1970	-
ECU Make (Type)		TCR ECU (Common)	4250	1985	-
Gearbox		Sadev	4500	1980	-
ECU Type & Power Level		C3	4750	1980	-
Calibration File		CU-EA888Evo4-C-S-S_2.1.0.clx	5000	2040	-
Correction [mbar/°C]		8	5250	2225	-
Checksum	crcAPP	0x56B994BD	5500	2350	-
	crcPartSign	0x44CB857B	5750	2405	-
	crcPartZero	0x36F9955D	6000	2380	-
	crcPartOne	0x4FDA3EA	6250	2335	-
			6500	2285	-
			6750	2235	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6900	2210	-
			7000	2140	-





Cupra	Leon VZ TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		EA888Evo4	4000	1970	-
ECU Make (Type)		TCR ECU (Common)	4250	1985	-
Gearbox		Hewland	4500	1980	-
ECU Type & Power Level		C3	4750	1980	-
Calibration File		CU-EA888Evo4-C-H-S-VZ_2.1.0.clx	5000	2040	-
Correction [mbar/°C]		8	5250	2225	-
Checksum	crcAPP	0x56B994BD	5500	2350	-
	crcPartSign	0x44CB857B	5750	2405	-
	crcPartZero	0xE3C69C54	6000	2380	-
	crcPartOne	0x9DCC6809	6250	2335	-
			6500	2285	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2235	-
			6900	2210	-
			7000	2140	-

Cupra	Leon VZ TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		EA888Evo4	4000	1970	-
ECU Make (Type)		TCR ECU (Common)	4250	1985	-
Gearbox		Sadev	4500	1980	-
ECU Type & Power Level		C3	4750	1980	-
Calibration File		CU-EA888Evo4-C-S-S-VZ_2.1.0.clx	5000	2040	-
Correction [mbar/°C]		8	5250	2225	-
Checksum	crcAPP	0x56B994BD	5500	2350	-
	crcPartSign	0x44CB857B	5750	2405	-
	crcPartZero	0xBE6F66E6	6000	2380	-
	crcPartOne	0x4B0E094F	6250	2335	-
			6500	2285	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2235	-
			6900	2210	-
			7000	2140	-





Honda

Honda	Civic FK7 TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		K20CRE	4000	2090	-
ECU Make (Type)		MoTeC (Motorsport)	4250	2100	-
Gearbox		any	4500	2100	-
ECU Type & Power Level		M3	4750	2020	-
Calibration File		HO-K20CRE-M-0-0_1.2.0.m1pkg	5000	2115	-
Correction [mbar/°C]		10	5250	2280	-
			5500	2360	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			5750	2495	-
			6000	2460	-
			6250	2390	-
			6500	2350	-
			6750	2260	-
			6900	2240	-
			7000	1900	-

Honda	Civic FL5 TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		K20CRL5	3900	2210	-
ECU Make (Type)		TCR ECU (Common)	4150	2220	-
Gearbox		Sadev	4400	2210	-
ECU Type & Power Level		C3	4650	2240	-
Calibration File		HO-K20CRL5-C-S-S_2.1.0.clx	4900	2260	-
Correction [mbar/°C]		10	5150	2310	-
Checksum	crcAPP	0x56B994BD	5400	2335	-
	crcPartSign	0x44CB857B	5650	2370	-
	crcPartZero	0xFCD0EBBE	5900	2375	-
	crcPartOne	0x63CAB33E	6150	2370	-
			6400	2335	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6650	2285	-
			6800	2260	-
			6900	2180	-





Hyundai

Hyundai		i30 N TCR	Limit Support Points		
Hyundai		Veloster N TCR	<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
			4000	1965	-
Engine		Theta2G4KHA	4250	1970	-
ECU Make (Type)		Life Racing (Motorsport)	4500	1980	-
Gearbox		any	4750	1995	-
ECU Type & Power Level		M2	5000	2050	-
Calibration File		HY-Theta2G4KHA-M2-X-S_1.1.2.lrc	5250	2195	-
Calibration File (with ABS)		HY-Theta2G4KHA-M2-X-E_1.1.2.lrc	5500	2375	-
Correction [mbar/°C]		10	5750	2265	-
Checksum	crcHigh	56934	6000	2165	-
	crcLow	4514	6250	2210	-
Checksum (with ABS)	crcHigh	64473	6500	2190	-
	crcLow	5500	6750	2145	-
			6900	2145	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			7000	1710	-

Hyundai		Elantra N TCR	Limit Support Points		
Hyundai			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		Theta2G4KHN	4000	1925	-
ECU Make (Type)		TCR ECU (Common)	4250	1925	-
Gearbox		Xtrac	4500	1925	-
ECU Type & Power Level		C2	4750	2005	-
Calibration File		HY-Theta2G4KHN-C-X-S_2.2.1.clx	5000	2065	-
Correction [mbar/°C]		8	5250	2175	-
Checksum	crcAPP	0x56B994BD	5500	2295	-
	crcPartSign	0x44CB857B	5750	2330	-
	crcPartZero	0x36916333	6000	2250	-
	crcPartOne	0x3EB9D270	6250	2190	-
			6500	2110	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2075	-
			6900	1925	-
			7000	1500	-





Lada

Lada	Vesta Sport TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		M5P404	3900	1965	-
ECU Make (Type)		Marelli (Motorsport)	4150	1970	-
Gearbox		any	4400	1970	-
ECU Type & Power Level		M3	4650	1980	-
Calibration File		LA-M5P404-M-S-S_1.1.0.clx	4900	2005	-
Correction [mbar/°C]		6	5150	2190	-
Checksum	crcEEP1	39470	5400	2345	-
	crcEEP2	64745	5650	2535	-
	crcAPP1	19289	5900	2575	-
	crcAPP2	6949	6150	2515	-
			6400	2475	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6650	2405	-
			6800	2350	-
			6900	2320	-

Lada	Vesta NG TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		M5P	4000	1915	-
ECU Make (Type)		TCR ECU (Common)	4250	1915	-
Gearbox		any	4500	1935	-
ECU Type & Power Level		C3	4750	1975	-
Calibration File		LA-M5P-C-3-S-16.47_2.1.1.clx	5000	2200	-
Correction [mbar/°C]		9	5250	2505	-
Checksum	crcAPP	0x56B994BD	5500	2690	-
	crcPartSign	0x44CB857B	5750	2640	-
	crcPartZero	0x86B38C68	6000	2630	-
	crcPartOne	0x7D00A315	6250	2580	-
			6500	2520	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2495	-
			6900	2515	-
			7000	2475	-





Lada	Vesta NG TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		M5P	4000	1915	-
ECU Make (Type)		TCR ECU (Common)	4250	1915	-
Gearbox		any + VO323	4500	1935	-
ECU Type & Power Level		C3	4750	1975	-
Calibration File		LA-M5P-C-3-S-18.51_2.1.1.clx	5000	2200	-
Correction [mbar/°C]		9	5250	2505	-
Checksum	crcAPP	0x56B994BD	5500	2690	-
	crcPartSign	0x44CB857B	5750	2640	-
	crcPartZero	0xCD3F72DF	6000	2630	-
	crcPartOne	0xAE3F5948	6250	2580	-
			6500	2520	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2495	-
			6900	2515	-
			7000	2475	-





Lynk&Co

Lynk&Co	03 TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine	B4204T27		4200	2260	-
ECU Make (Type)	MoTeC (Motorsport)		4450	2265	-
Gearbox	any		4700	2295	-
ECU Type & Power Level	M2		4950	2305	-
Calibration File	LynkCo 03 TCR Engine Custom ECU 92.5% v2.02		5200	2310	-
Correction [mbar/°C]	4		5450	2335	-
			5700	2340	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			5950	2335	-
			6200	2330	-
			6450	2330	-
			6700	2325	-
			6950	2295	-
			7100	2285	-
			7200	2265	-

Lynk&Co	03 TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine	B4204T27		4000	2155	-
ECU Make (Type)	TCR ECU (Common)		4250	2180	-
Gearbox	any		4500	1945	-
ECU Type & Power Level	C2		4750	1985	-
Calibration File	LY-B4204T27-C-X-S_2.2.0.clx		5000	2050	-
Correction [mbar/°C]	9		5250	2135	-
Checksum	crcAPP	0x56B994BD	5500	2305	-
	crcPartSign	0x44CB857B	5750	2315	-
	crcPartZero	0xD7B42AE3	6000	2320	-
	crcPartOne	0x6FF7CC55	6250	2355	-
			6500	2380	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2310	-
			6900	2290	-
			7000	1850	-





Lynk&Co	03 FL TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		B4204T57	4000	2205	-
ECU Make (Type)		TCR ECU (Common)	4250	2220	-
Gearbox		Xtrac	4500	2050	-
ECU Type & Power Level		C2	4750	2025	-
Calibration File		LY-B4204T57-C-X-S_2.2.0.clx	5000	2155	-
Correction [mbar/°C]		9	5250	2255	-
Checksum	crcAPP	0x56B994BD	5500	2430	-
	crcPartSign	0x44CB857B	5750	2440	-
	crcPartZero	0xF8D67C68	6000	2430	-
	crcPartOne	0x1D5C8D8E	6250	2455	-
			6500	2490	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2400	-
			6900	2390	-
			7000	1850	-





MG

MG	6 XPOWER TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		SAICNLE	3600	2090	-
ECU Make (Type)		Marelli (Motorsport)	3850	2125	-
Gearbox		any	4100	2150	-
ECU Type & Power Level		M3	4350	2195	-
Calibration File		MG-SAICNLE-M-S-S_1-1-0.clx	4600	2215	-
Correction [mbar/°C]		3	4850	2235	-
Checksum	crcEEP1	11388	5100	2265	-
	crcEEP2	42442	5350	2305	-
	crcAPP1	54219	5600	2275	-
	crcAPP2	29701	5850	2260	-
			6100	2275	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6350	2215	-
			6500	2165	-
			6600	2140	-





Peugeot

Peugeot	308 TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		EP6FDTR	4250	2435	-
ECU Make (Type)		Marelli (Motorsport)	4500	2455	-
Gearbox		any	4750	2505	-
ECU Type & Power Level		M4	5000	2440	-
Calibration File		PE-308-M4_2020-1-0.clx	5250	2380	-
Correction [mbar/°C]		8	5500	2445	-
Checksum	crcFirm1	38630	5750	2515	-
	crcFirm2	3096	6000	2670	-
	crcCalib1	42332	6250	2640	-
	crcCalib2	3334	6500	2630	-
			6750	2660	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			7000	2575	-
			7150	2490	-
			7250	2060	-





Renault

Renault	Mégane RS TCR	Limit Support Points		
		fEngRpm	pManifold	rLambda
Engine	M5PTCE	4350	2475	-
ECU Make (Type)	Bosch (Motorsport)	4600	2585	-
Gearbox	any	4850	2580	-
ECU Type & Power Level	M3	5100	2560	-
Calibration File	RE-Megane-M3_2020-1-0.s19	5350	2560	-
Correction [mbar/°C]	5	5600	2425	-
		5850	2410	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		6100	2305	-
		6350	2445	-
		6600	2430	-
		6850	2425	-
		7100	2510	-
		7250	2460	-
		7350	2335	-





Subaru

Subaru	STI WRX TCR	Limit Support Points		
		fEngRpm	pManifold	rLambda
Engine	EJ20	4100	2130	-
ECU Make (Type)	MoTeC (Motorsport)	4350	2160	-
Gearbox	any	4600	2195	-
ECU Type & Power Level	M4	4850	2220	-
Calibration File	Subaru_STI_TCR_2019_BoP_97	5100	2235	-
Correction [mbar/°C]	2	5350	2245	-
		5600	2260	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		5850	2280	-
		6100	2250	-
		6350	2165	-
		6600	2090	-
		6850	2040	-
		7000	2015	-
		7100	2045	-





Toyota

Toyota	Corolla GRS TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		8ARFTS	3550	2210	-
ECU Make (Type)		TCR ECU (Common)	3800	2280	-
Gearbox		Sadev	4050	2280	-
ECU Type & Power Level		C4	4300	2290	-
Calibration File		TO-8ARFTS-C-S-S_2.1.1.clx	4550	2300	-
Correction [mbar/°C]		7	4800	2340	-
Checksum	crcAPP	0x56B994BD	5050	2350	-
	crcPartSign	0x44CB857B	5300	2380	-
	crcPartZero	0x7D0B9BF4	5550	2360	-
	crcPartOne	0x6328AB5C	5800	2405	-
			6050	2345	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6300	2255	-
			6450	2175	-
			6550	2175	-

