



**РОССИЙСКАЯ СЕРИЯ КОЛЬЦЕВЫХ ГОНОК СМП РСКГ (ЭНДУРАНС)
СЕЗОН 2023 ГОД
БЮЛЛЕТЕНЬ №5Э
ОРГАНИЗАТОРА СПОРТИВНЫХ СОРЕВНОВАНИЙ**

25 мая 2023

Организатор спортивных соревнований доводит до сведения участников следующую информацию:

Настоящий Бюллетень касается проведения соревнований по кольцевым гонкам, входящим в состав спринтерских гонок СМП РСКГ-2023. Он ДОПОЛНЯЕТ Бюллетень 4Э-23 Организатора спортивных соревнований от 17 марта 2023. В случае, если какие-то пункты Бюллетеня 4Э изменяются, это будет указано отдельно. Остальные пункты Бюллетеня 4Э сохраняют свою актуальность.

ПОДГОТОВКА СПОРТИВНОЙ ТЕХНИКИ

1. Зачётная группа «Туринг»

1.1. Подгруппа ТУРИНГ.

1.1.1. Во изменение п.1.1 Приложения 5 к КиТТ («Технические требования для автомобилей ТУРИНГ для кольцевых гонок») допускаются также автомобили с КПП типа DSG на основе актуальных технических форм TCR.

1.1.2. Констатируется актуальный технический BOP Бюллетень TCR 06-23 от 24.05.2023 (в приложении к настоящему Бюллетеню).

1.2. Подгруппа «SMP HISTORIC CUP». Предписания следующих пунктов «Бюллетеня 4С Организатора спортивных соревнований»: п. 7.2 (Изменение названий групп подготовки.) и п. 7.3 (Изменение ряда пунктов Технических требований к автомобилям «Жигули1600» (прежнее название «А1») распространяются также и на соревнования серии СМП РСКГ (ЭНДУРАНС).

2. Зачётная группа «GT4».

2.1. Констатируется актуальный технический BOP Бюллетень SRO «BOP GT4 C-TRACKS MAY2023» от 22.05.2023 (в приложении к настоящему Бюллетеню).

2.2. По письму Заявителя «Академия ралли» от 22/05/2023: разрешить (временно, до осуществления поставки заказанного оборудования) использовать на автомобиле Porsche Cayman 718 GT4 CS MR (СТП РАФ№160694, номер шасси WPO ZZZ 98 ZLK 29 9734) вместо судейской системы сбора данных AIM Memotec EVO5 систему AIM MXL2.

2.3. Минимальный вес. Уточнение п. 3.3. Бюллетеня 4Э Организатора Спортивных соревнований. В соответствии с п. 2.1.2 Приложения 16 к КиТТ: «Контролируемая величина – в соответствии с актуальным «BOP» бюллетенем SRO, увеличенная на 85 кг.»

2.4. В дополнение к п. 2 Приложения 4 к Регламенту («Положение (Регламент) Кубка России 2023 года по кольцевым гонкам на выносливость») публикуется предписание по использованию шин, в зависимости от модели автомобиля:



Porsche Cayman GT4 718 CS MR Porsche Cayman GT4 718 RS CS KTM X-Bow	N2596	250/650R18	A005	Слик
	N2320	250/650R18	A006	Дождь
	N3113	280/680R18	A005	Слик
	N2784	280/680R18	A006	Дождь
Toyota GR Supra GT4	N3066	280/650R18	A005	Слик
	N2923	280/650R18	A006	Дождь
BMW M4 GT4	N3113	280/680R18	A005	Слик
	N2784	280/680R18	A006	Дождь
Mercedes AMG GT4	N3066	280/650R18	A005	Слик
	N2923	280/650R18	A006	Дождь
	N3113	280/680R18	A005	Слик
	N2784	280/680R18	A006	Дождь

3. Зачетная группа «527 Shortcut»

- 3.1. Разрешить установку брызговиков позади передних и задних колес с минимально необходимыми модификациями крыльев и их кронштейнов. Такие брызговики должны быть выполнены из пластика или резины толщиной не менее 4 мм, должны закрывать комплектное колесо по всей ширине при виде сзади, нижняя кромка брызговика должна быть расположена не выше 100 мм от земли.
- 3.2. Во изменение п. 324-9 Технических требований (Приложение 22Б к КиТТ). Настоятельно рекомендуется к использованию в качестве судейской системы сбора данных устройства AIM одной из моделей: MXM с выводом Micro USB; MXS / MXP / MXG / MXL / EVO4S / EVO5 с модулем памяти AIM X05SNST10G.

Приложения:

1. Технический ВОР Бюллетень TCR 06-23 от 24.05.2023;
2. ВОР Бюллетень SRO «ВОР GT4 C-TRACKS MAY2023» от 22.05.2023.

TCR TECHNICAL BULLETIN

24/05/2023

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

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
FIAT	Tipo TCR	M
Honda	Civic FK2 TCR	M
Honda	Civic FK7 TCR	M
Honda	Civic FK7 TCR	C
Honda	Civic FL5 TCR	C
Hyundai	Elantra N TCR	C
Hyundai	i30 N TCR	M
Hyundai	i30 N TCR	C
Hyundai	Veloster N TCR	M
Kia	Cee'd TCR	M
Lada	Vesta Sport TCR	M
Lada	Vesta TCR	M
Lada	Vesta NG TCR	C
Lynk&Co	03 TCR	M
Lynk&Co	03 TCR	C
Lynk&Co	03 FL TCR	C
MG**	5 XPOWER TCR	C
MG	6 XPOWER TCR	M
Opel (Holden / Vauxhall)	Astra TCR	M
Peugeot	308 TCR	M
Peugeot	308 Racing Cup	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		

The following article of the TCR Technical Regulation 2023. will be modified as follow (modification in bold)

With Reference to Technical Bulletin no. 4 (BIS-II):

The following applies only to any competitor attending to any TCR World Tour event:

As by immediate effect: any systems which perform lap time predictions or allow the driver to understand its running lap-time, or a performance reference respect to a set lap time are considered driving aids, referring then to 2023 TCR Technical Regulation - Art. 3.8 "Driving aids".

List of Changes

- BoP Parameters:
 - Peugeot 308 TCR: Change of Assignet Ballast to -60 kg (-10 kg)
 - Renault Mégane RS TCR: Change of Assigned Ballast to -10 kg (+10 kg) and Ground Clearance to 70 mm (+10 mm)

General Secretary of the Technical Department
Riccardo Alborno

Riccardo Alborno

TCR BoP & Certified Cars (Modifications in bold):

Brand	Model	ECU Type & Power Level	Target Racing Weight	Assigned Ballast	Minimum Racing Weight	Ground Clearance
Alfa-Romeo	Giulietta Veloce TCR	M5	1265 kg	- 10kg	1255 kg	70 mm
Alfa-Romeo	Giulietta RF TCR	M6	1265 kg	- 10kg	1255 kg	70 mm
Audi	RS3 LMS SEQ	R5	1265 kg	- 10kg	1255 kg	70 mm
Audi	RS3 LMS DSG	R6	1230 kg	+ 20kg	1250 kg	70 mm
Audi	RS3 LMS TCR	C5	1265 kg	0kg	1265 kg	70 mm
Cupra	TCR SEQ	R5	1265 kg	0kg	1265 kg	70 mm
Cupra	TCR DSG	R6	1230 kg	0kg	1230 kg	70 mm
Cupra	Leon Competición TCR	C5	1265 kg	- 10kg	1255 kg	70 mm
Fiat	Tipo TCR	M5	1265 kg	- 10kg	1255 kg	70 mm
Honda	Civic FK2 TCR	M5	1265 kg	- 20kg	1245 kg	70 mm
Honda	Civic FK7 TCR	M5	1265 kg	+ 20kg	1285 kg	70 mm
Honda	Civic FK7 TCR	C5	1265 kg	+ 20kg	1285 kg	70 mm
Honda	Civic FL5 TCR	C5	1265 kg	0kg	1265 kg	80 mm
Hyundai	i30 N TCR	M4	1265 kg	+ 30kg	1295 kg	80 mm
Hyundai	i30 N TCR	C4	1265 kg	+ 30kg	1295 kg	80 mm
Hyundai	Veloster N TCR	M4	1265 kg	+ 30kg	1295 kg	90 mm
Hyundai	Elantra N TCR	C4	1265 kg	+ 10kg	1275 kg	80 mm
KIA	Cee'd TCR	M5	1265 kg	- 10kg	1255 kg	70 mm
Lada	Vesta Sport TCR	M5	1265 kg	+ 40kg	1305 kg	80 mm
Lada	Vesta TCR	M5	1265 kg	+ 10kg	1275 kg	70 mm
Lada	Vesta NG TCR	C5	1265 kg	+ 40kg	1305 kg	80 mm
Lynk&Co	03 TCR	M4	1265 kg	+ 40kg	1305 kg	80 mm
Lynk&Co	03 TCR	C4	1265 kg	+ 40kg	1305 kg	80 mm
Lynk&Co	03 FL TCR	C4	1265 kg	+ 20kg	1285 kg	80 mm
MG	5 XPOWER TCR	C5	1265 kg	0kg	1265 kg	80 mm
MG	6 XPOWER TCR	M5	1265 kg	0kg	1265 kg	70 mm
Opel / Holden / Vauxhall	Astra TCR	M6	1265 kg	0kg	1265 kg	70 mm
Peugeot	308 TCR	M6	1265 kg	- 60kg	1205 kg	60 mm
Peugeot	308 Racing Cup	M6	1225 kg	- 10kg	1215 kg	70 mm
Renault	Mégane RS TCR	M5	1265 kg	- 10kg	1255 kg	70 mm
Subaru	WRX STI TCR	M6	1265 kg	- 10kg	1255 kg	70 mm
Toyota	Corolla GRS TCR	C5	1265 kg	0kg	1265 kg	70 mm
VW	Golf GTI TCR SEQ	R5	1265 kg	- 10kg	1255 kg	60 mm
VW	Golf GTI TCR DSG	R6	1230 kg	- 10kg	1220 kg	60 mm

* R: Road Car ECU, M: Motorsport ECU, C: Common ECU; numbers 1 to 6 denominate power levels as per Technical Regulation

BoP for ENDURANCE races only (Modifications in bold)

Brand	Model	ECU Type & Power Level	Endurance Target Racing Weight	Assigned Ballast	Endurance Minimum Weight	Ground Clearance
Alfa-Romeo	Giulietta Veloce TCR	M5	1210 kg	- 5kg	1205 kg	70 mm
Alfa-Romeo	Giulietta RF TCR	M6	1210 kg	- 5kg	1205 kg	70 mm
Audi	RS3 LMS SEQ	R5	1210 kg	- 5kg	1205 kg	70 mm
Audi	RS3 LMS DSG	R6	1185 kg	+ 10kg	1195 kg	70 mm
Audi	RS3 LMS TCR	C5	1210 kg	0kg	1210 kg	70 mm
Cupra	TCR SEQ	R5	1210 kg	0kg	1210 kg	70 mm
Cupra	TCR DSG	R6	1185 kg	0kg	1185 kg	70 mm
Cupra	Leon Competición TCR	C5	1210 kg	- 5kg	1205 kg	70 mm
Fiat	Tipo TCR	M5	1210 kg	- 5kg	1205 kg	70 mm
Honda	Civic FK2 TCR	M5	1210 kg	- 10kg	1200 kg	70 mm
Honda	Civic FK7 TCR	M5	1210 kg	+ 10kg	1220 kg	70 mm
Honda	Civic FK7 TCR	C5	1210 kg	+ 10kg	1220 kg	70 mm
Honda	Civic FL5 TCR	C5	1210 kg	0kg	1210 kg	80 mm
Hyundai	i30 N TCR	M4	1210 kg	+ 15kg	1225 kg	80 mm
Hyundai	i30 N TCR	C4	1210 kg	+ 15kg	1225 kg	80 mm
Hyundai	Veloster N TCR	M4	1210 kg	+ 15kg	1225 kg	90 mm
Hyundai	Elantra N TCR	C4	1210 kg	+ 5kg	1215 kg	80 mm
KIA	Cee'd TCR	M5	1210 kg	- 5kg	1205 kg	70 mm
Lada	Vesta Sport TCR	M5	1210 kg	+ 20kg	1230 kg	80 mm
Lada	Vesta TCR	M5	1210 kg	+ 5kg	1215 kg	70 mm
Lada	Vesta NG TCR	C5	1210 kg	+ 20kg	1230 kg	80 mm
Lynk&Co	03 TCR	M4	1210 kg	+ 20kg	1230 kg	80 mm
Lynk&Co	03 TCR	C4	1210 kg	+ 20kg	1230 kg	80 mm
Lynk&Co	03 FL TCR	C4	1210 kg	+ 10kg	1220 kg	80 mm
MG	5 XPOWER TCR	C5	1210 kg	0kg	1210 kg	80 mm
MG	6 XPOWER TCR	M5	1210 kg	0kg	1210 kg	70 mm
Opel / Holden / Vauxhall	Astra TCR	M6	1210 kg	0kg	1210 kg	70 mm
Peugeot	308 TCR	M6	1210 kg	- 30kg	1180 kg	60 mm
Peugeot	308 Racing Cup	M6	1185 kg	- 5kg	1180 kg	70 mm
Renault	Mégane RS TCR	M5	1210 kg	- 5kg	1205 kg	70 mm
Subaru	WRX STI TCR	M6	1210 kg	- 5kg	1205 kg	70 mm
Toyota	Corolla GRS TCR	C5	1210 kg	0kg	1210 kg	70 mm
VW	Golf GTI TCR SEQ	R5	1210 kg	- 5kg	1205 kg	60 mm
VW	Golf GTI TCR DSG	R6	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		Giulietta Veloce TCR	Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		FPT	4200	2460	0.84
ECU Make (Type)		Life Racing (Motorsport)	4450	2485	0.83
Gearbox		any	4700	2630	0.83
ECU Type & Power Level		M5	4950	2715	0.84
Calibration File		AL-FPT-M5-S-S_1.1.2.lrc	5200	2715	0.83
Calibration File (with ABS)		AL-FPT-M5-S-E_1.1.2.lrc	5450	2720	0.82
Correction [mbar/°C]		1	5700	2725	0.81
Checksum	crcHigh	42313	5950	2720	0.80
	crcLow	49756	6200	2720	0.81
Checksum (with ABS)	crcHigh	44909	6450	2705	0.81
	crcLow	49742	6700	2680	0.82
			6950	2750	0.82
		<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>	7100	2750	0.82
			7200	2700	-

Alfa Romeo		Giulietta RF TCR	Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		FPT	4200	2455	0.84
ECU Make (Type)		Life Racing (Motorsport)	4450	2495	0.84
Gearbox		any	4700	2645	0.84
ECU Type & Power Level		M6	4950	2715	0.84
Calibration File		AL-FPT-M6-S-S_1.1.2.lrc	5200	2720	0.84
Calibration File (with ABS)		AL-FPT-M6-S-E_1.1.2.lrc	5450	2720	0.84
Correction [mbar/°C]		1	5700	2720	0.82
Checksum	crcHigh	42953	5950	2725	0.82
	crcLow	55089	6200	2725	0.82
Checksum (with ABS)	crcHigh	45549	6450	2725	0.82
	crcLow	55075	6700	2720	0.81
			6950	2725	0.80
		<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>	7100	2725	0.80
			7200	2660	-

Audi, Cupra, VW

Audi	RS3 LMS SEQ	Limit Support Points		
		fEngRpm	pManifold	rLambda
Cupra	Cupra TCR SEQ			
VW	Golf GTI TCR SEQ	3800	2355	-
		4050	2355	-
Engine	EA888Evo3	4300	2290	-
ECU Make (Type)	Continental (Roadcar)	4550	2315	-
Gearbox	Sadev	4800	2425	-
ECU Type & Power Level	R5	5050	2550	-
Calibration File	-	5300	2715	-
Correction [mbar/°C]	9	5550	2725	-
Checksum	5F6906259AJ	5800	2705	-
		6050	2660	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		6300	2580	-
		6550	2480	-
		6700	2430	-
		6800	2390	-

Audi	RS3 LMS DSG	Limit Support Points		
		fEngRpm	pManifold	rLambda
Cupra	Cupra TCR DSG			
VW	Golf GTI TCR DSG	4000	2450	-
		4250	2450	-
Engine	EA888Evo3	4500	2450	-
ECU Make (Type)	Continental (Roadcar)	4750	2450	-
Gearbox	DSG	5000	2450	-
ECU Type & Power Level	R6	5250	2540	-
Calibration File	-	5500	2630	-
Correction [mbar/°C]	5	5750	2640	-
Checksum	5F6906259L	6000	2650	-
		6250	2615	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		6500	2580	-
		6750	2550	-
		6900	2540	-
		7000	2520	-

Audi	RS3 LMS TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Cupra	Leon Competición TCR				
			4000	2090	0.87
Engine		EA888Evo4	4250	2110	0.87
ECU Make (Type)		TCR ECU (Common)	4500	2100	0.87
Gearbox		Hewland	4750	2105	0.87
ECU Type & Power Level		C5	5000	2155	0.87
Calibration File		CU-EA888Evo4-C-H-S_1.3.10.clx	5250	2345	0.87
Correction [mbar/°C]		8	5500	2475	0.87
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5750	2530	0.87
	crcPartSign	0xD7581A9B	6000	2485	0.87
	crcPartZero	0x31845812	6250	2470	0.87
	crcPartOne	0xF95805A9	6500	2415	0.87
			6750	2365	0.87
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6900	2270	0.87
			7000	2240	-

Audi	RS3 LMS TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		EA888Evo4	4000	2090	0.87
ECU Make (Type)		TCR ECU (Common)	4250	2110	0.87
Gearbox		Sadev	4500	2100	0.87
ECU Type & Power Level		C5	4750	2105	0.87
Calibration File		CU-EA888Evo4-C-S-S_1.3.10.clx	5000	2155	0.87
Correction [mbar/°C]		8	5250	2345	0.87
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5500	2475	0.87
	crcPartSign	0xD7581A9B	5750	2530	0.87
	crcPartZero	0x424FD3E3	6000	2485	0.87
	crcPartOne	0xD0FAEADD	6250	2470	0.87
			6500	2415	0.87
			6750	2365	0.87
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6900	2270	0.87
			7000	2240	-

Fiat

Fiat	Tipo TCR	Limit Support Points		
		<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine	ZAR949VP	4000	2385	-
ECU Make (Type)	MoTeC (Motorsport)	4250	2370	-
Gearbox	any	4500	2385	-
ECU Type & Power Level	M5	4750	2290	-
Calibration File	FI-Tipo-M0-S-S_1.1.0.m1pkg	5000	2275	-
Correction [mbar/°C]	10	5250	2340	-
		5500	2490	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		5750	2590	-
		6000	2580	-
		6250	2665	-
		6500	2625	-
		6750	2630	-
		6900	2525	-
		7000	2510	-

Honda

Honda	Civic FK2 TCR	Limit Support Points		
		fEngRpm	pManifold	rLambda
Engine	K20CR	4100	2130	-
ECU Make (Type)	EFI (Motorsport)	4350	2130	-
Gearbox	any	4600	2130	-
ECU Type & Power Level	M5	4850	2200	-
Calibration File	TCR-C2.7.98+7.5	5100	2275	-
Correction [mbar/°C]	2	5350	2345	-
		5600	2415	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		5850	2480	-
		6100	2550	-
		6350	2545	-
		6600	2540	-
		6850	2455	-
		7000	2430	-
		7100	2370	-

Honda	Civic FK7 TCR	Limit Support Points		
		fEngRpm	pManifold	rLambda
Engine	K20CRE	4000	2320	0.82
ECU Make (Type)	MoTeC (Motorsport)	4250	2330	0.82
Gearbox	any	4500	2340	0.82
ECU Type & Power Level	M5	4750	2370	0.82
Calibration File	HO-K20CRE-M-0-0_1.2.0.m1pkg	5000	2395	0.82
Correction [mbar/°C]	10	5250	2495	0.82
		5500	2570	0.82
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		5750	2570	0.84
		6000	2535	0.84
		6250	2565	0.82
		6500	2515	0.82
		6750	2450	0.82
		6900	2390	0.83
		7000	2100	-

Honda		Civic FK7 TCR	Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		K20CRE	4000	2345	0.82
ECU Make (Type)		TCR ECU (Common)	4250	2345	0.82
Gearbox		any	4500	2345	0.82
ECU Type & Power Level		C5	4750	2370	0.82
Calibration File		HO-K20CRE-C-X-S_1.3.0.clx	5000	2430	0.82
Correction [mbar/°C]		10	5250	2470	0.82
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5500	2515	0.82
	crcPartSign	0xD7581A9B	5750	2545	0.85
	crcPartZero	0xBA27FF29	6000	2545	0.85
	crcPartOne	0xF8B178FD	6250	2545	0.82
			6500	2500	0.82
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2460	0.82
			6900	2385	0.81
			7000	2070	-

Honda		Civic FL5 TCR	Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		K20CRL5	3900	2345	-
ECU Make (Type)		TCR ECU (Common)	4150	2350	-
Gearbox		Sadev	4400	2345	-
ECU Type & Power Level		C5	4650	2380	-
Calibration File		HO-K20CRL5-C-S-S_1.1.1.clx	4900	2410	-
Correction [mbar/°C]		10	5150	2440	-
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5400	2480	-
	crcPartSign	0xD7581A9B	5650	2510	-
	crcPartZero	0xDEDC3DBA	5900	2500	-
	crcPartOne	0x5F12A47A	6150	2510	-
			6400	2480	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6650	2440	-
			6800	2400	-
			6900	2330	-

Hyundai

Hyundai	i30 N TCR		Limit Support Points		
Hyundai	Veloster N TCR		<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
			4000	2065	0.90
Engine		Theta2G4KHA	4250	2065	0.88
ECU Make (Type)		Life Racing (Motorsport)	4500	2065	0.86
Gearbox		any	4750	2090	0.86
ECU Type & Power Level		M4	5000	2195	0.85
Calibration File		HY-Theta2G4KHA-M4-X-S_1.1.2.lrc	5250	2360	0.84
Calibration File (with ABS)		HY-Theta2G4KHA-M4-X-E_1.1.2.lrc	5500	2570	0.82
Correction [mbar/°C]		10	5750	2390	0.82
Checksum	crcHigh	57087	6000	2385	0.83
	crcLow	50211	6250	2400	0.82
Checksum (with ABS)	crcHigh	64626	6500	2380	0.82
	crcLow	50197	6750	2370	0.82
			6900	2370	0.85
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			7000	1705	-

Hyundai	i30 N TCR		Limit Support Points		
Hyundai	Veloster N TCR		<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
			4000	1920	0.90
Engine		Theta2G4KHA	4250	1920	0.90
ECU Make (Type)		TCR ECU (Common)	4500	1920	0.90
Gearbox		any	4750	1950	0.90
ECU Type & Power Level		C4	5000	2105	0.89
Calibration File		HY-Theta2G4KHA-C-X-S_1-3-1.clx	5250	2315	0.85
Correction [mbar/°C]		5	5500	2475	0.84
Checksum	crcAPP	0x6E74FF10	5750	2475	0.83
	crcPartSign	0x5A69C95F	6000	2430	0.82
	crcPartZero	0x88951EB1	6250	2390	0.82
	crcPartOne	0xBB3E4051	6500	2345	0.82
			6750	2305	0.82
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6900	2220	0.82
			7000	2045	-

Hyundai		Elantra N TCR	Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		Theta2G4KHN	4000	2090	0.86
ECU Make (Type)		TCR ECU (Common)	4250	2100	0.86
Gearbox		any	4500	2105	0.86
ECU Type & Power Level		C4	4750	2175	0.86
Calibration File		HY-Theta2G4KHN-C-X-S_1.3.1.clx	5000	2260	0.86
Correction [mbar/°C]		8	5250	2330	0.86
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5500	2390	0.86
	crcPartSign	0xD7581A9B	5750	2410	0.86
	crcPartZero	0xB373A174	6000	2370	0.86
	crcPartOne	0X5878BD20	6250	2300	0.86
			6500	2245	0.84
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2180	0.84
			6900	2035	0.84
			7000	2000	-

KIA

KIA	Cee'd TCR	Limit Support Points		
		<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine	G4KH	3900	2430	-
ECU Make (Type)	MoTeC (Motorsport)	4150	2430	-
Gearbox	any	4400	2430	-
ECU Type & Power Level	M5	4650	2490	-
Calibration File	1502_KIA_TCR_100%_WSC_BoP_19_final	4900	2545	-
Correction [mbar/°C]	1	5150	2560	-
		5400	2570	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		5650	2665	-
		5900	2560	-
		6150	2555	-
		6400	2550	-
		6650	2540	-
		6800	2535	-
		6900	2530	-

Lada

Lada	Vesta Sport TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		M5P404	3900	2165	0.79
ECU Make (Type)		Marelli (Motorsport)	4150	2165	0.79
Gearbox		any	4400	2155	0.79
ECU Type & Power Level		M5	4650	2190	0.79
Calibration File		LA-M5P404-M-S-S_1.1.0.clx	4900	2240	0.78
Correction [mbar/°C]		6	5150	2310	0.78
Checksum	crcEEP1	39470	5400	2465	0.77
	crcEEP2	64745	5650	2655	0.77
	crcAPP1	19289	5900	2675	0.76
	crcAPP2	6949	6150	2685	0.76
			6400	2645	0.76
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6650	2585	0.76
			6800	2520	0.76
			6900	2490	-

Lada	Vesta TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		M5P404	3750	2230	-
ECU Make (Type)		Marelli (Motorsport)	4000	2230	-
Gearbox		any	4250	2230	-
ECU Type & Power Level		M5	4500	2250	-
Calibration File		SRG_MMGEN_14X_12.10.1.3	4750	2270	-
Correction [mbar/°C]		6	5000	2320	-
Checksum	crcEEP	0xfc35a13a	5250	2370	-
	crcAPP	0x2bebc88a	5500	2435	-
			5750	2500	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6000	2460	-
			6250	2420	-
			6500	2260	-
			6650	2230	-
			6750	2470	-

Lada	Vesta NG TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		M5P	4000	1985	-
ECU Make (Type)		TCR ECU (Common)	4250	2010	-
Gearbox		any	4500	2020	-
ECU Type & Power Level		C5	4750	2020	-
Calibration File		LA-M5P-C-3-S-16.47_1.1.4.clx	5000	2080	-
Correction [mbar/°C]		9	5250	2245	-
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5500	2515	-
	crcPartSign	0xD7581A9B	5750	2755	-
	crcPartZero	0x4DEE1648	6000	2750	-
	crcPartOne	0xE871D358	6250	2715	-
			6500	2660	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2655	-
			6900	2650	-
			7000	2590	-

Lada	Vesta NG TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		M5P	4000	1985	-
ECU Make (Type)		TCR ECU (Common)	4250	2010	-
Gearbox		any + VO323	4500	2020	-
ECU Type & Power Level		C5	4750	2020	-
Calibration File		LA-M5P-C-3-S-18.51_1.1.4.clx	5000	2080	-
Correction [mbar/°C]		9	5250	2245	-
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5500	2515	-
	crcPartSign	0xD7581A9B	5750	2755	-
	crcPartZero	0xFB7EB95C	6000	2750	-
	crcPartOne	0x8F5F50A1	6250	2715	-
			6500	2660	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2655	-
			6900	2650	-
			7000	2590	-

Lynk&Co

Lynk&Co	03 TCR	Limit Support Points		
		fEngRpm	pManifold	rLambda
Engine	B4204T27	4200	2420	-
ECU Make (Type)	MoTeC (Motorsport)	4450	2420	-
Gearbox	any	4700	2420	-
ECU Type & Power Level	M4	4950	2435	-
Calibration File	LynkCo 03 TCR Engine Custom ECU 97% v2.02	5200	2450	-
Correction [mbar/°C]	4	5450	2460	-
		5700	2470	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		5950	2470	-
		6200	2470	-
		6450	2480	-
		6700	2490	-
		6950	2470	-
		7100	2460	-
		7200	2440	-

Lynk&Co	03 TCR	Limit Support Points			
		fEngRpm	pManifold	rLambda	
Engine	B4204T27	4000	2470	0.81	
ECU Make (Type)	TCR ECU (Common)	4250	2470	0.81	
Gearbox	any	4500	2470	0.81	
ECU Type & Power Level	C4	4750	2490	0.81	
Calibration File	LY-B4204T27-C-X-S_1.1.7.clx	5000	2530	0.81	
Correction [mbar/°C]	9	5250	2530	0.81	
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5500	2545	0.80
	crcPartSign	0xD7581A9B	5750	2525	0.79
	crcPartZero	0x85DEB706	6000	2525	0.79
	crcPartOne	0xD76EEB1C	6250	2525	0.79
		6500	2480	0.79	
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		6750	2410	0.79	
		6900	2350	0.79	
		7000	2310	-	

Lynk&Co	03 FL TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		B4204T57	4000	2315	-
ECU Make (Type)		TCR ECU (Common)	4250	2230	-
Gearbox		Xtrac	4500	2050	-
ECU Type & Power Level		C4	4750	2050	-
Calibration File		LY-B4204T57-C-X-S_1.1.0.clx	5000	2050	-
Correction [mbar/°C]		9	5250	2330	-
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5500	2460	-
	crcPartSign	0xD7581A9B	5750	2490	-
	crcPartZero	0x577C1140	6000	2530	-
	crcPartOne	0xF893DB16	6250	2560	-
			6500	2550	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6750	2450	-
			6900	2430	-
			7000	2150	-

MG

MG	5 XPOWER TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine	SAICNF2 HP		3800	2100	-
ECU Make (Type)	TCR ECU (Common)		4050	2260	-
Gearbox	any		4300	2425	-
ECU Type & Power Level	C5		4550	2550	-
Calibration File	MG-SAICNF2HP-C-X-S_1.1.0.clx		4800	2605	-
Correction [mbar/°C]	10		5050	2580	-
			5300	2580	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			5550	2565	-
			5800	2560	-
			6050	2540	-
			6300	2465	-
			6550	2335	-
			6700	2270	-
			6800	2270	-

MG	6 XPOWER TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine	SAICNLE		3600	2140	0.84
ECU Make (Type)	Marelli (Motorsport)		3850	2200	0.84
Gearbox	any		4100	2265	0.84
ECU Type & Power Level	M5		4350	2300	0.84
Calibration File	MG-SAICNLE-M-S-S_1-1-0.clx		4600	2320	0.84
Correction [mbar/°C]	3		4850	2345	0.84
Checksum	crcEEP1	11388	5100	2385	0.84
	crcEEP2	42442	5350	2400	0.84
	crcAPP1	54219	5600	2395	0.84
	crcAPP2	29701	5850	2390	0.84
			6100	2385	0.84
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6350	2335	0.84
			6500	2265	0.84
			6600	2240	-

Opel / Holden / Vauxhall

Opel / Holden / Vauxhall	Astra TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		OP-B20NFT	3900	2260	-
ECU Make (Type)		Marelli (Motorsport)	4150	2325	-
Gearbox		any	4400	2410	-
ECU Type & Power Level		M6	4650	2480	-
Calibration File		OP-B20NFT-M6-S-S_1.1.0.clx	4900	2560	-
Correction [mbar/°C]		2	5150	2625	-
Checksum	crcAPP1	49229	5400	2675	-
	crcAPP2	49062	5650	2730	-
	crcEEP1	2945	5900	2725	-
	crcEEP2	60244	6150	2680	-
			6400	2580	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6650	2445	-
			6800	2370	-
			6900	2330	-

Peugeot

Peugeot	308 TCR		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		EP6FDTR	4250	2580	0.78
ECU Make (Type)		Marelli (Motorsport)	4500	2600	0.77
Gearbox		any	4750	2640	0.75
ECU Type & Power Level		M6	5000	2590	0.82
Calibration File		PE-308-M6_2020-1-0.clx	5250	2505	0.87
Correction [mbar/°C]		8	5500	2530	0.82
Checksum	crcFirm1	38630	5750	2690	0.79
	crcFirm2	3096	6000	2840	0.75
	crcCalib1	42534	6250	2800	0.76
	crcCalib2	34464	6500	2810	0.77
			6750	2795	0.77
			7000	2785	0.78
			7150	2685	0.84
			7250	2185	-

units: [1/min] for fEngRpm, [mbar] for pManifold

Peugeot	308 Racing Cup		Limit Support Points		
			fEngRpm	pManifold	rLambda
Engine		EP6FDTR	4000	2840	-
ECU Make (Type)		Marelli (Motorsport)	4250	2840	-
Gearbox		any	4500	2840	-
ECU Type & Power Level		M5	4750	2840	-
Calibration File		T9CUP_SP98_12.8.4.8_18S24_100%.pta	5000	2840	-
Correction [mbar/°C]		1	5250	2850	-
Checksum	crcAPP	0x5B17AD1B	5500	2860	-
	crcEEP	0xDEE2825D	5750	2835	-
			6000	2800	-
			6250	2740	-
			6500	2690	-
			6750	2575	-
			6900	2480	-
			7000	2460	-

units: [1/min] for fEngRpm, [mbar] for pManifold

Renault

Renault	Mégane RS TCR	Limit Support Points		
		<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine	M5PTCE	4350	2725	0.87
ECU Make (Type)	Bosch (Motorsport)	4600	2770	0.86
Gearbox	any	4850	2785	0.85
ECU Type & Power Level	M5	5100	2785	0.84
Calibration File	RE-Megane-M5_2020-1-0.s19	5350	2830	0.83
Correction [mbar/°C]	5	5600	2820	0.81
		5850	2840	0.79
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		6100	2840	0.78
		6350	2890	0.77
		6600	2910	0.77
		6850	2900	0.77
		7100	2860	0.77
		7250	2825	0.77
		7350	2770	-

Subaru

Subaru	STI WRX TCR	Limit Support Points		
		<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine	EJ20	4200	2345	-
ECU Make (Type)	MoTeC (Motorsport)	4450	2345	-
Gearbox	any	4700	2345	-
ECU Type & Power Level	M6	4950	2400	-
Calibration File	Subaru_STI_TCR_2019_BoP_102	5200	2450	-
Correction [mbar/°C]	2	5450	2600	-
		5700	2750	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>		5950	2725	-
		6200	2700	-
		6450	2600	-
		6700	2500	-
		6950	2450	-
		7100	2440	-
		7200	2400	-

Toyota

Toyota	Corolla GRS TCR		Limit Support Points		
			<i>fEngRpm</i>	<i>pManifold</i>	<i>rLambda</i>
Engine		8ARFTS	3550	2290	-
ECU Make (Type)		TCR ECU (Common)	3800	2340	-
Gearbox		any	4050	2350	-
ECU Type & Power Level		C5	4300	2365	-
Calibration File		TO-8ARFTS-C-S-S_1.2.0.clx	4550	2385	-
Correction [mbar/°C]		7	4800	2420	-
Checksum	crcAPP	0x93ED6C14 or 0x12346563	5050	2440	-
	crcPartSign	0xD7581A9B	5300	2460	-
	crcPartZero	0x118B3CB6	5550	2455	-
	crcPartOne	0x6B2F2A0	5800	2475	-
			6050	2410	-
<i>units: [1/min] for fEngRpm, [mbar] for pManifold</i>			6300	2330	-
			6450	2270	-
			6550	2195	-



Balance of Performance SRO GT4 CARS Tracks C



BALANCE OF PERFORMANCE FOR SRO GT4 CARS:

Tracks C

These balance of performance measures are the result of the tests, research, analysis and projections performed by SRO Ltd and are the sole property of SRO Ltd. Other series promoters, race organisers and national sporting authorities cannot use all or part of them without SRO Ltd's prior written consent. Any contravention will result in a legal action.

Remarks :

- Additional BOP Ballast must be installed according with art. 4.2 and art 4.3 of the GT4 Technical Regulations
- ECU BOP maps are saved in the dataloggers for scrutineering.
- GT4 Cars are only eligible if presented with GT4 homologation file and SRO GT4 Certificate
- SRO GT Bureau can use any parameter for BOP purposes and can change the BOP of any car at any moment during the event.
- Engine reference data (iA, Lambda, Fuel inj, Cam In/Out, airbox pressure) is the one collected during BOP tests and will be used for checks.
- If noted differently in comments the (e.g. iA, Lambda, Fuel inj, Cam In/Out, airbox pressure) is set as reference.
- Turbo cars without adaptable pboost , identified by * in the BOP sheet, need to add +15kg per 20 mbar ambient pressure delta under 1010mbar, this means + 15 kg at Patmo of 990mb, +30 kg at Patmo of 970 mbar and +45 kg at Patmo of 950 mbar.
- BMW M4 GT4 G82 adapt at Patmo via LT. Reference is 1010 mbar, -1 LT must be applied per -20 mbar Patmo, this means -1 LT at Patmo of 990mb, -2 LT at Patmo of 970 mbar and -3 LT at Patmo of 950 mbar.
- Max static rear camber – 3,5°



Balance of Performance SRO GT4 CARS Tracks C



Make	Model	Min Weight kg	BOP Ballast kg	Total weight	Ride Height Front	BOP extra mm	Ride Height Rear	BOP Extra mm	Comments
Alpine	A110 GT4 2020	1080	+75	1155	70	+25	70	+15	*ECU BOP 2020 MAP 7 /max 6450 rpm
Alpine	A110 GT4 2022	1080	+100	1180	70	+25	81,60	+20	*ECU BOP 2022 MAP 11 /max 7000 rpm
Aston Martin	Vantage AMR GT4	1445	+45	1490	93	+10	102	+5	ECU BOP 2020 SRO MAP 2
Audi	R8 LMS GT4	1460	+55	1515	95	+10	107	+0	Restrictor 44 mm ECU BOP 2021
BMW	F82 M4 GT4	1430	+45	1475	124	+10	119	+0	Gold Stick / Silver Stick when =< 950mBar
BMW	G82 M4 GT4	1480	+10	1490	138,90	+11,10	149,50	+10,50	MAP 5 LT +2 ECU BOP 10/2022
Chevrolet	Camaro GT4-R	1420	+30	1450	110	+5	123	+0	Restrictor 62mm ECU MAP BOP 2020
Ford	Mustang GT4	1490	+10	1500	102	+10	203	+5	Restrictor 63mm ECU MAP BOP 2020
Mercedes	AMG GT4	1400	+60	1460	93	+10	96	+5	POWER LEVEL 2 ECU MAP BOP 2020
Porsche	718 Cayman GT4 CS MR	1301	+14	1315	101	+5	94	+0	ECU BOP MAP 2020
Porsche	718 Cayman GT4 RS CS	1330	+90	1420	97	+15	100	+5	Restrictor 53,7 mm ECU BOP 2022
Toyota	GR Supra GT4	1360	+25	1385	175	+5	175	+5	Green Power Stick BOP 2022
Toyota	GR Supra GT4 EVO	1370	+40	1410	165	+10	165	+0	Silver Power Stick ECU BOP 2023