«Согласовано» Комитет кольцевых гонок РАФ «25» сентября 2024	«Утверждено» АНО СМП РЭЙСИНГ (Гонки) «25» сентября 2024

Организатор спортивных соревнований доводит до сведения участников следующую информацию:

Настоящий Бюллетень дополняет ранее выпущенные (в сезоне 2024) бюллетени и решения, касающиеся проведения соревнований по кольцевым гонкам, входящим в состав спринтерских гонок СМП РСКГ. В случае противоречий, приоритет имеют предписания настоящего Бюллетеня.

ОБЩИЕ ВОПРОСЫ.

1. **Входная техническая инспекция на предстоящем 8 этапе СМП РСКГ** («Форт Грозный», 03 – 05 октября 2024), кроме 3Г Туринг, будет проводиться по обычному сценарию, по расписанию, в палатках. **ВТИ для 3Г Туринг** будет проводиться **по боксам, вечером 02 октября.** Расписание ВТИ (и время начала ВТИ для 3Г Туринг) будут опубликованы в группе «Представители РСКГ».
2. **На основании п.4.7.21 СК РАФ, Организатор имеет право отказать в приеме заявки на участие в финальном этапе многоэтапного чемпионата, кубка России заявителю/спортсмену, ранее не стартовавшему в многоэтапном соревновании сезона.**

ПОДГОТОВКА СПОРТИВНОЙ ТЕХНИКИ

3. **Зачётная группа «Туринг»**
   - 3.1. Констатируется актуальный технический ВОР Бюллетень TCR 09-24 от 12.09.2024 (в Приложении к настоящему Бюллетеню).
   - 3.2. Таблица компенсационных весов на 6 этап ЧР (в Приложении к настоящему Бюллетеню).
   - 3.3. На автомобилях, соответствующих «Техническим требованиям к автомобилям ТУРИНГ для кольцевых гонок» (Приложение 5 к КиТТ) разрешить использования автошины YOKOHAMA N2596 250/650/R18 A005 вместо YOKOHAMA N2915 250/660/R18 A005. Количество в квалификации и гонках не более 10 шин типа «слик» не маркированных ранее. Использование «дождевых» шин не ограничивается.
4. **Зачётная группа «Туринг Лайт»**
   - 4.1. Данные, характеризующие соревновательные возможности участвующих моделей автомобилей находятся в процессе обработки.
   - 4.2. Решения об изменении ВОР-параметров будут опубликованы Группе представителей и в Табло информации немедленно после их принятия.
   - 4.3. В соответствии с действующей регламентацией, в целях регулирования соревновательных возможностей автомобилей, ВОР-параметры могут быть изменены в любой момент соревнования.
5. **Зачетная группа «Суперпродакшн»**.

   5.1. Повторно публикуется “ВОР”- таблица для нескоростных трасс. В Приложении.

6. Зачётная группа «GT4».

6.1. На сегодняшний день, актуальным “BOP”-бюллетенем SRO для “Tracks D” является Бюллетень от 01/05/2024. Последний раз использовался на этапе КРАФ на автодроме “Kazan Ring Kanyon”. В случае появления обновленных Бюллетеней SRO они будут немедленно опубликованы, в первую очередь в группе «GT4».

6.2. Пролонгируется решение КСК №01 7 этапа РСКГ (автодром Moscow Raceway 13–15 сентября 2024), принятое по соображениям безопасности. А именно, на автомобилях TOYOTA Supra GR GT4 и TOYOTA Supra GR GT4 EVO разрешить применение колесных шпилек от автомобилей BMW M4 GT4, либо от автомобилей TOYOTA Supra GR GT4 EVO 2, с соответствующими колесными гайками. (После того, как они станут доступными для приобретения.) На сезон 2025, если необходимость в такой замене сохранится, то замена должна быть омологирована РАФ заинтересованным Заявителем.

6.3. Пролонгируется решение КСК №02 7 этапа РСКГ (автодром Moscow Raceway 13–15 сентября 2024), принятое по соображениям безопасности. А именно, на автомобилях Mercedes AMG GT4 разрешить применение ранее омологированных передних тормозных дисков BREMBO LHS: 59.B979.14, RHS: 59.B979.24, вместо ныне омологированных AP-RACING LHS: CP7384-113GS, RHS: CP7384-112GS.

ПРИЛОЖЕНИЯ

1. BOP таблица 3Г Суперпродакшн для нескоростных трасс.
2. Таблица компенсационных весов TCR Russia на 6 этап ЧР
3. BOP Бюллетень TCR 09-24 от 12.09.2024 (Спринт).

Таблица “ВОР” параметров автомобилей ЗГ СУПЕРПРОДАКШН для «нескоростных» трасс
(Грозный, Нижний Новгород, Мячково, Смоленск)

Подгруппа подготовки	1,6 Т	2,0Т	2.0Т	2.0Т	2.0Т	2.0Т	Сток	Сток
Модель	LADA Vesta	Mazda 3	Subaru BRZ	Subaru BRZ	Honda Civic Type R	Honda Civic Type R	VW Scirocco	VW Scirocco
Тип КПП	SEQ	H-образн	H-образн	SEQ	H-образн	SEQ	DSG	SEQ
Минимальный вес, кг по ТТ (п.201-4), не зависит от типа КПП.	1200	1160	1200*	1200*	1200	1200	1200	1200
Дополнительный вес за привод на заднюю ось. (п.201-4 ТТ), кг	-	-	30	30	-	-	-	-
Максимальное избыточное давление наддува, бар	1,00	1,00	0,70	0,70	0,70	0,70	1,37	1,37
Рестриктор, мм	36	38	36	36	36	36	б/р	б/р
Клиренс мм	80	80	80	80	80	80	80	80
Примечание: * *На а/м Subaru BRZ использование заднего антикрыла, описанного расширением РАФ А-03/01 VO_15, разрешено: на дождевых шинах в любом случае. На сухих шинах - только при угле атаки не более 13 градусов. Измеряется прикладыванием угломера к передней и задней кромкам антикрыла, расположенным в вертикальной продольной плоскости симметрии а/м.*								

TCR TECHNICAL BULLETIN 12/09/2024

*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
Cupra	Leon VZ 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

List of Changes:

- Engine Parameters:
  - Audi RS3 LMS TCR: Calibration Adjustment for power level 4 scrutineering parameters.
  - Cupra Leon Competicion TCR: Calibration Adjustment for power level 4 scrutineering parameters.
  - Cupra Leon VZ TCR: Calibration Adjustment for power level 4 scrutineering parameters. Revised Hewland gear ratios.
  - Hyundai Elantra N TCR: Calibration Change for idle parameters and alignment.

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	- 10kg	1255 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
Cupra	Leon VZ TCR	C5	1265 kg	0kg	1265 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	+10kg	1275 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	0kg	1265 kg	80 mm
Lynk&Co	03 TCR	M4	1265 kg	0kg	1265 kg	80 mm
Lynk&Co	03 TCR	C4	1265 kg	0kg	1265 kg	80 mm
Lynk&Co	03 FL TCR	C4	1265 kg	0kg	1265 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	- 50kg	1215 kg	70 mm
Peugeot	308 Racing Cup	M6	1225 kg	- 30kg	1195 kg	60 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	C6	1265 kg	+ 10kg	1275 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

Imposed parameters for certified software

Alfa Romeo

Alfa Romeo	Giulietta Veloce TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
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
units: [1/min] for fEngRpm, [mbar] for pManifold			7100	2750	0.82
			7200	2700	-

Alfa Romeo	Giulietta RF TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
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
units: [1/min] for fEngRpm, [mbar] for pManifold			7100	2725	0.80
			7200	2660	-

Audi, Cupra, VW

Audi	RS3 LMS SEQ
Cupra	Cupra TCR SEQ
VW	Golf GTI TCR SEQ
Engine	EA888Evo3
ECU Make (Type)	Continental (Roadcar)
Gearbox	Sadev
ECU Type & Power Level	R5
Calibration File	-
Correction [mbar/°C]	9
Checksum	5F6906259AJ
units: [1/min] for fEngRpm, [mbar] for pManifold	

Limit Support Points		
fEngRpm	*pManifold*	*rLambda*
3800	2355	-
4050	2355	-
4300	2290	-
4550	2315	-
4800	2425	-
5050	2550	-
5300	2715	-
5550	2725	-
5800	2705	-
6050	2660	-
6300	2580	-
6550	2480	-
6700	2430	-
6800	2390	-

Audi	RS3 LMS DSG
Cupra	Cupra TCR DSG
VW	Golf GTI TCR DSG
Engine	EA888Evo3
ECU Make (Type)	Continental (Roadcar)
Gearbox	DSG
ECU Type & Power Level	R6
Calibration File	-
Correction [mbar/°C]	5
Checksum	5F6906259L
units: [1/min] for fEngRpm, [mbar] for pManifold	

Limit Support Points		
fEngRpm	*pManifold*	*rLambda*
4000	2450	-
4250	2450	-
4500	2450	-
4750	2450	-
5000	2450	-
5250	2540	-
5500	2630	-
5750	2640	-
6000	2650	-
6250	2615	-
6500	2580	-
6750	2550	-
6900	2540	-
7000	2520	-

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Audi	RS3 LMS TCR		Limit Support Points		
Cupra	Leon Competición TCR		*fEngRpm*	*pManifold*	*rLambda*
			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_2.1.1.clx**	5250	2345	0.87
Correction [mbar/°C]		8	5500	2475	0.87
Checksum	crcAPP	0x56B994BD	5750	2530	0.87
	crcPartSign	0x44CB857B	6000	2485	0.87
	crcPartZero	**0x7116B69C**	6250	2470	0.87
	crcPartOne	**0xDEE7C3D8**	6500	2415	0.87
			6750	2365	0.87
units: [1/min] for fEngRpm, [mbar] for pManifold			6900	2280	0.87
			7000	2240	-

Audi	RS3 LMS TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
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_2.1.1.clx**	5000	2155	0.87
Correction [mbar/°C]		8	5250	2345	0.87
Checksum	crcAPP	0x56B994BD	5500	2475	0.87
	crcPartSign	0x44CB857B	5750	2530	0.87
	crcPartZero	**0xAAAC7A62**	6000	2485	0.87
	crcPartOne	**0xE13D89EA**	6250	2470	0.87
			6500	2415	0.87
			6750	2365	0.87
units: [1/min] for fEngRpm, [mbar] for pManifold			6900	2280	0.87
			7000	2240	-

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Cupra	Leon VZ TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
Engine		EA888Evo4	4000	2090	-
ECU Make (Type)		TCR ECU (Common)	4250	2110	-
Gearbox		Hewland	4500	2100	-
ECU Type & Power Level		C5	4750	2105	-
Calibration File		**CU-EA888Evo4-C-H-S-VZ_2.1.1.clx**	5000	2155	-
Correction [mbar/°C]		8	5250	2345	-
Checksum	crcAPP	0x56B994BD	5500	2475	-
	crcPartSign	0x44CB857B	5750	2530	-
	crcPartZero	**0x765EBC54**	6000	2485	-
	crcPartOne	**0x6423B502**	6250	2470	-
			6500	2415	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6750	2365	-
			6900	2280	-
			7000	2240	-

Cupra	Leon VZ TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
Engine		EA888Evo4	4000	2090	-
ECU Make (Type)		TCR ECU (Common)	4250	2110	-
Gearbox		Sadev	4500	2100	-
ECU Type & Power Level		C5	4750	2105	-
Calibration File		**CU-EA888Evo4-C-S-S-VZ_2.1.1.clx**	5000	2155	-
Correction [mbar/°C]		8	5250	2345	-
Checksum	crcAPP	0x56B994BD	5500	2475	-
	crcPartSign	0x44CB857B	5750	2530	-
	crcPartZero	**0x16BA54B6**	6000	2485	-
	crcPartOne	**0x958DF716**	6250	2470	-
			6500	2415	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6750	2365	-
			6900	2280	-
			7000	2240	-

Fiat

Fiat	Tipo TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			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
units: [1/min] for fEngRpm, [mbar] for pManifold			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	-

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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	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
units: [1/min] for fEngRpm, [mbar] for pManifold			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_2.1.0.clx	4900	2410	-
Correction [mbar/°C]		10	5150	2440	-
Checksum	crcAPP	0x56B994BD	5400	2480	-
	crcPartSign	0x44CB857B	5650	2510	-
	crcPartZero	0xFCD0EBBE	5900	2500	-
	crcPartOne	0x63CAB33E	6150	2510	-
			6400	2480	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6650	2440	-
			6800	2400	-
			6900	2330	-

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Hyundai

Hyundai	i30 N TCR		Limit Support Points		
Hyundai	Veloster N TCR		*fEngRpm*	*pManifold*	*rLambda*
			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
units: [1/min] for fEngRpm, [mbar] for pManifold			7000	1705	-

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

Hyundai	Elantra N TCR	
Engine		Theta2G4KHN
ECU Make (Type)		TCR ECU (Common)
Gearbox		Xtrac
ECU Type & Power Level		C4
Calibration File		**HY-Theta2G4KHN-C-X-S_2.2.2.clx**
Correction [mbar/°C]		8
Checksum	crcAPP	0x56B994BD
	crcPartSign	0x44CB857B
	crcPartZero	**0xFA2FC503**
	crcPartOne	**0xBB0303C0**

Limit Support Points		
fEngRpm	*pManifold*	*rLambda*
4000	2080	-
4250	2085	-
4500	2085	-
4750	2100	-
5000	2155	-
5250	2270	-
5500	2395	-
5750	2535	-
6000	2515	-
6250	2445	-
6500	2350	-
6750	2290	-
6900	2240	-
7000	1700	-

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

KIA

KIA	Cee'd TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			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
units: [1/min] for fEngRpm, [mbar] for pManifold			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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			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_2.1.1.clx	5000	2080	-
Correction [mbar/°C]		9	5250	2245	-
Checksum	crcAPP	0x56B994BD	5500	2515	-
	crcPartSign	0x44CB857B	5750	2755	-
	crcPartZero	0x86B38C68	6000	2750	-
	crcPartOne	0x7D00A315	6250	2715	-
			6500	2660	-
units: [1/min] for fEngRpm, [mbar] for pManifold			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_2.1.1.clx	5000	2080	-
Correction [mbar/°C]		9	5250	2245	-
Checksum	crcAPP	0x56B994BD	5500	2515	-
	crcPartSign	0x44CB857B	5750	2755	-
	crcPartZero	0xCD3F72DF	6000	2750	-
	crcPartOne	0xAE3F5948	6250	2715	-
			6500	2660	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6750	2655	-
			6900	2650	-
			7000	2590	-

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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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			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	2315	-
ECU Make (Type)		TCR ECU (Common)	4250	2270	-
Gearbox		any	4500	2150	-
ECU Type & Power Level		C4	4750	2130	-
Calibration File		LY-B4204T27-C-X-S_2.2.0.clx	5000	2300	-
Correction [mbar/°C]		9	5250	2360	-
Checksum	crcAPP	0x56B994BD	5500	2520	-
	crcPartSign	0x44CB857B	5750	2535	-
	crcPartZero	0xD7B42AE3	6000	2550	-
	crcPartOne	0x6FF7CC55	6250	2565	-
			6500	2590	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6750	2515	-
			6900	2490	-
			7000	2090	-

Lynk&Co	03 FL TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
Engine		B4204T57	4000	2395	-
ECU Make (Type)		TCR ECU (Common)	4250	2345	-
Gearbox		Xtrac	4500	2235	-
ECU Type & Power Level		C4	4750	2220	-
Calibration File		LY-B4204T57-C-X-S_2.2.0.clx	5000	2375	-
Correction [mbar/°C]		9	5250	2465	-
Checksum	crcAPP	0x56B994BD	5500	2640	-
	crcPartSign	0x44CB857B	5750	2675	-
	crcPartZero	0xF8D67C68	6000	2680	-
	crcPartOne	0x1D5C8D8E	6250	2675	-
			6500	2680	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6750	2630	-
			6900	2580	-
			7000	2110	-

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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			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
units: [1/min] for fEngRpm, [mbar] for pManifold			6350	2335	0.84
			6500	2265	0.84
			6600	2240	-

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Opel / Holden / Vauxhall

Opel / Holden / Vauxhall	Astra TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6650	2445	-
			6800	2370	-
			6900	2330	-

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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
units: [1/min] for fEngRpm, [mbar] for pManifold			7000	2785	0.78
			7150	2685	0.84
			7250	2185	-

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		M6	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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6250	2740	-
			6500	2690	-
			6750	2575	-
			6900	2480	-
			7000	2460	-

Renault

Renault	Mégane RS TCR		Limit Support Points		
			fEngRpm	*pManifold*	*rLambda*
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
units: [1/min] for fEngRpm, [mbar] for pManifold			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		
			fEngRpm	*pManifold*	*rLambda*
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	-
units: [1/min] for fEngRpm, [mbar] for pManifold			5950	2725	-
			6200	2700	-
			6450	2600	-
			6700	2500	-
			6950	2450	-
			7100	2440	-
			7200	2400	-

Toyota

Toyota	Corolla GRS TCR			Limit Support Points	
			fEngRpm	*pManifold*	*rLambda*
Engine		8ARFTS	3550	2315	-
ECU Make (Type)		TCR ECU (Common)	3800	2385	-
Gearbox		Sadev	4050	2385	-
ECU Type & Power Level		C6	4300	2395	-
Calibration File		TO-8ARFTS-C-S-S_2.1.1.clx	4550	2405	-
Correction [mbar/°C]		7	4800	2445	-
Checksum	crcAPP	0x56B994BD	5050	2485	-
	crcPartSign	0x44CB857B	5300	2510	-
	crcPartZero	0x7D0B9BF4	5550	2510	-
	crcPartOne	0x6328AB5C	5800	2525	-
			6050	2480	-
units: [1/min] for fEngRpm, [mbar] for pManifold			6300	2380	-
			6450	2280	-
			6550	2280	-

CW Table - TCR Championship: RUSSIA

For event: **# 7** **Published** **17/09/2024**

CW Assigned Kg.	General Classification of drivers with the best "total points" collected during the latest Competition (Qualifications + Races) Driver(s)
40	Mikhail Simonov (RUS)
30	Ivan Chubarov (RUS)
30	Egor Sanin (RUS)
20	Pavel Kalmanovich (RUS)
10	Aleksandr Smolyar (RUS) - Dmitry Bragin (RUS)
0	All other drivers who attended to the last event.

Refer to Art 3.9 Balance of Performance of *Technical Regulation (latest release).* Keep in consideration the min racing weigh's upper limit.

Refer to document: *TCR Notification CW formula (latest release)*

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For event: # 6 **Published** 26/08/2024

CW Assigned Kg.	General Classification of drivers with the best "total points" collected during the latest Competition (Qualifications + Races) Driver(s)
40	Egor Sanin (RUS)
30	Aleksandr Smolyar (RUS),
30	Vladimir Atoev (RUS)
20	Artem Slutskiy (RUS)
10	Ivan Chubarov (RUS)
0	All other drivers who attended to the last event.

Refer to Art 3.9 Balance of Performance of *Technical Regulation (latest release).* Keep in consideration the min racing weigh's upper limit.

Refer to document: *TCR Notification CW formula (latest release)*

For event: #5 **Published** 28/06/2024

CW Assigned	General Classification of drivers with the best "total points" collected during the latest Competition (Qualifications + Races) Driver(s)

Kg.	
40	Vladimir Atoev (RUS)
30	Mikhail Simonov (RUS)
30	Aleksandr Smolyar (RUS),
20	Ivan Chubarov (RUS)
10	Zakhar Slutskiy (RUS)
0	All other drivers who attended to the last event.

Refer to Art 3.9 Balance of Performance of *Technical Regulation (latest release).* Keep in consideration the min racing weigh's upper limit.

Refer to document: *TCR Notification CW formula (latest release)*

For event: #4 **Published** 03/06/2024

CW Assigned Kg.	General Classification of drivers with the best "total points" collected during the latest Competition (Qualifications + Races) Driver(s)

40	Egor Sanin (RUS)
30	Mikhail Simonov (RUS)
30	Zakhar Slutskiy (RUS)
20	Aleksandr Smolyar (RUS), Dmitry Bragin (RUS)
10	Vladimir Atoev (RUS)
0	All other drivers who attended to the last event.

Refer to Art 3.9 Balance of Performance of *Technical Regulation (latest release).* Keep in consideration the min racing weigh's upper limit.

Refer to document: *TCR Notification CW formula (latest release)*

For event: #3 **Published** 07/05/2024

CW Assigned Kg.	General Classification of drivers with the best "total points" collected during the latest Competition (Qualifications + Races) Driver(s)

40	Vladimir Atoev (RUS)
30	Artem Slutskiy (RUS)
30	Kirill Smal (RUS)
20	Ivan Chubarov (RUS)
10	Aleksandr Smolyar (RUS), Mikhail Simonov RUS)
0	All other drivers who attended to the last event.

Refer to Art 3.9 Balance of Performance of *Technical Regulation (latest release).* Keep in consideration the min racing weigh's upper limit.

Refer to document: *TCR Notification CW formula (latest release)*

For event: #2 **Published** 15/04/2024

CW Assigned	General Classification of drivers with the best "total points" collected during the latest Competition (Qualifications + Races) Driver(s)

Kg.	
40	Mikhail Simonov
30	Aleksandr Smolyar
30	Dmitry Bragin
20	Vladimir Atoev
10	Ivan Chubarov
0	All other drivers who attended to the last event.

Refer to Art 3.9 Balance of Performance of *Technical Regulation (latest release).* Keep in consideration the min racing weigh's upper limit.

Refer to document: *TCR Notification CW formula (latest release)*

Balance of Performance
SRO GT4 CARS
TRACKS D

BALANCE OF PERFORMANCE FOR :

Tracks D

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.

Decisions taken by the SRO GT Bureau 01/05/2024

Balance of Performance
SRO GT4 CARS
TRACKS D

Make	Model	Min Weight kg	BOP Ballast kg	Total weight	Ride Height Front	BOP extra mm	Ride Height Rear	BOP Extra mm	Comments
Aston Martin	Vantage AMR GT4 EVO	1475	+45	1520	93	+15	102	+10	*MAP Restricted 3 ECU BOP 2024
BMW	G82 M4 GT4	1480	+20	1500	138,90	+16,10	149,50	+10,50	MAP 4 LT +1 ECU BOP 10/2022
Mercedes	AMG GT4	1400	+85	1485	93	+15	96	+0	POWER LEVEL 3 ECU BOP 2020
Toyota	GR SUPRA GT4	1360	+20	1380	175	+5	175	+0	Blue Power Stick V2 ECU BOP 2021
Toyota	GR Supra GT4 EVO	1370	+30	1400	165	+15	165	+5	Silver Power Stick ECU BOP 2023

Remarks :
-Additional BOP Ballast must be installed according to 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 1000 mbar, -1 LT must be applied per -20 mbar Patmo, this means -1 LT at Patmo of 980mb, -2 LT at Patmo of 960 mbar and -3 LT at Patmo of 940 mbar.

Decisions taken by the SRO GT Bureau 01/05/2024