



GLOBAL TOURING CAR CHAMPIONSHIP

2019 STANDING SUPPLEMENTARY REGULATIONS (SSR's) PART 1: SPORTING REGULATIONS (161830/144)

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1. GENERAL

- 1.1 All matters pertaining to the conduct of GTC Championship Meetings and the operation and recognition of GTC cars will be regulated by these Rules.
- 1.2 The Rules are subject to the general authority of MSA and, in a case where any such provision is in direct conflict with any rule of MSA, the rule of the GTC Championship shall prevail unless clearly stated to the contrary.
- 1.3 Unless expressly authorised by these Rules, no interpretation, modification or change to anything whatsoever at all, referred to in these Rules is permitted.
- 1.4 **Ignorance of these Rules provides no excuse from the observance of these Rules. If a competitor is found not to comply with any Rule, it shall be no defence to claim that no sporting or performance advantage was obtained.**

2. DEFINITIONS

- 2.1 Controllers – defined as V8 Touring Cars (Pty) Ltd.
- 2.2 Technical Controllers – the Technical Consultants (GCR167) appointed by GTC to monitor conformance to the regulations, hereinafter TC.
For ease of communication the common meaning of Controller or Technical Controller shall be applied. Refer Part 1: Sporting Regulations art 23.
- 2.3 TWG - Technical Working Group as and when appointed by GTC.
- 2.4 Starter: A starter is defined as outlined in GCR 230 and is the applicable definition to be used when reading this regulation.
- 2.5 A driver classified as a starter in terms of GCR 230 shall remain a starter for the duration of the race meeting concerned, regardless of attrition during the individual races.
- 2.6 A “competitor” in terms of GCR 230, for the purpose of the Global Touring Car Championship, is considered to be a car/driver combination, and in the case where two or more drivers are mandatory for any particular race, the car/drivers in combination will constitute only one competitor.
- 2.7 Deviations:
Should a specific model of car not be able to comply with the regulations as published for a technical reason, the entrant may apply for a deviation to the rule, based on sound technical grounds. The application will be considered by the TC’s in consultation with the Controllers, and if approved will be published as a deviation for all cars of the make/model. The TC’s decision will be final.
- 2.8 Dispensations:
Should a specific car not be able to comply with the regulations as published for a temporary technical reason, such as parts unavailability, temporary crash repairs, etc, the entrant may apply for a dispensation, based on sound technical grounds. The application will be considered by the TC’s, and if approved will be published as a dispensation for a specific car for one event only. The TC’s decision will be final.
- 2.9 Technical Passport (TP)
A document prepared for each car which contains all the technical details including deviations and upgrades for the specific car. The document is car specific and remains with the car for the life of the car.

3. AIM OF THE CHAMPIONSHIP

- 3.1 To declare a Global Touring Car Driver Champion as well as a GTC2 Driver Champion.
- 3.2 To declare a Global Touring Car Manufacturer Champion as well as GTC2 Manufacturer Champion
- 3.3 Reserved.
- 3.4 The classification of such competitors into classes shall be at the sole discretion of the controllers.
- 3.5 Reserved
- 3.6 Competitors in GTC shall score points as per these regulations for the Global Touring Car Driver and



Manufacturer Championship, as well as the Global Touring Car 2 Driver Championship.

- 3.7 Both Championships shall score points separately according to a scale of points determined by the controllers as per art 12.5

4. REGULATIONS

- 4.1 All GTC races will be held under the General Competition Rules (GCR's) and Standing Supplementary Regulations (SSR's) of MSA, as well as the Supplementary Regulations (SR's) as issued by the promoters.
- 4.2 The MSA GCR's will take precedence, unless the SSR's and SR's specifically state otherwise. Refer GCR 70 b).

5. ELIGIBILITY OF DRIVERS AND CARS

- 5.1 The GTC Championships and Challenges will be open to cars complying with the Global Touring Car Championship Standing Supplementary Regulations (SSR's).
- 5.2 Organisers may not accept any car which does not comply with the Global Touring Car Championship SSR's, and which has not been accepted for Global Touring Car Racing by the controllers.
- 5.3 No Global Touring Car Championship event may be combined with other events unless specifically permitted by the controllers.
- 5.4 All other prospective new competitors in the series must obtain the prior written approval of the GTC controllers in order to be issued with the necessary competition licenses by MSA and this will be assessed on a case by case basis in consultation with MSA. Such approval shall not be unreasonably withheld.
- 5.5 Reserved
- 5.6 Entrants must quote, on the entry form, the competition number of the car he/she will drive, when entering for a GTC National Championship race meeting.
- 5.7 It is forbidden for drivers/teams to make use of 'spare' cars during a championship event (although the Stewards of the Meeting remain authorised to permit changes of driver or car as per the normal stipulations of the regulations). The issued chassis/safety cage number issued to each car will be used as a control measure.
- 5.8 A car driven in a championship race shall have only one nominated driver whose name shall appear on the entry form, unless the SR's of the event allows a change of driver or car, or requires two or more drivers for a specific race meeting. Refer GCR's 99 (vii), 152 (viii), 238.
- 5.9 Only the entered driver may drive the car in the official qualifying session/sessions and races.

6. COMPETITION NUMBERS

- 6.1 Refer GCR 246, GCR 247(i) and 248. SSR 4.
- 6.2 All GTC cars entered for a national championship race meeting *must* be fitted with a competition number.
- 6.3 Competition numbers must be displayed on each side of the vehicle:
- 6.3.1 On the rear side windows, with the driver's name below the number.
- 6.3.2 The colour of the number must be "Day-Glo Yellow" for GTC and "Day-Glo Orange" for GTC 2.
- 6.3.3 The text height must be 200mm.
- 6.3.4 Font must be Helvetica Bold Condensed.
- 6.4 Front Windscreen:
- 6.4.1 The competition number must be displayed on the left top corner of the front windscreen
- 6.4.2 The text height must be 150mm.
- 6.4.3 Font must be Helvetica Bold Condensed.
- 6.5 Rear window:
- 6.5.1 The competition number must be displayed on the upper area of the top right hand corner driver's side of the rear window.



- 6.5.2 The text height must be 150mm.
- 6.5.3 Font must be Helvetica Bold Condensed.

7. SPONSORSHIP REQUIREMENTS

- 7.1 Series sponsorship and advertising material shall be supplied by the Controllers and must be affixed in the specified positions as stipulated in these regulations or in an MSA Circular.
- 7.2 Competitors are reminded that, in terms of GCR 246, those who do not display the advertising material and numbers as required will not be allowed to compete, unless they get written approval from the Controllers.
- 7.3 All Advertising material and decals may not be defaced, modified or cut in any way.
- 7.4 All competitors entered in the GTC Championship or Challenges have to display all advertising of all series sponsors in the allocated areas for the full duration of the Championship, only on the written approval of the Controllers will a competitor be waived of this ruling.
- 7.5 The following areas of the race cars remain for the sole use of the Controllers:
 - 7.5.1 Front and rear windscreens (top).
 - 7.5.2 Front and rear number plates.
 - 7.5.3 Left and right side GTC sill panel in its entirety.

8. NAMING RIGHTS SPONSORSHIP

- 8.1 Unless a competitor has written approval which allows the competitor to replace the Naming Rights Sponsorship requirements with GTC specific approved branding only, obtained from the Controllers, the Competitor must:
 - 8.1.1 Display the branding on the front and rear top windscreen positions.
 - 8.1.2 Use the supplied cloth badge to be affixed on their race overalls on the right breast pocket 100mm x 40mm area.
 - 8.1.3 The official series sponsor cap must be worn during Qualifying, Race 1, Race 2 and Podium interviews.

9. *Reserved*

10. TYRE SPONSORSHIP

- 10.1 The competitor must:
 - 10.1.1 Use the specified Dunlop race tyres.
 - 10.1.2 Display the supplied Dunlop branding on the left and right side GTC sill panel.
 - 10.1.3 Use the supplied Dunlop badge to be affixed on their race overalls on the left sleeve.

11. DRIVERS NAME

- 11.1 Every competitor is to display the surname of the driver on both rear side windows.
- 11.2 A minimum font height of 100mm high is to be used and printed in Helvetica Bold text.
- 11.3 The lettering is to be white only.
- 11.4 The driver's name is to be placed on the bottom of each rear side window.

12. CHAMPIONSHIP DETAILS

- 12.1 The GTC Driver's Championship shall be open to drivers participating in the GTC Championship and there will be only one GTC Champion for *the season*.
The GTC 2 Driver Championship shall be open to drivers participating in the GTC 2 Championship and there will be only one GTC 2 Champion for *the season*.
- 12.2 The respective Championship winners shall be the drivers accumulating the greatest number of points during the season in the respective Championships.
- 12.3 The Championship dates and venues are as per the MSA Motorsport Calendar or as stipulated in a MSA Circular.



- 12.4 All races will be taken into account in determining the championship.
- 12.5 Points will be scored in the individual races (not race meetings) on the following basis:
- | | | |
|------------------|---|-----------|
| 1 st | - | 20 points |
| 2 nd | - | 17 points |
| 3 rd | - | 14 points |
| 4 th | - | 12 points |
| 5 th | - | 10 points |
| 6 th | - | 8 points |
| 7 th | - | 6 points |
| 8 th | - | 4 points |
| 9 th | - | 2 points |
| 10 th | - | 1 point |
- 12.6 Reserved
- 12.7 Reserved
- 12.8 Should a race be classified as an 'Endurance' race then the points for the race will be double the number than for any other race.
- 12.9 Each competitor entered and classified as a "starter" shall be awarded 10 (ten) points *per race meeting*.
- 12.10 The controllers (GTC) reserve the right to award a cash prize to the winner of the GTC Drivers Championship. In the event that such prize is to be awarded the value thereof will be announced and communicated to competitors by the end of September each year by means of an MSA Circular.

13. MANUFACTURERS CHAMPIONSHIP

- 13.1 Points towards this championship will be scored on a 'marque' basis (e.g. Audi, BMW, Volkswagen, etc.) as opposed to a broad 'manufacturer' basis.
- 13.2 Only the first two (2) cars of any marque will score points in a class.
- 13.3 Points will be scored according to actual finishing position only, i.e. if one marque fills the first six places in a race no points will be allocated for 3rd, 4th, 5th and 6th places with the next placed manufacturer scoring 7th place points.
- 13.4 Points will be scored, for the GTC class *and the GTC 2 class* in the individual races (not race meetings) on the following basis:

1 st	-	20 points
2 nd	-	17 points
3 rd	-	14 points
4 th	-	12 points
5 th	-	10 points
6 th	-	8 points
7 th	-	6 points
8 th	-	4 points
9 th	-	2 points
10 th	-	1 point

14. SEPARATION OF TIES

- 14.1 The competitor with the greater number of first places in all championship races (not race meetings) will be declared the champion.
- 14.2 If this does not resolve the tie then the greater number of second positions, then third positions and so on will be used to resolve the tie.
- 14.3 If a tie still remains, MSA (in consultation with the Controllers) will declare a winner on such basis as it deems fit.

15. TIMING TRANSPONDER

The timing transponder as supplied by the Organisers (Refer GCR 71 & 72) must be used, and fitted



in the specified place. All timing transponders to be fitted on the left hand side of the car to the upright portion of the main roll bar. It must be visible from outside and height to be in the centre of the side windows. Note: no drilling into or welding onto the main rollbar. Use clamps.

16. SAFETY APPAREL AND EQUIPMENT

- 16.1 GTC – refer GTC SSR's Part 2 art 10.
- 16.2 GTC 2 – refer GTC SSR's Part 3 art 14.

17. QUALIFYING AND RACES

- 17.1 There shall be a minimum of two (2) races at each race meeting, except where force majeure dictates otherwise.
- 17.2 Races (not events) shall,
 - 17.2.1 in general, not be less than 12 laps or 40 kilometres in length, whichever is the lesser;
 - 17.2.2 will be a rolling start;
 - 17.2.3 however when, the Controllers and / or TC's, due to tyre degradation and safety concerns deem it fit (in consultation with the CoC) to reduce the length of the individual session or race, they may do so.
 - 17.2.4 A Competitor is required to maintain his grid position until such time as he has passed the Start Line failing which, he will be deemed to have jumped the start and shall have a 30 second penalty added to his race time unless, in the view of the Judge of Fact, the driver in the grid position ahead of him / her reduced their speed before crossing the start line.
- 17.3 Reserved
- 17.4 The Organisers must allocate at least one hour of practice sessions prior to the commencement of official qualifying.
- 17.5 Any vehicle not displaying the specified decals in the correct positions may be precluded from participation or excluded by the Clerk of the Course, acting on the recommendation of the controllers.
- 17.6 The addition of fuel to a car during qualifying is expressly forbidden and contravention of this regulation will result in the offending competitor's recorded times being disallowed.
- 17.7 All cars shall report for weighing following qualifying and all races. Failure to weigh on the official weigh bridge shall result in the offending competitor's recorded times being disallowed.
Refer art 21.2
- 17.8 *Reserved*
- 17.9 Global Touring Car Championship grids will be formulated as follows:
 - 17.9.1 The fastest car in qualifying shall start from pole position *in race 1 for* each of their respective classes.
 - 17.9.2 Second fastest will start from second position and so forth down to the last car of each class.
 - 17.9.3 Each class shall have its own grid positions and other classes will not be in between.
 - 17.9.4 *Race 1 grid* will be formed up according to the times established in official qualifying *including penalties*, and cars shall be grouped according to Class.
 - 17.9.5 If a GTC car fails to establish a qualifying time or establishes a time which will put him in the middle of the other classes he shall be allocated a slot at the rear of his class.
 - 17.9.6 The *race 2* grid will be determined by reversing the finishing order of *race 1, excluding penalties*. Competitors who did not finish *race 1 or did not start race 1* will start behind the reversed grid in *race 2*. This rule will apply to GTC and GTC 2 in their respective classes.
- 17.10 *Reserved.*
- 17.11 GTC will qualify in a separate session from GTC 2.



18. SAFETY CAR

In addition to MSA Circuit Racing SSR 45, the CoC has the right to order the intervention of the Safety Car at any time.

19. ENDURANCE RACE FORMAT AND REGULATIONS

The Endurance race format and regulations will be published by way of an MSA circular.

20. PRACTICE/TESTING

20.1 *Each Team has to nominate a home circuit, and may only test on the nominated home circuit throughout the season.* No circuit may be used or hired for practice/testing in the week prior to the scheduled championship race meeting at the particular circuit, until the start of official practice as detailed in the SR's for the event in question. In clarification, if official practice commences on a Friday morning, the circuit is not available for practice or testing *for all GTC and GTC 2 teams* from midnight on the previous Thursday, a clear seven days beforehand.

A suitable points penalty may be applied by the Clerk of the Course for rule transgressions.

20.2 The Controllers may permit alternative practice arrangements prior to the first championship round.

21. BALANCE OF PERFORMANCE

21.1 BOOST CONTROL

The TC's reserve the right to monitor and control the maximum boost pressure on all forced induction engines, regardless of the maximum boost pressure specified for the make or model in the relevant homologation documentation. Each team is responsible for controlling the boost pressure its competing car produces, which must be below that specified by the TC's for the car in question.

21.1.1 *GTC BOOST MONITOR METHOD*

The data logging system supplied by GTC in the Life system, or any other system specified by GTC, will be the sole measure of boost considered for technical compliance for the particular vehicle it is fitted to at the time. The boost pressures as recorded are the only pressures that will be considered when checking boost pressure conformity. Boost pressure must be within the specified limits at all times from pit lane exit to pit lane entry during qualifying and racing.

i) Boost pressure will be determined as follows:

a) A 3-second rolling average logged at 50 Hz will be calculated to measure maximum absolute manifold pressure compliance.

b) Additional external boost monitors may be fitted if the TC's require such.

c) The TC's may calibrate boost pressure sensors fitted on the cars if required.

ii) *The maximum absolute manifold boost pressure may be changed in a bulletin issued not later than seven days prior to the race meeting, should conditions require such.*

iii) TC decisions will be final.

21.1.2 *GTC 2 BOOST MONITOR METHOD*

The stand-alone external boost data logging system as supplied by GTC, or any other system specified by GTC, will be the sole measure of boost considered for technical compliance for the particular vehicle it is fitted to at the time. The boost pressures as recorded are the only pressures that will be considered when checking boost pressure conformity. Boost pressure must be within the specified limits at all times from pit lane exit to pit lane entry during qualifying and racing.

i) The boost monitor as supplied by GTC must be fitted as follows:

a) Competing vehicles must be fitted with a 3/8" 24 TPI UNF male (-3JIC) *T-piece* in the inlet manifold. This *T-piece* is fitted to connect the series boost monitor as well as the AIM boost pressure sensor, *part no X05SNP31004A*, to the inlet manifold. No other equipment must be connected to this *T-piece* and pipe. All nipples, connectors, elbows, pipes and other fittings used, must have a minimum internal diameter of 3mm and a maximum internal diameter of 6mm. Care must be taken that the fitting



does not protrude into the manifold, as it may cause erratic readings. The TC's will approve the position and method of the pressure take-off, and their decision will be final.

b) The boost monitor supplied must be fitted in the rear of the engine bay, on the top of the firewall, toward the outside of the vehicle, left or right and away from any high heat generation. The pressure pipe from the *T-piece* in the inlet manifold to the boost monitor must not be covered and must be clearly traceable and visible for technical inspection, without removing any covers.

c) The 12 volt electrical power supply shall be connected on the car side of the ignition switch, and shall be the only connection between the ignition switch and the monitor.

d) No modification is permitted to the boost monitor as supplied by GTC.

ii) Boost pressure will be determined as follows:

a) Boost pressure recorded data will be calculated as a 7-second rolling average recorded at 10 Hz, which will be the absolute inlet manifold boost pressure not to be exceeded.

b) Additional external boost monitors may be fitted if the TC's require such.

iii) *The maximum absolute manifold boost pressure may be changed in a bulletin issued not later than seven days prior to the race meeting, should conditions require such.*

iv) TC decisions will be final.

21.1.3 **BOOST LIMITS**

i) GTC

The maximum absolute manifold pressure as measured on the Life Data logging system, or any other data logging system as specified by GTC, shall not exceed the following:

*All cars: 2200 mBar in Qualifying and Push-to-Pass mode.
 2050 mBar in race mode.*

ii) GTC 2

The maximum absolute manifold pressure as measured on the boost monitor as supplied by GTC, or any other data logging system as specified by GTC, shall not exceed the following:

*VW Golf 7 Gti 2180 mBar
Mini Cooper JCW 2220 mBar
Ford Focus ST tba
Honda Civic Type R 2100 mBar*

21.1.4 **PENALTIES**

The penalty for exceeding the manifold boost pressure limit, or for no data recorded is:

i) In qualifying: drop 5 grid places for race 1 start.

ii) In a race: 20 seconds added to race time.

iii) A Joker system will be applied in the GTC class. Each entry gets three Jokers for the year. A Joker allows an overboost of 30 mBar in a race or qualifying, as measured on the Life Data Logging system, or any other boost logger system specified by GTC.

The TC will record Jokers used.

iv) No Jokers will be used in GTC 2.

v) TC decisions will be final.

21.2 **WEIGHT CONTROL**

GTC and GTC 2:

The TC's will use the allocation of appropriate base mass to each make and model of vehicle accepted for the series to control the race performance of that model. The TC's reserve the right to vary base mass at reasonable intervals to ensure all competitors have the opportunity to be competitive. MSA will publish the initial information in this regard before the start of each season and publish variations seven (7) days before each race meeting, as it



considers necessary.

The weight of the car as raced must be not less than that stipulated by the TC's.

The specified minimum weight includes the driver and his safety equipment, fuel, lubricants, coolant. At any time during a race meeting (except practice) a car may be weighed and, if found to be below the required minimum weight, all qualifying lap times (recorded prior to, or following, weighing) will be cancelled. Any car found to be underweight following qualifying or a race shall be excluded from the results of that race.

The official scale used at each circuit will be the sole weight measurement for the event. Minimum weight must be no less than that specified for the vehicle.

Ballast: It is permitted to complete the weight of the car by the addition of one or several units of ballast, provided that they are strong unitary blocks, fixed by means of tools, and must be able to take dia. 2mm seal cables, and are placed on the floor of the cockpit or the luggage compartment. The ballast must be attached to the shell/chassis with M8 grade 8.8 bolts, and counter plates. The minimum area of contact between shell/chassis and counter plate is 40cm² for each fixing point.

Minimum weights are as follows: **GTC - 1410 kg**
GTC 2 - 1310 kg

21.3 INLET AIR RESTRICTORS

GTC 2:

The TC's reserve the right to fit inlet air restrictors to all cars entered in the GTC 2 Championship. The size of the restrictor, its inlet and exit shape and its position will be specified by the Controllers. In specifying the restrictor position, the TC's will liaise with the competitor but the final specification will be at the sole discretion of the TC's.

All induction air to the engine must pass through the inlet air restrictor specified for the vehicle, and fitted to the car. The inlet air restrictor size may not exceed the diameter specified when measured at engine operating temperatures. 'Stall tests' may be carried out to check sealing. Any car found to be non-conforming to the restrictor regulations following qualifying or a race, shall be excluded from the results of that race.

The restrictor maximum ID sizes are as follows:

Mini Cooper JCW:	38 mm
VW Golf 7 GTi:	36 mm
Honda Civic Type R:	35 mm
<i>Ford Focus ST:</i>	<i>tba</i>

21.4 ECU CONTROLS

21.4.1 Ignition Timing

GTC:

The ignition angle, **ignFinalPri1** (LifeView), shall apply as follows:

VW/Audi: ignFinalPri1 **16** degrees

BMW: ignFinalPri1 **14** degrees GTC

GTC 2:

- Mini Cooper JCW:
OEM standard.
- VW Golf 7 GTi:
Not to exceed 2° in Unichip ignition timing table and OEM settings in ECU.
- Honda Civic:*
Not to exceed 0° in Unichip ignition timing table and OEM settings in ECU.
- Ford Focus ST:*
Not to exceed 2° in Unichip ignition timing table and OEM settings in ECU.



21.4.2 Ignition Offset:

GTC:

The following **Crank Reference Tooth Angle (ATDC)** (LifeCal) will apply:

VW/Audi: Crank Reference Tooth Angle = 291.50 degrees

BMW: Crank Reference Tooth Angle = 258.00 degrees

21.4.3 Engine rpm limit:

GTC:

The engine rpm limit will be **7200** rpm maximum, as set and recorded on the Life ECU and data logger system. This is the "hard" limiter called Limiters - Rev Cut in Lifecal.

The following parameters apply:

Limiters - Rev Cut - Engine Speed Measure = AVERAGED

Limiters - Rev Cut - Engine Speed = 7200rpm

Limiters - Rev Cut - Engine Speed Hysteresis = 0

Limiters - Rev Cut - Instant Fuel Cut = YES

Limiters - Rev Cut - Instant Ignition Cut = YES

Limiters - Rev Cut - Omit Ignition Cut = NO

21.4.4 Anti-lag control:

GTC:

The following ECU anti-lag parameters are mandatory for GTC cars:

Calibration Switches - Anti Lag Calibration Select - "OFF" (all cells to be set to "OFF")

Calibration Switches - ALS Enable Switch - "OFF" (all cells to be set to "OFF")

Anti-lag System - overall enable - "DISABLED"

21.4.5 Traction Control:

GTC:

Traction control is not allowed. Only the following Life Racing ECU settings may be activated:

K - knock control

G - gearbox control

I - direct injection

E - drive by wire

All wheel speed sensors shall be disconnected and non-functional during qualifying and races.

21.4.6 Boost Map Calibration:

GTC:

LifeCal -> IO Configuration -> Pin Assignments

Inputs: Manifold Absolute Pressure 1A - AN #08 (GEN)

Inputs: Manifold Absolute Pressure 1B - Not Connected

Inputs: Manifold Absolute Pressure 2A - Not Connected

Inputs: Manifold Absolute Pressure 2B - Not Connected

LifeCal -> Sensors -> Defined Sensors and Trip Setups -> Manifold Absolute Pressure:

i) Manifold Absolute Pressure Sensor 1A

Input Configuration: 5V

Default Voltage High: 4.90V

Default Voltage Low: 0.10V

Filter Constant: 95.00%

Failure Rate: 100.00%/s



Recovery Rate: 20.00%/s

Linearisation:

- boost pressure sensor graph to be linear with a slope of 1000mBar/v and to pass through the Barometer Absolute Pressure (BAP) value.
- The BAP values may be calibrated by a GTC pressure calibration jig. All GTC Life Data Logging systems to read the same pressure values as the calibration jig.
- Barometer Absolute Pressure (BAP) settings to be determined for each event and published in a race bulletin.

ii) **Manifold Absolute Pressure Sensor 1B**

Linearisation - All values set to Zero

iii) **Manifold Absolute Pressure Sensor 2A**

Linearisation - All values set to Zero

iv) **Manifold Absolute Pressure Sensor 2B**

Linearisation - All values set to Zero

21.4.7 Push to Pass calibration.

GTC:

21.4.7.1 Push to Pass set-up:

- i) The Life ECU must be set up for push to pass exactly as per GTC instructions.
- ii) The maximum absolute boost pressure for GTC qualifying may not be exceeded as specified in the latest applicable MSA Circular.
- ii) The maximum absolute boost pressure for GTC races may not be exceeded as specified in the latest applicable MSA Circular.

21.4.7.2 Push to pass will operate as follows:

- i) The number and duration of push to pass activations per race will be determined before the event, based on the number and distance of laps. This will be published in a race bulletin.
- ii) NO push to pass activations will be allowed on lap 1. Only after passing the Life Racing timing beacon denoted by a new lap time in the lap timer text box as recorded in the Life Racing Dash display at the end of lap one, may the push to pass be activated. Activating push to pass on lap one will be penalised by 30 seconds per activation.

21.4.7.3 Push to pass activations in the event of a red flag(refer Circuit Racing SSR 43):

- i) Should the race be red flagged with less than two laps completed, the race will be restarted as a new race. The push to pass activations may be reset to the original number of activations before the restart of the new race.
- ii) Should the race be red flagged with more than two laps completed, the race will be restarted as a second part of the original race. The push to pass activations will not be reset, but continue with the balance from the first part of the race.

21.4.8 Penalties for all ECU control transgressions:

The penalty for exceeding the specified limits are:

- i) In qualifying: drop 5 grid places for race 1 start.
- ii) In a race: 20 seconds added to race time.
- iii) The TC's decision is final.



22. DATA LOGGING AND DATA SHARING POLICY

22.1 Data Logging

22.1.1 GTC:

All GTC competitors are required to use the Life data logger as part of the Life ECU system or any other system specified by GTC to record the required data during qualifying and the races. The required data is GPS car speed, engine rpm, throttle position, absolute inlet manifold boost pressure and ignition timing to equalise performance. More channels may be recorded for the competitor's own use. Additional data may be requested by the TC's.

22.1.2 GTC 2:

All GTC 2 competitors are required to fit an AIM data logging device or any other system as specified by GTC to record GPS car speed, engine RPM, absolute inlet manifold boost pressure and throttle position to equalize performance. More channels may be recorded for the competitor's own use. Additional data may be requested by the TC's.

All cars must have an AIM data logger (ideally the EVO 4 as a minimum) which can read the AIM boost pressure sensor, part no X05SNP31004A, *and installed as per art 21.1.2*

22.1.3 The onus is on competitors to ensure that credible, unmanipulated data is available to the TC's. Competitors not ensuring data availability and not complying with the necessary requirements for fitting data loggers as instructed, and ensuring that boost sensor tubes are not in any way blocked, leaking or kinked and that power supply is sufficient and download cables for computer data systems are available, will be considered not to be in compliance with the series technical regulations, Such competitors will be penalised accordingly. For not being able to supply complete and correct data when required to do so – 20 seconds to race time for the first offence. Additional penalties may be applied by the CoC.

22.1.4 Competitors may not remove their race vehicles from parc fermé after the last race of the day until they have completed all checks, including data downloading, and have been cleared by the TC's. Failure to comply with any of the above conditions will result in exclusion from the results of the entire event.

22.2 Data Sharing

22.2.1 The TC's will have access to all data collected by or on behalf of GTC including without limitation all data from in-car cameras.

22.2.2 The TC's may disclose the data to third parties for any reasonable purpose including without limitation safety and/or medical research.

22.2.3 All data collected excluding in-car camera footage, is available to all competitors with the permission of the TC's. Data will be made available *after* qualifying and *at the end of* race day. Each competitor will upload logged car data by wi-fi or *memory stick* to the allocated electronic data sharing, where other competitors can download. Uploading must be done directly after qualifying, *and directly after the last race*. Uploading includes competitors who did not finish. Competitors who fail to upload data timeously may be penalised by the CoC at the next event if needs be.

23. TECHNICAL CONTROLLER (TC)

23.1 Technical Consultant/s (TC's) nominated by GTC will attend Global Touring Car Championship races to ensure compliance of all technical aspects.

23.2 For the Technical Consultant's duties and powers see GCR 167.

23.3 The TC's should he/she feel it is required, may work together with the Global Touring Car Technical Working Group to aid in his/her checks of technical compliance.

23.4 The TC's will do pre-race scrutineering via a walk around and will document all findings.

23.5 There will be no requirement for the Global Touring Car Championship competitors to have cars scrutineered by the scrutineer of the day as per the SR's.

23.6 The TC's and not the Clerk of Course, other than through a protest where the CoC has the right, will check what he/she feels is needed during race meetings.



- 23.7 The TC's will manage all the technical aspects.
- 23.8 The TC's will be responsible for scrutineering and will have full authority over the Chief Scrutineer, and is declared to have non-protestable powers to determine any safety related matter concerning the cars and associated equipment, including but not limited to driver's apparel.
- 24. DRIVER CONDUCT PANEL (DCP)**
- 24.1 A Driver Conduct Panel (DCP) shall be appointed for each Race Meeting, the names of the members of the panel to be published via a bulletin in the week preceding the race meeting. The panel shall consist of a minimum of *two* persons, one of whom shall be the Clerk of the Course.
- 24.2 All hearings emanating from reports received, either from competitors or officials, shall be heard by the DCP in the week following the race meeting on a day and time to be advised.
- 24.3 The DCP following the hearing, will make the final decision and is the sole body that can issue any penalty against a competitor who breaches the driver conduct and standards, rules and regulations.
- 25. DRIVING STANDARDS / DRIVER CONDUCT**
- 25.1 Any competitor who feels aggrieved by another's driving standard and or driver's conduct has the right to submit an incident report in accordance with the regulations.
- 25.2 Incident reports for drivers' standards and drivers conduct will be accepted by the Clerk of the Course who, after discussion with the parties concerned, may refer them to the DCP for further action. This clause does not in any way preclude the Clerk of the Course or any other competent official from raising an issue and referring that to the DCP.
- 25.3 As an aid to adjudication of disputes involving driving incidents that are protested, all competing cars must be fitted with both forward and rear facing video cameras. These must be so mounted that it has a clear view forward facing out of the car, and must include a visual of the drivers steering wheel, and the rear view must be so mounted to have at the very least a clear view out of the rear window and in good working order, during qualifying and all races. Failure to supply said footage immediately upon request will render the offender be penalized with a 10-point penalty in the championship. Repeat offences could include exclusion of the race, races and qualifying. No camera maybe tampered with, removed or otherwise until time for protest has expired by anyone. Competitors are required to preserve all footage until at least the Friday following a race weekend. When requested to present footage only unedited footage must be presented to the officials.
- 25.4 Competitors that are part of a referred incident that do not have footage available will automatically receive the above listed penalty. However, this does not negate the necessity for the officials to investigate the matter further.
- 25.5 Driver's briefings will be held after all practice has been completed prior to qualifying and race day and there shall be a separate briefing for the Global Touring Car Championship competitors.
- 25.6 Times of these briefings will be documented in the SR's or communicated to all entries on practice day. Communication may be in a digital form (SMS, Whatsapp, email).
- 25.7 The following driving standards and conduct will apply:
- 25.7.1 Careless Driving: Departing from the standard of a competent Driver: Any competitor found to have breached this will get a warning and the next breach or similar offence will get a penalty of at least a three (3) place penalty. Multiple offenses will get a penalty of exclusion.
- 25.7.2 Reckless Driving: Any unintentional action by a driver which creates serious risk to others. Any competitor found to have breached this will get at minimum a three (3) place penalty. A second offense will carry a penalty of 5 places. Multiple offenses (three (3) or more) will get a penalty of exclusion.
- 25.7.3 Dangerous Driving: Any intentional action by a driver which creates serious risk to others. Any competitor found to have breached this will be excluded. Further breaches can get a penalty of a ban for multiple races. This will be at the discretion of the DCO.
- 25.7.4 Blocking: any competitor found to have deliberately blocked another competitor shall be subject to the same penalties as prescribed in articles 25.7.1, 25.7.2 or 25.7.3



- 25.8 All penalties for any offence of a competitor with regards to driver standards and driver conduct can only be given by the DCP.
- 25.9 However, penalties for kerb infringements can be given by the CoC. Penalties for kerb infringements can be given during practice sessions as well as races.
- 25.10 Overtaking and Car Control
- 25.10.1 A Car alone on the track may use the full width of the said track, however, as soon as it is caught by a car which is about to lap it the driver must allow the faster driver past at the first possible opportunity. If the driver who has been caught does not seem to make full use of the rear-view mirrors, flag marshals will display waved blue flags to indicate that the faster driver wants to overtake. Any driver who appears to ignore the blue flags will be reported to the DCP.
- 25.10.2 Overtaking, according to the circumstances, may be carried out on either side of the lead car. A driver may not deliberately leave the track without justifiable reason. More than one change of direction to defend a position is not permitted. The lead car in defending an overtaking maneuver having earlier defended his position off-line, should leave at least one car width on the defending side available for the challenger and his own car and the edge of the track on the approach to the corner. However, manoeuvres liable to hinder other drivers, such as deliberate crowding of a car beyond the edge of the track or any other abnormal change of direction, are strictly prohibited. Any driver who appears guilty of any of the above offences will be reported to the DCP.
- 25.10.3 Drivers must use the track at all times. Should a car leave the track for any reason, and without prejudice to 25.10.4 below, the driver may re-join. However, this may only be done when it is safe to do so and without gaining any advantage. A driver will be judged to have left the track if no part of the car remains in contact with the track.
- 25.10.4 Repetition of serious mistakes or the appearance of a lack of control over the car (such as leaving the track) will be reported to the DCP and may entail the imposition of penalties up to and including the exclusion of any driver concerned.
- 25.10.5 It is not permitted to drive any car unnecessarily slowly, erratically or in a manner deemed potentially dangerous to other drivers at any time
- 25.10.6 Corners, as well as the approach and exit zones thereof, may be negotiated by the drivers in any way they wish, within the limits of the track.
- 25.10.7 Any obstructive manoeuvre carried out by one or several drivers, either having common interests, or not, is prohibited. The persistent driving abreast of several vehicles, as well as driving in a fan-shaped arrangement, is authorised only if there is not another car trying to overtake. Otherwise the blue flag will be waved.
- 25.10.8 The penalty inflicted for ignoring the blue flag will also be applied to drivers who obstruct part of the track and shall be more severe in the case of systematic obstruction, this ranging from a **thirty second penalty** to exclusion from the race. The same penalty shall be applied to drivers who weave from one side of the track to the other in order to prevent other competitors from overtaking.
- 25.10.9 If a car has left the circuit with all four wheels, it shall re-join the circuit at the nearest point to the exit from it, compatible with safety and without prejudicing a fellow competitor. Leaving the circuit with all four wheels (with the resultant effect of missing a corner on the circuit) will result in the imposition of a penalty (10 seconds minimum) on the offending competitor, for a first offence. A second offence in the same race will result in the exclusion of the competitor from the race in question.
- 25.11 Kerb Infringements: A driver must not cut any corner or perform any act which results in material or debris being brought onto the race track.

26. GENERAL COMPLIANCE

All competing vehicles must comply with all the Global Touring Car Championship Supplementary Regulations (as published and, where applicable, amended by official MSA Circulars)



at all times during official practice, official qualifying sessions and all races for a National Championship race meeting, from the time they leave their pit garages, until the time they stop and turn off their engines in parc fermé.

27. PENALTIES FOR TECHNICAL INFRINGEMENTS (NON-CONFORMANCE)

Where any car, or the data recorded by that car, is found not to comply with the applicable Specifications and/or Regulations, the following penalties will apply: The driver concerned shall be excluded from the results of the session (qualifying, or race). If there is concern that the contravention existed for more than one session, or the entire race meeting, details of such a penalty must be stipulated by the Clerk of the Course. Refer GCR 176.

28. AMENDMENTS AND ALTERATIONS TO THESE REGULATIONS

- 28.1 MSA, in consultation with the Controllers, reserves the right to amend, alter or introduce additional regulations and/or specifications if deemed necessary.
- 28.2 Such amendment, alteration or additional regulations and/or specifications shall only be in force following publication in an official MSA circular or bulletin.
- 28.3 All technical regulations shall remain the same for a duration of five (5) years unless the changes are for Safety, Reliability, Lowering of Costs and or all stakeholders agree to the technical changes to these Regulations.
- 28.4 The Controllers and or the TC's may undertake balance of performance reviews from time to time and should a perceived imbalance arise then such imbalance may be referred to the Technical Working Group for review and any subsequent recommendation. This balance of performance review will only use data collected during race weekends from onboard car data loggers (which is available to all competitors).

29. OFFICIAL NOTICE BOARD

All official notices shall be placed on the official notice board as per the GCR's and SSR's.

30. MEDIA ACTIVITIES

30.1 Public and Media Activities

- 30.1.1 Unless otherwise advised in Supplementary / Further Supplementary Regulations, the first three (3) drivers from qualifying and the first three (3) drivers from other sessions plus other drivers and team members as directed by the controllers are required to attend a media conference at a time which will be advised in Supplementary / Further Supplementary Regulations and/or event promotional schedule or via digital media.
- 30.1.2 At the conclusion of racing, and immediately after the podium ceremony, the drivers of the cars placed first, second and third overall plus other drivers and team members as directed by GTC will be required for a media conference at a time which will be advised in the Supplementary / Further Supplementary Regulations and/or event promotional schedule or via digital media.
- 30.1.3 All drivers at these presentations must be suitably attired (i.e. driving suits must remain 'done up' to the neck, not opened to the waist).
- 30.1.4 All drivers are required to attend public and media activities at each round of the GTC Championship, the details of the activities required of drivers will be published in Supplementary / Further Supplementary Regulations, promotional schedule or directly to the relevant team by GTC.
- 30.1.5 In addition to the requirements of rule above, all drivers must make themselves available (free of charge) to GTC for series, public, marketing, promotional and media activities, for



- up to five (5) occasions outside of events throughout *the season* when required at the reasonable request of GTC.
- 30.1.6 This number excludes event public autograph sessions, general media interviews, team, individual or personal media or marketing activities and event media requirements.
- 30.1.7 All travel, accommodation and meal expenses incurred by drivers for attending will be paid by GTC.
- 30.2 Non-Attendance and Presentation
- 30.2.1 Drivers must be on time and remain in attendance for the duration of any promotional or media activity.
- 30.2.2 All Drivers must wear a minimum of dress trousers, neat and enclosed shoes and button down team shirt to all official appearances unless otherwise instructed by GTC.
- 30.2.3 Jeans, casual pants, t-shirts and open footwear will only be permitted with the specific approval of GTC.
- 30.2.4 All clothing must be clean and ironed.
- 30.3 Series Promotional Requirements - Television
- 30.3.1 Upon entering any series, competitors undertake to assist the broadcaster, organisers, promoters and circuit managers in the promotion of the series.
- 30.3.2 In entering the series, teams are obliged to assist GTC in the promotion of the series and in particular, the broadcaster's television coverage or media conferences.
- 30.4 Pit Lane Walk
- 30.4.1 All cars may be required to be present in pit lane for the Pit Lane walk.
- 30.4.2 All details of any Pit Lane walks to be conducted will be detailed in Supplementary / Further Supplementary Regulations or via digital media.
- 30.5 Driver Autograph Sessions
- 30.5.1 Each driver must complete at least one (1) autograph session of no less than 30 minutes in duration during each meeting.
- 30.5.2 Teams must advertise the time and location for this session outside their Pit Garage where it can be clearly seen by the public attending the meeting.
- 30.5.3 Drivers may conduct their autograph session either at their garage, in the merchandising area or at another suitable central location pre-arranged by GTC.
- 30.5.4 Driver autograph sessions must be conducted during the event operating hours as detailed in the Supplementary / Further Supplementary Regulations.
- 30.6 Season Launch
- 30.6.1 All GTC Teams are required to be present for the duration of the season launch as advised to them by GTC.
- 30.6.2 Each team must have present, for the duration of the season launch, their race car transporter, the primary driver for each car and at least one (1) GTC car displaying the Team's livery.
- 30.7 Penalties for breaching the media activities rules:
- 30.7.1 Any breach of these media activities rules will be given a three (3) place grid penalty at the next race meeting.