

**FIA MOTORSPORT GAMES –  
FERRARI CHALLENGE TROFEO PIRELLI – GT SINGLE MAKE**

**2024 TECHNICAL REGULATIONS**

The below regulations are reproduced under a licence agreement between the FIA and Ferrari S.p.A and are valid only for the 204 FIA Motorsport Games: Ferrari Challenge Trofeo Pirelli – Single Make competition (“*the Competition*”).

The competition is restricted to only **Ferrari 296 Challenge** cars complying with the following regulations.

## **TECHNICAL REGULATIONS 296 Challenge**

### **1 Admitted cars**

296 Challenge (and related updates).

### **2 General Principles**

This Technical Regulation is in compliance with the FIA document - Appendix J 2Art. 277 of Appendix J of the Free Formula Technical regulations (Group E) WMSC 6.12.2020 (CATII-SH).

Anything not expressly authorised by these Technical Regulations is prohibited.

The official Ferrari documentation, which includes:

- the Spares Parts Catalogue,
- the Wiring Diagrams,
- the Technical Manual,
- the Technical Bulletins
- The Technical Sheet SCT296 -0321

covers anything not expressly explained by the present Technical Regulations. The Technical Bulletins that temporarily or permanently modify the Technical Regulation issued by the FIA before the Competition and approved by the Stewards become an integral part of the regulations themselves.

The only work which may be done on the cars is normal maintenance or the replacement of parts damaged by wear and tear or in an accident. The permitted modifications and assembly limitations are specified in these Regulations. These aside, any part affected by wear and tear or accident may be replaced only by an original spare part. Any addition of a part or material is prohibited if not expressly authorized by the present regulations, the Technical Sheet or official Ferrari Technical documentation.

The Cars must always be identifiable by their:

- FIA Technical Passport,
- Technical Sheet SCT296 -0321
- Technical Manual,
- Spares Parts Catalogue,
- comparison with original production components,
- updated project drawings,
- updates as per Technical Bulletins.

The Competitor is responsible of ensuring that both car and the spares fitted to it are compliant and he must thus ensure they are in order before each race.

### **3 Minimum weight / minimum height**

MINIMUM WEIGHT = 1470 Kg (car + driver)

The minimum weight specified below must be considered as the sum of the car weight and the driver weight (helmet and HANS® device included).

For the verification of the minimum weight, the vehicle is considered with the prescribed amount of liquids in running order and with the fuel tank completely empty.

The fuel tank is considered completely empty if the fuel has been totally removed from the tank by using exclusively the dedicated fuel extraction socket for the emptying operation.

To reach the minimum weight it is mandatory to use ONLY the official ballast kit p/n 990277 and the ballast weights p/n 990294 (1,5 Kg) and/or p/n 990280 (3 Kg).

KERB: the minimum height of the car and of parts of the body has to be adjusted as follow.

The prescription must be respected on both sides, left and right.

**FRONT**

105 mm from front Master Point to ground

**REAR:**

107 mm from rear Master Point to ground

Heights must be checked with the slick tyres mounted on the car at the end of the session, adjusted at 1.8 bar.

In case the car closes the session with rain tyres, the height check will be carried out with the rain tyres mounted on the car at the end of the session.

For further details please refer to Appendix 3 of this document.

#### **4 Engine**

The engine must be without exception a production engine in all its parts. To ensure this, seals will be applied by the FIA and Ferrari directly to ensure that no further work is done on it. Any necessary engine maintenance work / engine replacement is the direct responsibility of the Ferrari Official Dealership and/or the Ferrari importer. They must declare the reason for the engine maintenance/replacement and declare to the Technical Delegate of the Competition the new engine seal numbers following the instructions released by Ferrari S.p.A.

The Competitor will not be allowed to start the race if, during the pre-event technical scrutineering carried out by the Technical Scrutineers with technical support from Ferrari, the documentation and the number of the seals fail to comply with the regulations.

No part of the engine may be modified; No materials may be removed or added with the exception of those outlined in the present Regulations and/or the Technical Sheet SCT296 -0321.

In the case of repairs made due to overheating and involving the dismantling of the cylinder heads, the team must inform the Technical Delegate and Ferrari.

However, no levelling work is permitted. Abrasive materials must not be used to clean the heads.

In agreement with the Stewards of the Meeting, the Organization reserves the right to pick the engine or other mechanical parts and send them to Ferrari S.p.A. for conformity checks.

In agreement with the Stewards of the Meeting, the Organization reserves the right to replace the ECUs (engine control units) at any time during the Event.

#### **5 Electrical system**

The diagnostic OBD plug must be always in working order to guarantee the connection of the official diagnostic tool to all the electronic control units of the car, so that the checks that will be requested by the Technical Delegate or Ferrari and in agreement with the Stewards can be performed.

No unoriginal or unauthorized device can be connected to the OBD diagnostic sockets and to any can bus line of the car.

The electrical equipment must always conform to the original and no detail of the electrical system (cables, looms, connectors, etc.) can be changed or tampered with.

To carry out the checks on the conformity of the electrical system, the scrutineers and Ferrari technical staff can use any type of equipment, instrumentation and methods they deem appropriate (multimeters, additional cables, welders etc.).

If necessary, the scrutineers and Ferrari technical staff may request the transport of the vehicle at the manufacturer's premises for further checks.

#### **6 Gearbox / transmission**

The gearbox must be the one provided for by Ferrari and thus strictly stock in all its parts.

In agreement with the Stewards of the Meeting, the Organization reserves the right to pick the transmission unit and send it to Ferrari S.p.A. for conformity checks.

In agreement with the Stewards, the Organization reserves the right to withdraw the transmission control unit from the Car and replace it at any time during the event.

## **7 Wheels / tyres**

Only slick or rain tyres supplied by Pirelli in the following sizes may be used:

Front slick	280/680 - 19" - DH
Rear slick	300/720 - 19" - DH
Front rain	280/680 - 19" - WH
Rear rain	300/720 - 19" - WH

Any chemical and/or thermal treatment of the tyres is prohibited.  
Cleaning the tyres after track sessions is permitted.

The Technical Delegate, Ferrari and Pirelli staff are authorized to inspect the tyres (condition and pressure) at any time during the race weekend.

The wheel rims have the following sizes:

Front	11" x 19"
Rear	12" x 19"

The Technical Delegate, Ferrari and the Pirelli staff are authorized to recall rims and to request the replacement of the valves if considered not suitable and adequate to run.

It is mandatory to have the Ferrari Challenge TPMS System always working correctly (telemetry data logged and available) during Free Practice, Qualifying sessions and Races.

## **8 Suspensions and setup**

Under no circumstances, the negative camber can exceed the following negative values (decimals):

Front	-3,0°
Rear	-3,0°

According with the different track layouts, the Technical Delegate, , in collaboration with Ferrari and Pirelli, may communicate values of camber to respect different from the ones mentioned above.

Camber may be adjusted, within the permitted limits, by adding or removing the original Ferrari spacers between the suspension and the chassis, as described in the official Ferrari documentation and technical bulletins on the subject.

Original Ferrari spacers (1 mm, 2 mm, 3 mm, 4 mm, 5 mm – see official Technical Documentation) are admitted to adjust the shock absorber stroke.

It is possible to adjust the anti-roll bar end-link position between one of the two original holes.

It is not permitted to detach or remove the anti-roll bars.

The permitted original suspension and springs are as follows:

Front damper	cod. 987273
Rear damper	cod. 987279
Front spring K300	cod. 972065
Rear spring K220	cod. 750276

## **9 Pipes / wiring / heat shields**

The positioning of all of the cars various components must comply with the original layout as described in the technical information.

## **10 Frame and body**

No part of the bodywork may be worked upon or modified. All parts must comply in terms of size, look and material to the original parts. The original position of any elements of the bodywork may not be modified in any way. Neither shall adhesive tape be applied to the profiles or bonnet, wheel arches, doors, etc.

It is not permitted to use rails, brackets and any kind of non-original material to change the seat position.

It is not permitted to carry out any strengthening work on the frame (welds, brackets, etc.) without the authorization of Ferrari S.p.A.

The maintenance operations to repair structural parts of the chassis must be carried out and supervised by personnel holding a certification of qualified aluminium welding to the standards requested by Ferrari.

## **11 Aerodynamics**

Rear wing: The position of the rear wing must respect the following instructions (for more details please refer to Appendix 3)

Angle of attack of the wing: it must be included in the range  $+3^\circ$  to  $+9^\circ$  (limits included).

The car must have the original wing supports. For the correct adjustment of the angle of attack please refer to the table in Appendix 3 where you can find the correspondence between the signs on the wing supports and the angle of attack.

Wing height: with the car on a flat reference plane, the upper edge of the wing nolder must stay at  $\pm 10$  mm respect to the top of the roof, and this for any adjustment of the angle of attack within the admitted range.

Wing offset: with the car on a flat reference plane, the front upper edge of the wing nolder must be  $1610 \pm 10$  mm far from the third stop spoiler for any adjustment of the angle of attack within the admitted range (for further details refer to Appendix 3). The check is carried out in correspondence of the centre of the wing.

The wing height and the wing offset are checked in the conditions in which the car finishes the session.

The wing section profile must not be modified.

The two side winglets cannot be modified in profile and section, and they must be always installed on the wing respecting the correct adjustment with reference to the angle of attack of the wing (see Appendix 3).

The wing and its side winglets cannot be painted.

Adhesives can be applied only on the side winglets and only on the top of the wing avoiding the leading edge area.

## **12 Cockpit**

Pedals: it is forbidden to change the position of the pads for both the brake and accelerator pedal. For the correct position please refer to the official technical manual.

No modification can be made to the pedal assembly.

Video recording systems: see article 17.

## **13 Windshield and side windows**

Windshield: it is allowed to apply protective transparent films on the windshield. The layers applied must stay within the perimeter of the windshield and they cannot cover or close the outer edges between the windshield and the body.

Side window: it is allowed to apply air intakes on the side windows with the aim of reducing the temperature in the cockpit.

## 14 Fuel

It is compulsory for Competitors to use during Qualifying and Race only the fuel supplied by Shell at the racetrack. No other type of fuel or additives is permitted.

At the end of the Test and Free Practice sessions all the fuel must be drained from the car through the specific drain plug before filling up with official fuel.

Cooling of the fuel is prohibited in any form.

In case of a fuel check, Ferrari itself undertakes to transport the fuel sample, taken by the stewards and Technical Delegate in the presence of the competitor or his representative, to the testing laboratories.

The sample must be taken from the specific plug.

It is mandatory to use the original devices with handles, Ferrari p/n 183914 for refuelling operations.

## 15 Brake system

The correspondence between the serial number of the brake discs stamped on the brake bell and those inserted in the FBO unit and readable with both diagnostic tool and telemetry must be guaranteed at all times.

## 16 Lubricants

It is compulsory for competitors to use only:

Engine oil:	Shell Helix Ultra SAE 5W-40	
Gearbox oil:	Shell 498 F	
Brakes oil:	Brembo Racing LCF 600 plus	
Engine coolant:	Kemetyl Carix Premium Longlife	(50% dilution)
Air cond. refrigerant:	R 1234yf	
Air cond. compressor:	PS-D1	

It is not permitted to use additives and to change the value of percentage in the above-mentioned liquids/oils.

Samples of said lubricants and liquids will be taken during the championship for testing.

## 17 Safety equipment

The following safety equipment is compulsory under current legislation:

- a) roll-bar and relative protections
- b) homologated 6-point safety harnesses
- c) fire extinguisher
- d) Two hooks (front and rear)
- e) Electric circuit breaker – main battery switch
- f) FIA homologated seat
- g) Side head-nets
- h) Roll-cage predisposition to lift the car from the top/roof

All safety devices listed above must be original.

The original number and position of the fire extinguishers may not be changed.

Drivers, during track sessions, must wear a HANS® collar. The use of a compatible helmet which meets the FIA Standard as specified in the Chapter 3, Appendix L of the Code is compulsory.

For further details, please consult the “Guide and installation specification for HANS® devices in racing competition” available at: [www.fia.com](http://www.fia.com) , under FIA Sport – Safety – Safety Equipment - Driver's Equipment- Head Restraint.

## 18 Video recording equipment and loggers

The installation of any video camera inside the cockpit is done under the direct responsibility of the Team.

Any connected device that needs to log car data must be connected to the car only through the specific connector placed behind the driver seat.

The connector supplies the power and a private CAN BUS line, separated from the car CAN line, providing the data most commonly used by the aforementioned devices.

Video cameras are prohibited if mounted outside the vehicle unless specifically authorized by the Technical Delegate.

Any device connected to the car must still comply with the conditions specified in Article 5 and therefore no modification of the electrical system is permitted.

### **19 Telemetry / diagnostic tools**

Telemetry systems different from the original or which provide redundant data to the original system are not permitted.

Diagnostics must be carried out only with the official diagnostics system and the original telemetry system. The official telemetry data and the data acquisition table must be those of the original system as well.

All the data (diagnosis, telemetry, video logger) must be always available to the Ferrari technical staff, the Technical Delegate and to the Race Direction.

The marshalling kit must always operate correctly for a car to be admitted to the official sessions.