

10
ANS · YEARS



SEASON 2024

TECHNICAL REGULATIONS



RACING RADIOS
INTERNATIONAL

MIB
ASSURANCE

FAST
WHEELS



PAGID
RACING

rainx

NISSAN

nismo

JD PROMOTION & COMPÉTITION INC.
16 | 05 | 2024

TECHNICAL REGULATIONS 2024

SUMMARY

ARTICLE 1 – DÉFINITIONS	Page 5
1.1 Type of vehicle	5
1.2 Event	5
1.3 Minimum weight for competition	5
1.4 Data acquisition	5
1.5 New tires	5
1.6 Use tires	5
1.7 Certification	5
ARTICLE 2 – REGULATIONS	Page 6
2.1 Technical regulation principle	6
2.2 Continued compliance with Regulation	8
2.3 Repairs	8
2.4 Log book	8
ARTICLE 3 – BODY	Page 9
3.1 Instructions for the replacement or repair of welded elements on the body	9
3.2 Windows	9
ARTICLE 4 – WEIGHT	Page 10
4.1 Competition weight	10
4.2 Ballast	10
4.3 Additions after the race and qualifying	10
4.4 Weighing	10
ARTICLE 5 – ENGINE	Page 11
5.1 Authorized engine	11
5.2 Technical testing	11
5.3 Exhaust	11
ARTICLE 6 – FUEL LINES AND TANK	Page 12
ARTICLE 7 – LUBRICATION, ENGINE COOLING AND BRAKE FLUID	Page 12
ARTICLE 8 – TRANSMISSION	Page 12
ARTICLE 9 – SUSPENSION AND STEERING	Page 13
9.1 Wheel alignment	13
9.2 Suspension	13



ARTICLE 10 – BRAKES	Page 13
ARTICLE 11 – WHEELS AND TIRES	Page 14
11.1 Wheels	14
11.2 Tires	14
ARTICLE 12 – COCKPIT	Page 14
ARTICLE 13 – SECURITY EQUIPMENT	Page 15
13.1 Fire extinguisher	15
13.2 Electrical kill switch	15
13.3 Mirrors	15
13.4 Driver seat belts	15
13.5 Seat and seat supports	16
13.6 Safety latches (hood)	16
13.7 Windshield	17
13.8 Driver side window net	17
13.9 Tow hooks	17
13.10 Signals - Lights - Headlights	17
13.11 Driver's equipment	17
ARTICLE 14 – ROLL CAGE	Page 18
ARTICLE 15 – FUEL	Page 18
15.1 Fuel	18
ARTICLE 16 – ÉLECTRONIQUE	Page 19
16.1 Radio system and telemetry	19
16.2 Dashboard	19
16.3 Wiring harnesses and cables	19
16.4 Engine electronic control unit (ECU or Calculator) and data acquisition	19
16.4.1 Nissan Sentra	19
ARTICLE 17 – FINAL TEXT	Page 20
APPENDICES 18	Page 21 and following



TECHNICAL REGULATIONS

Anything that is not explicitly authorized in these regulations and in technical bulletins issued by NISSAN SENTRA CUP IS STRICTLY PROHIBITED, and penalty or disqualification can occur.

All of these documents will be submitted by email to each competitor registered for the 2024 NISSAN SENTRA CUP.

All of these documents are also made available on the NISSAN SENTRA CUP website:

www.sentracup.com

IMPORTANT

The competitor must ensure that all technical staff that may examine or inspect the team car has all necessary technical documents for examination or inspection of the car in compliance of this regulation.

Ignorance of a technical paper published by the NISSAN SENTRA CUP during the season will not be accepted as a defense.

The driver and competitor will be held responsible at all times to ensure the compliance of their car to the regulations. Only the measuring instruments for measuring size, weight, pressure or capacity used by the technical inspectors of the NISSAN SENTRA CUP shall prevail.

No dispute is allowed. These instruments may be available to competitors for their own measurements, or to calibrate their own measurement instruments, until the opening of the false grid for qualifying.

1 – DEFINITIONS

1.1 – TYPE OF VEHICLE

NISSAN SENTRA S 2021-2022-2023-2024, marketed by JD Promotion et Compétition Inc., in accordance with the present technical regulations. Vehicles built from parts or collections are not allowed.

1.2 – EVENT

An event consists of free practices, one or two qualifying sessions, and one /or more race(s). An event begins with the start of preliminary technical inspections and ends at the finish of the protest period following the last race.

1.3 – MINIMUM COMPETITION WEIGHT

The minimum competition weight of **NISSAN SENTRA S** (3045 pounds or 1382 kg – to be confirm by series newsletter) is the weight of the car, after its participation in qualifying or a race, including the weight of the driver, and excluding all intervention, modification or addition.

1.4– DATA ACQUISITION

Onboard data recording system for "vehicle" parameters. This system connects to a computer for "retrieval and analysis of recorded data only".

1.5 – NEW TIRES

Tires that have never been use and registered with the **NISSAN SENTRA CUP**. Each competitor is limited to the use of one set of new tires **Pirelli** per event. Each competitor can purchase an additional set of tires at the first event.

1.6 – USED TIRES

Tires previously used, but the wear condition still allows use in competition (assessing the degree of wear according to technical inspectors), or tires already registered in a previous event for the same car.

1.7 – CERTIFICATION

Any car may take part in an event before it has been inspected and approved (before that) by the technical inspectors. At any time during the event, technical inspectors can:

- Check the compliance of a car.
- Require that a car, or a specific component of the car, be dismantled by the competitor to ensure that the conditions of eligibility or conformity fully in compliance with these regulations.
- Require from a competitor to provide any sample or any part or component or stored data they may deem necessary. Confirmation of technical controls compliance will be carried out by series authorized technical inspectors.

2 – REGULATIONS

2.1 – TECHNICAL REGULATION PRINCIPLES

The parts constituting the **NISSAN SENTRA** are divided into two classes.

CLASS « A »:

No changes are allowed.

The parts in this class must remain in their original position and perform the functions for which they were intended. These parts are factory original from NISSAN. Modified or nonoriginal parts are prohibited.

CLASS « B »:

Only changes made by the team MIA (Motorsport In Action) before delivery of the car are permitted:

- Removal of trim of the cockpit, seats, carpets.

Exception **NISSAN SENTRA**: The interior trim under the rear window can be removed

- Air conditioner can be removed (see newsletter for instructions and replacement parts)

- You can remove the driver's side door window

- Replacement with a steering wheel adapter and OMP steering wheel.

Exception NISSAN SENTRA: the addition of an adapter to enhance the steering wheel sold exclusively by the series is allowed

- Replacement of door panels by MIA panels.

- Installation of OMP racing seat.

- Installation of a fire extinguishing system.

- Installation of a MIA roll cage.

- Installation of a 5-point OMP safety harness.

- Installation of a driver side safety net.

- Installation of a kill switch.
- Installation of racing pedals.
- Installation of MIA front left floor panel.
- Installation of camber bolts
- Replacing of front brake pads with racing pads.
- Replacing the air filter housing with a filter and a less restrictive type MIA inlet tube.
- Replacement of the hood restraint system by hood pins.
- Installation of a front tow hook.
- Replacement of front brake lines by braided steel lines.
- Replacement of the exhaust system by MIA system with CORTEK muffler.
- Replacement of shocks and springs suspension decided by the series.
(In case of replacement, these parts are solely acquired from JD Promotion et Compétition Inc.).

Locations of the seals on the engine:

NISSAN SENTRA

- # 1: Transmission under the engine
- # 2: Intake and valve cover
- # 3: Air intake butterfly
- # 4: Distribution chain

(In case of a broken seal or replacement of a seal element, it will be the responsibility of the competitor to notify the NISSAN SENTRA CUP officials to get the proper procedure for reseal).

Fasteners:

All fasteners are free, provided they meet the following criteria:

- The original diameter.
- The original thread path.
- The original material (example: a steel bolt can only be replaced by a steel bolt to the exclusion of any other material).
- The original minimum mechanical properties should be maintained (example: a bolt quality 8.8 may be replaced by a quality of bolt 10.8, but the opposite is not allowed)

2.2 – CONTINUED COMPLIANCE WITH REGULATION

The cars of the NISSAN SENTRA CUP must fully comply with these regulations for the entire duration of an event. The driver, his entrant and the team are responsible for the ongoing technical compliance of the car.

2.3 – REPAIRS

Any work on the car must be carried out according to the methods defined by the various technical documents issued by NISSAN and in compliance with these regulations, in order to maintain the configuration of the original car. Any spare part mounted must meet the criteria related to the categories mentioned above that contains the replaced part. The class “A” parts must be genuine NISSAN and must be in the parts catalog for NISSAN.

IMPORTANT NOTES:

- 1) The driver, the entrant and the team, are held accountable for the ongoing compliance of the car and the mounted and used spare parts and ensure technical compliance before use.
- 2) Any original replacement part that does not meet the same standard as the part it replaces without modification shall in NO CIRCUMSTANCES be used and must be exchanged with the NISSAN dealer after informing the technical inspector of the NISSAN SENTRA CUP.
- 3) **During an event, any car which, after being approved by the technical inspectors has been repaired or modified in such a way that it might affect its safety or call into question its compliance, or would have been involved in an accident with similar consequences must be resubmitted to the technical inspectors of the NISSAN SENTRA CUP by the competitor for a new approval.**


2.4 – LOG BOOK

Technical Inspectors in charge of the NISSAN SENTRA CUP issue a log book at the time of initial inspection of the vehicle. This log book remains with the technical inspectors for the NISSAN SENTRA CUP. If necessary, it may be given to the competitor on request, but it must stay with the car at all time.

3 - BODY

3.1 – INSTRUCTIONS FOR THE REPLACEMENT OR REPAIR OF WELDED PARTS ON THE BODY

In all circumstances, the operations of replacement or repair of body parts must be carried out according to the methods defined by NISSAN and as described in the 2021, 2022, 2023, 2024 repair manual of the NISSAN SENTRA.



Any car that would present traces of reinforcement in the connecting areas of welded parts will be considered noncompliant with the regulations of the NISSAN SENTRA CUP. The use of duct tape or similar tape to repair body parts is subject to the approval of the technical inspectors. Duct tape or similar can be permitted for the repair of the body only when the time between sessions does not allow a complete repair. The attachment of body parts together with duct or similar tape is subject to the approval of the technical inspectors of the NISSAN SENTRA CUP.

It is allowed to paint the body parts on the inner and outer surfaces with the exception of the radiator grill, provided they respect the contracts with the partners of the 2023 NISSAN SENTRA CUP and the identification plan as specified in the sporting regulations.

The use of duct or similar tape for a purpose other than temporary repair of a body part as specified above is prohibited.

3.2 – WINDOWS


All windows must be present at all times.
The windows cannot be painted.
The front driver window must be completely lowered.
The front side windows passenger window must be completely raised.
The rear side windows must be fully raised.

In the event of a window break during an event, a protective net can be installed to replace the front passenger window to complete the weekend only. It will have to be replaced for the following race weekend.

Windshield: a windshield with too many impacts or whose inner glass sheet is broken must be replaced.

4 - WEIGHT

4.1 – COMPETITION WEIGHT



The minimum competition weight of the NISSAN SENTRA is **3045 pounds or 1382 kg (see newsletter)**.

This weight applies to the cars, in the condition in which they have just taken part in testing in qualifying or a race, as defined in article 1.3.

4.2 – BALLAST

Below this weight, it is mandatory to add (one or more) ballast, and that ballast must be secured by at least by two (2) of bolts. The ballast will be located on the floor behind the driver's seat. The presence of the ballast is the competitor's responsibility.

4.3 – WEIGHT ADDITION AFTER THE RACE AND QUALIFYING

Unless specifically authorized by a technical inspector, after a qualifying and/or a race, the addition of any liquid or other material whatsoever is prohibited until the end of the protest period following the qualifying sessions or races.


4.4 – WEIGHING

In addition to the competitor or his representative, only the technical inspectors and officials may enter the weighting area.

No intervention of any kind is allowed in this area unless it has been specifically permitted by the officials.

5 -ENGINE

5.1 –AUTHORIZED ENGINE



Only the original engine for the NISSAN SENTRA is allowed. In case of replacement, only a new engine or used engine with traceable proof of the same model and

type will be allowed. It must come from a NISSAN dealer and be sealed by NISSAN SENTRA CUP technical inspectors before being installed.

5.2 – TECHNICAL TESTING

In case of the absence or alteration of one or more seals in the Preliminary technical controls: At technical controls, instructions for compliance, up to the replacement of the engine, will be communicated to the competitor by technical inspectors of NISSAN SENTRA CUP.

The cost of compliance is then the responsibility of the competitor. During the event (practices, qualifying sessions and races) the absence of a seal(s) will be considered as a technical nonconformity.

5.3 EXHAUST

The primary catalytic converter should be in place and in working order without modification and free from defects.

6 - FUEL LINES AND TANK

Fuel lines and the fuel tank are original equipment for the NISSAN SENTRA, that are as included in the 2021-2022-2023-2024 spare parts catalog.

Any storage of fuel on board the car at a lower temperature than 10 ° C of the room temperature is prohibited.

The use of a specific device, whether or not on board the car, to reduce the fuel temperature below the ambient temperature is forbidden.

Refueling

- Refueling is prohibited during qualifying or the race.

- Any refueling on the false grid or the starting grid is prohibited.

7 – LUBRICATION, ENGINE COOLING AND BRAKE FLUID

The only authorized motor oil is:

LUCAS OIL SAE 0W30, and must be acquired with the Series.

Any oil additive is strictly forbidden.

Ethylene glycol type antifreeze is prohibited. Only water and a type of anti-overheat additive are authorized.

8 – TRANSMISSION

On delivery, the gearbox contains original oil.

Reverse should be in working order on the vehicle. The transmission ratio must remain original. See Appendice 18.3 for data regarding the transmission.

THE CLUTCH COMPONENTS (FLYWHEEL, CLUTCH AND PLATE PRESSURE) MUST REMAIN THE ORIGINAL THOSE AND CANNOT BE MODIFIED, LIGHTENED, ALTERED.

9 – SUSPENSION AND STEERING

Maintenance and repairs will be made according to the methods defined by NISSAN in the 2021-2022-2023-2024 repair manual.

Any modifications other than those made by MIA (Motorsport in Action) before the delivery of the car are strictly prohibited. The use of the original OMP steering wheel is mandatory.

9.1 – WHEEL ALIGNMENT

The camber and the toe are free **without modification to the parts provided by the Series**, however the caster cannot be modified.

No other parts than those delivered with the vehicle can be added with the exception of adjustment shims for the rear.

It is prohibited to enlarge the holes of the front shock absorber tower.

9.2 – SUSPENSION

No parts may be altered, removed or detached. Ex.: Rods and anti-roll bar.

For the NISSAN SENTRA, the ground clearance measurements will be taken at the tracks and communicated by series newsletter to the competitors.
(Appendices 18.4 – To come)

10 – BRAKES

Any modifications other than those made by MIA (Motorsport in Action) before the delivery of the car are strictly prohibited.

For Sentra only, the brake cooling system is open and must be approved by the series steward. The cooling system should only be used to cool the brakes and cannot direct air for other use.

Front brake pads must be acquired from JD Promotion et Compétition Inc. Only PAGID brake pads of the series are allowed.

The only brake fluid that is allowed is: **PAGID Racing Brake** sold by the series.

11 – WHEELS

11.1 – WHEELS

Mandatory use of the original wheels, as delivered, and as replacement parts for the NISSAN SENTRA CUP.

Dimensions : NISSAN SENTRA= 18 x 9

NO WHEEL MODIFICATIONS WILL BE ALLOWED.

- 
- Example: -Pressure release valve**
- Wheel lightened

11.2 – TIRES

Use of Pirelli tires for the NISSAN SENTRA
Pirelli P-ZERO 245/40ZR18

All modifications of tires: sculpting, retreading, or surface treatment are prohibited.

ANY DEVICE FOR HEATING THE TIRES IS PROHIBITED

Ex: Tire heating blankets.

See sporting regulations 3.2 on the use of tires.

12 – COCKPIT

The interior door panels must be those originally supplied by the NISSAN SENTRA CUP. The front left floor and pedal set must be those originally supplied by NISSAN SENTRA CUP.

The camera supports, cameras or any other accessory must be installed safely and pass technical inspection. In the event that these accessories do not pass technical inspection, they must be removed BEFORE taking the track.

13 – SAFETY EQUIPMENT

13.1 – FIRE EXTINGUISHER


All cars must be equipped with an extinguisher.

The extinguisher's condition is the driver's and team responsibility and must be in good working order.

The following information must be clearly marked on each extinguisher:

- Capacity.
- Type of extinguishing agent.
- Weight or volume of the extinguishing agent.
- Verification date of the extinguisher, which should not be more than two years after the filling or after the date of the last verification.

A FIRE EXTINGUISHER WHICH THE ABOVE INFORMATION IS NOT READABLE OR IS MISSING, IS NOT AUTHORIZED TO BE USE.



The fire extinguisher must be attached to the intended original location.
Only the original fasteners are to be used.
The driver seated normally with his safety belts fastened and the steering wheel in place, must be able to manually trigger the fire extinguisher.

SEE ASN Canada /GDS regulations, article 25

13.2 – ELECTRICAL KILL SWITCH

The use of the master circuit breaker originally fitted or delivered as a spare part is mandatory. Its operation will be checked during the preliminary inspection.

The electrical kill switch must immediately cut all electrical circuits (battery, alternator, lights, ignition, electrical controls, etc.) and must also stop the engine. The control **MUST BE** located on the dashboard, on the air outlet of the driver's side. It will be and clearly identified with a sticker that will be provided by the series. The working condition of the electrical kill switch is the responsibility of the driver.

13.3 -MIRRORS

It is mandatory to start each session with two original exterior mirrors. The addition of an inside oversized mirror and the addition of 2 small convex inside the original mirrors will be allowed.

13.4 – DRIVER SEAT BELTS

NISSAN SENTRA cars are delivered with seat belts complying with FIA standards and the use of those belts is mandatory, however use of larger black belts is authorized as long as they comply with FIA standards. The condition of the seat belts is the driver's responsibility.


Use requirements

The five (5) point harness must be used in its approved configuration without any modifications or removal of parts, and in accordance with the manufacturer's instructions. The efficiency and lifetime of safety belts are directly related to how they are installed, used and maintained.

Belts must be replaced after every severe collision, and also if they are cut, frayed, or in case of weakening of the straps by the action of sunlight or chemicals. The belts must also be replaced if metal parts or buckles are bent or rusted.

Any harness which does not function perfectly must be replaced.

13.5 – SEAT AND SEAT SUPPORTS



The condition of the seat and seat supports is the responsibility of the driver. The NISSAN SENTRA and NISSAN MICRA are supplied with a standard driver's seat that must comply with FIA standards and the use of this seat is mandatory.

Points of attachment to the body:

Seat mounting points must be those originally planned as provided by the manufacturer, however the seat may be adjusted in the mounting plates provided with the car.

13.6 – SAFETY LATCHES (HOOD)

The change of safety bindings delivered (push button) can be carried out by an "aerocatch" type model or of a pin/latch model. The new device must keep the same function as well as the same location as that installed on delivery by MIA. Everything must remain aesthetic. The new device must retain the same function and the same location as that installed on delivery by MIA. Everything must remain aesthetic.

Blocking these fasteners or interfering with the opening of the hood by any means whatsoever is PROHIBITED. For example, plastic cable ties.

13.7 – WINDSHIELD

Windshield of equivalent quality to those of origin will be accepted. The windshield must be attached to the vehicle's structure as original. A windshield with a deterioration of the inner sheet will not be authorized to enter the track.

Technical Inspectors may request the replacement of the windshield if the outer sheet has too many cracks or impacts or is severely damaged, even if the inner leaf of the windshield is intact.

13.8 – DRIVER SIDE WINDOW NET

The use of the supplied original side window net is mandatory.

13.9 –TOW HOOKS

The front and rear factory tow hooks must be in perfect condition and clearly marked on the shield, either painted or marked with a yellow or orange-red arrow.

13.10 –SIGNALS – LIGHTS- HEADLIGHTS

Headlights must be in working order at all times. All rear lights must be in working order at all times. All additional equipment is prohibited.

The application of a transparent protective film on the headlights and taillights is mandatory.

13.11 –DRIVER'S EQUIPMENTÉQUIPEMENT DU PILOTE

See ASN Canada/GDS regulations, article 26

Failure to comply with these requirements will result in refusal of participation in free practice, qualifying or racing. Inspections may be made at all time.

14 – ROLL CAGE

Only the approved and provided roll cage for the NISSAN SENTRA CUP car is allowed. No changes are permitted.

The cage should at all times be properly bolted to the body. An occasional tightening is highly recommended.


Protective padding:

In places where the driver's helmet could come into contact with the safety cage, flame retardant padding must be use for protection.

15 – FUEL

Only unleaded gasoline available on open sale on gas stations is authorized.

For the NISSAN SENTRA, only Petro-Canada 94 is authorized.



Testing can be performed at any time.
Any storage of fuel on board the car at a lower temperature than 10 ° C of the room temperature is prohibited.

No additives can be added to gasoline.

16 – ELECTRONICS

16.1 – RADIO SYSTEM AND TELEMETRY

During all sessions trials and the race, all bidirectional telemetry systems and electrical equipment are prohibited.

Communication systems using 2-way portable radios are permitted, provided they are securely attached.

Embedded timing systems are allowed if they are matched to the data acquisition system.

16.2 – DASHBOARD

The original dashboard must remain in place. It must be operational and provide the original functions. **All components must be present and functional.**

The rear view camera must remain on at all times.


16.3 – WIRING HARNESSES AND CABLES

The original electrical and wiring harnesses must not be changed. **No wires or any other device should be added to the original sensors.**

16.4 – ELECTRONIC CONTROL UNIT (ECU OR CALCULATOR) AND DATA ACQUISITION

The use of the MoTeC "engine" electronic control unit originally installed by MIA (Motorsport in Action) is mandatory. The "engine" electronic control unit must be equipped with the version of the map approved by MoTeC and JD Promotion & Compétiton Inc.

Any work on the engine electronic control unit is prohibited, including the ignition timing and the fuel injection sequence.



NISSAN SENTRA CUP technical inspectors have free access to information stored in the data acquisition system and can use the result for technical compliance checks.

Other data acquisition systems:

All other data acquisition systems are allowed provided they collect incoming information only. Only connections to the OBD2 plug will be allowed for these systems.

The onboard computers may be replaced at any time by the series.

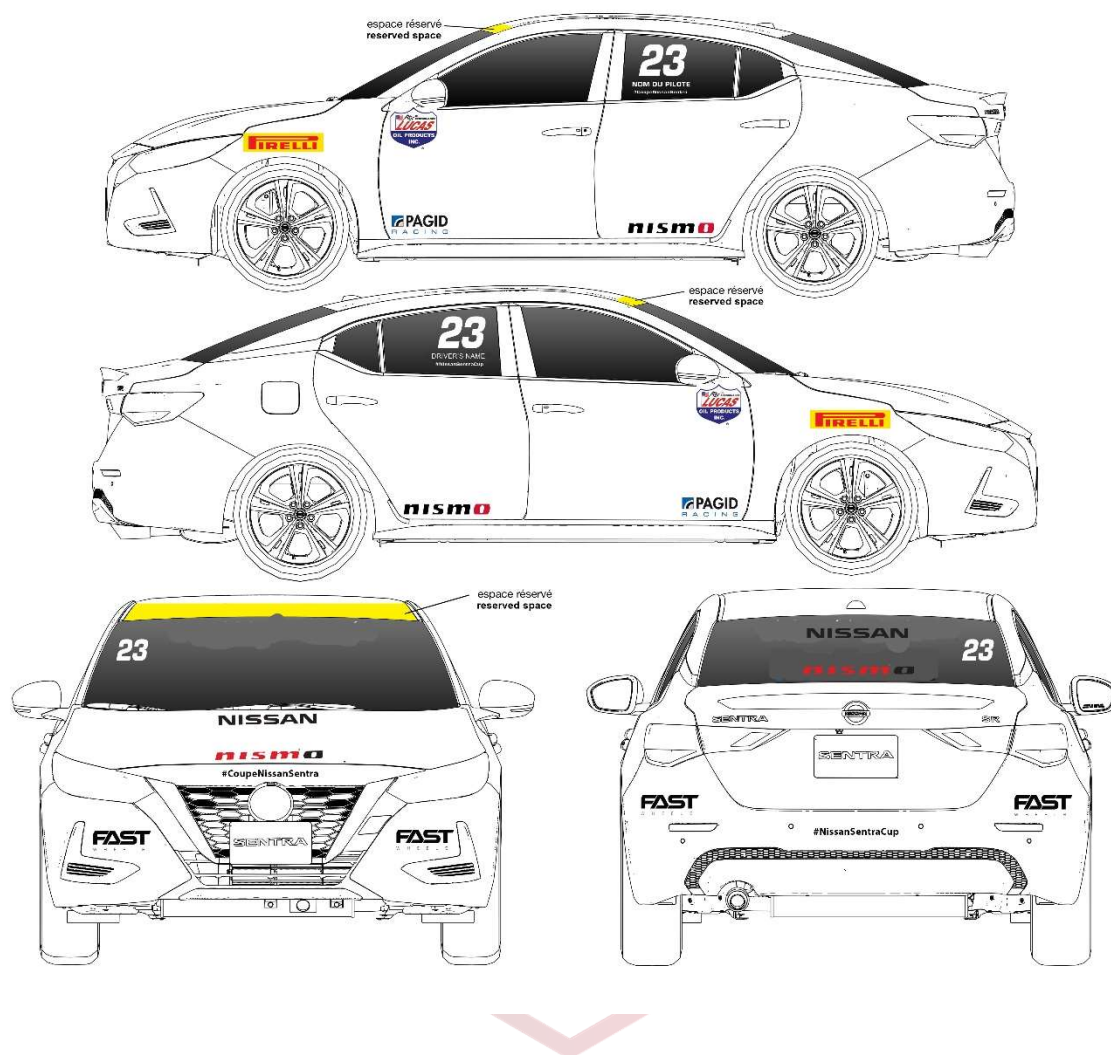
17 –FINAL TEXT

The French version of the final text of the TECHNICAL REGULATIONS and the terminology shall prevail in case of dispute.

18 – APPENDICES

18.1 – SERIES LOGO ON THE CAR

Autocollants de la série sur la voiture Series stickers on the car

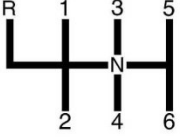


Logos de la série sur la combinaison
Series' logos on the racing suit



General Specifications

GUID-F6A0C0F0-DE58-4035-B2D6-A7C21C3460F1

Transaxle type			RS6F94R
Engine type			MR20DD
Model code number			ET80A
Number of speed			6
Synchromesh type			Warner
Shift pattern			 GUID-NISPCIB1769E
Gear ratio	1st		3.7273
	2nd		2.1053
	3rd		1.5185
	4th		1.1714
	5th		0.9143
	6th		0.7674
	Reverse		3.6865
	Final gear		3.9333
Number of teeth	Input gear	1st	11
		2nd	19
		3rd	27
		4th	35
		5th	35
		6th	43

Transaxle type			RS6F94R
Engine type			MR20DD
Model code number			ET80A
Oil capacity (Reference) Remarks	Main gear	Reverse	11
		1st	41
		2nd	40
		3rd	41
		4th	41
		5th	32
	Reverse idler gear	6th	33
		Reverse	42
		Input/Output	28/29
		Final gear/Pinion	59/15
	Final gear	Side gear/Pinion mate gear	13/10
		ℓ (US pt, Imp pt)	Approx. 2.0 (4-1/4, 3-1/2)
	Reverse synchronizer		Installed
	Triple-cone synchronizer		1st and 2nd

18.4 – GROUND CLEARANCE MEASUREMENTS

To come....