AUTOMOBILE CLUB DE MONACO - COMTECH



GRAND PRIX MONACO 27-29 MAI 2022

SCRUTINEERS' MANUAL

ACM - PERSONNEL

TEAM	CAR N.	DRIVER	SCRUTINEER ROLE		
MERCEDES	63	RUSSELL	BRACCO	GARAGE	
IVIERCEDES	44	HAMILTON	SOARES	TYRE	
DED DITT	1	VERSTAPPEN	SCANDOLA	GARAGE	
RED BULL	11	PEREZ	CARAMELLO	TYRE	
CCDD A DI	16	LECLERC	LANZA	GARAGE	
FERRARI	55	SAINZ	GERBAUDO	TYRE	
MC LAREN	3	RICCHIARDO	BECCHIA	GARAGE	
IVIC LAKEIN	4	NORRIS	POLESE	TYRE	
ALPINE	14	ALONSO	FERRANTE P.	GARAGE	
ALPINE	31	OCON	FRELO	TYRE	
ALPHA TAURI	10	GASLY	GAGGINI	GARAGE	
ALPHA TAUKI	22	TSUNODA	ZANIN	TYRE	
ASTON MARTIN	18	STROLL	MARTINETTO	GARAGE	
ASTON WARTIN	5	VETTEL	ALVAREZ	TYRE	
WILLIAMS	23	ALBON	REGUZZONI	GARAGE	
VVILLIAIVIS	6	LATIFI	LASPROVATA	TYRE	
ALFA ROMEO	77	BOTTAS	CROSTI	GARAGE	
ALFA KOIVIEU	24	ZHOU	MOSCATI F.	TYRE	
HAAS	20	MAGNUSSEN	FERRANTE F.	GARAGE	
ПААЗ	47	SCHUMACHER	NOSCO	TYRE	
FIA LIFT			TALLARIDA		
			LENGLIN		
			LOPEZ		
			ı		
ADDITIONAL SCRUTINEER			RIGOLI		
SCRUTINEER RESPONSIBLE			HERRMANN		

STASKOVA

Jolly: REGHELLIN, TIROTTA

TIMETABLE

FRIDAY MAY 27TH 2022

TIME	ACTION	wно	
09:15	Briefing – Direction Course RDC		
10:30	ERS safety briefing	Complete scrutineering team + FIA Technical Delegate	
10:45	Briefing for garage scrutineers	Garage scrutineers + Chief Scrutineer + FIA Technical Delegate	
11:05	Briefing for the tyre checkers	Tyre checkers + Chief Scrutineer+ FIA Technical Delegate	
11:20	Briefing for the FIA Lift team	FIA Lift team + Chief Scrutineer + FIA Technical Delegate	
13:45-15:00 (P1)	Garage checks to be carried out using the white sheets provided and bar-code readers	Garage scrutineers + Tyre checkers	
15:00-15:30	Returning the bar-code readers	Tyre checkers	
16:45-18:00 (P2)	Garage checks to be carried out using the white sheets provided and bar-code readers	·	
18:00-18:30	Returning the bar-code readers	Tyre checkers	
18:30 – 19:00	Collecte des feuilles de la journée – réunion interne	Complete scrutineering team	
21:00	Car Covers ON	FIA Technical Delegate	

TIMETABLE

SATURDAY MAY 28TH 2022

TIME	ACTION	WHO
10:00	Car Covers OFF	FIA Technical Delegate
11:00	Briefing – Direction Course RDC	
11:15-12:45	Qualifying & Parc Fermé briefing for all scrutineers	All scrutineers + FIA Technical Delegate
12:45-14:00 (P3)	Garage checks to be carried out using the white sheets provided and bar-code readers	Garage scrutineers + Tyre checkers
14:00-14:30	Returning of the bar-code readers	Tyre checkers
15:45-17:00 (Q1 Q2 Q3)	Garage checks to be carried out using the white and green sheets provided and bar-code readers	Garage scrutineers + Tyre checkers
17:00-19:00	Parc Fermé garage checks to be carried out using the green sheets provided, all work finished by 19:00	Garage scrutineers + Tyre checkers
16:00-17:00	Weighing to be carried outside the FIA garage	FIA Lift team + Chief Scrutineer+ FIA Technical Delegate
17:00-17:30	Returning the bar-code readers	Tyre checkers
17:00-19:00	Supervision of FIA Lift	FIA Lift team
19:00	Car Covers ON	All scrutineers + FIA Technical Delegate
19:00 – 19:30	Collecte des feuilles de la journée – réunion interne	Complete scrutineering team

TIMETABLE

SUNDAY MAY 29TH 2022

TIME	ACTION	WHO
09:15	Rendez-vous (Allomat)	
10:00	Car Covers OFF	FIA Technical Delegate
10:00-14:20	Supervision of outside scales	FIA Lift team
10:00-14:20	Parc Fermé garage checks to be carried out using the green sheets provided	Garage scrutineers + Tyre checkers
14:20-15:00	Parc Fermé and tyre checks on grid and in team's garages	Garage scrutineers + Tyre checkers
14:20 – 14:30	PIT LANE OPEN	
14:30 – 14:50	Parc Fermé and tyre checks on grid and in team's garages	Garage scrutineers + Tyre checkers
14:50 - 14:55	TYRE PRESSURES	Garage scrutineers + Tyre checkers
14:55 – 14:57	BACK TO GARAGE	Garage scrutineers + Tyre checkers
15:00-17:00	Garage checks to be carried out using the white sheets provided and bar-code readers	Garage scrutineers + Tyre checkers
17:00-19:00	Post-Race checks in Parc Fermé	All scrutineers + Chief Scrutineer + FIA Technical Delegate
17:00-17:30	Returning the bar-code readers	Tyre checkers
19:00 – 19:30	Collecte des feuilles de la journée – réunion interne	Complete scrutineering team

TYRE CHECKS

Requirements:

One tyre checker for each team will be needed.

The duty of the tyre checker will change during the post-Qualifying/pre-Race Parc Fermé when he will be responsible and supervising one car of his Team.

During all sessions and Parc Fermé of closed Events, the tyre checker stays outside his Team's garage at the red Pit-Lane line. He will have a hand held bar-code reader for tyre checking and will work closely with the garage scrutineers. Each bar-code reader will have all the tyre data for each of the drivers of one Team, this will include all FIA numbers and serial numbers of dry-weather and wet-weather tyres. All tyre scanning will be done outside the Team's garage behind the red Pit-Lane line. The team personnel will be instructed accordingly.

When the tyre checker reads a bar-code he will get a message on the display of the bar-code reader telling him all necessary tyre data. A tyre check should only be done when a car returns from a run, the tyres are changed after a run or at the end of a session but **never before a car leaves the garage**.

After every session during an Event, the tyre checker has to return his bar-code reader to the FIA garage where it will be uploaded, reset and charged for the next session

SCRUTINEERING AND GARAGE CHECK SHEETS CONTROLE TECHNIQUES ET FEUILLE CONTROLE GARAGE

Garage checks

During <u>all</u> sessions and Parc Fermé of closed Events, the garage scrutineer **stays outside** his Team's garage at the red Pit-Lane line.

He should:

- record all work which is carried out on both of his team's car during all sessions using the white sheets provided.
- Check that the car's rear light is switched on when the car has fitted wet-weather tyres.
- Assist the tyre checker in the garage whenever possible

Post-P2 Covers-on

Within three (3) hours of the end of the second free practice session (P2) all cars used during each session (or which were intended for use but failed to leave the pit lane) must be covered and the FIA may put seals in order to ensure that they remain secure until the following day.

Whilst cars are covered overnight, they may be fitted with devices to keep them warm.

Therefore, optionally the garage scrutineers may stay in front of the Team's garages on Friday after the second free practice session (P2) until the Team has covered both cars.

Three (3) hours before the start of P3 on Saturday, the FIA seals (if applied) and covers may be removed

QUALIFYING

Session	Duration	Cars	Sheet	
Q1	18'	20	20 x white (10 Garage + 10 Tyre)	
Q2	15′	15	15 x white (5 Garage + 10 Tyre)	5 x green (Garage – cars not running in Q2)
Q3	12'	10	10 x white (10 Tyre)	10 x green (Garage - – cars not running in Q3)

PRE RACE PARC FERMÉ



Scrutineer's name

Monaco GP: Parc Fermé Garage checks			28 May 2022	
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Rules for using the correct sheets:

• Cars running : white sheet

• Cars in parc fermé : green sheet

DURING QUALIFYING SESSIONS:

Cars, which take part in any of the three periods of the Qualifying practice session, will be stopped in the weighing area at random, weighed and released back to the team. The tyre checker and garage scrutineers stay at the team's garage during the Qualifying session at all time.

If a team wish to change a broken or damaged part during the Qualifying session and/or on the grid before the start of the Race, this may be done without first seeking the permission of the technical delegate, provided the relevant team is confident permission would be given if there was time to ask and the broken or damaged part remains in full view of the scrutineer assigned to the car at all times.

The Parc Fermé procedure has two purposes. First, to check the cars for general conformity with the Technical and Sporting Regulations and, secondly, to ensure that in each case the car which is scrutineered, qualified and raced is one and the same.

Every car, which took part in the Qualifying practice session, or was intended for use during the session (in the event of a driver failing to leave the pit lane), will be required in Parc Fermé. If a car is damaged during the session the FIA technical delegate may make alternative arrangements according to the level of damage and any other circumstances he deems relevant

Each car will be deemed to be in Parc Fermé from the time at which it leaves the pit lane for the first time during Qualifying practice until the start of the Race. Any car which fails to leave the pit lane during Qualifying practice will be deemed to be in Parc Fermé at **the end of Q1**.

Between these times, other than when cars are covered overnight, the following work may be carried out:

- a) engines may be started
- b) fuel may be added or removed, and a fuel breather fitted;
- c) wheels, wheel fasteners and tyres may be removed, changed or rebalanced and tyre pressures adjusted
- d) spark plugs may be removed in order to carry out an internal engine inspection and cylinder compression checks
- e) permitted breather, heating or cooling devices may be fitted
- f) a jump battery may be connected and on board electrical units may be freely accessed via a physical connection to the car;
- g) charging and / or discharging of the ERS energy storage devices;
- h) the brake system may be bled
- i) engine oil may be drained
- j) compressed gases may be drained or added (except suspension components)
- k) Fluids with a specific gravity less than 1.1 may be drained and/or replenished, however, fluids used for replenishment must conform to the same specification as the original fluid
- I) the aerodynamic set up of the front wing may be adjusted using the existing parts. No parts may be added, removed or replaced
- m) if the FIA technical delegate is satisfied that changes in climatic conditions necessitate alterations to the specification of a car, changes may be made to the brake ducts and to the engine and/or gearbox cooling bodywork. These changes may be made at any time after the message "CHANGE IN CLIMATIC CONDITIONS" is shown on Page 3 of the timing monitors, from this point the choice of brake ducts and

engine and/or gearbox cooling bodywork is free and Pitot tubes may be covered or uncovered, subject always to compliance with the relevant Technical Regulations

- n) bodywork (excluding radiators) may be removed and / or cleaned
- o) cosmetic changes may be made to the bodywork and tape may be added
- p) any part of the car may be cleaned
- q) on board cameras, marshalling system components, timing transponders and any associated equipment may be removed, refitted or checked
- r) any work required by the FIA technical delegate
- s) changes to improve the driver's comfort. In this context anything other than the adjustment of mirrors, seat belts and pedals may only be carried out with the specific permission of the FIA technical delegate. Should ambient temperature change significantly, teams will be requested to change the head padding required by Article 12.6.1-6 of the Technical Regulations via the official messaging system. The addition or removal of padding (or similar material) is also permitted but may only be carried out under supervision and, if required by the FIA technical delegate, must be removed before the post-Race weighing procedure.
- t) drinking fluid for the driver may be added at any time, however, the capacity of the container for any such fluid must not exceed 1.5 litres
- u) repair of genuine accident damage
- v) remove the brake drum shrouds and rearward floor extensions and replace these for used items for Pit Stop practice and refit the original items afterwards
- w) any parts which are removed from the car in order to carry out any work specifically permitted above, or any parts removed to carry out essential safety checks, must remain close to it and, at all times, be visible to the scrutineer assigned to the relevant car.

Furthermore, any parts removed from the car in order to carry out any such work must be refitted before the car leaves the pit lane

SATURDAY AFTER THE QUALIFYING SESSION

At the end of the Qualifying practice session all cars which took part in Q3 will be weighed and will undergo further checks; a car which has already returned to the Team's garage before the end of Q3 must be taken to the Parc Fermé together with the driver immediately. In this case the responsible person for that car, the tyre checker or garage scrutineer will escort the car to the Parc Fermé.

Once all preliminary checks have been carried out by the FIA, the cars held in the Parc Fermé will be released simultaneously and teams will be permitted to push them back to their garages. Cars will remain under Parc Fermé conditions throughout.

Any work not listed above may only be undertaken with the approval of the FIA technical delegate following a written request from the team concerned. It must be clear that any replacement part a team wishes to fit is similar in mass, inertia and function to the original. Any parts removed will be retained by the FIA.

One scrutineer will be allocated to each car for the purpose of ensuring that no unauthorised work is carried out whilst cars are being held under Parc Fermé conditions. If any such unauthorised work is carried out a report will be made to the Stewards of the Meeting.

Therefore it will be necessary that the garage scrutineers and tyre checkers remain at the team's garages on Saturday until the team covers the car (and FIA seals may be applied at open events) but latest until two (2) hours after the end of the Qualifying practice session and they are responsible for looking after one car each.

On Saturday at some time before two (2) hours after the end of the Qualifying practice session all cars used during the Qualifying practice session (or which were intended for use but failed to leave the pit lane) must be covered (and ready for FIA seals to be applied in open events) in order to ensure that they will remain secure until the following day. Exceptions might be made to allow a team to keep one car longer for the purpose of being able to show a car to their guests. During this time no work may be carried out.

Five hours before the start of the formation lap the (seals at open events) and covers may be removed but the cars will remain under Parc Fermé conditions until the start of the Race. Again only the work listed above will be permitted during this time.

SUSPENSION AND AERODYNAMIC DEVICES

In order that the scrutineers may be completely satisfied that no alterations have been made to the suspension systems or aerodynamic configuration of the car (with the exception of the front wing) whilst in post-Qualifying Parc Fermé, it must be clear from physical inspection that changes cannot be made without the use of tools.

It is not permitted to add or drain compressed gasses from any suspension component.

SUNDAY

Time to formation lap	Desc.	Cars	Garage Scrut.	Tyre checker	Notes
40'	Pit lane open	Exit/free laps possible	Garage	Garage	
30'	Pit lane closed	Grid	Grid	Grid	Scan of tyres used to <u>reach</u>
		Pit lane	Pit lane	Grid after scanning tyres in pit lane	the grid
10'	Tyre pressure	Grid	Grid	Grid	Pressure of tyre used for
		Pit lane	Pit lane	Grid	race
5'	Tout pneus	Grid	Grid	Grid	
	montée	Pit lane	Pit lane	Grid	
3'		Grid Pit lane	Back to garage	Back to garage	

F1 RACE SUSPENSION: WORK PERMITTED IN THE PIT-LANE

Three rules that must be respected:

1. Article 4.5 of the F1 Technical Regulations:

Adding during the race:

With the exception of compressed gases, no substance may be added to the car during the race. If it becomes necessary to replace any part of the car during the race, the new part must not weigh any more than the original part.

The above being pretty self-explanatory but a few things need to be more explained:

No parts may be added to any car.

2. Article 40.2 of the F1 Sporting Regulations:

Cars remain under Parc Fermé conditions <u>until the start of the race</u>. **MEANING**: when the race is suspended **PARC FERMÉ IS OVER**.

3. Article 57.4 b) of the F1 Sporting Regulations now clearly defines what work is permitted during a sprint qualifying session or a Race Suspension:

Cars may be worked on once they have stopped in the fast lane but any such work is restricted to that listed in i) to <u>ix</u>) below and must not impede the resumption of the sprint qualifying session or the race.

- i) Starting the engine and any directly associated preparation.
- ii) The addition of compressed gases (see Article 4.5 of the F1 Technical Regulations).
- <u>iii)</u> The fitting or removal of permitted cooling and heating devices.
- iv) Changes to the air ducts around the front and rear brakes.
- v) Changes to the radiator ducts.
- vi) Changes made for driver comfort.
- vii) Changing wheels and tyres.
- viii) Repair of genuine accident damage, including the replacement of assemblies containing such damaged parts.
- ix) The aerodynamic set up of the front wing may be adjusted using the existing parts. No parts may be added, removed or replaced.

PARC FERME AFTER THE RACE

All cars finishing the Race will enter the Parc Fermé through the Pit Lane following completion of the slow down lap. The first three cars will be separated from the remaining cars and stopped in the Parc Fermé area as discussed during the Friday Parc Fermé meeting. The remaining cars will be stopped in a second Parc Fermé area as discussed during the Friday Parc Fermé meeting, which must be easily protected by the scrutineers.

The organiser has to provide 50m of fencing, each fence element being about 2-3m long and approximately 1.2m high. It must be possible to erect all these fences in less than 5 minutes and they should be properly attached to the ground.

The FIA will also advise all photographers of this procedure in advance.

It is our responsibility to ensure that there is a minimum delay in getting the first three drivers to the podium. In order to keep this delay to a minimum please brief your scrutineers and marshals to stay out of the Parc Fermé until the first three drivers have left.

POST RACE SCRUTINEERING

The FIA Lift team is needed in the Parc Fermé for the remaining cars.

All checks on oil and fuel conformity will be done in the laboratory after the samples have been taken in the normal way inside the Parc Fermé.

Once the normal post-Race checks have been carried out, checks on oil, fuel and software validation may take as much as two hours after the finish of the Race. It would be really appreciated to get some help, maybe for about one hour after the 'normal checks' have been carried out, to disassemble the FIA Lift. This would be very helpful.

Minimum Personnel Requirement:

Garage scrutineers (1 per Team): 10
Tyre checkers (1 per Team) 10
FIA Lift scrutineers 3
Chief scrutineer 1
Additional scrutineer 1
Total 25

Plus one (1) fire marshal in the Park Fermé (to cover the cars and oil and fuel sampling) during and after the Qualifying sessions and in the Park Fermé after the Race.

When Formula One sessions are not running, scrutineers won't stay in the in the scrutineering garage.

BAR CODE READER MANUAL

Each bar code reader will be assigned to a team and holds within it all the tyre data for each of their drivers. The data in each of the readers consists of:

a.) the FIA tyre number;

and b.) the manufacturer's serial number – as a back-up.

All the FIA numbers have been allocated to each driver before the start of an Event.

To activate/turn on the reader, press the small power button at the top of the unit (see Fig 1) and when you see the screen shown in Fig 2 then swipe upwards away from the lock symbol.

Once in operation the bar code reader shows which team it is allocated to (see Fig 3).



SCANNING A TYRE:

You are now ready to scan a tyre. BUT ONLY SCAN A TYRE AFTER A CAR HAS RETURNED TO THE GARAGE AND THE TEAM REMOVES A OR THE TYRES FROM THE CAR.

By following the on-screen prompts, scanning a tyre is very easy.

Firstly and most importantly, you select the **roll hoop camera colour or car number** of the car you wish

to check the tyres from (see Fig 4 & 5).



Fig 4 & 5

Locate the FIA bar code label on the outer side wall of the tyre. The reader should be placed approximately 15 – 20 cm away from it. Now press one of the "SCAN" buttons (see Fig 1). Make sure the red scanning cross produced by the reader hits the bar code label.

When the scan is successful the screen will display that tyre's FIA number highlighted in GREEN, the compound and its position on the car (i.e. LF, RF, LR or RR) (see Fig 6). Now proceed to the next tyre to be scanned and so on until a complete set is scanned.



Fig 6 & 7

When all four tyres (a complete set) are scanned (see Fig 7) you need to select the CONFIRM icon; this sends the data to the FIA.

NON SCAN/READABLE BAR CODE:

If you are unable to scan the bar code label or the label has become damaged, then select the **MANUAL** icon (see Fig 4 & 5). Once selected, you will see the screen shown below in Fig 8.

Use the keypad now to enter either the FIA bar code number – 8 digits or the tyre manufacturers' serial number - 6 digits (either the FIA (8) or Serial (6) icon will highlight when you have keyed either 8 or 6 digits).

If you make a mistake when keying the numbers in, then it is possible to delete the numbers digit by digit by using the **DELETE** icon (see Fig 8).

The location of the manufacturer's serial number and the above procedure will be shown to you during the tyre checkers' briefing on Friday morning.

If you make an error either scanning the bar code or manually inputting the number then you can simply delete the scan by tapping on it and selecting clear & confirm (see Fig 9).



Fiq 8



Fig 9

If there is a problem with a tyre, you may see any of the following messages e.g. "WRONG CAR — WRONG TEAM — UNKNOWN — etc." underneath the red flashing central car icon.

You now either press the **CONFIRM** icon or **CANCEL** icon (see **Fig 10**).

If you are sure and the team has used a wrong tyre, then you must use the CONFIRM icon and by doing this you will be prompted to re-confirm or cancel. When you have done this please seek the assistance of an FIA official by pressing the CALL FIA icon (see Fig 10).

If you are not sure whether the team has used a wrong tyre or you have made an error when scanning/entering the FIA number then you must press the **CANCEL** icon and start the scanning process again.



Fig 10

CAMERA FUNCTION

The camera function becomes operational only when you have selected a car; you will see a **CAMERA** icon appear in the bottom right of the screen (see **Fig 5**). To activate the camera function you select the **CAMERA** icon.

If you want to return to "Tyre Checking Mode" without taking a photo you tap on the **CANCEL** icon below the **CAMERA** icon (see **Fig 11**).

Photo Shoot: select the area or component of the car you wish to take a photo from and tap on the **CAMERA** icon (see **Fig 11**).

IMPORTANT – the photo will not be taken immediately – please hold the unit steady for approximately 2 – 3 seconds.

If you are satisfied with the quality of the photograph, select the **CONFIRM** icon in order to send it to the FIA (see **Fig 12**); if not delete the photo by selecting the **CANCEL** icon. This will be the last time for you to see the photo.



Fig 11 & 12

SAFETY

ERS Status Lights

Main properties:

- **GREEN**: the car is off and safe;
- **ORANGE**: the car may move using electric power;
- **FLASHING RED**: The car is not guaranteed to be safe;
- OFF: Treat as red;
- **MAUVE**: pit limiter is on, the car is driving in the pit lane and is only shown when the engine is running.

Other information:

- The light will turn off after **30 minutes** to save battery;
- It is only on when the car is stopped or in the pit lane;
- A repeater light is present in front of the cockpit

Signage:

- High voltage components are marked with this sign;
- High Voltage Cables are marked with ORANGE color.



Car stopping for FIA scrutineering:

- A **nominated member of the FIA** checks the ERS status light (of course everyone can see it, but the FIA may have additional information from the team; Wait until you are told to touch the car)
- If the light is **ORANGE**, the nominee will instruct the driver to turn off the car;
- If the light is **GREEN**, the nominee allows the car onto the platform. The car can be handled without protection;
- If the light is **FLASHING RED** or **OFF** the team will be summoned to the car. <u>You may not touch the car</u>;
- If the car must be moved urgently, then <u>pushers will be told to put on gloves</u>. This is the only time that platform crew would wear electrical safety gloves.

Car stopping in FIA Parc Fermé:

- A **nominated member of the FIA** checks the ERS status light (of course everyone can see it, but the FIA may have additional information from the team; Wait until you are told to touch the car)
- If the light is **RED** or **OFF** the team will be summoned to the car;
- Personnel may not enter the Parc Fermé area until the nominated FIA member indicates it is safe to do so;
- The ERS status light switches off after **30 minutes**. As the car was safe before the shutdown, we consider it still safe to be handled without Personal Protective Equipment. This is the only moment that we can touch a car which isn't displaying the green light.
- The FIA can request the teams to Fire up the car for DRS check in parc fermé. Please DO NOT TOUCH the car until FIA member instruction.

Scrutineers in **team garages (not wearing gloves)**:

- Before touching a car in the team garages the ERS light should be checked;
- If the light is GREEN then proceed as normal;
- If the light is **ORANGE** the electric motor may be energized. Ask the team to switch off the car before proceeding;
- If the light is **FLASHING RED** or **OFF** then **do not touch the car.** Ask the team to verify that the car is safe. (The light shuts off after 30 minutes to save battery, so it will probably just need to be enabled by the team);
- If the team has put barriers around the car, warning signs, or are wearing safety gloves **do not touch the car** until you have permission from the team.