

## F4 Technical Advisory Memo

**No:** TAMF4-2021-012  
**Date:** August 11, 2021  
**Subject:** Gearbox Rules Change Advisory

Based on input from F4 Teams regarding the proposed wording of the gearbox rules change that was sent out for comment last week, several changes to the proposed rules are being made. This final wording in TRBF4-2021-004, featured below, will go into effect immediately:

*Article 26.3.d. is updated to:*

*The specified gear ratios allowed for official test days and Events are:*

<b>Gear No.</b>	<b>Tooth Count 1</b>	<b>Tooth Count 2</b>	<b>Gear Ratio (TC1/TC2)</b>
1st	35	14	2.50
2nd	35	18	1.94
3rd	28	18	1.56
4th	28	21	1.33
5th	28	24	1.17
6th	23	22	1.05

*Article 26.3.m is updated to:*

*Oil in the transmission must reach at least the level of the removable inspection plug located on the right side of the transmission, just aft and above the reward clevis for the lower wishbone. The gear oil must run out of the gearbox when the fill-plug is removed.*

*The following is now added to Article 26.3 Specific Car Requirements:*

- s) The gearbox must be used exactly as supplied from Ligier/Sadev with the following exceptions;*
- The back-end of the gearbox will not be sealed to allow teams to service/repair their gearboxes. No surface finishing, treatment of gears, or any modification of the gearbox internals will be tolerated. The gears and other gearbox internals must be used as delivered from Ligier and Sadev.*
  - The front-end of the gearbox, where the differential is located, must remain sealed with updated cable seals.*
  - Any team servicing their own gearboxes will be considered to be entirely at fault if any damage occurs due to the improper installation of any parts. No consideration will be given to the team by the Championship, SCCA Pro Racing, Parella Motorsports Holdings, Ligier, or Sadev.*
  - The penalties for intentionally modifying a gearbox outside of those modifications allowed in Article 26.3 will include the loss of all points for that Event and a \$5,000 team fine.*

Some additional comments regarding the above rules:

The front-end of the gearbox, where the differential is located, will remain sealed for at least the remainder of the 2021 season. At the next event a car competes at, the current wire seal will be replaced with a cable seal to prevent accidental breakage of the seal.



Teams still wanting their gearboxes serviced by Sadev may have Sadev install cable seals thereby avoiding having to tear down their gearboxes at the track if the seals are intact. The Chief Scrutineer will have cable seals at the track in case a team that has chosen to keep their gearbox sealed needs to inspect the gearbox and get it resealed at the track.

The elimination of the sealing procedure for the back-end of the gearbox does mean that gear ratios will be checked regularly on data, and regular random inspections of the gearboxes and internals will occur at events as part of the technical inspection process.

These new rules give the teams a significant amount of freedom regarding servicing their gearboxes. The penalties for intentionally modifying a gearbox outside of those modifications allowed in Article 26.3 will be severe, including the loss of all points for that event and a \$5,000 fine.

The majority of the F4 Teams that submitted input on the proposed new rules requested that any additional changes, other than opening up the back-end of the gearbox, be delayed until 2022 so that it would not affect their 2021 budgets. The Technical Director will work to get input from all F4 Teams regarding the possible gearbox rule changes for 2022.

