



FEDERATION
INTERNATIONALE
DE L'AUTOMOBILE

MONDAY, 02 MARCH 2026

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ULTIMATE GROUP: REVIEWED MONITORING STRATEGIES

Context

- In the actual process, the maximum boost ratio curve is defined to reach the FIA reference power at a manifold temperature set to 50°C.
- This means that for manifold temperatures lower than 50°C, the power is higher than the reference power due to the higher air density.



The Commission agree on the principle to adjust this performance variability, for equity reason

- On the other hand, mainly to take this into account, a 10kW offset to the FIA reference power curve was implemented in the monitoring strategy associated to the use of FIA torquemeter system end of 2024.

Principle

- The principle is therefore to adjust the maximum boost ratio curve as a function of the manifold temperature to compensate the advantage inherent to lower manifold temperatures.
- For vehicles controlled thanks to a torquemeter system, the power margin of 10kW will be removed.

Methodology used to define the correction

1. Review the sensitivity power-to-Tmanifold accross the FIA dyno tests made on T/C engines.
2. Adjust the boost level using the power-to-boost sensitivity measured on each engine.
3. Cross-check with theoritical estimation (air density / mass-flow).

Results

- The same coefficients will be applied to all engines

Date of registration of the engine	T/C petrol engine number	Tuner	Base engine	Fuel	Data Sheet										
25/11/2025	2026-xxx			Any fuel compliant with Art. 252-9.1	2026-xxx_252-9.1_2026yyzz										
Engine rpm	2500	2750	3000	3250	3500	3750	4000	4250	4500	4750	5000	5250	5500	5750	6000
Pboost ratio Max (-) ⁽¹⁾	<-- BOOST RATIO AT TMANIFOLD 50°C -->														
Declared minimum Lambda	-														

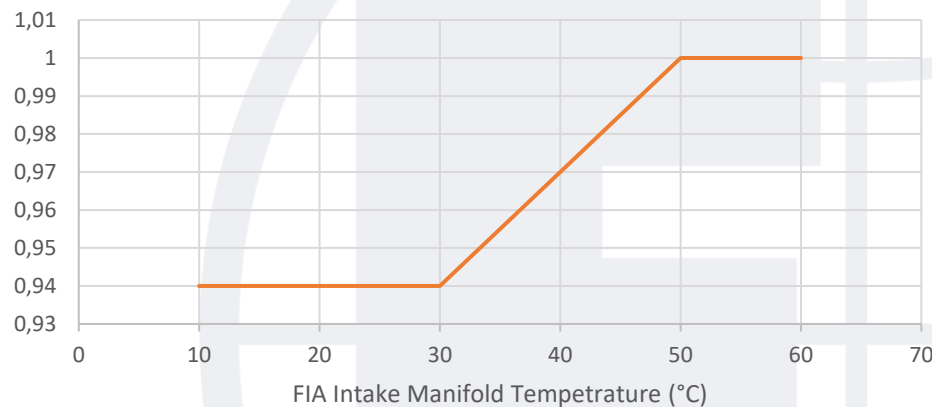
(1) Pboost max (Bar) = PBoost ratio max x 1,010 Bar

Boost ratio at Tmanifold 40°C = 0,97 x (Boost ratio at Tmanifold 50°C) for each RPM

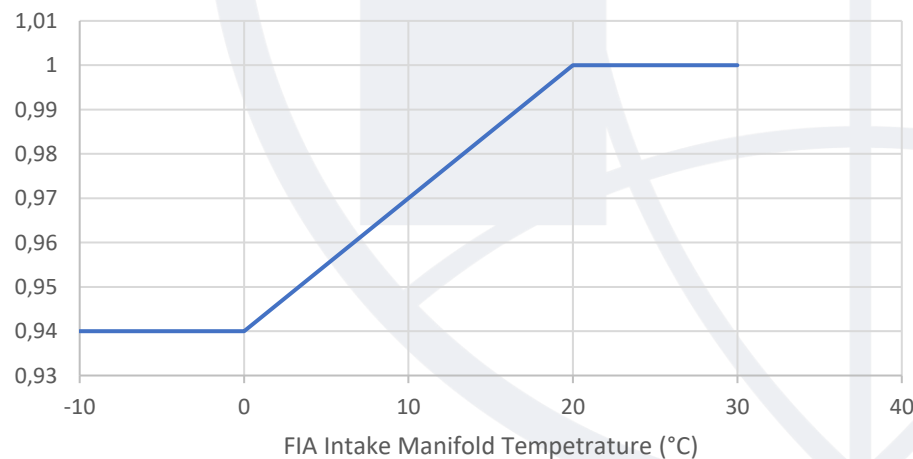
Boost ratio at Tmanifold 30°C = 0,94 x (Boost ratio at Tmanifold 50°C) for each RPM

Practical application

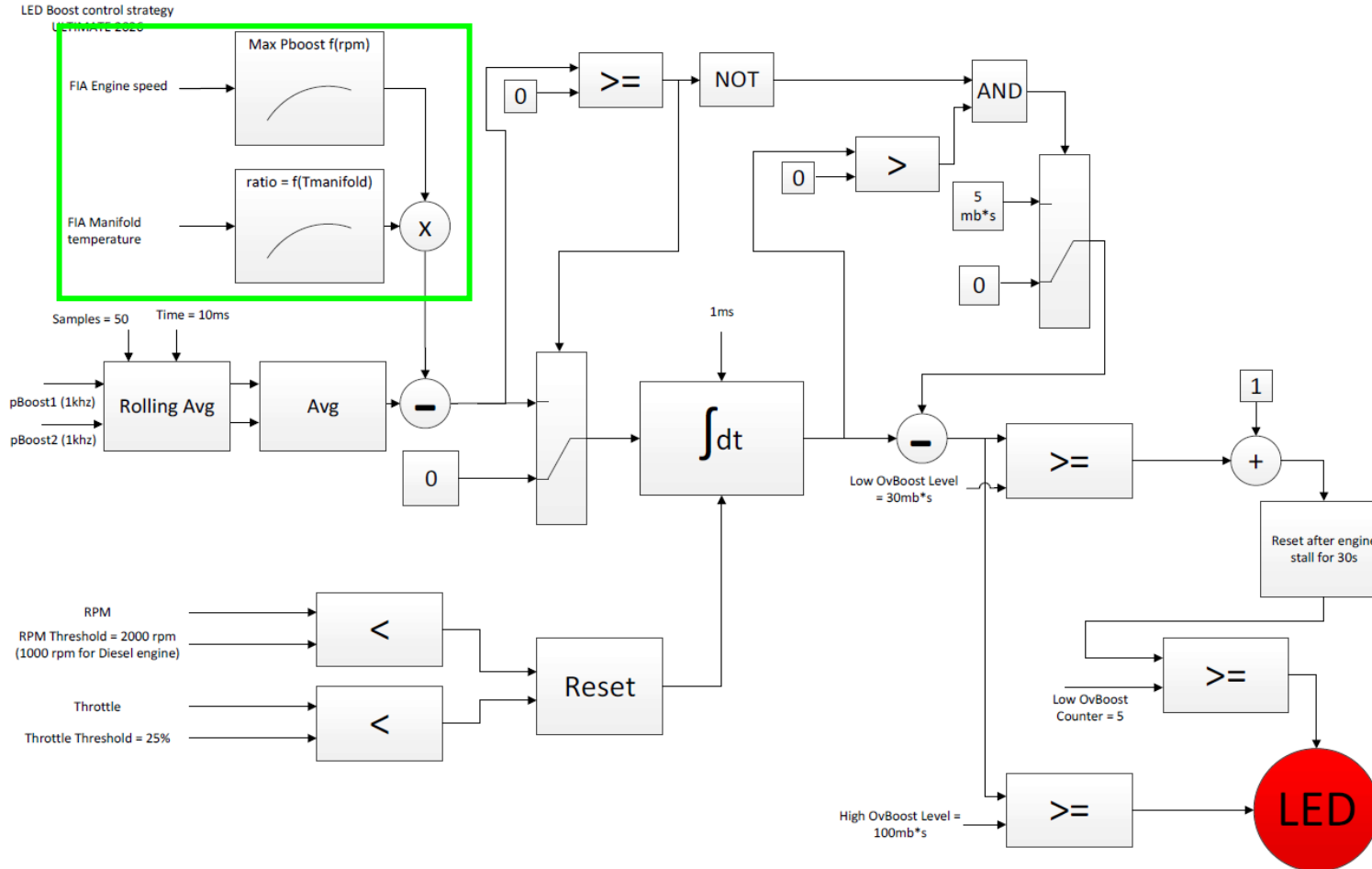
- Pmanifold Ratio multiplier $f(T_{\text{manifold}})$ for **T/C engines** – current T_{manifold} reference = 50°C



- Pmanifold Ratio multiplier $f(T_{\text{manifold}})$ for **N/A engines** – current T_{manifold} reference = 20°C

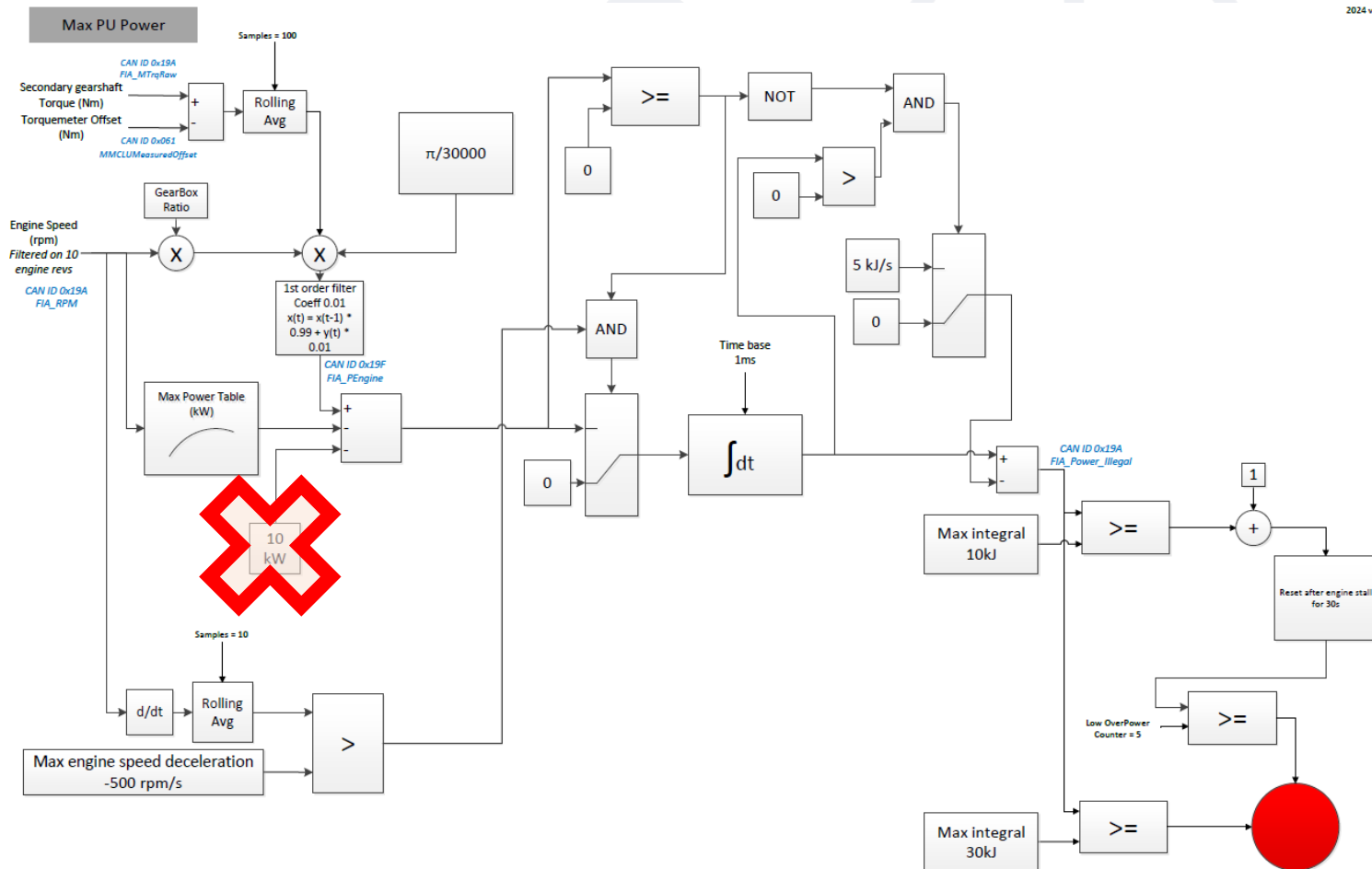


Updated control strategies: Pboost-controlled engines



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Updated control strategies: Power-controlled engines



Application

- to all vehicles controlled in boost ratio
- to all vehicles controlled thanks to a torquemeter system, when running in backup mode.

In compliance with the art. 13.1.1 of the Cross-Country Rally Sporting Regulations from:

- From Ruta 40 Desafio 2026 in W2RC
- From 1/07/2026 in all FIA Cross-Country events



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THANK YOU