



IMSA TECHNICAL MEMO IWSC #23-02

To: All IMSA WeatherTech SportsCar Championship Series GTD/GTD-PRO Competitors

From: IMSA Competition

Date: September 21, 2022

Re: 2023 Electronics Update

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GTD and GTD-PRO Classes:

IMSA is implementing updates to the required Series Electronics utilized in the IMSA WeatherTech SportsCar Championship (IWSC) effective from the start of the 2023 season. New electronics improve safety features and resolve obsolescence issues, all while generating efficiencies and adding expandability to current systems. IMSA carefully considers all aspects of Sporting and Technical Regulations as it comes to cost sustainability. The same holds true for the series required electronics which serve a purpose of on-track safety systems, scrutineering logging, and data collection that is fundamental to IMSA's Balance of Performance process used in specific Classes. This memo will serve as a guide to the updates by Class for 2023. The 2023 Technical Regulations by Class will serve as the official requirements. Ordering information for these electronics is included with this memo or will be released as soon it is available.

Changes from 2022 are shown in RED.

<u>Equipment</u>	<u>2022</u>	<u>2023+</u>
Data Logger	Bosch C60	Bosch MS6 SCR
Data Logger Harness	2022 Specification C60 Loom	2022 Specification Loom with MS6 Adapter (Harness Option A)
		2023 Specification MS6 Loom (Harness Option B)
Inertial Measurement and GPS	Bosch IMU + GPS	Bosch Vehicle Motion and Position Sensor
Leader Light System	MoTeC System	XAP System or MoTeC System
Track Condition Radio	Delphi	MSE
CMS Safety Light System	Delphi Compatible (Yellow Label)	MSE Compatible (Red Label)*
GTD Fuel Rig Sensor	Reventec Level Sensor	Sentronics RigFlow Sensor
GTD-PRO Fuel Rig Sensor	Sentronics RigFlow Sensor	Sentronics RigFlow Sensor
Accident Data Recorder	N/A	MoTeC ADR2
Marshalling Display	N/A	XAP NTX Marshalling Display**
CMS Antenna Kit	N/A	MSE Compatible Antenna Kit**
Internal Combustion Engine Speed sensor	N/A	MS6 Compatible ICE Speed Sensor

*For Harness Option A only

**For Harness Option B only



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IMSA Scrutineering System Updates:

Following seven seasons of continuous, reliable use, the IMSA Scrutineering Data System is being retired and replaced with several new components.

The 2023 IMSA Scrutineering System requires multiple updates including a new Bosch Datalogger, Vehicle Motion and Position Sensor, and new wiring configurations which are required for all GTD and GTD-PRO entrants for 2023. Details and ordering information are available in the [2023 GT Scrutineering System Manual](#).

Harnesses:

For the 2023 Season only, all current cars are permitted to carryover the 2022 harness utilizing an adapter loom to the new 2023 electronics (Harness Option A). Current cars are permitted to construct a new harness for 2023 electronics (Harness Option B). All new homologations are required to utilize Harness Option B.

All scrutineering and adapter harnesses must be certified for use in 2023 by Bosch Motorsport. For Harness option A, all portions of GTD-PRO and GTD Looms should be delivered to Creative Motorsport Solutions by November 23rd. For Harness Option B, all portions of GTD-PRO and GTD Looms should be delivered to Creative Motorsport Solutions by December 10th.

FIA Regulation Updates:

The 2023 FIA GT3 Regulations introduce a series-specific requirement for an Accident Data Recorder. In alignment with the global regulations, IMSA will require the use of a [MoTeC ADR2 Accident Data Recorder](#). In addition, IMSA will also adopt the FIA GT3 requirement of an Engine Speed Sensor.

Leader Light Panels:

The [XAP Leader Light Panels](#) are designed as a drop-in solution and intended to improve the robustness of the system while reducing the cost of commonly replaced parts. Voltage and current requirements as well as panel size are consistent with the current IWSC System. The new system requires a single controller which is linked to the two panels.

For 2023, current working MoTeC Leader Light Panels including CAN Isolators are permitted while supplies last. The XAP and MoTeC systems are **not** interchangeable.

Track Condition Radio:

The [MSE Track Condition Radio](#) will be required for all Competitors to purchase and maintain. In comparison to the Delphi radio used in 2022, this radio is smaller, lighter, and does not require anti-vibration mounting bracket. The Delphi Track Condition Radio will not be permitted in IWSC for 2023.

For GTD, this radio offers direct integration with the XAP Marshalling Display on Harness Option B. In this application, a [CMS antenna kit](#) must be utilized. Harness Option A will require an updated [CMS Safety Light System](#).



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Marshalling Display (For Harness Option B only):

The [XAP Marshalling Display](#) provides indication of Track Condition with scalability to Marshalling. In addition to track condition, the display can provide basic information to the Driver such as Laptimes and Driver ID status. A mechanics page provides diagnostic information regarding the scrutineering system to assist in compliance with Technical Regulation.

This high-definition display comes in a waterproof aluminum housing and is required on all GTD cars utilizing Harness Option B. Mounting location and requirements are outlined in the 2023 GT Scrutineering System Manual.

Autonomous Tank Fuel Sensor:

As IMSA seeks continual improvements to our processes and procedures, we have collaborated with Sentronics to supply Fuel Flow Sensors for the Autonomous Tank for all Classes in IWSC. The [Sentronics RigFlow sensor](#) is designed around the common autonomous tank hardware. A new fuel elbow from RPXpress and fuel cable adapter loom from CMS are required for RigFlow integration to the Autonomous Tank. Details on the adapter loom, elbow, and installation are available in the 2023 Technical Regulations.

Some advantages of the new flow sensor include improved measurement performance with included logging configuration for in-shop testing and an annual sensor calibration that is independent of the autonomous tank. This sensor rollout is the second phase of a multiphase update of IMSA's fuel data network and data sharing.

For 2023, the RigFlow sensor is required for all IWSC Classes. The 2022 specification Pit Tank Level sensors are no longer permitted for these Classes. The Rigflow Sensor requires the RPX RigFlow Red Pit Tank Outlet Elbow, available directly from RPX Express (1-828-428-0820).

Questions should be directed to Emily Rivera (emilyrivera@imsa.com)