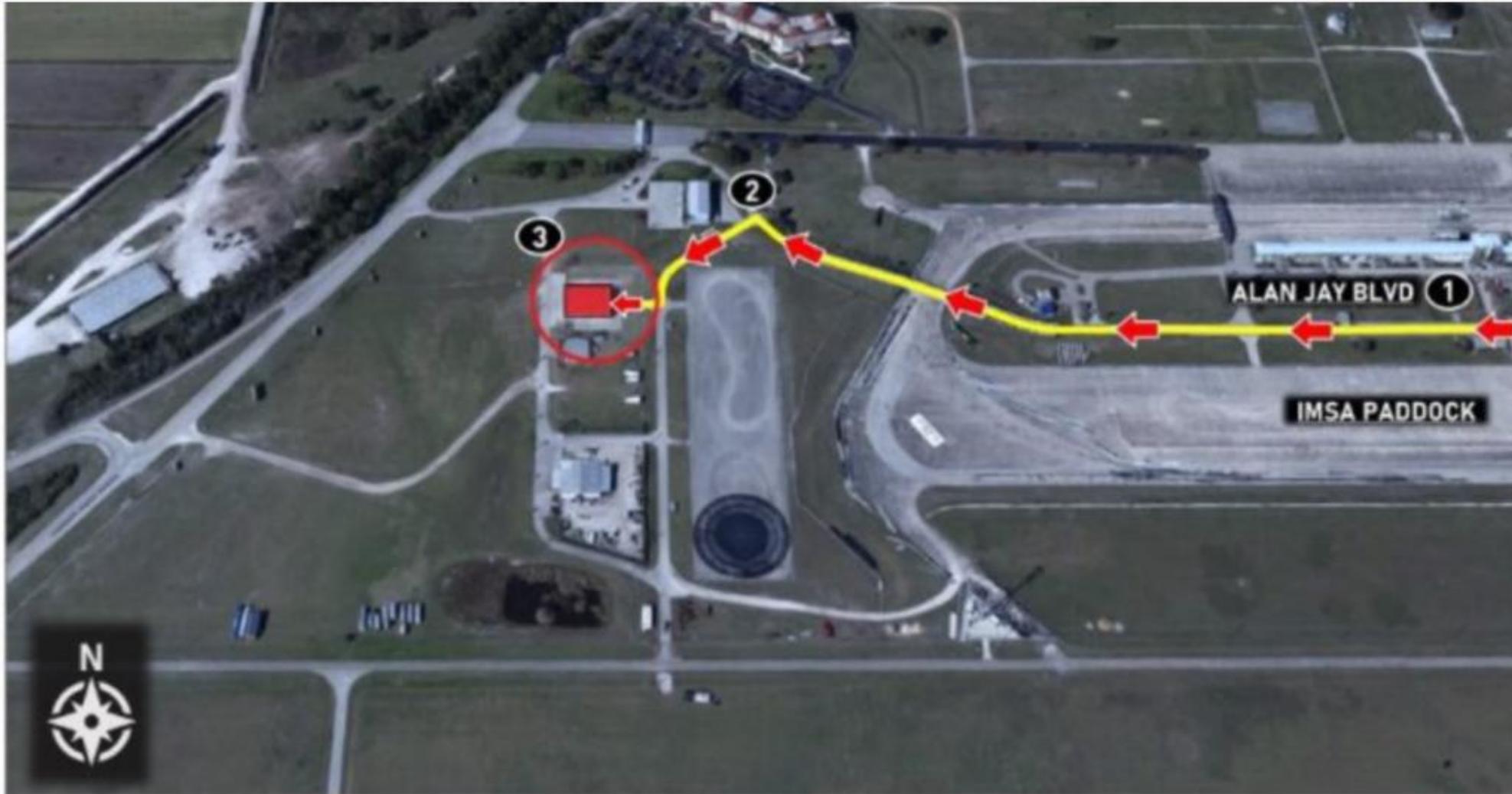


Twelve Hours of Sebring
HV Operating Protocol Meeting
Wednesday, March 18th at 12:45 p.m.

Drivers' Meeting Room



HV Operating Protocol Review Meeting



Same location as the 1:30 IWSC Team Managers meeting immediately following this meeting.

Issued Arm Bands (new)



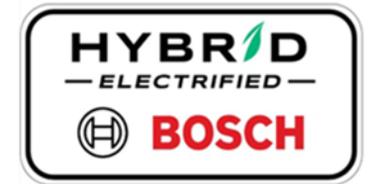
Automatic External Defibrillators



For Sebring Test event, there are four (4) AEDs located around paddock

- At HVSA Parking Location in HV Transport
- In WeatherTech Inspection area
- In KMBC Business Center near Turn 17
- Single Make Tech Transport (near Michelin Tire Compound)

HVSA Access Road. . .



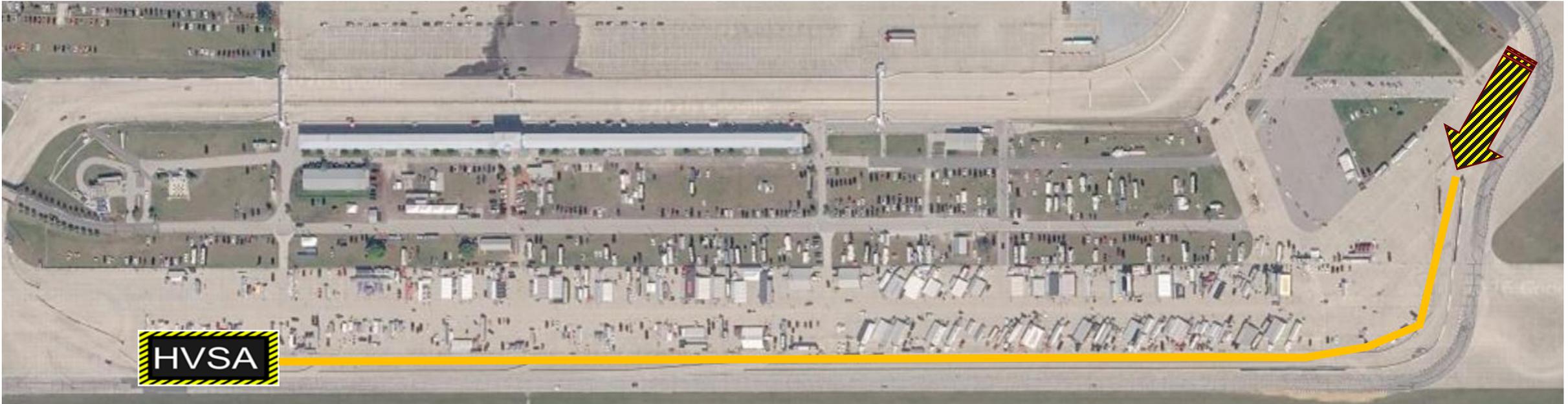
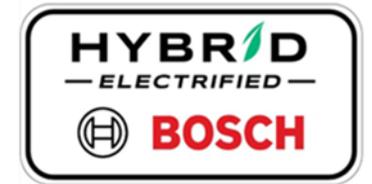
The entrance to the HVSA is located on Driver's right, just before Turn 16.

This ingress served as WEC pit lane in the past.

Will be lighted for Thursday night practice.



HVSA Access Road . . .

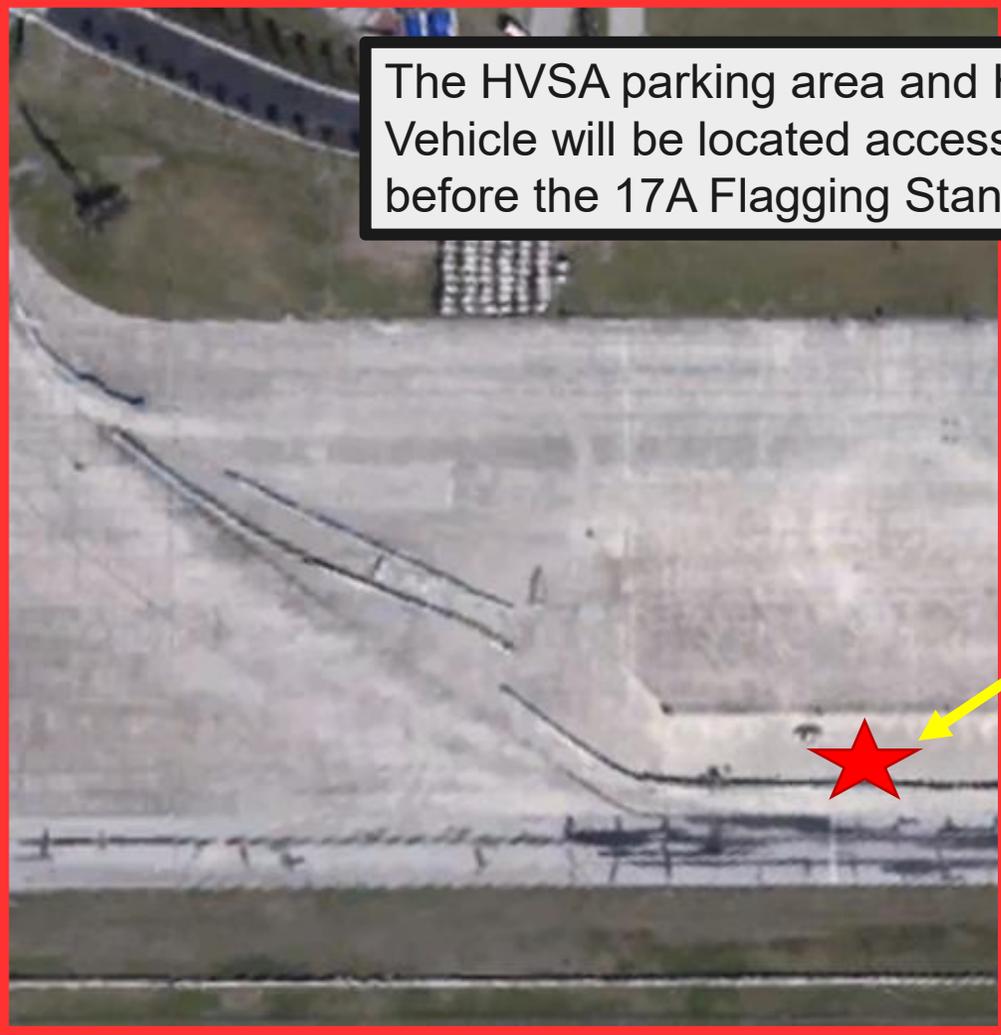


Black/Yellow arrow indicates access point for HVSA. Orange line indicates service road leading to HVSA parking area. IMSA HV Safety Officer will work with SIR staff to keep this avenue maintained to limit

HV Safety Area (HVSA)



The HVSA parking area and HV Transport Vehicle will be located access road just before the 17A Flagger Stand.



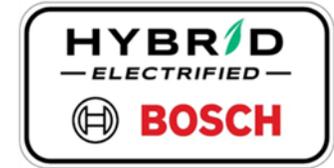
GTP – HV Isolation Impound





HV Transport Vehicle will move to WeatherTech scrutineering location to meet team representatives.

Power Cycling . . .



- This issue impacts more than just IMSA Sporting Regulations, Attachment 8.
- Attachment 8 of the IMSA Sporting Regulations requires consistent powering of the IMSA scrutineering system for LMDh.
- During practice sessions only, if, in extreme circumstances, you need to power down the logger and telemetry, then please reach out to IMSA on RCNS.
- Once the Cars are in the pitlane for qualifying or for the Race (and during the sessions), rebooting of the IMSA logger and telemetry is prohibited.

Car becomes “unsafe” in Team area . . .



- **Attachment 8: If a Car goes “unsafe” while in Team garage, Paddock location, or under the Team’s awning:**
 - Team HV Safety Officer or designee is present and communicates condition/issue on “Emergency Discord Channel”.
 - Team controls Car and follows pre-planned procedures regarding Car.
 - Convert Car to “safe” status OR safely move Car to HVSA for investigation.
 - Car must not leave Team garage or HVSA until deemed safe by IMSA Lead HV Technicians & Team. Final approval by IMSA HV Safety Officer.

Car becomes “unsafe” in Public Areas . . .



- **Attachment 8: Par. 8.10.2.B (outside Team Garage/Tent)**
 - Team HV Safety Officer or designee is present and communicates condition/issue on “Emergency Discord Channel”.
 - Establish a safety perimeter around Car to keep spectators away - including verbal instructions by Team, set up cordon using stanchions, etc., until issue is resolved.
 - If anyone onboard Car, actions dictated by life safety considerations.
 - Coordination between IMSA HV Safety Officer, IMSA Lead HV Technicians and Team HV Safety Officers is important.

Car becomes “unsafe” On Track . . .



- **Attachment 8: If a Car goes “unsafe” while on track or in pit lane:**
 - Team HV Safety Officer or designee communicates condition/issue on “Emergency Discord Channel”.
 - During practice or qualifying:
 - Car goes directly to HVSA. Driver may use “Disabled Car” shortcuts on track.
 - If Car stops on track, procedure and response is as normal (Red flag session/Track Services recovery to HVSA).
 - Car remains in HVSA until deemed safe or recovered to HVII by Track Services.
 - During Race:
 - Car goes directly to HVSA. Driver may use “Disabled Car” shortcuts on track
 - If Car stops on track, procedure and response is as normal (FCY - pits closed/Track Services recovery to HVSA).
 - Car remains in HVSA until deemed safe or recovered to HVII by Track Services.

Car goes “unsafe” in Pit Lane . . .



- **Attachment 8: If a Car goes “unsafe” while stopped in Team pit box**
 - Team HV Safety Officer or designee communicates condition/issue on “Emergency Discord Channel”.
- **During Practice or Qualifying:**
 - Car controlled and cordoned off by Team in pit box.
 - Car is investigated/worked on by IMSA Lead HV Technicians and Team until Safe (FZ cannot go over wall).
 - If Car is determined to be uncorrectable in pit lane.
 - Session is red-flagged and all other Cars must line up and stop in fast lane to allow recovery of “unsafe” Car by Track Services to HVSA.
 - If Car is in “True Neutral” - Track Services may flat tow Car to HVSA.
 - If Car is NOT in “True Neutral” - Recovered by lifting bar and rollback (Car not pushed, regardless of PPE).
- Car must be supported by IMSA Lead HV Technicians and Team until “safe”.
- Car remains in HVSA until deemed safe or recovered to HVII by Track Services.

Car goes “unsafe” in Pit Lane . . .



- **Attachment 8: If a Car goes “unsafe” while stopped in Team pit box**
 - Team HV Safety Officer or designee communicates condition/issue on “Emergency Discord Channel”.
- **During Race:**
 - Car controlled and cordoned off by Team in pit box.
 - Car is investigated/worked on by IMSA Lead HV Technicians and Team until Safe (WAE cannot go over wall).
 - If Car is determined to be uncorrectable in pit lane:
 - Race Control is notified to initiate appropriate action.
 - Race Control announces “FCY/pits closed” (Emergency Service Cars may still enter pits)
 - IMSA Track Services recovers Car to HVSA.
 - Car must be supported IMSA Lead HV Technicians and Team until “safe”.
 - Car remains in HVSA until deemed safe or recovered to HVII by Track Services.

HVSA Release Form



IMSA HVSA RELEASE FORM		GTP HYBRID BOSCH	
Event: _____		Date: ____/____/____	
Session # _____	Practice # _____	Qualifying: <input type="checkbox"/>	Race: <input type="checkbox"/>
Att. 8.10.2	Location:	<input type="checkbox"/> Paddock	<input type="checkbox"/> Pit Box <input type="checkbox"/> On Track
Att. 8.7	HV Condition:	<input type="checkbox"/> UNSAFE (start-up)	<input type="checkbox"/> SAFE to UNSAFE
Att. 8.13	Discord:	Reported at _____ by <input type="checkbox"/> Team <input type="checkbox"/> OEM <input type="checkbox"/> IMSA <input type="checkbox"/> Bosch <input type="checkbox"/> FZ	
Att. 8.5.1	HVSA:	<input type="checkbox"/> Car recovered by IMSA Track Services	Time: _____
		<input type="checkbox"/> Driven from Track	Time: _____
		<input type="checkbox"/> Delivered by Team	Time: _____
Att. 8.5	Resolution:	<input type="checkbox"/> Remain in HVSA for Additional Work	Time: _____
		<input type="checkbox"/> Moved to HVII	Time: _____
		<input type="checkbox"/> Released for additional work (see notes)	Time: _____
		<input type="checkbox"/> SAFE – Released to Team	Time: _____
Signatures below confirm agreement with Resolution. If not resolved to a SAFE condition, see Notes for additional information on incident.			
FZ Representative _____		Time: _____	
Bosch Representative _____		Time: _____	
OEM HV Safety Officer _____		Time: _____	
Team HV Safety Officer _____		Time: _____	
NOTES: _____			
Based on Attachment 8.4.2.B.vii – the IMSA HV Safety Officer releases the Car to the control of the OEM HV Safety Officer and Team HV Safety Officer.			
_____ on ____/____/____ at _____		<input type="checkbox"/> AM <input type="checkbox"/> PM	
IMSA HV Safety Officer Signature _____			

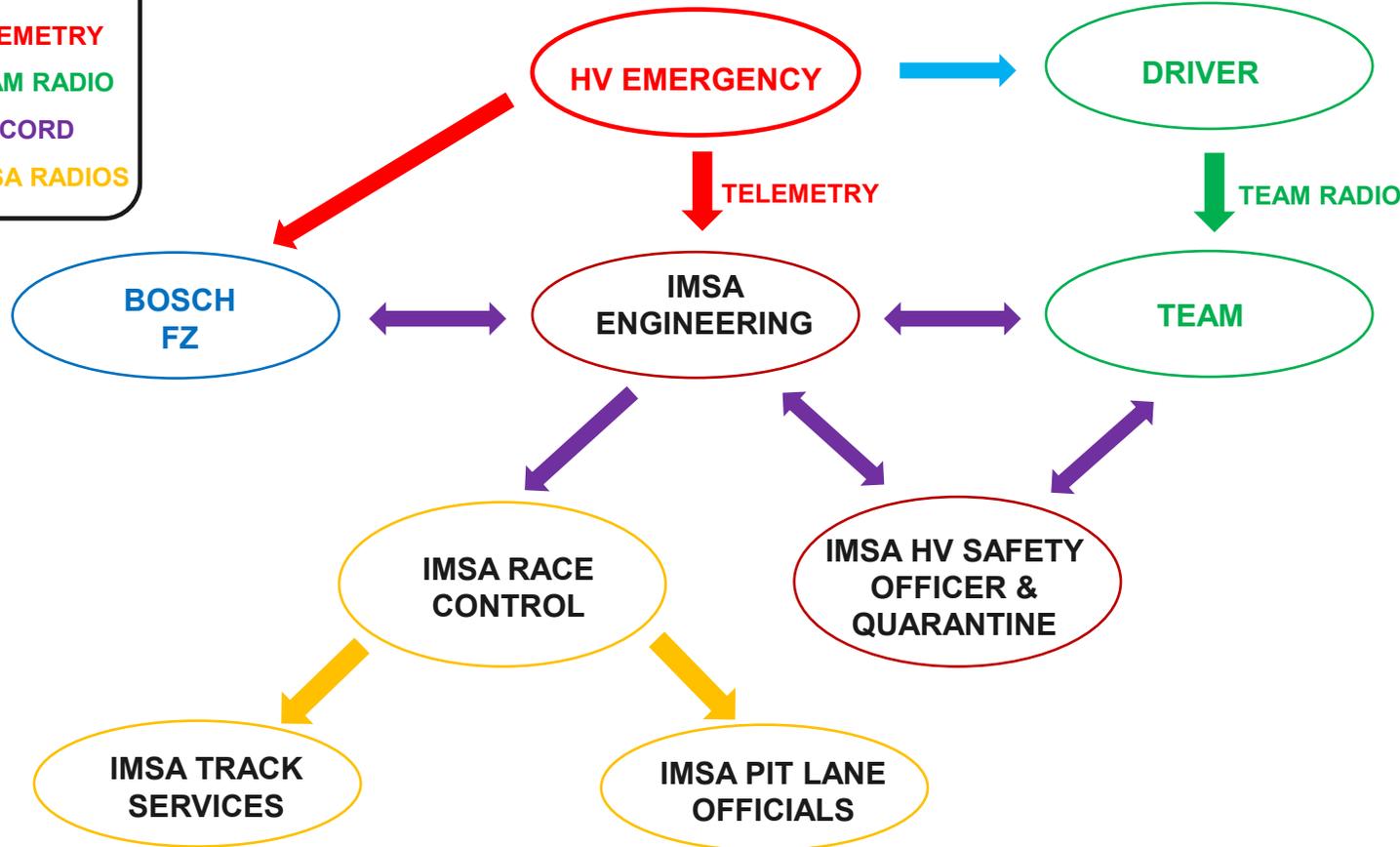
Rrb v111525

Located in HVSA Tent

» OFFICIAL HV COMMUNICATIONS



- HV LIGHT/DASH
- TELEMETRY
- TEAM RADIO
- DISCORD
- IMSA RADIOS



“Emergency Discord Channel” is the official communications channel for emergency and non-emergency communications between IMSA, WAE/Bosch and GTP teams.

HV SAFETY BRIEFING



- Available upon request for Teams
- Covers basic safety protocol and awareness, as well as emergency procedures
- Briefing accompanied by handout
- **It is your responsibility to pass on this information to your Team to ensure necessary compliance.**

MSA High Voltage Safety Briefing

Risks

GTP cars feature electrical systems operating at 800V. These voltages can create life threatening electric shocks. They are not enough to create arcing.

Indication

At all times, when the car is in the paddock/on track, the lights will be functional and must be obeyed.

High Voltage Light Status	INDICATION	DESCRIPTION	SITUATION
GREEN		High Voltage System OK	CAR SAFE
RED		High Voltage potentials present on the surface of the car	EMERGENCY
OFF		High Voltage System Status Unknown	POSSIBLE EMERGENCY

CAR UNSAFE PROTOCOLS

1. Do not touch car
2. Alert people in vicinity of the danger (shout)
3. Ask for HV emergency to be communicated to HV Safety Officers (identified by armbands)
4. Establish cordon

USE OF HV RESCUE HOOK

When a person is receiving an electric shock (e.g. they are touching an UNSAFE HV car that has become live, they may be unable to release grip due to muscle contraction. In this case, **DO NOT TOUCH THEM DIRECTLY**. Use the rescue hook to pull them off the car.

Key Contacts

MSA HV Safety Officer MSA Manager, Track Services	Robert Bosworth (rbosworth@msa.com or +1 704-728-8087) Roy Spielmann (rspielmann@msa.com or +1 414-702-0905)
Lead HV technician (Hybrid and battery supplier)	James Lyons
Acura HV Safety Officer	Gerardo Espino Cano
MSR HV Safety Officer	Rob Trinkner/Brandon Chansy
WTR HV Safety Officers	Mitch Davis
BMW HV Safety Officer	Christian Baetz
BLU HV Safety Officer	Marty Alcher
Cadillac HV Safety Officers	A J Hamley
Action Express HV Safety Officer	AJ Hamley (temporary)
Ganassi HV Safety Officer	Raid Equavel
Porsche HV Safety Officers	Martin Kaussen/Felix Voelkl
Penske HV Safety Officer	Joel Svensson
JDC HV Safety Officer	Josh Kerrigan



Car in SAFE Condition

- Any time a Car is in an area outside of the Team garage/tent, the following must be observed:
 - PPE must be available (as defined in Par. 8.12 below);
 - Telemetry must be transmitting;
 - HV Condition lights must be illuminated;
 - The Team HV Safety Officer or a delegate (an HV Trained Person) must be present.



D. When the Car is on display outside of locations per Par. 8.10.1.A, the following must be observed:

- i. PPE must be available (per Par. 8.12) in the pit box;
- ii. Car must be cordoned off with the required barriers;
- iii. HV Condition lights must be illuminated;
 - a. At off-site IMSA-supported activities, the use of a green cone signifying “last known SAFE state” is permitted;
- iv. The Team HV Safety Officer or designee (an HV Trained Person) must be present.

Pre-Race Fan Walk for WeatherTech GTPs . . .



Pit Lane Officials will position GTPs backed into the outside pit lane wall. All teams should bring stanchions to provide a common safety barrier on three sides of the GTP group. IMSA will have additional stanchions, if needed.

IMSA WEATHERTECH SPORTSCAR CHAMPIONSHIP

THANK YOU

Contact Robert Bosworth,
IMSA HV Safety Officer at
(704) 728-8087 by text for any
questions or concerns.
Response will be in-person or
by phone.