

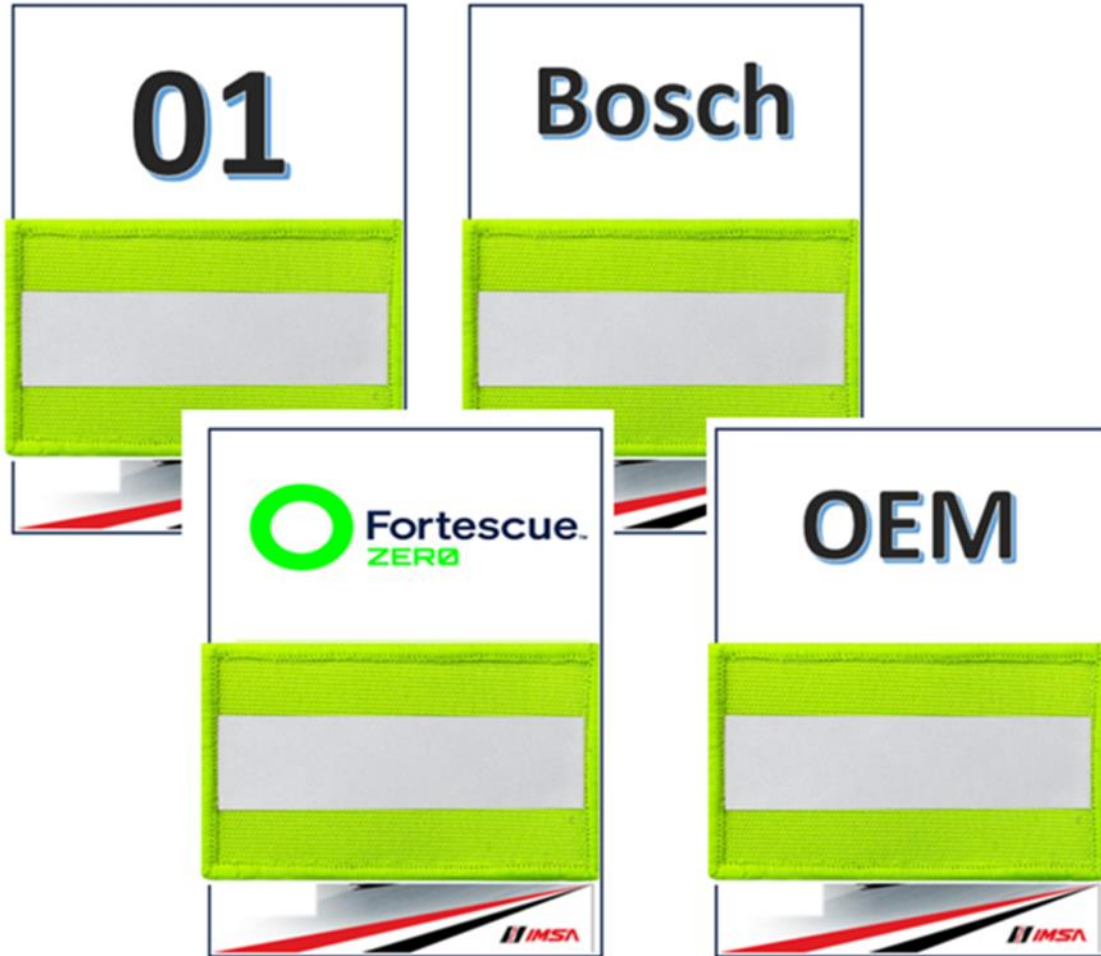
GTP HV Operating Protocols Review

Friday, June 20

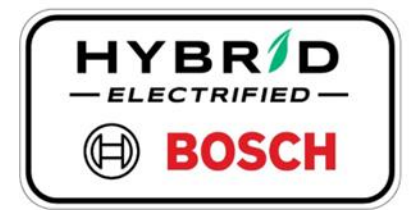
9:15 a.m. (Track Meeting Room)



HIGH VOLTAGE PROTOCOLS



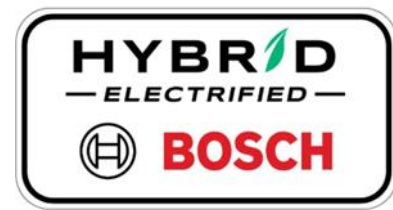
Automatic External Defibrillators



For Watkins Glen event, there are four (4) AEDs located around paddock

- In FZ Work Tent co-located with HVSA
- In WeatherTech GTP Inspection area
- In KMBC Business Center WeatherTech paddock
- In IMSA Single Make Transporter (upper paddock)

Turn 11 Access to HVSA for Drivers

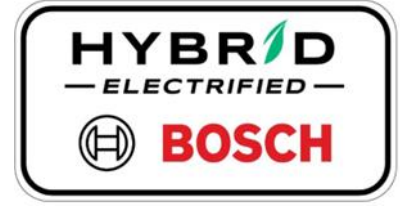


Access to the High Voltage Safety Area is through pit lane. Once on pit lane, driver will take first right towards rear of Pit Lane as if heading to paddock. WGI refers to this area as “Time Square”.

High Voltage Safety Area (HVSA)



High Voltage Safety Area (HVSA)



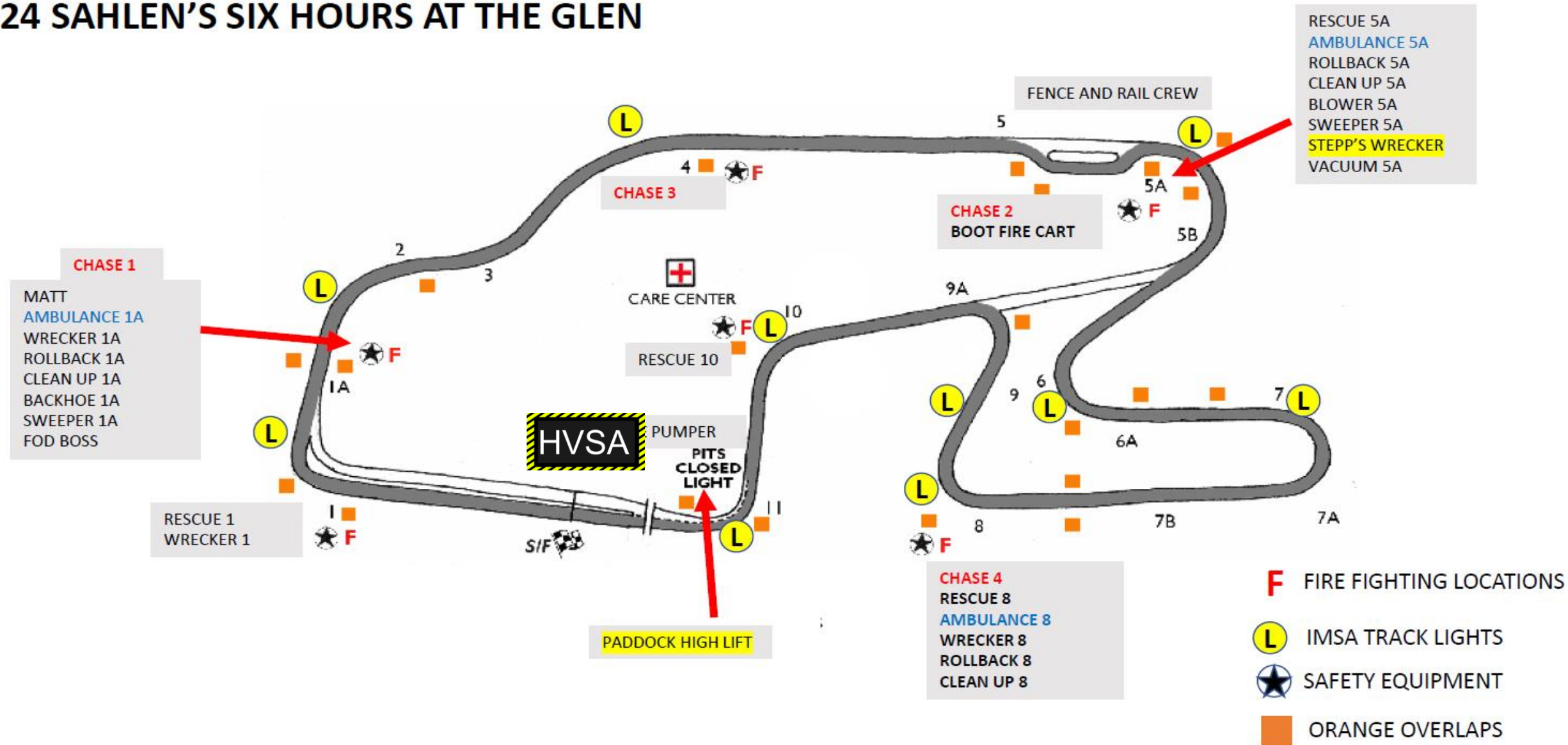
HV Quarantine Impound (HVSA)



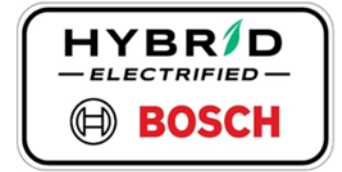
High Voltage Isolation Impound (HVII)



2024 SAHLEN'S SIX HOURS AT THE GLEN

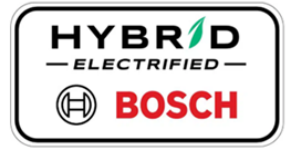


Power Cycling . . .



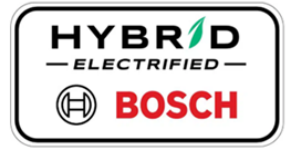
- This issue impacts more than just IMSA Sporting Regulations, Attachment 8.
- Article 8 of the Appendices requires consistent powering of the IMSA scrutineering system for LMDh.
- During practice sessions only, if, in extreme circumstances, you need to power down the logger and telemetry, then please reach out to IMSA on RCNS.
- Once the cars are in the pitlane for qualifying or for the race (and during the sessions), no rebooting of the IMSA logger and telemetry will be permitted.

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 cannot 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 . . .



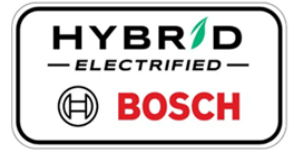
- **Attachment 8.10.2 B (outside Team Garage/Tent)**
 - Team HV Safety Officer or designee is present and communicates condition/issue on “Emergency Discord Channel”.
 - Establish a safety perimeter around car to keep spectators safe to include verbal instructions by Team, set up cordon using stanchions, etc., until issue is resolved.
 - If occupant is in 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 . . .



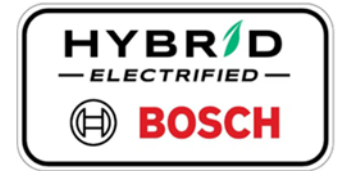
- **Attachment 8: If a car goes “unsafe” while on track or in pit lane:**
 - Team HV Safety Officer or designee communicates condition/issue on “Emergency Discord Channel”.
 - During practice or qualifying
 - car goes directly to HVSA. Driver may use “Disabled Car” shortcuts on track.
 - If car stops 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 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 with flat bed wrecker and lifting bar (Car will not be pushed, regardless of PPE).
 - 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

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 will be 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

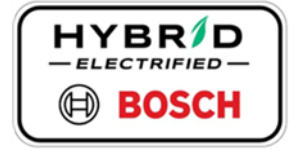
For Watkins Glen . . . Review of HV Team Information

Team's written pre-planning HV response manual

Discussion with Team's HV Safety Officer or designee
on HV Protective Equipment

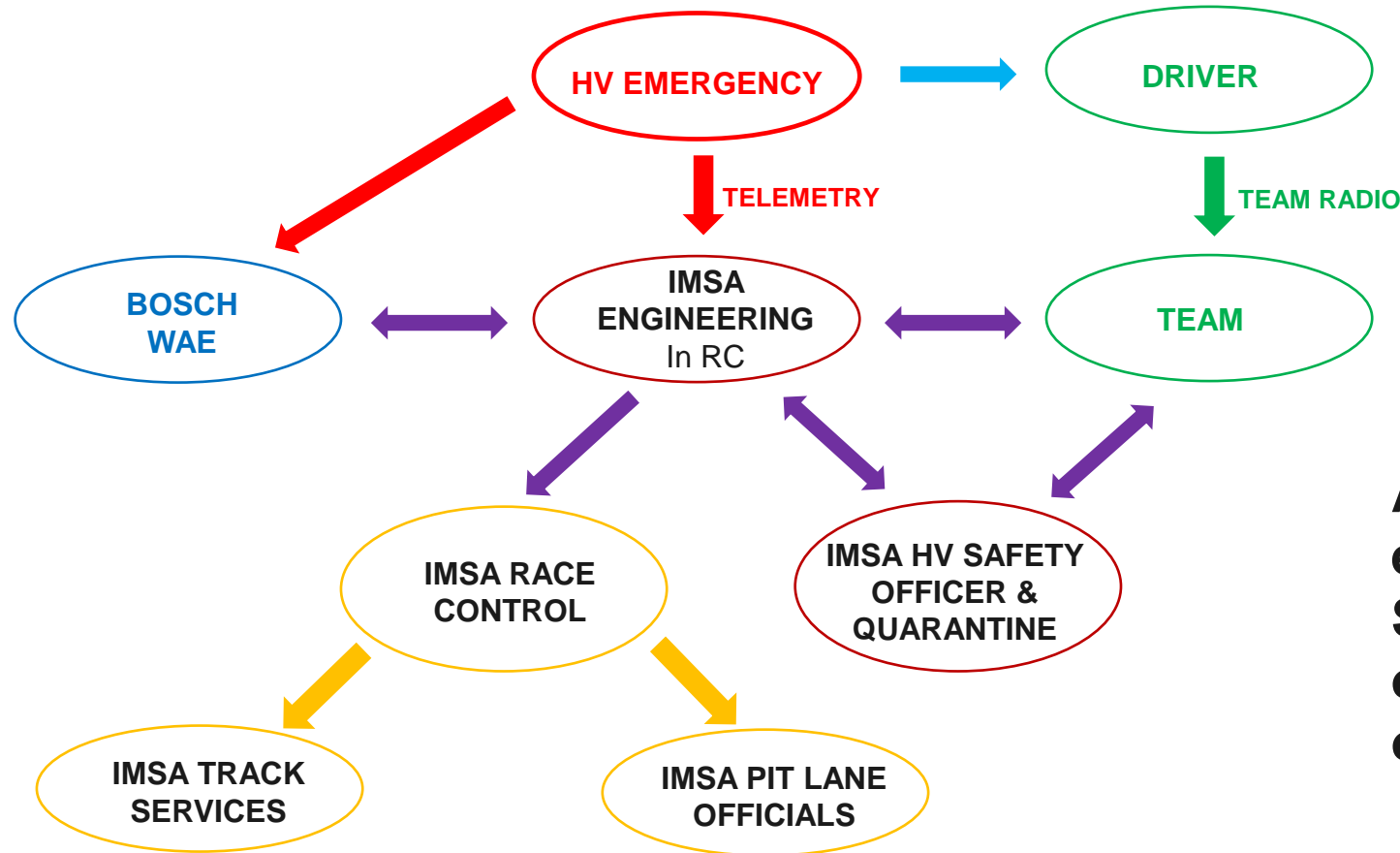
Conducted in Team's paddock location

Anytime GTPs are on Track



- IMSA HV Safety Officer will be in HVSA area for arrival of car if necessary
- IMSA HV Technical Experts will be in on Timing stand (pit lane) & HVSA area.
- Exception: End of race for podium, as needed

» OFFICIAL HV COMMUNICATIONS



Any transmission (non-emergency) for IMSA HV Safety shall be transmitted on HV Emergency Channel on Discord.



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

IMSA 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.

Light Status Legend:

| Light Status | Indication | Description | Situation |
|--------------|------------|--|--------------------|
| GREEN | | High Voltage System OK | CAR SAFE |
| RED | | High Voltage potential 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

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


12 Hrs of Sebring

Barriers

DANGER HIGH VOLTAGE

HVII Transportation Shuttle

**Adjacent to Airgas by WeatherTech
Tech GTP Inspection Tent**



January 19, 2023

DISCUSSION . . .

- Post Race Podium procedures – from Detroit.

IMSA WEATHERTECH SPORTSCAR CHAMPIONSHIP

THANK YOU

