

The 24 Hours of Davenport Presented by BSRT

FSMRA Official Preamble

To promote goodwill and sportsmanship through the friendly interaction and competition of 1/64th scale automobile racing (slot car racing). To pursue a cooperative friendly spirit, even through the heated passions of competition. To understand that there is as much grace in winning as there is in losing. To abide by the rules and to treat others and well as you would like yourself to be treated.

- 1) Have Fun!
- 2) You better have fun! ;)
- 3) No smoking inside the building. (PERIOD!) (See #4)
- 4) There is a dedicated area, outside, at the front & rear of the building for smoking.
- 5) No consumption of alcoholic beverages during regular business hours, when underage people are present or when there is officially sanctioned competition running. (PERIOD!).
- 6) No drugs or drug use will be tolerated. You will be asked to leave and/or the authorities contacted if this rule is violated. There will be no exceptions to this rule.
- 7) Abusive treatment of or conduct towards corner marshals and/or FSMRA personnel will also not be tolerated. See specifics below for details.
- 8) The Chief Steward/Race Director for each race has Bill France authority over all racers and personnel conducting or involved with the event.
- 9) The FSMRA organizers reserve the right to exclude individuals from the event for the good of the organization/series/event.

“Bill France” Rule:

By entering the event and paying the entry fee you agree that the Race Director/Chief Steward or his designee has authority over participants and personnel of that particular event. There is no committee, no vote, just “Bills” authority. The FSMRA organizers reserve the right to exclude individuals from the event for the good of the organization/series/event.

FSMRA Details:

What you get for your money and what to expect:

You can expect to get the following: Be treated fairly and with respect. Your concerns will be listened to and then responded to in return. You will have a safe environment to race in, a secure place to bring your family, friends and crew. That any event you participate in will be overseen fairly and without prejudice. That all competitors will be given the exact same treatment and that all participants will be able to concentrate on the race at hand instead of racing “politics”. You will have adequate pit space and fair track conditions.

Series Personnel:

24 HoD Directors: Michael Block/Dan Luna
Chief Stewards: Michael Block /Dan Luna or designee
Chief Technical Advisors: Gary Beadle, Steve Medanic
Track Consultant: Brad Bowman
Chief Technical Inspector: Director Designee
Chief Technical Consultant: Steve Medanic
IT Director: William Hemmer
More when they become available

Payment Entry Fees:

An Entry fee of \$50.00 USD is required from all racers. A minimum of 4 racers with a maximum of 7 racers are allowed per team. Entry fees must be paid in full before any team member may hook up a controller. A non-racing team member is one who is allowed to work on cars, marshal and perform team functions but is not a driver/racer. As always guests are free, but they can never touch a car or perform team duties.

Refund of Entry Fees:

Under no circumstances will there ever be a need to refund an entry fee.

Payouts/Prizes:

Assuming 8 teams are entered: Top Qualifying Team: \$200.00 USD, 1st Place Overall 24 Hours \$1250.00 USD, 2nd through 8th place (Gift certificates, Prizes)

If there are 12 teams entered: Top Qualifying Team: \$200.00 USD, 1st Place Overall 24 Hours \$1250.00 USD, 2nd Place \$500.00 USD, 3rd Place \$300.00 USD, 4th through 8th Place (Gift certificates, Prizes)

Event Dates:

August 20, 2004 - Official Event Practice & Qualifying

August 21, 2004 - Race Start 0900

August 22, 2004 - Race Finish & Awards Ceremony

Team Captains:

Captains are the voice of the entire team, its representative and spokesperson. It's their job to ensure that their marshalling areas are manned at all times during practice, qualifying and the race. Non-racers may marshal, but are under the instruction from their respective team captain. It is also the team captains' responsibility to ensure personnel are available at the relevant times. Team Captains are also responsible for scheduling the team's marshalling duties. There must be at least one member from every team marshalling every 15 min segment. Locations for marshals will rotate every hour, during the power off period.

Mandatory Driving Requirements:

Each entrant must drive at least two hours.

No entrant may drive more than six hours.

No entrant may drive more than 8 consecutive 15 minute heats.

Additional Driver Responsibilities:

If an entrant/driver removes his/her car before section numbers can be verified, a section number of 0 will be recorded. Drivers/Team members are responsible for marking track position; color coding their car, and making lane changes. Team Members/Racers are responsible for marking track position during lane change. Racers must stand clear of opponents' view of the track. Drivers cannot marshal cars. Drivers marshalling when driving may be penalized. One warning per race; penalty: loss of one lap for each instance. The driver is solely responsible for the legality of his car. All driving stints must be in increments of 15 minutes, if the driver needs a bathroom break (or whatever) before his 15 min are up the car will sit still on the track until the driver comes back. No substitute drivers allowed for this. No driver can race for more than 8 consecutive 15 min heats. And no one driver can drive more than 6 hours total.

Drivers Meetings:

Failure to attend any of the scheduled, mandatory drivers meetings will mean disqualification of that driver, without refund. There are currently 3 on the schedule.

Marshalling Expectations:

Drivers are not allowed to marshal (when driving). One warning per race; penalty: loss of one lap for each instance. Marshals must immediately give a car (and parts) in need of repair to the Scrutineer. Marshals may not repair the car no matter what the Driver instructs the Marshal to do. Marshals must not abandon marshalling duties to repair a car. Only marshals will be allowed to remove or place cars on track during a heat. Marshals finding cars unmarked or incorrectly marked will remove them from the track. It will then be the responsibility of the offending team to retrieve the car, mark it correctly and return it to the track at the point at which it was removed. During the “hour” change over (power off), the marshalling posts should be refreshed with a marshal from a new team. Teams should rotate clockwise around the track for marshalling purposes.

Delayed Marshalling:

Another way to self-inflict penalties is to be deemed, by FSMRA staff, “marshalling in an unfair or deliberately slow manner”. Although incidents happen that make it difficult to marshal in an expeditious manner, we need to be watchful of deliberate delaying techniques.

1st offense: Verbal Warning

2nd offense: Strong Verbal Warning

3rd offense: Loss of 1 Team Lap

4th offense: Loss of 5 Team Laps

5th offense: Entire Team Disqualified

Abuse of FSMRA Staff/Personnel/Marshals:

1st offense: Verbal warning

2nd offense: 5 Lap penalty – No Debate – See Bill France Rule

3rd offense: Automatic driver disqualification, entry fee will not be refunded. No Debate – See Bill France Rule

“Alcohol/Drugs”:

Any driver participating under the influence of alcohol or drugs will automatically be disqualified from that event and barred from the remainder of the event. No refunds will be given.

Track Calls:

Only the Race Director/Chief Steward or the designee has the authority to declare a track call.

FSMRA will guarantee that a RD or CS or the designee will be seated at the scoring computer on full time basis for each race/heat/event for the day.

Marshals and drivers may request a track call, but only the Race Director/Chief Steward or the designee can act on it. Track will not be called for multiple deslots in the same corner or area of the track or if the marshal is in the process of retrieving a car that is off of the table.

Justifiable reasons for a potential track call.

- 1) A car(s) has left the table surface under its own power and is deemed to be irretrievable in a reasonable amount of time.
- 2) A car(s) has deslotted and is blocking either timing strip.
- 3) A corner marshal cannot reach a deslotted car in a reasonable amount of time.
- 4) Damage to car from track marshal*
- 5) To issue an Abuse warning/penalty/disqualification.
- 6) To issue a black flag warning
- 7) Car(s) deslot on top of bridge or in underpass. (ROVAL)

Note: Damage to a car from normal deslotting is not a valid reason for a track call.. If your car(s) has sustained damage from a historic flight, caused by FSMRA or marshalling personnel, off the racing surface, you may be granted a minimum amount of time to inspect the car and/or repair the damage. If the car is not ready in that time, the race/heat will continue. You will, however, be able to rejoin the race after you have completed the repair. During this type of track call no work of any kind will be allowed on any other car. All other cars must remain on the track surface and in its appropriate slot. No exceptions will be allowed. ** If your car is marshaled to an improper lane due to being fitted with an improper color sticker, no track call will be granted. You snooze you lose.

Pit Violations

Only personal controllers, approved parts kits and tools are allowed in the pits.

24 Hours of Davenport Car Specifications:

- 1) The only car eligible to compete in this class is the BSRT G3. – (FSMRA)
- 2) The maximum width of any car is 1-5/16 inches (1.3125”).
- 3) The maximum allowable lateral movement of the front axle is 1/32 inch.
- 4) The body must be a replica of an actual car and must be painted. (TEAM)
- 5) Any body used must cover the chassis when viewed from above (except through legal openings).
- 6) The motor and traction magnets must be stock and made of a ceramic magnet material. The traction magnets must be stock polarity.
- 7) Armatures will be stock, narrow gap design, be a minimum of 6.1 ohms. BSRT's "Hot Stock" will also be available. (See note below) All motors & armatures will be supplied by FSMRA. All teams will be given a pool of 6 complete motors (4 stock, 2 hot). Each team must then choose their allotment of 4 motors (3 stock, 1 hot). The remaining motors must be returned to FSMRA before official racing/practice etc. can begin.
- 8) All electrical system parts must be stock or stock replacement. No shunts!
- 9) The chassis must be stock and cannot be modified in any way except for the following:
 - a) Add body mounts. Threaded body mounts from Wizzard or Quicker Engineering are strongly suggested. Stock G3 mounts are legal as well. Body mounts supplied by team.
 - b) The pickup tabs on the chassis may be reinforced and/or replaced.
 - c) The chassis will be modified to retain the rear axle. Rear Axle Retainers are required
 - d) The BSRT "Chassis Clip" may be used.
- 10) The stock front axle assembly must be replaced with a BSRT O-Ring Front End. BSRT P/N 315
- 11) Pro Guide Pin Required (FSMRA Supplied) Not yet final – probably hardened pins ok
- 12) The rear rims must be BSRT, or Hobby-Pros Double-Flanged Wheels. (0.350-0.375) (FSMRA)
- 13) The rear (spec) tires must be BSRT slip-on silicones. BSRT P/N 309, 391, 392, 393, 394 Supplied by FSMRA
- 14) Only Lexan 0.010 bodies allowed. Must be replica of LeMans/IMSA/ALMS racing body, the body may not be modified in any way except for the following: (see also #22)
 - a) The body must be painted.
 - b) The car must use Stock G3, Wizzard or Quicker Engineering threaded body mounts or tubes.
- 15) G3 Flanged Rear Bearing required. (FSMRA)
- 16) Gears – Open gears – All gears must be supplied by TEAM except the first set. No metal gears allowed. Any stock or stock replacement gears, rear axle may be used.
- 17) Magnets: All magnets must retain stock position and polarity.
- 18) Magnet Material: Ceramic (All) Traction magnets will be narrowed or notched.
- 19) Motors/Motor Brushes: (See Above)
- 20) Pro-Guide Pins (FSMRA) Currently in flux, pending testing.
- 21) Front Spec Tire/Axle: BSRT O-Ring Fronts (FSMRA)

22) Lexan bodies are required – Each team is allowed to bring a Maximum of 6 bodies to the event. These bodies need to resemble (in shape & design) an actual 1:1 race car that has or could race in the 24 hours of le mans. Paint schemes are at the discretion of the team. These bodies will be turned over to FSMRA to be handed out when requested by the team. Teams will be “black flagged” if the current running body is extensively damaged, interfering with a competitors lane or dragging on the track surface. If black flagged you have 1 full lap to pull your car into the pit straight and rectify the problem. A team that fails to comply with the black flag will be penalized 5 laps for every lap run. If the car deslots the marshals will be ordered to remove the car from the track surface and bring the car to race control.

23) All parts except those listed below in the team supplied parts section will be provided to each team for restricted practice, qualifying & the race. An X (final # TBD) number of parts will be in the race day kit – once you run out, you run out. Therefore, if the car stops running, that’s as far as you go.

24) Minimum number of teams allowed = 8 or 12. If there are 8 teams than only the ROVAL (long course configuration) will be used. If we do get 12 teams than both the ROVAL (long course) and Grand Champions would be used. (If there are 12 teams there will be only 2 rotations through each lane not 3)

Kit Content:

Complete Motors – Marked - 4

Chassis’ – Marked - 2

Front Bulkhead Marked - 2

Rear Tires – 1 Pack B Compound HOTT Tires

Rear Wheels - 3 Sets BSRT Double Flanged

Pickup Shoes – 12 pair

Pickup Springs – 6 sets

Pickup Hangers – 2 sets

Guide Pins – 3

Front Wheels – 2 sets

Front Tires/ Front Axle Assemblies – 2 Sets

Motor Magnets – Marked – 4

Notched Traction Magnets – Marked – 2 sets

Front Endbell (motor brush assembly) – marked – 6

Rear Flanged Bearing – 4

Team Supplied Parts:

Bodies - 6

Rear Axles - Unlimited

Gears (all) – Any combination – Unlimited – No metal gears allowed.

Body Mounts – Threaded body mounts from Wizzard or Quicker Engineering are Strongly SUGGESTED, Stock G3 mounts are ok - Unlimited.

Spacers – unlimited

Allowable tweaks, tunes, maintenance, adjustments and modifications:

Any, as long as you use authorized parts and do not compromise any other rules stated herein.

No matter what, all “tuning/maintenance” must be done under the watchful eye of a scrutineer.

Anyone caught performing unsupervised tuning or maintenance will get 1 warning before being disqualified. You must ask the race director for permission to perform unsupervised repairs. Marked parts provided in the kit must be used. Motors, chassis and magnets cannot be modified. Endbell tweaks are LEGAL. Shunt wires are NOT allowed. Otherwise any tweaks are allowed.

Illegal tweaks, tunes, maintenance, adjustments and modifications:

Anything not already specified

Tech Inspections:

Although hypothetically not required all 8 (12) cars will be tech'd after qualifying, during and after the race. Also all pit tables are OPEN pit tables. Tech inspectors/FSMRA authorized personnel may watch ANY work being done to the cars!!! During periods when the race is suspended (powered off) cars may be scrutineered at random by authorized personnel. Be prepared, your car will be checked at least three times during the event.

Permanent Impound:

Event kits/team boxes will be in permanent impound until the cars have to be built, and qualified. When the schedule calls for event cars to have track time these kits will be available for team use. Motors/armatures will be kept in impound until requested by team captain or his/her designee. All cars will be in impound when not on the track or under supervised repair.

EVENT Rules:

0) European Rotation

1) 1 hour segments

2) 3 hours per lane consisting of 3 rotations of each lane color. (Applies to 8 team event)

3) Minimum 4 drivers

4) Maximum 7 drivers

5) Each driver drives a minimum of 2 hours and maximum of 6 hours

6) Driver changes may occur only at the 15 minutes intervals (so no more than 4 drivers an hour)

7) Drivers must "sign in and out" so that proper stats can be compiled

8) Qualifying will be to establish track record and lane choice

9) During qualifying, cars are kept in impound and ALL drivers must qualify.

10) Only tires and pick-up shoes may be cleaned during qualifying

11) The top 4 fastest qualifying drivers' laps from each team will be totaled and the team with the quickest combined time will be on pole.

12) Qualifying is 4 laps per driver. 3 timed, 1 un-timed

13) The Limited number of armatures (motors) will be kept in impound when not in use.

14) If a team runs out of arms/motors. That's all folks.

15) Both chassis' will be marked.

16) If all team chassis' are broken beyond repair. That's all folks.

17) Motors are limited to specially tagged/marked motors provided in the kit.

18) Any hand controller may be used, as long as it does not add power to the track. The controller's red wire must be equipped with a 1 Amp fuse. This can either be directly connected (soldered) inline within the red wire OR it can be added, "clipped" on at the end of the existing red wire. – This modification will be checked and tech'd for.

Qualifying Procedures:

A) Random Order determined by draw

B) 4 laps, 3 timed 1 un-timed

C) All team cars must be presented to race control before qualifying can begin

D) All motors, ALL MOTORS, must be returned to race control. 1 should be in the car, 3 are spares

E) A designated team member from each team can work on the car during the official qualifying. All maintenance rules for the event still apply.

F. The fastest four laps of all teams' drivers will be the qualifying time for that team.

Race/Heat Restarts

Justifiable reasons for restart of race, heat or qualifying.

- A) Catastrophic power failure. Lights, computers or track has complete power failure.
- B) T&S Computer failure.
- C) Timing strip or reed switch failure.
- D) Drivers at incorrect drivers' stations at the start of a heat.

If a restart is called for, the cars will begin just behind the timing and scoring line.

Driver Changes:

Driver changes can only take place when the car is stationary on the main straight (Pit Straight) or removed from the track altogether. Driver changes can only be made during the down time between hour sessions or when the power is on at the 15, 30, & 45 minute intervals of the hour session.

24 HoD Race Procedure/Schedule

Friday August 20, 2004:

0900: FSMRA opens to event participants for the day. FSMRA will be closed to the public until noon. ROVAL closed until after drivers meeting. The ROVAL is closed to the public until after the event.

1000: 1st official drivers meeting signed attendance sheet required. Official Event Race Team Boxes are handed out to team captains. There will be a brief discussion of the contents, rules and procedures. Race Documents handed out to all teams/drivers. A signed receipt that you received the document package is required before you can qualify/race in the event. A signature from each driving/racing team member is required.

1130 to 1245: Welcome Lunch and get together

1245 to 1515: Unrestricted practice with (optional) team cars on the ROVAL. Power will be on for 15 minute intervals with ? min breaks in-between, if asked, please change lanes – otherwise you can stay where you are. ANYTIME you are running on the ROVAL an appropriate LANE STICKER must be on the car, even in unsupervised, unrelated, unofficial practice. PLEASE....

1515: Unrestricted Practice ends. ROVAL power is shut off Track is DRY wiped.

1515: 2nd Scheduled drivers meeting (very short)

1530 to 1715: Restricted Practice – Event Cars only allowed on track.

1715 to 1729: All Team Event Boxes returned to impound, except for the qualifying car for each team (Cars will be returned to Race Control). No Spares available during qualifying. Tires and pickups may be cleaned, that is all.

1730 until whenever it ends: All drivers will run a 3 timed lap qualifier; cars will start just behind the timing and scoring line, so they can have a full lap to warm up before timing starts. Each driver will determine his lane color for qualifying. Remember; an appropriate LANE STICKER must be used. (See qualifying details later in this document) After qualifying the cars must be returned to impound for the night. After the last competitor has qualified the cars will be returned to impound and the ROVAL will be turned on again for unrestricted practice until 2200.

2200: ROVAL shut off Dry wiped. The final qualifying positions and lane choices will have been posted earlier tonight. The team captain, from each team, must sign the official final qualifying times, along with an FSMRA official.

Saturday August 21, 2004:

0730: FSMRA opens to event participants for the day but will remain closed to the public until just before the race begins. The general public is welcome to spectate the entire event. All Tracks are closed except the ROVAL.

0800: The ROVAL is wiped down for the last time (Dry Wiped only)

0805: Event Boxes are now returned to Teams – less motors/armatures. Those will stay in impound until requested by team members. 3rd & Final Drivers meeting.

0815 to 0845: Practice/Warmup (Optional) Event Cars only

0845 to 0858: ROVAL Power is turned off – Cars to impound or scrutineering.

0858+: Cars to the Start Finish Line

Potential driver changes every 15 minute intervals – Power On Drivers changes except during lane changes. Maintenance, of any kind, performed on the car, must be under the direct supervision of a scrutineer and it must be performed when the power is on. When the power is off, for ANY REASON, no maintenance can be performed unless authorized by the race director.

0900: Race Starts – Power On
 0915, 0930, 0945 Potential Power On Drivers Changes
1000: Power off – lane change, potential driver change, no maintenance. (1)
1005: Power on Racing resumes.
 1020, 1035, 1050 Potential Power On Drivers Changes
1105: Power off – lane change, potential driver change, no maintenance. (2)
1110: Power on Racing resumes.
 1125, 1140, 1155 Potential Power On Drivers Changes
1210: Power off – lane change, potential driver change, no maintenance. (3)
1215: Power on Racing resumes.
 1230, 1245, 1300 Potential Power On Drivers Changes
1315: Power off – lane change, potential driver change, no maintenance. (4)
1320: Power on Racing resumes.
 1335, 1350, 1405 Potential Power On Drivers Changes
1420: Power off – lane change, potential driver change, no maintenance. (5)
1425: Power on Racing resumes.
 1440, 1455, 1510 Potential Power On Drivers Changes
1525: Power off – lane change, potential driver change, no maintenance. (6)
1530: Power on Racing resumes.
 1545, 1600, 1615 Potential Power On Drivers Changes
1630: Power off – lane change, potential driver change, no maintenance. (7)
1635: Power on Racing resumes.
 1650, 1705, 1720 Potential Power On Drivers Changes
1735: Power off – lane change, potential driver change, no maintenance. (8)
1740: Power on Racing resumes.
 1755, 1810, 1825 Potential Power On Drivers Changes
1840: Power off – lane change, potential driver change, no maintenance. (9)
1845: Power on Racing resumes.
 1900, 1915, 1930 Potential Power On Drivers Changes
1945: Power off – lane change, potential driver change, no maintenance. (10)
1950: Power on Racing resumes.
 2005, 2020, 2035 Potential Power On Drivers Changes
2050: Power off – lane change, potential driver change, no maintenance. (11)
2055: Power on Racing resumes.
 2110, 2125, 2140 Potential Power On Drivers Changes
2155: Power off – lane change, potential driver change, no maintenance. (12)
2200: Power on Racing resumes.
 2215, 2230, 2245 Potential Power On Drivers Changes
2300: Power off – lane change, potential driver change, no maintenance. (13)
2305: Power on Racing resumes.
 2320, 2335, 2350 Potential Power On Drivers Changes

Sunday August 22, 2004:

0005: Power off – lane change, potential driver change, no maintenance. (14)

0010: Power on Racing resumes.

0025, 0040, 0055 Potential Power On Drivers Changes

0110: Power off – lane change, potential driver change, no maintenance. (15)

0115: Power on Racing resumes.

0130, 0145, 0200 Potential Power On Drivers Changes

0215: Power off – lane change, potential driver change, no maintenance. (16)

0220: Power on Racing resumes.

0235, 0250, 0305 Potential Power On Drivers Changes

0320: Power off – lane change, potential driver change, no maintenance. (17)

0325: Power on Racing resumes.

0340, 0355, 0410 Potential Power On Drivers Changes

0425: Power off – lane change, potential driver change, no maintenance. (18)

0430: Power on Racing resumes.

0445, 0500, 0515 Potential Power On Drivers Changes

0530: Power off – lane change, potential driver change, no maintenance. (19)

0535: Power on Racing resumes.

0550, 0605, 0620 Potential Power On Drivers Changes

0635: Power off – lane change, potential driver change, no maintenance. (20)

0640: Power on Racing resumes.

0655, 0710, 0725 Potential Power On Drivers Changes

0740: Power off – lane change, potential driver change, no maintenance. (21)

0745: Power on Racing resumes.

0800, 0815, 0830 Potential Power On Drivers Changes

0845: Power off – lane change, potential driver change, no maintenance. (22)

0850: Power on Racing resumes.

0905, 0920, 0935 Potential Power On Drivers Changes

0950: Power off – lane change, potential driver change, no maintenance. (23)

0955: Power on Racing resumes.

1010, 1025, 1040 Potential Power On Drivers Changes

1055: Power off, Race Over (24)

1055+ Sections recorded, Scoring Tabulated, Final Tech, Results

(All team/event/parts/car kits to be returned to FSMRA)

1130 to 1300: Awards Ceremony & Luncheon

1300 to 1700: Thanks for racing at FSMRA

Additional Misc Information:

Scoring & Timing Procedures

Besides our computers handling the scoring, all laps will be recorded every 15 min into an excel spreadsheet. There will be a duplicate computer system scoring from a different set of reed switches. (This will be used for emergency backup only and only if the main system fails and only for scoring on the ROVAL) It will also be used for verification purposes.

Riders:

Due to the location of the timing strip(s) riders that effect lap count should be rare. In the event that a rider can be independently verified by a marshal, track official or member of a different team, the lap count will be adjusted. Otherwise no confirmation, no change in lap count. Lap count corrections for riders will only be to add a lap to the appropriate lane.

Tie Breakers

In the event of a qualifying tie, the next fastest lap (by the team) will break the tie. In the event of a tie at the end of the 24 hours, the team with the most sections wins. If there is a tie for sections and it cannot be resolved by the human eye (damn unlikely), the race will be considered a draw. There will be two winners and we will have to contact Guinness on this one!

Track/Lap Records

- Fastest Single Qualifying Lap
- Fastest Individual Qualifier (3 laps)
- Fastest Team Qualifier (Combined 4 laps)
- Fastest Race Lap
- Farthest Race Segment (15 min)
- Farthest Race Hour (Individual & Team)
- Obviously Farthest 24 hours (Da Winner)