

# 2020 WINGLESS PROCEDURE BOOK

### SPIRIT OF THE RULE

Although every effort has been directed towards complete, understandable, and correct rules, Wilmot can't possibly anticipate every situation, circumstance, or interpretation. With this in mind, we must refer to the SPIRIT OF THE RULE. Spirit of the Rule means very simply, the intent of every rule and classification. Additional adjustments, alterations, modifications, and/or replacements not covered by written rules should NOT be assumed to be legal under the SPIRIT OF THE RULE. SPIRIT OF THE RULE will be the final criteria by which rules will be interpreted and enforced.

### RULE BOOK DISCLAIMER

The rules and/or regulations set forth herein are designed to provide for orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events, a ll participants are deemed to have complied with these rules. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR A COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official.

The IRA shall be empowered to permit minor deviation from any of the specifications herein or impose any further restrictions that in their opinion does not alter the minimum acceptable requirements. NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS.

Any interpretation or deviation of these rules is left to the discretion of the IRA Officials.

### **ENGINES**

**Option 1.:** Recommended engine for this class is a GM sealed #19318604 or #88958604 crate engine, commonly known as a GM604. Engine CANNOT be modified or have the design integrity of the 604 altered. We do allow these engines to be freshened, though any replacement parts must be OEM GM604 or approved OEM replacements. Excessive machining and/or milling is not allowed. We will use any option available to us to tech these engines for compliance, including but not limited to, a cubic inch pump, whistler, etc. Failure to cooperate with the tech process will result in an automatic disqualification. Maximum compression 10.1:1 with no additional tolerance. Any 604 which "whistles" more than 10.1:1 based on our Whistler testing will be considered illegal and disqualified.

Engine will have a maximum RPM of 6700. Engines may have cam drilled for rear drives. Maximum 1½" car spacer. A 1" or #12AN size inspection plug is required on the oil pan (failure to do so will be require pan removal upon request).

Below is a parts list for the conversion to a sprint car application. These part numbers were supplied by Lane Automotive/Motor State. They, as well as Behling, Don's, Paddock Lake Bumper to Bumper, and R&H are all series sponsors also Lane dealers. Gandrud Chevrolet in Green Bay is the Official Chevrolet Performance Parts dealer of the WI wingless Sprints.

SCH1052LVCM-3 Schoenfeld Headers (this is only header that fits the 604) - unaltered, no merge collectors.

QFTQ-750-CTA Quick Fuel 750 cfm alcohol carb (or)

QTFQ-650-CTA Quick Fuel 650 cfm alcohol carb

JRP1004-S-CE Jones Serpentine Drive Kit

SWE305-80830 SWEET power steering pump

ALL31105 AllStar water pump

PRC9351 7-1/2 psi mech fuel pump

ALL81200 AllStar GM HEI Distributor w/cap

ALL27503 AllStar dist hold down

TRA2310 fuel pump mount plate

FEL1900 FelPro Holley carb gasket

FEL1901FelPro 1" carb plate gasket

ARP200-2402 carb stud kit

NGKR5724-8 spark plugs (race)

HVHSS4150-1ALW 1" alum lightweight super sucker carb spacer

Crate innovations CH-21115 Hub & slip yoke (PREFERRED) or

BER372-NC-EXT Bert External Drive Kit (BEWARE, check fit)

**Option2.:** Wilmot Spec Engine (build your engine). This engine will be chipped at 6800 RPM's and the maximum HP is 450.

### Block:

- A) Any Chevrolet 305, 307, 327, or 350 Cl stock iron block that was available in a passenger car or truck. Max overbore .060"
- B) No interchange of crankshafts or rods to blocks allowed.
- C) Absolutely no lightening of any kind. All mounts must remain, fuel pump, motor etc.
- D) Factory 2 or 4 bolt main blocks ONLY (can NOT alter a 2 bolt block to a 4 bolt block). No splade caps.

### Crankshaft:

- A) Any stock GM production crankshaft allowed. The following Scat 9000 Series crankshafts are allowed: Chevrolet 350 - Scat (Part # 9-10442)
- B) Stroke must match block.
- C) No lightening or polishing allowed. Balancing is allowed.
- D) Crankshaft flange may be machined to fit rear motor plate and torque ball housing.

### Rods:

- A) Any stock steel production rod. Scat OEM replacement I-beam rod #35700 or Eagle OEM I=beam rod #5700BBLW allowed
- B) Rod length must match block. Chevy 5.7" length powdered metal rods allowed.
- C) No grinding or polishing allowed. Balancing allowed.
- D) No cap screws allowed. Max 3/8" bolts.

### **Pistons:**

- A) Any forged aluminum piston allowed.
- B) Engines must not exceed 9.5:1 compression ratio.

### Camshaft:

- A) Hydraulic cam and lifters only.
- B) Lifters must collapse .100" min.
- C) Only lifters of engine make can be used
- D) Lifters must rotate freely and be of magnetic material.
- E) Timing chain only, no belt driven or gear drives allowed.
- F) Cam may be drilled for rear spud.

### **Cylinder Heads:**

- A) Stock cast iron production cylinder heads only. No aftermarket heads allowed. Except GM EQ heads.
- B) Chevrolet 1987-1995 Swirl port heads are allowed.
- C) No Vortex, Bowtie, SVO, W-2, Magnum, Gen II, or angle plug heads allowed.
- D) The following Chevrolet casting numbers are not allowed. 040, 041, 186, 187, 291, 370, 414, 432, 461, 461X, 462, 492, 1012532, 10208890, 10239906,12554290, 14011083, or 14096217.
- E) Porting or polishing of any kind is not allowed
- F) No angle milling, only standard reconditioning allowed
- G) Carbide cutter relief cuts allowed below the valve seat but not to exceed more than X inch below the top of the valve seat.
- H) Valve spring diameter can only be stock production.
- Steel stock type stamped rocker arms, roller or roller tipped rocker arms are allowed.
- J) Stud girdles are not allowed.

### **Intake Manifolds:**

- A) All engines must use the following intake manifold part numbers. Edelbrock (Part #2701) Weiand (Part# 7546, 7467, or 7547-1).
- B) HVHSS4150-1ALW 1" alum lightweight super sucker carb spacer
- C) Porting, polishing, gasket matching of any kind is not allowed.
- D) Bottom of carburetor may be no more than 1-3/8 inches from top of manifold.

### Oiling System:

- A) Wet sump only, oil pump must be in oil pan.
- B) Pan inspection plug is required, located so crankshaft & rods are visible with bore scope. 1" pipe or #12 AN size on plug. Removing the pan may be required if further inspection is necessary.

### **Exhaust:**

- A) Header tube: 1 5/8 inch maximum outside diameter on the primary tubes,+ or .030.
- B) One collector per side. No merge collectors.
- C) Pan Evac Systems are permitted.

### Water Pump & Radiator:

- A) Any stock type water pump allowed.
- B) Radiator must be in front of engine.

### Option 3.: Grandfathered MSA 360

There are four non 604 or build your own engines that were allowed to race in this class in 2015 . These engines have been grand fathered into the class. These engines must run a quick fuel Q-500- CTA 2 barrel carb. If any of these four engines have a major engine failure, they will not be allowed to be repaired and return to competition in this class, and 2020 will be the last season they will be allowed..

### **Engine Penalties:**

Any engine components in any engine combination that are found to be illegal, modified, or altered to where they do not conform to the rules will result in ALL money and points for that event forfeited and both car and driver may be suspended for indefinite period. This class is based on a economical crate engine program that does not require any internal changes. We take this serious.

### **Engine Protest:**

Engine protest fee is \$450 and must be paid to designated race director no more than 15 minutes after the completion of feature. If an engine is protested, the money won by that car that night will be held until test results are completed. If engine is found legal, the protester forfeits his \$450 protest fee, and the engine owner then receives his winnings plus \$100 for inconvenience. If engine is found illegal, the protest fee is returned to protester and winnings from illegal (engine) car from that night will will be used to pay tear down fee. The illegal engine will be marked & tagged illegal and not allowed to compete until repaired, retested and approved.

All engine protest, tear down will be performed by approved IRA facility, determined at the time of protest.

### **General Rules for ALL Cars:**

Oil pans: must have 1" or 12 AN inspection plug

### Carburetor:

- A) A minimum of two (2) return springs must be connected to throttle.
- B) Must have toe strap on throttle pedal.
- C) QFTQ-750-CTA 750 cfm (OR) QFTQ-650-CTA 650 cfm Quick Fuel Alcohol carb. <u>Base</u> plate of carburetor must remain unaltered. (2019, carb must remain unaltered)
- 1.5" max carb spacing. This will include the linkage plate if used.
- D) QFTQ-750-CTA Quick Fuel 750 cfm alcohol carb or QFTQ-650-CTA Quick Fuel 650 cfm alcohol carb are the only 2 legal carbs for the 604. The carb must be unaltered in regards to base plates, venturies, boosters, and metering blocks as they will be checked. Changing of jets, power valves, air bleeds, accelerator pumps, and squirters is permitted.
- E) Tip over check valves for vent tubes is strongly recommended.

### **Fuel Pump:**

- A) A mechanical, belt driven, or cam driven fuel pump is allowed. Cam driven recommended.
- B) No Electric fuel pumps allowed.

### **Electronics:**

- 1. 2-way communication devise in or attached to the race vehicle or on the driver's person will not be permitted.
- 2. Cellular, satellite and/or Wi-Fi devices in or attached to the race vehicle or the driver's person will not be permitted (including cell phones or smart watches).
- 3. Antennas will not be permitted in or attached to the race vehicle or carried by the driver.
- 4. All forms of a vehicle position system (GPS) will not be permitted.
- 5. Only approved lap timing and or lap time recording devices (transponders) will be permitted.
- 6. Gauges to monitor engine conditions are permitted at the discretion of The IRA officials.
- 7. All Electric gauges whether analog or digital, except tachometers, will only be permitted to have one (1) input from the respective gauge sensor. Outputs from the gauges will not be permitted. Tachometers will be permitted to record engine RPM for recall.
- 8. Electronic Dash Modules will not be allowed.
- 9. All additional wiring harnesses related to electronic dash modules or any other type of data acquisition must be completely removed from the race vehicle during an event.

### **Ignition System:**

- A) GM HEI Distributor.
- B) Internal coil vertex magneto.
- C) No electronic monitoring devices capable of storing or transmitting information except tach
- D) No electronic traction control devices.
- E) No MSD type Mags allowed.
- F) Mandatory MSD soft touch rev limiter box P/N 8728 or P/N 8727CT.
- G) ETC 9 volt rev limiter for magneto engines.

**Fuel:** Methanol (or Ethanol) based fuel only. No performance enhancing additives allowed. Fuel can be checked at any time. Fuel Bladders are mandatory. No carbon fiber or composite material shells allowed. IRA reserves the right to send samples out for more comprehensive testing if deemed necessary. If illegal, penalty will result in disqualification and forfeiture of points and money earned.

**Tires:** Hoosier 4 corner rule, 16" H15, H20, or Med RR. 15" H12, H15, SC98, SC100 LR. No preps or softeners. Cars will not be allowed to race with flat LR, RR, RF. (or LF if off the bead).

**Wheels:** Aluminum or steel only. Max width is 18" RR, 15" LR. Wheel covers must use steel fasteners only. Mechanical bleeders only. Electronic bleeders are not allowed. Wheel covers with 3 attachment points must use 5/16" flanged steel bolts and approved fastening system 5 point attachment wheel covers may use the conventional dzus system. Dzus fasteners must be steel only.

Cars: Must resemble traditional sprint car design. Anything different (including body panels, bum- pers, nerfs,etc) must meet pre-approval from IRA officials prior to competition, or risk disqualification. Any car deemed unsafe by IRA officials will be denied competition at any time, including attempting to re-enter the track from the work area.

Chassis: Roll cage must be of 4 post design . Wheel base no less than 83" and no more than 90". No less than 39" set back on motor. No elliptical tubing used on or as part of main structure. The following measurements are minimum suggested material: 4130 normalized. Top Rails: 1Y, x .095, Bottom Rails: 1 3/8 x .095 or 1Y, x .083. Roll Cage Uprights: 13/8 x .083, Roll Cage Top Cross Member: 1Y, x .095.

Upper Rails: 13/8 x .083, Rear End Safety Bar (mandatory): 1x .083 or 1Y. x .065 Brace.

1.) Beginning in 2019 all chassis will be required to have additional bars installed to support and decrease the span between the front and rear uprights in the drivers area. The new support bars must be in addition to the front and rear uprights. Any attempts to manipulate the front and rear uprights to conform to these measurements will not be allowed at the discretion of officials. These additional bars will be minimum 1.375 x .083 ASTM4130 normalized steel or equivalent material. Left and right side support bars may be one of the three designs below. Left and right side support bars do not have to be of the same design.

Left and right side support bars may be one of the three options:

- 1. Support bar may be designed similar to what was known as a "safety bar". It must be attached to the top rail at a point 15" to 20" from the rear of the front upright. It must attach to the hip rail and have a gusset attached to the rear upright near a point opposite of the rear brace/shock mount bar. The curve must be between 4" and 7" measured from outside of the rear upright tube to the outside of the support bar. See diagram.
- 2. Existing chassis with a left side support bar installed (formerly called safety bar) that do not meet the option one specification above, may add a gusset that attaches to the top rail 15" to 20" from the rear of the front upright and angle to the support bar. The existing support bar tubing must meet the minimum as described above (1.375 X .083 ASTM4130 normalized steel or equivalent material). See diagram.
- 3. A support bar may be added to the top rail at a point 15" to 20" from the rear of the front upright and to the rear upright near a point of the rear brace/shock mount bar but no higher than 7" above the hip rail. This bar may have a slight curve near the rear upright to accommodate elbow room and ease of fitment. See diagram.

4. Slip-tubing is not allowed in the chassis construction. Any existing slip-tubing must be replaced or welded. Clamped or bolted slip tube joints will no longer be allowed.

**Weight Rules:** Cars must weigh a minimum of 1500 lbs, including the driver. Cars can be weighed at any time. If a car fails to meet that requirement it will be considered last in that specific event with no further penalty. A car can cross the scales no more than twice to determine weight, unless requested by IRA Official. Bolt on weight OR additional ballast is not be allowed.

**Brakes:** All cars must be equipped with the minimum of 2 brakes, one front and one rear. Only steel, aluminum, titanium, or carbon fiber brake rotors allowed. Cars knowingly without working brakes will not be allowed to race, or resume racing.

**Shocks:** No cockpit adjustable shocks.

**Mufflers:** Wilmot wingless class does not require mufflers. If teams choose to run mufflers they must use Schoenfeld adaptor 3530 & muffler 14272735-78 or 112535. Mufflers need to be welded, thru bolted, or attached by approved clamp system (King). Loss of muffler will result in a black flag or disqualification (to last place) for that event.

**Front Axle:** Steel only. Minimum sizes 2" x .156, 2 ½". x .120, 2 3/8" x .095. 2 ½" x .095" Note, front axle tether systems not be required (in 2018 at time of printing this book), though are HIGHLY SUGGESTED and likely in the near future.

**LF Radius Rod:** Must be 4130 steel with steel rod ends, 1 1/8" alum is approved option.

**Drag Link:** Drag links must be tethered to the frame. Captured steel heim ends and a 1" diameter steel construction with .058 sidewalls are suggested for drag links and tie rods.

**Drivelines:** Drivelines must be completely enclosed and must utilize a torque tube and/or strap restraint. Carbon fiber torque tubes are legal. Wilmot STRONGLY urges the use of a driveline containment system. Driveline u-joint scatter shields, steel torque ball housings minimum .120 thick and/or torque ball u-joint containment blankets are again STRONGLY encouraged and suggested.

Floor Pan: Steel or aluminum only. Wedges and/or foils underneath the race car will not be permitted.

Torsion Bars & Stops: No cockpit adjustability. Stop & arm locks are required on front.

**Bumpers & Nerfs:** All rear bumpers must be steel, minimum 1" diameter and minimum .065 thick. The front bumper must not extend more than 8" from the frame and/or the measurement from the center of the front axle to the front bumper must not exceed 23,". NOTE, anything designed beyond "chassis mfg normal" must be pre-approved prior to competition.

**Body Side Panel:** Right side panel must have a minimum opening of 8" x 20". Maximum distance from the frame is 7". Radius rod protectors are permitted, the maximum protector vertical opening will be 10" in height by 24" long and it must NOT extend more than 3" from the outside edge of the bottom frame rails. A 11/2" wide by 20" long exhaust fume deflector, located on the bottom side-body panel at the rear edge will be permitted. The turnout angle must not exceed 90 degrees. Elbow room alterations must be limited to the area between the roll cage and not be designed to trap or deflect air in order to gain a competitive advantage. All other side paneling must be fabricated flat and must not extend past the outside edge of the frame rails

more than the thick- ness of the paneling material. We suggest any panel, hood, radius rod protectors, fume deflectors, etc. beyond the normal appearance be pre approved by IRA. <u>Car number also needs to be displayed on right side triangle panel.</u>

**Seats:** FIA and/or SFI rating STRONGLY RECOMMENDED. Seat mounting to be done per manufacturer's recommendations. All seats are STRONGLY SUGGESTED to meet SFI 39.2 specifications. The driver's left side headrest must extend at least 4" forward from the back of the head- rest (where the helmet contacts the back of the headrest). All areas surrounding the head should have padding.

**Head & Neck Restraint Systems: Mandatory. D**evices should meet SFI specs, and be installed per manufacturer's instructions. A devise meeting SFI 38.1 is recommended.

**Seat Belts:** Each car will be equipped with a minimum of an SFI 16.5 or SFI 16.1 approved restraint system, and be within the 2 year expiration date from manufacturer. Seat belt restraint systems shall be installed and used in accordance with manufacturer's instructions. Seat belt material should not be allowed to come in contact with any sharp or metal edge, including when the belt passes through the seat.

**Driving Suit:** The driver's suit should be constructed of multi-layered fire retardant material of SFI rating 3 .2A/5 or above. Fire retardant gloves and shoes are mandatory. Nomex (or equivalent) underwear, socks, head sock and/or head skirt are also STRONGLY RECOMMENDED. Arm restraints are also STRONGLY RECOMMENDED, as are knee pads and/or protection around or near steering box.

**Helmets:** All drivers ARE REQUIRED to wear a full face helmet with a minimum safety rating of FIA 8860-2010, Snell SA 2010, SA2015, or better. Snell SAH 2010 and/or valid SFI 31,1/2005/2010 label.

RockScreens: STRONGLY SUGGESTED AND RECOMMENDED

### OTHER SAFETY RECCOMENDATIONS:

- -No sharp or protruding edges around cockpit.
- -A clearly marked electrical engine shut off switch within reach of the driver.
- -A clearly marked fuel shut off valve within reach of the driver.
- -Only SFI flame retardant seat, roll bar, knee, and steering padding.
- -A Eject (trademark)helmet removal system installed by mfg instructions.
- -All teams should have an equally accessible FFF fire extinguisher at the back of each trailer.

**RaceCeiver Radio:** A WORKING RaceCeiver style Radio is mandatory, channel 454.000 unless another frequency (channel 1561 is 2<sup>nd</sup> option) is required for that event. Failing to have a working radio, or disobeying a IRA Official's voice command can lead to disqualification and forfeiture of money earned.

- NO MIRRORS, radios (other than RaceCeiver) or communication equipment allowed.
- No hollow or drilled out bolts

CONDUCT: While we understand that auto racing is a highly emotional sport, we understand that good sportsmanship is the cornerstone of any race program. This must include respect for all participants, IRA officials, track ownership & staff, push truck & wrecker crews. fans, and sponsors. While we understand the emotion, IRA will not tolerate public displays of poor sportsmanship, stopping your race car on the track to dispute a call or scoring placement, fighting, harassment, or verbal abuse. Threatening or obscene gestures and/ or language aimed at an official or competitor, rough driving, fighting, pushing or assaulting an official, or destroying IRA property may result in disqualification, forfeiture of money, fine, banishment from premises, and suspension. In case of suspension, if a number of race dates are handed out, rain-outs do not count. If money has been paid prior to an infraction of any kind and a penalty assessed, the money MUST BE returned to Wilmot prior to any further competition at the raceway. Drivers and owners are responsible for the actions of their crews. Entering another racer's pit stall in an aggressive manner is already a fault and in situations where problems escalate because of it will have that taken into consideration, thus stay out of other competitor's pit stalls. It should be noted that team members whose car is not on the scales, or in the work area .... HAVE NO BUSINESS BEING IN THOSE AREAS! In closing, sportsmanship does not just pertain to activities at the track. Social media is included Remember what you say, or type, has meaning and what you do has consequences, so please think before you lash out.

- No alcohol, or illegal drugs may be consumed by a driver before or during an event. We reserve the right to have the track medical staff determine if a driver, who we may suspect of doing either, be fit for competition. We reserve the right to test anyone, whether randomly or by our choice, at any time. Refusal to do will result in DQ.
- Parents are responsible for their minor children's actions and safety whom they sign a release for to gain entry to the pit area. The pit area is considered a restricted area.
- Drivers must remain with their car, until instructed otherwise by IRA officials or safety crew during any red or yellow they are involved in. Penalty may result if failure to do so.

### **PROCEDURES**

### 1. PACKING

This is the responsibility of ALL cars to participate equally. Failure to do so may result in a penalty.

### 2. ONE PUSH-OFF PER RACE

You are allowed only one push-off prior to the start, or restart of any race. If you require a second push-off you will go to the tail. **However**, If prior to starter giving 1 lap to the green signal, on a red flag restart, if a car stops in front of a specific **INFIELD IRA TRACK OFFICIAL** (not work area) for a safety issue, such as seat belts, and the driver can fix problem in a timely manner himself (without getting out of the car), he will be given his spot back.

3. QUALIFYING: IF time trials will be done during hot laps in most cases. Cars MUST hot lap in their respective group in which they have drawn. It is teams responsibility to make sure transponders are charged and mounted. If a car fails to get a time or misses their session, those cars will be assigned a heat at placed at the rear.

Note: If qualifying is not held, the IRA passing point system will be utilized. See diagram. B would start straight up by heat points. A would still have top 10 redraw formula, then straight up by points. B cars would tag.

### 4. HEATS

Heats are lined up based on qualifying times, inverting four. Number of cars designated for transfer will be based on car count and determined at Driver's Meeting. IF passing points are utilized, a specific number of cars will transfer overall thru the heats.

**4B.** Cars which finish in a transfer position, but have a scale infraction, will be sent to B-Main transfer with nobody moving up. An extra B-Main transfer will be added.

### 5. B-MAIN

The B-Main consists of cars which failed to transfer through their heats. The front row consists of of the fastest two non-transfer cars through qualifying, followed by heat finishers by time. If no B is run, the line up which would have been the B, will tag the A transfers. If passing points are used, the cars would line straight up per points.

**5B.** Based on qualifying, if twin B's, pole in each is fastest qualifying non-transfer, then same as single B but every other car.

### 5C, C-MAIN

Same as B. If qualifying, Fastest two qualifiers not in B are the front row, followed by heat finish by time. If passing points it's based on heat points.

### 6. A-MAIN

Based on qualifying, the first five rows (based on 4 heats) will be the heat winners and the next six top qualifiers that transferred through their heat. Those ten cars will redraw for starting position. This will determine the invert for the top 5 rows, based on IRA redraw formula. The rest of the field will be the remaining transfer cars based on heat finishing position, then by the time per finishing position. B-Main transfers tag the field based on B-Main finish. See diagram.

If passing points, the top 10 in points following the heat will be a single redraw, top point car would draw a pill, 2-5 rows.

### 7. LINE-UPS

Heat line-ups are made by taking the fastest 4 cars per heat and inverting them. For example: if 4 heats are being run, the fastest qualifiers make the heat race inversion with the fast qualifier designated for second row outside of the FIRST heat, second fast to start second row outside SECOND heat, etc. Using this scenario, cars timing in 17th on back will be added to the heats beginning with 17th fast starting the first heat third row inside,18th quick third row inside second heat, etc.

Changes in event line-ups will be handled in this manner. If a car scratches before the race is pushed off (not started, but pushed off), a new line-up will be made. If a car fails to answer the call for a race for which it is scheduled and the other cars in that race have been pushed off, the line-up change will be handled in this manner. If the car which is absent was to start on the inside of a row, the inside row only moves straight up filling the vacancy left by the scratched car.

If the initial green for a race is waved and an incident occurs which brings a yellow or red, the inside and outside rows move straight up to fill the vacancies left by missing cars. If following a multi-car first lap melee, an inproportionate number (more than 2) inside vs outside, a new line-up can be made to re-align field.

### 8. ALTERNATES

The alternate for the A-Main only will be pushed off with the A-Main field and will participate in the parade laps at the back of the field. If all A-Main cars answer the call and are pushed off and running, the flagman will wave off the alternate one lap prior to the one lap to the green signal. If someone fails to get started for the A, the rows would move up to fill the vacancy and the alternate would start on the last row, either inside or outside, depending where the scratched car was to start. The scratched car will not receive A-Main points or money, actually swapping B-Main points with the alternate.

Once the initial green is waved, even if a lap is not completed, the field will be deemed complete, and no alternate will be added to replace damaged cars.

Note: There will be an alternate for the A-Main ONLY.

### 9. STARTS

Pole car sets the pace, must be constant from turn 3. The leaders will bring the field to a designated spot (cone, white line, etc.) exiting the fourth turn on the track at a moderate pace SIDE BY SIDE, rest of the field NOSE TO TAIL. When this spot is reached, the leaders must accelerate, the remainder of the field may also accelerate at this time. Do not pass the pace car without being told to do so while lining up.

### 10. SCORING

The entire field has to complete a lap before a single file restart occurs. IRA utilizes "split yellow" scoring. When a yellow or red flag is waved, scoring terminates. However, that lap will count and cars that were scored will be lined up as such, providing two or more cars have crossed the line with the remainder of field being lined up according to previous lap scored. Cars involved in an incident will tag the field. On restarts, the entire field must cross the line before the lap will count. IRA uses RaceCeiver radios and teams are expected to use them for directions regarding position from the tower, a penalty can be issued for failure to use a radio.

### 11. LUCKY DOG/LAPPED CARS

This will be used in the A-main only. All cars 1 lap down when a yellow, or red comes out will be allowed to move to the tail of the field and get their lap back. Unless within last 5 laps of the race, lapped cars will be put to the tail all race, though will not get lap back last 5 laps of race. Cars more than 1 lap down, move behind Lucky Dog cars and do not get lap back. This rule holds true for A-mains only. IRA reserves the right in heats and/or B-mains to move a "slow" moving lapped car(s) to the tail on restarts, that car would remain lapped.

### 12. LINING UP FOR SINGLE FILERESTARTS

When the yellow flag is waved, pull up to the car directly in front of you, whether it be lapped or not, and form a single file line, nose to tail. GET SINGLE FILE! Once the scorers have the line up we will move lapped cars to the tail. Cars on the lead lap that were involved will restart IN FRONT OF Lucky Dog cars. Cars 2 laps down or more will tag the tail behind Lucky Dog cars. This scenario holds true until the last 5 laps. If a yellow or red waves in the last 5 laps, there is No Lucky Dog, however lapped cars still move behind all lead lap cars, except for those involved in incident, those cars restart on the tail and remain on whatever lap they were on, lead lap or otherwise.

### 13. RESTARTS

The IRA uses a restart cone on the front-chute, the leader can pick up throttle anywhere he chooses between the 3-4 apex (not in 3) and the initial start chalkline/cone near turn 4. The leader sets the line and everyone needs to follow that line (within reason) approaching the cone. All cars need to go single file on the outside of the cone before passing cars. Anyone knocking the cone down, going inside the cone, or passing before the cone will be penalized 2 positions for the infraction and/or 2 positions for every car passed by doing so in cases where a YELLOW ISN'T THROWN AT TIME OF PENALTY, the penalty is then assessed at next race stoppage, or conclusion if no prior stoppage. Being side by side at the cone, even though not truly passing for position CAN be ruled a pass (jump). Cars are to be nose to tail until passed thru the cone.

### 14. JUMPING STARTS

On the races initial start, if the front row can't work together and get an even start at the specified starting area, one or both offenders will be penalized.

If a car further back gets out of line, not nose to tail, prior to the front row accelerating, it can be considered a jump. A 2 car penalty will be assessed upon an immediate yellow for the infraction, or a 2 per car jumped penalty will be assessed at either next race stoppage or conclusion, whichever comes first.

### 15. 360 SPIN RULE

IRA frowns upon 360 spins, particularly in traffic. IF A IRA OFFICIAL BELIEVES THE SITUATION TO BE UNSAFE or hinders other cars, a yellow will be called and the car performing the 360 will be put to the rear. The 360 car can also be considered involved if its' 360 caused an incident that forced a yellow. IF A IRA OFFICIAL DOES NOT BELIEVE THE SPIN TO BE EITHER UNSAFE OR A HINDERANCE TO OTHERS, NO YELLOW WILL BE CALLED. Yes this is a discretionary "gray" area, though IRA will do its best to be consistent in how these are called. There is no perfect scenario.

### 16. TWO YELLOW RULE

Any driver who causes two yellows in any race (unassisted) will disqualify himself from the remainder of that particular race. The car will be brought to the pit area and not restarted. Assisted is any incident in which more than one car needs to be repushed, or any single car which spun due to obvious contact from another. Additionally no car can be involved in any more than three race stopping incidents of any combination, assisted or unassisted, and be restarted in any one race.

### 17. WORK AREA

Two minutes in the specific designated work area will be granted to any car causing or being involved in a race stopping incident, When Possible. However the work area will be closed after halfway of any heat, and after 30 minutes (without refueling opportunity) in any A, and additionally in situations involving curfew, time, etc.. The two minute clock starts when the car, or last car in multiple car incident, arrives in the work area. The work must be completed within the two minutes AND appear safe for restarting in the opinion of IRA work area official. Any car returning to a race from the work area which purposely causes its' own yellow in hopes of returning to the work area to further repair car will be not be allowed to restart. Fuel may not be added during a work area yellow or closed red. If the work area clock has been started, and another car should then enter the work area, that additional car(s) will not be given two minutes of its' own, but only be granted the remaining clock time of the original work area car as it is not that car's yellow. There is no work area clock prior to the initial start of any race, cars must be ready to start race when tower and flagman are ready.

**IRA RESERVES THE RIGHT TO CHANGE WORK AREA ELIGIBILITY,** (possibly only allowing cars with flat tires or that were involved in a contact incident to enter), with advance warning prior to any race.

### 18. BEHIND THE PIT WALL

A car can go into the pits for repairs during a red flag stop, however, it must be back on the track prior to the 1 to the green restart flag, and start on the tail. A car can rejoin a race after another green flag has been thrown, only if another yellow or red occurs and another lap has yet to be scored.

### 19. INCOMPLETED RACE

In an event where the feature race is stopped before its posted lap completion, it will be deemed an official race if more than half the distance has been completed. If a race is stopped prior to that point, all A-MAIN cars split the purse and each A-MAIN car receives 30 points.

### 20. 4 WHEELERS & PIT CARTS

No 4 wheelers & pit carts are allowed beyond push-off area or on the track during a red unless specifically approved by IRA officials. PENALTY for noncompliance is loss of spot and car goes to the tail.

### 21. DRIVER/CAR SWAPPING

Drivers are able to drive a car other than the one they signed in (drew qualifying number for). If this occurs after the close of pill draw, the new car/driver combinations will qualify last. No driver can qualify more than one car. A driver may race a car other than the one he qualified,

though, by changing cars, the car first driven will be automatically scratched for the remainder of the events. All driver changes must occur prior to the start of the B- Main. If a car/driver combination did not receive a qualifying time, they must start their heat from the back. Cars without a time, start the A or B based on heat finish. New car/driver combinations can still take place following heats, however, no matter if the car transferred into the A-Main with another driver, it gives that up, now, the new driver must run the B-Main with hopes of transferring and start from the back of the B-Main. No driver can start the A-Main without earning a starting position himself, either by transferring his latest entry through either a heat or the B-Main, unless they use their specific back up car. Remember once a driver leaves his original entered car to drive another car, the original mount is scratched with no track points earned. A driver cannot start the A-Main in a car he himself did not transfer into the A-Main. Once the initial green flag of any race waves, even if a yellow or red flag comes out prior to completing a lap, no car/driver changes will be allowed for that particular race.

### 22. BACK UP CARS

Specific back up cars (cars not drawn in) are allowed prior to qualifying without changing qualifying order. Back up cars can be used in heat or B, though must start from the tail. Driver must race himself into A, unless there isn't a B. Back up cars are cars that never were drawn in for the event.

- 23. FIGHTING (see Unsportsmanlike Conduct)
- 24. IRA may penalize with suspension, fines, and/or points.

### 25. HAVE FUN RULE

Have FUN and be safe. We all come out to the races because we enjoy it. Don't let YOUR bad luck or foul mood ruin the positive racing experience of others.

### **FLAGS**

**GREEN:** When the green flag waves, it constitutes the beginning of a race, even if the initial lap is not completed.

**BLACK:** Pull safely OFF the track, leave the racing surface without causing a yellow. Something is wrong with your car that is jeopardizing the safety of yourself and your fellow drivers. Failing to acknowledge a black flag is automatic disqualification.

**YELLOW:** Proceed with caution, DO NOT PASS, pull directly behind the car in front of you forming a single file (nose to tail) line to await the restart line-up. When a yellow is shown, scoring has stopped. Do not race back to the start/finish line.

Note: If your car comes to a stop, even though no contact was made in an incident, you will be considered involved and be put to the tail of either the lead lap, Lucky Dog, or very tail. If your car loses something which causes a yellow, if the part lost doesn't break any other rule, you can restart on the tail. If debris from another car becomes hooked to yours causing a dangerous situation, the yellow will come out, your car will be stopped to have the debris removed, you will get your spot back and if it can be determined whose car created/or lost something to cause this yellow, that car will be put to the tail. If debris falls off your car from prior contact, it is up to the judgement of officials if they deem the debris fell off through no fault of your own, and if so you may get your spot back or tag the tail of your respective lap. If your car is involved in an incident or stops on the track causing a yellow, you will have 2 minutes (if work area is open) from the time the car arrives in the designated work area to make any necessary repairs. If this can't be completed you will not be able to rejoin that race. Designated work areas are off the racing surface and crews are not allowed to work on the car until it is in the work area. If work begins before the car is in the work area the car will be disqualified.

**RED:** The race is being stopped, slow your car down and bring it to a stop on the racing surface. DO NOT drive through a RED crash scene, doing so can result in a penalty. If contact is made and your car comes to a stop because of it, you are considered involved. Spinning to avoid a red situation also unfortunately "may" be considered being involved and in both cases you will restart at the tail. Spinning to avoid ??? will be determined by race director.

Red flag condition will be considered A CLOSED TRACK unless otherwise stated by IRA officials. The track will be opened to crew members ONLY IF it is going to take a considerable amount of time to clean up the incident and ONLY AFTER all cars are in the work area.

Cars involved in red will be allowed to go to work area/hauler to be worked on, but must ready when tower indicates field is ready to restart.

Any time there is an open red, time will start over from when the first car pushed off. (check your fuel) IRA will use a standard of 40 minutes of running time before considering refueling.

OPEN RED: NOTE: 4-WHEELERS ARE NOT ALLOWED ON TO RACE TRACK

<u>DURING RACE</u>, driver will be penalized and sent to tail... Push trucks will bring cars back to work area as soon as possible. Crews may wrench cars, add fuel, tear-offs, etc. however;

TEAMS ARE NOT ALLOWED TO REMOVE A TIRE, OR TIRES FROM VEHICLE FOR ANY REASON. Doing so will result in a penalty and sent to tail of field. If car is not ready when a push truck arrives at your car for push-off after a red you may be penalized and sent to tail.

WHITE: 1 lap to go before the completion of a race. If a yellow or red flag is needed on this lap, when racing resumes there will be a GREEN, WHITE, CHECKERD, finish.

CHECKERED: The race has been finished.

YELLOW/CHECKERED (both): An incident has occurred on the track after the checkered has been shown to the leader or already waved. The cars crossing the line prior to the yellow light or flag being waved will be scored as finished, the remainder of the field will be scored from the previous lap, except for the cars involved in the incident, they will tag the last scored lap. Weather, curfew, or track conditions can also cause a yellow/checkered.

RED/CHECKERED (both): Same as yellow/checkered, however, the incident is more

severe and cars need to stop immediately and follow normal "closed" red flag procedures, the race is over.

### PRODUCT AND POINT FUND ELIGIBILITY

**PRODUCT:** To be eligible for any product given away at any event, a driver/or car owner must have purchased a IRA membership with insurance. The driver/or car owner must NEVER have competed in a non-IRA-sanctioned sprint event within the same state, on the same night as an IRA event was being held. Driver/owner is required to display required decals of sponsor/product for eligibility. IRA requires specific "series" sponsor stickers displayed on car, any car failing to display mandated stickers from any sponsor in designated location, will not be allowed to benefit from any funds that particular sponsor provides.

**POINT FUND:** To be eligible for the annual IRA point fund, a driver/or owner must have purchased a IRA membership with insurance; have competed in at least 80% of the completed events; never ran against an IRA sanctioned event, MORE THAN ONCE, in the same state on the same night as an IRA event and must be a member in good standing. Money paid out will be based upon participation percentage. Driver/owner is required to display required decals of sponsor/product for eligibility.

NOTE: There is a one time "grace period" for any driver/or owner who is an IRA member in good standing that meets all the above criteria. This "grace period" allows a driver/owner to miss remaining number of consecutive race nights because of a major crash, or a major engine problem, specifically, a blown motor that happens during a consecutive series of racing. These missed nights should not be deducted from the driver/ owner's 80% participation requirements. An IRA official must be made known of the severity of damage and/or driver injury, and the fact the "grace period" be started. This only applies at IRA sanctioned events.

\*Only 50% of the posted point money will be paid to owners & drivers who do not attend the awards banquet.

**TRANSPONDERS:** IRA requests members to own their own Westhold transponder. Renters will be required to pay a \$10 administrative/transponder rental fee on a per event basis. The fee can be paid at pill draw. ALL IRA owned transponders MUST BE returned at payout in order to receive a check. Anyone returning a damaged transponder will be charged for the damage, replacement cost is \$150 for the transponder, and \$10 for pouch (our cost). It is the race team's responsibility to properly secure their transponder. Race teams need to at least own their own pouches.

**PAYOUT:** To expedite and keep actual purse pay accurate, Tire & Transponder bills will not be deducted from purse checks. It is TEAMS responsibility to pay for tires, and transponder rentals separately and timely, and purse pay CAN BE held if tires and transponder fees haven't been paid in such manner.

### POINTS BREAKDOWN

**Show Up**: 60 (pts will be awarded on a rain-out if all teams have signed in)

**Qualifying:** 10, 8, 7, 6, 5, 4, 3, 2 (pts will be awarded to top 8)

Note, the 8 who accumulate the most heat points in a passing point formula utilized in a non-qualifying format event will be awarded qualifying points.

Heats: 15, 13, 12, 11, (if 4 transfer), 10 for 5<sup>th</sup> if 5 transfer, 9 for 6<sup>th</sup> if 6 transfer

**B-Main Transfer:** 10, 8, 7 (and down 1 point for every B-Main transfer position)

**B-Main Non-Transfer:** 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1

**A-main:** 65-1st, 60-2nd, 56-3rd, 52-4th, 48-5th, 45-6th, 42-7th, 39-8th, 36-9th, 33-10th, 31-11th, 29-12th, 27-13th, 25-14<sup>th</sup>, 23-15<sup>th</sup>, 22-16<sup>th</sup>, 21-17<sup>th</sup>, 20-18<sup>th</sup>, 19-19<sup>th</sup>, 18-20<sup>th</sup>, 17-21<sup>st</sup> on back

**PASSING:** 1 point will be awarded for each finishing position advanced from starting position in Heat and A-main competition. Starting position is determined on the original pace lap (not board line-up).

## #1 Support Bar

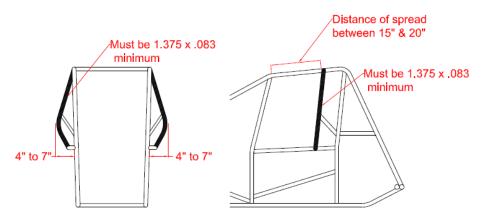


Diagram 16.12.1 By Tom Devitt

# #2 Support Bar

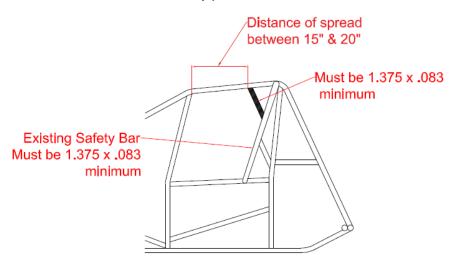
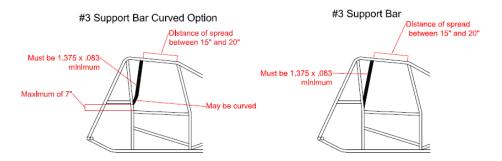


Diagram 16.12.2 by Tom Devitt



Drawing 16.12.3 By Tom Devitt

### **Chassis Support Bars**

In 2019 all chassis will be required to have additional bars installed to support and decrease the span between the front and rear uprights in the drivers area. The new support bars must be in addition to the front and rear uprights. Any attempts to manipulate the front and rear uprights to conform to these measurements will not be allowed at the discretion of IRA Officials. These additional bars will be minimum 1.375 X .083 ASTM4130 normalized steel or equivalent material as per IRA's current rule.

Left and right side support bars may be one of the three options:

- Support bar may be designed similar to what was known as a "safety bar". It must be attached to the top rail at a point 15" to 20" from the rear of the front upright. It must attach to the hip rail and have a gusset attached to the rear upright near a point opposite of the rear brace/shock mount bar. The curve must be between 4" and 7" measured from outside of the rear upright tube to the outside of the support bar. See diagram.
- 2. Existing chassis with a left side support bar installed (formerly called safety bar) that do not meet the option one specification above, may add a gusset that attaches to the top rail 15" to 20" from the rear of the front upright and angle to the support bar. The existing support bar tubing must meet the minimum as described above (1.375 X .083 ASTM4130 normalized steel or equivalent material). See diagram.

A support bar may be added to the top rail at a point 15" to 20" from the rear of the front upright and to the rear upright near a point of the rear brace/shock mount bar but no higher than 7" above the hip rail. This bar may have a slight curve near the rear upright to accommodate elbow room and ease of fitment. See diagram.

### Edit 15.5D

D. Drag links must be made of 4130 steel a minimum of one (1) inch in diameter and a minimum material thickness of .058 inches. Tie Rods and Left Front Radius Rods must be 4130 steel with magnetic steel rod ends. Swaging of the tubing will not be permitted. The drag links must be tethered to the frame with a minimum of one (1) inch nylon webbing.

### Edit 15.5F

F. Titanium front axles, nerf bars and/or rear bumpers will not be permitted. Nerf bars and rear bumpers must be made from magnetic steel and/or stainless steel. Left and Right Nerf bars must attach to the chassis at three points. The bumpers must be a minimum of one (1) inch in diameter and have a minimum material thickness of .065 inches. The nerf bars must not extend past the outside edge of the tires.

### Replace 15.5V with the following

Slip-tubing is not allowed in the chassis construction. Any existing slip-tubing must be replaced or welded. Clamped or bolted slip tub joint will no longer be allowed.

Track .			
Date			
10 inverted			
Slowest is I	Number 10		

### Fastest is Number 1

10	9
8	7
6	5
4	3
2	1

Pill Dra	wn
	5
	4
	3
	2

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24

		T					
Pill	#2	Pill	#3	Pill	#4	Pill	#5

4-3	6-5	8-7	10-9
2-1	4-3	6-5	8-7
10-9	2-1	4-3	6-5
8-7	10-9	2-1	4-3
6-5	8-7	10-9	2-1

Passing Points

Finish →

Start 1	1	2	3	4	5	9	2	8	6	10	11	12
1	100	91.5	83	74.5	99	57.5	49	40.5	35	23.5	15	6.5
2	105		84.5	9/	67.5	29	50.5	42	33.5	25	16.5	∞
3	110	98	98		69	60.5	55	43.5	32	26.5	18	9.5
4	115	1	91	62	/	62	53.5	45	36.5	28	19.5	1
2	120	1	96	84	72	63.5	22	46.5	38	29.5	21	12.5
9	125	1	101	68	<b>LL</b>	9	56.5	48	368	31	22.5	14
7	130	1	106	94	82	02	28	49.5	11	32.5	24	15.5
8	135	1	111	66	28	92	63	12	42.5	34	25.5	17
6	140	1	116	104	6	08	89	99	<b>7</b> 4	32.5	27	18.5
10	145	1	121	109	26	85	73	19	46	28	28.5	20
11	120	1	126	114	102	06	8/	99	24	42	30	21.5
12	155		131	119	107	96	83	11	69	47	35	23

The top 16 in passing points after the heats go directly to the A. If there is a tie in points, the car which reached their number first gets the position. The top 10 in points go to the redraw. The top 8 also get qualifying points.



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