



# 2016

# RULES AND REGULATIONS

# Waterford Hills Road Racing, Inc.

## 2016 Rules and Regulations

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## I. GENERAL

1. Waterford Hills Road Racing Inc. (WHRRRI) is an independent, all-volunteer organization dedicated to the spirit of amateur road racing. WHRRRI racing events are held according to SCCA's current General Competition Rules (GCR), as it pertains to Regional Competitions, except where modified by these rules or the WHRRRI Supplemental Regulations. WHRRRI reserves the right to vary from the GCR where appropriate.
2. If there are any rules discrepancies, the order of priority shall be as follows:
  - a. WHRRRI Supplemental Regulations > WHRRRI Rules & Regulations > SCCA GCR
3. These rules shall be published and available to members no later than the April General Membership Meeting. The rules listed herein shall be as recommended by the Competition Board and approved by the Board of Directors. Once published, these rules shall not be modified except by 2/3 vote of the Competition Board and the Board of Directors. Car classifications and rules shall not be changed until the following year.
4. Any desired individual technical exception to the GCR to be included in these rules shall be submitted in writing to the Director of Racing or Chairman of the Competition Board by January 1. Each exception will expire on December 31 of that year.

## II. CONDUCT

1. Lack of respect or unsportsmanlike behavior will not be tolerated.
2. Drivers and entrants shall at all times during an event be responsible for the conduct of their crew. An offense during an event is directly chargeable to the driver and entrant.
3. Children under 12 years of age must be under strict supervision of an adult.
4. Pet owners shall be fully responsible for actions of their pets, and for any liability arising there from. A pet may be in the paddock, provided it is enclosed in a vehicle or on a leash no greater than ten (10) feet in length. Pets are prohibited in pit lane.
5. Participants shall make every effort to keep the area neat and clean.

## III. COMPETITION LICENSES

1. There are three grades of licenses: novice, provisional and full. See WHRRRI By-Laws for membership requirements.
2. Every applicant for a competition license shall obtain a physical per the SCCA General Competition Rules. A WHRRRI physical form is acceptable for WHRRRI license renewals.
3. Minors (age 15 or older) may participate in driver's school and hold a novice license if given specific permission by the WHRRRI Board of Directors.
4. After satisfactory completion of driver's school, each student will be issued a novice license. This will allow them to compete in WHRRRI events, while being supervised by their instructor, and/or other qualified persons. Novice license holders must have a triangle in a contrasting color prominently displayed on the

rear of their race car.

5. A novice license holder may be eligible to upgrade to a full competition license after finishing at least seven (7) races, completing the required workbee time and with the approval of Director of Driver's School, Director of Licensing and the student's instructor. ~~Additionally, minors will not be eligible to upgrade until after their eighteenth birthday.~~
6. WHRRI licenses expire on April 1 of each year. To be eligible for a full competition license, you must have finished at least four races during the previous year. A provisional license may be issued by Director of Licensing to any competitor who does not meet the requirements of a full license.
7. The Director of Licensing will have final authority in all license upgrades and renewals.

#### IV. RACING PROCEDURE

1. All cars should be on the grid at the five-minute signal. Cars arriving after the three-minute signal must start from the rear of the grid.
2. After the three-minute signal no more than one person may stay with each gridded car.
3. After the one-minute signal ALL personnel shall clear the grid.
4. Grid is to remain clear until the grid workers indicate personnel are allowed on the grid.
5. Saturday Class race will be gridded by Saturday qualifying times.
6. Sunday Class races will be gridded based on the Saturday Class race finishing position.
7. Sunday Feature races will be gridded by the fastest race lap of the weekend.
8. Co-driver races, when scheduled, are open to all drivers. Primary drivers running their own cars are not eligible for trophies. Only one co-driver allowed per car per race weekend.
9. A co-driver is eligible to compete in the Sunday Feature race in lieu of the primary driver. Any co-driver who wants to exercise this option must inform Timing & Scoring before Noon on Sunday.
10. Classes may be mixed, moved or grids split, at the discretion of the Stewards.
11. Results from races ended at less than half distance may be considered official, at the discretion of the Stewards.
12. Test and tune (practice) days are considered to be part of the race event. As such, these Rules and Regulations apply.

#### V. RESERVED PADDOCK SPACES

1. All applicants need to have FIRM plans to use a paddock the space for at least three (3) WHRRI race weekends. Reserving a space just in case you might need it is not the intent of this program and will be frowned upon.
2. All applications, documents and fees must be received on or before ~~May 1~~ April General Membership Meeting each season. NO LATE APPLICATIONS WILL BE ACCEPTED.
3. Those wishing to reserve multiple paddock spaces must document the number of cars that he or she owns and intends to enter in a least three (3) WHRRI Race Weekends. Reserving multiple spaces to prepare a vehicle for a friend or

- customer will only be considered after all the primary driver's requests have been met. Those approved for multiple spaces the previous season will have first right of refusal in subsequent seasons provided all the renewal requirements are met.
4. Seventy-five (75) applicants will be awarded spaces by WHRRI Membership Number. Those renewing must meet the renewal rules below.
  5. The WHRRI Top Ten drivers from each season are automatically awarded a space for the following season, provided they apply (fees are still applicable) and intend to compete. These will be removed from the original pool of applicants.
  6. Those individuals who are awarded a reserved paddock space may not alter that space in any way, without the permission of the WHRRI Board of Directors.
  7. All paddock reservations expire at 9:00 am on the Saturday of each race weekend. **After this time anyone may occupy a reserved paddock space, except for spaces 1-8 (see Article 19).**
  8. A copy of the reserved paddock listing will be available at the Timing and Scoring bulletin board to assist others in finding available spaces.
  9. **Paddock space reservations are valid for the WHRRI club race weekends only, defined as Friday 10am through Sunday 6pm.**
  10. The program administrator will make every reasonable effort to meet an individual's specific need when assigning space(s).
  11. The WHRRI Board of Directors may award additional spaces to members they feel are especially deserving. If a participant withdraws from the program at any time prior to the second race weekend, that space will be awarded to the next applicant in the pool. If a withdrawal comes after the second race weekend, the space will be open for the remainder of the season. Posting your space as available at the waterfordhills.com bulletin board is encouraged, if you won't be using your space on a given weekend. A "space xyz is available" will suffice. It will then be considered unreserved for that weekend, that is, first come, first serve. Making your space available does not count toward the four weekend requirement.
  12. In order to renew a paddock space reservation for the upcoming season, the applicant must have used the space as an entrant or driver a minimum of three (3) race weekends during the previous season.
  13. You must be prepared to provide documentation of use if requested.
  14. For competitors that are the driver, copies of the appropriate pages from the log book is sufficient.
  15. For competitors reserving additional spaces, copies of the entry form showing them as the entrant along with copies of the log book showing the car went through tech for the driver on the entry form driver is sufficient. Competitors note: You must make copies of the entry form each race weekend and retain it. Registration will not make you copies!
  16. Those competitors that had reserved two spaces in the "Upper Paddock" due to the lack of availability of large spaces or special needs are exempt from this documentation requirement for the second space.
  17. The competitor who has reserved space(s) will have the right of first-refusal for that space(s) in the following year, provided that person meets all other requirements and is awarded a space in the original allocation. Some people may be asked to change spaces if the Competition Board decides to adjust the paddock layout.

18. If circumstances exist, you may petition the program administrator for a possible exception. A participant may withdraw from the program any time before the third race.
19. Paddock spaces 1-8 are reserved for Time Trial parking on Saturday and Sunday. This rule supersedes the 9:00 am curfew on reserved paddock spaces. These spaces will remain reserved for Time Trials participants and liaison/mentor throughout the weekend.

## VI. VEHICLES

1. WHRRI race vehicle classes include all regional classes recognized by the current SCCA GCR. WHRRI also recognizes four additional classes, IT7 (see Appendix A), Spec Neon (see Appendix B), and Spec Focus (see Appendix C), and Sports R (see Appendix D). Specific rules for all of these classes are appendices of this WHRRI rule book. WHRRI does not recognize the "Super Production" class. There are "X" classes for cars that meet Section 9 of the GCR but fall outside current recognized classes. Before their entry is accepted, all X class cars must be approved by the Competition Board or it's designate. Classification of X class cars can be reviewed at any time. All X class cars must meet the safety rules applicable for the group they run.
2. Club Formula Continental (CFC) and ITE are run according to SCCA Great Lakes Division rules; with the exception that cars may run ITE, even if eligible for another class.
3. Spec Miata is run per the GCR, but Waterford Hills Championship points are only awarded to cars with SCCA or NASA approved tires.
4. Any legal Spec Miata, Spec Neon and/or Spec Focus vehicle is eligible for competition in its respective IT class. If the entrant deviates from the appropriate rule set (Spec Miata, Spec Neon or Spec Focus) then the entrant must conform completely to the appropriate IT rule set.  
There shall be no mixing of rule sets. If the driver deviates from the SM, SN or SF rule set in any way - including tires, weight and other minor differences - he would have to adhere to the IT rule set. For example, if a Spec Miata wanted to race on an alternate tire the vehicle must also remove any specific SM modification which would be illegal in IT.  
Any WHRRI ITS or ITA competitor may petition the WHRRI Comp Board for review of this rule at any time during the season following changes to the SM rule set that are published in SCCA Fasttrack. The SN rule set is published as an appendix to these Rules and Regs and any modifications are reviewed by the WHRRI Comp Board prior to April 1 of the current racing year.  
This rule must be re-approved by the WHRRI Comp Board annually following a thorough review of any modifications to the Spec Miata, Spec Neon and/or Spec Focus rule set.
5. WHRRI race weekends are spectator events. Cars must be clean, and neatly painted with no visible primer. Body damage will be recorded in the car's logbook and must be repaired before the next race event.
6. All race vehicles must have current WHRRI decals displayed on both sides.
7. Local ordinances require WHRRI to keep noise levels at the property line below 75 dB. All cars **MUST** have an operational commercially available muffler.

8. WHRRI uses the AMB timing system. Each car shall have a unique functional AMB transponder.
9. Race car numbers at WHRRI events are limited to one or two digits (1-99). A guest entrant with a three-digit number permanently registered with his/her sanctioning body may run that three-digit number. Any car number conflicts occurring in co-driver or combined feature race events will be resolved by Timing & Scoring. **Any car number conflicts occurring in class races or features are to be resolved based on WHRRI member number, lower has priority. If conflict is not resolved, Timing and Scoring has the authority to resolve the conflict, up to and including adding a leading "1" digit.**

## VII. IMPOUND

1. Any car that sets a new class record must report to impound.
2. The first two finishers in each class must report to impound.
3. WHRRI events do not have a minimum impound inspection or impound time. Competitors shall follow the directions of impound officials.
4. To reduce cheating and keep competition fair, WHRRI officials or the SOM may conduct informal inspections of any vehicles, so long as such inspection does not seriously inconvenience the driver or entrant. These inspections may take place in the impound area or the competitor's paddock spot.

## VIII. RACE OFFICIALS

1. The Director of Racing shall appoint all race officials.
2. Race officials need not be members of WHRRI or hold any license.
3. Chief Steward and Stewards of the Meet (SOM) should be members of the WHRRI Competition Board. If there are not sufficient Competition Board members available, the Director of Racing may name appropriate substitutes.

## IX. TROPHIES AND CHAMPIONSHIPS

1. Waterford Hills recognizes two individual championships; that of Class Champion and that of Overall Champion. To gain points for an event in any championship, a driver must be a Waterford Hills Road Racing member in good standing and hold a Waterford Hills Road Racing license. **Retroactive points may be awarded up to one week after, either the first race weekend, or when official results of the first weekend are published, whichever is later, to competitors joining the club after the start of the season. Official points are published on the WHRRI website at: <http://www.waterfordhills.com/points> with a posting date in the document.** Finishers in co-driver races are not awarded points towards any championship. Trophies and Championship points are awarded by class finish based upon the following schedule:

Number of starters	8+	7	6	5	4	3	2	1
Points for 1 <sup>st</sup>	12*	12*	12*	12*	12*	12*	12*	4
Points for 2 <sup>nd</sup>	9*	9*	9*	8*	8	7	4	
Points for 3 <sup>rd</sup>	7*	7	6	6	4	2		
Points for 4 <sup>th</sup>	6	5	5	4	2			
Points for 5 <sup>th</sup>	5	4	3	2				
Points for 6 <sup>th</sup>	4	3	2					
Points for 7 <sup>th</sup>	3	2						
Points for 8 <sup>th</sup>	2							
All other finishers	1							

\* Trophy Position

2. In Co-driver races, trophies will only be awarded to first place finishers.
3. X classes will not be awarded trophies or points towards year end championships.
4. It is an additional requirement that the driver finish a minimum of 50% of the season's races in order to win either a Class Championship or the Overall Championship. In the event that this requirement is not met, the Championship will be awarded to the next eligible driver.
5. In addition to finish in class, an extra bonus point is awarded for a Waterford Hills Road Racing member who breaks a class record in a race.
6. A driver who has entered as a dual (or multiple) entrant may not earn double (or multiple) points towards the Overall Championship. Points toward the Overall Championship shall be kept by season totals earned in an individual class. A driver may be ranked in the Overall Championship Standings only once. In the event that a driver has competed in multiple classes, that driver will be ranked in the Overall Championship Standings based on their highest season total of points accumulated in only one class.
7. Sunday feature races will be awarded the same number of points as class races.
8. Points earned in all races determine class championships and overall championship.
9. Ties in the final point totals for individual championships shall be resolved on the basis of each driver's record of first place finishes; then, if necessary, second place finishes; then, if necessary, third place finishes. If two or more drivers have accumulated the same number of first, second, and third place finishes in the races counted, they shall be considered tied for the championship.

## X. PROTESTS

1. Any driver, entrant, designee of a driver or entrant, and/or official may file a protest, alleging a violation of the GCR, these Rules and Regulations, or the Supplemental Regulations.
2. Protests must be made in writing, addressed to the Chief Steward, on forms available from the stewards in the timing tower. Time limits are as specified in the GCR. A protest fee of \$25 shall accompany the protest.
3. Race results do not become official until all protests involving that race have been ruled on by the SOM.



4. Protests against the legality of a vehicle require a bond sufficient to have a professional technician tear the car down and return it to original condition. If the car conforms to the rules, the protester forfeits the bond. If the car is found illegal, the protester's fee is returned, and the protested party bears the expense for the teardown.
5. Protests will be heard by the SOM. Every attempt will be made to hear the protest in a timely manner. If the protest involves a class in which a SOM is an active participant, he or she shall excuse himself/herself from the hearing.
6. The decision of the SOM will be provided to all affected parties.

## **XI. APPEALS**

1. Actions of the SOM may be appealed in writing to the WHRRI Court of Appeals. Appeals must be filed or postmarked within 10 days and addressed to the Director of Racing and accompanied by a \$50 fee.
2. Appeals must be based on either proof of procedural errors in the initial hearing or the presenting of new evidence relevant to the appeal.
3. If the appeal is judged to be well founded, the fee will be returned.

# Appendix A – WHRRI IT7 Specifications

## Specifications

- All vehicles must be prepared to meet the 2016 SCCA Improved Touring Category Specifications (ITCS) for class ITA.
- This document should be considered a supplement to the ITCS.

Vehicle Classifications - See ITCS for more complete specifications.

### **Mazda RX2 (71-74)**

2 Rotor – 2292 cc

Vehicle Weight – 2300 lbs

### **Mazda RX3 / RX3SP (72-78)**

2 Rotor – 2292 cc

Vehicle Weight – 2280 lbs

### **Mazda RX4 (74-78)**

2 Rotor – 2616 cc

Vehicle Weight – 2550 lbs

### **Mazda RX7 (12A) (79-85)**

2 Rotor – 2292 cc

Vehicle Weight – 2280 lbs

# Appendix B – WHRRI Spec Neon (SN) Rules

## Specifications

- Any 1995-1999 Dodge/Plymouth/Chrysler Neon including ACR and R/T is eligible for Spec Neon and shall be prepared to the 2016 SCCA Improved Touring Category Specifications (ITCS) except where noted.
- Competition adjustments may be enacted by the WHRRI competition board in the event of sufficient disparity between the SOHC and DOHC models.
- Updating and backdating between any of the acceptable models is permitted.
- Minimum weight shall be 2450 lbs. with driver.
- Safety
  - The minimum acceptable safety requirements shall be per SCCA Showroom Stock Specifications.
  - Removal of steering lock mechanisms, addition of electrical master switch and fuel cell per Improved Touring rules is permitted and recommended.
- Engine
  - Both the 2.0 liter SOHC and DOHC engines are allowed and shall be prepared per ITCS.
  - Mopar Performance or similar PCM replacement modules are permitted. Mopar Performance Front Motor Mount permitted (P5007027).
  - Mopar Performance Engine Bobble Strut permitted (P5007028).
  - Exhaust manifold shall be original equipment. Porting of exhaust manifold is permitted.
  - Engine and accessory Under Drive Pulley's are open to aftermarket replacements.
- Transmission
  - Any Neon New Venture Gear transmission permitted. (1995-1999)
  - Any Limited Slip or welded differential is permitted. Final drive ratios shall be either 3.55:1 or 3.94:1.
  - Use of "short throw" shifter kits is permitted.
- Suspension
  - Struts shall be either OEM, aftermarket (Yellow) Koni Adjustable, or OEM 1995-1996 Neon ACR Arvin struts.
  - Daimler-Chrysler P-body steering knuckles, hubs and wheel bearings are permitted for durability. ACR spec hubs (P5007314) are required for safety if the P-body setup is not used.
  - Either power or non-power steering is permitted.
  - Mopar Performance (P5007045) Bushing Kit or Energy Suspension equivalent is permitted.
  - Mopar Performance High Rate Springs (P5007003 front/P5007005 rear)
  - Alternate Spring Package
    - Performance Driven (MOPHF front/MOPHR rear) available through Performance Driven, LLC ([www.performancedrivenllc.com](http://www.performancedrivenllc.com), 800/705-1285).
  - 22 mm Rear Sway Bar. Stock mounting points with a lever distance of 8 1.4 to 9 in (center of bar to center of holes). Cannot be adjusted from inside the vehicle.
  - 19 mm or 22 mm Front Sway Bar.
  - Use of aftermarket rear sway bar mounts is permitted. Mounts must maintain original mounting points and original location of the sway bar.
  - Wheel alignment is unrestricted.
  - No other suspension modifications are permitted.
- Wheels
  - Any 14x6 or 15x6 OEM wheel from the 1995 – 2005 Neon production run

- Tires
  - Spec Neon competitors must use Toyo RA-1, Nitto NT-01, Hoosier SM6 or Hoosier R6 tires in one of the following sizes: 205-55/14, 195-55/14 or 205-50/15 tires.
- Brakes
  - Brakes shall be per SCCA Improved Touring rules.
- Interior
  - Interior requirements shall be per SCCA Improved Touring Specifications. o The heater core and blower assembly may be removed.
  - Freestanding GPS Data Acquisition Systems are allowed with no additional sensors or telemetry other than lap time display.
- Exterior
  - Only OEM rear wings or spoilers are allowed in dealer-delivered configurations. Front air dams must also remain stock. Splitters and belly trays are not allowed.
  - Fenders and wheel openings must remain unmodified, except that rolling or flattening of inner fender lip for tire clearance is permitted.
  - Hood inner liners and inner fender plastic trim are optional and may be removed.
  - Any mirrors may be used.
  - Any paint scheme/colors may be applied.
  - Body molding, antennas, license plates, license plate frames, license plate lights, insignias, and emblems may be removed.
  - Windshield clips and rear window straps are permitted and recommended.
  - Hood clips are permitted. Stock hood latches may be disabled or removed.

# Appendix C: WHRRI Spec Focus (SF) Rules

Credit to the National Auto Sport Association, 2007

## 1. **Definition**

Spec Focus (SF) is an affordable racing class, primarily focused on road racing. The marks "Focus", Ford and Ford Performance Products are registered to the Ford Motor Company.

## 2. **Intent**

The intent of these rules is to provide mandates to ensure that all vehicles are constructed and modified within clearly established limits.

## 3. **Purpose**

The purpose of Spec Focus is to provide an opportunity for drivers to compete in similarly prepared, low cost cars with limited modifications, in order to engage in a contest of skill in which all drivers have a chance to race a competitive car while allowing the most talented drivers an opportunity to display their talent.

## 4. **Format**

Modifications, addition or removal of parts are not allowed, unless specified or approved in these rules. Additional modifications are not permitted. These rules are not intended as guidelines and must be strictly followed.

## 5. **Eligible Manufacturers**

Ford Motor Company is the only manufacturer of models that are legal for this series. However, other companies may manufacture some legal and/ or required parts and components.

## 6. **Eligible Models**

6.1 All U.S. or Canadian market Ford Focus automobiles from the 2000-2008 model years are eligible to compete in Spec Focus. All parts, unless otherwise noted, must be from a U.S. or Canadian model in mass production, and the parts must be commonly available to all competitors.

6.1.1 Body Style/Chassis: All 2000-2008 body styles are allowed OTHER than the station wagon

6.1.2 Engine/Transmission

The following engines may be used:

- 2.0 Liter DOHC Zetec
- 2.0 Liter Duratec
- 2.3 Liter Duratec
- 2.0 Liter SVT

6.1.2 Update/Backdate

- Updating and backdating of parts within the allowed models and years is permitted, but no mixing of SVT and non-SVT drivetrain components is allowed.  
Example: A 2000 SOHC car may swap in a 2.3 liter Duratec as long as all of the 2.3 liter components are installed.
- A 2.0 Liter SOHC Focus body can be used, but only with the appropriate drivetrain components in place from a non-SOHC Focus.
- Bodies originally equipped with automatic transmissions may swap for 5-speed MTX 75 transmission.
- All non-SVT models **MUST** use the MTX-75 transmission. They may not use the SVT Getrag 6-speed transmission
- SVT motors **MUST** use the Getrag 6-speed transmissions.
- Suspension, chassis, and brake components may also be updated

## 7. **Sanctioning Body**

Spec Focus was sanctioned by the National Auto Sport Association (NASA). This class of cars is now also sanctioned by WHRRI (Waterford Hills Road Racing Incorporated). WHRRI events are governed by these rules.

## 8. **Safety**

All safety standards not specified herein must conform to the WHRRI Rules and Regulations.

## 9. **Measurements**

### 9.1 Specified Measurement

Whenever the manufacturer specifications or these rules do not specify a measurement, the common average measurement will be used. This common average measurement must be determined by either 1) calculating a mean average of at least three measurements from the corresponding parts found on other vehicles, or 2) the technical administrator will make a determination based on any other reasonable method, providing that the data, system, or logic that was used be made known to the public. The second option is only permitted under circumstances where option number one becomes impractical, as determined by WHRRI officials.

### 9.2 Tolerances

All published measurements infer a tolerance of +/- one-half (1/2) of the last specified decimal place. All rounding will be done to the nearest decimal place specified by the manufacturer or these rules. In a case where a measurement falls exactly on the halfway mark, it must be rounded up or down in favor of the competitor. This section does not apply whenever the specifications, or these rules, specify a tolerance.

## 10. **Weight**

### 10.1 Minimum Weight – Vehicle

All minimum weight requirements must be met immediately following all qualifying sessions and races.

Minimum Weight for all cars including the driver are:

- 2.0L Zetec            2,600 lbs
- 2.0L SVT             2,600 lbs
- 2.0L Duratec        2,600 lbs
- 2.3L Duratec        2,675 lbs

### 10.2 Additional Weight - Ballast

Additional weight may be added to the vehicle providing that all of the following conditions are met:

10.2.1 Additional weight must serve no other purpose than to increase the weight of the vehicle. This additional weight shall be known as "ballast." No more than 150 pounds of ballast may be added.

10.2.2 Ballast must be made of solid metal, and must be installed securely. All ballast must be secured using at least one (1) 3/8- inch grade-5 bolt, two (2) 'fender washers', and a locking nut system for every fifteen (15) pounds of weight.

Example: A seven (7) pound block requires at least one (1) bolt system as described herein. A thirty (30) pound block requires at least a two (2) bolt system.

10.2.3 All pieces of ballast must be bolted within the front passenger compartment, through the floor pan on the passenger side of the cockpit, no further rearward than OEM rear mounting holes for the front passenger seat.

## 11. **Engine**

### 11.1 Engine Assembly

### 11.2 Balanced and Blueprinted Engines

Engines may be balanced and/or blueprinted. Lightning of parts beyond what is necessary to balance is prohibited. Only the minimum of material should be removed from any engine component during a rebuild process.

### 11.3 Bored Engines

Engines may be bored to a maximum of .020 inch over standard bore size. Factory replacement pistons or the exact equivalent shall be used. Exact equivalent shall be defined as the same dome/dish/valve relief configuration, weight, ring thickness and location, and pin location as the OEM replacement piston. Wrist pins must also conform to OEM specifications. In the event that a .020 factory replacement piston/wrist pin is not available, the .020 pistons/wrist pins shall not weigh any less than then a standard size OEM piston.

- 11.4 Piston Rings  
Piston rings are unrestricted.
- 11.5 Head Intake and Exhaust Ports  
Cylinder head intake and exhaust ports may not be machined. Non SVT-Zetec motors may use CNC Ported heads from Ford Racing (#M-6049-ZX3P) 2.0 Duratec may use CNC ported head #M-6049-D23P. No other non-factory porting or grinding can be done and no other aftermarket heads may be used.
- 11.6 Valves  
Valves and valve seats may be machined and may only be replaced with the exact factory equivalent. Valve guide material is unrestricted.
- Non-SVT Zetec may use exhaust valve M-6507-ZX3 and intake valve M-6505-ZX3.
  - 2.0 Duratec may use M-6505-D23 exhaust valve.
- 11.7 Compression  
The mechanical compression ratio is limited to the following:
- 2.0 Zetec: 10.5 to 1
  - 2.0 SVT: 10.5 to 1
  - 2.0 Duratec: 10.5 to 1
  - 2.3 Duratec 10.0 to 1
- 11.8 Timing Gears  
Zetec and SVT motors may use factory or aftermarket adjustable timing gears. Duratec motors must use stock unmodified timing gears.
- 11.9 ECU Unit
- Any OEM Ford Focus ECU may be used.
  - The OEM ECU must plug directly into an unmodified wiring harness and may be relocated ONLY to facilitate cage installation.
  - Reprogramming of the stock ECU is allowed
  - Any aftermarket flash unit may be used for programming
- 11.10 Motor Mounts  
Polyurethane or hard rubber motor mounts may be used.
- 11.11 Cold Air Intake and Throttle Body  
Any cold air intake system may be used. A cold air intake system is defined as any system that is upstream from the throttle body and intake manifold.
- The following throttle body sizes may be used:
- 2.0 Zetec 70mm max
  - 2.0 SVT 67mm max
  - 2.0 Duratec 67mm max
  - 2.3 Duratec Unmodified OEM Duratec Throttle Body
- 11.12 Exhaust Manifold and Intake Manifold  
No forced induction of any kind is allowed
- 11.12.1 Intake Manifold  
Intake manifolds must may not be ported or otherwise modified other than to accommodate the throttle body.
- 2.3 Liter Duratec must use unmodified OEM intake manifolds
  - 2.0 Liter SVT must use unmodified OEM intake manifolds
- 2.0 liter Duratec and Zetec may use the optional intake manifolds listed below
- 2.0 liter Zetec Ford Racing Manifold M-9424-ZX3R  
(Requires use of M-10039-ZX3R alternator bracket)
  - 2.0L Duratec Cosworth Manifold #FSYD8032

#### 11.12.2 Exhaust Manifold

- SVT motors must use an unmodified OEM exhaust manifold
- Duratec motors exhaust manifolds are unrestricted.
- Zetec 2.0 (non-SVT) exhaust manifolds are unrestricted.

#### 11.12.3 Exhaust System

- All emission related devices may be removed or disabled.
- The catalytic converter may be removed
- The stock muffler may be retained, discarded, or replaced with any other muffler.
- Note - some facilities have rules governing sound limits. Vehicles must fall within these limits to be allowed to compete

#### 11.13 Camshafts

- SVT and 2.3 Duratec must use stock OEM Camshafts
- 2.0 Zetec may use valve spring and retainer p/n M-6513-ZX3E and A203 camshafts
- 2.0 Duratec may use Crane Camshafts p/n 224-0012, Crane Cams valves spring and retainer kit p/n 903-2007

#### 11.14 Fasteners

Fasteners may be replaced with items performing the exact function.

#### 11.15 Gaskets

Gaskets may be replaced so long as such replacement does not violate any other rules contained herein.

#### 11.16 Driver Belts

Engine drive belts are unrestricted

#### 11.17 Underdrive Pulleys

Alternate accessory drive pulleys ("underdrive pulleys") may be used. Crankshaft may use any pulley.

#### 11.18 Water Pumps

Alternate water pumps of OE design may be used and must bolt to engine without modification

#### 11.19 Engine Claim

WHRRRI officials may claim any engine for 70% of the current retail price of a Ford SVT-Zetec DOHC 2.0L (M-6007-ZX3) Ford Duratec DOHC 2.0L PZEV (M-6007-SV20), Ford Duratec DOHC 2.3L PZEV (M-6007-PZEV), Ford Duratec DOHC 2.3L (M-6007- D23) or equivalent crate engine. The intent of this rule is to allow the administration to eliminate motors that are expensively rebuilt. All legal parts from a claimed motor will be auctioned off to the highest bidder. All proceeds above the purchase price from an auctioned motor shall go to a charity. If any illegal parts are found in a claimed engine, the entire engine assembly will become the property of WHRRRI and will not be sold, nor returned. A "claimed engine" consists of all parts directly attached to the engine block from the throttle body to the exhaust flange to the rear of the exhaust header.

#### 11.20 RPM Limits

The following RPM limits shall apply. Any means of the driver adjusting either RPM limits and/or engine management software during a qualifying or race session or in Impound is prohibited and will result in immediate disqualification.

- Duratec 2.3 6800 rpm
- Duratec 2.0 7200 rpm
- Zetec 2.0 7200 rpm
- SVT Zetec 7000 rpm

## 12. **Ignition**

Any ignition system that utilizes the original system for spark delivery is permitted. External ignition coil may be added. Crankfire ignitions are prohibited unless fitted as OEM. Alternate spark plugs and ignition wires may be used. Coil Plugs may not be removed on Duratec Engines.



**13. Fuel Systems**

13.1 Fuel Cells

Fuel cells are allowed.

13.2 Fuel Lines/Pumps/Regulators

Any fuel lines, pumps, injectors or regulators are allowed. Adjustable pressure regulators may be used.

**14. Oil System**

14.1 Oil Coolers

Oil coolers and remote oil filters may be used. All oil lines on the pressure side of the oil pump must be thread on connections or crimped-on connections equal to or better than factory connections. I.E. no slip connections (barbed w/ hose clamp, etc.) are allowed. Location within the bodywork is unrestricted provided that no additional venting holes are added beyond those allowed by the rules.

14.2 Valve Covers

Valve covers may be modified to accommodate a breather and/or filler.

14.3 Accumulators

A pressure accumulator such as an Accusump may be used. Dry sump oiling systems are prohibited.

14.5 Oil Pans

Oil pans and all related items such as baffles, pickup, pump and scrapers are unrestricted.

**15. Cooling System**

The vehicle's cooling system, including fans, radiator, fluid pumps, and oil/fluid coolers, is unregulated, provided that the sole intent of such modifications is to increase the vehicle's reliability and durability in hot weather conditions

The vehicle's structure may not be modified from the OEM radiator core support configuration and mounting location.

15.1 Engine Coolant

The only engine coolant used in the radiator shall be water, though surfactants such as Redline "Water Wetter" or Neo Synthetics "Keep Cool" are allowed. The intent of this rule is to avoid slick track conditions produced by spilled antifreeze, not to limit water additives.

15.2 Catch Tanks

All engine breathers and coolant overflow lines must vent to a catch tank of adequate capacity to hold any potential overflow. Catch tanks may not be mounted in the driver's compartment.

**16. Fire Extinguisher**

All cars must have a WHRRI compliant fire extinguisher system installed.

**17. Transmission / Differential**

17.1 Clutch

- Any clutch disk and pressure plate may be used provided they mount on an unmodified stock OEM flywheel or OEM replacement flywheel.
- Flywheel must be correct for the engine type that is in the car. No mixing and matching of flywheels between engine types is permitted
- Flywheels may not be lightened or modified except as necessary for surface finishing. Only the minimum amount of material may be removed.
- Duratec motors must retain the OEM dual mass flywheel

17.2 Transmission

Any Ford MTX-75 transmission must be used by all non-SVT Focus models. Getrag transmissions must be used on all SVT motors. Transmissions may not be modified internally or externally from their stock configuration and builds except for those noted below.

- 17.3 Differential  
Stock differentials may be replaced with the following part #'s. No other aftermarket differentials are allowed. Clutch type, spool, or locker limited slip differentials are prohibited

MTX-75 Transmission:

FRPP Torsen#	M-4204-F20
Quaife	Torque biasing differential

Getrag Transmission:

FORD OEM	M-4204-SVTF FRRP
Torsen	M-4204-SVT

- 17.4 Final Drive
- 2.3 liter Duratec may use the 3.42:1 or 3.82:1 final drive. For PZEV cars with 3.42 final drivers, 3.82:1 may be substituted. Approved P/N's are:
    - o YS4Z-7F343-FA 3.82 Ring Gear
    - o 1S7Z-7061-AA 3.82 Output Shaft
  - 2.0 liter Zetec and Duratec may use 3.42:1, 3.82:1, and 4.06:1 final drive ratios
  - 2.0 liter SVT must use OEM Getrag final drive

- 17.5 Shifter  
Any shift lever may be used, including aftermarket 'short shift' kits that change the shift lever's fulcrum point. Shift linkage and shift linkage mounting points are to remain stock. Any shift knob may be used.

- 17.6 Transmission Fluid  
Any transmission fluid may be used

18. **Suspension Components**

No other suspension modifications other than the modifications outlined below are permitted.

- 18.1 Knuckle/Hub Assembly  
Front Hub assembly must remain OEM, but rear hub maybe be changed to add rear disc brakes. Non SVT Focus can upgrade to SVT Style hub assembly. Front hubs may be updated/backdate.

- 18.2 Dampers:  
Any damper listed individually or as part of a kit below is allowed. OEM dampers include all dampers available as original equipment on a Ford Focus model from the factory, including SVT and ST models. Dampers fitted to non-U.S. models and/or special/show car versions are specifically excluded unless otherwise noted below. Dampers may not be modified and must use the original valving as supplied from the manufacturer.

Dampers 2000-2005

OEM	Original Equipment as supplied for any MY
OEM, SVT	2M5Z-18124
Ford Racing	M-3000-ZX3
Ford Racing Dynamic	M-3000-ZXM M-
Ford Spec Focus Damper Kit	18000-ZXM
Eibach Pro-Kit	Eibach#
	3588.840

Dampers 2006+

OEM	ST - 7S4Z-18124-
Ford Racing	A/B M-18000-ZX3B
Ford Spec Focus Damper Kit	M-18000-ZXM1

- 18.3 Springs  
Springs from any of the following OEM models, suspension kits or Ford Racing part #'s may be used. Suspension components may be updated/backdated to accommodate spring/damper packages.

OEM springs include all springs available as original equipment on a Ford Focus model from the factory,

including SVT and ST models. Springs fitted to non-U.S. models or special/show car versions are specifically excluded unless otherwise noted below. Springs may not be cut or altered to change ride height. Non-SVT cars may use SVT springs/dampers SVT cars may upgrade to any allowed suspension package

Front Springs: 2000-2005 Model Years

OEM	Any unmodified Focus OEM spring
OEM/SVT	2M5Z-18124
Ford Racing Dynamic Spec Focus Suspension Kit	M-3000-ZX3
Ford Racing Dynamic	M-3000-ZXM Eibach Pro-Kit
	Eibach# 3588.840
Ford Spec Focus Spring Kit	M-5560-ZXM

Rear Springs: 2000-2005 Model Years

OEM	Any unmodified Focus OEM Spring
SVT	2M5Z-5B669-AA Ford
Racing	M-3000-ZX3
Ford Racing Dynamic	M-3000-ZXM Eibach Pro-Kit
	Eibach# 3588.140
Ford Spec Focus Spring Kit	M-5560-ZXM

Front Springs 2006+

OEM	6S4Z-5310-C (pink sticker)
Eibach Pro-Kit	Eibach# 35108.140
Ford Racing	M-5560-
Ford Racing Spec Focus Spring Kit	ZX3B M-
	5560-ZXM1

Rear Springs 2006+

OEM	5S4Z-5560-HA (green
Eibach Pro-	sticker) Eibach#
Kit Ford	35108.140
Racing Ford	M-5560-
Racing	ZX3B M-
	5560-ZX3B

18.4 Bushings

Polyurethane bushings or rubber bushings are allowed. Metallic or other material bushings are prohibited

18.5 Sway Bars

Any end links may be used provided that they are not adjustable

Rear Sway Bar

Rear anti roll bar diameter may not exceed 25 mm. Rear end link and bushing material may be changed but must mount to the anti-roll bar and subframe in the original manner with a through-bolt and sandwiched, non-adjustable flexible bushings.

Front Sway Bar

Front anti roll bar diameter may not exceed 22mm. Front End links are free provided that they are not adjustable. Any non-metallic front bushings can be used.

18.5 Alignment

Wheel alignment is unrestricted. The fitment of aftermarket camber-caster adjustment plates is permitted provided the adjustment plates do not serve to reinforce or brace the strut tower.

- Maximum allowed static camber is 3.0 degrees negative.

18.6 Rear Subframe  
Ford Racing subframe M-5035-ZX3 with sway bar mounts and adjustable camber eccentrics is allowed

18.7 Strut Tower Bars  
Any aftermarket front and/or rear strut tower brace maybe used.

19. **Steering**

Manual or power steering may be used. Power steering rack may be converted to manual. Steering lock may be removed.

20. **Wheels and Tires**

- Any 17x7 inch OEM Ford wheel may be used. This includes SVT and Ford Racing wheels.
- Effective January 1, 2008, allowed tires shall be Toyo R888 in size 215/45/17 and Toyo RA-1 in size 205/40/17.
- Effective June 1, 2008 the only allowed tire shall be the Toyo R888 in size 215/45/17.

21. **Brake System**

Brake systems must remain in their factory configuration and must be composed of OEM parts except as allowed below.

The brake system can be upgraded to any of the following components

- |                                  |                         |
|----------------------------------|-------------------------|
| • SVT Brake Kit                  | M-2300-ZX3              |
| • Ford Racing Rally Brake System | M-2300-ZX3R             |
| • SVT Front Brake Kit            | M-2300-SVTF4 (MY 00-05) |
| • SVT Front Brake Kit            | M-2300-SVTF5 (MY 05-08) |
| • SVT Rear Brake Kit             | M-2300-SVTR (MY 00-08)  |
| • Ford Rally 15" Front Brake Kit | M-2300-ZXR              |

21.1 Brake pads are unrestricted.

21.2 Steel braided brake lines may be used.

21.3 Disc brake dust shields may be removed.

21.4 The emergency brake lever and/or cables and associated parts may be removed.

21.5 Brake ducting is permitted provided that such ducting performs no other purpose than providing cool air to the brakes. SVT front fascia M-17831-F, FRPP front fascia, and F2 Focus front fascia are allowed to enable brake ducting and improve car appearance.

21.6 Alternate caliper piston material is allowed.

21.7 OEM Focus anti-lock braking systems are allowed.

21.8 Brake proportioning devices are prohibited.

21.9 Rear Drums on Non-SVT may be changed to an SVT OEM brake system in the rear.

21.10 Front Disc can be changed but must meet OEM Specs or can be changed to SVT Brake system.

22. **Appearance**

22.1 Exterior  
Cars are required to display WHRRI racing stickers. For locations, refer to Rules and Regs.

22.2 It is suggested the driver's last name be displayed on the bottom right section of the windshield in at least 3" letters.

22.3 Car numbers must be displayed.

22.4 Only OEM rear wings or spoilers are allowed in dealer configurations. No aftermarket wings or spoilers are allowed except as noted below. SVT or RS Type Body kits are allowed.

ZX3 and ZX5 may upgrade to the following part number:  
SVT OEM M-17839-SVT Ford  
Racing RS type spoilers M-17839-RS F2 Focus  
RS Spoiler

Splitters, rear diffuser and belly trays are not allowed.

22.5 Fog lights may be removed for venting purposes. No additional venting holes are allowed

22.6 Fenders and wheel openings must remain unmodified, except that rolling or flattening of inner fender lip for tire clearance is permitted.

22.7 Hood inner liners and inner fender plastic trim are optional and may be removed.

22.8 Any mirrors may be used.

22.9 Any paint scheme / colors may be applied.

22.10 Body molding, antennas, license plates, license plate frames, license plate lights, and insignias and emblems other than "Ford", "SVT" and "Focus," may be removed.

22.11 Windshield clips and rear window straps are permitted and recommended.

22.12 All hoods and tailgate/trunk must be securely latched. Stock hood latches and tailgate/trunk latches may be disabled or removed. Hood pins or similar latching mechanisms for hood and tailgate/trunk are permitted.

22.13 Sunroofs or Moonroofs made of glass must be removed. The opening may be covered with an acceptable material, such as sheet metal, fiberglass, polycarbonate or carbon fiber, which must be securely attached to the vehicle. Metal sunroofs may be retained if additional fasteners are used to secure them to the vehicle.

22.14 All vehicles must have a minimum of two functioning brake lights

22.15 Front and rear towing eyes are required.

22.16 Radio antennas may be freely removed or added provided they serve no other purpose. Antennas for two-way radios may be added.

22.17 OEM or equivalent glass is required for all windows except as noted below. Front window glass may be removed. Rear door glass may be substituted with Lexan. Windows lifts/regulators, etc. may be removed provided that any glazing/Lexan is safely and securely mounted such that it does not pose a risk to the driver or other competitors.

22.18 All body panels other than those permitted to be replaced above must remain OEM with no fiberglass, composite or other materials allowed for items such as fenders, doors, hoods, roofs, trunk lids, and hatchbacks.

## 23. **Interior**

23.1 Driver's seat must be replaced with a seat suitable for competition, including a racing-type bucket seat. Factory seat tracks may be modified, reinforced or removed to facilitate replacement mountings provided they perform no other function.

23.2 Gauges be added, replaced, or removed. They may be installed in the original instrument(s) location using a mounting plate(s) or any other location using a secure method of attachment.

Other than modifications made to mount instruments and provide for roll cage installation, the instrument panel/dash substrate / plastic main structure must remain complete.

- 23.3 Any steering wheel and attachments may be used except wood rimmed type steering wheels.
- 23.5 The air conditioning compressor and condenser/evaporator system may be removed. Modification or removal of the heater core, evaporator and blower fan is also permitted.
- 23.6 The carpet, center console, cargo bins, driver's seat belt, radio system, headliner, dome lights, rear deck cover, and grab handles may be removed. The driver's side floor mat **must** be removed. Modifications may be made to the foot pedals to improve the comfort of and control accessibility to the driver, provided that the OEM brake pedal and clutch pedals are attached in their factory location. No substitution of the station of the master cylinders is allowed.
- 23.7 All insulating material may be removed from the interior.
- 23.8 Other than to provide for the installation of required safety equipment or other authorized modifications, no other driver/passenger compartment alterations or gutting is permitted.
- 23.9 Removal or substitution of driver compartment panels is permitted.
- 23.10 Any removable covers used to cover spare tires, tools, bins, etc. may be removed along with attaching hardware and brackets. Spare tire, jack and other tools may be removed.
- 23.11 Carpets, mats and their insulating or attaching materials may be removed from the floor and recesses of the cargo/spare tire area.
- 23.12 Ducting may be added to provide fresh air to the driver/passenger compartment, providing that no modifications of windows and body structure are made to accommodate this addition.
- 23.13 The passenger seats, mounting hardware, and seat belts may be removed.
- 23.14 Airbags must be removed or disabled.
- 23.15 The roll cage must comply with the roll cage standards of WHRRI
- 23.16 Steering wheel locks and clutch switch may remain intact, but it is highly recommended that they be removed. Ignition switch lock/cylinder may be removed and replaced with aftermarket switch
- 23.17 A Master Cutoff Switch cutoff is required.

**24. Impound**

The top three finishing drivers must proceed to impound immediately after the race. Failure to do so may result in penalties being imposed on the driver. If in doubt about finishing position, the vehicle and driver should report to impound. It is purely the driver's responsibility to report to impound with the vehicle and vehicle's logbook at the proper time. At the option of the race director, impound may be waived.

**25. Non-compliance/Cheating**

Cheating and non-compliance will not be welcome and will receive harsh penalties including loss of points, probation or suspension.

**26. On Course Conduct**

Per the WHRRI, any driver displaying rough, negligent, or unsportsmanlike conduct will receive harsh penalties, which may include loss of points, suspension and/or fines.

## Appendix D: Sport “R” (SR) Class

### Rules and Specifications

The Sport R class is regulated by the 1995 SCCA General Competition rules (GCR) and these rules. All GCR items for Sports Renault are to apply to the WHRRI class designated SR with the exception of the changes, additions, supplements, and modifications outlined below.

1. **Tires and Wheels** Any tire which has ever been specified for SR or SRF may be used. Additionally, Toyo RA1 and Toyo R888 may be used as well as the current SRF Goodyear Slick. Tire size may be either 185-60-13 or 205-60-13. Rain tires may be used at any time but must adhere to the above rules and sizes. Wheels may be any of the four designs used for SR and SRF; fronts or rears may be used on any axle of the car as long as they are size-matched on each axle.
2. **Engine and transmission** Must conform to SCCA rules with the following stipulations:
  - A. Renault engine may be overbored no more than .010. Seals do NOT need to be intact or applied.
  - B. Original Solex or Weber carb must be used.
  - C. Exhaust must use original header. Tail pipe and muffler are open.
  - D. No porting, polishing or machining to head, valves or any area of the combustion chamber except as required for standard rebuild.
  - E. Pistons must be of original design; the European Renault OEM replacement piston may be used.
  - F. Transmission must be original four speed with no gear ratio changes and no final drive ratio change.
  - G. Air filter is free as long as it is not ram air or a velocity stack.
  - H. Spark plugs are free as to heat range or manufacturer.
  - I. Engine timing, cam timing and any engine management may NOT be adjusted or modified.
  - J. Rev limiter if used must serve no other purpose but to limit peak RPM.
  - K. The stock mechanical fuel pump may be replaced by an electric unit provided it is mounted safely in the side pod and is switched both by the master switch and the ignition switch. It is recommended that it have an oil pressure or impact triggered shut off.
3. **Fire system** May use the original fire system and / or a hand held extinguisher compliant with GCR 9.3.23.B.
4. **Bodywork** Must conform to original contour and appear as original. SRF cutouts for wheel, rear valence, exhaust cooling scoop and/or NACA duct in center section are allowed. No modifications intended to improve aerodynamics are allowed. No wings or additional spoilers are allowed.
5. **Radiator** Radiator and radiator tin are free as long as they serve the same purpose and do not change the performance or aerodynamics of the car in any way.
6. **Fluids, lubricants, gaskets, and hardware** Free.
7. **Brakes** Brakes must be of original design both in caliper and rotor. Pads must be either Hawk HP-Plus or HT10 compound (PN HP 189) or the SRF Hawk Blue compound supplied by SCCA Enterprises.
8. **Alignment** Alignments free within the limits of the original suspension parts. No elongation of holes or modifications to ball joints or control arms are allowed.
9. **Modifications** No SCCA required updates to SR or SRF are required in SRR unless the safety rules of the GCR require them, e.g. Tall Man Kit is not required unless driver height dictates that the driver does not fit under the main hoop. Floor pan reinforcement is not required although highly recommended.
10. **Minimum weight** 1550# with Driver. Bolted ballast weights, if needed, must be in the original location in the side pods. No ballast will be permitted in the nose outside of reasonable fiberglass repair work.
11. **Midwest council & SCCA Vintage cars** will be allowed to run as prepared to their organizations' rules for Sport R except at the WHRRI minimum weight requirement, if the driver/entrant provides a copy of those rules to WHRRI Tech.
12. **SRF 1.9L cars** will be allowed to compete in Sport R class for weekend trophies at the driver's discretion if there are no other competitors in SRF class. They must meet SRF rules, except with minimum weight increased to 1750#. They will not accrue points towards SR season championship.

# Appendix E: Time Trial/Bracket Race Rules

## 1. Definition & Purpose

- A. The Time Trials/Bracket Racing run group is intended to increase participation during WHRRI race weekends by creating an intermediate step between the Open Track Day (OTD) program and the wheel to wheel competition of race weekends.
- B. OTD participants will have the opportunity to bring the same car they run, in the same level of preparation to the race weekends. Drivers can participate without a competition license and run in their own run group while competing against the clock to see who can get closest to their intended lap time (Dial-In). This is essentially bracket racing on a road course.
- C. Driver's lap times from each session will be scored according to the percentage of difference to their Dial-In and then ranked with the rest of the run group.
- D. The driver who has the 3 closest lap times to their Dial-In will be declared the winner.

## 2. Participant Qualification

- A. Approved Drivers
  - i. Waterford Hills OTD 'graduates'
    - a. HPDE4 is the fastest run group in the OTD program with the most passing privileges
    - b. HPDE4 drivers are qualified after a safe full weekend in the HPDE 4 (fastest) run group
    - c. The OTD chair will maintain a list of qualified TT drivers.
  - ii. Current Competition licensed drivers are eligible to participate without the instructor buy off ride, but must comply with all passing rules.
- B. Un-Approved Drivers
  - i. All participants will be monitored during the qualifying session. The Bracket Racing Chair reserves the right to remove drivers that will interfere with the operation of the timed event.
- C. All drivers must attend mandatory driver's meetings.
- D. Passengers – Only Waterford Hills approved instructors are permitted in vehicles during the morning track sessions. There are no exceptions to this rule.

## 3. Car Preparation

- A. Cars that are legal and safe for the OTD program are legal and safe for Time Trials
  - i. Open wheel cars are not allowed.
  - ii. Sports Racers are not allowed.
- B. If a car will be required to carry a passenger it must have same level of restraints in passenger side as driver side
- C. All cars are required to have a functional transponder in accordance with Section VI.8. Transponders will be available for rent. It is the driver's responsibility to obtain and install them prior to the first on-track session.
- D. Class letters and numbers will be applied to windows of the vehicle by Waterford Hills officials after successfully completing a technical inspection
- E. Good condition, working seat belts.
- F. Convertibles must have a steel roll bar (factory installed fixed and active roll bars are permitted)
- G. Open Cars Having Factory Installed Roll Over Protection: Any make of car delivered with factory installed roll over protection which satisfies US Federal Motor Vehicle Safety Standard 216 meets the minimum standards for events (owner must provide proof that it meets this standard). The windshield alone is not considered to be roll over protection.
- H. Open Cars Not Having Factory Installed Roll Over Protection: If a car does not have factory installed roll over protection, a roll bar must be installed, which meets the "broomstick" rule (the driver's helmeted head is below a bar placed on top of the roll bar and windshield).
  - i. Roll bar MUST be front or rear braced on both sides of the main hoop.
  - ii. The brace(s) shall be attached to the hoop at a maximum distance of six (6) inches from the top of the hoop and at an angle of at least thirty (30) degrees from vertical.



- iii. All points MUST be securely bolted or welded directly to the frame in a manner as to make the roll bar functional and safe
- I. Trucks and SUVs. Normally a truck or SUV will have a Center Of Gravity that is too high to navigate turns at Waterford safely. These vehicles will be permitted on a case by case basis. Please contact OTD@waterfordhills.com if you have questions on your vehicle.
- J. Local ordinances require WHRRI to keep noise levels at the property line below 75 dB. All cars MUST have an operational commercially available muffler.
- K. Data collection devices are unrestricted

#### 4. Driver Preparation

- A. Helmets meeting the following standards must be worn while on track:  
All helmets meeting the latest or two immediately preceding Snell Foundation standards (SA2015, SA2010, SAH2010, SA2005, SA2000, M2015, M2010, M2005, M2000, K2015, K2010, K2005, K98), SFI standards 31.1, 41.1, 31.1A, 31.2A, 41.1A, 41.2A, ECE R22.05, FIA standards 8859-2015, 8860-2010, 8860-2004, or British spec BS6658-85 type A are acceptable.
- B. Long pants must be worn and long sleeve shirts are preferred for drivers and instructors.
- C. Closed toe shoes must be worn by drivers and instructors.
- D. Personal safety gear above and beyond OTD requirements is strongly encouraged. Please refer to SCCA GCR Section 9.3.20.C or the NASA CCR Section 15.17 for up to date recommendations.
- E. Full face or modular helmets shall be worn while competing in any vehicle with a windshield that does not provide full occupant coverage. Face shield, goggles or similar face protection is also required. Conventional eye glasses are not sufficient.

#### 5. General Rules

- A. No passengers are allowed except for instructors during the practice session
- B. Passing is only allowed when preceded by a point-by from the driver to be overtaken
- C. Failure to provide a point-by pass to a following driver after the lead driver receives a blue flag may result in a black flag being shown to the lead driver.
- D. A driver providing a point-by must point left or right in the direction he wishes to be overtaken. The lead driver must also provide enough space and speed differential for the overtaking driver to complete the pass.

#### 6. Scoring

- A. Dial-In Times:
  1. Drivers will pick one Dial-In Time for the day
  2. Grid position for the timed run(s) will be displayed in the lower right-hand corner of the windshield, this is intended to aid the grid workers.
  3. Dial-In times will be rounded to the 1/1000th of a second (ex: 1:25.101)
  4. Dial-In times will be capped at lap times of 1:13.000. Laps run faster than this will result in a black flag. Any lap below this cap will be removed from the scoring calculation.
  5. Dial-In times must be submitted before grid. Any sessions run before the submission of this time will be recorded as a DNS (Did Not Start)
- B. Points Calculation
  1. Scoring will measure the sum of the deviation between the dial-in time and the driver's 3 closest lap times.  
**Driver's score = Sum((ABS(Closest Lap – Dial-in)) + (ABS(2nd Closest Lap – Dial-in)) + (ABS(3rd Closest Lap – Dial-in)))**
  2. The score from each competition session is added together to determine the final score for the event.
  3. The lowest possible score will be 0.
  4. The driver with the lowest combined score wins.

- a. In the event of a tie after all session scores are added together, the winner will be the driver with the lowest score in a single lap.

Example:

Driver 1:  $.020 + .018 + .010 = 0.048$

Driver 2:  $.020 + .016 + .012 = 0.048$

Driver 1 had the best single score of .010, so Driver 1 is declared the winner

- b. If this still results in a tie, the second best lap score will determine the winner
- c. If this still results in a tie, the third best lap score will determine the winner
- d. If this still results in a tie, the fourth best lap score will determine the winner
- e. If this still results in a tie, the comparison will continue through the remaining laps until unique times can determine the winner
- f. Drivers can be faster or slower than their Dial-In time. The deviation will be calculated as an absolute value.
- g. If a driver fails to turn the minimum laps in any session (DNS), that driver will not be scored for that competition.
- h. Minimum lap counts (typically 3) for sessions may be adjusted to account for track maintenance or timing issues.

Scoring examples:

Dial-In: 1:30.0

1st best Lap of the session: 1:30.003

2nd best lap of the session: 1:30.020

3rd best lap of the session: 1:29.100

Driver's Session Score: 0.923

Dial-In: 1:20.0

1st best Lap of the session: 1:20.000

2nd best lap of the session: 1:18.500

3rd best lap of the session: 1:22.065

Driver's Session Score: 3.565

Dial-In: 1:25.0

1st best Lap of the session: 1:24.910

2nd best lap of the session: 1:25.250

3rd best lap of the session: 1:26.080

Driver's Session Score: 1.420

## 7. Operations

- A. General Operations
1. There will be a separate and mandatory TT/Bracket Racing meeting from the main driver's meeting
  2. TT/Bracket Race would typically be a later run group to allow for the extra driver's meeting, but drivers should be sure to check the official run group list for the weekend.
- B. Session Description
1. Practice Session: AM
    - a. Cars will grid on a first come, first served basis
    - b. Approved Drivers: Practice, check your lap time to help choose your Dial-In
    - c. Un-Approved Drivers: Will get a qualified driver to verify skills and approve for competition.  
Laps will be timed to aid in choosing Dial-In time.
  2. Timed Sessions: PM
    - a. Cars gridded based on Dial-In times. Fastest cars at the front of the field
- C. Session Operation
1. Participants may be split up into multiple sub groups to maximize full speed runs without cars getting lapped. If this occurs, all drivers will still be scored as one TT/Bracket Racing class.
  2. **Start of Race session: Cars will follow the pace car in a single file formation for one lap. Once the pace car reaches pit lane it will veer off and participants shall proceed with race on Green Flag, or continue at pace speed on track if waved off**

**8. Annual TT/Bracket Racing Championship**

- A. The Annual Champion will be determined from the best six (6) points results that they achieved during the season.
- B. The following chart is used to award points based on finishing position and the number of cars participating in the TT/Bracket Racing class:

<b>Number of starters</b>	<b>8+</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Points for 1st	12	12	12	12	12	12	12	4
Points for 2nd	9	9	9	8	8	7	4	
Points for 3rd	7	7	6	6	4	2		
Points for 4th	6	5	5	4	2			
Points for 5th	5	4	3	2				
Points for 6th	4	3	2					
Points for 7th	3	2						
Points for 8th	2							
All other finishers	1							

**C. Tie Breaker**

- 1. In the event of a tie, the winner will be determined by the best event points during the season
  - a. If this still results in a tie, the second best event points will determine the winner
  - b. If this still results in a tie, the third best event points will determine the winner
  - c. This scoring method will continue through remaining 6 event points until exhausted
  - d. If this still results in a tie, the best single lap score will determine the winner
  - e. If this still results in a tie, the second best single lap score will determine the winner
  - f. If this still results in a tie, the third best single lap score will determine the winner
  - g. This scoring method will continue through remaining event lap scores until exhausted