

# **United States Touring Car Championship Rules**

## **A NASA Sanctioned Professional Series for Late Model Sports Coupes and Sedans**

### 1. INTRODUCTION

These rules and the NASA CCR specify the only modifications allowed. Where applicable, the USTCC rules supersede the CCR. If not specifically allowed, any other modification is prohibited. Occasionally, rules may be generically specified which are not legal for some cars. These rules are for the Touring Class. Other classes must also follow their rules as posted in the appendices at the end of this document.

### 2. INTENT

The Nitto Tires United States Touring Car Championship (USTCC) is a national championship series utilizing tracks in North America. The intent of the USTCC series is to provide a professional venue for drivers and manufacturers alike to test their skills and products in high exposure competitions. Competitiveness of a particular make or model is not guaranteed, although the series may make adjustments as necessary. Minimum weights, restrictor plates, tire sizes and allowable modifications are adjusted to account for any potential performance aspect of a specific vehicle.

### 3. ELIGIBLE MODELS

Vehicles eligible to compete in the USTCC can be found on the series website ([www.ustcc.com](http://www.ustcc.com)). Other makes and models may be eligible to compete provided that the series administration has approved them in writing before the competition. All vehicles must be or have been available for sale to the general public.

## 4. SAFETY

### 4.1. Safety Requirements

All vehicles and drivers safety equipment must conform to NASA's *Club Codes and Regulations* (CCR). If the USTCC competes under another sanctioning body on a particular weekend, those rules may supersede the NASA requirements. The Chief Scrutineer may exclude any car for any item that is deemed to be unsafe. The Race Director may exclude any car for any illegal or unsafe modifications. Where there may be a conflict between USTCC rules and NASA CCR, the USTCC rule shall supersede the CCR rule.

### 4.2. Roll Cage

All minimum cage requirements found in the CCR must be met. The following is permitted in addition to those requirements:

4.2.1. Any number of mounting points and/or tubes may be used. Tubes may be welded at any contact point, or be "seam welded" to the body structure. Chassis may be seam welded.

4.2.2. Side door bars may extend to the outer sheet metal (i.e. NASCAR style) per the CCR. If this door bar design is used, the factory side-impact beams may be modified or removed.

Note: Substandard tubing, welding, design, and/or installation of tubes that could present a hazard to the driver, should the tube(s) in question break loose and impale or crush the driver is prohibited.

### 4.3. Fuel Cell

A fuel cell meeting the specifications of the CCR may be installed. If a fuel cell is installed, the OEM tank may be removed.

### 4.4. Master Switch

An electrical master switch shall be installed per the CCR.

### 4.5. Drive shaft loops

All rear drive and AWD vehicles must use drive shaft loops to hold the drive shaft in case of a U joint failure.

### 4.6. Sunroofs

Sunroofs may be removed and replaced with a sheet metal piece securely covering the opening. Removal of the associated hardware is permitted. Roofs may be replaced with alternate material (see rule 6.5.12).

#### 4.7. Air bags

Air bags must be disabled or removed.

#### 4.8. Driver's Seat

A driver seat suitable for competition and meeting the requirements of the CCR shall be used. The driver's seat may be moved back; however, the rearmost front edge of the seat (not including the cushions) cannot be further back past the last stock mounting bolt hole in the floor.

#### 4.9. Passenger Safety

It is recommended that all vehicles have a passenger seat and seat belts available to install in a minimal amount of time to carry passengers safely. OEM equipment is permitted, but safety equipment similar to the driver's is recommended. Passengers will be allowed only during certain non-competition sessions, for promotional purposes only.

### 5. SERIES RULES and PROCEDURES

#### 5.1. Cheating

Cheating and/or liberal interpretation of the rules is subject to harsh penalties. Typical penalties include, but no limited to, the following: At first offense, there will be a one-race disqualification including loss of prizes. At second offense, there will be a two-race disqualification for the previous two races and a one-race suspension and loss of prizes. A third offense will result in permanent ejection from the series including a loss of all points and prizes.

#### 5.2. Non-conforming equipment

Any equipment that does not conform to the rules must have prior approval. For consideration, a waiver must be made, in writing, 30 days prior to date of competition. It is the intention of the class not to allow any modifications that would increase the cost of competition. Any illegal, or illegally modified, part(s) will become the property of the series.

#### 5.3. Shop Manual

Each competitor is required to have in their possession a factory shop manual for their entered vehicle. Any competitor that is using an approved engine/transmission swap must have a factory shop manual for both the vehicle model as raced, and a manual for the “donor” vehicle. The manual may be in electronic form (i.e. on CD-Rom), but the competitor is responsible for providing a means of reading such media at the event. The manual must be in English.

#### 5.4. Performance Monitoring

5.4.1. The series reserves the right to install performance-monitoring equipment at any time for the purposes of equalizing the competition.

5.4.2. All cars without their own Traqmates must have Traqmate installation tray, antenna and a tach signal wire mounted inside the cars for officials to install Traqmate systems. The tray must be located in an area that is easy to get access to, is flat, is pointed exactly towards the front of the car and is away from excessive heat or vibration. Trays and antennas may be purchased through Traqmate directly. Estimated cost is around \$65.

5.4.3. All cars are required to have a Traqmate installed and working in their car. A Traqmate engine RPM recorder is also required. Rental Traqmate units are available from USTCC but must be reserved before the start of the weekend. It is the driver/team's responsibility to make sure the Traqmate is turned on and working for every session. If any driver has a session without Traqmate data, the driver will receive a minimum of one position penalty with the maximum penalty of disqualification or loss of times from that session.

#### 5.5. Points/Teammates

5.5.1. A driver submitting a usable digital (1080p, preferably 60 fps) video from the race will earn 5 bonus points for that race. The car number must be visible in the video shot so that the viewer can see which car is being shown.

5.5.2. Fun Runs. Any competitor who is competing, as a “fun run” shall not be eligible for points, contingencies or other prizes. The Race Director reserves the right to place all “fun-runs” at the back of the starting grid.

#### 5.5.3. Finishing Points

Points will be calculated as follows:

1<sup>st</sup> – 100, 2<sup>nd</sup> – 90, 3<sup>rd</sup> – 85, 4<sup>th</sup> – 80, 5<sup>th</sup> – 75, 6<sup>th</sup> – 70, 7<sup>th</sup> – 69, 8<sup>th</sup> – 68, 9<sup>th</sup> – 67, 10<sup>th</sup> – 66, and so on.

5.5.4. Rookie Points. A driver must apply with the Series Director if they desire to participate in the Rookie Points Championship. Any competitor who has competed in more than 4 USTCC events is not eligible to apply. In general, only competitors who have less than 2 years of racing experience will be considered.

5.5.5. Every driver may elect to have a partner and that partner may be declared at any point in the season. A partner must be declared to the Race Director or Coordinator before the first session of the weekend. The Race Director may allow a partner to be added (but not changed) after the start of the weekend but before the start of the race in hardship cases. The partner may not be partnered with anyone else and they will not be able to change partners for the season. Either driver may practice, qualify or race the car; however, both drivers must be registered for that event. Once the partnership is declared, the two drivers shall have their points tallied together. The two partners effectively become one person and any REWARDS weight earned shall follow both drivers.

5.5.6. If both partners are driving in the same race, the Race Director must be notified regarding which driver is collecting points for the partnership and which driver is doing a solo run before the race.

5.5.7. Team Championship. A separate points championship shall be scored for the top team in USTCC. To be eligible, a team must have at least two cars entered for points to be awarded. The team must be declared in writing before the race. If a team has more than two cars, only the top two points earning cars shall be awarded points. Team cars may be split in any of the classes. There will be a maximum of 3 cars per team.

## 5.6. Entry procedures

There will be an annual \$350 series registration fee at the driver's first event. This pays for stickers, car numbers, registration, mailings, etc. All entry forms must be received at least 10 days prior to each race to avoid a \$50 late fee. A bounced check charge of \$100 will be applied for any checks returned for insufficient funds.

A horsepower number must be declared on the entry form for each race. The declared number may not be changed during the race weekend. However weight may be added based on data acquired during racing sessions per the Race Director.

## 5.7. Appearance requirements

5.7.1. All vehicles must have the required number panels and numbers on the front edge of the driver/passenger doors and 4 inch (minimum) tall

numbers on the front of the car and on 4 inch (minimum) tall numbers on the rear of the vehicle. If the series does not supply the competitor with a number panel, numbers meeting the CCR must be used on the sides. The assigned REWARDS weight must be posted on the bottom passenger side of the windshield in two inch tall white letters (i.e. "+75").

5.7.2. All decals required by the organizers, sanctioning body and sponsors must be displayed in their appropriate positions. No decals from any company, organization, or manufacturer may be displayed that conflicts with any series title sponsors (excluding special awards sponsors) or NASA. Vehicles may be painted any color or combination thereof.

5.7.3. Vehicles must appear at the event with virtually no visible body damage or primer and look professional.

5.7.4. All vehicles must display the manufacturer's name and/or logo on each side of the car. Minimum height is 3 inches.

5.7.5. The driver(s)' last name must appear on the both rear side windows of the car. It is suggested, but not required that it be on the lower corner of the windshield as well. White block letters at least 2" tall should be used.

5.7.6. The driver's suit must have the required USTCC patch as well as the NASA patch on the front chest area. No conflicting sanctioning body or tire company patches may be present. Patches may NOT be held with tape. Appearing on the podium without the correct patches is an automatic \$400 fine.

5.7.7. The crew members on the team are required to wear team uniforms during the weekend's activities. The uniforms must be the same color/pattern and must have the USTCC logo and the team's name and/or logo on the front chest area in at least 3 inch wide.

## 5.8 Changes to rules

The Race Director reserves the right to make changes in the rules and or penalties to ensure fairness of all aspects of competition with as much notice as possible. The Director will make every effort to correct problem situations to the fairness of the majority before invoking penalties in full or in part.

## 5.9 Parc Ferme/Impound

Following any timed sessions such as official qualifying sessions, qualifying races, or races, vehicles must go directly to the authorized impound area (Parc Ferme). No stopping in pit lane or paddock area is allowed after session has ended. Victory lane is considered an authorized impound area.

No work on the car is allowed while in Parc Ferme. Infractions shall result in loss of qualifying times or disqualification from race.

Once the checkered flag is displayed in a qualifying session all work on car must stop and a Parc Ferme situation will be in effect.

Parc Ferme area is considered a private area. Only the driver and one team representative is allowed to be present.

#### 5.10 Conduct

Participants (includes all members of team) should be aware that comments made on the internet (including websites, Twitter, Facebook or others) may be considered public comment. Any comments which are deemed improper, bring the series into disrepute, or are threatening, abusive, indecent or insulting may lead to disciplinary action. Comments which are personal in nature or could be construed as offensive, use foul language or contain direct or indirect threats aimed at other participants are likely to be considered improper. Participants need to be warned that even though they believe their postings are only visible to a limited number of selected people they may still end up in the public domain.

#### 5.11 Endurance Format Races

For races longer than 50 minutes, the NASA Enduro rules for classes E0 through E3 will be used for pitting purposes with the following exceptions/changes:

5.11.1 There are no required pit stops and no minimum number of stops.

5.11.2 The Race Director reserves the right to impose certain requirements on those cars with gas tanks (or fuel cells) larger than originally equipped. Teams that have installed tanks (or fuel cells) larger than stock, shall be required to drain the tank and fill it with the same amount of fuel that the original stock tank held.

5.11.3 All refueling must be done using NASA approved 5-gallon containers, which must be labeled "GASOLINE," "PETROL," or "GAS." Refueling is a big issue during pit stops. Spills will not be tolerated. All cars must place a large catch-pan, or mat to catch all accidental spills. All catch pan spills must be returned to closed containers. A gasoline spill will result in a five-lap penalty (or a five minute penalty, if using that system). See NASA Enduro rules for more details.

5.11.4 Refuelers must wear safety equipment equivalent to the driver as per the CCR (i.e. Nomex suit, gloves, shoes, and helmet) during refueling. See NASA Enduro rules for more details.

5.11.5 Cars are prohibited from using any type of "(re)fueling rig" or "quick fill method." The definition of "(re)fueling rig" or "quick fill method" (for the sake of prohibition) is refueling using any of the following items: Gas containers other than the standard approved 5-gallon plastic gas cans,

specialized nozzles (aircraft), “Dry Breaks” (Sprint Cup / Grand Am), fuel pumps (of any type), electric power tools, wheels (for any purpose), support stands or other devices deemed by the Race Director to be outside the spirit and intent of these rules. See NASA Enduro rules for more details.

### 5.12 Saturday Races

The Saturday race format (during a two day event) may be one of four:

1. Top five drivers from the Saturday qualifying session will be racing in the Saturday race to determine the starting order of the main Sunday race. Positions 6 and lower will already be set by the qualifying times. The race will be a flying start format and there will be no points or prizes. Drivers from position 6 and lower can attend the session but their starting position for the race will not change.
2. All drivers will race on Saturday in a qualifying race. The start of the race shall be determined by the times set in the qualifying session. The outcome of the race shall determine the starting order of the main Sunday race. The race start will be a flying start and there will be no points or prizes.
3. All drivers will race on Saturday in a qualifying race. The start of the race shall be determined by the times set in the qualifying session. The race start will be a flying start and there will be no prizes but the race will award 25% of the points with the Sunday race providing 75% of the points.
4. Race session is a practice race with no points or prizes.

### 5.13 Qualifying format

The qualifying format will be one of the following:

There will be a Saturday qualifying race (see 5.12)

1. There will be one qualifying session and the best times from that session will determine the starting order.
2. There will be two qualifying sessions and the best combined time from the two sessions will be used to determine the starting order. A driver with no times shall receive a time of 4:00.000.
3. There will be two qualifying sessions and the best time from the two sessions will be used to determine the starting order.
4. There will be single car qualifying in which case the driver shall have one warm up, one timed lap and one cool down lap. The time from the one timed lap shall determine the starting order.

Engaging or impeding another driver in a qualifying session shall result in penalties.

The GT class shall start ahead followed by ST, TC and SP.

### 5.14 Right to the line

Note: This rule supersedes the NASA CCR Right To Line Rule (25.4.3 in 2016 version).



The driver in front has the right to choose any line, as long as the driver is not considered to be blocking. Blocking is considered to be making more than one change in direction in order to defend a position.

If there is any amount of overlap between two cars engaging in a battle for position, the lead car must leave room on the race track for the trailing car, (do not shut the door). Equally, the trailing car must leave room on the race track for the leading car, (do not push off track).

It is both drivers responsibility to ensure a safe over-take is completed on the race track.

### 5.15 Contact

The drivers are expected to try to avoid contact with other cars at all times. Heavy penalties may be awarded for avoidable contact.

1. Any contact with no damage and no deviation: No penalty.
2. Any contact causing deviation, with no damage, but loss of a position: If the offending driver gives back the position within two manned turn stations, no penalty. Otherwise, the offending car will receive stop and go penalty or 60 seconds will be added to its time after the race.
3. Any avoidable contact resulting in damage as defined by CCR: Offending car will be classified as DNF, receive DNF points and receive a \$200 fine. In addition, driver will be on probation for the remainder of the season. The penalty can be adjusted by the Race Director based on the testimony of the drivers and witnesses. If the driver commits a second infraction while on probation, additional fines and suspensions will be added.
4. Passing under a standing yellow, double yellow or gaining an advantage at a yellow: If the offending driver gives back the position (or advantage gained) before passing the next manned turn station, no penalty. Otherwise, offending car will be classified as last place among finishers. In addition, driver will be on probation for the remainder of the season. If the driver commits a second infraction while on probation, fines and suspensions will be added.
5. Overdriving a standing or double yellow: The offending car will receive stop and go penalty or 60 seconds will be added to its time after the race.
6. Passing under waving yellow and/or over-driving a waving yellow: Offending car will be classified as DNF and receive DNF points. In addition, driver will be on probation for the remainder of the season. If the driver commits a second infraction while on probation, fines and suspensions will be added.

These are general guidelines for standard penalties. They may be additive or multiplicative depending on the situation and the person's past record.

The Race Director reserves the right to increase penalties for special circumstances up to and including disqualification and suspension. The above penalties could vary when USTCC is not the sole class on the track.

## 6. MODIFICATIONS

### 6.1. General

Other than those items specifically allowed by the rules, no other part or component may be modified, removed, or disabled. If there are any “questionable” or “gray” area modifications, the competitor should contact the series office for clarification before competition.

### 6.2. Replacement Parts

All vehicles, engines and required OEM parts must have been offered for sale to the general public by the manufacturer and be available through normal distribution channels. Unless otherwise specified by these rules or VSS, replacement parts must be OEM or others matching the OEM configuration.

### 6.3. Repairs (other than body panels)

Any part of the car may be repaired provided that the repair is done so that the part or structure is restored to the factory specifications. Any “repair” that serves more than the intended purpose may be deemed illegal.

### 6.4. Allowed components

Limited production components and/or prototypes are not allowed unless specifically allowed by these rules. All aftermarket parts used must be available for purchase.

### 6.5. Body

6.5.1. Fender lips may be modified for tire clearance by rolling. Plastic interior wheel opening panels may be removed. All cars may add fender flares (25 mm width maximum).

6.5.2. A front spoiler (air dam) may be added, modified or replaced. There is no minimum clearance for the front spoiler. A flat splitter plate may be installed provided it protrudes no further forward than 5 (five) inches past the front bumper when viewed from the top. In addition, the plate may not extend rearward past the centerline of the front tires. The plate, spoiler or attachments may not be wider than the body of the vehicle, not including the side mirrors

6.5.3. The stock engine under-tray may be removed or modified.

6.5.4. A rear spoiler/wing may be installed provided it is not wider than the width of the car, not including the mirrors. The wing/spoiler may not extend further rearward than 6" from the back of the rear bumper. Side skirts, rear diffusers and alternate rear facias are allowed. Rear diffusers may be installed. However, no part of the car's body other than the rear bumper cover may be modified or replaced for clearance. The diffuser may not protrude further rearward than one inch past the rear bumper when viewed from the top. In addition, the plate may not extend forward past the centerline of the rear tires. The plate, spoiler or attachments may not be wider than the body of the vehicle not including the side mirrors.

6.5.5. Making openings through the body below the bumper and/or through the air dam is permitted for the purposes of ducting air to the brakes, radiator or oil cooler. Ducting for the purposes of cooling is unrestricted providing that it does not violate any applicable rules or feed the intake system.

6.5.6. Windshield clips and rear window straps are allowed and recommended.

6.5.7. Hood and trunk pins may be fitted. Stock hood latches and/or hinges may be replaced with clips. The car must be run with hood, doors, and trunk completely closed and securely latched.

6.5.8. All chassis and structure repair must be done as close as possible to the factory specifications AND match the original configuration. Body repairs must maintain stock contours. Chassis may be seam welded.

6.5.9. Undercoating may be removed.

6.5.10. The hood and trunk lids' inside reinforcements may be removed.

6.5.11. The front door internal assemblies (i.e. windows, window mechanisms, , etc) may be removed. The passenger OEM side impact beams may be removed. No sharp edges may be left behind as a result.

6.5.12. Body panels may be replaced with alternate materials provided they meet the stock appearance of the replaced body panel. Vented hoods are allowed. The panels must be available to the public through normal distribution channels and be approved through the series office. If using alternate materials (other than hood), ballast is not allowed anywhere in or on the car other than for REWARDS weight addition.

## 6.6. Glass

6.6.1. The front windshield may be replaced with Lexan or comparable material. The minimum thickness is 3/16" and shall be properly supported from the inside. If the front windshield is replaced, windshield clips are required.

6.6.2. All window glass other than the windshield may be replaced with Lexan (or comparable material) of at least 1/8" inch thick. A maximum of six round vents total, no larger than 2.5" in diameter (each) may be located on the rear window. A maximum of two NACA ducts per side may be installed in the rear side windows for ducting air. The NACA ducts may not be larger than 100 square inches total, per side.

6.6.3. No tinted windows allowed other than factory OEM tints. Clear film may be used for the purpose of retaining broken glass in the event of an impact.

#### 6.7. Interior

6.7.1. Any steering wheel or gearshift knob may be used. Steering wheel column may be replaced.

6.7.2. The throttle, brake, and/or clutch pedals may be modified or moved for comfort or added control. Heel stops and dead pedals may be added or modified.

6.7.3. Gauges may be replaced or added.

6.7.4. Any interior or exterior mirrors may be used.

6.7.5. Other than the dash pad, the remaining trim pieces in the interior may be removed including the rear and passenger seat. No sheet metal shall be removed or deformed (except door panels) unless specified in the CCR, these rules, and any addendums. All holes resulting from removing the dash components (i.e. heater controls) must be covered by panel made of sheet metal, carbon fiber, or other similar material in good appearance. The dashboard pad must remain intact or may be replaced with a "stock appearing replacement part." Tabs and studs may be removed.

6.7.6. The headlights and taillights must work as originally intended and must be unmodified. Tinting is not considered modifying. The lights must be operable by the driver while properly belted in the driver's seat.

6.7.7. Electrical switches may be added, modified, or removed provided they do not perform an illegal function.

#### 6.8. Ballast and REWARDS weight

6.8.1. Ballast is allowed anywhere in the car but must be securely fastened per CCR except as per rule 6.5.12. Rewarding of Equalizing Weight Assigned to Reduce Driver Sensitivity (REWARDS) is a system used to provide tighter competition. Weight will be assigned to all participants who take the green flag. The change will be effective for the next USTCC event during the current season. The weight shall apply to all sessions of the next round. It is the driver's responsibility to know their car's new minimum weight at each round of the series. Total minimum weights will be calculated by adding the figures below to the base weight figure as declared by the entrant/driver.

#### REWARDS WEIGHT ASSIGNMENT

1 <sup>st</sup> place	75 lbs.
2 <sup>nd</sup> place	50 lbs.
3 <sup>rd</sup> place	25 lbs.
4 <sup>th</sup> place	0 lbs.
5 <sup>th</sup> place or lower	0 lbs.

Once a REWARDS weight has been assigned, it will stay with that driver until it reaches a maximum of 10% of the base minimum weight as declared by the entrant/driver or the season ends. For example, a 3000 pound car can at most carry an extra 300 pounds. No concessions will be provided for cars that may not be able to reduce its weight to meet the negative REWARDS weights.

The REWARDS weight will not be allowed to be compensated with more horsepower over the base weight. For example, if a car was given a 100 pound REWARDS weight addition, the entrant may not add the weight and add more horsepower.

To take REWARDS weight off, the driver must finish outside the podium by the following amount: (A finish is defined as taking the checkered flag with at least half the laps of the 1<sup>st</sup> place finisher)

4 <sup>th</sup> place	-25 lbs.
5 <sup>th</sup> place	-50 lbs.
6 <sup>th</sup> place or lower	-75 lbs.

#### 6.9. Wheel studs

Wheel studs and lug nuts are unrestricted. They may not be smaller than the stock diameter. Studs shall not protrude beyond the plane of the wheel thereby creating a hazard.

#### 6.10. Alternators

The alternator must be working and must be charging according to the manufacturer's specifications. Any modification, or addition made to the

electrical system that causes the alternator to function improperly is illegal. Computer controlled alternators must be set to charge above battery voltage

#### 6.11. Update / Backdate

Vehicles may update / backdate components provided the component comes from the same chassis type and line number in the VSS. As an example, a headlight from an E36 M3 may not be used on an E36 325i because they are different cars without prior permission. Any other changes must be requested in writing.

#### 6.12. Engine

6.12.1. The engines used must have been available for sale in that body style, year, make, and model by that manufacturer. Engine swaps within the manufacturer are allowed but the swap must be requested and homologated in the VSS.

6.12.2. Engine rebuilding, blueprinting and balancing is allowed. Engine internals may be replaced by aftermarket or OEM pieces of alternate specifications. Internal engine modifications are allowed as per VSS. Porting and polishing of engine components is allowed.

6.12.3. Turbocharged engines must run the stock turbo and housing for the allowed engine unless specified in the VSS.

6.12.4. Supercharged engines must run the stock supercharger for the allowed engine unless specified in the VSS.

#### 6.13. Engine Mounts

Rubber engine mounts may be replaced with any other material. The engine may not be moved from its stock location.

#### 6.14. Belt Pulleys

Aftermarket pulleys of any material and/or diameter may be used for engine accessories such as power steering, water pump, a/c, alternator, crankshaft, etc. This rule does not apply to any pulleys affecting engine internals such as cam timing sprockets or supercharger.

If a component that originally used a pulley such as the AC compressor is disabled or removed, the stock unit can be modified to work as an idler pulley. No other mechanical or electrical components may be added to the component and it shall not have any other functions other than being an idler pulley.

#### 6.15. Lubrication

Oil pans, windage trays, oil lines, and filters are unrestricted. A pressure accumulator such as an Accusump may be used. Any lines that pass through the passenger compartment must be metal or metal braided. All lines must be securely fastened and safely routed. Dry sump systems are allowed with a 100 pound penalty. Any engine oil components must be separated from the driver by a non-flammable bulkhead (Accusumps and gauges are exempt).

#### 6.16. Induction

6.16.1. The mass airflow sensor may be altered and/or replaced.

6.16.2. No type of system that cools the air passing through the throttle body may be used, unless it is identical to the OEM system (if equipped) and its fluid type, fluid path, and overall function is identical to that of the original. Alternatively, the system may be removed and/or permanently sealed off with welds, block off plates, etc. In addition, no system may be installed to cool air through the exhaust turbo inlet or outlet, or intercooler inlet or outlet (i.e. no water cooled intercoolers or air intake charge units, unless originally installed by the manufacturer and that system must remain stock). Intercooler sprayers are not allowed.

6.16.3. The location of intercoolers may be altered from the stock location.

6.16.4. Any throttle body or bodies or spacers may be used. Cars using Drive by Wire may convert to a mechanical set up.

6.16.5. The intake manifold may be replaced with an aftermarket unit.

#### 6.17. Fuel system

6.17.1. Fuel Injectors, fuel pumps, fuel delivery rails, fuel pressure regulators, filters, and lines and hoses are unrestricted. Any fuel lines that pass through the interior must be metal or metal braided. Fuel pumps may not be mounted inside the passenger compartment. All lines must be securely fastened and safely routed.

6.17.2. Maximum octane rating is 100 octane (R+M/2). Only 100% petroleum based unleaded fuel is allowed. E15 or diesel pump fuel is allowed. No fuel additives are allowed.

#### 6.18. Electronics

6.18.1. Engine management computers and wiring may be modified or replaced. Sensor values being fed to the OEM computer may be altered by external means.

#### 6.19. Smog equipment

All smog equipment may be removed including the catalytic converter(s). Any equipment not removed must either be disabled or left to function as originally intended by the manufacturer. All disconnected ports and holes must be plugged.

#### 6.20. Air filter

The air filter housing, intake tract and element are unrestricted.

#### 6.21. Ignition

Any spark plugs, ignition system and ignition wires may be used. Ignition timing is unrestricted.

#### 6.22. Battery

The battery must be capable of starting the car at all times. The battery may be relocated to anywhere in the car provided it is in a marine type case. AGM or Lithium Ion batteries need not be in a marine case. Regardless of location, the battery must be securely held with a metal hold down. The positive battery terminal shall be covered. The positive terminal on the starter solenoid shall be covered.

#### 6.23. Exhaust

Any exhaust may be installed provided the exhaust exits behind the driver, directed away from the car. A muffler may be required to meet sound regulations. A header may be installed. Exhaust heat shields may be added or removed.

#### 6.24. Engine Cooling

Any radiator may be used provided it fits in the stock location and requires no body modifications to install. Radiator fans may be removed or added. Thermostats are optional and unrestricted. A/C systems may be removed. Oil coolers may be added. The heater core may be bypassed or removed. No type of additional cooling is allowed including radiator sprayers.

#### 6.25. Clutch



Any clutch disc and/or pressure plate of the stock diameter may be used. Multiple disc clutches are prohibited. SFI approved flywheels and scattershields are recommended.

#### 6.26. Flywheel

Any flywheel may be used. If an OEM flywheel is modified or if an aftermarket flywheel that does not have SFI certification is used, a scatter shield must be incorporated to protect the driver should there be a failure of the flywheel.

#### 6.27. Transmission

The transmission gear ratios may not be altered. The transmission used must be the same as delivered by the manufacturer with that engine combination. Shift linkages may be modified for the purpose of installing short throw shifters and/or installing different material bushings. Transmission coolers are unrestricted.

#### 6.28. Differential/ Final Drive

All vehicles may use any limited slip or welded differential provided it fits in the OEM stock housing. Alternatedifferential drive ratios (ring and pinion) must be approved and listed on the VSS. Differential coolers are unrestricted. The center differential for AWD models may not be changed or modified and may not be adjustable. If there is an OEM adjustment, it must be completely disabled. No electronically adjustable or active differentials are allowed. Each team must declare their differential drive ratio on the season registration form. This number may not be changed during the season unless a special permission is granted due to hardship cases.

#### 6.29. Wheels/Tires

6.29.1. Wheel spacers may be used.

6.29.2. The required wheel diameter is seventeen (17) inches or eighteen (18) inches with a maximum width of eight (8) inches. Cars with a base minimum weight of 3000 pounds or more are allowed to use wheels with a maximum width of ten (10) inches.

6.29.3. The top of the tire may not protrude beyond the fender when viewed from above.

6.29.4. All USTCC vehicles must run the approved spec tires and the tires may not be altered in any way other than listed in Competitor Bulletin 1. The spec tire can be found in the Competitor Bulletin 1 on the series web site.

6.29.5. When a session is declared a “wet session” by the Race Director, any approved tire that fits on a wheel of between 15 inches in diameter to 18 inches in diameter that has a maximum width of 8 inches (10 inches for cars with a base weight of 3000 pounds or more) may be used. The approved rain tires can be found in the Tech Bulletin on the series web site.

6.29.6. Tires may not be shaved. The approved spec tire must be used in all official timed sessions.

### 6.30. Brakes

6.30.1. Brake pads, linings, and fluid are unrestricted. Brake lines may be replaced with metal braided lines. Backing plates may be removed or modified.

6.30.2. An adjustable proportioning valve may be used to limit pressure.

6.30.3. Parking brakes may be removed along with the accompanying mechanisms.

6.30.4. Air ducts may be directed at the brakes. Liquid cooling and/or electric fans are prohibited.

6.30.5. The master brake cylinder, clutch cylinder, pedals and bias adjustment may be replaced with an aftermarket assembly. Brake booster may be removed or replaced, but must not perform any other function.

6.30.6. Brake rotors may be replaced with steel rotors of any size. Rotors may be modified by slotting or cross drilling. Any brake caliper up to a six piston design may be used. Wheels may not be modified or machined to allow fitment of alternate components. If vehicle came factory equipped with ABS braking system, the stock ABS computer/controller must be used. If vehicle did not come from factory equipped with ABS, an ABS computer/controller from that make and model year may be used. Alternatively, the ABS can be disabled or removed.

6.30.7. Cars with rear drums may convert to a stock rotor and caliper system from that make and model year.

### 6.31. Suspension

6.31.1. Camber/caster adjustment plates may be installed provided that the stationary plate is mounted to the existing sheet metal, in the stock location, and serves no other purpose than to allow the adjustment of caster and/or camber. Material may be removed from the top of the strut tower for installation of camber plates. All vehicles may adjust camber and/or caster by eccentric bushings and/or shims. Rear camber compensator kits may be installed on the rear suspension for the sole purpose of allowing camber adjustment. Vehicles may use either slotted ball joints or slotted upper control arms for the purpose of camber/caster adjustment provided their installation is solely for the adjustment of camber/caster. The above mentioned replacement components must be commercially and readily available.

6.31.2. Upper shock mounts may be replaced with other units.

6.31.3. Any springs may be used provided they mount in the original location and the number and type (i.e. coil, leaf) remains the same as stock. One helper spring per wheel is allowed with a maximum, stiffness of 25 psi. Coil over type struts or shock absorbers, where a threaded sleeve is attached or machined into to a housing are permitted. Spring spacers are allowed. Non-MacPherson strut type vehicles may install adjustable spring perches, provided that they serve no other purpose than to allow ride height adjustment. Bump stops are unrestricted.

6.31.4. Any shocks, including remote reservoir, may be used provided they attach to the original mounting points and the number remains the same as stock. Reinforcement of the stock shock mounting brackets is permitted. Struts may be modified to fit any legal shock insert. Vehicles that are factory equipped with a separate shock/spring combination may convert to single shock/spring combination provided it installs in the factory location of either the spring or shock

6.31.5. Any sway bar(s) may be used. The mounts for these may be welded or bolted to the structure of the vehicle. "Heim joint" type rod ends (spherical bearings) and any bushing material is allowed.

6.31.6. Stress bars may be added between any of the following areas:

- a) Between the inner lower control arm mounting locations.
- b) Between the rear upper strut (or shock) towers.
- c) Between the front upper strut (or shock) towers and one point on the firewall.

6.31.7. On Mac Pherson struts, suspension mounting holes on top of the strut may be slotted, within the bounds of the original bracket/mounting point, for purposes of camber or caster adjustment. Additionally, slotted

holes may be reinforced by “overlaying” metal and/or welding the original hole closed.

6.31.8. There is no minimum ride height. No part of the car may touch the ground at anytime during operation except the front spoiler (air dam), side skirts, and tires.

6.31.9. Other than those modifications specified by these rules and any series “Updates” and “Supplements” no other relocation or reinforcement of any suspension component or mounting point is allowed.

6.31.10. Parts that function for the sole purpose of steering may be reinforced independently. The steering rack must be OEM as delivered except that you may convert between manual and power steering.

6.31.11. Suspension bushing material is unrestricted. “Heim joint” type spherical bearings may be used as replacements for bushings provided that they serve no other function or purpose and install directly into or onto the existing legal suspension component. Aftermarket or custom made suspension arms are not allowed unless noted in VSS. Aftermarket arms made by Specialty Products Company are allowed.

6.31.12. Spacers may be added to correct for bump steering problems, providing that they serve no other purpose.

## 6.32. Fasteners and Gaskets

Fasteners are unrestricted provided they serve the same function as originally intended. Gaskets other than head gaskets are unrestricted. Any gasket must serve its original purpose only and may not provide a competitive advantage.

## 7. WEIGHT

7.1. All minimum weight measurements will be made with driver and must meet this weight at all times during qualifying and race sessions. The vehicle’s minimum weight is set according to the horsepower output of the engine as declared by the entrant.

7.2. A wheel horsepower number must be declared on the Series Registration Form to the series before any vehicle competes in the series. This is your base minimum weight. Base minimum weight does not include any REWARDS weights or penalty weights. The entrant must also declare a number on the entry form at each race which will become the new base weight. If no number is declared on the entry form, no points shall be awarded. Vehicles may be impounded by the series for further dyno

measurements at any time during the season. Any vehicle found to be over their maximum stated horsepower at any time will be considered illegal. Data acquisition may be used during on track sessions to monitor vehicle performance. Data acquisition will be used to calculate wheel HP and vehicles will be found illegal if the calculated wheel HP exceed their declared HP number.

7.2.1. A base minimum weight must be declared based on the following formula and the horsepower declared in 7.1.2. The base minimum weight is calculated using the following formula for eligible cars in the TC class:

FWD: 11.25 lbs/ stated hp  
RWD: 11.75 lbs/ stated hp  
AWD: 12.00 lbs/ stated hp

1. Turbo or Supercharged vehicles will multiply their current displacement by 1.40 to calculate their effective displacement before applying steps 2-4.
2. Engines 1.9 liters or smaller subtract 0.2 lbs/hp to the above ratio.
3. Engines 2.5 liters or larger add 0.2 lbs/hp to the above ratio.
4. All calculated weights are then rounded down to the nearest 5.0 lbs.

The above calculations may be changed at any time by the series administrators to keep the competition fair between models.

## **Appendix A USTCC GT Rules**

The USTCC GT category cars shall meet the same requirements as the Touring class cars with the following exceptions:

5.11.5. Refueling for GT cars will be as per NASA Endurance ES class rules for all races longer than 50 minutes. Refueling rigs are allowed. Maximum fuel on board at any time is 100 liters.

6.5.1. Fender lips may be modified for tire clearance by rolling. Fender flares are allowed. Maximum flare width is 5 inches.

6.5.12 Body Panels - Body panels may be replaced with alternate materials provided they meet the stock appearance of the replaced body panel. Vented hoods are allowed. The panels must be available to the public through normal distribution channels and be approved through the series office. If using alternate materials, ballast is allowed.

6.7.5. Alternate dashboards are allowed.

6.7.6. Cars with hidden headlights may remove headlights but the covers must remain in place.

6.12.3. Turbocharged engines may run any turbo or turbo housing.

6.12.4. Supercharged engines may run any supercharger.

6.15. Oil pans, windage trays, oil lines, and filters are unrestricted. A pressure accumulator such as an Accusump may be used. Any lines that pass through the passenger compartment must be metal or metal braided. All lines must be securely fastened and safely routed. Dry sump systems may be used. Any engine oil components must be separated from the driver by a non-flammable bulkhead (Accusumps and gauges are exempt).

6.17.1. Unleaded or leaded petroleum based fuel is allowed.

6.25. Clutch. Multiple disc clutches are allowed. SFI approved flywheels and scattershields are recommended.

6.28. Any differential(s) may be used. Alternate final drive ratios (ring and pinion) must be approved and listed on the VSS. Differential coolers are unrestricted.

6.29.2. The required wheel diameter is a minimum of seventeen (17) inches with a maximum of nineteen (19) inches. Maximum width is thirteen (13) inches. Tube Frame Cars may use 15 inch diameter wheels.

6.29.3. The top center of the tire may not protrude beyond the fender when viewed from above. Fender flares may be added to cover the top center of the tires.

6.29.4. There is no spec tire for the GT cars. Any DOT-R or non DOT tire or racing slick may be used that fits on the required wheel.

6.30.6. Brake rotors may be replaced with steel rotors of any size. Rotors may be modified by slotting or cross drilling. Two Piece rotors may utilize an aluminum hat. Any brake caliper up to a six piston design may be used. Wheels may not be modified or machined to allow fitment of alternate components. Aftermarket ABS controllers may be used.

6.31.1. Aftermarket suspension arms may be used.

6.31.9. Suspension mounting points are open and may be altered from the original factory locations.

7.1.3. A base minimum weight must be declared based on the following formula and the horsepower declared in 7.1.2. The minimum weight is calculated using the following formula:

Production Based Cars - PBC

FWD: 6.6 lbs. / declared hp

RWD Solid Axle: 7.0 lbs. / declared hp

RWD-IRS: 7.5 lbs. / declared hp

AWD: 7.7 lbs. / declared hp

Tube Frame/ Purpose Built Cars- TFR

FWD: 6.6 lbs. / declared hp

RWD Solid Axle: 7.2 lbs. / declared hp

RWD IRS: 7.8 lbs. / declared hp

AWD: 8.2 lbs. / declared hp

5. All calculated weights are rounded down to the nearest 5.0 lbs.

**Production Based Cars (PBC)** is defined as any automobile whose primary purpose is to be a street driven vehicle. Kit Cars which are intended for street use are classified as PBC (examples: Noble or Factory 5 GTM)

**Tube Frame/Purpose Built Race Cars** – (TFR) is defined as any car whose primary purpose is as a racing car. (examples: any stockcar chassis, DTM or similar, 911 GT3 Cup, V8 Supercar, Viper Competition Coupe, Custom Tube Frame Chassis stock body racecars). TRF cars must have a legitimately represented silhouette of a production car that is less than 8 years old.



## **Appendix B USTCC Sportsman (SP) Rules**

The USTCC Sportsman category cars shall meet the same requirements as the Touring class cars with the following exceptions:

1. The Sportsman class cars shall have a 150 pound weight addition weight calculations found in Article 7.
2. The maximum tire size in the SP class is 245 mm wide.
3. The required wheel diameter is seventeen (17) inches or eighteen (18) inches with a maximum width of eight (8) inches.
4. There are no cash prizes for the SP class.
5. Entry fee for the SP class shall be lower than the TC class when possible.
6. The required spec tire for SP is Nitto NT-01.

## **Appendix C USTCC Super Touring (ST) Rules**

The USTCC Super Touring category shall meet the same requirements as the Touring class cars with the following exceptions:

1. The horsepower to weight numbers will be as follows:  
FWD: 9.0 lbs/ stated hp  
RWD: 9.5 lbs/ stated hp  
AWD: 9.75 lbs/ stated hp
2. The required wheel diameter is seventeen (17) inches or eighteen (18) inches with a maximum width of ten (10) inches for cars with a declared weight of under 3200 pounds. Cars with a declared weight of 3201 or more can use wheels with a maximum width of 11.5 inches. For cars running a staggered tire setup, the combined wheel size will be measured and limited.
3. The required spec tire for the ST category is Nitto NT-01.
4. The following maximum width tires may be used:
  - a. Declared weight less than 2900 pounds. 255 tire max width
  - b. Declared weight between 2901-3200 pounds. 275 tire max width
  - c. Declared weight over 3201 pounds. 305 tire max width
  - d. For cars running staggered tires, the combined tire width is the one being limited. For example, for a 2901 pound car the maximum with is  $275 \times 4 = 1100$  mm. So you can use 255 in front and 295 in rear for example.
5. Dry sump oiling system is allowed without penalty.
6. Differential ratio does not need to follow the VSS. Each team must declare their differential drive ratio on the season registration form. This number may not be changed during the season unless a special permission is granted due to hardship cases.

7. Body panels may be replaced with alternate materials provided they meet the stock appearance of the replaced body panel.