



2010 CAR SPECIFICATIONS

“GT-1” CLASS

revised 3/10/10

These specifications are intended to define the modifications that are acceptable to 1992 – 2002 Dodge Vipers competing in the GT-1 class for the VRL series. Any driver found not complying with the rules will receive a point penalty and/or fine and possible probation or suspension. Amendments to these rules may be adopted at any time and will become effective at the next event. These rules supersede all previous rules.

1. MODIFICATIONS

No modifications / adjustments to any component are allowed except as listed below. No permitted components or authorized modification shall additionally perform a prohibited function. Any tampering or counterfeiting of the seals will result in loss of points for entire season up to such date that the violation was found.

2. ALLOWED MODIFICATIONS

A. ENGINE

1. No internal engine modifications are allowed except for oversize pistons. No compression change, eyebrows, or stroking is allowed. All engine parts will be OEM or replaced with OEM parts available from Dodge.
 - a. GEN 1 Vipers will be allowed (but not required) to make modifications to factory heads as approved by the VRL. Polishing of the intake and exhaust ports is allowed for GEN 1 Vipers; porting or CNC machining of the intake and exhaust ports is NOT allowed. The intent of this allowed modification is to equalize GEN 1 engine performance to that of a stock GEN 2 engine.
 - b. Engines may be balanced and blue printed.

- c. Except for oversize pistons, engines must otherwise meet the Dodge Factory Service Manual or legitimate Factory Technical Bulletins of the applicable year of the car. Updating and backdating of the engine specifications is legal.
 - d. No engine component(s) shall be modified in any manner that is not specifically permitted or authorized by the Factory Service Manual or legitimate Factory Technical Bulletins.
 - e. Any engine modifications other than those listed above will automatically place that car in the GT-8+ class.
2. All Viper engines can be rebuilt or refreshed by Arrow or others, as approved the VRL. Performance enhancements are not permitted.
 3. All engines, once approved, will be “sealed” in a manner to be determined by VRL to assure that unauthorized modifications will not be made. Any tampering or counterfeiting of the seals will result in loss of points for entire season up to such date that the violation was found.
 4. No machining allowed, except for honing for oversize pistons. Overhaul procedures which in the slightest way could increase performance beyond factory specifications shall not be utilized, e.g. porting / polishing, etc.
 5. Under drive pulleys, as approved by VRL, are acceptable.
 6. A/C, heater, and all related components may be removed.

B. INDUCTION

1. OEM throttle bodies may not be modified in size, shape, or configuration.
1. The OEM air box may be modified, removed in its entirety or replaced with an aftermarket air box.
2. OEM air inlet tubes may be replaced with smooth tubes.
3. Air Filters may be changed.
4. No change to the ambient air temperature or air pressure to intake air is allowed.

C. CAMSHAFT and VALVE GEAR

1. All valve sizes, seat dimensions, and angles, etc. shall be in conformance with those specifications and procedures outlined in the Factory Service manual.
2. The camshaft will be factory OEM; updating and backdating of the camshaft is legal.
3. Pushrods may be replaced with non-OEM pushrods for increased reliability but they must meet stock pushrod length specifications.
4. Rocker arms may be replaced with non-OEM rocker arms for increased reliability but they must meet stock rocker ratio specifications. Roller rockers are specifically prohibited.
5. Valve springs may be replaced with non-OEM valve springs for increased reliability but they must meet stock spring rates and seat pressures.

D. FUEL SYSTEM

1. Fuel filters may be substituted.
2. OEM fuel injectors must be used unless approved by VRL.
3. Fuel cells are required. The recommended size is 100 liters.
4. The fuel filler line must be double clamped on both ends. One race grace period.

5. Fuel cell must current within five years of date of manufacture. One event grace period.

E. OILING SYSTEM

1. Oil substitutes and additives are permitted. Oil filter may be substituted or moved, as approved by VRL. Oil substitutes and additives are permitted. Motul lubricants are the official VRL lubricants. Users of Motul oil and one other Motul product per event will be eligible for one bonus point per race event.
2. Oil pan may be modified to mitigate oil pressure loss during cornering, using standards established by VRL.
3. Accusumps are acceptable, as approved by VRL.

F. EXHAUST SYSTEM

1. All event-specific sound level requirements must be met. If required the VRL may specify a specific muffler.
2. OEM exhaust manifolds may be replaced with headers.
3. OEM exhaust pipes may be replaced and/or relocated to the sides of the car. Corsa is the official VRL exhaust system supplier and those who utilize one will receive one bonus point per race event used towards the point championship.
4. Catalytic converters, mufflers, and resonators may be removed.

G. OTHER ENGINE COMPONENTS

1. Fluid hoses, their appropriate clamps, and serpentine belts may be substituted. Related clamps and hardware are unrestricted.
2. The engine management computer or ECU may be altered provided that all modifications are done within the original housing. NO modifications can be made to the engine management portions of the wiring system. No additional engine controllers, of any kind, may be added to the car.

H. COOLING SYSTEM

1. The factory radiator and fan may be replaced, as approved by VRL.
2. A radiator screen of ¼" minimum mesh may be added in front of the radiator. If added, it shall be contained entirely within the bodywork of the vehicle.
3. Only water and non-oil base antifreeze are allowed.
4. Specific additives will be approved by the VRL.

I. TRANSMISSION/FINAL DRIVE

1. The transmission and drive shafts must be factory original or OEM replacements. The transmission must utilize stock gearing and syncro's.
2. Half shafts may be changed.

3. Differential may be changed to a Quaife, as approved by VRL. Rear gear ratios are to remain 3.07.
4. Transmission coolers and/or differential coolers may be utilized, as approved by VRL.
5. The clutch may be changed, as approved by VRL. Carbon fiber clutches are illegal.

J. SUSPENSION

1. The rear lower shock mounting bushing may be changed to spherical bearings available from Dodge but must remain in the stock location.
2. The rear toe link tie rod bushings may be changed to spherical bearings available from Dodge.
3. Rear lower ball joints may be replaced by spherical bearings available from Dodge.
4. Use of the Dodge Camber shim kit is allowed.
5. OEM suspension attachment points may be moved but must stay within a 1" radius from their OEM location.
6. OEM sway bars, the sway bar attachment method, shock absorbers, shock absorber bushings, control arm bushings, and springs may be changed, as approved by the VRL.
7. OEM alignment (caster, camber, and toe) and ride height settings may be changed, as approved by VRL.
8. Moton is the official VRL shock absorber supplier and users of them will receive one bonus point per race event.
9. Hubs can be changed to the Coleman hub with ABS.

K. BRAKES

1. OEM brake calipers, caliper mounting points, pads, and rotors may be changed. Stop Tech is an approved alternate.
2. Carbon Fiber brakes are illegal.
3. Teflon lined metal braided lines are required.
4. OEM master brake cylinder and pedal assemblies may be changed, as approved by the VRL.
5. A brake proportioning valve may be added or the existing proportioning system may be modified.
6. Front and rear brake ducts may be added.
7. ABS is legal but all cars utilizing it must carry a 50-pound weight assessment.

L. BODY/STRUCTURE

1. All body components shall maintain the design intent of the OEM manufacture or comply with spec design.
2. Front splitters, side splitters, rear wings and rear diffusers may be added, as approved by the VRL.
3. Belly pans are legal but not required.
4. Windshield wipers are allowed.
5. Aerodynamic pieces shall not be adjustable from inside the cockpit.
6. Side windows must be removed. No replacement window is allowed to be fitted in place of the stock side windows; all cars will race with both side window openings fully open (except for window net(s)).

7. All cars may use a standard safety glass windshield, as delivered with the car, mounted in the stock location and at the stock angle. Windshields of alternate material (i.e. Lexan MR-5/MR-7) are permitted. Alternate windshields must be of 6mm minimum thickness. Alternate material windshields must be identical in size and curvature to the original glass component. Polycarbonate windshields may be retained using straps and/or fasteners per SCCA Pro Racing rules. The stock rear window may be replaced with a rear window made of clear, transparent, and uncolored polycarbonate material having a minimum thickness of 0.93". Ducts may be installed in the rear window for the purpose of supplying cooling air to the driver and / or differential / transmission coolers.
8. Batteries may be mounted in the cockpit only if they are securely mounted per a method approved by the VRL. The positive terminal should be insulated to prevent shorting. No plastic or nylon attaching products allowed.
9. OEM side view mirrors or variations approved by VRL must be utilized.

3. WHEELS AND TIRES

1. Front wheels shall not exceed 12-1/2" in width and rear wheels shall not exceed 13" in width. Forgeline is the official VRL wheel supplier and users of them will receive one bonus point per race event. Wheels shall be 18" in diameter, as approved by VRL.
 - a. *Maximum width at the front tires is 74.5" measured at widest point.*
 - b. *Maximum width at the rear tires is 78.7" measured at widest point.*
2. In an effort to achieve parity, all cars shall run the series spec tire - **Hoosier Competition VRL tires**. 305/30-R18 and / or 335/30-R18, both in a VRL specific compound. No Hoosier Autocross "A" or other non-VRL compound tires will be allowed in the series, Hoosier "R6" tires are permitted as long as they are purchased through Archer Racing Access.
3. All Hoosier tires will be branded and will be purchased from the VRL approved supplier.
4. Tires cannot be soaked or treated in any fashion.
5. Wheels must be certified at least once every two years. They must be date stamped by Forgeline or an approved manufacturer. All wheels must be inspected and dated before the car will be allowed on the track.
6. Drivers must use the same set of tires for Qualification and the Saturday race. A second set of tires may be used for the Sunday race.
7. If a driver damages a tire during qualifying, a VRL official must be called and then the tire may be replaced at the same corner from which it was removed with no penalty. If more than one tire must be replaced due to driver over driving during qualifying (IE; spin causing flat spots or other damage) and more than one tire is damaged the driver will go to the last grid position for the starting of the race and they will lose their qualifying time and qualifying points.
8. A VRL official may deem any tire unsafe and that tire must be replaced. Refer to 7 above for any applicable penalty.

4. APPEARANCE

1. Cars may be painted any color. Markings and numbers may be painted.
2. Numbers will be as assigned by the VRL and must appear on the car in 4 places. Side number characters must be a minimum of 10" high and 6" wide and contrasting colors. Front and rear number characters must be a minimum of 5" high and 3" in width and in contrasting colors.

3. The car class (GT-1) shall be marked on the rear bumper and must utilize characters at least 4" high and 2.5" wide.
4. Rookies must have a 5" yellow circle with a 4" "R" on the rear of the car.
5. Vehicles shall be neat and clean, show no body damage or primer, and carry all prescribed identification marks and logos.
6. Cars must have affixed all League Sponsor decals as listed in the Sponsor Points for VRL document. Color of decals at driver's option but must be proper format.

5. DRIVER COMPARTMENT

1. A vertical sealed bulk head must be installed behind driver to keep fuel out of driver's compartment.
2. A driver's race seat must be utilized. Racetech is the official race seat supplier of the VRL and use of a Racetech seat will result in one bonus point per race event towards the point championship. The driver's seat shall be firmly mounted to the structure of the car. The back of the seat shall be firmly attached to the main roll hoop or its cross bracing so as to provide aft and lateral support. Seats homologated to and mounted in accordance with FIA standard 8855-1999 or higher need not have the seat back attached to the roll structure.
3. A passenger seat may be added provided that it is of like construction and installation as the driver's seat. It must be fitted with a 6 point harness of like construction and installation as the driver's harness. Six point safety harnesses must be utilized. These harnesses must meet the requirements of and be mounted per the latest SCCA General Competition Rules & Specifications. These harnesses shall consist of two minimum 2" lap belts, two minimum 3" shoulder belts, and two minimum 2" anti-submarine belt. All such systems shall be mounted properly and be dated no more than two years old. TeamTech is the official VRL safety harness provider and the use of a TeamTech harnesses will result in one bonus point per race event towards the point championship.
4. Head Restraints are required for all drivers. Drivers will wear their restraints at all times while on track.
5. In car video is mandatory in all cars. This will allow the Stewards of the Meet to resolve all rules and track infractions by having all the information possible available before making a ruling. The video camera must not be powered from the car electrical system. Cameras will be operable for both the Qualifying and Race sessions. Failure to have a operational video camera will result in the car not being allowed to race, unless approved by the Chief Steward.
6. The rear view mirror may be replaced with a larger mirror. Each car must have a rear view mirror.
7. OEM radio, speakers, amplifier and components may be removed.
8. Sun visors may be removed.
9. Carpet/padding, headliner, interior trim panels, door panels and other door components may be removed.
10. Air bags shall be deactivated and removed.
11. OEM seat belts must be removed.
12. Spare wheels / tires, jacks and OEM tool kits shall be removed.
13. Quick release steering wheels are recommended but not mandatory.
14. Additional gauges may be added to the stock dash or console.

15. It is highly recommended that at no time any fuel, oil, coolant or brake fluid pass into or through the cockpit with the only exception being for an oil pressure gauge. All fluid hoses, lines, reservoirs, and tanks that are in the cockpit, or cargo area that is open to the driver (including those lines that perform fill, overflow, vent, return, etc, functions), shall be made of metal or metal braided hose, and shall be equipped with AN- Series threaded couplers. All such lines shall additionally be separated from the driver by rigid metallic and/or non-metallic enclosures and/or deflection shields to prevent fluid from spraying on the driver in case of a leak. Magnesium is prohibited. The floor of these enclosures, or the area under the deflection shields, shall be designed to prevent the accumulation of fluids.
16. The chassis must incorporate a full roll cage per cage per the latest SCCA General Competition Rules & Specifications Touring Category Roll Cage requirements; including but not limited to these requirements:
 - a. Welded to the car.
 - b. Attached at not less than 8 points.
 - c. Minimum tubing size shall be 1.75" x .095DOM or 1.625" X .120DOM / Seamless / Alloy – No ERW.
 - d. At least two sidebars are mandatory; three are recommended, on the driver's side. A 3/16" inspection hole must be drilled to facilitate inspection of wall thickness.
 - e. Please design your cage with easy access and exit capabilities.
 - f. A current SCCA annual Technical Inspection will be considered as adequate proof of acceptability of a cage for the VRL.
17. APR approved window net covering the driver's window opening is mandatory and must be securely installed. Window nets must be attached to the roll cage. The window net must be easily removable from both inside and outside the car allowing access through the window. Arm restraints are recommended. If a passenger is given a ride an arm restraint or window net must be utilized.
18. Cars must have an on-board fire suppression system with a 10-11 pound Halon 1301 or 1211 or approved extinguishing material as a minimum. Trigger must be marked with a red circle with the letter "E" inside and be operable by the driver. Outlets must be directed into the driver, engine and fuel compartments. All electric controlled systems must be direct wired.
19. GT-1 cars must be equipped with two VRL approved master electrical circuit shut-offs, one accessible from inside (accessible by the driver when normally seated and fitted with the mandatory safety harness), and the second outside the car, that control all electrical power (except electrically actuated fire systems). The preferred outside location is the rear of the car. The circuit shut-off must be clearly marked for the on and off positions, and location of the switch by a decal of a spark in a blue triangle.

6. SAFETY

1. Radio communications between driver and crew is mandatory. With the chief steward being on a specified channel it behooves the crews and drivers to know instantly what is going on. VRL will assist in finding a crew person to assist with the pit radio.
2. Each car's radio frequency must be registered with the VRL to eliminate teams being on same frequency.
3. Headlights and/or driving lights are permitted and are required for racing in the rain. They may be mounted in the fog light area.
4. Windshield wiper and defroster are required to run in the rain.

5. Helmets can be open or closed face but must carry a Snell 2005 (or newer) rating and *be no more than 5 years old*. Helmets have a date of manufacture stamped on the inside. If you have facial hair and wear an open face helmet, you must wear a balaclava.
6. Drivers must wear a three layer-driving suit, gloves and shoes, as approved by VDI.
7. All drivers must wear a properly installed head restraint system.
8. The fuel filler line must have NO fuel visible in it when the car is brought to the grid before the race.
9. The fuel filler line must be double clamped on both ends. One race grace period

7. OTHER

1. Any team who visibly and respectfully displays a 3' x 5' U.S. flag on the trailer that transported the car will receive one bonus point per weekend.
2. All cars competing in VRL events must exclusively use the Official Fuel (if specified) as supplied by the Official Fuel Supplier, unaltered and without additives, for all official practice, qualifying and races. Competitors are responsible for the proper handling, transportation and security of their fuel from the time it is dispensed to them and for the proper disposal of unused fuel and/or fuel drums afterwards.

8. WEIGHT

GEN 1 based GT-1 cars must weigh a minimum of 2,980 pounds after qualifying and the races. GEN 1 based GT-1 cars equipped with ABS must weigh a minimum of 3,030 pounds after qualifying and the races without driver. GEN 2 based GT-1 cars must weigh a minimum of 3,030 pounds after qualifying and the races without driver. GEN 2 based GT-1 cars with ABS or 2001 and newer cars must weigh a minimum of 3,030 pounds. Any of the top five finishers may be signaled to go to the impound area and be weighed before going to their pits. Failure to go to impound will result in the disqualification for that session. If it is a qualifying session the driver will be gridded at the rear for the race and lose all qualifying points. If it is a race session the driver will lose all points for that race. Cars can also be arbitrarily selected, as deemed necessary, at each event for approved weight. Failure to make weight at the completion of a race will result in loss of all points for that race.