

NASA Spec Neon®

Official National Rules

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1 Definition and Claim

NASA Spec Neon™ (SN) is an affordable racing series, primarily focused on road racing, and shall function as an advertising and marketing tool for the series sponsors, the independent sponsors of each team, as well as the official sanctioning body of the series. The trade name, "NASA Spec Neon," and these rules are the property of the National Auto Sport Association, Incorporated® located at P.O. Box 21555, Richmond, CA 94820; 510-232-NASA (6272). The marks "Neon", "Chrysler", "Plymouth", "DaimlerChrysler", "Mopar", and "Dodge" are recognized as registered to the DaimlerChrysler Corporation with the United States Trademark and Patent Office.

2 Intent

The intent of these rules is to provide mandates to ensure that all vehicles are constructed and modified within clearly established limits, so as to ensure an even platform, in which a contest of driving skill may provide the most talented drivers with great rewards.

3 Purpose

The purpose of this series is to provide an avenue to promote sponsor brand awareness on a national scale. Additionally, this series should provide a stage to showcase driving talent, in hopes that the most talented drivers will advance to even higher-level professional series.

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; rather they shall serve as the national set of rules, and must be strictly followed. Each NASA Region is responsible for ensuring that all competitors running in the corresponding regional championship conform to these rules.

5 Eligible Manufacturers

Daimler Chrysler Corporation and its predecessors in interest 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 for the series.

6 Eligible Models

1995-1999 Dodge/Chrysler/Plymouth Neon 2-door and 4-door models including ACR, Base, Sport, and R/T models are eligible for the SN class. Updating and backdating within the allowed models and years is permitted.

7 Sanctioning Body

NASA Spec Neon™ is sanctioned by the National Auto Sport Association (NASA). All events are governed by these rules, applicable addendums, prima facie rules, as well as those found in the latest version of the NASA *Club Codes and Regulations* © (CCR). All decisions made by the series administration are final, except under certain conditions, as specified by the CCR.

8 Safety

8.1 General

All safety standards not specified herein must conform to the NASA Club Codes and Regulations (CCR). Where conflicts are found between the CCR and these rules, these rules must supersede the conflicting rules found in the CCR. However, in the interest of safety, any participant that determines a conflict exists must immediately report it to the series administration, for clarification.

8.2 Class Identification Markings

All cars must carry class markings of "SN" on both sides of the car in the form as required by the CCR.

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 series 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 the series Race Director.

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 that is specified by the manufacture 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 manufacturer specifications, or these rules, specify a tolerance.

10 Weight

10.1 Minimum - Vehicle

All minimum weight requirements must be met immediately following all qualifying sessions and races. Minimum weight for SOHC powered SN cars shall be two thousand five hundred (2500) pounds including the driver. Minimum weight for DOHC powered SN cars shall be two thousand five hundred and fifty (2550) pounds including the driver.

10.2 Additional Weight - Ballast

Additional weight may be added to the vehicle providing that all of the following conditions are met: Additional weight must serve no other purpose than to increase the weight of the vehicle. This additional weight shall be known as "ballast." 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. All pieces of ballast must be bolted within the passenger compartment, through the floor pan on the passenger side of the cockpit, no further rearward than the front holes of the seat bolts.

11 Engine

11.1 Engine Assembly

- a) Engines may be balanced and/or blueprinted. Lightening of parts beyond what is necessary to balance is prohibited.
- b) Engines may be bored to a maximum of .040 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 .040 factory replacement piston/wrist pin is not available, the .040 pistons/wrist pins shall not weigh any less than then a standard size OEM piston.
- c) Piston rings are unrestricted.
- d) Head intake and exhaust ports may be port matched but cannot be machined beyond 1 inch into the head or intake.
- e) Valves and valve seats may be machined and may only replaced with the exact factory equivalent.
- f) Valve guide material is unrestricted.
- g) Compression may be increased one half (.5) a point greater than factory number.
- h) Cylinder heads may be machined so long as it does not increase compression beyond the maximum value allowed.
- i) Timing gears must remain stock.
- j) Any OEM Mopar or Mopar Performance ECU may be used, provided it plugs into an unmodified wiring harness, and may be relocated ONLY to facilitate cage installation. Reprogramming of the stock OEM ECU is allowed but only to flash the ECU to the parameters of the Mopar Performance program. All ECU's must be commercially available through regular retail outlets.
- k) Polyurethane or hard rubber motor mounts may be used. The Mopar Performance Bobble strut is also allowed, but no aftermarket or other filling is allowed for the strut.
- l) Any air intake system in front of the throttle body may be used (stock throttle body must be retained)
- m) Exhaust manifold must be original equipment but may be ported. However any exhaust pipe may be used. All emission related devices may be removed or disabled. The catalytic converter may be removed (note: some facilities have rules governing sound limits. Vehicles must fall within these limits to be allowed to compete). The stock muffler may be retained, discarded, or replaced with any other muffler, providing that it serves no other purpose than to quiet the exhaust.
 - p) Fasteners may be replaced with items performing the exact function.
 - q) Gaskets may be replaced with others so long as it does not violate any other rules contained herein.
 - r) Engine drive belts are unrestricted
 - s) Alternate accessory drive pulleys ("underdrive pulleys") may be used. Crankshaft may use any pulley.
 - t) Alternate water pumps of OE design may be used and must bolt to engine without modification

11.2 Ignition

- a) 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.
- b) Alternate spark plugs and ignition wires may be used.

11.3 Fuel Systems

- a) Fuel cells are allowed. Consult with CCR for approved models and installation.
- b) Any fuel lines, pumps or regulators are permitted.
- c) Adjustable fuel pressure regulators may be used.

11.4 Oil System

- a) Oil coolers and remote oil filters may be used.
- b) Valve covers may be modified to accommodate a breather and/or filler.
- c) A pressure accumulator such as an Accusump may be used. Dry sump oiling systems are prohibited.
- d) Oil pans and all related items such as baffles, pickup, pump and scrapers are unrestricted.

12 Transmission / Differential

12.1 Clutch

Any clutch disc and clutch cover (pressure plate) may be used, providing they mount on an unmodified stock OEM flywheel. Flywheels may not be lightened or modified except as necessary for surface finishing.

12.2 Differential

Any limited slip or welded differential is permitted.

12.3 Transmission

Any Neon New Venture Gear transmission is permitted. Transmissions may not be modified internally or externally from their stock configuration and build.

12.4 Final Drive

Allowed final drive ratios shall be either 3.55:1 or 3.94:1.

13 Suspension Components

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

13.1 Strut/Knuckle/Hub Assembly

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. Remote reservoir struts are not allowed. Custom revalving of struts is not allowed and all struts shall use the valving as specified for their original part number.

13.2 Bushings

Mopar Performance (P5007045) Bushing Kit or Energy Suspension equivalent is permitted.

13.3 Required Components

All SN vehicles must use the following components. All components must be installed and functional.

Mopar Performance High Rate Springs (P5007003 front/P5007005 rear)

Front Sway Bar 22 mm O.D. Maximum

Rear Sway Bar 22 mm O.D. Maximum

Alternate Spring Package:

Performance Driven, LLC www.performancedrivenllc.com Phone: 800 705 1285

"Mopar High Rate" equivalent springs (MOPHF front/MOPHR rear)

13.4 Alignment

Wheel alignment is unrestricted.

13.5 Sway Bar Brackets

Alternate (non-Mopar) sway bar brackets are permitted provided that they provide no advantage other than increased durability.

13.6 Steering

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

14 Wheel Assembly

14.1 Rims

Any OEM Neon fourteen (14) inch rim, with a maximum width of six (6) inches is allowed. Allowed rims include those found on the 95-96 ACR/Sport models, the 97-99 ACR/Sport models, and the 97-99 R/T models. All four (4) rims must dimensionally match.

14.2 Tires

The tire size allowed is the 205-55-14 Toyo RA-1. Under no circumstance shall the tire / rim protrude from the body / fender when viewed from above.

15 Brake System

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

- 15.1 Brake pads are unrestricted.
- 15.2 Steel braided brake lines may be used.
- 15.3 Disc brake backing plates may be removed.
- 15.4 The emergency brake lever and/or cables and associated parts may be removed.
- 15.5 Brake ducting is permitted provided that such ducting performs no other purpose than providing cool air to the brakes.
- 15.6 Alternate caliper piston material is permitted for durability.
- 15.7 All anti-lock braking systems must be disabled.
- 15.8 Brake proportioning devices are allowed.

16 Appearance

16.1 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, and insignias and emblems other than "Dodge/Chrysler/Plymouth" and "Neon," 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.

16.2 Interior

The 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. All driver seats must conform to the CCR.

Gauges may 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 remainder of the dash "board" and instrument panel must remain intact.

Any steering wheel and attachments may be used except wood rimmed type steering wheels.

Any shift knob or shifter assembly (including shift linkage, shifter handle, and shifter base) may be used.

The air conditioning system may be removed. Modification or removal of the heater core and blower fan is permitted.

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.

All insulating material may be removed from the interior.

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.

Removal or substitution of driver compartment panels is permitted.

Any removable covers used to cover spare tires, tools, bins, etc. may be removed along with attaching hardware and brackets.

Carpets, mats and their insulating or attaching materials may be removed from the floor and recesses of the cargo/spare tire area.

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.

The passenger seats, mounting hardware, and seat belts may be removed.

Airbags must be removed or disabled.