



NASA Autocross Car Classification Form (NXR-NXH)--2011 (v11.1)

Owner's Name Date Region
Car Number Car Color e-mail
Car Year Make Model Trim
NASA-X Base Class Base Weight Listing (from NASA-X Rules) lbs.
2011 Declared Minimum Competition Weight (with driver) lbs.

Proceed to calculate your vehicle's modification points assessment for up-classing purposes. Fill in the blanks with the number of modification points assessed for each item that affects your vehicle. You may leave the lines blank next to modifications that your vehicle does not have. Proceed to Page 2, and calculate all modification points' assessments, then fill in total points below. ALL Factory Options and Parts Not on the Base Trim Model Must Be Assessed Points!!!

Total Number of Modification Points from assessments listed on pages 2 through 4 of this document
Total Number of Points from * (+7) or ** (+14) from section 1.2 of the NASA-X Classing document
Forced Induction Vehicles automatically enter +5 here (all turbocharged and/or supercharged cars)
Total Modification Points for Up-classing

Table with 3 columns: Points Range, Up Classes, and Notes. Includes ranges like 20 thru 39 points - Up ONE Class and 180 or more points - up NINE classes.

Base Class: NX Final Competition Class: NX

Any vehicle that exceeds the maximum points assessment set forth in this document (i.e. beyond class NASA-X R with 19 points added) may be excluded from the official event results and run only in an "EXPO" class, as determined by the NASA-X National Director or any NASA-X Regional Director.

For purposes of NASA-X points assessments, the term OEM will be defined as follows: Any part that is identical in size, shape, and functional characteristics compared to the part that originally came on the vehicle, from the manufacturer, as a standard feature of the base model as it is listed in section 1.2 of the current NASA-X National Classes document (factory options and specialty model parts are considered non-OEM) or is listed as a standard replacement part by the OEM manufacturer.

This current Classing Form summarizes the current NASA-X National Classes document available from http://www.nasaproracing.com/rules.htm . Participating NASA-X drivers may be required to file this form with regional or national NASA-X Officials before a specific season or event, TBA in advance. Otherwise please fill it out and save it for self-classing purposes before entering any NASA-X event.

TIRE POINTS:

- _____ 1) The following DOT-approved R-compound tires: Hankook Z214 (C90 & C91 compounds only), Hoosier A6 +13
- _____ 2) DOT-approved R-compound tires with a UTQG treadwear rating of 40 or less (examples: BFG R1, Goodyear Eagle RS, Hankook Z214 (C71, C70, C51, C50), Hoosier R6, Kumho V710, etc. --note: [Grand Am Continental](#) & VRL Hoosiers OK) +10
- _____ 3) DOT-approved R-compound tires with a UTQG treadwear rating of 50 to 130 (ex. KumhoV700, Michelin Pilot Sport Cup, Nitto NT01, Pirelli PZero Corsa, Toyo R888, Toyo RA-1, Yokohama A048, etc) +7
- _____ 4) DOT-approved (non-R-compound) tires with a UTQG treadwear rating of 120-200 (examples: [Toyo R1R](#), [Dunlop Direzza Sport Z1 Star Spec](#), [Bridgestone Potenza RE070](#), [Kumho Ecsta XS](#), [Yokohama Advan A046](#) & [Neova AD08](#), [Hankook R-S3](#)) +2
- _____ 5) Non-DOT-approved racing slicks +30 (of any origin--re-caps and re-treads are not permitted)

The following tire sizes will be used as the base tire size for each **Base Class** for all vehicles regardless of their OEM tire size(s). All vehicles in a given base class may use this tire size (or smaller) without a points assessment:

NXR: 335mm, NXU: 315mm, NXS: 305mm, NXA: 295 mm, NXB: 265mm, NXC: 255mm, NXD: 245mm, NXE: 235mm, NXF: 215mm, NXG: 195mm, NXH: 175mm

Tire width points assessed or points credited are determined by the difference between the width of the **largest tire** on the vehicle and the assigned base tire size as follows:

Equal to or greater than: 10mm +1, 20mm +4, 30mm +7, 40mm +10, 50mm +13, 60mm +16, 70mm +19, 80mm +22, 90mm +25, 100mm +28, 110mm +31, 120mm +34, etc.

Equal to or less than: -10mm -1, -20mm -4, -30mm -7, -40mm -10, -50mm -13, -60mm -16, -70mm -19, -80mm -22, -90mm -25, -100mm -28, -110mm -31, 120mm -34, etc.

Tire width is determined by the number printed on the tire sidewall by the manufacturer. If a tire does not have a manufacturer's printed number on the sidewall, then actual tread width measurement will be used. UTQG tread wear ratings are as of the date of the current version of the TT rules. Any new tire or tire with a changed UTQG tread wear rating must be evaluated by the NASA-X National Director before the rating will be legal for use in NASA-X classing. All DOT-approved tires must be available for purchase by the general public through Federal or state licensed tire dealers.

Base Class Tire Size _____ mm Actual Tire Size _____ mm Difference _____ mm #Points _____

Total Tire Modification Points

WEIGHT REDUCTION POINTS:

Weight reduction points are based on the actual vehicle minimum competition weight (with driver). Removal and lightening of non-essential parts is permitted unless stated otherwise in these rules. Modification of the OEM frame, sub-frame, and floor pan are not permitted. Removal or lightening of engine parts is permitted only as listed elsewhere in the current NASA-X rules & classing doc's.

If the base weight used for base classing purposes (listed in Section 1.2 of the 2011 NASA-X Classes document) minus minimum competition weight (with driver, able to be started and driven) is greater than: 5 lbs +1, 20 lbs +2, 35 lbs +3, 50 lbs +4, 65 lbs +5, 80 lbs +6, 95 lbs +7, 110 lbs +8, 125 lbs +9, 140 lbs +10, 155 lbs +11, 170 lbs +12, 185 lbs +13, 200 lbs +14, 215 lbs +15, 230 lbs +16, 245 lbs +17, 260 lbs +18, 275 lbs +19, 290 lbs +20, 305 lbs +21, 320 lbs +22, 335 lbs +23, 350 lbs +24, 365 lbs +25, 380 lbs +26, 395 lbs +27, 410 lbs +28, 425 lbs +29, 440 lbs +30, 455 lbs +31, 460 lbs +32, 475 lbs +33, 490 lbs +34, 505 lbs +35, etc...

Base Wt. _____ lbs. minus Min. Comp Wt. _____ lbs. = _____ lbs = _____ points

Total Weight Reduction Modification Points

ENGINE/DRIVETRAIN POINTS:

- ___ 3) Aftermarket computer system (any non-OEM “stand-alone” or “piggyback”): +3 naturally aspirated, +10 forced induction
- ___ 4) Modification of the OEM air intake/box, air filter location, air piping to the turbo/supercharger/intercooler/throttle body/carburetor, or hood/fascia/fender air inlet(s), outlets, or vents +1 (air filter upgrade alone—0 pts.)
- ___ 5) Non-OEM, **deleted**, or modified/porting throttle body +2; independent throttle bodies +4
- ___ 6) Non-OEM or modified carburetor, fuel rail, fuel injectors, fuel pump(s), and/or fuel pressure regulator +2 (no points for fuel pump alone **if using OEM** fuel and timing maps, sensor inputs and ignition timing)
- ___ 7) Non-OEM, modified/porting, or deleted intake manifold: 4 cyl. +1, 6cyl. +2, 8 cyl. +3, 12A &13B rotary +2, all other rotary +3
- ___ 8) Water injection system +6 (alcohol-water mixtures are not permitted)
- ___ 10) Replacement pulleys (other than for supercharger) or non-electrical fan removal +1
- ___ 11) Replacement pulley for OEM supercharger **or replacement of any pulley that affects OEM supercharger speed** +4
- ___ 12) Aftermarket boost controller or modification/alteration of OEM vacuum lines that serve to function as a boost controller +4
- ___ 13) Aftermarket or modified wastegate actuator, wastegate, or vacuum line(s) that serve to control the wastegate actuator function or increase peak boost +3
- ___ 14) Add aftermarket intercooler +7
- ___ 15) Non-OEM or modified intercooler +4 (IC sprayers are not permitted unless they came on the OEM base trim model of the vehicle).
- ___ 16) Increased displacement by: <1.5% +0, 1.5% to <5.5% +4, 5.5% to <7% +6, 7% to <10% +8, 10% to <15% +10, 15% to <20% +15, > 20% +20. Formula to calculate % = current disp. divided by OEM disp., minus 1, x 100 = %
Example: 407ci/351ci = 1.16, minus 1 = .16, x 100 = 16% (+15 pts)

Example: 1852cc/1799cc = 1.029 minus 1 = .029 x 100 = 2.9% (+4 pts)
- ___ 17) Modified or non-OEM camshaft(s), **rocker arms, push rods**, or cam timing gears +6 (for one or more)
- ___ 18) Valve size change, modified, ported or polished OEM head (other than simple shaving of the head only) +6
- ___ 19) Any modifications that result in increased engine compression ratio (including shaving the head or decking the block to factory specs): 0.50 or less +0, >0.50 +3, >1.0 +6, >2.0 +10, >3.0 +15
- ___ 20) De-stroked engine +4
- ___ 21) Added dry sump oil system +7 (+14 if motor is lowered from OEM location)
- ___ 22) Modification or porting of the exhaust manifold +2
- ___ 23) Aftermarket or modified header +2
- ___ 24) Non-OEM or modified exhaust piping, resonators, or mufflers downstream from the header, exhaust manifold, or turbo. (does not include catalytic converter removal/upgrade) +2 (Note: Replacement of a failing OEM exhaust system may be permitted without a points assessment if the OEM definition is strictly adhered to.)
- ___ 25) Removal, upgrade, or modification of catalytic converter(s). +1
- ___ 26) Non-OEM sequential (semi-automatic) or dog-ring (non-synchromesh) transmission (includes altered gear ratios) +7 (**does not include automatic transmissions utilizing a torque converter**)
- ___ 27) Upgrade number of forward gears in transmission or altered gear ratios +3
- ___ 28) Final drive ratio modification +3 (includes OEM sport package differentials for cars not listed separately in section 1.2 Base Classing)
- ___ 29) Added paddle/electronic shift +3
- ___ 30) Added limited slip differential or welded/locked differential +3
- ___ 31) Changed or modified limited slip differential (or welded/locked OEM LSD) +1
- ___ 32) Added traction control +3 (no points if proven disabled during competition)
- ___ 33) Relocation of engine/transmission between 1 and 10 inches of the OEM location +7 (note: Relocation of less than 1 inch is not assessed points, and more than 10 inches is not permitted without the approval of the NASA-X National Director.)
- ___ 34) Modification/upgrade from a fixed to a floating rear axle +3
- ___ 35) **Modification/upgrade/replacement of flywheel or torque converter with any lightened or non-OEM part +1** (note: balancing/resurfacing a stock flywheel is still +1)

Total Engine/Drivetrain Modification Points

SUSPENSION/BRAKES/CHASSIS/CAGE POINTS:

- ___ 1) Non-OEM shocks/struts/dampers with an external reservoir or more than two ranges of adjustment—must still take points for springs below +10 (example: compression (bump) and both high & low rebound adjustments).
- ___ 2) Non-OEM shocks/struts/dampers with a “Piggy Back” external reservoir (fixed reservoir without a connecting hose) OR

- with shaft diameter 40mm or greater—must still take additional points for the springs below +7
- ___3) Non-OEM or modified/re-valved shocks/struts/dampers +3 (all others)(springs not included)
 - ___4) Changing the mounting orientation/design of the OEM shock and/or spring perch **in order** to invert **the shocks/struts (includes non-OEM inverted shocks/struts)** +1
 - ___5) Non-OEM or modified coil springs, leaf springs/spacers/brackets, or torsion bars +2
 - ___6) Conversion of torsion bar/leaf spring suspension to coil spring and strut/shock suspension +2
 - ___7) Add, replace, remove, or modify anti-roll bars (“sway” bars—front, rear, or both—may have spherical joints on the end links **and/or relocation of the mounting points** without additional points assessment) +2
 - ___8) Non-OEM driver/cockpit adjustable sway bar or suspension settings +4
 - ___9) Replace or modify control arms (other than plates, shims, slots, or eccentric bolts/bushings for simple camber/caster adjustment only) or RWD/AWD rear trailing arms (may have spherical/metallic joint for the connection to the spindle/knuckle) +4
 - ___10) Non-OEM rear control arms on FWD vehicles (for stiffness and wheel alignment only, no change in suspension mount or pick-up points from stock) +1
 - ___11) Non-OEM rear trailing arms on FWD vehicles (for stiffness only, no change in suspension mount or pick-up points from stock) +1
 - ___12) Using the alternate control arm mounting location on cars equipped OEM with multiple choices (example: to increase track width) +6
 - ___13) Changing the orientation or design of an OEM mounting point or pick-up point of a control arm for a panhard bar or trailing arms +1
 - ___14) Replaced or modified K-members that change the location of the lower control arms +8
 - ___15) Tubular K(cross)-members that do not change the location of the lower control arms +2
 - ___16) Relocation of front suspension mounting points +6
 - ___17) Relocation of rear suspension mounting points +6
 - ___18) Bump steer kits or shimming of the steering rack +2
 - ___19) Alteration of ball joints/dive angles +2
 - ___20) Add panhard rod or Watts link (regardless of whether **or not** the Watts link replaces an OEM panhard rod or **the panhard rod replaces an OEM Watts link**) (may have spherical joints without an additional points assessment) +4
 - ___21) Replace or modify an OEM panhard rod or Watt’s link (may have spherical joints without add’l points assessment) +2
 - ___22) Add torque arm +4
 - ___23) Replace or modify an OEM torque arm +2
 - ___24) Metallic **and/or spherical-design** replacement suspension bushings +3 (except for pillow ball camber plate joints, sway bar end links already assessed points in 7) above, control arm spindle/knuckle joints already assessed points in 9) above, and **panhard rod or Watts links already assessed in 20) or 21) above.**)
 - ___25) Add front lower stress/arm brace (two attachment points maximum) +1
 - ___26) Add front strut tower bar (two attachment points—bolted in or as component of the cage) +1
 - ___27) Add rear strut tower bar (two attachment points—bolted in or as a component of the cage) +1
 - ___28) Add a third (or more) attachment point to front or rear strut tower bar (or replace an existing/OEM three point bar) +1
 - ___29) Add or modify other chassis stiffening devices or fabricated parts (such as lower strut braces or lower arm braces (with greater than two attachment points), subframe connectors, subframe braces, subframe mounts/bushings, etc) +3
 - ___30) **Non-OEM brake calipers** +2
 - ___31) Seam or stitch welding of the body/chassis +5
 - ___32) **Increase in track width greater than four (4) inches due to non-OEM axles, control arms, brake rotors/hats, wheel spacers, hubs, wheel offset, and/or camber adjustment +6** (measured from the inside of one tire to the outside of the opposite tire at ground level—averaging the measurements in front of and behind the contact patch to negate the effect of toe)
 - ___E1) One or more rollbar or rollcage bars that penetrate the front bulkhead/firewall +2
 - ___E2) One or more rollbar or rollcage bars that are welded to the chassis (directly or with a plate) anywhere farther than 6” from the end of one of the 6 or 8 tubes listed in the NASA-X rules where it terminates at a plate +2

Total Suspension/Brakes/Chassis/Cage Modification Points

Grand Total Of All Modification Points (Enter this number on page 1)

No-points modifications are listed in the NASA-X Classing document.