# NECC POLICIES & PROCEDURES GUIDE CORVAIR CLASSIFICATION

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This document provides instructions for classifying Corvairs and Corvair-power vehicles for NECC events. Please be aware that NECC has established separate sub-classes for drag racing, as noted below. Also, please be aware that all vehicles, irrespective of make, model, year or class, shall comply with NECC's driver and vehicle rules for Time Trials, Autocross, Drag Racing, etc. Such rules are provided to the general public in separate documents on the NECC website.

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# VEHICLE CLASSIFICATION RESPONSIBILITIES

Each participant will initially classify his or her own car. The NECC Director of Technical Inspection or his designated representative will be available to verify final classification. Car classification must be noted on the Technical Inspection form, along with itemized deductions when appropriate for Improved Stock. Appeals may be made to the senior NECC official present at the event whose decision will be final. Other participants are permitted to protest in writing the classification of any car for any reason. Protest forms will be available at the registration desk, and must be submitted at least one hour prior to the end of timed runs. It will then be the responsibility of the senior NECC official on site to determine the ultimate classification of the protested car.

# INSTRUCTIONS FOR CLASSIFYING CORVAIRS

NECC uses a two-step system for classifying Corvairs. The first step is to determine the extent to which the car has been modified since it left the factory. This will determine if the car is Street Stock, Improved Stock, Street Modified, Competition, or a Specialty Corvair. The second step is determine the sub-class for the car. Generally, the sub-classes are determined by the car's year of manufacture, horsepower, transmission, etc.

#### MAIN CLASSIFICATION CATEGORIES

Use the following instructions to determine if your Corvair is Street Stock, Improved Stock, Street Modified, Competition, or a Specialty Corvair. But first, a word about non-Corvairs...

#### Water Pumper Class (WP)

All non-Corvair vehicles shall be assigned to Class WP. Class WP vehicles will be subject to all of the same fees, rules and regulations as all other entries. For safety requirement distinction, Class WP may be divided into two subgroup, based on the vehicles intended function. Cars in WP-S (street) must be street legal, registered, and inspected. WP-C (competition) is for competition prepared cars that are required to have additional safety equipment. To determine requirements for such additional safety equipment, please refer to rules for "Competition-Prepared Cars", which are provided in NECC's driver and vehicle rules, available to the public on the NECC website.

#### **Corvair Street Stock Class (SS)**

This class is designed for stock, unmodified cars and for cars that have been updated for minor increased performance, reliability and comfort. Street Stock cars must adhere to the specification given in this section.

No unauthorized modifications are permitted in order to accommodate authorized modifications (e.g., non-stock hood scoops or holes necessary for carburetor clearance). Cars in Street Stock must run as delivered from the factory except as follows:

- Seat belts and shoulder belts are required; no exceptions. Refer to the NECC Rules for Track and Autocross document for information about the kinds of belts that are acceptable.
- Dual mufflers are allowed on any vehicle. Any replacement muffler(s) (no updating of stock type) may be used. Stock manifolds are required.
- Any stock dimension (5.5" x 13") wheel may be used. Backspacing may decrease by up to one inch (moving the wheel further outward).
- Any DOT tire with an aspect ratio of 70 and above, with a wear rating of 180 and above, and with an unloaded diameter of at least 23" may be used. Tires must fit inside the wheel well without modification.
- Chassis changes to improve safety and handling may be made provided these changes do not exceed factory optional equipment specifications, dimensions and attachment points. The only exceptions are for front anti-sway bars (which must be Corvair production units). Camber compensators are permitted on swing axle vehicles.
- Any replacement shock absorber of stock or factory optional type may be fitted provided that it attaches to the standard mounting points without alteration. Adjustable gas shocks and heavy-duty standard shocks are permitted.
- Updating and backdating of bolt-on non-drive train Corvair production components without modification is permitted. This allows, for example, entire late front suspensions to be used in early Corvairs.
- Yenko Stingers or Fitch Sprints must meet stock Corvair mechanical specifications to compete in Street Stock class.
- Late model Fitch Sprint or Yenko Stinger style window moldings are permitted.
- Yenko rear deck lids or similar integral spoilers of no more than 5-inch height are permitted on all cars.
- Front chin spoilers of no more than 4" height are permitted.
- Any front seats from any production vehicle may be used.
- Any legitimate safety improvement may be made. For example, a roll bar may be substituted for a rear seat in all cars.
- All cars are allowed to modify the carburetor venting for cornering only, and baffle the oil pan and/or pushrod tubes in an inconspicuous manner.
- Carburetor jet size and location is unrestricted.
- Any air cleaner, drawing air from within the engine compartment, is permitted.
- Insignificant reliability enhancing changes that do not noticeably change the appearance or function of the vehicle are allowed. Examples are but not limited to: slightly smaller steering wheels (within 2 in. of stock diameter), dress-up valve covers and oil pans, electric fuel pumps, alternators, lower shroud removal, billet aluminum pulleys, braided fuel lines, etc.
- Solid-state points replacements are permitted (i.e. Pertronix Ignitor). Ignition system is limited to a single coil.
- Electronic knock control and water injection systems are allowed in all cars.
- Lowering compression to use lower octane gas is allowed. Intentionally raising compression is NOT allowed (i.e. head or piston work), but incidental compression changes due to mild cylinder overbore are permitted.

- Overbore of stock cylinders is permitted.
- Any brake lining in conjunction with any drums may be used. Non-power dual master cylinders, brake hoses, and proportioning valves are permitted. Disc brake conversions are not permitted.

#### **Corvair Improved Stock Class (IS)**

This class is designed for cars that have been updated for increased performance while retaining a street legal status. Improved Stock cars must adhere to the specification given in this section.

All modifications permitted in Street Stock are permitted in Improved Stock without a point penalty. Additionally, the following modifications may be made without point penalty:

- Air cleaner(s) are unrestricted, and may use cold-air intakes.
- Complete engines, transmissions, and differentials may be updated and backdated using stock parts. The car must run in the class in which the engine type belongs.
- Any cooling system, fan and pulleys may be used.
- Chassis changes may be made as in stock, but do not have to comply with factory specifications. Changes may include springs, shocks, steering and brakes. Stock rubber suspension bushings may be replaced with non-metallic suspension bushings, but spherical or solid metal bushings are not allowed. Note: Transmission and engine mounts are NOT considered part of the suspension, and must remain stock.
- Hubs may be re-drilled to accommodate non-stock wheels.
- Stock springs may be cut and lowering is allowed, but car must be street legal. No items except sway bars below wheel rim.
- Wheel wells may be modified internally but not externally, no fender flares allowed.
- Interior changes: Front seats may be replaced by other seats that are fully upholstered (including aftermarket racing seats).
- A Crown lowering bracket (including relocation modification) is permitted.
- Quick steering arms and/or quick steering box are permitted.
- 4x1 carburetor conversions are permitted. This will bump the engine into the 140-180 class.
- Carburetor rotation is permitted.
- Any type of shock absorber is permitted (but not coil-overs).
- Any chassis-mounted brake components are permitted, including vacuum-assist power brakes. Any lining is permitted on shoes and pads.

The following modifications are allowed in Improved Stock. Each modification carries a point penalty. Any of the listed modifications may be made but if the point total exceeds 125, then the car will bump up from Improved Stock to the Street Modified or Competition classes. Point declarations must be itemized on the technical inspection form.

	Description	Points
Chassis	Non-stock wheels, any diameter, up to 7" width	25
&	Wheels, any diameter, greater than 7" width	35
Body	Tires, 60-65 series	20

	Tires, 55 series or shorter	30
	Tires, R designation	30
	Non-stock anti-sway bar, front	10
	Anti-sway bar, rear	10
	Relocated suspension	5
	Alternate, non-metallic bushings in rear trailing arms, or A-arms	15
	Rear seat removal (area must be covered)	5
	Steering wheel smaller than 14"	5
	Disc brake conversion, first axle	25
	Disc brake conversion, additional axle	15
	Battery relocation	5
	Convertibles	-5
	Air conditioned vehicles	-5
Engine	Non-stock carburetion on normally aspirated engines. (Changes limited to bolt-on only. No welding or machining of heads is permitted).	30
	Wastegate (turbos)	10
	Non-stock turbo(s), including mechanical supercharger(s)	30
	Non-stock carburetor (must be upstream of turbo)	10
	Other than stock or 95 hp heads	25
	Non-stock exhaust logs	5
	Headers (no welding or machining of heads permitted)	25
	Raising compression (other than by cylinder bore changes or head swap)	20
	Camshaft	20
	Non-stock cylinders	10
	Capacitive discharge ignition	5
	Multiple ignition coils	5
	Dwell control (Example: Pertronix Ignitor II)	5
_	Distributor less Ignition System (complete, no other deductions for ignition can be given)	15

# **Corvair Street Modified Class (SM)**

This class is intended for weekend racers, and streetcars with all-out performance improvements. Cars must be street legal. NECC reserves the right to judge this. There will be only one Street Modified Class that will include all 1960 - 1969 Corvair cars.

All modifications are permitted provided the car remains street legal. All cars must:

- Retain a glass windshield, and a minimum of 1/8" side and rear windows (of any transparent material).
- Retain all stock lighting, or a functional equivalent (i.e. Solar Cavalier).
- Not use metal (spherical) bushings anywhere but in the rear strut rods, front and rear anti-sway bars, and coil-over shocks (coil-over shocks are otherwise permitted).

- Retain a functional, somewhat finished interior.
- Retain all original metal, except for deck and trunk lids.
- Be currently registered for street use, be street legal in the configuration run (including exhaust), and have a valid inspection sticker.

# **Corvair Competition Class (CC)**

This class is designed for race prepared cars. There will be only one class that will include all 1960 - 1969 Corvair cars.

All Competition Class cars must meet the following minimum requirements:

- Must retain a Corvair engine in the stock location. Modifications to this engine are unlimited, but the two case halves and the crankshaft must be original GM castings.
- Must have a minimum dry weight of 1850 lbs.
- Must have a front windshield
- Must use wheels of a maximum 12" width.

#### **Specialty Corvair Classes (SS)**

This class is reserved for cars equipped with Corvair bodies with alternate engines, Corvair engines with alternate bodies, and other examples of Corvairs with extreme engineering features, such as mid-mounted engines, shortened or lengthened wheelbase, etc. Vehicles in SC shall conform to safety requirements based on the vehicles' intended function.

#### SUB-CLASSES FOR CORVAIRS

At most NECC events, the Water Pumper, Street Stock, Improved Stock, Street Modified, Competition, and Specialty Corvair classes are broken-out into sub-classes. The following section of this document provides lists of subclasses for Corvairs. The criteria for determining the appropriate subclass are incorporated into the Sub-Class names, e.g. model year and horsepower.

#### **Sub-Classes for Time Trials & Autocross**

Street Stock Classes (SS) Subclasses for Time Trials & Autocross. The Street Stock (SS) class (described above) shall be broken out into the following subclasses for time trials and autocross:

- Class SS-1: 1960-1964 Low Performance (80-110 hp)
- Class SS-2: 1962-1964 High Performance (150 hp Turbo)
- Class SS-3: 1965-1969 Low Performance (95-110 hp)
- Class SS-4: 1965-1969 High Performance (140-180 hp)

Improved Stock (IS) Subclasses for Time Trials & Autocross. The Improved Stock (IS) class (described above) shall be broken-out into the following subclasses for time trials and autocross:

- Class IS-1: 1960-1964 Low Performance (80-110 hp, maximum two venturi)
- Class IS-2: 1960-1964 High Performance (140-180 hp)
- Class IS-3: 1965-1969 Low Performance (80-110 hp, maximum two venturi)
- Class IS-4: 1965-1969 High Performance (140-180 hp)

<u>Street Modified (SM) Subclasses for Time Trials & Autocross.</u> The Street Modified class shall have no subclasses for time trials and autocross.

<u>Competition (CC) Subclass for Time Trials & Autocross.</u> The Competition class shall have no subclasses for time trials and autocross.

<u>Specialty Corvair Classes for Time Trials & Autocross.</u> The Specialty class shall be broken-out into the following subclasses for time trials and autocross:

- Sub-Class SC-1: Corvair body with an alternate engine. The only non-safety restriction is that the car must physically resemble a Corvair from the outside.
- Sub-Class SC-2: Corvair power with an alternate body. The car's engine must use original GM castings for the two halves of its crankcase, and crankshaft.
- Sub-Class SC-3: Extreme Engineering, Corvair power and appearance. For example, shortened Corvairs, mid-engined Corvairs (with Corvair engines), etc.

NECC retains the option to further divide the SC subclasses into two or more of the following: A suffix (S for street, and C for competition) will be appended to the classification, but this does not represent an additional grouping/subclass. Cars in SC-1S, SC-2S, and SC-3S (street) must be street legal, registered, and inspected. SC-1C, SC-2C, and SC-3C (competition) are for competition prepared cars that are required to have additional safety equipment. To determine requirements for such additional safety equipment, please refer to rules for "Competition-Prepared Cars", which are provided in NECC's driver and vehicle rules, available to the public on the NECC website.

#### **Sub-Classes for Drag Racing**

<u>Street Stock Subclasses (SS) for Drag Racing.</u> The Street Stock (SS) class (described above) shall be broken out into the following subclasses for drag racing:

- Sub-Class SS/LM: 1960-1969 Low Performance (80-110 hp) (Manual Transmission)
- Sub-Class SS/LA: 1960-1969 Low Performance (80-110 hp) (Automatic Transmission)
- Sub-Class SS/HM: 1962-1969 High Performance (140 180 hp) (Manual Transmission)
- Sub-Class SS/HA: 1962-1969High Performance (140 180 hp) (Automatic Transmission)

<u>Improved Stock Subclasses (IS) for Drag Racing.</u> The Improved Stock (IS) class (described above) shall be broken-out into the following subclasses for drag racing:

- Sub-Class IS/LM: 1960-1969 Low Performance (80-110 hp) (Manual Transmission)
- Sub-Class IS/LA: 1960-1969 Low Performance (80-110 hp) (Automatic Transmission)
- Sub-Class IS/HM: 1960-1969 High Performance (140 180 hp) (Manual Transmission)
- Sub-Class IS/HA: 1960-1969High Performance (140 180 hp) (Automatic Transmission)

<u>Street Modified (SM) Subclasses for Drag Racing.</u> The Street Modified class shall have no subclasses for drag racing.

<u>Competition (CC) Subclass for Drag Racing.</u> The Competition class shall have no subclasses for drag racing.

<u>Specialty Corvair Subclasses for Drag Racing.</u> The Specialty class shall be broken-out into the following subclasses for drag racing:

- Sub-Class V-Vair (VV) This class is designed for all Corvairs with alternate engines (V-8, V-6, etc.) regardless of engine placement. Vehicles in VV shall conform to all safety and technical requirements set forth in the NECC Rules for Drag Racing. The only non-safety restriction is that the car must physically resemble a Corvair from the outside.
- Sub-Class Pro-Vair (PV) This class is designed for alternate or radically altered (shortened, etc.) body styles with Corvair engines. Vehicles in PV shall conform to all safety and technical requirements set forth in the NECC Rules for Drag Racing.. The car's engine must use original GM castings for the two halves of its crankcase, and crankshaft.

# **COMBINING CLASSES. BUMPING.**

Depending on the balance of entries, the following guidelines may be adopted at the discretion of the NECC:

A class should contain a minimum of three (3) cars to be considered valid and eligible for trophies. In the event that a class does not contain the required number of cars, the following class bumping order has been specified:

# **Combining of Classes and Subclasses**

Cars may only be bumped UP to the next higher class. Cars may not be bumped up once they are in a class with the required number of participants. This rule does not apply to subclasses.

# **Combining of Stock Subclasses**

Subclasses must be combined before any other bumping is performed. The bumping order for this is as follows:

First, engine types are combined. (EM and LM Low Performance becomes one subclass, EM and LM High Performance becomes the other).

Second, all cars are grouped together in a single class. As the rules stand, this can only be done in Pure Stock, Street Stock, and Improved Stock classes.

# **Combining of Specialty Subclasses**

Specialty subclasses are first combined into a single Specialty class. If this does not yield a single class with the required number of cars, no further bumping is permitted. NOTE: This does NOT create a conflict for the Fitch Award, as the current rules state that the car must be Corvair bodied AND powered.