IMSA CODE

COMPETITION RULES

OF THE

INTERNATIONAL MOTOR SPORTS ASSOCIATION, Inc.

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Bridgeport, Conn. 06605
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1978

Chrysler Corp.	Gen'l Mtrs.
- 340	- 305
- 426	- 350
- 440	- 396
	- 400
	- 427/Aluminum
	- 454
	- 455
	- 231 Turbo

All engines up to 5000 cc may be supercharged.

Any listed engine may be used in any model produced by the parent manufacturer.

Engines may be bored, stroked, destroked or sleeved to achieve the desired displacement.

11.5 IMSA RS (Racing Stock) Category

1. Purpose

This category is intended to promote interest in race competition for volume-produced stock cars available to the American public; to generate publicity for competing drivers, entrants and manufacturers; to encourage individuals to become active competitors and to enable them to compete in professional races with relatively modest investments and maintenance costs.

2. Eligibility

IMSA will recognize specific makes and models of cars eligible to compete. To qualify, a model must be:

- Produced and marketed in sufficient volume so that its specifications are standard and may be easily checked, and so that cars and spare parts may be obtained easily.
- Marketed to the public in the USA.
- Able to seat 4 average-sized adults comfortably at the same time as sold to the public.
- Produced with an integral hardtop.
- Maximum engine size of 4 liters pushrod and 2.3 liters overhead cam.

3. Configuration

IMSA RS cars must conform to standard production configuration of the basic model. Except where these rules allow modifications or substitutions, all components of the cars must be identical to those produced by the manufacturer and delivered to the public in the USA on the basic model recognized. Standard appearance must be maintained strictly. Each model will have a recognized official weight which must be met or exceeded as raced with full tank of fuel but without driver.

4. Safety Requirements

A. Doors must be pinned or bolted shut, but may not be welded. Pins or bolts must be easily removable and doors must operate on original hinges when the pins or bolts are removed.

B. Full roll cages of approved design including a side bar on the driver's side are mandatory. It is recommended that the side bar reach to the outer skin of the door. (See Appendix)

C. A six point driver restraint system of approved design, including two antisubmarine belts, must be installed.

D. Passenger seats, seat backs, mats and other loose gear must be removed.

E. Hoods and deck lids must be secured with pins or straps. Latches may be de-activated. On cars where a key is required to open the trunk lid, the lock must be de-activated or may be removed.

F. Steering lock mechanisms must be removed.

G. Headlight bulbs must be protected against breakage. Headlights may be taped or the bulb (only) may be removed and replaced with metal or fiberglass solid plate of same shape as bulb and fitted in the same manner. It should be possible to remove plate easily, install and operate headlights. Functional wiring must remain installed at all times.

H. Safety fuel cells are mandatory. Maximum size is 22 gallons capacity. Quick-fill fuel fillers and breathers may be installed and bodywork modified accordingly, but fuel filler orifice and vent may not protrude beyond the coachwork plane. Check valves must be installed to prevent loss of fuel from the filler and vents. Fuel cell must be located as closely as possible to the original tank location. Metal bulkheads must be installed, if none exist, to separate the driver's compartment from the fuel cell and engine compartments. The bottom of the fuel tank may not be located below the centerline of the rear axle.

I. All cars must be equipped with a master electrical circuit breaker (stopping engine and fuel pumps) which is easily accessible from both inside and outside the car, or with two circuit breakers—one accessible from inside and one outside. The circuit breakers must be clearly marked by a spark in a blue triangle.

J. Fire extinguisher of at least 2¾ lb. capacity must be carried in the car. On-board fire extinguishing system (Freon type of at least a 4 lb. capacity) is recommended.

K. Scattershields are required on all cars where the failure of the clutch/flywheel could create a hazard to the driver.

L. A strap must be installed under the front of the propeller shaft to prevent the shaft from dropping in case of failure of the front propeller shaft coupling.

M. A net covering the driver's window opening is mandatory whether or not the window remains open.

N. All cars must have at least two operating brake lights and two tail lights which will be illuminated during darkness or periods of rain.

5. **Optional Modifications**

A. Bodywork:

1. Accessories, lights, gauges and switches may be added or removed and other interior modifications made for the convenience and comfort of the driver provided there is no effect on the car's mechanical performance. Driver's seat may be replaced.
2. Cables and lines may be re-routed and protected.
3. Standard inner fender material may be reshaped.
4. Headliner may be removed. Bumpers and brackets must remain as original but may be updated or backdated within the model range recognized. Front door glass and regulators may be removed. All other glass must remain and function as originally installed. Interior door panels and trim panels must be fitted but may be modified to clear roll cage. Panels may be mounted with screws or other fasteners but may not cover openings where window originally operated. Panels may be made of substitute material (metal or fiberglass) resembling original panels and painted to match interior.
5. Parking light lenses may be removed and the original openings used for ducting to brakes.
6. The standard sheet metal panel between the grille and radiator may be modified to accommodate larger radiator, oil cooler and ducting.

B. Chassis-Tires-Brakes-Wheels:

1. Suspension springs are free, provided they are of the same type as originally fitted and are installed in the standard position. McPherson strut-equipped cars may have the upper strut mount replaced with a slotted plate for camber adjustment. (It is not permitted to thread the strut or shock absorbers to make the spring perch adjustable.) Shims may be used to adjust spring height. Conventional rear spring shackles may be made adjustable. The upper ball joint retaining holes on Opels and Chevettes may be slotted for camber adjustment. Shock absorbers may be altered or replaced with others installed in original supports and brackets. Anti-sway bars, torque rods and similar axle-locating devices may be added or substituted. Heim joints are permitted on anti-sway bars and factory adjustable front suspension parts. Riding height, measured at the center of the rocker panel, must be maintained at 7" $\pm$ 1" as checked race ready with fuel but without driver.
2. Standard steel wheels or any other steel wheels of 5½ inches or less width may be used unless otherwise noted. All four road wheels must be identical. Wheels may be strengthened. A tolerance of ½ inch from the specified standard track dimension is permitted front and rear. Spare wheel may be removed.

To provide for tire clearance, it is permitted to reshape the original inner fender metal; however, no external modifications to the fenders are permitted.

3. All cars must be equipped with IMSA-approved radial ply tires of a type marketed through normal retail outlets for ordinary street use by the public. No racing or recapped tires are permitted.
4. All cars must be equipped either with standard brakes as delivered for the make and model, or brakes of any origin which do not exceed the following criteria:
   - Front: Calipers must be iron production-type.
     Rotors for cars with under 3000 cc displacement limited to 10 inch maximum diameter.
     Rotors for cars with 3000 cc or greater displacement limited to 10¾ inch maximum diameter.
   - Rear: Drums for cars with under 3000 cc displacement limited to 9 x 1¾ inch.
     Drums for cars with 3000 cc or greater displacement limited to 9½ x 2 inch.

   The following additional brake modifications are permitted:
   - Any dual master cylinders and pressure-equalizing devices may be used.
   - Lining material is free.
   - Backing plates and dirt shields may be ventilated or removed and air ducts installed provided no modifications are made in the body work. Brake ducting inlets with areas of no more than 12 in.^{2} per side are permitted at the front of the car below the body work provided there is no effect on the aerodynamics of the car.
   - Air ducts with inlets of 12 in.^{2} per side may also be fitted to the rear brakes.
   - Hand brakes may be removed.

C. Electrical System:
1. Battery may be replaced with another of original voltage and size and installed in the standard location.
2. Any make of ignition coil, condenser, spark plugs, fuses, relays, and regulators of original type may be used.
3. Any battery ignition system may be used.
4. Alternator must function as originally intended, but may be replaced with another of different manufacture.

D. Engine and Drive Train:
1. Engine and drive train must be as produced in combination with body and chassis of each recognized make and model. Except where these rules allow modifications or substitutions, all components must be mounted in standard locations and conform to standard dimensions. It is permitted to machine any component of the engine provided such com-

ponent is always identifiable as a standard production part, except where these rules require that standard dimensions be preserved, such as cylinder bore, stroke, inlet and exhaust ports, carburetor base opening, etc. No material or mechanical extension may be added.

2. Cylinder head may be ported and polished; however, inlet and exhaust port sizes at the manifold face may not exceed the dimensions specified for the model engine concerned. On rotary engines, inlet and exhaust ports may be modified at the combustion chamber but must remain original in size and configuration at the manifold face.
3. Engine may be clearanced (blueprinted) and balanced.
4. Pistons and piston rings are free. A tolerance of .030" in cylinder bore measurement is permitted on reciprocating piston engines. On rotary engines, the standard rotor as delivered on the U.S. model may not be substituted or modified. Material of seals is free.
5. The valve train (consisting of camshaft, lifters, followers, pushrods, springs, keepers, retainers and valves) is free; however, their basic type and the locations of valves and camshaft(s) may not be changed.
6. Induction System—IMSA controls the induction systems of various makes and models. Unless otherwise noted:
   - On engines larger than 2000 cc displacement, the standard carburetor may be modified by machining the throttle shaft and butterfly, changing the jet sizes (not jets), and altering the float and main venturi. Emission control devices, choke mechanism and air filter may be removed. It is expressly forbidden to drill or otherwise alter any passageways, add any material, install a spacer block between carburetor and manifold, enlarge the carburetor base opening, add velocity stacks or to make any other alterations which change the intrinsic design of the standard carburetor.
   - On engines with displacement between 1600 cc and 1900 cc, it is permitted to use any carburetor with the same number of venturis as the original, and any intake manifold. Otherwise, carburetor may be modified as for engines larger than 2000 cc.
   - On engines with a displacement larger than 1900 cc and less than 2000 cc it is permitted to use either the standard carburetor, modified and fitted according to the rule for engines larger than 1900 cc; **or it is permitted to use a Holley Model 2300 List No. R.4412 500 CFM-rated carburetor and any manifold.**
     This alternative is also permitted for models delivered with fuel injection as standard equipment.
   - On engines of less than 1600 cc displacement, it is permit-

ted to use any carburetors, intake manifold and velocity stacks.

- On rotary engines, emission control devices and choke mechanism may be removed. Primary venturis may be bored to 25 mm and the float bowls may be vented to the exterior of the carburetor; however, no other modification may be made to the standard carburetor.
- If an air filter is used on any of the above engines, it must be of a conventional type using a standard element through which all air to the carburetor must pass.
- On fuel-injected engines, the standard components may be adjusted but not modified in any manner nor replaced with other types.

7. Exhaust system is free. Outlets must be located aft of the mid-point of the wheelbase. No bodywork modification is permitted.
8. Oil sump and oil pickup may be modified to increase oil capacity and to prevent surge, but no dry sump system may be used. Standard oil pump must be retained. "Accusump" may be fitted.
9. Vents, breathers and oil filters may be added or substituted. A single oil cooler on the engine is permitted, provided it is mounted within the engine compartment (that is, between the inner fenders, firewall and grill) and it is not visible from the exterior of the car.
10. Any radiator which will fit the standard location and does not alter the car's appearance may be installed and shrouded. Fan blades may be removed.
11. Fuel pumps are free in type, size and number.
12. Any ring and pinion ratio may be used provided the differential housing for the model is retained and not modified. Differentials may be modified to produce a limited-slip or locked action.
13. Heater may be removed.
14. Clutch may be replaced with one of the same type, size, weight and manner of attachment but of different manufacture.

    Flywheels are free.

E. Non-Standard Components:

The following components may be added or replaced with others of any origin:

- Nuts, bolts, screws, washers and other such fasteners, including safety wiring
- Electrical wiring
- Gaskets and seals
- Fuel and brake lines
- Any bearings of standard dimensions and type

- Bushings
- Pulleys
- Drive belts

6. 1978 RS SEDAN ELIGIBILITY LIST AND SPECIFICATIONS

Car Make & Model	cc Displacement	cc Displacement	Bore	Stroke	Carburetion	Fuel Injection	Wheel Size	Weight	Notes
Alfa Romeo									
Alfetta Sedan	1962		84.0	88.5		Spica FI		2300	6,7
1750 Berlina	1799		80.0	88.5		Spica FI		2300	6,7
2000 Berlina	1962		84.0	88.5		Spica FI		2300	6,7
AMC Hornet	3805		95.2	88.9	Carter YF		6X14	2800	2,5,11
Gremlin	3805				Carter YF		6X14	2800	2,5,11
Pacer	3805				Carter YF		6X14	2800	2,5,11
Gremlin	1984		86.5	84.4	Holley 5210/2V			2200	
Concord	3805		95.2	88.9	Carter YF		6X14	2800	2,5,11
Audi Fox	1471		76.5	80.0				1800	4
100 LS	1875		84.1	84.3	Solex 2V			2100	
BMW 1600	1573		84.0	71.0				2050	4
2000TII;2002	1990		89.0	80.0	Solex Iv Solex 2V32/32	Bosch FI		2300	3
320i	1990		89.0	80.0		Bosch FI Kubelfischer FI		2300	
Buick Skyhawk	3786		96.5	86.4	Rochester 2V		6X13	2800	10
Chevrolet									
Chevette	1400		82.0	66.2				1850	4
Vega	2287		89.9	92.0	Rochester IV Holley 5310		6X13	2300	10
Cosworth Vega		122	3.501	3.160		Bendix FI	6X13	2400	10,14
Monza	2287		3.501	3.625			6X13	2300	10
Datsun 1200	1171		73.0	70.0				1650	4
B210	1288		73.0	77.0				1650	4,12
B210	1400		76.0	77.0				1800	4,12
510	1595		83.0	73.7				1950	4
610	1952		85.0	86.0	Hitachi 2V			2100	12
710	1700		85.0	78.0				2000	6,12
710	1952		85.0	86.0	Hitachi 2V			2100	12
F10	1397		76.0	77.0				1800	4
200SX	1952		85.0	86.0	Hitachi 2V			2100	
510	1952		85.0	86.0	Hitachi 2V			2100	
Dodge Omni	1716	104.7						2000	
Colt	1597		76.9	86.0				1950	4
Colt	1995		84.0	90.0	Mikuni 2V Solex 2V			2200	6
Challenger	1597		76.9	86.0	Mikuni 2V			1950	4
Demon Lite	3687		86.4	104.6	Holley 1V			2800	
Fiat 124 Spt Cpe	1438		80.0	71.5				1950	4,6,7
124 Special	1592		80.0	79.2				1950	4,6,7
124 Spt Cpe	1608		80.0	80.0	Weber 2V			2100	6,7
124 Spt Cpe	1756		84.0	79.2	Weber 2V			2200	6,7
128 Spt Cpe	1290		86.0	55.4				1800	4
128 Sedan	1290		86.0	55.4				1800	4
131	1756		84.0	79.2	Weber 2V			2100	6
Ford Cortina	1599		81.0	77.6				1950	4
Maverick	3280		93.5	79.5	Carter IV		6X14	2600	5
Mustang II	2300		96.0	79.4	Weber 2V Motorcraft 2V			2300	1

Car Make & Model	cc Displacement	cc Displacement	Bore	Stroke	Carburetion	Fuel Injection	Wheel Size	Weight	Notes
Mustang II V6	2792		93.0	68.5	Holley 2V			2500	
					Weber 2V				
Ford Pinto	1599		81.0	77.6				1950	4,9
Pinto	1992		90.8	76.9				2050	9
Pinto	2300		96.0	79.4	Weber 2V			2200	1,9
Pinto Runabout	2792		93.0	68.5	Motorcraft 2V			2500	
Fairmont	2300		96.0	79.4	2V			2200	
Fiesta	1600							1950	4
Honda Civic	1170		70.0	76.0				1400	4
Civic	1238		72.0	76.0				1400	4
CVCC	1487		74.0	86.5				1850	4,6,8
Accord	1599							1950	6
Mazda RX2	2292				Hitachi 4V			2200	
RX3	2292				Nikki 4V			2200	6
RX4	2616				Nikki 4V			2500	
808	1586		78.0	83.0				1950	4
Mercury Bobcat	2800		93.0	68.5	Motorcraft 2V			2500	9
Bobcat	2300		96.0	79.4	Motorcraft 2V			1950	1,9
Capri	1600		81.0	77.6				1950	4,9
Capri	1992		90.8	76.9				2050	9
Capri	2300		96.0	79.4	Motorcraft 2V			2200	1,9
Capri V6	2792		93.0	68.5	Holley 2V			2500	
					Weber 2V				
Capri II	2300		96.0	79.4	Weber 2V			2200	1,9
Capri II	2800		93.0	68.5	Weber 2V			2500	
Olds Starfire	3786		96.5	86.4	2V		6X13	2800	15
Opel Manta	1897		93.0	69.8	Solex 2V			2100	
Manta	1897		93.0	69.8		FI		2100	
51 + 99	1897		93.0	69.8	2V			2100	
Isuzu	1800		3.31	3.32	2V			2100	
Plymouth Duster	3687		86.4	104.6	Holley IV			2800	
Arrow	1600		76.9	86.0				1950	4
Arrow	2000		84.0	90.0	Mikuni 2V			2200	6
					Solex				
Horizon	1716	104.7						2000	
Sapporo	1597		76.9	86.0	Mikuni 2V			1950	4
Pontiac Astre		140	3.501	3.625	2V		6X13	2300	10
Astre		151	4.0	3.0	2V		6X13	2400	10
Sunbird V6		231	3.80	3.40	2V		6X13	2800	10
Sunbird		151	4.0	3.0	2V		6X13	2400	10
Sunbird		140	3.501	3.625	2V		6X13	2300	10
Renault									
12,15,16,17	1565		75.0	84.0				1950	4
Gordini	1565		75.0	84.0		Bosch FI		1950	7
R5	1289		73.0	77.0				1650	13
Saab 96	1698		90.0	66.8	Weber 400	FI		1900	
99E	1985		90.0	78.0	Zenith IV			2300	
Subaru DL	1361		85.0	60.0				1900	4,6
Toyota Celica	1968		88.5	80.0	Aisan 34/34 2V			2100	
Corona SR5	2189		88.5	88.9	Aisan 34/34 2V			2200	
Corolla SR5	1588		85.0	70.0				1900	4,6
Celica ST GT	2189		88.5	88.9	Aisan 2V			2200	6
Corona MKII	1968		88.5	80.0	Aisan 2V			2100	
Volkswagen									
Dasher	1471		76.5	80.0				1850	4
Dasher	1588		79.5	80.0				1950	4
Rabbit	1471		76.5	80.0				1850	4
Rabbit	1588		79.5	80.0				1950	4
Scirocco	1471		76.5	80.0				1850	4
Scirocco	1588		79.5	80.0				1950	4
VW Beetle									
Super Beetle	1584		85.5	69.0				1950	4
Volvo 122	1986		88.9	80.0	2SU HS6			2250	
142	1986		88.9	80.0		Bosch FI		2250	

NOTES

1. Same induction rules as 1900 cc to 2000 cc cars.
2. AMC models per article 10.5.3—It is permitted to interchange engines, engine parts, transmission parts and transmissions among all three models.
3. Cars equipped with carburetor may reduce weight to 2200 lbs.
4. Free carburetion is permitted.
5. May use AMC 4-speed service #8127382, Production #3228973 or AMC #8129173.
6. Five speed transmission is permitted.
7. Front and rear disc brakes are permitted.
8. Competition cylinder head but not cross flow is permitted.
9. For all 1600, 2000, 2300 and 2800 cc cars, the chassis and running gear factory parts are interchangeable. All models may use the 2800 cc with associated 2800 cc weights.
10. Four speed transmission is permitted.
11. For AMC Pacer, Hornet, Gremlin, and Concord, it is permitted to substitute axle housing part #4486539 or #4489003 and associated parts in order to avoid axle breakage problem experienced with standard equipment.
12. Datsun B210, 610, 710 Ref. Article 10.5 5D1. The Datsun differential part #9996-K4050 may be used.
13. Competition cylinder head is permitted.
14. Lucas metering unit #54073048 and injectors #73056 may be substituted for Bendix electronic fuel injection system.

11.6 IMSA "AMERICAN CHALLENGE" Category

1. Purpose

This category is designed to promote interest in race competition for American-built, volume-produced sedans marketed to the public throughout the U.S.

IMSA will recognize driver and manufacturer champions in an annual series of races for these cars.

2. Eligibility

IMSA will recognize specific makes and models eligible to compete and will approve the specifications for each. To qualify, a make and model must be:

- manufactured by a U.S. company and marketed as a 1975 or later model;
- equipped with a standard engine smaller than 6000 cc (366 cu. in.) displacement;
- a standard 2-door or 4-door sedan designed to seat at least four adults.

3. Configuration

Official MVMA Specifications Forms for 1975 and later models will be used as reference for technical data.

Except where these rules allow specific modifications or substitutions, all components must be identical to those delivered by a manufacturer to its U.S. customers. Standard appearance must be maintained strictly.

4. Official Weight

IMSA will specify for each make and model an official weight which must be met or exceeded as the car is raced, with all safety equipment in place and with a full fuel tank, but without driver. Any ballast carried must be securely bolted to the floor in the space formerly occupied by the right hand front passenger seat.