

NSW Aussie Retro Construction Regulations

(Derived from SCRRA and IRRA Regulations with some local input (@ February 2023))

NOTE - Intent of Aussie Retro Racing

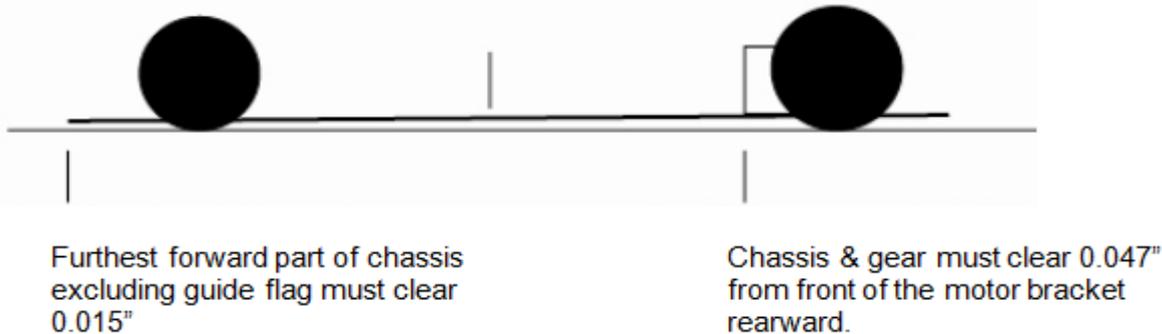
To provide racing using scratch-built type slot cars that reflect the construction technology of the 1960s racing era.. Any personally-built or commercially available scratch-built chassis conforming to the following regulations is allowed.

CONSTRUCTION REGULATIONS

Can-Am and Coupes

CA-1 Chassis dimensions

- a Maximum width of chassis and wheel track at any point **3.125"**.
- b Minimum clearance is **0.047"** (**18#** wire) at all points rearwards of the front of the motor bracket and **0.015"** under the most forward part of the chassis.
- c No part of the chassis, motor or running gear may droop or protrude at any point below the plane created between the above front and rear edge tech points – see illustration.



- d No chassis part may extend further than **1.0"** behind the rear axle centre-line.
- e The complete car (including body) must weigh a minimum of **100 grams** at all times.

CA-2 Chassis construction

a **Materials** - Brass/Bronze sheet, rod, tubing and other x- sections together with steel wire of max **0.125"** dia and steel guide tongues maximum of **1.5" long** by **1.0" wide** of any shape are allowed.

Wire may be flattened on the top and/or bottom.

Steel pin-tubing may be used for body mounting.

Non structural PCB and/or earring butterfly clips may be used for lead wire management.

b **Inline drive-train** on the chassis centre-line using a one-piece three or five sided brass motor bracket (supporting the motor and extending to touch the rear axle tube or contain the rear bushings/bearings) is mandatory.

Motors may be soldered in.

c All hinged movements must be oriented in only one direction.

Centre-line hinges are not allowed.

Floating pin tubes are allowed.

d **Axles** (front and rear) must be straight one-piece **3/32" (0.093")** minimum diameter solid steel carrying both wheels.

Front axle may be fixed or rotating.

Flats may only be ground on axles in place for wheel or gear setscrews.

Ball bearings are permitted for the rear axle only.

CA-3 Motor

a Short can as nominated by raceway or event organiser unopened and unmodified in any way excepting shortening armature shaft at pinion end for clearance. Factory markings or labels must be visible.

CA-4 Body

a Bodies from the **SCRRA or IRRA** listings (see below) may be used.

b Wheel arches must be cut out and wheels fully visible from the sides as shown.

c Must be fully painted (i.e. opaque) and carry at least **three** racing numbers; one on each side and one on front. The 'windscreen' area may be clear, tinted or painted (Coupes must be clear or tinted).

d Forward of the rear axle bodies must be trimmed and mounted as shown; any moulded front grill must retain a minimum of **1/16"** vertical edge (except for approved TI22 models which must retain their front trim line). May be trimmed behind the rear axle as shown.

e Must remain completely intact when viewed from the top excepting for scoops, intakes and ducts which may be cut out following their lines of definition.

No part of the chassis may be seen when looking from the top except via any removed scoops etc.

f A flat rear spoiler of maximum depth of **0.50"** from the rear of the body may be added as shown.

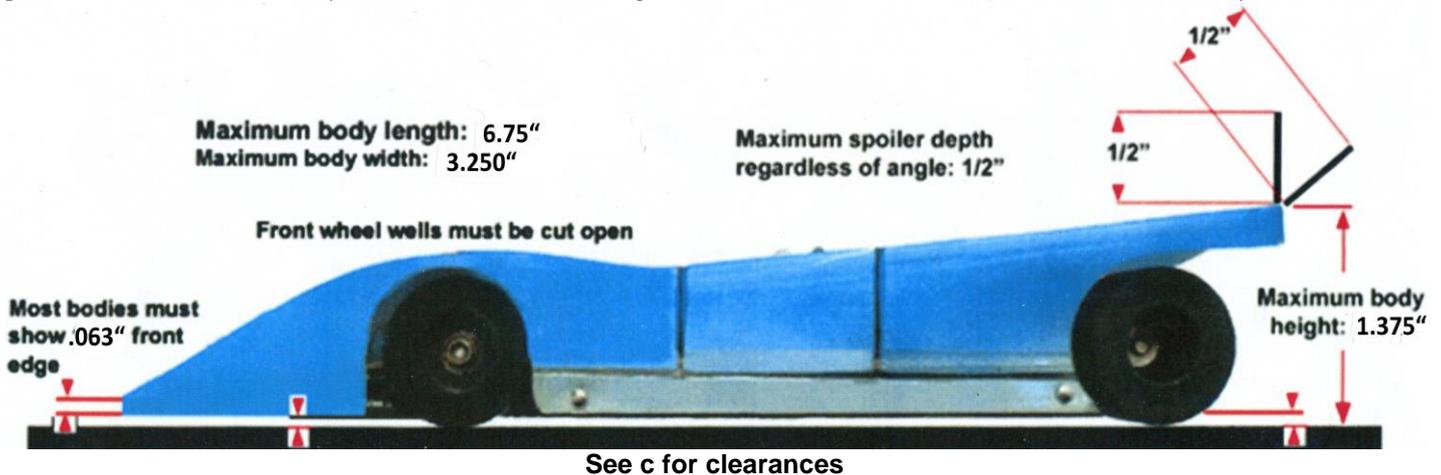
g Must be moulded from material with a minimum thickness of **0.010"** and meet a minimum weight requirement of **5.5** grams. Tape must be added if necessary at tech to meet weight requirement.

h Cockpits must be fully opened following the natural line of the windscreen.

A separate interior moulding consisting of a 3-D driver figure with cockpit representation; painted in at least **three** colours; must be fitted and positioned realistically. Moulded-in cockpits conforming to these requirements are allowed.

i Body reinforcing material may be fitted under the body and attached with clear tape, glue and/or staples. No reinforcing material may be visible from the top of the body.

j Illustrated dimensions (Note that the 3.25" body width is measured across both wheel arches).



CA-5 Wheels

a Front wheels will consist of a hub (made of any material) and a black rubber tyre:- minimum diameter of **0.75"**; minimum width of **0.225"** and maximum side play is **0.125"**.

The contact patch must span the minimum width excepting for any slight rounding of edges.

May rotate independently and may be coated with super-glue or nail varnish.

b Rear Wheels will consist of a hub (made of any material) and a black rubber tyre (any commercially-available black natural rubber tyre, chemically-treated or untreated) of minimum diameter: **0.812"** and maximum width **0.812"**.

c The use of any tires that may adversely affect track is expressly forbidden. Tyres coated with silicone or similar substances are illegal.

CA-6 Drive Gears

a Any commercially available 48 pitch pinion and non-metal crown gear. The only modifications allowed (other than making your own sleeve) are sanding of the outside diameter of the gear and heating/burning it in for a smoother gear mesh.

CA-7 Tape/Lead

a Lead weight for tuning may be used **BUT** must only be affixed to the topside of the chassis.

b Strapping or other tape may be used to control or restrict chassis movement but clearance rules still apply to if tape is applied to the bottom of the car.

RetroPro Regulations

(Any 'RetroPro' body approved by SCRRA or 'Can-Am Plus' body approved by IRRA may be used).

Please refer to the Can-Am Regulations for all specification, except for the following variances:

RP-1 Chassis dimensions & construction

a Drive type is open to the imagination.

b Hinged movements in any direction are allowed.

c Front axle has a minimum **1/16" (0.062")** diameter.

d If **NOT** using an inline drive-train there are two construction methods are allowed:

(i) A one piece brass tube that retains the bearings. A notch for motor clearance is allowed (no deeper than the centre-line of the axle and may not extend fully to either side). If such a tube is incorporated; any means to support it and/or the motor; may be used.

(ii) A 3 sided sheet brass bracket with a minimum thickness of **0.032"** that supports the bearings and the motor. It may be constructed of either **1** or **2** pieces. The rear leg that connects the bearing supports must be a minimum of **0.250"** in height. If made in **2** pieces they must be fully connected.

Stand alone 'pillow blocks' for axle bearing support are expressly prohibited.

e No minimum weight limit.

RP-2 Wheels & Clearances

a Minimum Rear Wheel diameter: **0.790"**

b Minimum Front Tire width: **0.063"**. O-ring tires allowed. Minimum Front Wheel diameter **0.600"**. c Minimum clearance: **0.047"** at all points under the chassis rearwards of the centre line of the rear axle.

RP-3 Body

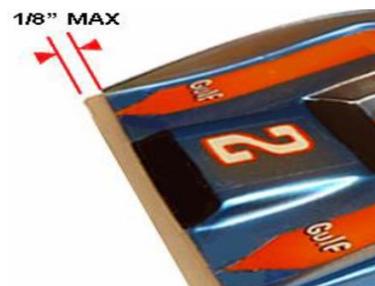
Approved Can-Am bodies and rules apply with the following additions:

a Bodies on the SCRRA RetroPro and IRRA Can-Am Plus approved listings may be used.

b Slight trimming of the body beyond the cut line at the front outside corners is allowed to correct for natural drooping - only as illustrated below:



c Body reinforcing material may be fitted under the body and attached with clear tape, glue and/or staples. No reinforcing material may be visible from the top of the body except as illustrated below:



RP-4 Motor rule

a Can may be notched at rear side's corner to clear the rear axle. Can's 'nose' may be trimmed to clear chassis rails.

RP-5 Drive Gears

a Only 64 pitch gears may be used for non-inline drive-train constructions.

Note: ANY legal Retro Can-Am car is eligible to compete in a RetroPro racing event.

F1 Regulations

Please refer to the Can-Am Regulations for all specifications, except for the following variances:
(Any F1 body approved by SCRRA or IRRRA may be used)

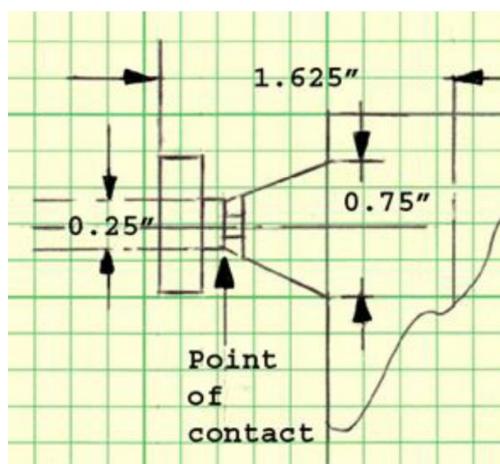
F1-1 Chassis dimensions & construction and Wheel diameter

a Maximum chassis Width: **1.625"** measured across any part of the chassis.

Exception: the front axle may be supported by extensions of steel wire or brass plate of triangular structure (i.e. mimicking suspension construction).

These may not exceed **0.750"** width at their nominal points of contact with the **1.625"** chassis width and **0.250"** at their outside edge.

Illustration:



b Maximum overall car width **3.250"** measured across front and rear wheels.

F1-2 Wheels

a Minimum rear wheel diameter **0.790"**.

b Minimum front wheel diameter **0.625"**.

F1-3 Body

All Can-Am body rules apply except:

a Only bodies listed on the F1 approved listing may be used.

b No added air control devices allowed.

c No minimum weight regulation.

d Front wings may be trimmed or completely removed.

Approved Bodies:-

IRRA Body List as at Jan 1 2018

<http://www.irraslotracing.com/approvedbodies.html>

Additional Bodies approved by IRRA – regularly updated by NOOSE as new bodies are approved

<http://slotblog.net/topic/10258-new-irra%c2%ae-approved-bodies/>

Note that SCRRA no longer publish a separate approved body list.
