

IRCCF® S10 SCALER CLASS

VEHICLE RULES 2024 V24.0

Effective from Jan 1, 2024 until withdrawal

1. Preliminary Provisions

1.1. IRCCF®

- 1.1.1. The IRCCF® S10 Scaler Class Vehicle Rules are created and maintained by the International Radio Controlled Rock Crawler Competitors Federation, hereafter referred to as IRCCF®.
- 1.1.2. Periodic rule changes - in special and justified cases - may be initiated by IRCCF® only.
- 1.1.3. IRCCF® may act at any time during the preparation of the competition events, during the competitions and after the competitions and change anything that IRCCF® believes is against the interest of the sport, including the interpretation of existing rules if it is discovered that a rule can be used or interpreted against the sporting spirit of the competition format.
- 1.1.4. Depending on the character and/or the urgency of the matter, IRCCF® will consider the sporting interest before anybody's financial interest, including the Licensee's interest.

2. General Specifications

- 2.1. Vehicles should represent a vehicle that has been modified to become a capable trail rated / competition based rig and is not necessarily street legal.
- 2.2. Body must look like an OEM body panel of a proclaimed vehicle and has to be continuous on all 4 sidelines of the vehicle.
- 2.3. All electrics, motor, transmission, chassis and suspension are to be covered by the body when viewed from above.
- 2.4. All vehicle specification measurements are to be taken in the vehicle's ready to run condition while sitting on a flat surface.
- 2.5. Protruding elements (nuts, bolts, washers, spacers, stingers, shackles, fairleads, roof racks, etc.) shall not be included in the measurements of the vehicle.
- 2.6. Vehicle wheelbase is limited to a maximum of 12.5"/317.5mm.
- 2.7. Vehicle track width is limited to a maximum of 10.8"/274mm.
- 2.8. It is required to have a minimum of 3 suspension links between skid plate/chassis and the front axle and a minimum of 3 suspension links between skid plate/chassis and the rear axle. These links and the suspension shocks can be the only connection points between chassis and the axles. Chassis mounted servo cars can have an additional drag link between servo horn and knuckle/tie rod.
- 2.9. Vehicle, body and all accessories shall resemble their 1:1 counterpart in the same scale to the vehicle.
- 2.10. Vehicles must run a minimum full hard body with full interior. Full interior has to include a floor and a firewall with a minimum depth of 1"/25.4mm measured from the centrepont of the lower windshield frame, minimum of 2x seats, dashboard. Cab-only bodies are not acceptable, a bed must be included as a minimum for truck style bodies. Removal of the roof is allowed as long as roll cage/full hard interior is fitted.
- 2.11. The body must extend at least to the leading edge of the front tires and the trailing edge of the rear tires, and has to be made of any hard plastic, metal, carbon fibre or glass fibre materials, lexan or any other flexible materials are not allowed for the bodywork.
- 2.12. Minimum bodywork height is 4.5"/114mm from A-Pillar to B-Pillar of the cabin.

- 2.13. Minimum body width is 5"/127mm for the full length of the passenger cabin. Passenger cabin is defined as from the furthest forward point of the front windscreen and the furthest rearward point of the rear window.
- 2.14. No body modifications allowed except bobbing the bed until the vehicle still complies all other body rules.
- 2.15. The inner side wall/shoulder of front tires, measured at the axle centre, need to be covered by bodywork when viewed from above at rest.
- 2.16. A windshield is a must and shall fill the entire window frame in a realistic position.
- 2.17. A front and a rear bumper are required. It must be a minimum of 3.9"/100mm wide centred to the front/rear chassis rails and must flow through a continuous line. Chassis mounted bumpers need to extend beyond both the body and the tires at least 0.12"/3mm. Body moulded front bumpers qualify and must not deflect inwards.
- 2.18. Clear bodies, "swiss cheese" bodies are not permitted. Consider scale realism.
- 2.19. Using a scale driver figure is allowed but not a must. If used, the driver figure has to fit the scale of the vehicle and is not allowed to extend the interior by any part.
- 2.20. No added weights are allowed to be used on the axles or knuckles. Any visible weights must resemble a scale item or be an integral part of the truck.
- 2.21. No electrics are permitted to be mounted or fixed to axles or suspension links. Axle mounted steering servo of any kind is not allowed.

3. Tires & Wheels

- 3.1. Vehicles are limited to 1.9"/49mm wheels/rims or smaller at the bead surface. Tires are limited to 4.19"/106.5mm maximum external diameter and a maximum width of 1.97"/50mm from sidewall to sidewall. Tire size will be determined by advertised manufacturer specs. Tires without available specs will be measured off the truck as mounted on the wheel laid flat.
- 3.2. No external/internal tire modifications are allowed. Adding any extra material is not allowed. Only production tires are allowed that meet 3. rules.
- 3.3. Weighted knuckles are allowed if the origin of the weight is the material of the knuckle and no additional weights used. Additional knuckle weights or suspended knuckle weights similar in design to "rock magnets" are not permitted.
- 3.4. Carbon fibre wheels/rims must have offset or beadlock rings built into their design, flat face glue on wheels/rims not permitted. The material of these must be plastic or metal. Plastic or metal internal rings are required and tire inserts must not be visible from any angle.
- 3.5. Wheels/rims must be a minimum 0.8"/20mm wide at the outer bead ring surface.

4. Drive Train

- 4.1. Vehicles are limited to front wheel steering only.
- 4.2. Vehicles must be shaft driven only and powered by a single motor. No "Motor On Axle" (MOA) of any kind. Axles must be driven by one transmission or transfer case mounted to the chassis and a minimum of two drive shafts. No separate throttle control of drive shafts or axles allowed.
- 4.3. Over/under drive gearing is allowed.
- 4.4. No front or rear dig or axle disconnects are allowed.

5. Chassis

- 5.1. Vehicles shall have a full rail chassis. Chassis rails can be any configuration of C-Channel, tub, tube, rod, plate but being one-piece metal or carbon fiber chassis rails is a must.

- 5.2. Chassis must have a straight skid line parallel to the rocker panels of the body and extend covering all axle centre lines with a minimum length of wheelbase + 2"/50mm. Two piece sectional chassis are permitted, provided they are screwed, bolted or welded/brazed together to form a single chassis rail. Chassis length is to be constructed using a maximum of two pieces overlapping/joined for the full length of the skid. The front lower links must be at least 90mm in length eye to eye measured in a straight line.
- 5.3. Vehicle wheelbase is to fit the dimensions of the body used.
- 5.4. Battery trays must be mounted to the chassis.
- 5.5. The section of the chassis that counts as the one continuous length must also have the skid plate attached to it directly.

6. Glossary of Terms

- 6.1. **Active Suspension:** A suspension that is interlinked (such as the 1:1 Scorpion, excluding the air bags used to raise and lower the vehicle) which by design moves part of the suspension in one direction when moved from another. This does not have any driver input to be legal.
- 6.2. **Body:** Formed as a single piece of seamless rigid material, integrating roof, door (sides), and hood sections.
- 6.3. **Suspension link, control link or link:** A suspension member that is attached from only two points. One point being the chassis or skid plate of the vehicle and the other point is the axle. The link typically pivots on a rod end at each attachment point.
- 6.4. **Vehicle track width:** Is measured from the outermost edge of a tire to the outermost edge of a tire.
- 6.5. **Wheelbase:** is measured from centre of axle nut to centre of axle nut. The vehicle should be set down on a flat surface by the driver. The front wheel on the side that is being checked, must be pointing straight forward. At that time, the driver will then cycle the suspension through its complete extension and compression range while the judge measures the vehicle's maximum wheelbase. At any point the vehicle's wheelbase cannot extend beyond the maximum limit of its class. All the above procedures must be duplicated on the opposite side. Note: All vehicles will be teched in the same ready to run condition, and set up as the vehicle will be run on the course. If the vehicle's wheelbase is affected by radio control it must be cycled or activated during tech inspection.

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