NEW ZEALAND SLOT CAR ASSOCIATION INC.

2010 32nd Hard Body Scale Rules.

These rules to be read in conjunction with the 2010 NZSCA General Rules.

Procedure

SCRUTINEERING

1. Prior to qualifying, cars will be presented for scrutineering with the body off for NASCAR and Group C but body on for all other classes. For Slot.it Group C, cars will be presented with one wheel from each axle removed. Once the wheels and/or body have been attached and scrutineering is done, the car will be impounded in parc ferme. All cars will be "magnet marshalled".

2. At the completion of each race cars will be returned to parc ferme and may be re-scrutineered, this may involve cars being stripped down for inspection. Cars must remain in parc ferme until all placings have been confirmed.

3. Cars may be checked on the start line immediately before each race. A non compliant car will have to be corrected 'on the green light' during racing.

QUALIFYING

4. Qualifying will be run using the Track Mate track control system. Each car will be placed on the track by the grid marshals prior to qualifying, then at the end of the qualifying time the car will be removed from the track and the grid marshals will return the car to parc ferme.

5. A driver will have a single run of not less than 1 minute on the designated lane. A driver's best single lap time posted within the qualifying period will determine the qualifying order. Ties will be broken by the drivers involved each having an additional qualifying run with their fastest lap determining their qualifying position relative to the other driver or drivers who were tied for position.

6. A competitor may qualify only one car in each class that they have entered.

7. A competitor whose car breaks down during qualifying will be given time to repair and have the car re-scrutineered at the discretion of the chief steward.

RACING

8. Racing will be run using a suitable race control system. Races will be of 12 minutes duration – 3 minutes on each lane. Normal lane rotation will be the white-red-black-yellow.

9. At the beginning of each race, cars will be placed on the grid by the grid marshals and racers will have two minutes to warm up, and may work on their cars during this time.

10. Interval between brackets will be 1 minute for lane change, with computer controlled power on after the 1 minute interval.

11. During the lane change interval competitors must move their controllers to the next lane, change lane stickers and move their cars to their next lane, replacing the car at the same relative position on the track.

12. At the end of each race, each car's partial lap position on the track will be recorded and cars will then be returned to parc ferme by the grid marshals.

FORMAT OF SEMIS AND FINALS

13. If there are four or less entries in a class, all racers will make the final, if there are five entries, all racers will make a round robin final.

14. If there are more than five entries in a class, the race controller will determine a suitable number of semi finals to be run, with the aim of having a reasonably equal number of racers in each semi and minimising the number of semis. *[For example if there are 8 entries: two semis of four racers each - 9 entries: a four racer semi and a five racer round robin semi, 10 entries: two five racer round robin semis – 12 entries: three four racer semis… etc]*.

Muscle Car and GT will be run as straight finals. No semis.

15. Starting lane choice for semis is by order of qualifying time.

16. The four fastest drivers (based on distance covered) from the semis will qualify for the final and starting lane choice for finals will be by order of distance covered in the semis.

WORKING ON CARS DURING RACING

17. Between the semis and a final, finalists will have ten minutes to work on their cars before the commencement of the final. ***(Note that a car that fails start line scrutineering may only be fixed during racing)***

18. During the lane change interval racers may work on their cars at the track or in the pits, but it is up to them to replace their cars in the correct relative position on the track, and be ready to drive when the power comes on again.

19. If a racer is still working on their car when the track power comes on, the racer must take care to replace their car on the track in a position where it will not be a hazard to other cars. *[i.e. on a straight well away from the corner exit]* . A racer causing an accident by replacing their car in an unsafe position may be penalized by the deduction of laps.

PROTESTS

20. Refer to Rule 'D' Protests in the 2010 NZSCA General Rules.

TRACK CALLS

21. Track calls may be made in the event of unfair or dangerous situations. These are:

- an un-marshalable car [e.g. under the bridge, or on the floor in a hard to reach place]
- debris in the slot
- riders [car in the wrong lane]
- track problems including braid up, lap-counter failure, and power failure

22. In any of these events, a racer may call "track", and the race controller will immediately turn off the power without questioning the call.

23. During a track call, cars may be marshaled but racers may not commence work on cars. A racer who was working on his car prior to the track call may continue doing so

24. Decisions about what constitutes a real or spurious track call rest with the race controller. Repeated spurious calls may be penalized by the deduction of laps.

BLACK FLAG

25. Any car may be black flagged by the Race Controller or Scrutineer, if it is deemed to be at risk of damaging the track or other cars.

2010 NZ 32nd Hard Body - Car Specifications

Classes of cars covered by these specifications are:

- "Scalextric" NASCAR
- "Slot-it" Group C
- "Ninco" Sports Cars Pre-65
- Muscle Car
- GT

GENERAL CAR SPECIFICATIONS

these apply to all classes of cars unless variations are specified in individual class rules

1. DIMENSIONS

1.1 Width - Wheels and tires must fit into original arches when looking from above.

1.2 Clearance- 0.5 mm (except Scalextric NASCAR 0.3 mm) ground clearance from chassis, gears or body at the start of the race. [The scrutineer's decision on width and clearance is final and any car deemed to be at risk of damaging the track during a race will be immediately black flagged

2. GUIDE FLAG

2.1 One Guide - only one R.T.R type guide flag allowed. The guide must be black or made of graphite for lap counting purposes

2.2 Spacers nut etc - guide nut, spacers, clips, lead-wire and lead wire stays are free.

3. WHEELS/TIRES

3.1 Four visible wheels - all cars must have a total of four visible wheels when viewed from the two sides. Wheels must fit within original wheel arches when looking from the two sides.

3.2 Front Wheels-must have tires fitted and be able to rotate. Sticker wheels or wing car style front wheels not permitted.

3.3 Wheel Inserts-original wheels OR matching 3D wheel inserts in both style and color, front and rear, from the time period the full size car raced in. Photographic evidence may be requested!! In cases where period inserts are not available, (e.g. Scalextric muscle cars) the wheels may be made into inserts to fit other wheel brands.

3.4 Tires-hard tires only. No foam tires. O- rings and/or nail varnish on front tires not permitted.

3.5 Tire Goop – the use of any tire goop or glue on the rear tires is prohibited.

3.6 Tire Cleaning-tires may only be cleaned with sticky tape.

4. BODY

4.1 Interior – all cars must have a 3D interior driver (head and shoulders), steering wheel and seat/s and be sufficiently full so that no chassis or components can be seen through the windows

4.2 Numbers – all cars must have at least two readable numbers, of the same numeral

4.3 Cover chassis - chassis and guide must be completely covered by the body when viewed from above. The chassis and motor must be completely covered by the body when viewed from front, rear, left and right sides of car.

4.4 Clear Parts- lights and windscreens must be fitted. Windscreens must remain clear if the model car is supplied with a clear screen or screens.

4.5 **Internal**- material may only be removed to facilitate wheel/tire and chassis installation, not to lighten the body.

4.6 Rear Wing-must be fitted for qualifying and the start of the race.

4.7 Resin Bodies and Resin Bodied Cars-not permitted

4.8 Paint-must completely cover body so no unpainted areas remain (no clear coat on white plastic). "Tear proof" substitute wings may be left unpainted.

4.9 Exterior- cannot be modified in any way except for paint and removal of wing mirrors, antennas and windscreen wipers. No external modification to wheel arches, wings, roof line allowed however

5. CHASSIS

5.1 Chassis-must appear stock when viewed from the outside with the car upside down.

5.2 Chassis Hacking- or drilling are not permitted. Any holes may be repaired by filling and painting.

5.3 Traction Magnets-not permitted and must be removed.

5.4 Body/Pod Screws-free

5.5 Ballast-where allowed, must be carried internally. (i.e. Cannot be visible from outside or underside of car.)

5.6 Matching-body to chassis as supplied with car or direct replacement.

5.7 TSRF and Plaffit-style chassis are not permitted. (At this stage)

5.8 Motors-may be glued or taped in position.

CLASS RULES

"Scalextric" NASCAR

6. CHASSIS

6.1 Stock-chassis when viewed from both inside and outside.

6.2 Blueprinting-straightening of chassis and minimal material removal from edges to ensure flush body fit is allowed. Body must not "float" on chassis or have any discernable movement when moved by the scrutineer.

6.3 Axle Bearings-Stock

6.4 Ballast-not permitted

6.5 Bracing-not permitted

6.6 Guide Flag-stock

7. BODY

7.1 Body-must remain stock standard as per manufacturer.

7.2 Lightening-of any description, including interiors is not permitted that does not comply with rule 4.5. Removal of any internal parts is not permitted.

8. WHEELS AND TIRES

8.1 Wheels-must be stock plastic wheels.

8.2 Tires-must be stock rubber tires. Front tires must have a diameter constant across the wheel's section. Minimum diameter of 20.5 mm

9. MOTOR

9.1 Type-stock 18k Scalextric motor only. Motor must remain sealed. No modifications permitted.

10. GEARS- Stock plastic 11 tooth pinion and 36 tooth spur. Sidewinder layout only.

11. AXLES-stock axles only. No hollow axles.

“Slot-it” Group C

13. CHASSIS

13.1 Stock-chassis and pod when viewed from both inside and outside.

13.2 Blueprinting-straightening of chassis and minimal material removal from edges to ensure free body and/or pod movement is permitted.

13.3 Axle Bearings-stock

13.4 Ballast-not permitted

13.5 Bracing-not permitted

13.6 Guide Flag-stock

14. BODY

14.1 Types – Group C cars as stipulated on the car list only

14.2 Lightening- of any description, including interiors is not permitted that does not comply with rule 4.5. Removal of any internal parts is not permitted.

14.3 Interior-must be stock. No lightweight interiors allowed

14.4 Tear proof Parts-may be used. Must be from Slot.it kits.

15. WHEELS AND TIRES

15.1 Rear Tires-must be visibly marked Slot.it. Rubber or supplied silicone tires or Slot.it part numbers SIPT05 19x10 P2 compound rubber or SIPT06 19x10 S1 compound silicone tires may be substituted.

15.2 Front tires-any 19x10 Slot. it tires. Must be visibly marked Slot.it. Diameter may vary across section of tire. Minimum diameter of 18.8 mm.

15.3 Wheels-stock Slot-it aluminum wheels on rear with inserts. No magnesium wheels permitted. Front wheels must be stock plastic wheels to match rear wheel inserts.

16. MOTOR

16.1 Type- Slot.it orange end bell 21,500 rpm or blue end bell 19,000 rpm in the stock inline configuration. Motor must remain sealed. No modifications permitted

17. GEARS-stock gears as supplied with car. No ratio changes allowed

18. AXLES- solid axles. No hollow axles allowed

Sports Cars Pre 1965

19. CHASSIS

19.1 Axle Bearings-any

19.2 Ballast-permitted

19.3 Bracing-permitted

19.4 Guide-Ninco

19.5 Motor Adaptors-free (to fit NC1 or NC8 motors)

20. BODY

20.1 Lightening-permitted

20.2 Original Interior-may be lightened. No lexan or "light weight" interiors.

21. WHEELS AND TIRES

21.1 Wheels-stock Ninco plastic wheels only as supplied with car.

21.2 Tires-Any combination of Indy Grip IG2002, MJK4214, SRS Grips SS303 or stock "Ninco Classic" rubber tires (80503 or 80504) with a minimum diameter of 20.5 mm.

22. MOTOR- Type-Ninco NC1 or NC8 only. Motor must remain sealed. No modifications Permitted.

23. GEARS-Free

24. AXLES-Free

Muscle Car

25. Chassis

25.1 Axle Bearings-any

25.2 Ballast-permitted

25.3 Bracing-permitted

26. BODY

26.1 Lightening-permitted

26.2 Interior-lightweight and lexan interiors permitted

27. WHEELS AND TIRES-as per general rules

28. MOTOR

28.1 Strap Motors-not permitted

28.2 Magnetic Downforce-maximum 30 Gms

29. Gears-any

30. Axles-any

GT

31.CHASSIS

31.1 Axle Bearings-any

31.2 Ballast-permitted

31.3 Bracing-permitted

32.BODY

32.1 Lightening-permitted

32.2 Interior-lightweight and lexan interiors permitted

33. MOTOR

33.1 Strap Motors-not permitted

33.2 Magnetic Downforce-maximum 30 Gms

34. GEARS-any

35. AXLES-any

32nd Nationals Hard Body Car/Body List 2010

1) "Scalextric" NASCAR

2) "Slot-it" Group C

- Lancia LC2
- Mazda 787B
- Porsche 956C
- Porsche 962C
- Sauber C9 Mercedes
- Jaguar XJR9
- Jaguar XJR12

3) "Ninco" Classic Sports pre 1965
This is a classic sports race car that is based on a road going car

- AC Cobra
- Austin Healey
- Ferrari 166 MM
- Ferrari F-250 Testa Rosa
- Jaguar XK120
- Porsche 356
- Porsche 550 Spider

4) American Muscle Cars
Cars from the older era of American excess and love of the big car and big power.
Cars between 1930 and 1980

Scalextric:
Ford Mustang
Chev Camaro
Chevrolet Corvette L88
Ford Gran Torino

SCX
Ford Stingray

Carrera:
Chevrolet Camaro
Chevrolet Corvette Sting Ray 427
Dodge Charger 500
Dodge Charger Daytona
Ford Galaxie 500
Ford Mustang
Ford Thunderbird
Ford Torino Talladega
Plymouth Hemi 'Cuda
Plymouth Roadrunner
Plymouth Superbird
Pontiac GTO

Revell:
Greenwood Corvette
Ford Galaxie

Shelby Mustang GT-350R
Corvette Grand Sport
Shelby Cobra

Strombecker
Plymouth Fury

5) GT

As defined by the FIA. Two doors. Open to any brand. JGTC are omitted as they race in their own category (in full size)

Car	Brand	Year of original
Ascari KZ1	Ninco	2003 >
Aston Martin DBR9	Scalextric	2005
BMW M3 GTR	Fly	2001
BMW Z4 Coupe	Carrera	2006
Bugatti EB110	SCX	1991
Callaway C12	Ninco	2000
Corvette C5, C5R, C6, C6R	Fly / SCX / Carrera	1999 >
Dodge Viper	Fly Scalextric Carrera	1997 >
Ferrari 355	Proslot	1994
Ferrari F360	SCX / Proslot	1999
Ferrari F40	Scalextric / SCX / Fly/Slot.it	1990 >
Ferrari F430	Scalextric	
Ferrari F50	Ninco	1996
Ferrari 550 GTS Maranello	SCX	1996
Ferrari 575 GTC	Carrera	2002
Ford GT	Scalextric / Autoart	2003
Heuliez Pregunta	Proteus	1998
Jaguar XJ220	Scalextric	1992
Jaguar XKRS	Scalextric	2004
Lamborghini Diablo	Scalextric / Autoart/Ninco	1990
Lamborghini Gallardo	Ninco/Scalextric	2003 >
Lamborghini Murcielago GSR	Proteus/Ninco	1999?
Lister Storm	Fly	2000
Mclaren F1	Ninco	1994 >
Mclaren F1 GTR	Slot.it	1997>
Marcos LM 600	Fly	2000
Maserati Coupe Cambiocorsa	Scalextric	2003
Maserati MC12	Scalextric / Carrera	2005
Mercedes Benz CLK GTR	Ninco	1997
Mosler MT900R	Ninco / NSR	
Nissan R390	Slot.it / Reprotec	1997
Peugeot 406 coupe silhouette	Spirit	1997>
Porsche 997	Ninco	
Porsche 911 GT3	Scalextric / Carrera / SCX / Ninco / Proslot	1999
Porsche 996	Scalextric	
Porsche 911 GT2	Proslot	1995 >
Porsche 911 GT1Evo	Fly / Ninco / Carrera / Artin	1996
Porsche GT1 98	Fly / Carrera	1998
Saleen S7R	Artin / Fly	2000 >
Seat Cupra GT	SCX	2003
TVR Tuscan	Scalextric	1999 >
TVR Speed 12	Scalextric	1997
Venturi 400 - 600	Fly	1994