

QLD EXCEL CUP RULES 2025 v.2.0

The aim of the Excel Cup rules is foremost to provide a competitive entry-level circuit racing format that is fun and provides an environment where drivers can improve their race craft.

For the good of the series the series management can make changes / clarifications to the Rules & Regulations at any time.

No alteration or modification to the standard factory production state of the vehicle is allowed unless it is specifically mentioned or permitted within these regulations.

Where reference to AASA is made, refer to- [Motorsport Licensing & Event Insurance - Appendices - Australian Auto-Sport Alliance](#)

Cars conforming to Group 3e Circuit Excels Rules are permitted to compete

Cars conforming to MA X3 Excel Rules are permitted to compete

Any questions regarding car specifications not previously addressed in this document must be directed to management for clarification. The Qld Excel Cup (QEC) Tech team's decision is final. Any vehicle found not to comply will be stripped of round points from the event, and if found during an event cannot continue racing and can incur up to a twelve month ban from any Excel Cup event.

All vehicles must be subject of a current AASA Passbook or MA logbook.

1.1 VEHICLE BODY SHELL

- The body shell of any Hyundai Excel built from July 1994 to June 30, 2000, with any number of doors.
- The body shell is to remain standard and not modified unless permitted by the following.
- Safety cage. All vehicles must be fitted with a safety cage that meets AASA requirements.
- All bolt on panels to remain standard.
- The strut towers must not be modified – except see 1.22 coil over suspension.
- Seam welding is not permitted except for the bracket that attaches the front lower control arm to the body.
- Sound deadener can be removed.
- Minor reshaping or rolling of the wheel arches to reduce tyres rubbing on the body.

1.2 ENGINE SPECS

Excel - 1994 to 2000, up to G4FK. Engines built and sealed to previous TAA rules are allowed

1.3 DRIVELINE

- Factory standard manual excel 5 speed gearbox. Gearbox ratios and diffs shall remain standard.
- The final drive ratio 3.842. Excel X3 1994 – 2000 - ratios – 1st 3.615 (13/47) 2nd 2.053 (19/39 teeth), 3rd 1.37 (27/37), 4th 1.031 (32/33)
- TAA/MA control 3rd/4th fork/ & knuckle is allowed to replace OEM part.
- Locked, Limited Slip, Drexler style and Over-tightened differentials are not permitted. (Refer Appendix
- B of these regulations for the approved method of testing differentials)
- Only single plate clutches are permitted. A commercially available aftermarket heavy duty clutch is permitted. It must be of similar design and construction to the original clutch. Racing type clutches are not permitted
- Raising of gearstick and lengthening lever throw is permitted

1.4 BRAKE SPECS

- Standard excel brakes (rear drums)/front disc rotors
- Brake friction material is free
- Cross drilled and/or slotted rotors are not permitted

- Steel brake lines must be original equipment but it is permitted to replace flexible brake hoses with approved stainless steel flexible hoses.
- It is permitted to fit a mechanical proportioning valve to a brake line provided such valve is not adjustable from within the cockpit. Minor localised modification of steel brakes lines required solely for fitment of a proportioning valve is permitted.
- J2 Hyundai Lantra brake rotor, caliper and hub axle combination.
- XD Hyundai Elantra brake rotor, caliper and hub axle combination

1.5 EXHAUST/INTAKE

- The exhaust system is free downstream of the manifold and other than: The exhaust must exit only from the rear of the *Automobile*
- The exhaust must follow the original route of the standard exhaust. factory heat shielding to the fuel tank must be retained.
- Extractors are expressly forbidden.
- Intake manifold is to be standard original excel, the rest of the air intake is free before the original throttle body and air flow meter.
- Throttle body is to be standard - factory as per model (i.e. Twin-Cam throttle body on twin cam motor).
- The air filter system is free upstream of the throttle body.
- The induction system must be supplied only with ambient air. Additional cooling of the intake air is not permitted.
- The entire induction system must be fully contained within the engine bay.
- NB. The decision of the eligibility officer is final

1.6 FUEL AND IGNITION

- Fuel injection is to be the standard factory system. The fuel injection system must be standard for that engine type.
- Injectors are to be standard - for that engine type.
- Ignition is to be standard - for that engine type (a push button starting switch can be fitted).
- Spark plugs and leads are free.
- Computer is to be factory standard for that engine type and not modified in anyway. – i.e. Twin Cam has Twin Cam computer, – see section 1.8 for further clarity
- Fuel pressure regulators are free.
- Fuel pumps are to be factory Excel as per model of the car.
- Fuel lines are to be factory standard.
- Surge Tanks / Swirl Pots are not permitted

1.7 BATTERY

The Automobile battery may be relocated into the cockpit. If the battery remains in the factory location, it may be an automotive battery of any type. If the original location of the battery is within 500mm of any fuel tank, then it is recommended that the battery be relocated into the cockpit. If the battery is to be relocated into the cockpit:

- The battery must be securely mounted to the floor of the Automobile.
- The battery type must be an AGM or GEL type battery only.
- The positive terminal of the battery must be insulated.
- The battery must be more than 500mm from any fuel tank mounted in the cockpit or where the 500mm dimension cannot be achieved be fitted to only the front passenger floor area.

1.8 COMPUTER ECU AND MODULES

Chipping, Flash Tuning and wiring harness modifications are not permitted

- At any time during any Qld Excel Cup event, (which includes practise, qualifying or racing) the series scrutineer can check your vehicles computer, and swap it with a series/or competitor's computer. For ease of removal, it is recommended to mount your ECU on the side of tunnel or firewall of passenger side.
- Any vehicle/driver/car owner found to contain any other after-market performance enhancing device will be removed from the event and will incur up to a twelve month ban from any Qld Excel Cup event.

1.9 FUEL

- Fuel shall be Pump Fuel compliant.
- The fuel tank, or any replacement, shall be maintained in the original location but may be modified by the installation of safety foam. Any replacement tank shall comply with AASA/MA. Protection for the fuel tank may be added only in the area of the tank.
- The fuel pump may be replaced by an external electric type provided the pump and fuel lines are not located within the cabin.
- Racing fuel is not permitted
- Fuel additives are not permitted
- Any fuel found to be over 98 octane can receive an immediate disqualification.

1.10 AERODYNAMICS

- The factory or genuine Hyundai Excel rear wing may be used.
- All other aerodynamic aids are not permitted

1.11 STEERING

- Power steering can be added or delated
- Either the manual or power steering rack can be used
- Steering wheels are free but must meet ADR, FIA or SFI standards.
- Power Steering coolers are permitted

1.12 STRUT BRACES

- A strut brace may be fitted between the front suspension towers provided it only links the strut towers. The rear suspension towers may be braced by the safety cage and/or an additional strut brace.

1.13 LIGHTS

- The original headlights, brake lights, tail lights and indicators are to be kept in place. As headlights are getting hard to get, a replacement with lighting for dusk/night racing can be approved by the Tech Manager
- brake lights are to be functional, no spray tint or dark film is to be applied
- indicators are to be in position but are not required to be functional
- All cars must have a Rain light - Refer to AASA

1.14 INTERIOR

- The front door trims must remain in place or be replaced by a suitable safe material.
- The original dash/ or fibreglass replacement. Relief cuts may be made for fitment of roll cage.
- Racing Seat - Refer to AASA Schedule

1.15 ROLL CAGES

- Refer to AASA Schedule

1.16 MINIMUM WEIGHT

- The minimum racing weight of the car is measured with driver and all his race apparel. At no time during an event can the car weigh less than the following;
- Minimum wet weight is to be 1000kg
- Any Ballast weight must be mounted as per AASA

1.17 GLASS

- ADR compliant Glass must be maintained
- Use of light weight window materials is not permitted. No Perspex (polycarbonate) materials
- Vehicles must not have any tint on any side windows or the rear windscreen.

1.18 TELEMETRY

- Live telemetry is not permitted
- No Bluetooth connection of any kind permitted
- Stored Video & other GPS style telemetry is permitted - eg performance box or video box etc.
- Water temp and Oil pressure gauges or warning lights are permitted
- After - market Tacho may be fitted
- Pit to car radio communication is permitted

1.19 COOLING

- Oil Coolers are permitted
- A Larger radiator may be fitted provided that the original fixing points are used
- Radiator Hoses are free
- Brake ducts are permitted

1.20 TYRES

- Nankang 195/50/15 is the mandatory control tyre. \$TBA each. Purchase via Brett Peters or at QR.
- Tyre Buffing is NOT allowed - Tech officials decision is final.

1.21 WHEELS

- Wheels must be maximum 15" diameter/7.0" width
- Alloy wheels are permitted
- 10mm Max Wheel Spacers are permitted however must not be diecast.
- Long wheel studs must be fitted if spacers are used.

1.22 SUSPENSION

- Racing suspension is not permitted, ie. No canisters or external reservoirs.
- The control Excel suspension package as supplied by Supashock Australia may be used
- Commercially available coil over suspension is allowed, however together with the following;

Camber must not exceed 4.0 degrees negative and minimum ride height with competing driver in driving seat must be 100mm excluding exhaust.

The ride height will be measured with the car parked on level ground. No part of the car except the exhaust is to be under 100mm when measured at the cross member with tyres inflated to a minimum of 35 pounds.

The use of replacement adjustable strut tops is permitted, providing that each use the standard body shell mounting points. The removal of metal from the suspension tower is forbidden, except that a hole in each strut tower may be enlarged to a maximum of 60mm diameter and remain circular and concentric with the original hole.

- Camber pins are permitted to achieve negative camber
- Original mounting points must be maintained for all components
- Bottom of struts may be slotted but must be reinforced by locating camber washers or washers welded to strut ears
- Longer wheel studs must be fitted if using wheels spacers
- Track Measurement will be carried out by measuring from the centreline of each tyre across the axle at the point where the tyre contacts the ground.
Effective Outer track - measured at Racing Weight at the widest point of the outside of the tyres set at 35psi +/- 5psi
- Max front track is 1515mm
- Max rear track is 1485mm
- It is permissible to fit off set caster bushes

1.23 SWAYBARS

- It is permissible to install readily retail available after market sway bars up to 18mm in thickness on the rear and 22mm thick on the front
Original mounting points must be maintained for all components
Sway bars must be non-adjustable.

1.24 RACE SEAT

- Refer to AASA Schedule
- The series scrutineer or eligible officer can direct changes to be made to seat mount if considered unsafe.

1.25 RACING HARNESS AND WINDOW NETS

- Refer to AASA Schedule

1.28 OIL CATCH CAN

- Oil catch cans are mandatory. The oil catch can, cannot have any electronic or mechanical aids or be assisted by any vacuum. Hoses connecting the engine to the catch can must be a maximum inside diameter of 13mm. These hoses must only be connected to the engine via the original engine breather connections. The PCV valve internal components may be removed.
- A minimum holding capacity of 2L is required. No plastic vessels are permitted, They must be of a metal construction – with a minimum of two mounting points, - no plastic ties allowed – they must have breathers or one way valves fitted so it can't leak oil in the event of a roll over.

1.29 BATTERY ISOLATOR/ENGINE KILL SWITCH

- Refer to AASA Schedule

1.30 TOW POINTS

- Suitable tow points to front and rear are required –

1.31 IN CAR camera

- A. All cars must have a minimum forward facing (action) camera. Vision must be High Definition 1080P or better (no dash cams unless High Def) and it must be positioned in such a way that the steering wheel is

in the picture. Footage must be made available at DSO request. Memory cards must be emptied each round. Failing to provide footage will result in a penalty. 1st no points for the race where vision was requested or when asked by official to show working camera. 2nd Penalty same race meeting zero points for the round.



1.31B Jacking Points

- A. The reinforcement of jacking points under the automobile is permitted by the addition of metal plate/s provided reinforcing does not exceed a surface area of 150 mm x 150 mm and follows the contours of the original.

1.32 Fuel testing

Fuel samples may be drawn for testing from a competing automobile at any time during the period of time from the commencement of the event until the vehicle is released from parc fermé at the conclusion of the event, should one be organised.

It is the competitor's responsibility to provide the means by which fuel samples may be taken from the Automobile; the method being subject to the approval of the Chief Scrutineer. Sampling requiring the disconnection of hoses containing fuel under pressure is not acceptable under any circumstances.

Whilst the fuel samples for testing are being taken, the competitor, or his nominated representative must be in immediate attendance to observe the process.

The competitor must declare to the scrutineers, at the time of sampling, the brand and type of fuel that is in the automobile's fuel tank. Any additive, including lubricants, must also be disclosed to the scrutineers

1.33 RACE NUMBERS

- Race numbers are mandatory and are to be supplied by the competitor. Its also recommended that all cars are fitted with the below Fluro numbers

Item	Size	Colour	Positioning
Race Number	150mm high	Yellow (Fluro)	Side back window, both sides
Race Number	150mm high	Yellow (Fluro)	Top left windscreen

1.34 SERIES SPONSORS

- Sponsorship decals must be displayed in the designated positions. (Windscreen, front and rear number plate are compulsory. Stickers are provided by sponsors) No stickers – NO POINTS

1.35 Points: Points will be allocated on each Championship / Series Race at each Round to all drivers based on overall finishing order: (DNF 0 points).

Position	Points	Position	Points	Position	Points	Position	Points	Position	Points
1st	50	11th	33	21st	23	31st	13	41st	3
2nd	45	12th	32	22nd	22	32nd	12	42nd	2
3rd	42	13th	31	23rd	21	33rd	11	43rd	1
4th	40	14th	30	24th	20	34th	10	44th	1
5th	39	15th	29	25th	19	35th	9	45th	1
6th	38	16th	28	26th	18	36th	8	46th	1
7th	37	17th	27	27th	17	37th	7	47th	1
8th	36	18th	26	28th	16	38th	6	48th	1
9th	35	19th	25	29th	15	39th	5	49th	1
10th	34	20th	24	30th	14	40th	4	50th	1

To award individual round placing, points for all races will be added together. In the event of a tie then the count back shall consider the number of firsts, seconds etc in a round until winners are found.

1.36 DRIVING STANDARDS / PENALTIES

Section	Infringement (for each and every occurrence)	Penalty (up to points deducted)
A	Crowding of overtaking drivers	25
B	Pulling across in front of the overtaken car before it is safe to do so	25
C	Second or subsequent contact while a car is out of shape	25
D	Not giving another entrant sufficient racing room	25
E	Deliberate contact as deemed by the stewards of the race meeting or by executive committee	Meeting or season exclusion

F	Rear end contact resulting in another entrants off track excursion or gaining an unfair advantage	25
G	Deliberate weaving or blocking	25
H	Deliberately blocking a car about to pass or re-pass you or baulking	25
I	Continuously driving on the inside of the track to prevent over taking	25
J	Changing line prior to, within or exiting a corner which causes contact with another car	25
K	Late and or dangerous braking or diving to inside of corner to pass or attempt to pass if contact results	25
L	Driving outside the white line at edge of track, or what is deemed to be the edge of the track	25
M	Refusal to provide Executive committee member with camera vision when requested	Meeting or season exclusion
N	Failure to provide Executive committee member with camera vision when requested	25
O	Bringing the HERA Club, its members or any associated entity, as deemed by the Committee, into disrepute by any behaviour on or off the track	Meeting or season exclusion
P	Any member causing through action or inaction allow controversial vision to be available to the public arena (for example, but not limited to, YouTube) without the prior written approval from the Committee. The onus rests with the entrant to ascertain whether vision is controversial or not from the Executive committee.	Round points or meeting or season exclusion
Q	Vehicle found to be not in compliance with the regulations. This can also be applied for meetings prior to the discovery of non compliance where the infringement is reasonably likely to have occurred. (Note: Scrutineers may be defined in the Supplementary regulations as Judge of fact)	Meeting or season exclusion
R	Lodgement of 'frivolous or vexatious' inquiry or protest	Round points or meeting or season exclusion

Competitor eligibility protest

[2024-AASA-FORM-1---Notice-of-Protest---Rule-12.pdf](#)

Please print and complete this form and deliver it to our category manager who will pass it on to the CoC.

If the protest involves the engine or gearbox, the cost will be \$500. The exact component or components you wish to protest must be noted.

Engine/Gearbox Sealing.

All engines sealed must be by the QEC eligibility officer. Competitors that have an engine built or rebuilt are recommended to have the engine inspected/sealed at time of assembly. Any car not inspected and sealed will be sealed at the track as directed by a QEC eligibility officer, and at any time can be instructed to have their engine inspected to continue to race in club events.

1. If you wish to seal or break a seal, you **MUST** notify our category **eligibility officer** by calling him.

2. be aware that if you do not notify before you break the seal, you will incur a championship point's penalty. If re-sealing is required at a location/time other than a scheduled race meeting, this will be done at the competitor's expense. See below for specific sealing procedure.

Engine sealing Procedure

- Engines requiring a full check and seal are to be separate from the race car.
- All machining is to be completed, components are to be clean and organised ready for efficient assembly, but with the cylinder head, camshafts, and sump removed.
- The crankshaft, conrods, and pistons must be fitted, but the engine sealer will ask for one piston of his choice to be removed for checking, then be refitted.
- The cylinder head should be fitted with all valves, springs, and retainers, but without camshafts, and the engine sealer will ask for some valves of his choice to be removed for checking.
- At any time the engine sealer can supply camshafts on an exchange basis from the Category, the supplied camshafts will have been checked and measured against standard camshaft specifications. The camshafts must be fitted in the presence of the engine sealer, along with the timing components.
- Various engine components will be checked by the engine sealer during your assembly of your engine. Components checked will include, but not be limited to crankshaft, conrods, pistons, bore, stroke, castings, valves, cylinder head and ports, timing components.
- The engine components must be pre-drilled to accommodate sealing wire in the areas of Engine sump rail to block, cylinder head block casting to cylinder head casting, and bolts for two camshaft bearing caps.
- The engine builder must check that all components conform to the current HERA Club Regulations before an appointment is made for the engine sealer to attend, and in the event that an engine is unable to be completed or sealed, a full sealing fee is due and payable for that visit by the engine sealer.
- Efficient and timely assembly of the engine in the presence of the engine sealer is requested.

APPENDIX B

TESTING OF DIFFERENTIALS

the initial method of checking that differentials comply with "Mechanical Items - Item L" of these regulations shall be as follows:-

The engine of the car is to be turned off and the gearbox placed in neutral and the handbrake fully off.

The car will be jacked up so both front wheels are clear of the ground and each spins freely.

One front wheel will be rotated by hand, and the front wheel on the other side of the car will be observed.

Should the observed wheel rotate in the same direction to the wheel being rotated by hand, then the differential will be deemed to have failed this test. Additional tests may still be required to determine eligibility at the scrutineer's discretion including ratio tests and putting car on hoist/or jack stands, removing a drive shaft by dropping lower ball joint so not upsetting wheel alignment and inspecting plus if necessary post-race meeting checking.

Specifications Block prefix G4FK DOHC

Cylinder bore	76.1mm maximum
Stroke	83.5mm maximum
Cylinder block height	257.7mm minimum
Block tolerance (Limit for correction of cylinder block upper face distortion)	0.25mm
Crankshaft weight (Single counterweight "Black-top" version) with tone wheel	11.2kg minimum
Crankshaft weight (Double counterweight "Silver-top" version) with tone wheel	12.0kg minimum
Piston protrusion	+0.05 (+/- 0.15mm)
Piston material	Aluminium alloy (Cast)
Piston height from gudgeon pin centre to piston crown	30.5mm (+/- 0.1mm)
Piston rings – number (includes oil control ring/s)	3
Combined weight of conrod, fasteners, w/o bearings, piston, pin and rings	792.2g minimum

Cylinder head combustion chamber volume	37.00cc minimum
Cylinder head	No angle milling permitted
Inlet valve seat insert – throat diameter	25.0mm maximum
Exhaust valve seat insert - throat diameter	22.5mm maximum
Inlet valve diameter	28.2mm maximum
Exhaust valve diameter	25.0mm maximum
Valve stem - diameter	6.0mm
Valve spring installed height	35.0mm
Inlet port (tolerance -2%, +4%)	Drawing 1
Inlet manifold (tolerance -2%, +4%)	Drawing 2
Inlet manifold throat	No match porting
Exhaust port (tolerance -2%, +4%)	Drawing 3
Exhaust manifold (tolerance -2%, +4%)	Drawing 4
Exhaust manifold Outlet (tolerance -2%, +4%)	2 x 41mm
Inlet Camshaft lobe dimension Appendix 2	(A) 35.90mm to 36.10mm (B) 43.32mm max
Inlet Valve lift	7.20mm (+/- 0.06 mm)
Exhaust Camshaft lobe dimension Appendix 2	(A) 35.90mm to 36.10mm (B) 43.90mm
Exhaust Valve lift	7.8mm (+/- 0.06 mm)
Throttle body internal diameter	48.0mm (+/- 0.25mm)
Flywheel thickness	29.0mm minimum
Flywheel weight	6.2kg minimum
Gearbox and final drive ratios	Ref 1.3 or Appendix 2
Effective Outer track - measured at Racing Weight at the widest point of the outside of the tyres set at 2.0 +/-0.1bar	Front = 1720mm maximum Rear = 1710mm maximum
Wheelbase	2400mm (+/- 20mm)
Body width – Front	1630mm (+/- 15mm)
Body width – Rear	1620mm (+/- 15mm)
antiroll bar diameter - Front	22.0mm maximum
antiroll bar diameter - Rear	18.0mm maximum
Combined Flywheel and Clutch Assembly weight	9.8kg minimum
Radiator height excluding cap	453mm (+/- 15mm)
Radiator Width minimum	610mm
Radiator Width maximum	685mm

Cylinder Head Valve Throat Machining Maximum Depth

Inlet valve throat: 13.5mm

Exhaust valve throat: 13.5mm

Datum Area

The datum area to measure the maximum depth of the machined cylinder head valve throat is determined as the narrowest point of the original casting combustion chamber (excluding any casting mark/irregularity) between the inlet (IN) valves and the exhaust (EX) valves.

Appendix 2 – Dimensions / Ratios

Gearbox Ratios

	Number of teeth	Ratio	Synchro
1	<u>13/47</u>	<u>3.615</u>	<u>Yes</u>
2	<u>19/39</u>	<u>2.053</u>	<u>Yes</u>
3	<u>27/37</u>	<u>1.370</u>	<u>Yes</u>
4	<u>32/33</u>	<u>1.031</u>	<u>Yes</u>
5	<u>37/31</u>	<u>0.838</u>	<u>Yes</u>
R	<u>12/29/39</u>	<u>3.250</u>	
F/Drive		<u>3.842</u>	<u>DOHC</u>
F/Drive		<u>3.656</u>	<u>SOHC</u>

Camshaft Dimensions

INLET

A = 35.90mm to 36.10mm

B = 43.32mm Maximum

B minus A = Maximum 7.26mm

EXHAUST

A = 35.90mm to 36.10mm

B = 43.90mm Maximum

B minus A = Maximum 7.86mm

