

KING OF CANTERBURY

4WD ENDURANCE CHALLENGE

RULE BOOK 2024

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Motorsport is dangerous and you enter at your own risk.

If at any time the competitor feels that part of a course or the whole course in front of them is too difficult or they believe it is unsafe in any way, they are not to feel that they are under any obligation to complete the course, but the competitor needs to take their concerns to the event organisers as soon as possible so that it can be discussed.

CLASSES

Class - “TRUCK”

Vehicles that represent production based 4WD vehicles. They must be up to a good mechanical standard.

- I. SPECIFICATION - They must resemble volume produced commercial or recreational vehicles. Vehicle must be up to a good mechanical standard and be maintained up to this standard.
- II. BODY – They must have bonnet, A Pillars and B Pillar (if applicable i.e. factory soft tops) and resemble factory look at the front.
- III. CHASSIS - between wheels centres to remain the same basic Rails and dimensions. Framing for roll cage, body mounting, suspension, etc., may be permanently attached. Uni-body or monocoque construction is permitted providing the original rigidity and strength is not compromised in any way. Refer to Rule 3 Protection for Soft Tops.
- IV. SUSPENSION / SHOCKS - Open mounting & type, limited to one performance shock per corner (triple bypass or coilover). If truck has WOF / Rego it can have as many as cert plate says the truck has.
- V. ENGINE - Open. Radiator may be relocated within the frame.
- VI. TRANSMISSION – Open.
- VII. AXLE - Open - Diff locks allowed. No Portal axles.
- VIII. TYRES - Maximum 940mm diameter. (See rule 1).
- IX. FUEL TANK - Must be well secured, vented with a roll over valve, and have a sealed cap.
- X. ROLL CAGE – 6-point minimum (see rule 4).
- XI. WINCH – (See rule 6).
- XII. HARNESS - 4-point harness—webbing 2” minimum.
- XIII. BATTERY ISOLATION SWITCH (see rule 9).
- XIV. STEERING - Open but must have a mechanical linkage.
- XV. BRAKES – Must operate on all 4 wheels.

Class - “UNLIMITED”

Vehicles that represent homemade or highly modified production based 4WD vehicles. They must be up to a good mechanical standard.

- I. SPECIFICATION – Unlimited – Safety requirements
- II. BODY – Unlimited
- III. CHASSIS -Unlimited. Uni-body or monocoque construction is permitted providing the original rigidity and strength is not compromised in any way. Refer to Rule 3 Protection for Soft Tops.
- IV. SUSPENSION – Unlimited
- V. ENGINE – Unlimited
- VI. TRANSMISSION – Unlimited
- VII. AXLE - Unlimited
- VIII. TYRES – Unlimited. (See rule 1).
- IX. FUEL TANK - Must be well secured, vented with a roll over valve, and have a sealed cap.
- X. ROLL CAGE - Must run a minimum of a 6-point cage (see rule 4).
- XI. WINCH – (See rule 6).
- XII. HARNESS - 4-point harness - webbing 2” minimum.
- XIII. BATTERY ISOLATION SWITCH (see rule 9).
- XIV. STEERING – Unlimited
- XV. BRAKES Must operate on all 4 wheels. Fiddle brakes allowed.

VEHICLE RULES

1 WHEELS AND TYRES

- 1.1 Tyres are restricted to class specifications, diameter to be measured horizontally at 30psi tyre pressure on the vehicle.
- 1.2 Tyre or wheel chains of any kind are not permitted.
- 1.3 Metal tyre studs are not permitted.
- 1.4 Bead lock wheels must be up to a good engineering standard.
- 1.5 No Tracks or Duals to be fitted in any Class.

2 CABIN

- 2.1 The interior of the vehicle shall be a safe operating environment for the crew and all heavy objects shall be secured adequately.

3 PROTECTION

- 3.1 In soft-top, plastic, or open top vehicles a roll over bar must be fitted, roof protection shall be installed to protect the crew from intrusions. It shall consist of 2mm minimum thickness aluminium or 1mm minimum thickness steel sheet, or high impact plastic of equivalent impact strength, and shall extend the full width of the vehicle from the windscreen frame to the roll over protection bar, terminating behind the heads of the crew.

4 ROLL CAGE

4.1 Roll cages for Truck and Unlimited to follow one of the following as a minimum requirement:

ORANZ, NZ4WD ASS, MANZ, CCDA, FIA, ULTRA 4, UTV

ORANZ:	www.oranz.co.nz/information/rule-book/
NZ4WD ASS:	NZ4WDA Competition-Regulations-2017.pdf
MANZ:	MANZ 2015-16 Sch TL - Part L (Safety Cage).pdf
CCDA:	CCDA FWD Manual Of Motor Sport Version 10.pdf
FIA:	www.fia.com/regulations
ULTRA 4 RULES:	www.ultra4racing.com/rulebook
UTV	ISO 3471:2008 or 29CRF:1928.53

4.2 It is the Team responsibility to prove their vehicle roll cage is up to the selected standard when requested by officials.

5 BAR WORK

5.1 The cable horn must not be forward facing and be of such a design such as to prevent any risk of Impalement.

5.2 No dangerous or sharp protruding objects.

6 WINCHES

- 6.1 All vehicles shall be fitted with any make of forward acting recovery winch. Power for winches shall only be taken from the vehicle engine, driveline, vehicle electrical system or manpower.
- 6.2 Winches must have an operational automatic braking system which cannot be manually overridden to prevent un-spooling when winching is halted.
- 6.3 Winches shall be mounted in a secure manner, with grade 8,8 high tensile steel bolts or equivalent, to the chassis, bull bar or bar work, or an engineered sub-frame in a monocoque vehicle.
- 6.4 Multiple winches are permitted.
- 6.5 Winches mounted in the cabin must protect the crew from the cable by 1.5mm minimum thickness steel or 2mm minimum thickness aluminium sheet or an equivalent impact strength material.
- 6.6 Winch cable specifications:
 - I. Winch cable must be HMPE (High Modulus Polyethylene) or UHMWPE (Ultra High Molecular Weight Polyethylene) synthetic rope. Example brands include Dyneema, Plasma, Spectra, Super Max etc.
 - II. It must be a minimum size of 8mm or have a minimum load rating of 4500kgs.
 - III. It must have a maximum elongation of 6% at breaking point.
- 6.7 WINCH KILL SWITCH - a separate kill switch that cuts all power to all electric winches. (This may also be the battery isolation switch)

7 RECOVERY POINTS AND RECOVERY GEAR

- 7.1 A 10,000lb/4500kg minimum rated recovery point, is required on both the front and rear of the vehicle and shall be securely mounted to the chassis or bar work by a minimum of two 12mm, or four 10mm, grade 8.8 (or equivalent) high tensile steel bolts. Monocoque frame vehicles shall have each recovery point mounted such that the load is applied evenly to the vehicle frame. Note: Lifting eyes of any kind are not approved.
- 7.2 All recovery gear must have a minimum rating of 3.25 t.

8 COMPULSORY SAFETY AND RADIO EQUIPMENT

- 8.1 The following minimum equipment shall be carried in/on each vehicle competing:
- I. Two 1kg or one 2kg minimum multi-purpose dry chemical fire extinguishers to cover A B C & E type fire. The contents needle must be showing in the green band. They must be always mounted securely with at least one within easy reach of either Driver or Co-Driver while seated in the vehicle.
 - II. A comprehensive off-highway first aid kit.
 - III. A portable “Ground Anchor” suitable for the vehicle size.
 - IV. UHF radio must be at least 0.5-watt. Channel 40 will be the safety channel
 - V. Recovery kit to include the following items in good condition:
 - Tree trunk protector (s) with a minimum 75mm web width
 - 1 snatch block of suitable size
 - 2 x 3.25t (min) rated bow or soft shackles
- 8.2 Safety helmets must comply with relevant New Zealand Standards (NZS5430), Australian Standard 11698 or equivalent. Safety helmets must be correctly worn by competitors whilst in the vehicle when competing.
- I. Safety helmets and straps must be free from damage and fit the wearer correctly.
 - II. Safety helmets must not have extra holes drilled in the helmet thus destroying its approved safety standard (e.g., to attach microphone booms)
- 8.3 Additional tool kits, tyre repair kit and spare parts are the responsibility of individual crews and must be secured into the vehicle.
- 8.4 Sturdy gloves are recommended when handling a winch cable.
- 8.5 A cable dampener is recommended.
- 8.6 Minimum 1 x flashing blue light to the rear of vehicle
 Minimum 1 x head light
 Horn
 Rear view mirror or camera
 Window nets on any window a person is sitting at (or windows wound fully up) recommended
 Minimum 1 x Brake light recommended
 Minimum 1 x layer cotton overalls (both driver’s and navigator’s) recommended

9 HARNESS & ISOLATOR SWITCH

- 9.1 A single point catch and release buckle shall be fitted to safety belts.
- 9.2 A minimum 4-point 50mm competition harness shall be used.
- 9.3 No chafed, stretched or UV damaged webbing or frayed stitching is permitted.
- 9.4 Belts shall not be fastened to seat frames or supports.
- 9.5 Belt mounting points are to be secured to:
- I. Vehicle frame or chassis
 - II. Vehicle floor, if reinforced with MOT approved backing plates
- 9.6 **Engine Kill Switch**- All vehicles must have an engine kill switch. A switch separate to the key that kills the engine and fuel pump. Switch location accessible by driver and co-driver when belted. (May also be Battery Isolation Switch if it is a twin switching unit)
- 9.7 **Battery Isolation Switch** – All vehicle must have a switch that cuts battery power to everything except the computer memory. Switch location accessible by driver and co-driver when belted. (May also be Engine Kill Switch if it is a twin switching unit)

10 ADVERTISING

- 10.1 Crews are allowed to fix any kind of advertising to their vehicles, provided that, it is not likely to be offensive as judged by the Event Director.
There is to be a space left for the competitor environment on the Drivers and Co-Drivers doors behind the outside rear view mirrors, numbers must be larger than 200mm high.
Competition numbers will be 3 digits with the first digit denoting the class.
The lettering must be a minimum of 30mm brush stroke and 200mm high.
The lettering must be of a contrasting colour or be on a white background of 300mm x 300mm.
- 10.2 Crews may be required to display the event sponsors logo, decals may be supplied and fitted at scrutineering. The decals must be displayed in a prominent position and remain on the vehicle throughout the competition.

11 SCRUTINEERING

- 11.1 Vehicles and Recovery Gear are required to be available for scrutineering prior to the start of the event at a time and location as determined by the Event Director. The Driver shall be present during scrutineering unless pre-approved by the Event Director or Chief Scrutineer.
- 11.2 Crew are required to report to scrutineering with the following items and documents:
- I. Drivers proof of 4wd Association membership E.g.: phone screen shot of membership receipt
 - II. Crash/Safety helmets shall be presented for verification of compliance with the safety equipment rules (Rule 8.2)
- 11.3 The vehicle shall be race ready and presented in a ready-to-start condition including adequate fuel, all compulsory equipment and recovery gear, spares, and tools etc.
- 11.4 Any vehicle that fails to pass the scrutineering process will be excluded from starting the event.
- 11.5 If any competing vehicle is damaged so as to be unsafe, the crew must repair that damage to the scrutineer's satisfaction.
- 11.6 The Scrutineer, or their delegate, has the right to check any vehicle at any time during the competition and to require that vehicle to be repaired to comply to rules to the scrutineer's satisfaction, or be excluded from the event.
- 11.7 No vehicle scrutineering will be undertaken on entry to a competition. Scrutineering of said vehicle may only take place in the advent of an accident during completion. Standards and legal requirements according to the NZ 4WD Enduro Challenges Rule Book are solely the responsibility of the entrant. Scrutineering of relevant recovery equipment and safety items will be performed according to the NZ 4WD Enduro Challenges Rule Book. (This is only a class check).

EVENT RULES

12 GENERAL EVENT RULES

- 12.1 This event is designed to bring four-wheel drive enthusiasts together from around New Zealand. The courses are designed to test Driver, Co-driver and their vehicles, to their limits in challenging conditions. It is primarily a driving competition but will test competitors in all aspects of four-wheel driving including safe winch recovery techniques.
- 12.2 Events are subject to New Zealand (NZ) Law. Where there is any inconsistency between these rules and NZ law, NZ law shall prevail.
- 12.3 All rules shall always apply during the event.
- 12.4 The organizers will always endeavour to run the full course. They will only withdraw a deviation for safety reasons within the allotted time frame.
- 12.5 The supreme authority during the event will be the Event Director.
- 12.6 **Job Titles**
- Event Director (Overall event leader)
 - Clerk of course (Controls teams and any issues teams have)
 - Head Marshall (Controls marshals and any issues marshals have)
 - Head Recovery (Controls recovery team)
 - Head Environmental
 - Head Scorer
 - Head Media liaison

A person can do more than one job

13 RULES REGARDING THE ENVIRONMENT

- 13.1 All Rubbish shall be removed.
- 13.2 No oils or fuel shall be emptied or disposed of, except into suitable containers, which shall remain the property of the competitors and be removed from the venues.
- 13.3 No vehicle to be driven in any waterways unless it is a marked part of the course.

COMPETITION RULES

14 GENERAL RULES

- 14.1 The Driver shall be 15 or older, with parental consent until the age of 18 years old, and able to prove they are a competent driver if requested by Officials.
- 14.2 The Co-drivers minimum age is 12, with parental consent until the age of 18 years old.
- 14.3 Driver and Co-drivers must wear correctly fitted crash helmets when competing.
- 14.4 Officials have the right to refuse any participant to start, if the vehicle has mechanical problems such as an inoperative winch or loss of 4WD capabilities etc.
- 14.5 Starting order will be set by the Event Organiser.
- 14.6 This is a non-contact sport
- 14.7 Speed in pits/fuel bays to be kept down, organiser to set speed
- 14.8 A course can be marked by pegs, arrows, pegged gates, bunting, or stated as a formed track.
- 14.9 If a recovery is required, only one recovery leader will be nominated for any situation.
- 14.10 Officials may remove an obstacle or item from the track if it is deemed to be a safety hazard or likely to disadvantage trailing competitors.
- 14.11 Use common sense when dealing with any part of the rules and procedures in this rule book.

15 COMPETITION RULES AND PENALTY FOR INFRINGEMENT

15.1 EVENT DISQUALIFICATION FOR ANY OF THE FOLLOWING

- I. **No Alcohol or Drugs** shall be consumed prior to, or during any event, until the day's event is completed. During the event all competitors and officials must maintain a zero balance. Random breath tests may be done.
- II. No Driver or Co-driver shall seek favour from, influence, manipulate, obstruct, or interfere with the duties of any member of the Competition Committee or Trackside Officials.
- III. No Driver or Co-driver shall interfere, or tamper with, any other Crew's vehicle whatsoever. Any participant found doing so shall be immediately disqualified.
- IV. The Driver must be a financial member of NZ4WD Ass. If the co-driver was to be driving at any time, he/she must also be a financial member of the NZ4WD Ass. NZ4WD Ass numbers to be produced on all entry forms. The Driver is to be the same throughout the series, co-drivers can change each event. Driver and Co-driver combination shall remain the same throughout the event. Alternating between Driver and Co-driver (as long as both are NZ4WD Ass members and hold a full NZ Driver's license) for any particular event is allowable but the nominated Driver is to be in the driver's seat at the beginning and finish of the event. Points are given to the nominated Driver for series and each event. (a substitute co-driver can be used at an event in special circumstances at the discretion of the Event Director, i.e., medical, unforeseen circumstances. Confirm eligibility prior to starting the event.

15.2 LAP DISQUALIFICATION FOR ANY OF THE FOLLOWING

- I. Risk of harm: No action or inaction by any Driver or Co-driver shall expose any person to harm or risk of harm.
- II. Safety Issue: Officials have the right to intervene and redirect any Crew during a event, if there is a risk of a dangerous incident to any person or vehicle. If Officials direct, the Crew must co-operate with the official. The official will alert the team by any means possible.
- III. Improper Behaviour: No Driver or Co-driver shall engage in abuse of, or improper behaviour toward any Official. No Driver or Co-driver shall fail to comply with any reasonable direction of any Official.
- IV. Remaining on the course: At no time shall all four wheels of a competing vehicle to be outside the course boundary to gain an advantage as deemed by an official. If by accident you have gone out of the course, you may re-enter at the same point of exit to continue on the course.
- V. Tree trunk protector: A tree trunk protector shall be used in all winching situations around the anchor point, whether supplied with a specially provided anchor post, an anchor tree, dead or alive unless a chain or other winching point has been provided by the track officials for use by the competitors.

15.3 POINTS DEDUCTION FOR ANY OF THE FOLLOWING:

- I. Loose recovery gear: All equipment carried inside and outside of the vehicle at all times during the event.
- II. Seat Belts: Seat belts or safety harnesses for both driver and co-driver must be correctly worn and fastened anytime the vehicle is in motion.
- III. Helmets: Helmets must be correctly worn while in the vehicle is in motion.
- IV. Jumping the start: No vehicle shall leave the start box until “GO” is called.
- V. Unsafe practice: Neither the driver nor Co-driver shall ride on the outside of a vehicle while in the event.
- VI. Course Boundary: No track or course boundary peg shall be struck by a vehicle, participant or equipment, such that it falls onto the ground and no track or course boundary marker tape shall be broken or deliberately removed. 10 points for each peg per lap. If a tree is painted as a course boundary marker, so long as the front wheels are passed there will be no penalties for touching from there on.
- VII. Excessive Wheel Spin: If in the view of the marshal you are losing traction and the track is at risk of being cut up unfairly for trailing competitors, he will warn you with one blast of air horn or whistle of excessive wheel spin and you must “commence winching”. If you continue with excessive wheel spin you will be penalised each time. Excessive wheel spin while winching will also be penalised.

Note: If the marshal does not have an operational air horn he must convey this message clearly to the driver verbally, by whistle, hand signals, the waving of a red flag or by any means available to him.
- VIII. Cable Under Tension: A participant shall not handle, or step over or under a winch cable under tension. The winching cable or winch extension strap is deemed under tension any time it is connected to the winching anchor point. The anchor point must be the last connection made. You are now required to stand clear for winching.
- IX. Stand Clear Call: The Driver or Co-driver shall be responsible for verbally warning any bystanders effectively including marshals, when a winch recovery is about to commence or recommence. It is not sufficient to just call “Stand Clear Winching”. The crew must ensure that the area is clear and safe before you start winching.
- X. Maintain Safe Distance from Cable Under Tension: A Driver or Co-driver shall not stand directly between an anchor point and a vehicle being winched and shall attempt to remain clear of the cable
- XI. Insecure Winch Cable: At all times, other than when actually being used for winching, winch cables and hooks shall be fully rewound onto the drum, bull bar, bumper or winch horns and be secure before the vehicle moves. This applies if the vehicle moves off with insecure winch cables and hooks or the subsequently come loose during the event.
- XII. Ground Anchors: Competitors may handle a ground anchor until the anchor is “set” (anchor movement has ceased) at which point they must stand clear. Should the anchor “un-set” it may be handled again to reset.

15.4 *DISPUTES*

Disputes arising from penalties must be recorded on the score sheet on completion of the event. For resolution they must be followed up by the competitor with the Head Marshal and Clerk of the course on the same day, no support crew, sponsors or spectators to be involved unless instructed by the event director. Once Score sheet is signed no further disputes may be put forward for that incident on the same day by the competitor. Any issues arising from the officials must be put forward before prize giving.

16 SCORING

16.1 At event organisers discretion.

17 PROTEST

17.1 Any protest shall be handed in writing to the Event Manager 1 hr before the start of the prize giving.

17.2 A crew may continue to compete until a ruling on any protest is made.

18 COURSE CONSTRUCTION

18.1 Should be set so the narrowest part of the course is not less than 2,5 meters wide where possible

18.2 Pegs are to be Green to left, Red to right.

18.3 Signage to be no less in size of A4 ledger.

18.4 Signs to be clear and one per A4 size

18.5 Bunting is to be safety tape or equivalent.

18.6 An adequate size fuel bay with fire extinguishers separate to the pits.

19 RIGHTS OF ORGANISERS

- 19.1 The organisers reserve the right to:
- I. Refuse any entry, without giving any reason whatsoever.
 - II. Abandon, cancel, postpone, or shorten the event, or any course, without due notice in the event of any unforeseen circumstances. No claims whatsoever of any kind shall be entertained due to the abandoning, cancellation, postponement or shortening of the event.
 - III. Exclude any person or vehicle that fails, at any time throughout the event, to meet the scrutineering or administrative guidelines as set out in this event guide or penalise as the Event Committee see fit.
 - IV. Cancel any course or other section of the event at any time, for safety or practical reasons including when some Crew have already completed the course.
 - V. Disqualify any crew that fails to abide by any rules set out in this event guide and any supplementary amendments or any instructions from the event Officials.
- 19.2 Any person or crew disqualified or excluded from the event may be required to immediately leave the vicinity of the event and the properties at which the event is being held.
- 19.3 Event organisers reserve the right to amend the rules to suit their event, venue, safety, environmental or other matters.

20 INDEMNITY

- 20.1 By entering and participating in the event the Crews acknowledge and agree that:
- I. The Organisers, Officials, and Event Sponsors are not held liable in any accident or incident caused to the Participants or their vehicles during the event.
 - II. The organisers and event sponsors will not be held liable for any breach of any laws or regulations. The Participants will be entirely responsible for all accidents or breaches of laws and any liability that may arise and shall indemnify the organisers, officials, and sponsors of the event by signing the indemnity form.
 - III. The Participants will have no claim whatsoever against the Organisers or Sponsors of the event. It is the responsibility of each to have in force, a valid insurance coverage against third party liability.
 - V. All Participants shall agree to and sign an indemnity form before they start the event. Failure to do so will render the Participant ineligible to start, with no refund of the entry fee.