



TRIAL REGULATIONS

Human Powered Vehicle (HPV)

Energy Efficient Vehicles (EEV)

Tryathlon Endurance

[Version 2026.01](#)

Coordinators: Michael McTigue, Nigel Preston and Cam Dangerfield.

Contact us: enquiries@eb.org.au

1. SPIRIT OF COMPETITION

The Energy Breakthrough Trial presents a unique opportunity for students to extend their learning experience beyond the boundaries of formal education. The following competition regulations have been framed so that the efforts and experiences of all participants are maximised, to be bound only by the constraints of safety and the spirit of healthy, but friendly competition.

To help achieve this ideal, attendance at Briefings at the event by Team Captains, Team Members and Team Managers is compulsory as follows:

Attendance at Briefings:

- **All Secondary HPV and EEV Team Captains** are required to attend the Team Captain's 'Spirit Of Competition' workshop as per the event schedule. Please note that Team Managers are NOT required to attend this workshop.
- **All Team Riders / Team Members** are required to attend the 'Rider Briefings' as per the event schedule.
- **All Team Managers** are required to attend the 'Team Managers Meetings' as per the event schedule.

2. ELIGIBILITY

2.1 Make-up of Teams

Teams are entered first into 'Categories' and then into 'Classes' depending on the type of vehicle and team composition.

2.2 Categories

Human Powered Vehicles:

- Primary
- Secondary
- TRYathlon

Energy Efficient Vehicles:

- Pedal-Electric Hybrid Vehicles
- Electric Vehicles (EV)

2.3 Classes

Teams will consist of the following numbers of competitors:

Human Powered Vehicles (HPV)

Class	Age	Team Size	Gender Requirements	School Size
A1	Years 1 - 6	Min 6 – Max 10	At least 50% female.	Schools with an enrolment of 200 or less
A2		Min 6 – Max 10		Schools with an enrolment of more than 200.
B1	Years 7 - 8	Min 6 – Max 10		n/a
B2	Years 7 - 10	Min 6 – Max 10		
C	Years 7 - 12	Min 6 – Max 8		
All Female	Years 7 - 12	Min 6 – Max 8	Female only	
Open	Up to Year 12	Min 6 – Max 8	No gender requirements.	

Energy Efficient Vehicles (EEV)

Class	Age	Team Size	Gender Requirements	School Size
Pedal-Electric Hybrid (PEV) B/C	Years 7 – 12 Must be a minimum of 14 years of age.	Min 6 – Max 8	At least 50% female.	n/a
Pedal-Electric Hybrid (PEV) All Female	Years 7 – 12 Must be a minimum of 14 years of age.	Min 6 – Max 8	Female only	n/a

Pedal-Electric Hybrid (PEV) Open	Years 7 – 12 Must be a minimum of 14 years of age.	Min 6 – Max 8	Female only	n/a
Electric Vehicles (EV)	Years 7 – 12 Must be a minimum of 14 years of age.	Min 6 – Max 10	No gender requirements.	n/a

2.4 Team Composition and Student Eligibility

- **Current school students:** All entries are to be team entries and must consist of current school students.
This is defined as young people enrolled in a school or young people enrolled in a secondary school certificate/program and under 20 years of age as at 31 December.
- **Teams comprising of students from different schools:** A school may recruit the balance of team members from another school to form a team, however, they must receive special prior approval by organisers to do so. This provision is aimed at schools which do not have sufficient enrolled students within their own school to form the minimum number of team members required for an entry. Such student/s must complete and submit a letter of support prior to ‘Check-In’ at the event. Please contact us at enquiries@eb.org.au for a copy of the proforma letter.
- **School clusters:** School clusters in rural Victorian settings are well suited to form a combined entry across multiple schools. Please contact us at enquiries@eb.org.au prior to entering to discuss your options.

2.5 School size and Type

- **A1 and A2 Classification:** Classification for schools entering the A1 and A2 classes will include the TOTAL school enrolment, not the Primary component of a school. This classification will be made by the organisers using information published on the MySchools website. (<https://www.myschool.edu.au>)
- **School-based teams only:** Only school-based teams or teams representing educational institutions will be permitted to enter.
- **Small school exemptions:** Small schools in the A1 category may request an exemption from the gender requirements. This permission will ONLY be granted in exceptional circumstances. Note: Event organisers - through the Country Education Partnership (CEP) - are aware that some small rural schools may have less than four male or female students across their entire student cohort. As such they are unable to meet the gender requirements. Please contact us at enquiries@eb.org.au prior to entering to discuss.

2.6 Summary of Categories, Classes and Caps

Category	Class	Cap
Robotics	A (Primary)	30

	B (Secondary)	30
Pushcarts	A1	80
	A2	
HPV Primary	HPV A1	100
	HPV A2	
HPV Secondary	HPV All Female	100
	HPV B1	
	HPV B2	
	HPV C	
	HPV Open	
HPV TRYathlon	TRY Primary A	20
	TRY Primary Open	
	TRY All Female	20
	TRY B/C	
	TRY Open	
Energy Efficient Vehicles (EEVs)	PE F - Pedal-Electric Hybrid - All Female	22
	PE B/C - Pedal-Electric Hybrid - B/C	
	PE O - Pedal-Electric Hybrid - Open	
	EV - Electric Vehicle - Open	

2.7 Registered Riders

- Only registered team members shall take part in the Trial, however, rider changes can be made up to the start of the Trial.
- All 'Team members' and 'Emergency Team Members' must be registered via the MyEB Portal prior to 'Check-in' at the event.
- Emergency riders are encouraged to participate in the practice session/s to ensure they are familiar with the track and the vehicle.

2.8 Team Member Participation

- Team managers must ensure that every nominated team member participates as a rider during the Trial.
- Team Managers are required to keep a log of rider track time, which can be checked by marshals investigating incidents.

2.6 Age of Drivers

Drivers of Energy Efficient Vehicles shall be at least 14 years of age, unless special prior approval is provided by organisers.

2.7 Identification

All riders must wear official identification in the form of the EB wristband provided at Check-In. This must be shown on request during the Trial.

2.8 Rider Substitution

- Sick or injured riders may be replaced prior to the start of the trial by a registered reserve rider of the same gender.
- Riders cannot be substituted after the start of the Trial.
- A rider substitution will require the identification wristband of the replaced rider to be handed to the EB Admin Hub and a new identification issued to the reserve rider.

3. RIDER ATTIRE

3.1 Fit and Adjustment

All vehicle occupants shall wear the following safety attire correctly fitted and adjusted at all times the vehicle is on the track during all on track activities.

3.2 Helmet

For Human Powered Vehicles and Pedal-Electric Hybrid vehicles, the minimum requirement is for a bicycle helmet approved to AS 2063, AS 1698 or ECE 22.05 to be worn.

For Electric Vehicles, the minimum requirement is for a motor cycle helmet approved to either AS 1698 or ECE 22.05 to be worn.

3.3 Clothing

Human Powered Vehicles:

- Minimum coverage of shoulders, upper body and mid-thigh (e.g.: shorts and T-shirt; or cycling knicks and jersey.)
- Sleeveless triathlon skin suits, sleeveless cycling jerseys, sleeveless t-shirts, tank tops or singlets are not permissible.

Energy Efficient Vehicles:

- Riders of Pedal-Electric Hybrids may choose to comply with the Human powered Vehicle clothing rules.
- Riders / drivers of Electric Vehicles are encouraged to wear overalls or clothes that cover and are neat fitting from ankle to wrist to neck.

3.5 Shoes

- Shoes must provide full foot coverage.
- Sandals or thongs are not permitted.
- Clipless pedals are recommended.

3.4 Eye Protection

It is recommended that glasses are worn by riders in the vehicle. [Only riders in 'head out' vehicles that have no enclosure are required to wear glasses.](#)

3.5 Gloves

It is recommended that gloves are worn by riders in the vehicle.

3.6 MP3 players

The use of MP3 players or similar music devices by riders is permitted during Trial or Practice sessions, on the condition that:

- Riders are able to follow the direction of marshals and officials

- Riders are able to effectively communicate with their Pit Crew.
- The headphones are NOT connected by cords, but by Bluetooth or similar technology.

3.7 Video cameras

- The use of small video cameras (eg. GoPro) are permitted providing that they do not pose any safety risk. They must not be attached to the rider's helmet.
- Cameras must not be mounted to the outside of the vehicle silhouette when viewed from the front.
- All cameras and camera mounts must be shown to scrutineers during scrutineering prior to taking to the track.

4. SCRUTINEERING

4.1 Compulsory Scrutineering

- A vehicle must pass Scrutineering entering onto the track for a Practice session.
- Scrutineers can refuse permission to enter the track for any safety reason.

4.3 Subsequent scrutineering

- All vehicles may also be inspected at random during the trial for operation of safety items and / or when the vehicle is involved in a track incident.

4.4 Pre-Scrutineering

- Energy Efficient Vehicles (EEVs) and / or newly constructed Human Powered Vehicles may be required to attend a pre-scrutineering day three weeks prior to the event. Further details will be provided to relevant Team Managers where appropriate.

5. TRAFFIC LIGHTS, FLAGS AND SIGNALS

All competitors shall understand the meaning of the following traffic signals/flag signals.

The Lights and Flags in use are:

- Green Light or Flag
- Yellow Light or Flag
- Yellow + Red Light or Flags
- Red Light or Flag
- Black Flag

Green Light or Flag

The track is clear for competition.

Yellow Light or Flag

- A Yellow Light or Flag is a sign of **danger** or a **track obstruction** in the vicinity of the marshal point. This may be a vehicle that has rolled over, debris, a marshal on track, or other incident.
- When a Yellow Light or Flag is displayed:
 - Riders in HPVs are required to stop pedaling.

- Drivers in EEV are required to coast.
 - All vehicles are to slow down, be cautious and prepare to take evasive action.
 - Any vehicle overtaking with **excessive speed** under Yellow Flag conditions will be noted by officials for potential penalties.
- Riders must not resume competition until they are well clear of the danger and until they reach the vicinity of the next marshal point displaying a Green Light or Flag.

Yellow AND Red Lights or Flags

- A Yellow AND Red Light or Flag displayed together is a sign of a **serious hazard** on track in the vicinity of the marshal point. This may be an emergency vehicle, a vehicle that has rolled over and is obstructing the track, or other serious incident.
- When a Yellow AND Red Light or Flag are displayed together:
 - Riders in HPVs are required to stop pedaling.
 - Drivers in EEV are required to release the accelerator and coast.
 - All vehicles are to move to the left hand of the track and form a single file.
 - No overtaking.
 - Reduce speed to 15 km/h.
 - Riders are to be cautious and prepare to take evasive action.
 - Any rider overtaking under Yellow and Red Lights or Flags conditions will be noted by officials for potential penalties.
- Riders must not resume competition until they are well clear of the danger and until they reach the vicinity of the next marshal point displaying a Green Light or Flag.

Red Light or Flag

- A Red Flag or Light is an indication of **extreme danger** on track.
- When a Red Flag or Light is displayed:
 - All vehicles shall come to an immediate stop on the left hand of the track.
 - No overtaking.
 - Racing has ceased.
 - Riders must not resume competition until the nearest marshal point displays a Green Light or Flag.
 - Any rider overtaking under Red Flag conditions will be noted by officials for potential penalties.
- If Red Flag conditions continue for an extended period riders may be directed to return to the pits by the Clerk of Course, Pit Marshals and flag marshals.
- If riders are directed to return to the pits, the Practice Session or Trial will restart with a rolling start from pit lane.

Black Flag

- A Black Flag is used to call a team into the pits in serious circumstances.
- Black Flags are ONLY to be used by the Clerk of Course or Pit Marshals.
- Black Flags are NOT to be used by Flag Marshals.
- Black Flags are directed at a single vehicle and may be used alongside a vehicle number.

- Black Flags will be shown near the Start / Finish Line.
- When a rider sees a Black Flag with their vehicle number, they are required to come into the pits on the next lap.

6. TRANSPONDERS AND LAP TIMING

It is the Team Manager's responsibility to ensure that:

- a transponder is collected from Check-in at the EB Admin Hub;
- the transponder is correctly fitted to the vehicle according to the instructions provided at Check-In;
- the transponder is working during all on track activities;
- any queries relating to lap times are reported to Timing Officials as soon as practical for investigation; and
- the transponder is returned to the Administration Centre at the end of the Trial, prior to leaving the event site.

7. START, FINISH AND BREAK

7.1 Pre-Race Briefing

All Team Managers must attend the pre-race briefing by the Clerk of Course and / or Race Director.

7.2 Grid Assembly

- Grid positions will be allocated based upon fastest times set during the Practice Session. These times will be published on the event's results website within 60 minutes after the conclusion of the Practice session.
- The Race Director, in conjunction with the Track Marshal team, may make changes to a team's starting grid position at their discretion.
- Vehicles must be assembled according to the official grid positions and at the direction of the officials.
- Vehicles will be called to the starting grid assembly area 60 minutes prior to the official start.
- Vehicles are not permitted on the starting grid assembly area EARLIER than 60 minutes prior to the official start time. This is to allow the safe set-up of the track and safety checks to be completed by the track safety team.
- If a vehicle is not on the grid within 15 minutes of the scheduled start time, officials reserve the right to place the vehicle at the rear of the grid.

7.3 Trial Start

- The trial will be started with the drop of the National flag after the completion of a rolling lap.
- The rolling lap begins in the back straight in Burns Street to the start line.
- [Rolling Start Lap: The two lead vehicles set the pace for the rolling lap behind the pace car. Riders from further down the field are not permitted to pass the leading two vehicles until AFTER they pass the start / finish line.](#)
- [Rolling Lap Penalties: Any teams will have their first lap/s deleted from the results if they:](#)
 - ['jump' the start.](#)
 - [do not remain in proper formation during the rolling lap, and / or](#)
 - [do not follow the direction of the officials during the rolling lap of the Trial.](#)

7.4 Trial and Practice Session Finish

- All Trials will conclude with the display of the black and white chequered flag.
- [At the conclusion of the Trial, all participating vehicles will be gathered behind a Pace Car on the back straight to begin a Parade half-lap back to the Start / Finish line.](#)
- The [Practice and](#) Trials will conclude at the scheduled finish time as per the Event Schedule. This will be regardless of any delays to a Practice or Trial start or Red Light / Flag periods during the track activity.
- [The Practice Session will conclude with Red + Yellow Flags / Lights. Riders are expected to slow down and promptly return to their pits.](#)

7.5 HPV A (Primary) Compulsory break

- All HPV A vehicles will leave the track by re-entering the pits from the time specified in the event schedule.

7.6 HPV A (Primary) Restart

- The restart of the HPV A Trial will be under the direction of the Clerk of Course.
- All HPV A teams will restart their Trial at the time specified in the event schedule.
- All teams will marshal for the restart from their respective pit lanes at the time specified in the event schedule.
- Prior to the restart, the Clerk Of Course (or their delegate) will identify the leading 3-4 teams in the A1 and A2 and marshal them in pit lane together.
- These leading teams will then exit pit lane and circulate on track together under Yellow flag track conditions.
- At the Clerk of Course's discretion, corner marshals will switch to Green flag track conditions.
- Once the leading teams cross the start / finish line under Green flag track conditions, lap timing will recommence.

7.7 Extreme Weather (Heat / Rain / Thunderstorm)

Event organisers reserve the right to implement a range of staged strategies to reduce the likelihood of incident and / or injury from a range of extreme weather scenarios.

These policies will apply to all activities on-site and the decision is the responsibility of the Clerk of Course and event organisers.

Total Fire Ban Policy:

In the event of a TOTAL FIRE BAN being declared the following rules will apply:

- The Trial/s will proceed as scheduled unless the organisers and Clerk of Course consider it unsafe to do so.
- Campers will NOT be able to use BBQ's or other open air stoves.
- This ban will apply to the full 24 hours of the declared day.
- Event caterers only will be able use BBQ's, if a permit is issued from the CFA, and they agree to meet all permit conditions.

Extreme Heat Weather Policy:

If the temperature exceeds 36' degrees Celsius, organisers reserve the right to implement a range of staged strategies to reduce the likelihood of heat stress.

These strategies include:

- compulsory breaks for riders / participants.
- suspension or re-scheduling of the Display & Presentation, Design & Construction & Scrutineering assessments.
- Suspension of the on-track Trial/s for a period of time.
- Modification or shortening of the on-track Trial/s.

Thunderstorm / Lightning Policy: '30-30 Rule'

The '30-30 Rule' is an Australian Standard, which states that when you see lightning, count the time until you hear the associated thunder, and if this time delay is 30 seconds or less, go immediately to a safe location.

30 minute wait: After hearing the last rumble of thunder, wait 30 minutes before leaving shelter. There is still danger after a storm is over, so stay in a safe area until you are sure the threat has passed.

Strategies in the event of a thunder / lightning storm during the event include:

- suspension or re-scheduling of the Display & Presentation, Design & Construction & Scrutineering assessments.
- Suspension of the on-track Trial/s for a period of time.
- Modification or shortening of the on-track Trial/s.
- Evacuation to undercover areas on-site or off-site.

8. TRACK CONDUCT

8.1 Speed Limit

- Speedometers are mandatory and ALL competing vehicles shall observe a maximum speed of 60 km/h during all on track activities.
- The maximum speed in the pit lane is 10 km/h.
- Vehicles detected exceeding 60km/h will have that lap immediately voided during the Trial.
- Voided laps may be displayed on the results display system, but not counted towards a team's final total.

8.2 Seat belts

All vehicle occupants shall wear a correctly adjusted seat belt during all on track activities.

Correct and safe positioning of the belts and catches can be found in the Australian Design Rules (ADRs) for motor vehicles. This means seat belts must:

- Be positioned such that it does not have any contact with, or rub against, any sharp edges.
- Be worn over the shoulders and down the chest, to a low lap belt across the pelvis.
- Be adjusted to be as firm as possible on each rider and fitted to ensure that the seat belt remains properly adjusted on each rider at all times.
- Be adjusted with the lap belt tightened before the shoulder belts so that the lap belt remains in the correct position.

8.3 Right of Way

Competing vehicles have right of way over disabled vehicles that need to be recovered.

8.4 Direction of Travel

Under no circumstances is a vehicle to be ridden or pushed on the track in the opposite direction to competition.

8.5 Track Position and Overtaking

- A blue line has been painted on the track. Riders should keep to the left of this blue line on the inside of the track, unless overtaking another vehicle.
- Riders should overtake on the outside, to the right of the vehicle being overtaken.
- Riders should not change lanes without checking their mirrors to make sure it is safe to do so.
- It is the responsibility of the overtaking (faster) rider to ensure that the overtaking move is carried out without endangering other competitors.
- Cutting in, deliberate blocking or leaving insufficient clearance will be penalised.

8.6 Vehicle Lighting

- Front lights, as per by Vehicle Specifications, shall be illuminated during the hours of darkness as directed by the Clerk of Course.
- Rear lights, as per by Vehicle Specifications, are to be turned on 'steady' mode during all on track activities.
- Riders must stop in the pits as soon as possible to rectify any inoperable or insecure lights.

8.7 Lighting Batteries

Batteries used solely for lighting may be charged and/or recharged and/or replaced as required.

8.8 Track Incidents

- All vehicles involved in **significant crashes or rollovers** are to be removed from the track by marshals only and the barriers quickly restored to Trial condition as soon as practical.
- **All vehicles involved in significant crashes or rollovers must have a "Return to Pits" sticker applied and may then be ridden back to the pits.**
- **Vehicles that have been involved in a track incident and received a "Return to Pits" sticker cannot restart until a Pit Marshal has checked the vehicle is safe to continue and have removed the sticker.**
- **After returning to the pits the rider will NOT be allowed to ride again for at least 30 Minutes. During this time, Team Managers must monitor the riders' condition, and if in doubt take the rider to the Trackside Medical Centre for assessment.**
- If a vehicle is unable to continue because it is damaged or the rider is unable to ride, then the vehicle may be recovered by the team for repair.
- Riders who are unable to ride their vehicle back to the pits should be taken to the Trackside Medical Centre to be assessed. They must be cleared by the medical team before being allowed to ride again.
- If a rider has been deemed to deliberately cause a track incident, the Clerk of Course will conduct an investigations and penalties may be applied. (See section on Infringements).
- **Vehicles involved in minor scrapes, flat tyres or chain / driveline issues are not required to receive a 'Return To Pits' sticker from marshals. Riders in these circumstances should still return to the pits for repairs, but it is not a requirement for the rider to sit out for 30 minutes or for the vehicle to be checked by a Pit Lane Marshal.**

8.9 Injured Riders

The Clerk of Course and track marshals monitor all on track activity and where necessary will call for assistance from Medical and Emergency Services to attend to injured riders.

8.10. Vehicle Recovery

- If a vehicle breaks down, the track marshals will report the incident and the team will be informed.

- It is the responsibility of the team to recover their vehicle.

8.11 Emergency Vehicles

- When emergency vehicles are on the track it displays flashing yellow lights which indicates extreme danger in the same manner as corner yellow lights/flags.
- Riders must slow down, use extreme caution, must not overtake other competitors and pass when directed by the officials.

9. PIT AREAS

9.1 Pit Number Allocation and Location

- Where possible, pit numbers are the same as the team number. All pit sites are numbered.
- Each team in the HPV, EEV and Tryathlon endurance trials will be allocated a site in the pit area, except where schools with three entries in a category will be allocated two pits sites.
- Team numbers with a “300” prefix indicate where a school with three or more teams will use a total of two pit spaces. eg. Team “310” shares pit space number 10 with team number 10.
- For identification purposes, teams in TRYathlon Primary category will have a “400” prefix. i.e. team 410 will be in pit space number 10.
- For identification purposes, teams in TRYathlon Secondary category will have a “500” prefix. i.e. team 510 will be in pit space number 10.
- There are three pit areas marked on the site map on Track 1:
- Pit 1A: #1 - #54
 - Pit #1 is located near the start / finish line at Marshal Point #1 (Pit 1A Exit).
 - Pit #54 near Jubilee Oval end at Marshal Point #11 (Pit 1A Entry).
- Pit 1B: #55-#99
 - Pit #55 is located near Marshal Point #5 (Pit 1B Entry).
 - Pit #99 is located near Marshal Point #6 (Pit 1B Exit).
- All pit sites must be set-up as per the direction of Event Officials and changes may be required at the Officials discretion.
- All pit sites are approximately 3 m wide by 3 m deep, some are up to 6m deep.
- All teams must leave approximately 1 m clearance area in front of their pit site for rider changeovers and for other teams to have line of sight of the track and pit lane.
- There is no existing shelter in the pit areas. Teams are encouraged to erect a 3m x 3m or 3m x 6m tent, or arrange to share a tent with another team.
- During the event there is restricted access to the pit area.
- **There is NO power provided in the Pit 1A pit area.** Teams will be required to arrange their own generators in this pit lane.
- All EEV teams must have at least 1 x Australian Standard, dry powder minimum 5BE fire extinguisher in their pit site for the duration of both the Practice Session and the Trial.
- Any **fuel** that is brought onto site (i.e. for use with generator’s) must be stored in a container that complies with AS/NZS 2906 (2001). Schools must also ensure that a minimum of one Dry Powder Fire Extinguisher is supplied for each fuel container.
- In the case of wet weather, teams are requested to bring a tarpaulin (ideally 3m x 3m or 3m x 6m) to place over the ground around their pit area. This will reduce ground damage and also help to keep their pit areas cleaner.

- To avoid clashes with other track activities, pit areas should NOT be set up too early for the event. Please check the Track Access Times in the Event Schedule for details for when Track 1 is OPEN and CLOSED for access.
- The surface of your pit area may be hard, (i.e. concrete or asphalt) so securing tents will require water or sand filled weights rather than pegs.
- Teams are encouraged to erect a team or school banner in their designated pit area(s) including team numbers. A banner about 2 m x 1 m would be ideal.

9.3 Speed in Pits

The maximum speed in the pit area is 10 km/h.

9.4 Direction of Travel in Pits

- Under no circumstances shall a vehicle enter the pit area via the pit lane exit.
- All Vehicles must travel in the correct direction in pit lane.

9.5 Pit Lane Conduct

- All rider changes shall occur in the designated area adjacent to each team's pit.
- Closed shoes must be worn in pit lane.
- Vehicles shall come to a halt in the pit lane under the effect of the vehicle's own braking system.
- Stopping with the assistance of others is not permitted.
- Rider shall bring their vehicle to a complete stop prior to unfastening seat belts.
- Rider refreshments and adjustments to clothing etc. shall only be effected when the vehicle is stationary in the pit area.
- A maximum of three students and one supervising adult, in addition to the incoming and outgoing riders, shall attend a vehicle in the pit lane at rider change-over.
- The designated changeover people from each team attending the vehicle in pit lane are encouraged to wear a reflective vest.
- Pit entry and exit lanes shall be kept clear at all times.
- Stationary vehicles shall give way to vehicles proceeding along pit lane.

9.6 Pit Crew Communications

- The use of radio communication between rider and pit crew is permitted provided operating the unit does not interfere with the rider's control of the vehicle.
- The use of notice boards for communication between the rider and the pit crew are permitted.
- However, such notice boards and their use shall comply with the following:
 - they must be held and displayed by one person only at a time;
 - they must be held so they do not go beyond the line of pit lane barriers.

9.7 Major Repairs

- Major repairs including welding and grinding equipment must NOT be carried out in the pit lane. The pit lane includes a team's tent adjacent to the track.

9.8 Removal of Components

- Redundant, superfluous and/or damaged components of substantial mass (i.e. greater than 0.5 kg) may not be removed from a vehicle except with the permission of the Clerk of Course.
- At the discretion of the Clerk of Course, the vehicle may be required to carry ballast.

- Teams may not substitute or replace power sources or strip the vehicle below its starting weight after the commencement of the event.

9.9 Pit Lane and Camping Access Times

- Motor vehicles and trailers will be permitted onto the track area in front of the pits to Set-up and Pack-down during the following times.
- All teams must follow the instructions of the Track Manager and EB Officials to ensure all vehicles are cleared from the track by the specified cut off times for 'Track Closures'.
- It is recommended you unload your vehicle and move it to a designated car park before setting up your pit area.

Track 1 Pit Area & Jubilee Oval Camping Access Schedule:

WEDNESDAY

6:00AM – 4:00PM - Access Open

4:00PM – 9:00PM - Access Closed

9:00PM Wed – 8:00AM Thu -Access Open

THURSDAY

9:00PM Wed – 8:00AM Thu -Access Open

8:00AM – 5:00PM -Access Closed

5:30PM Thu – 5:30AM Fri - Access Open

FRIDAY

5:30PM Thu – 5:30AM Fri - Access Open

5:30AM – 1:00PM - Access Closed

1:00PM – 6:00PM- Access Open

6:00PM – 9:30PM- Access Closed

9:30PM Fri – 10:00AM Sat - Access Open

SATURDAY

9:30PM Fri – 10:00AM Sat - Access Open

10:00AM Sat – 12:30PM Sun - Access Closed

SUNDAY

10:00AM Sat – 12:30PM Sun - Access Closed

12:30PM Onwards - Access Open

10. RECHARGING OF BATTERIES

10.1 Batteries

- EEV teams are required to present all of their battery allocations for identification marking at scrutineering.
- All batteries must have manufacturers labels, including details of battery type displayed. Manufacturer data sheets will also be required.
- Batteries must be labelled with the school's name. Batteries will also be marked with the team's vehicle number. Batteries can only be used in the vehicle that they have been scrutineered with.

10.2 Battery Recharging – Chargers, Processes and Procedures

- The onus is on the teams to use safe and reliable battery chargers. Battery chargers will be Inspected at scrutineering.

- A mandatory briefing for ALL EEV team members will be held at the charging area prior to the Trial. Please see the event schedule for specific times.
- Teams are not permitted to use the charging area during the Practice Session.
- [The Charging Container will be closed for the first hour of the Trial.](#)
- Teams will start the Trial with fully charged batteries.
- All recharging is to be conducted in a designated area provided by the event organisers, and under constant supervision, to ensure charging is carried out in a safe manner. Supervision will be provided by event organisers.
- Chargers must be installed in the charging area by 9:00am on Saturday morning during the EEV Briefing. The chargers will all be inspected by the on-site electrician to ensure they are not drawing excessive current and are safe. Any chargers not installed by this time will not be available for use during the trial.
- All batteries must be signed in and out via the designated marshal on duty at the time. An event marshal will also check and monitor the safety of the batteries charging throughout the Trial.
- Any team found to be charging batteries not in the designated area will be penalised.
- All chargers must be electrically tested and tagged. Only approved tagged chargers can be used.
- All chargers must also be presented during Scrutineering for an extra Energy Breakthrough tag to be applied.
- Battery chargers must be of a commercially available type and must not be modified from OEM.
- The physical dimensions of the charger must not exceed 300 mm x 300 mm x 300 mm
- Bare connections and alligator clips are strictly forbidden. All connections must be made using a properly insulated electrical connector. Anderson plugs are the preferred type of connector.
- Only one battery pack may be charged at a time. A battery pack is defined as the usual amount of batteries required to run the vehicle.
- EEV teams will be provided with one power outlet in the charging area, which will be fitted with a digital readout.
- Once a Team's kilowatt hour allocation has been used, the power outlet will be shut off.
- **EEV teams will be required to place their batteries inside a LiPo Safety Battery Bag when charging in the EEV Charging Container.**

11. TRIAL POINT SCORING

- The vehicle completing the greatest number of laps in each class in the Trial period scores the maximum points.
- Other vehicles in each class score points for the number of laps completed in proportion to the number of laps.
- In HPV Secondary, HPV Primary and EEV classes, the Endurance trial is worth 50 points.
- In Tryathlon, the Endurance is worth 30 points.

For example, say team AA in a particular class travels the greatest distance, 200 laps, and team BB in the same class travels 160 laps.

Points scored are as follows:

Team AA: 200 laps = 50 points

Team BB: 160 laps $50 \times \frac{160}{200} = 40$ points

12. INFRINGEMENTS

12.1 Vehicle Design

- Vehicles which are considered safe, but DO NOT comply with key elements of vehicle specifications may be given permission to start the trial with a penalty.
- This penalty can be up to 50 laps and will be applied by the event officials.

12.2 Reporting of Incidents and Timing Issues

- Teams may report track incidents or infringements of these competition rules to the Clerk of Course or Pit Marshals who will investigate and act accordingly.
- Any queries relating to lap timing issues are to be reported to the Timing Officials as soon as practical for investigation.
- Timing Officials can be found via the Event Operations Centre (EOC) as marked on the Event Site Map.
- Where the Timing Officials believe there is a lap timing issue requiring correction, all such corrections shall be coordinated through the Clerk of Course or Race Director.

12.3 Protests

- Teams who wish to proceed with a formal protest will be provided with the appropriate documentation via the Clerk of Course at the Event Operations Centre (EOC) as marked on the Event Site Map.

12.4 Penalties

- If a team member breaches any Trial Regulation, including the Spirit of Competition, the Team Manager will be issued with an official warning before receiving a penalty. This gives the Team Manager the opportunity to address the issue with the Team and / or Team Members.
- Please note that if a breach is severe, a penalty may be issued **without** an official warning.
- Incident reviews will be conducted as soon as practical, but in any case, will be resolved before the end of the Endurance Trial.
- The Clerk of Course or Race Director will review incidents and may apply a penalty which they consider is consistent with the severity and intent of the infringement.

Penalties will take the form of:

- A “Stop and Go” Penalty. (i.e. 2 minutes, 5 minutes, 10 minutes).
- Lap penalty (i.e. Laps deleted from results).
- 50 lap penalty.
- Disqualification of a rider.
- Withdrawal from competition / Exclusion from Trial results.

13. Role Of the Team Manager

Information in this section also relates to any person who is acting in the capacity of Proxy for a Team Manager. Each school must have one nominated Team Manager or Teacher over the age of 18 years of age who:

- Is the official contact point between the event organisers and the Team.
- Is responsible for completing all necessary team documentation via the MyEB online portal.
- Is responsible for ensuring each vehicle is compliant with the Vehicle Specifications for scrutineering.

- Is responsible for ensuring their team members act within the Trial Regulations and the Spirit of Competition during the event.
- [Is responsible for ensuring any of their team members who are involved in a track incident and receive a Return To Pits sticker sit out for at least 30 minutes as per the Return To Pits protocol.](#)
- Must be present in their schools' pit area during the Trial and have the nominated contact mobile phone with them turned on and not diverted or switched to message bank.
- Must be present at the Team Managers' Briefing.
- Has the responsibility of ensuring each rider has all necessary adjustments in their vehicle made before they enter the track especially seat belts.
- Is responsible for ensuring that all areas used by the team, support crew, staff and visitors are kept tidy and left tidy after the event.
- Is responsible for ensuring that the team provides trained marshals as required.

15. Track Marshals

- Each school will be required to have at least [three](#) trained marshals per allocated time slot on the marshal roster.
- For example, if a school has two teams, they will be expected to provide [three marshals](#) for **two time** slots. The same people can complete each time slot.
- Each school will be advised of their allocated marshalling time and location via the Energy Breakthrough website prior to the event.
- All marshals are required to complete the 'Online Marshal Training' via the Energy Breakthrough website prior to the event. See: <https://www.eb.org.au/marshal-training/>
- Failure to appear at the rostered time and location will result in team penalties.
- Marshals will be provided with a radio, safety vest, torch, flags, lights and written material all of which must be passed to the next marshal at changeover.
- Marshals must not leave their position until relieved.
- The Marshal taking up the position shall radio the Clerk of Course to advise changeover.