

1. How is a GPS used at the Outback Challenge Hard Enduro?

When purchasing a GPS make sure it is capable of downloading and viewing a .gpx file. This is the type of file that will be provided for you to navigate the Event.

- learn how to activate the “Track recording/Track log/TrackBack” in your GPS before arriving in Broken Hill. It is your responsibility to make sure that your GPS records during the race, competitors will get large time penalties for not having a recording. Check the manual of your GPS so you know how to check this setting.
- A strong GPS mounting is essential - be sure to buy one in advance as you will not find one in Broken Hill. RAM Mounts are very good and are available from Hurtle Gear - <https://www.hurtlegear.com.au/> or Johnny Appleseed - <https://www.ja-gps.com.au/> Taking care in mounting the GPS, reducing vibration or GPS device movement during racing can prevent your GPS device from suffering from poor or irregular recordings.
- All GPS devices must be handed in at the end of the day. Your track file will be copied in order to confirm the course you travelled.
- Ideally a GPS should be mounted in a specific hard wired cradle. This will eliminate the possibility of flat batteries. If you can't hard wire your GPS make sure you carry spare batteries.

At Outback Challenge Hard Enduro the GPS device is used as a navigation aid and a safety device that helps keep competitors on the course.

There will be course markers throughout the stage in order to assist your navigation. These markers are usually well placed and visible but it can happen that the markers get stolen, moved or damaged.

This can cause competitors to get lost or to go on the wrong track, so competitors must check carefully they are following the “right track” by checking their GPS display BEFORE and AFTER marked intersections.

Recording – Why does GPS need to be set to record?

When competing in the Outback Challenge Hard Enduro the GPS “must be” set to record during racing. It is the competitor’s responsibility to ensure it is set to record.

Recording a track enables the TrackBack® function, that assists competitors to return to the track if they have got lost.

After competitors dismount their GPS and hand it to the finish marshals the recorded track will be downloaded.

or

If competitors abandon the race day due to mechanical, injuries or any other reason they must hand-in their GPS at the “Finish Line” where the finish marshals will download the recorded track. **Carry with you tools needed to mount or dismount your GPS.**

Note:- failure to provide a complete recorded track can attract large time penalties!

Tracks – How are they named?

There are 5 stages to the Outback Challenge Hard Enduro and they are named in a specific way. It is very basic, they files are named OCHE171 through to OHCE175. This is the abbreviation of Outback Challenge Hard Enduro 2017 Stage 1

How do competitors change to the next part?

The track will be split into 5 parts. The changing of the parts will be done only at the control points so competitors don't lose precious time on the racetrack. You may display all 5 stages at once but be careful, they do cross themselves toward the finish and you could end up going in the wrong direction.

To see what tracks are saved to competitors GPS device enter the menu, then select TRACKS and then LIST SAVED. Here you will see a list of the tracks saved to your GPS device and a section which tells you how much memory you are using (this memory is only for the track called ACTIVE LOG which is what your GPS is recording).

On some older Garmin® GPS devices you have to select the next part of the track (as described above) and select NAVIGATE. On the next screen select TO END. You have to change to the next part of the track at every fuel point.

On some Garmin® GPS devices you have the option to select "SHOW ON MAP". If you select this option for all parts you don't need to change the parts at the fuel points any more because all parts are shown on your navigation screen at once.

2. GPS – How does it work?

Your GPS device receives signals from satellites.

To tell you an accurate position, your GPS device needs signals from at least 3 satellites. If you get good signals from more than 3 satellites your GPS device provides even more accurate positional information.

The antenna of the GPS needs a direct view to the sky! The quality of the signal depends on many factors like weather or surroundings.

If you are riding through a forest, or in a deep valley the signal will not be as accurate as it would be in an open field, bad weather like clouds or fog can affect the quality of the signal the GPS receives.

GPS Track - What's that?

A track is a series of connected GPS points which form a virtual track. Tracks can be up and downloaded from and onto the GPS device, recorded and saved.

At the Outback Challenge Hard Enduro competitors navigate cross country following a virtual track line on their GPS. This track line will be provided or

uploaded to their device as a .gpx file.

When competitors are racing, the GPS device must record where they are riding, when competitors reach the finish we view their recorded track to check that they stayed on the race track.

Waypoints – Possible lifesavers

Waypoints are points with exact coordinates. At the Outback Challenge we use waypoints for fuel points, rescue points and even for media camera points. In case of accidents or emergencies the easiest way to tell someone where you are is by creating a waypoint and providing the coordinates to an Outback Challenge official.

- by pressing and holding the MARK/ENTER key, on most Garmin GPS devices, you create a waypoint, this displays your exact position.
- Another way to record a location is to press the MOB (Man over Board) button. This instantly records the location of the GPS.

3. GPS – Why use it?

If track markers are missing or visibility is low

Competitors can use the GPS as a navigation tool to stay on track. In case they are confused about which track to take, or the course markers are missing, viewing the GPS display provides them with the direction to take.

In case of problems, know where help is located

We use GPS devices as a safety aid (see Waypoints) - in case of problems, competitors can see where our official point vehicles are located beside the course.

If competitors go the wrong way, you can still find the right track.

If competitors miss a turn or leave the racing track they will not see the downloaded track line on the display. The safest way to find the track again is to return to the point where they left the course track.

Now that you know how it works, **practice how to** create a WAYPOINT.

Rescue operations are possible! If we know competitors exact GPS position in the Outback.

Competitors WILL be asked at briefing to demonstrate how to make a Waypoint, how to read it and how to describe it over the phone to an Outback Challenge Official.

If your GPS goes flat or is damaged in a crash DO NOT GUESS YOUR WAY! Either stay exactly where you are and officials will find you. Or stick with another rider

that has a working GPS.

4. How does GPS navigation help?

GPS Navigation – How do Competitors use it?

GPS Navigation helps competitors to know where they came from, where they are going and gives a direction line to follow.

The Outback Challenge Hard Enduro Team will supply a .gpx file before the start of the race. Competitors need to turn the GPS on to get a GPS signal.

You will then see the day's race track (a line) and a little man/arrow (that's YOU).

In order to navigate using the GPS, all you need to do is to keep the little man/arrow on the line (the track).

The zoom level is important

The trick is to set a zoom level that fits your driving:

- a zoom level (50m) will tell a competitor their position on the track more exactly, but you will not see much of the track that follows.
- a zoom level (above 500m) won't tell your position on the track as exactly, but you will be able to anticipate the track and see what is coming ahead.

If competitor wants to ride fast - watch the markings

Ride by looking for banners & marks on the track and checking your GPS to see if you are still on the right track. It is important to view the GPS track as often as possible to maintain the correct course. However not viewing the GPS screen often enough can lead to being lost. There are no course markings off the designated racetrack. If you ride at high speed off the designated racetrack there are many DANGEROUS obstacles that won't be marked. Fences and floodgates are the worst, They are almost impossible to see and can lead to INJURY or DEATH. Oncoming traffic is also a problem if you are lost. You must be aware of your location at all times.

5. Other handy hints.

Power

The best power solution for your GPS is to hard wire it to your bikes battery. Some GPS like the Montana 680 have mounting brackets that provide power to the GPS. Not all GPS have this option. If your only option is batteries make sure you carry at least 2 spare sets. This is an 8-hour race and at times you will be relying 100% on your GPS. There are not tracks on the ground.

Seeing the GPS Screen

Your GPS will have a glass screen. When this is covered in dust and the sun is shining on it, it can be very hard to see. An anti glare screen protector is highly recommended.

GPS Mounting

Make sure you invest in a high quality GPS mount. This will protect your GPS in case of a crash. If you smash your GPS you will have no way of finding the course.