



Minimum Equipment Standards

*Please Note: Trip Leaders may require additional equipment for certain trips
Basic Driver Training is Grade 3 and may have additional requirements*

VEHICLE AND RECOVERY EQUIPMENT	Grade 1 & 2	Grade 3 & 4	Grade 5 & 6
Tyres – Light Truck construction minimum load rating 120, high side wall ply rating (8-10 ply), and an all terrain or mud pattern.	R	✓	✓
Spare Tyre - identical size & preferably tread pattern.	✓	✓	✓
Wheel Change Equipment - including wheel brace, jack plate and a quality jack – sized for vehicle weight and allowing for vehicle lift (Note the original Jack may not be suited for lifted vehicles).	✓	✓	✓
UHF Radio – Vehicle Mounted and wired directly to power (so it stays on when ignition off)	✓	✓	✓
Rated Recovery Points - Front and Rear		✓	✓
Tyre Pressure Gauge and Tyre Deflater	R	✓	✓
Air Compressor (Aim for min flow rate of 70 Litre/min)	R	✓	✓
Puncture Repair Kit - which includes reaming tool, insertion tool (metal handles) and repair cords or strips. (For people with tube tyres a tube repair kit – Bead breaker and tyre refitting tools)	R	✓	✓
Snatch Strap – rated for your vehicle weight		✓	✓
Rated Shackles – minimum of two		✓	✓
Cable Dampener		✓	✓
Equalizer Strap/Rope - if you have two front recovery points.		✓	✓
Gloves - good quality (for handling steel cables, rocks, etc).		✓	✓
Recovery Boards – e.g. Maxtraks or TREDs		R	R
Shovel – Long handle is best		R	R
Bush Saw or Axe		R	R
Portable UHF Radio		R	R
First Aid Kit - and first aid manual, St John's or equivalent.		R	R
Winch – either vehicle mounted electric winch or hand winch (Tirfor, Anchor, Pulla, or similar) and associated equipment such as:		?	R
Snatch Block – look for a quality block with deep cable groove and solid construction. The block should be greaseable.		?	R
Winch Extension Strap - (20 metre) or plasma rope with eyes either end.		?	R
Tree Trunk Protector – rated and 3 metres long.		?	R
Drag Chain - 5 metres		?	R
Radiator Blind		?	?

✓ = Mandatory for this grade, **R** = Recommended, **?** = If conditions warrant (Trip Leader)

Items NOT to be taken on club trips

The club does not allow the following items to be taken on Club trips. Note that in some States and areas one or more of these may be also be prohibited by law.

Firearms, Pets, Hunting Weapons (e.g. crossbows, etc).

TOOL KIT

You should always carry a good range of tools to at least undertake minor repairs. Your tool kit should consist of a variety of sizes and combinations of commonly used tools such as socket sets, wrench sets, Allen keys and screw drivers. Your tool sets should cover the variety of sizes found in your vehicle. Some Suggestions:

- **Socket Set** - to suit your vehicle.
- **Open End Combination Spanners.**
- **Shifting Spanner.**
- **Allen Keys** – check if your vehicle or vehicle accessories use either Torx or Security Allen keys and take appropriate tools.
- **Standard & Phillips Screwdrivers**, large, medium, small.
- **Hammer.**
- **Cold Chisel and punch.**
- **Pliers** include normal pliers, Needle Nose Pliers, side cutters and snap ring pliers.
- **Vice Grips** - a couple of sizes is good.
- **Utility knife.**
- **Magnet.**
- **Hacksaw** or something to cut metal.
- **File/s** – a half round and a small round.
- **Wire stripper/Crimper.**
- **Soldering Iron** (240volt – you can make temp repair until you get to 240volt power and then undertake a proper repair – gas soldering irons are also worth considering, but get a good quality one and make sure it works) ***Don't forget the solder.***
- **Small multi-metre.**
- **Jumper Leads** (heavy duty).



There are now several 4WD aftermarket accessory companies who are selling 4WD tool kits that are worth exploring if you don't want to assemble the kit yourself – Google is your friend here.

ADDITIONAL ITEMS TO CONSIDER TAKING

(Depending on the trip)

As a 4WD owner you will be aware that it isn't easy to call road service or the nearest garage if something goes wrong when away on a trip.

Therefore, it is important to look after your vehicle at all times, and thus minimise the chances of something going wrong in the bush. Even so, things do go wrong, and it is then that you need:

1. to know as much as possible about your vehicle and how it works;
2. to have a good set of tools on hand to carry out any necessary repairs;
3. to carry a few spares to repair or replace the damaged part on the spot to get you home.

The following is a reasonably comprehensive list of additional general spares and equipment to guide you in selecting the right additional equipment required for trips. The more remote your travels and the more risk involved would normally necessitate more equipment. For example, spare shock absorbers are un necessary for local trips but maybe considered basic requirements if doing the Canning Stock Route.

As you can see you would probably need a semi-trailer to carry it all, so careful planning of trips is essential and equipment/parts selection is important. **Sharing of equipment between vehicles** on a trip will eliminate duplication and therefore ease everyone's load, as will trying to identify equipment that fulfils multiply roles.

SPARES PARTS.

Some items below may not be applicable to your vehicle – should you require further information or advice please contact our education officer at education@st4wdc.com.au.

Aim to have on board for any trip

- **Fan Belt** (and other belts if your vehicle has them).
- **Fuel filter – spare to suit your vehicle.**



- **Radiator hoses.**
- **Hose clamps.**
- **Spare Electrical Wire** – varying sizes but include 1 metre of large gauge



- **Electrical Terminals** – a variety of types to suit your vehicle set-up
- **Auto Fuses** – check all fuse boxes and ensure you have spare fuses in the various types used by your vehicle. Also consider spare fuses for any auxiliary electrical item – e.g. your fridge)

Additional Items to Consider for longer or more high risk/remote trips

- **Air filter** – on longer or dustier trips.
- **Transmission Oil** ensure it is appropriate to your transmission
- **Transmission Oil Filler** (a soft plastic bottle of the 'squeeze' type with a flexible extension).
- **Engine Oil** 5 litres approx.
- **Differential Oil.**
- **Multipurpose Grease** and grease gun (500gm).
- **Sump Plug** and gasket.
- **Clutch Master Cylinder** repair kit (if applicable on longer trips).
- **Brake Cleaner** (for slipping or oily clutches, and brake linings).
- **Brake Fluid** (500ml).
- **Brake Master Cylinder Repair Kit** (on big trips only).
- **Brake Wheel Cylinder Repair Kit** (for drum brakes) and brake hose. (on big trips only).
- **Brake Line Clamp** or other ways for blanking off broken brake lines.
- **Leaf (or coil) Spring** spare.
- **Shock Absorbers** (Originals before suspension upgrade will do if you kept them)
- **Leaf Spring U-bolt** (with nuts) and spring centre bolt.
- **CV Joint** (if your vehicle has CV joints – particularly for more remote travel).
- **Plastic hose** (for siphoning fuel or transferring fuel from drum to carburettor in case of fuel pump failure).
- **Fuel tank sealing compound.**
- **Length of fuel hose.**
- **Intake Snorkel**
- **Radiator cap.**
- **Radiator sealing compound.**
- **Radiator Fluid (or spare water).**
- **Radiator Stop Leak**
- **Spark Plugs** (full set if applicable)
- **Distributor Points & Distributor Cap, Condenser, Coil** (if applicable)
- **Voltage Regulator**



- **Fusible Links** – to suit your vehicle
- **Globes** - Headlight, stop/tail and interior light



GENERAL REPAIR ITEMS

Aim to have on board for any trip

- **Light** –LED torch and spare batteries.
- **Small Tarpaulin** (to lie on when making repairs).
- **Cloth Race Tape** 5cm (to seal doors etc. before driving through deep water).



- **Electrical Tape**
- **Araldite, Super glue and Contact Cement.**
- **String and Tie Wire.** General tie wire for holding things together when they break and long quality cable ties
- **Can of WD40, RP7, CRC or similar.**
- **Zip Ties** (lots of them they are great for repairs and for a multitude of other uses).
- **Sheath Knife.**

Additional Items to Consider for longer or more high risk/remote trips

- **Workshop Manual/s**
- **Extra Fuel** Auxiliary tank is best, but steel or approved plastic jerry can will do (if you have a long-range tank, it is worth still carrying an extra 20 litre in a jerry can in case of loss of fuel through tank failure – particularly in remote areas).
- **Funnel** or other fuel transfer method.
- **Muffler Tape (for exhaust system).**
- **Emergency Windscreen** (plastic) and windscreen crack repair kit
- **Roll of Self-Amalgamating Tape** – great for electrical and other repairs.



- **Spare Nuts, Bolts, Split Pins, Roll Pins, Washers, etc.** Try to cover the main bolt and nut types on your vehicle.
- **Paint Brush** (for cleaning parts).
- **Scraper.**
- **Gaffer Tape.**

OTHER KEY ITEMS TO CONSIDER

- **GPS Unit** – if you use one.
- **Compass and Maps** – relevant to the area you are travelling in (recommend even if you use a GPS unit or electronic maps – you never know when they might fail).
- **Pencil and Paper** – some people also carry log books.
- **Spare Car Key** – where they can be accessed in an emergency. Please note that owners of newer cars will need to carry a spare immobilizer fob or key.
- **Emergency Communication Equipment** – we recommend a Satellite Phone or HF Radio and Personal Locator Beacon, particularly when travelling in remote areas or areas of no mobile coverage. Our Education Officer can advise you on this type of equipment.
- **Sand Flag** – compulsory in some areas (eg Simpson Desert)



CAMPING & RELATED GEAR

Camping gear is a personal thing, and one person's idea of a comfortable bed is another's nightmare. So, while you will probably have your own list of camping gear you like to take along, here are some prompts to ensure you are comfortable on your trip.

- **Tent or Swag** – don't forget the tent poles, pegs, spare ropes, and a ground sheet.
- **Hammer (or similar)** to put your tent pegs in with
- **Sleeping bags, mattresses & pump if not self-inflating, pillows, inner sheets.** (Patches, glue & spare plug for mattresses – just in case).
- **Table & Chairs.**
- **Lights (12V fluoro or LED), gas or LED lantern, torch (with spare globes, batteries, mantles).**



- **Gas stove, gas bottle (full), matches, saucepans, frying pan, billy, griller plate, cutlery, plates, cups, camp oven, insulated gloves, tea towels, soap, pot scourer, wash up bowl, detergent, tin opener, can punch, cork screw, flasks & containers for hot & cold drinks, spare plastic containers for food, rubbish bags.**
- **Cameras - and memory cards or film (for the traditionalists),**
- **Sunglasses.**
- **Driving licence**
- **Money**



OK this money then

- **Permits** - National Park, Land Council and other types for the area you are travelling in



- **240V cable for fridge and extension cord.**
- **Toilet gear** (sponge, toothbrush and toothpaste, deodorants, soap, towels, razor, brush/comb, shampoo, Toilet Paper, etc),
- **Insect repellent and sunscreen.**
- **Clothes to suit conditions** (remember in the Aussie deserts it can get very cold and in the Vic High Country it can be sunny one minute and snowing the next).
- **Clothes line & pegs, buckets.**
- **Fishing gear, spot light, swimming gear, water bottles for hiking.**
- **binoculars.**



There is a lot on this list. Come along to a club event or to the Club's annual Bush Skills Day and discuss tools and spares, as well as camping gear (and lots of other matters) with other members. They can advise you on what's crucial, what's important to have and what is nice to have, or talk to our education officer who can point you in the right direction.

Please Note: ST4WDC does not endorse any of product brands pictured above. These are purely for illustration and a variety of venders exist in each market, which members should consider.

