

BUSH DRIVING

The most common 4WDing the Subaru 4WD club does, is on fire trails, here you can encounter many different types of obstacles.

When bush driving, always drive smoothly and within your limits and those of your vehicle. This means being gentle with the accelerator and brake pedals, sudden applications of power or brakes can result in wheel spin or lock up and loss of control.

PRINCIPLES OF 4WDING

First: Stop, Get out and Look

Second: Think, Assess and Decide

RUTS

Ruts deeper than the ground clearance of the vehicle will quickly have you stuck, so try to straddle them. If the ruts are shallow, it is usually easier to follow them.

ROCKS

If you have the choice of driving a wheel over a large rock or letting the rock go under the vehicle, always put the wheel on the rock. Then you know where the rock is and you are not going to damage under your vehicle. But be aware of dropping the sills onto the rock instead.

If need be, make ramps out of small rocks to assist in climbing the bigger rocks.

DITCHES & MOUNDS

Be aware of your approach and departure angles, approaching ditches or mounds square on, may cause the body to contact the ground, to overcome this, you may need to approach at an angle to allow each wheel to tackle the obstacle individually, but if the obstacle is too big it can cause the vehicle to lift diagonally opposite wheels off the ground, resulting in no drive. Sometimes lightly applying the hand brake will stop a spinning wheel with no traction and allow the wheel with traction to drive the vehicle.

FALLEN TREES

Same as with ditches and mounds, approach fallen trees at an angle to allow each wheel to tackle the tree trunk individually. But if the tree or tyres are wet you might just slide along the tree rather than climb over it. In this case straight on, both wheels over the log together.

MUD

If it is at all possible, go round mud patches.

Deep mud is one of the few conditions where a little speed is called for. Stay in the same gear and take as straight a line as possible. Always check the depth of the mud first. Don't change your mind halfway through, keep going until you're through.

Keep to the wheel tracks of preceding vehicles, it's a fairly safe bet that if they made it, you will to. Turing the wheels from side to side while accelerating sometimes helps with traction.

After tackling deep mud there is always some maintenance to be done, if you have drum brakes check the drums for mud, if not cleaned out mud can grind your brake pads and drums away very quickly. Clinging mud will also have to be removed from under the body.

GOING UP HILL

Any incline over 30 percent is steep and requires caution.

Steep inclines are the most common off road hazard and are potentially the most dangerous. Always travel in a straight line up a steep hill and check in advance to ensure that there is a clear exit at the top.

Never try to change gear or direction once committed to a hill.

STALL RECOVERY

In a **manual vehicle** put your foot on the brake, turn the engine off, leaving the vehicle in gear, pull on the hand brake and engage your brain before anything else. Select reverse gear, foot off the clutch, turn off the air conditioner, foot off the brake, release the hand brake while starting the engine and reverse down the hill without using the brakes if possible. If necessary, gently apply the hand brake but don't lock the wheels. Locked front wheels will not steer the vehicle.

In an **automatic vehicle** put your foot on the brake, leaving the vehicle in gear, pull on the hand brake and engage your brain before anything else. Select reverse gear, keep your foot on the brake, turn off the air conditioner, release the hand brake and reverse down the hill using the brakes as necessary for a slow descent, consider gently applying the hand brake, but don't lock the wheels. Locked front wheels will not steer the vehicle.

"Park" has not been selected, because the transmission make lock up with the full weight of the vehicle on the transmission in "park" and as you pass "reverse" on the way to "park" rearward movement could occur.

NOTE

Some vehicles rev higher than idle when starting and some vehicles will not start without the clutch and/or brake being depressed, drivers of these vehicles need to be aware of this when attempting a stall recovery.

GOING DOWN HILL

Any decline over 30 percent is steep and requires caution.

Driving down a steep downhill section requires low range first gear. Make sure that the hill is not too steep, as to bury the front of the vehicle into the ground at the bottom.

If you find you are going too fast, don't use the foot brake, first gently apply the hand brake, if still too fast, use sufficient brake pedal to keep the wheels turning slowly, but without locking them up. Locked front wheels will not steer the vehicle.

Contrary to what you may think, in the event that the wheels do loose traction, due to either a loose surface or other factors, it is important that you do not try to stop the slide by exerting more brake pressure, let the engine and transmission take over. This will probably increase your down hill speed but even so, you will still be able to steer the vehicle. Listen for the wheels sliding instead of rotating.

TYRE PRESSURES

Reduced tyre pressures will allow the tyre to mould around rocks giving better traction, hard tyres may just bounce. Just watch the side walls in sharp rocky country.

WHEN YOU GET HOME

Check the underside of your vehicle for any damage that may have occurred.

If you have been driving in mud, make sure to clean it all out and check your brakes for mud ingress.