

Toyota 4Runner Off-Road Controls Quick Reference Guide

A brief how-to use
H4 & L4 Gears, TRAC OFF, A-TRAC, Crawl Control, Multi Terrain Select,
and Locking Differential
For Part Time 4WD



4RUNNER

Note: This is not an official Toyota manual.
This Quick Reference guide was created by 4Runner
enthusiasts to help new owners and novice off-roaders
better understand and use their off-road controls.

H2

- High Speed 2WD (Normal Drive for dry, high-traction on-road use)



Type A

**4runners have 2 types of 4WD controls
(The Manual calls them front wheel drive)**



Type B

H4

- High Speed 4wd (Use only for off-road, icy or snow-covered roads.)

**Type A****Shift from H2 to H4**

- Reduce vehicle speed to 50 mph or less.
- Firmly Pull the Front wheel drive lever back from H2 to H4
- Once engaged 4WD icon will appear

**Type B****Shift from H2 to H4**

- Reduce speed vehicle speed to 62 mph or less.
- Push Unlock button and turn dial to H4
- Once engaged the 4WD Icon will appear
- Vehicle is capable of speeds over 50 mph in H4 but caution is advised.

L4

- Low Speed 4wd (Use for extreme off-road and deep snow.)

**Type A****Shift from H4 to L4**

- Bring vehicle to complete stop and continue to depress brake
- Shift Transmission lever to "N".
- Shift Front Wheel (4WD) lever to L4.
- Shift transmission to "D" or "R"
- Once engaged the L4 (4LO) icon will appear.

**Type B****Shift from H4 to L4**

- Bring vehicle to complete stop and continue to depress brake.
- Shift transmission lever to "N"
- Push unlock button and turn dial to L4.
- Shift transmission to "D" or "R".
- Once engaged the L4 (4LO) icon will appear.

L4 Notes:

- If L4 continues to flash – gear is not engaged. Drive forwards/backwards gently until engaged.
- If L4 flashes with buzzing or alarm, main shift lever is not in "N" or vehicle is moving. Stop and shift transmission into "N".
- When L4 is engaged, traction control is off
- Max speed is L4 is 15 mph

Maintenance: Recommended to drive in H4 once a month for 10 miles to lube front gears.

More details can be found in your Owner's Manual on page _____.

**TRAC OFF (Traction Control Off)**

Traction Control is always on as a default. It's a safety feature that prevent your car from spinning out of control in slippery condition such as rain, mud, snow, or when making sudden turns to avoid hitting an object in the road. It does this primarily by controlling wheel spin through breaking and regulating throttle. However, there are situations where the Traction Control can work against you.

Here are 3 primary reasons to turn "off" your Traction Control:

**When you're stuck**

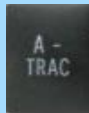
When stuck in sand, mud or snow, turning Traction Off will allow you to rock your vehicle back and forth to help you get out of your situation.

Can't get traction on slippery surfaces

When you can't get traction on slippery terrain such as snow covered roads, turning Trac-Off will allow your wheels to spin so they will dig through snow, mud or ice to reach the dirt or pavement underneath which will give you better traction to pull yourself out.

Having fun in the parking lot

Safety systems like traction control are not designed to let your vehicle spin out in snow covered parking lots. Turning Traction Control off will allow you to do donut till your heart is content 😊

**A-TRAC (Active Traction Control System)**

When A-TRAC detects a spinning wheel, it automatically applies brake pressure to stop the wheel from spinning. This forces torque to go to the wheel that has contact with the ground which provides traction where it's needed. A-TRAC is best used when vehicle is stuck, from a dead stop or traversing, climbing and descending on difficult terrain or on slippery surfaces at very low speeds.

**How to use A-TRAC.**

- Vehicle must be stopped and in 4L gear.
- Push A-TRAC button to engage.
- Once engaged, A-TRAC icon will come on.
- Accelerate manually or engage "Crawl Control".
- For additional traction "Rear Differential Lock" may also be used.
- Press again to turn off.
- A-TRAC will disengage over 5 mph or when shift to 2H or 4H.



Note: When vehicle is in motion you may hear strange sounds and feel vibrations. This is normal when using A-TRAC and is not a malfunction.

CAUTION: Avoid using A-TRAC for an extended period of time, as it can cause brakes and transmission to overheat which can lead to damage.

More details can be found in your Owner's Manual on page _____.

**REAR DIFFERENTIAL LOCK (RDL)**

This feature locks the rear axle so that both rear tires rotate together which provides extra traction in difficult situation. It's primarily used when your vehicle is stuck and unable to get out due to one rear wheel spinning freely in the air or on a slippery or rugged surface.

**How to use Rear Differential Lock.**

- Vehicle must be stopped and no wheels should be spinning.
- Shift lever must be in N and front (4WD) gear in 4L (4LO).
- Press Rear Differential Lock button to engage.
- Indicator light will flash briefly.
- Once flashing stops gear is locked.
- Gently step on the gas.
- To turn off, press the switch again.
- Rear Diff Lock will disengage if gear is shifted to H2 or H4.
- Never forget to turn off RDL when not using.

**Note - Following systems will not operate when RDL is on:**

- ABS
- Multi Terrain ABS
- Brake assist System
- VSC

CAUTION:**To avoid causing an accident or damage to your gears:**

- Do not engage if rear wheel is spinning. Doing so may cause vehicle to move suddenly and cause injury and damage to your vehicle.
- Do not drive over 5 mph
- Do not driving with Rear Diff Lock on for extended period of time.
- Fast continuous flashing light indicates malfunction. Have dealer inspect as soon as possible.



CRAWL CONTROL (CC)

Crawl Control is essentially A-TRAC with low-speed cruise control. This feature allows the driver to focus on the driving while it moves the vehicle at steady speed and provide optimal traction. It's most effective to use when your vehicle is stuck or from a dead stop.



How to use Crawl Control.

- Engine must be running.
- Shift lever is in any position except P or N.
- Front Wheel Drive (4WD) is in L4.
- Driver door is closed.
- Push center of dial to turn on.
- When engaged CC icon will appear and slip icon will flash while active.
- Select speed.
- Speed can be changed while vehicle is in motion.
- Strange sounds and vibrations are normal when vehicle is moving. This is not a malfunction.



(flashing)

CC will disengage and buzzer alarm will come on when...

- Shift lever is in any position except P and N.
- Gear is shifted from 4L to 4H.
- Driver door is opened.
- Breaks overheats.
- Transmission overheats.
- System malfunctions.

Crawl Control may not be able to operate properly on...

- Extreme steep inclines
- Extreme uneven surfaces
- Snow covered roads and slippery surfaces.

CC will temporarily disengage at speeds **above 15 mph** and CC indicator will flash until speed is reduced.

Mode		Road condition
①	L (Low)	Rock, mogul (downhill) and gravel (downhill)
②	Between L and M	
③	M (Medium)	Mogul (uphill)
④	Between M and H	Snow, mud, gravel (uphill), sand, dirt, mogul (uphill) and grass
⑤	H (High)	

CAUTION: Avoid long term use as this can cause brakes and transmission to overheat and can potentially cause damage to these systems.

More details can be found in your Owner's Manual on page _____.



MULTI TERRAIN SELECT (MTS)

MTS uses a combination of throttle control and brake pressure to provide optimal traction for the terrain that is selected. MTS differs from A-TRAC in that it allows limited wheel slipping which can improve traction in certain conditions. MTS best used for active driving.



How to use Multi Terrain Select.

- Vehicle must be moving at 7mph or less.
- For MUD & SAND (& SNOW) vehicle must be in H4 or L4 gear.
- For LOOSE ROCK, MOGUL, ROCK vehicle must be in L4 gear only.
- CRAWL CONTROL is off.
- Push center of dial to turn on.
- Turn dial to select mode.
- Once engaged, MTS icon will appear.
- Vehicle may make strange noise and vibrations when moving. This is normal and not a malfunction.



Terrain selection Guide

Mode Road condition	ROCK	MOGUL	LOOSE ROCK	MUD & SAND
Rock	★			
Mogul		★		
Bump, groove		★		
Slope/ V-ditch		★		
Uphill/ downhill		★		
Riverbed			★	
Gravel			★	
Bush			★	
Deep snow				★
Sand				★
Mud				★
Dirt				★

Note:

- Light setting allows wheel to slip. Heavy setting has almost no wheel slip.
- Rock, Mogul & Loose Rock is temporarily disabled when vehicle gear is shifted to H4. MTS icon will flash until returned back to L4 or turned off. If MTS icon continues to flash this may indicate MTS is malfunctioning. See Toyota dealer
- If MTS goes off while in operation.
- One of the MST systems may be malfunction. Have your vehicle inspected by a Toyota dealer.
- Break actuator may be at risk of overheating. Stop vehicle and allow breaks to cool down. MTS will be cancelled.

CAUTION:

MTS is designed for off-road, and snow/ice covered roads only. Do not use for normal driving on pavement.