

# Motorhome Tips For “Seven”

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## Driving Seven

- This thing is very thirsty. 8 - 10 miles per gallon. That's 30 litres per 100 kms. Towing the car uses another mpg. Or, about \$10 to go 30 kms.
- The body is 8'5" wide, plus mirrors. That's about 10'6" overall. Most highway lanes are 14' wide so you have little room to spare. Be sure you have enough room before you stick the nose in somewhere. The body is 36' 6" long, including 8" of hitch. Parallel parking is cumbersome.
- It is 12' 0" high including the roof air conditioners. That's 3.7 metres. Watch for gas station roofs, low bridges and so on. Repairs will be very, very expensive.
- Be aware of tail swing! The overhang between the rear axle and the rear bumper is substantial. When you turn sharply (the front wheels will turn 55°) the back end swings the opposite way. It will swing about 6 feet (a couple of metres) so be careful.
- Be careful on windy days – there is almost 400 square feet of surface area on the side which makes a very effective sail. A crosswind will push it around quite a bit, up to a quarter of a steering wheel turn!
- The motorhome weighs 22,000 lbs (9,600kg) when fully loaded. It takes about twice as long to stop the motorhome as a typical car. Look ahead and have an escape route if you can't stop in time. It has ABS.
- Because of the weight, it doesn't go around corners very well. It won't actually tip over but if you try to corner too quickly, it understeers badly to scrub off speed and then will oversteer like an old Porsche 911. But slower. Too fast means you will have dishes and food on the floor. Generally, the posted corner speed plus no more than 5 kph is comfortable. If you think you need to go faster, you shouldn't be driving Seven, take an airplane.
- Acceleration can best be described as leisurely. 0 – 60 time is in the 15+ second range, 20 seconds towing the car. And it will burn \$1 worth of fuel to get to 100 kph at wide open throttle.
- Best cruising speed is about 90 - 100kph. The transmission doesn't shift into top gear (5<sup>th</sup>) until you are doing at least 85 kph. Slower won't get you better mileage and you obstruct traffic. Anything faster will burn more fuel and increase the chances you won't be able to stop in time in an emergency.
- Use the rule of 5 in traffic. Pull over and let others by you every 5 miles or when there are 5 vehicles stacked up. You get lots of happy waves.
- Note that the engine horsepower peak is 4,200 RPM so there is no advantage to spinning it faster. Do not run above 3,800 for more than a few minutes. Torque peak is 3,200 RPM so if revs are dropping steadily, downshift at 2,800 RPM or so. It will happily pull at 3,200 - 3,500 in 2<sup>nd</sup> or 3<sup>rd</sup> gear all day without overheating or trying to self-destruct.
- Gear down on downhill grades – do not ride the brakes as they will begin to fade after perhaps 10 applications to slow from 110kph to 80kph. 5<sup>th</sup> to 4<sup>th</sup> is done by pressing the overdrive lockout button on the dash. Use the same gear to go down as you would need to go up that same grade.
- The outside mirrors are power adjustable and heated using the switch on the left console.
- The small TV set in the dash receives its signal from the camera pointing behind the rig. It shows from the hitch to the horizon and just past the edge of the bumper out sideways at a sharp angle. It comes on in reverse or you can turn it on manually any time with the override switch. The bottom knob controls the volume.
- **DO NOT TRY TO BACK UP** with the toad attached. Expensive things will break. Disconnect, back up and get straight again, then reconnect. Better still, plan ahead so you don't have to back up at all.

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## Setting Up

There is a specific order to do things when you arrive at the campsite

1. Pick a site long and wide enough and reasonably close to level.
2. Once in the site, park, leave the engine running in Park with the e-brake on.
3. Get out and do a walkabout to make sure you have clearance on both sides for the slides to extend. Watch for the power pedestal, leaning trees, the picnic table and so on.
  - a. On the black control pad for the jacks, press and hold the **power** button for a few seconds. Lights will come on showing what is out of level.
  - b. Press and hold the **Auto** button for a few seconds
  - c. The jacks will do their thing, pausing between each lift. When you are level, the green light in the centre comes on. If there is not enough jack travel to get level, press and hold the *Retract All* button for 30 seconds and put the wood blocks under the jacks. They are in the curb side small compartment. Then repeat step b. **Important:** never lift one or both rear tires off the ground. **Never!**
  - d. Do another walkabout to make sure the jacks are well supported. I don't think you can bend a jack but a foot can be bent. Not good. It is normal for one of the rear jacks to be a few inches off the ground. If you want additional stability you can manually extend the short jack as follows:
    - i. On the jack control panel (which is still powered on) press the Manual button for a few seconds until it lights.
    - ii. Briefly press the left or right jack button to extend that jack. It extends as long as you hold the button down. If you over-extend it and are no longer level you have to press jacks up and start all over again. Note the front jacks are linked and the rears are independent.
4. Extend the slides. Engine must still be running and parking brake set.
  - a. Controls are above the entry door.
  - b. Select the slide to be extended – passenger side or driver side
  - c. Press the chrome momentary switch up to extend the slide. You will hear the motor slow and nearly stall when it is fully extended. The slide motor is powerful enough to do some serious damage if the slide hits anything so a spotter is a good idea if there is any doubt.
  - d. Select the other slide and repeat.
  - e. Turn off the engine.
5. Plug in to whatever services you have available (see below for details)
6. Get out the BBQ, chairs, tablecloth and some firewood.
7. Open a beer!

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## Door Switches

There are 5 switches near the door – awning, lights (controls the interior light above the recliner), steps and basement storage compartments lights master switch.

## Power steps

- When turned on at the door switch, the steps will go in and out when the screen door is opened and closed.
- To keep them out, turn the door switch off when the steps are out and the door is open, then close the door.
- They should retract any time the ignition key is turned on so look before you step out.

## Awning

- This one is easy – press the button by the entry door or use the remote. Make sure it doesn't hit anything.
- It will (the manual says) automatically retract if there is a sustained wind of more than 30kph. When in doubt, retract it.
- It will automatically tilt to the rear to spill out accumulated rain water.

## Propane Appliances

- the fridge, stove, hot water heater and the furnace all burn propane. The fridge and stove use very little, the others use a lot.
- The propane tank is permanently mounted to the frame in the compartment just ahead of the passenger side door. You need to drive the motorhome up to the auto propane pump if they have one. If not, just drive the right side of the rig near the supply tank.
- The hot water tank can run on electricity. It is on the same circuit as the microwave. There are switches inside the cupboard under the kitchen sink.
- Fridge is auto switching between gas and 110v. Set the temperature to 6 for a day then adjust as needed. The ice maker is disconnected. If there is an error message showing, like HI, press the power button, wait a few seconds then turn it on again. The dr display means a door is ajar.
- Propane capacity is 94 litres which will last at least a couple of weeks on the road.

## Electricity

- **Generator**
  - The generator uses up to 2 litres of gasoline per hour depending on the load. It puts out 5,500 watts (50 amps) so you can run everything at once if necessary. Keep in mind that the more power it puts out, the more gasoline it uses.
  - The generator can be run when driving to power the roof air conditioners and everything else except the TV. It takes a half minute or so for the generator to stabilize before the power comes on inside. You'll see the clock on the microwave blinking when it connects.
  - When the gas tank is down to 20-30% left, the generator will no longer work. This prevents you from running the tank dry with the genny and getting stranded.

## Electricity (continued)

- **Shore Power (110v)**
  - The 30 amp plug is permanently mounted to the motorhome in the rearmost compartment on the driver's side.
  - There is a 25' 30 amp extension cord in the dump station compartment.
  - When you have 30 amp power, everything works at once. If you have only 15 amp service, the roof airs cannot be used but everything else works.
  - To plug into a house or anything with a standard 110v household type outlet (15 amp) there is an adapter.
  - Remember to unplug and stow the cords before leaving!
- The front TV will not operate when the motorhome engine is running.
- The following run on 12 volt power and work any time the master switch (on the wall over the door) is turned on:
  - Interior lights
  - Water pump
  - Bathroom & kitchen fans
  - Dash stereo (has a dash rocker switch to turn on when ignition key is removed),
  - Fridge (control board requires 12v even if on propane)
  - Hot water heater (control board requires 12v even if on propane)
  - Furnace (control board requires 12v even if on propane)
  - Steps
  - Bedroom TV (this is on an inverter powered by the batteries and will suck the batteries dry in a few hours if not plugged in to shore power).
- The following run on 110 volt power and will only work if the generator is running or shore power is connected:
  - Roof air conditioners
  - Front TV set
  - Microwave
  - Coffee maker
  - Household appliances like a toaster, hair dryer or electric blanket.
- There are separate batteries for the engine and the house or living space. You can run the house batteries down and the engine battery will still be fully charged.
- Running the generator for a half hour to make coffee and toast in the morning will recharge the house batteries. Don't disturb your neighbours with fumes and noise from the generator.

## Other Stuff

- **Thermostat** - The bedroom thermostat controls the furnace and the air conditioners. AC1 is the front unit. Furnace temperature is set using the AC1 thermostat.
- **Alarms** - The CO (bedroom wall), propane (kitchen floor), and smoke (ceiling) detectors. If they go off, pay attention – oven pilot turned on? Window open over generator? You are on fire?
- **Toilet** – step on the pedal to flush and/or send water to the sprayer. Flush for 5 seconds if there are no solids. Flush for 10 seconds if there are poopies and/or toilet paper. If you don't flush that long, the solids form a pyramid in the tank which is very hard to remove once dried out. It will block the toilet which will then not empty. Then what will you do?

## Fresh and Waste Water

- If you use the white hoses in the street side small compartment to fill the water tank, the water will not taste like green rubber hose.
- Fresh water capacity is 380 litres
- Hot water tank capacity is 22 litres which is more than enough for a shower or to do dishes. Turn it on with the switch located inside the cupboard under the kitchen sink. Elec if available, otherwise propane.
- Waste water from the sinks and shower go into a 220 litre (grey water) holding tank. This tank fills up surprisingly quickly if you waste water while showering. When it is full, it backs up into the shower. And it smells bad. Don't dump it on the ground. In a pinch you can fill a couple of buckets from the grey tank and pour them down the toilet. Better yet, break camp and go to the dump station.
- Waste water from the toilet goes into a separate 160 litre (black water) holding tank. It takes a relatively long time to fill this one up. It should be dumped every second or third time the grey water tank is dumped. Don't forget to put in chemicals and 10 litres of water after dumping. Chemicals are in the toilet room cupboard.
- Fresh Water Fill
  1. The white fresh water hoses are in the small compartment on the driver's side. Spritz the hose ends and tap with the bleach solution.
  2. Stuff the hose a foot or so into the fill receptacle. It is behind a smaller square door on the passenger side near the furnace exhaust.
  3. As soon as water starts to trickle out the overflow tubes on the fresh water tank, turn off and remove the hose. Don't overfill the tank because it will just dump the extra water on the ground anyway.
- Fresh Water Continuous External Supply
  - There is a way to permanently connect a water line and the connection is in the dumping station compartment. Turn the water pump off and play around to see if you can get it to work.

## Waste Water

- Dumping The Holding Tanks – a shitty job
  1. The dump valve is in the compartment immediately behind the rear axle on the driver's side. There is a 'slinky' hose, a coupler and a second 'slinky' if needed. There are also heavy duty gloves and disposable rubber gloves which should be used.
  2. Unscrew the fitting in the floor of the compartment and put the 'slinky' through it. The end goes into the dump station hole, normally embedded in the concrete apron. You may want to use the 90° elbow and having your lovely assistant holding it in place with a foot. You really do not want it to pop up out of the hole!
  3. There are two black handled valves in the compartment. The black water tank has a 4" pipe and the grey water has a 2" pipe.
    - a. Open the black (bigger) valve first. Open it fully and stand back a little just in case the slinky has developed any holes while rattling around in the compartment. The geysers may be small but they are stinky!
    - b. Optional but a good idea – connect the hose in the dump compartment to the black tank flush connection and to the rinsing tap at the dump station. This will spray the inside of the black tank and help flush out any undissolved paper or poopies,
    - c. It will take a couple of minutes for the tank to empty completely. When it is empty, close the valve. Wait about 30 seconds then turn off the flushing water tap and disconnect the hose. You now have enough water in the black tank to let the chemicals do their work,
  4. Open the grey water (smaller) valve to flush the slinky and drain that tank. This one will take a little longer to drain. When the tank is empty, close the valve.
  5. With the end still connected to the hole in the cement, undo the slinky from the tanks and use the dump station rinsing hose to flush some clean water through it and outside it if there were any leaks in step 3.
  6. Put the hose back in the compartment, replace the fitting in the compartment bottom and close the compartment. Rinse the apron off for the next camper.
  7. Put a dose of chemical down the toilet and if you didn't add water to the black tank with the flushing system (item 3 b) flush for 30 seconds. You are done.
- Sewer Connection – full time
  - Some places will offer a permanent sewer connection. Always leave the black water valve closed until the tank is at least 2/3 full. You still need to put treatment chemicals into the tank.
  - The grey water valve can be left open until the black water tank is getting close to needing to be dumped. Close it for a day or two to allow some water to accumulate in the grey water tank. You'll need it to flush poopies out of the slinky when you dump the black tank.
  - When the black tank needs to be dumped and there is enough water in the grey tank, dump then both per steps 3-4 above.

## Fuel & Maintenance

### Motorhome

- Regular grade gasoline. Capacity is 284 litres. That will take you about 800kms.
- Note that the generator will not run if the gas tank is below about 1/3 tank remaining.
- Filler neck is behind the licence plate. Turn off the fridge and hot water heater before pulling in to get gas. Both of these have open flames with could result in a bad day if the gas station catches fire.
- Use full synthetic 5W30 in the engine. There is a litre in the rearmost passenger side compartment. Yellow dipstick handle is behind the black rubber dam on the passenger side of the engine. One of the keys opens the hood. It drops down. Don't lean on it.
- There is also spare oil for the transmission and jacks (reservoir is on frame rail below driver's seat), just in case.

### Generator

- Draws its gasoline from the motorhome's gas tank.
- Use 15W40 in the engine. Check it every 25 hours of operation. It will not run if the oil level is low.
- The genny fuel pickup line is at the 1/3 tank level so you can't leave yourself with no gas because you ran the generator too long.
- If it hasn't been run in a few days, it will need to be primed. Press the dash generator rocker switch to the left for 10 seconds before pressing it to the right to start it. You also momentarily press it to the left to turn the genny off.
- Turn off major electrical loads like roof air and water heater before turning the genny off.

### Tires

- Tires must have 95 psi (rear) and 100 psi (front) to prevent blowouts. They do not lose any air unless you have picked up a nail. Thump the rears with the baseball bat at each gas fill. If one sounds and feels different, it is low on air. Or check the tire temperatures with the yellow heat gizmo. If it is flat, call Good Sam.
- The spare is in the rear storage compartment. There is no jack or lug wrench so don't try to change a flat tire. Since the spare weighs 200+ lbs and the wheel lug nuts are torqued to 486 ft-lb (!!!), you won't be able to undo them anyway. Call Good Sam Emergency Road Service and they will send someone with the right equipment to change it for free.

### **Departure Checklist – Outside**

1. Walk around the outside of the rig
2. Awning and slides are in
3. Jacks are up
4. Toad is attached properly and brake is off
5. thump the tires
6. all compartments are locked
7. power and cable TV cords are stowed
8. hoses are stowed
9. drain slinky is stowed
10. TV antenna is down & satellite dish is stowed
11. Double check campsite for left-behinds (wood, chairs, pets, kids, etc.)

### **Departure Checklist – Inside**

1. All doors are securely closed
2. Nothing got pinched when the slides came in
3. Nothing left on counters or kitchen table
4. Sinks are empty
5. Toilet is flushed
6. People and pets are aboard
7. Deadbolt is thrown on entry door

### **Departure Checklist – Toad**

1. Connect Toad after the slides are in and the jacks retracted
2. Tow bar is self aligning. Insert tabs, pins and keepers
3. Attach the safety chains, run electrical cord through one loop in the safety cable and plug into the car. The terminal on the car is beside the hood latch when you open the hood.
4. Follow the procedure on the car's driver side visor exactly.
5. Turn engine off (one click). Key stays in the ignition.
6. Radio off
7. Heater control in recirculate
8. Don't back up with Toad connected.