8 / SAFE DRIVING AND TOWING

Your Responsibilities As A Driver

Towing a trailer has a responsibility similar to properly driving your car. It is a skill that has to be developed and a responsibility that shouldn't be taken lightly. If you're towing a travel trailer for the first time, drive only when traffic is light. Avoid uncomfortable traffic conditions. Get a friend with this type of experience to help you learn. Don't be embarrassed to ask questions or just stop, park and relax if you need to. Learn what it takes to keep from ruining your transmission when pulling heavy loads up a hill or burning up your brakes going down the other side. The hardest skill to learn is to know when *not* to tow a trailer. Your confidence will grow as your skills increase.

State laws in the United States and Mexico, and provincial laws in Canada are different concerning towing requirements and limits. Always be sure to check the laws in the areas where you anticipate traveling.

Driving and Vehicle Control

Towing your trailer will be different from driving your family car or truck. Your trailer/tow vehicle combination is heavier, longer, wider and higher than a typical car or truck you may be accustomed to driving. You will have to adjust or learn new driving techniques to safely operate your rig. Keep this in mind as you become familiar with your trailer. New trailer owners should take special care to learn the driving and handling characteristics of your vehicle in safe and familiar surroundings. Drive defensively at all times. ***DO NOT*** **drive if you are tired, have been drinking alcoholic beverages, are under the influence of any controlled substance, or are taking any medication or drugs that may impair your sight, hearing, judgment or coordination. Pull off the road and park in a safe area until you can drive safely.**

SAFE DRIVING TECHNIQUES

We want every Genesis Supreme RV RV owner to be a safe and courteous driver. The following rules will help you develop needed skills for safe trailer towing:

- *Travel very slowly if you are new to trailer towing, or if you have a new trailer or tow vehicle, until you have learned the handling and stopping characteristics of the tow vehicle/trailer combination. Practice turning, stopping, and backing in a secluded place away from traffic. Large, empty parking lots are good, but get permission first.*
- *Do not permit a driver who is inexperienced at towing to operate your tow vehicle/trailer combination without your direct supervision. Remember — it's slow speed for beginners.*
- *Tow at moderate speeds allowing for adverse highway and wind conditions. Even under the best of conditions, do not exceed the posted speed limit for trucks and trailers. As speed increases, trailer sway stability, stopping ability, and the ability to make emergency maneuvers are greatly reduced.*
- *Reduce speed before starting down hills — even short ones — and avoid heavy tow vehicle braking on downgrades. Trailer tow stability is reduced when traveling downhill, and is further reduced by tow vehicle braking.*
- *Slow down before entering turns and avoid heavy braking in turns. Trailer stability is reduced in turns, and the weight of the trailer tends to push the back of the tow vehicle outward in turns, which can cause loss of control and "jackknifing."*
- *Check and monitor wind conditions in the areas where you expect to travel. If it is windy or passing vehicles are affecting the trailer, slow down until full, comfortable control can be maintained. Trailer sway can be started by crosswinds and the wind from passing vehicles, especially trucks and buses passing from the rear. Reduced speed improves trailer stability and handling.*
- *Avoid quick steering movements that can start the trailer swaying.*

MANEUVERING IN TRAFFIC

A few hours of practice in a large empty parking lot will make pulling your trailer much easier. Mark out two corners for both left and right turns. Use these corners to practice turns, backing up and parking. As you practice, note how the tracks made by the trailer wheels are distinctly different from those made by your tow vehicle. Study these tracks as you perfect your skills. Be sure your tow vehicle is equipped with side-mounted rear view mirrors. They are required in most states, and are a must for maximum visibility.

Be cautious when maneuvering to allow for the length and width of your rig. Always allow room to corner and to change lanes. The rear view mirrors mounted on your tow vehicle will help you keep aware of your position and the position of other vehicles and/or obstructions near you. Watch the mirrors. Learn to use them to view objects around you and your position on the road.

Remember that your trailer/tow vehicle is heavier than a car or your truck by itself, making your towing combination less maneuverable and harder to stop. Also, because of the greater side surface area of the trailer, it is more easily affected by cross winds. Allow extra distances for passing and stopping, and drive at a moderate speed, particularly in traffic and in gusty wind conditions.

Be aware of the extra height of your trailer. Check for low hanging tree branches or other obstructions whenever you drive or park. Avoid low overhangs when pulling in for service or fuel. Always check overhead clearances of overpasses and bridges. This is especially important if you drive with overhead vents open and because of roof racks or TV/radio/satellite antennas mounted on the trailer roof.

Always plan ahead. When approaching traffic lights let off the gas, and let the tow vehicle and trailer slow down. Avoid slamming on the brakes at the last second. When approaching dips and depressions in the road, slow down. Resume your normal speed only after you are sure the trailer wheels have cleared the dip. When you travel on rough roads, slow down and try to avoid potholes. Quick steering maneuvers at high speeds could cause unpredictable trailer reactions, and may cause furniture and items in the trailer to move around causing interior damage.

On freeways or expressways, choose your lane and stay in it! Always maintain sufficient space between you and the vehicle in front of you. For every 10 miles per hour of speed, allow at least double the length of the tow vehicle and trailer. For example, if you are traveling 60 miles per hour, allow six times the length of your rig. This may seem like a lot of distance, but at 60 miles per hour, you are covering 88 feet per second. You will need all of that distance to stop your rig under control. If your tow vehicle and trailer rig is 50 feet long, as an example, you have about four seconds to react and stop. ***You cannot stop that fast.*** You need to test your brakes and learn your rig's stopping capability. There are many variables involved, such as your brake control settings, loading, and your tow vehicle. You must learn how they all work together. And remember that you will need much more time and distance to overtake and pass another vehicle.

Despite the best hitch, whenever a large bus or truck overtakes and passes your rig, you will feel some instability. The air being push ahead of the large vehicle pushes the rear of your trailer to one side, and then pushes the front. You may even feel the air pressure rock your tow vehicle. You will naturally want to apply the brakes or correct the steering. Do not apply the brakes, and just maintain the steering in a straight line. The slight swaying of your trailer will last for a very short time, and abrupt braking or steering corrections may cause real swaying problems that will be more difficult to handle. There is no need to panic — just watch your mirrors and adjust your position in the lane to give yourself more space between your rig and the passing vehicle. The effects of the air pressure wave are lessened if there is a greater distance between the two vehicles. If you feel a little "tail wagging", lightly apply the trailer brakes with the controller only. We'll cover more serious swaying later in this section.

On two-lane roads, other vehicles will collect behind you. It is both courteous and sensible to signal, pull onto the shoulder or turnout and let them pass. In some places, the law requires you to pull over and let other vehicles pass. Check your mirrors often, and when you see traffic behind you, pull over.

On slippery pavement, avoid using the engine to help slow down as this may cause the tow vehicle wheels to skid. On icy pavement, drive slowly. If you feel the tow

vehicle skidding, gently apply the ***trailer brakes only*** with the controller. This will bring the tow vehicle and trailer back into a straight line. And remember that chains on the tow vehicle do not help the trailer wheels.

If you get into mud or sand, let the momentum carry the rig through. Apply power very gently, and use as little as possible. Stay in any tracks of any vehicle(s) ahead of you. Keep the tow vehicle in the highest possible gear. If you do get stuck, tow the rig out without unhitching. ***Disconnect the weight-distribution spring bars before towing in this situation.***

After traveling some distance, pull over and check the heat at the trailer wheel hubs. Use one of the inexpensive infrared thermometer guns available from tool suppliers. The hub temperature should be nearly the same at each hub. If you notice a temperature at any wheel that is significantly higher than the others, the brakes may not be adjusted correctly, or there may be another problem with the brake system or wheel bearings. Check the tire pressures and temperatures all around. A hot tire usually indicates low air pressure in that tire.

The brake controller is activated when you apply the tow vehicle brakes. This sends an electrical current to the trailer brakes. You can also apply the trailer brakes independently from the tow vehicle by operating the brake controller by hand. Under normal conditions, you should not operate the trailer brakes by hand, but you have the option when it is needed. See the operating instructions for your brake controller for more information.

Remember that a temporary increase in loading occurs during dips or bumps in the road. A severe dip causes increased weight to suddenly be placed on hitch, axles and tires. Though hitch manufacturers take this into consideration in their designs, an overloaded or old, cracked and rusted hitch or tongue can be suddenly stressed beyond capacity, causing it to fail. Watch for bumps and large dips in the road and try to slow down for them.

Backing Up and Parking

Backing a trailer can be a challenge even for experienced drivers. It takes practice to perfect the necessary skills. Improper or careless backing can result in possible injury or, more likely, expensive damage. Of course, if you can avoid backing up altogether – arrive in daylight or request a pull-through site – you'll be much better off. Just remember to take your time. Be patient, and try not to get upset if you don't successfully back in on the first attempt. Remember, it's not as easy as it looks – even for old pros.

We mentioned previously that your trailering rig is much larger than the car or truck you normally drive. Terrain and road surfaces, visibility, and even driver fatigue can affect your ability to back and park your trailer.

Backing your trailer can be more than just getting it into a site at a campground or RV park. There can be many other backing situations that require close driver attention and backing skills. Consider some of these other situations:

Backing into an RV storage space

Driving into a dead-end street by mistake

A fuel pump is not located where you expect it or need it

Entering a parking lot that does not have a pull-through lane

Entering a fast-food restaurant pull-through lane with height or width limitations

Unexpected low overhead or bridge weight limitations while driving on local roads.

Some backing situations require you to be more careful and attentive:

Backing into an RV site to avoid campers, other RVs, shrubs, trees, picnic tables and utility hookups

Anytime children are present is a big one. Children always assume if they can see you, then you can see them.

Backing up at night means reduced visibility. It's difficult to estimate distance in low light or darkness.

Backing up in gas stations or supermarket parking lots. When an RV pulls up and stops, other vehicles may not be visible in your mirrors when they pull up right in back of you.

The most important factors to backing up safely include paying close attention, being patient, and watching and listening for anything unexpected. Avoid pulling into commercial, shopping or industrial areas while towing if you're unfamiliar with the layout. You may not know how to get out without your having to back up. Sometimes calling ahead to your destination before you arrive can save time and effort. Ask about specific directions and parking limitations. If you are unable to call ahead, when you arrive, park out on the street and then walk in to investigate.

You will often be backing and parking your rig in a limited-size space. Before you know if it will fit, you have to know how big it is. Minimize surprises by spending some time to collect the following information:

The total length of the tow vehicle and trailer from the front bumper of the tow vehicle to the rear bumper of the trailer.

Total width of the rig, including all mirrors on the tow vehicle

Total height, including all roof-mounted accessories such as A/C units, roof vents, satellite dish and TV antennas, storage boxes and CB and radio antennas.

Whenever possible, pull into parking situations that allow you to "pull through" thus avoiding backing. If your situation allows it, before backing up, get out and walk around the location where the RV is to go. Check to see if awnings or slideouts will fit safely when extended, and look overhead for tree limbs or low wires. Then look down and around for sloping sites, tree trunks and tree limbs, utility hookups, picnic tables, large rocks, railroad ties, wooden posts, cables and fences often used to separate camping sites, or any other objects that could damage the trailer.

Eliminate distractions by requesting passengers to refrain from talking while you are backing. Turn off radios and TVs, etc., and other distraction sources of noise. When

backing, just remember to slow down and take your time. If the trailer doesn't go where you want it to, just stop. Concentrate on the back of the trailer. Remember that you have poor visibility to the rear. Someone standing safely outside at the rear of the trailer to guide you will help you back the trailer safely. Use the rear view mirrors to watch what is happening behind you, and keep an eye on both sides of the tow vehicle. Continually monitor the location of the front mirrors and front corners, as well as the rear of the RV to avoid obstacles.

Follow these tips for backing:

1. Align the trailer and tow vehicle in a straight line, if possible. Also, backing to the left is easier because your rear visibility is better.
2. Start backing slowly. With your hand at the bottom of the steering wheel, turn the wheel in the direction you want the *rear* of the trailer to go. Watch in the mirrors or out the window until the rear of the trailer is pointing in the desired direction. Note that the rear of the *tow vehicle* will go in the opposite direction of the trailer. Be careful as the trailer/tow vehicle angle changes. You can quickly get into a jackknifed position that could cause damage to the tow vehicle or trailer.
3. When the trailer is pointing in the desired direction, start turning the steering wheel in the opposite direction. This will cause the tow vehicle to follow the trailer in an arc.
4. Straighten the tow vehicle and trailer by turning the steering wheel more sharply. When you get more into a straight line, straighten the wheel. Adjust your position as necessary.
5. If you don't make it on the first try, just pull forward to straighten things out, and start over.

When you park, look around and observe any poles or other obstructions beyond the curb or past the wheel track. Remember that the front and rear portions of the trailer swing wider than the tow vehicle's body. On level

ground, always shift the tow vehicle transmission to P (automatic transmissions) or low or reverse (manual transmissions), and set the parking brake.

Try to avoid parking on a grade or hill. If parking on a grade is unavoidable, follow these steps:

1. Apply and hold the tow vehicle brakes.
2. Have an assistant place wheel chocks under the trailer wheels.
3. When the wheel chocks are in place and the assistant is clear of the vehicles, release the tow vehicle brakes until the chocks absorb the load.
4. Apply the tow vehicle parking brake.
5. Shift the tow vehicle transmission to PARK (automatic) or low or reverse (manual). Don't shift into PARK until the trailer wheels are chocked and the tow vehicle parking brake is set. If you do, the weight of the vehicle and trailer may put so much strain on the transmission that you will not be able to shift it out of PARK.

When starting after being parked on a grade:

1. Apply and hold the tow vehicle brakes.
2. Start the engine in PARK (automatic) or neutral (manual) with the parking brake set.
3. Shift into gear and release the tow vehicle parking brake.
4. Release the tow vehicle brakes and move the trailer until the chocks are free.
5. Apply and hold the tow vehicle brakes and have an assistant remove the chocks.

WARNING

Excessive sway or fishtailing of your trailer can lead to the rollover of the trailer and tow vehicle. Serious injury or death can occur. It is important that you read and understand the information in this section.

Controlling Trailer Sway or Fishtailing

Sway or fishtailing is the sideways action of a trailer caused by external forces. Trailer sway can occur at any time. It cannot be prevented completely, but you can learn how to control your rig if and when it happens. It often occurs in response to strong winds or crosswinds or when passed by or passing a large truck and trailer on a downhill.

Trailer sway or fishtailing is primarily influenced by these factors:

Equipment: When hitched together, the trailer and tow vehicle must be level. The tires of both the trailer and tow vehicle should be in good condition and inflated to the recommended pressure as noted on the tires.

Your trailer brakes should work in synchronization with your tow vehicle brakes. Never use your tow vehicle brakes alone to stop the combined load. Your brake controller must be set up according to the manufacturer's specifications to ensure proper synchronization between the tow vehicle and the trailer. Additionally, you may have to make small adjustments occasionally to accommodate changing loads and driving conditions.

We recommend that you install a friction sway damper or hitch with built-in sway control. Please consult with your RV dealer regarding this equipment, as Genesis Supreme RV does not provide sway control devices.

Tongue Weight: The tongue weight should be between 9% and 15% of the total travel trailer weight. See Chapter 7 of this Owner's Guide regarding the proper loading and weighing of your trailer.

Driving: This is the most important factor. The tendency for the trailer to sway increases as your speed increases. Obey all speed limits and reduce speed during bad weather or windy conditions.

Several different forces working together can cause swaying. Speed and wind are two of these forces, so you should ***never drive faster*** to try and eliminate swaying or any other problem.

Instability can also be caused by road conditions, other vehicles and — most importantly — incorrect or inadequate driver control inputs. If you make abrupt braking or steering changes, travel too fast for road and traffic conditions, ignore the mechanical components of your rig, including tire pressures, your towing situation will be more susceptible to instability and swaying.

Corrective measures: If you find yourself in a situation where the trailer is beginning to sway or otherwise feels unstable, here are some techniques that will help:

- *The moment your trailer shows any tendency to sway, you should **slow down immediately** removing your foot from the accelerator. Avoid strong or hard tow vehicle braking unless there is a danger of collision. Reduce speed gradually whenever possible. Apply the brakes gently and progressively. A properly adjusted brake controller will apply the trailer brakes first. If you can do so safely, use the brake hand controller to gradually apply the trailer brakes. This will help to keep the vehicles aligned. If you apply the tow vehicle brakes only, trailer stability will be reduced, and skidding the tow vehicle tires can cause loss of control and jackknifing.*
- *Practice using the brake hand controller on a deserted parking lot. Don't wait until an emergency occurs to learn how to use it. The brake hand controller should be located where it is easily accessible.*
- *Do not jam on the brakes or attempt to accelerate your way out of the swaying. Both actions make the situation worse and could cause severe injury or death.*

- *Steer as little as possible while maintaining control of the rig. Because of natural reaction lag time, quick steering movements to counter trailer sway will actually cause increased sway and loss of control. Keep both hands on the wheel. Hold the wheel as straight as possible until stability is regained.*
- *Once the swaying is under control, stop as soon as possible. Check tire pressures and cargo weight distribution. Look for any signs of mechanical failure. Travel at reduced speeds that permit full control until the problem can be identified and corrected.*

Driving In Windy Conditions

Wind can create hazardous conditions when towing a trailer. Wind can cause your rig to oscillate or suddenly pull to one side. Thirty mile an hour crosswinds can blow you off the road if there is a sudden gust. For example, say a hard gust of wind hits your rig from the left. Your rig pitches to the right and moves towards right. In order to stay on the road you steer to the left. With the rig leaning to the right, the centrifugal force generated by steering left can be the added ingredient that puts you on your side, or worse yet, down the side of a ravine. The only way to lower the risk of traveling in these conditions is to ***slow down***. The safest way is not to drive in extremely windy conditions. Park it until it's safe to continue.

Extreme Driving Conditions

Driving on winding or mountain roads is not difficult if done with care. When driving in mountainous areas, look for and obey highway signs concerning grades and curves. Your driving experience when pulling and stopping a trailer on mountain roads will be very different from what you experience on level ground.

Mountain driving or desert temperatures can put extreme demands on the drive train components of your tow vehicle. Observe proper vehicle speeds when ascending or descending hills and always operate in the proper transmission range.

Downshift on hills to avoid overheating or excessive engine loads. Downshift when descending grades. Engine compression and friction will help control vehicle speed, and relieve some of the strain on the brakes. Shift the transmission to a lower gear before starting down the grade. The engine braking effect can help control downhill speed, and will help ease the load on the service brakes.

Downhill driving puts extra strain on many drivetrain components of your tow vehicle. The brakes can become overloaded and overheated when used for downhill slowing. Brake fade will occur if the brakes overheat.

Rule of thumb: Use the same lowest gear going down as it took to go up the hill. Crest the hill in the lower gear. Watch your speed and pay attention to any caution signs along the road. You can also use the trailer brake controller to help control downhill speed, and ease the load on the tow vehicle brakes.

When descending grades, never use a higher gear than was used to climb the same or similar grade. Select a gear that will keep you at a safe speed with minimal brake application. NEVER ride the brakes when descending a grade. Riding the brakes will cause excessive brake heat resulting in brake fade and leaving you with little or no stopping power.

Some tow vehicle engine manufacturers specify both maximum and minimum engine RPM in any transmission gear. With some engines, either over-revving or lugging the engine can cause serious engine damage. Become familiar with the operating limits of your tow vehicle

engine. When ascending grades, shift to a lower gear when engine speed drops to the engine manufacturer's specified minimum RPM and keep the engine speed in the RPM mid-range of the selected transmission gear.

Driving in hot weather, and especially in hilly or mountainous areas, requires different driving techniques than driving on flat ground or in cooler weather. Be sure tire pressures are correct. Tire overheating can cause tread delamination and tire failure. It is especially important to watch engine coolant temperature under these conditions. ***If the tow vehicle engine temperature indicator indicates overheating:***

- *Reduce road speed and shift to the next lower gear to keep the engine running at higher RPM, but not over-revving. In most cases, this will stabilize the engine temperature.*
- *If the temperature indicator continues to indicate overheating, safely pull over to the side of the road (use turnouts on mountain roads) and stop. Shift the transmission into **P** (PARK). Increase engine speed until the temperature drops down into the normal range.*
- *If the temperature indicator does not begin to show normal engine temperature, shut down the engine and allow it to cool. After the engine is cooled down, check the coolant level in the reservoir and if necessary, add the proper mixture of coolant and water.*

If You Get A Flat Tire . . .

Tire changing instructions are in the ***Care and Maintenance*** chapter of this Owner's Guide.

Your trailer is equipped with quality tires made by a major tire manufacturer. Under normal circumstances and with proper maintenance, you should receive thousands of miles of trouble-free service. But you may get a flat tire.

A sudden tire failure ("blowout") will usually be accompanied by a sudden reduction in stability of your rig. Depending on which tire is involved, the steering could feel a little "mushy" or you may feel a little swaying. A tire that goes flat slowly will not cause a sudden unstable feeling. It will be more gradual, and you could wind up driving a long distance before you notice the tire is flat. ***Running a flat tire is very dangerous.*** The increased friction

will cause the tire to overheat and possibly ignite, causing a fire that may be very difficult to extinguish. Knowing this, keep an eye on your tires by checking the rear view mirrors while driving. When you stop, check the tires by whacking them on the tread surface with a short piece of pipe or broom handle. Check the tire temperature. Pay attention to other drivers that may give you hand signals or otherwise try to communicate with you that something is wrong. ***If you see smoke coming from your wheels, or if someone is signalling to you, stop immediately in as safe a way possible,*** and check the situation.

If you experience a sudden tire failure:

- ***Avoid heavy braking application***
- ***Gradually decrease speed***
- ***Hold the steering wheel firmly and move carefully to a safe place off the road***
- ***Park on a firm, level spot if possible***
- ***Turn off the vehicle ignition***
- ***Turn on the vehicle hazard warning flasher system***

If possible, summon professional help through your auto club road service, or local tire service facility. ***Do not attempt to change the tire yourself.*** A lifting jack is not supplied with the trailer.

ALTERING YOUR TRAILER

Many RV owners like to add personal touches to their units. But there is a difference between changing how your trailer looks and how it handles and performs. If you consider any type of alteration to your trailer, be sure you understand how the alteration will change or affect the stability, handling, vehicle response, and overall performance and safety of your trailer or your tow vehicle/trailer combination. An improper alteration that affects vehicle handling or response can cause a vehicle crash, and any improper alteration to the electrical or propane systems can cause a fire and can endanger your trailer and its occupants. ***Never alter the trailer chassis.*** Any of the following alterations to the chassis may limit the chassis warranty, and may limit your warranty coverage of other trailer components or systems:

- ***alterations affecting the axles, brakes, and/or suspension components***
- ***any alteration to the main frame components***
- ***any alteration to the coupler or pin box components***
- ***the addition of cargo racks or platforms to any part of the trailer***
- ***the addition of any lifting or height increasing device use of a "gooseneck" style hitch device***

NOTICE

Fifth-wheel hitch extenders (also called "gooseneck tongue adapters") are not to be used with Genesis Supreme RV fifth-wheel trailers. Use of a hitch extending device may cause structural damage to the trailer pin box assembly or chassis. Damage caused by the use of a hitch extending device may affect your warranty coverage under the Genesis Supreme RV Limited Warranty.

MAINTENANCE

It is your responsibility as the trailer owner/operator to properly maintain your trailer and its systems. Consult this Owner's Guide and any operating and maintenance guides included in your Owner's Information Packet for service and maintenance information. Keep your trailer properly maintained.

WARNING DEVICES

Your trailer is equipped with warning devices. These devices were discussed in a previous chapter. Check them before a trip for proper operation. A disabled warning device cannot warn you or your occupants of a life-threatening danger. Keep them working and respond to them quickly.