

# Driving

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## **SAFETY**

### **Before entering the car**

1. Check that windows, mirrors and lights are clean.
2. Visually check tyre inflation (check with a pressure gauge each week).

### **Before driving off**

1. Be sure that all doors are closed and secured.
2. Position your seat for comfortable driving.
3. Adjust rear vision mirrors.
4. FASTEN SEAT BELTS.
5. Check that all the warning indicators light up when you turn the key to start the engine, refer Chapter 1.

### **Parking**

1. Apply the park brake.
2. Automatic transmission: Place in PARK.  
Manual transmission: If pointing uphill or on flat ground place in FIRST gear.  
If pointing downhill place in REVERSE gear.
3. Shut all windows.
4. Turn ignition key to LOCK and remove the key.
5. Lock all doors by pressing the **(LOCK)** button on key when outside the car.
6. Set deadlocking, refer Chapter 2.

Note that the engine fan may keep going for several minutes after the ignition has been turned off. This is normal.

### **CAUTION:**

Be careful where you park or drive. As with any car, do not park or operate this car in areas where combustible materials such as dry grass or leaves can come in contact with a hot exhaust system.

Never leave the engine running in an enclosed space such as a closed garage or underground car park.

## **ENGINE STARTING**

1. Ensure the park brake is firmly applied and release it only after you have started the engine and are ready to drive off.
2. **MANUAL:** Depress the clutch pedal and shift the gear lever to Neutral position. The clutch pedal can now be released.  
**AUTOMATIC:** Move the shift lever to P(park) or N(neutral) position. The engine will not start if it is in any other position.
3. Start the engine as outlined below (with your foot off the accelerator).

For cold or hot starting the procedure is the same. Simply turn the key to the start position and release when the engine starts.

**YOU DO NOT HAVE TO DEPRESS THE ACCELERATOR PEDAL PRIOR TO, OR DURING, STARTING. DEPRESSING THE ACCELERATOR PEDAL WILL ONLY INCREASE CRANKING TIME AND WILL NOT HELP THE ENGINE TO START.**

You should not subject the engine to high load conditions such as full throttle acceleration or high speeds until it has completely warmed up otherwise you may cause premature engine wear or engine damage.

### **Engine won't crank or start**

- PRESS AND RELEASE THE **UNLOCK** BUTTON ON THE KEY and try starting the engine again.
- NEVER PRESS THE KEY BUTTONS WHILE CRANKING THE ENGINE.
- Remove the key from the ignition, re-insert the key and try starting the engine again.

### **Flooded petrol engine**

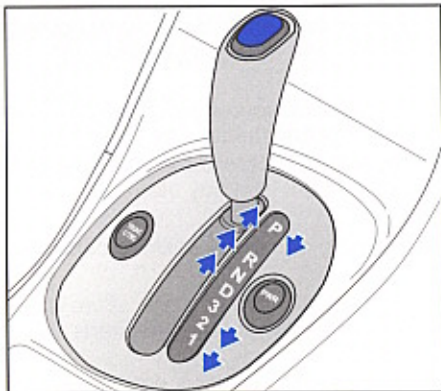
Cranking the engine for a lengthy period without it starting could result in flooding (too much fuel injected into the engine). If this occurs, press the accelerator down to the floor and hold it there while holding the key in the START position.

When the engine starts, allow the accelerator pedal to come up slowly.

## **AUTOMATIC TRANSMISSION**

### **Floor mounted shift**

Push in the button on top of the transmission selector lever when shifting into any position indicated by the blue arrow.

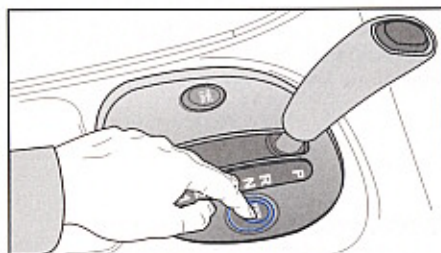


### **Power/economy/cruise mode**

The transmission operates in three modes: POWER, ECONOMY and CRUISE (if cruise control fitted). The POWER reminder light on the instrument panel glows when in the POWER mode.

POWER mode has revised automatic transmission shift points, to give the car a more responsive feel. ECONOMY mode is recommended on normal or freeway driving, as it gives better fuel economy.

If cruise control is maintaining car speed the transmission overrides POWER/ECONOMY selection and operates in CRUISE mode, providing optimum driveability. CRUISE mode is neither a POWER or ECONOMY pattern. If the car has a V8 engine, the POWER light switches off when cruise control is maintaining car speed.



Personal Identity Keys on higher luxury levels: when the key is inserted in the ignition and turned to ON the system identifies the key and sets the power/economy selection to the last adjustment used for that key. Also refer "Personal Identity Keys" in Chapter 2.

- Don't press the accelerator pedal with the brakes on in either 1, 2, 3, D or R. This will overheat the transmission.
- Don't use the accelerator pedal to hold the car on a slope. Use the brakes.
- Don't coast the car in N - this lessens your control and you may need to accelerate quickly in an emergency.
- Refer Chapter 7 when checking automatic transmission fluid level.
- The engine will not start unless the selector is in P(park) or N(neutral).



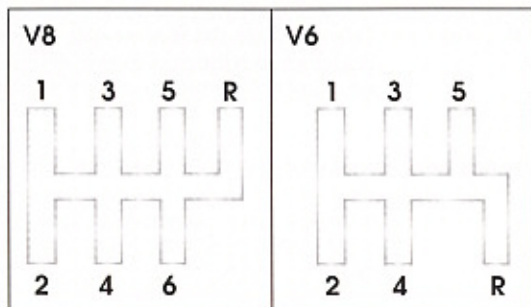
**AUTOMATIC TRANSMISSION cont.**

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| <b>P (park)</b> | This prevents the rear wheels from turning and so should be selected (together with the park brake) when leaving the car. Never select P until your car is fully stopped. The engine can be started in this position. |
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| <b>R (reverse)</b> | Never select R until your car is fully stopped. Reverse lights will operate when R is selected and the ignition is on. After reversing, make sure the car has fully stopped before selecting another gear position. After selecting R, pause for a moment before accelerating, to allow the transmission to "engage" reverse gear. |
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| <b>N (neutral)</b> | This is the out-of-gear position. You may then restart a stalled engine while the car is still moving or stopped. |
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| <b>D (drive)</b> | This is the most effective position for normal or freeway driving. The drive position gives maximum fuel efficiency, as the transmission can choose the appropriate gear (1 through to 4) for the existing load and driving conditions.<br>After selecting D from P or N, pause for a moment before accelerating, to allow the transmission to "engage" the forward gear.<br>Use this position, together with the PWR mode when towing. |
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| <b>3 (third)</b> | Third is most effective when overtaking and gives responsive acceleration and deceleration, especially in hilly areas. This position allows the transmission to shift between first, second and third gear as conditions require. Drive (4th gear) is excluded. |
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| <b>2 (second)</b> | Use this position when going down a moderate gradient where you want to slow down a little with minimal use of the brakes. The transmission shifts to first or second gear as required. Move the lever back into the drive position to return to normal driving. |
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| <b>1 (first)</b> | Use this position when strong braking effect is needed on a steep gradient, below 60 km/h. Remember to move the lever back to drive position so that the transmission again upshifts into higher gears. Even though the T-bar may be in 1, the transmission does not select first gear until car speed is less than 55 km/h. Take extreme care when selecting 1 if towing a trailer or caravan on a steep incline. Even though the T-bar may be in 1, the transmission upshifts automatically to second gear at about 5,400 rpm. |
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## MANUAL TRANSMISSION

The shift pattern illustrated, is also found on the top of the gear shift lever.

When selecting REVERSE gear you must shift the gear lever sideways against spring pressure in order to pass into the gear.



### Shift speeds

The chart shows the recommended change speeds at which gear changes should be made for normal driving. Using shift speeds in the "economy" category will assist in maximising fuel economy.

Upshifting at road speeds will be necessary according to varying driving conditions such as load, road gradient, during overtaking and when other than light acceleration is required.

Manual transmission change speeds (km/h)				
Gear change	V6 engine		V8 engine	
	Economy	Normal	Economy	Normal
1st-2nd	15	25	15	25
2nd-3rd	25	45	25	35
3rd-4th	40	60	35	48
4th-5th	55	85	50	65
5th-6th	N/A	N/A	70	80

### Operating notes

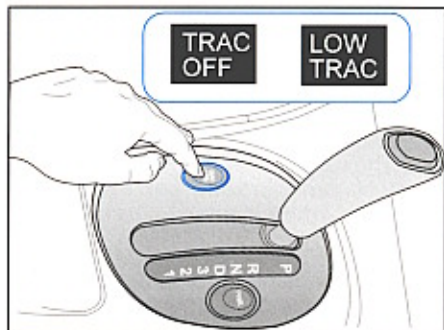
- When shifting from one gear to another, be sure to depress the clutch pedal fully to avoid clashing and possible chipping of the transmission gears.
- Never attempt to engage reverse gear until the car has completely stopped. A slight pause between depressing the clutch pedal and moving into reverse gear is desirable to allow all the rotating components to stop and avoid gear clashing. Whenever reverse gear is selected with the ignition ON, the reversing lights operate.
- Shift the gear lever with a moderate effort to allow time for the transmission synchromesh to work properly.
- To avoid damage to the clutch, do not drive with your foot resting on the clutch pedal.
- When stopped on an incline do not hold the car by slipping the clutch. Use the park brake or foot brake.
- When climbing steep grades, change down to a lower gear before the engine starts to labour. To maintain safe speeds on a steep downgrade and to reduce brake wear and overheating, shift into a lower gear before starting the descent.
- Do not over speed the engine when shifting down to a lowest gear.
- 4th gear provides direct drive and 5th gear, overdrive.



### ***TRACTION CONTROL (if fitted)***

Traction control helps prevent the driving wheels from spinning. As soon as even one driving wheel starts to spin, traction control reduces the power from the engine and applies the brakes, as necessary. This improves the car's stability, particularly on snow and ice, as well as on wet or slippery roads.

The LOW TRAC light on the instrument panel flashes when traction control is controlling wheel spin, indicating that the car is now in a critical situation. In addition, if the car has a V8 engine, traction control, when activated, provides feedback to the driver by pulsing the accelerator pedal.



Traction control helps you to keep control of the car and reminds you to match your speed to the road conditions. Do not, however, let this special safety feature tempt you into taking risks when driving. Traffic safety can only be achieved by adopting a responsible driving style.

Traction control is automatically turned on whenever the ignition is turned from off to on. To check that the bulbs are working, the TRAC OFF and LOW TRAC lights on the instrument panel light up for a few seconds when the ignition is switched on. Pressing the TRAC CTRL button switches the system off, pressing the button again switches the system on. If the TRAC OFF warning light does not light up when the button is pressed, or if it comes on during driving, a fault is indicated in the system and traction control is no longer operational. You should contact your Holden Dealer.

In certain circumstances where slippage of the driving wheels is desired, it may be helpful to disable the traction control system. For example, in some circumstances, particularly on steep gravel inclines, or if the car is bogged, it may be possible to get more traction from a slightly spinning wheel. **In addition, whenever snow chains are fitted, the traction control system should be turned off.** This is achieved by pressing the TRAC CTRL button. The TRAC OFF warning light then lights up to show that traction control is no longer operational. The system can be switched on again by pressing the TRAC CTRL, or when the ignition is next turned on.

#### **CAUTION WITH V6 ENGINE ONLY:**

The traction control system can take up to 3 minutes to warm up if the outside temperature is low and the engine is cold.

On cold days the traction control system initially provides braking to reduce wheel spin. As soon as the engine starts to warm up the traction control system also reduces engine power if the wheels start to spin. The colder the day the longer this will take.

Owners should use caution when starting a car in cold conditions and on road surfaces that offer poor traction, e.g., starting the car on a cold morning and driving on a slippery surface.

#### **WARNING:**

LPG and Traction Control are incompatible. If the car is fitted with a Holden approved LPG system, by Holden or by a Holden authorised LPG fitter then Traction Control will automatically be switched off when the car is running on LPG, indicated by the TRAC OFF light on the instrument panel illuminating.

***A.B.S. (if fitted)***

ABS (Anti-lock Brake System) is in addition to your car's normal brake system. It prevents the wheels from locking up when braking, irrespective of the road conditions and tyre grip. It starts to regulate the braking as soon as a wheel shows a tendency to lock. The car remains steerable, even in the event of panic braking, for instance on bends or when swerving to avoid an obstacle.

Maximum braking is provided for each wheel, up to the point where it would lock. This means that steering control is retained.

In an emergency braking situation, the driver should keep full force on the brake pedal, without 'pumping' the brake pedal. 'Pumping' the brake pedal can reduce brake efficiency when ABS is controlling the braking.

DO NOT let this special safety feature tempt you into taking risks when driving. Traffic safety can only be achieved by safe driving. Your speed should always be adjusted to suit road and traffic conditions.

An ABS OFF warning light is provided in the gauges. To check that the bulb is working, the light comes on for a few seconds when the ignition is turned on. If this symbol is displayed when driving a malfunction of the ABS system is indicated. Remember, however, that this only means that the ABS's 'no lock' assistance is not operating, your car's conventional brake system still operates normally.

When your car is in a critical braking condition ABS makes itself noticeable through pulsing of the brake pedal and the noise of the regulation process, thereby reminding you to match your speed to the road conditions, even though it is keeping control of the braking.

The ABS system performs a self check each time the car is driven. This can sometimes be heard as well as felt, as pulsing, through the brake pedal.





## **DRIVING PRECAUTIONS**

### **"Running in"**

These days, there's no need to follow a formal running-in schedule. However, by observing a few simple precautions during the first few hundred kilometres of driving you will greatly assist your car's future performance and economy.

For the first 500 kilometres avoid using heavy acceleration.

Up to 1,500 kilometres avoid driving at any one speed - either slow or fast - for any length of time. Therefore, avoid using the cruise control (if fitted) while "running-in". However, include some higher speeds during this period. Always drive at moderate speed until the engine has completely warmed up.

It is best to drive your new car for 1,500 km before towing a load. If you must tow before this do not exceed 80 km/h. The same applies if you have a new or reconditioned engine, transmission or rear axle.

### **Engine misfire warning**

Reduce speed and do not tow a caravan or trailer until the misfiring is corrected at the nearest Holden Dealer. Otherwise, the catalytic converter and exhaust system may overheat, resulting in car damage.

### **Brakes**

- The power assisted brakes fitted to your car use vacuum from the engine when it is running. Therefore, never let the car run down hills with the engine off, or coast after switching the engine off.
- Your seat should be positioned so that you can push the brake pedal easily. Nothing should be under the brake pedal which could limit pedal travel, for-instance, poorly fitting floor mats.
- Consistent, heavy use will shorten the life of the brake pads.

### **Power steering**

The power assisted steering fitted to your car has been designed to reduce steering effort. Care should be taken not to hold the steering wheel fully turned when stationary (i.e., when waiting before turning a corner, etc.) as this creates high operating temperatures and pressures within the system.

If power assistance for the steering isn't working, due to the engine stalling etc., the car can still be steered. However, due to the much greater effort required to steer, it is recommended that you have the problem fixed promptly.

### **Loose articles**

Do not leave loose articles or luggage in the passenger compartment. Whenever possible, stow articles in the luggage compartment. For wagons, loads stowed in the luggage area should be firmly secured.

**DRIVING PRECAUTION cont.****Mobile phones and CB radios**

Mobile phones and CB radio equipment, which use an integrated antenna, may temporarily affect the car's electronics (permanent damage is unlikely) when used inside the car, due to the interference created when transmitting.

Therefore, mobile phones and CB equipment that use an antenna fitted to the outside of the car should be used whenever possible, also refer page 1-30.

If phones or CBs with an integrated antenna *must* be used inside the car, avoid using near the dashboard area, as some functions may be affected.

**Water crossing**

Before crossing water it is recommended that air conditioning be switched off.

Crossing deep water could damage the engine. It is recommended that the water depth be no more than 175 mm and speed be limited to a walking pace. Brakes may then need drying out: lightly apply the brakes while maintaining a slow forward speed, with a clear area ahead, until brake performance returns to normal.

**Tyre grip**

A decrease in tyre grip occurs when water, snow, ice, gravel or other materials are on the road. Driving speed should be adjusted to the road conditions.

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tyre and road surface. This phenomenon, known as hydroplaning, may cause partial or complete loss of grip, which affects steering and braking. To reduce the possibility of hydroplaning:

- Reduce speeds during rainstorms.
- Replace tyres when tread wear indicators are visible.
- Regularly check that tyres are properly inflated.

## **ADD ON EQUIPMENT**

### **Snow chains**

Due to lack of clearance, snow chains cannot be fitted to the 16" wheel rims that are built with S models and 17" rims that are built with SS models. If snow chains are required then the wheels and tyres should be changed to 15" rims with 205/65 tyres. Calais models are also built with 16" rims, but due to different model design there is clearance for fitting snow chains. However, if the Calais is often driven in snow, the owner should consider changing to 15" rims with 205/65 tyres to improve vehicle handling.

Snow chains should be fitted only on the rear (drive) wheels.

Depending on design, large hub caps may contact parts of the chain. If so, remove the hub caps. Any valve extensions should also be removed.

Snow chains may only be used at speeds up to 50 km/h. Snow chains should only be used for short distances if the roads are not snow covered. The hard road surface causes rapid wear and the chain may break.

Snow chains links should not be thicker than 13mm and the clasp should be well away from sheet metal. Thicker chains may damage the car body.

Ensure that tyre pressures are as recommended on the tyre placard.

### **Mud flaps**

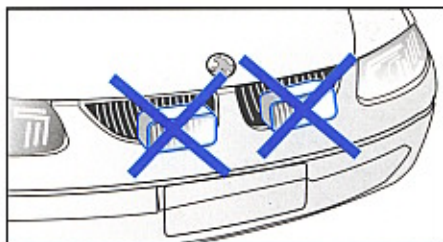
Mud flaps should be fitted if the car is driven extensively on unsealed roads.

**CAUTION:** Care should be taken when reversing to avoid trapping a mudflap between a tyre and a gutter.

### **Fitting driving lights, insect screens**

When fitting these accessories be careful not to restrict air flow otherwise engine overheating and/or poor air conditioning performance may result.

Nothing should be fitted over the upper or lower air intakes at the front of the car, as this could affect engine cooling.



### **Fitting roo bars**

If a roo bar is to be fitted, it is critical that the Holden approved roo bar be used. Other types must not be fitted. The Holden roo bar is available from your Holden Dealer, and has been compatibility tested with the car's design, including the Holden air bag system. Fitting other types of roo bars may affect crash performance, air bag performance and engine cooling.

Roo bars should not be fitted to cars operating in suburban areas, as they increase the risk of injury to a pedestrian in the event of a collision. Roo bars are only recommended for country/outback areas, where additional protection from straying animals is required. Please remember that defensive driving and limiting driving speed to the road conditions is always the best approach, particularly where road side signs indicate wildlife is abundant.



