### **Owners Handbook**



### Tuscan Tuscan S







#### The Owners Handbook

Thank you for purchasing your TVR Tuscan, we trust that you will enjoy it. The car has been designed and manufactured to be safe, rewarding to drive and have a long life.

Whilst many new customers of TVR may have previously owned high performance vehicles we feel that a few words of caution are necessary.

Your first impression of the Tuscan, we hope, will be one of sophistication and comfort but please be aware of its very high performance. The power to weight ratio coupled with the progressive nature of the power curve can be deceptive. Consequently, it would be wise to gradually acquaint yourself with the abilities of your new car.

For all cars fitted with high performance tyres, there is a much greater difference between the amount of adhesion on dry roads than on a wet or slippery surface compared with normal cars. In addition it is essential you bed the tyres in for approximately. 1000miles.

#### Please drive safely and have fun.

This handbook is designed to help you understand and enjoy the TVR Tuscan by providing detailed information on controls, equipment and general car care.

If there are any queries, or if more information is required please contact your dealer.

TVR do not accept any responsibility for any inaccuracies, errors or omissions contained within this handbook, although every effort has been taken to make it as complete and accurate as possible.

TVR do not accept any liability for any consequential or other losses whatsoever arising as a result of any of the recommendations contained within this handbook, save for any loss or damage arising as a result of the negligence of the company or its employees.

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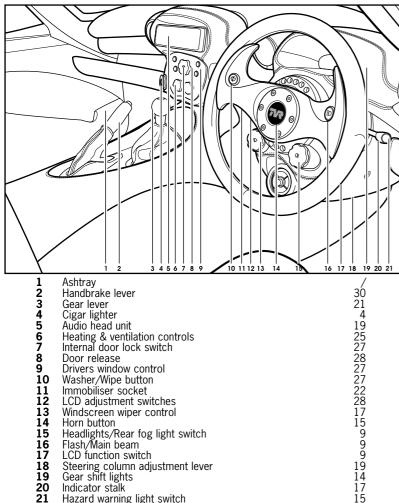
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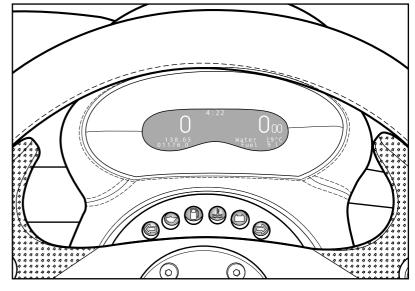




#### 1.1 Dashboard



1.2 Dash Pod Warning Lights





Left turn indicator light Flashes simultaneously with the left hand indicator.



Brake system warning light Illuminates when the handbrake is applied or if the brake fluid level is too low.



**Right turn indicator light** Flashes simultaneously with the right hand indicator.

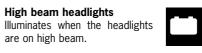
High beam headlights

are on high beam.



**Oil Pressure warning light** Goes out when the engine is started. If the light remains on or comes on while driving, switch off engine immediatly and consult your dealer.

#### Ignition warning light



Goes out when the engine is started. If the light remains on or comes on while driving, switch off engine immediatly and consult your dealer.



#### 1.3 LCD Display in Brief

The LCD screen in the middle of your dash pod has been designed to display selectable information screens.

The information can be accessed by pressing the function switches located on the back of the steering wheel (see page 9).

For information on how to use the LCD screen display see pages 10-15

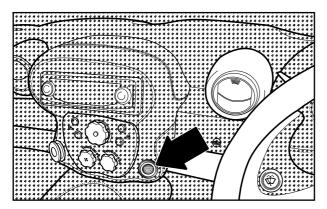
#### Note

The system has a memory function, so when the ignition is switched on, the setup of the last screen displayed, will be shown.

#### 1.4 LCD Warning Screens in Brief

LCD Warning screens have been programmed automatically to override information screens.

#### 1.5 Ignition



1. Press and release the start / stop button. The ignition lights will illuminate and the button will light green.

If the immobiliser is on (if it is more than 10 seconds since you unlocked the car) press the black key fob button once.

**2**. Press and hold the start / stop button for approx 2 seconds until the engine starts then release the button.

#### To restart the car (after stalling for example) repeat the last step.

**3**. To stop the car press and release the start / stop button.



#### 1.6 Starting the Engine

- 1 Apply the handbrake and insert the immobilser key into the lock situated on the side of the centre pod.
- **2** Depress the clutch pedal. Put the gear lever into neutral.
- **3** Press and release the start / stop button. The ignition lights will illuminate and the button will light green.

If the immobiliser is on (if it is more than 10 seconds since you unlocked the car) press the black key fob button once.

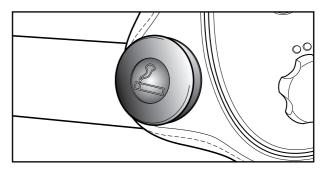
- **4** Press and hold the start / stop button for approx 2 seconds until the engine starts then release the button. The engine will start (minimal use of the throttle pedal may be needed during the engine start sequence.)
- **6** To stop the car press and release the start / stop button.

IMPORTANT: Where necessary only short repeated engine cranking periods should be used, as long cranking periods cause unnecessary wear to the starter motor and causes unburnt fuel to be deposited into the catalyst/exhaust system.

#### 1.7 Horn

Press the centre of the steering wheel to sound the horn. The horn works independently of the ignition being switched on.

1.8 Cigar Lighter



The cigar lighter is located on the centre console. To operate, fully depress the button to heat the element. The button will eject back to its original position when ready for use (after approximately ten seconds). Withdraw the complete unit to reveal the element.





#### 1.9 Running In

The purpose of running in is to allow the new engine components to bed in correctly. To gain maximum performance, service life and general reliability, the best policy to adopt during the run in period is to avoid high engine rpm and large throttle openings but most importantly, not allowing the engine to labour in a high gear.

#### Recommended rpm during the running in period

Starting the engine from cold. 0-1000 miles, rpm should not exceed 2500 rpm until the engine is warm.

- 1. 0-250 miles, max rpm should not exceed 3500 rpm even when the engine is warm.
- 250-1000 miles, Although it is important to avoid full throttle or over 4,000 rpm during the first 1,000 miles, occasional bursts (c.5 seconds) of 75% throttle up to 4,000 rpm, will help to bed the piston rings in.
- 3. **Do not** use full throttle accelerations in low gear for at least 1000 miles and avoid full throttle use in any gear for the first 250 miles
- 4. Avoid driving at a constant speed within the first 300 miles.

Most importantly, drive fairly normally. Being too gentle with an engine when running in can be as bad as being too rough.

#### Mechanical sympathy from cold (after the running in period)

When starting, do not rev the engine. Make sure that you do not apply more than a tiny bit of throttle while cranking the engine and then lift off as soon as it fires. Then try to avoid more than 3,000 rpm until the oil (not water) temperature has exceeded 40°C, 4,000 rpm until 60°C and 7,000 rpm until 80°C. If it climbs above 110°C, please keep the revs below 5,000 rpm until the oil temperature returns to normal.

#### 1.10 Tyres

To obtain the maximum performance from the tyres it is advisable to avoid excessive braking and cornering whenever possible during the 0-500 mile period.

#### 1.11 Brakes

To bed the brake pads in correctly, avoid excessive braking during the first 500 miles, unless required to do so in an emergency.

#### 1.12 Doors - Opening from the outside

As with other TVR models the door release button has been fitted to the underneath of the door mirror. To enter the vehicle press the release button, the side window will drop and the door will be released from its catch.

#### 1.13 Refuelling

The fuel filler cap is located in the boot, next to the left boot hinge. Push down and twist the cap anti-clockwise.

Please note: Any petrol spilt onto the paint work should be washed off immediately to prevent staining.

#### 1.14 Fuel Type

The TVR Tuscan is designed to run exclusively on unleaded fuel.

Please note: It is fitted with a narrow fuel filler neck, making it compatible for unleaded fuel pumps only.

For normal everyday use -	Super unleaded 98 Ron or Premium unleaded 95 Ron
For track use -	Super unleaded 98 Ron
TB	

1.15 Tyre Pressures

See page 60

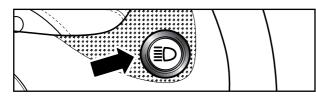
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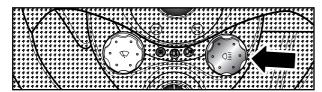
Dash Pod

2.1 Main Beam/Flash (Steering Wheel Button)



When the headlights are off - press the button to flash the main and dipped beam. The lights will remain on as long as the button is depressed. When the dipped headlights are on - press the button to activate main beam. Press again to return to dipped beam.

#### 2.2 Headlight/Fog Light Switch



To activate the lights - rotate the switch clockwise

Position 1. sidelights

**Position 2.** dipped headlights

Position 3. dipped headlights and Rear fog lights

Please note: take care not to rotate the switch too far when switching the lights on accidentally activating the rear fog lights. There is a warning light illuminated when the rear fog lights are on. Only use rear fog lights in dense fog.

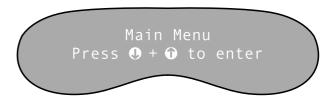
2.3 LCD Function Switches





Located on the back of the steering wheel spokes (inboard) . These switches enable you to access and alter the different information screens on the LCD display (left = down, right = up).

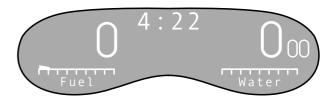
#### 2.4 LCD Display Information



#### Screen 1

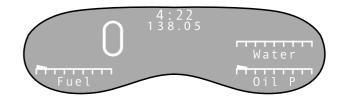
Due to the memory feature when the ignition is turned on the screen displayed will be the same one that was selected when the ignition was turned off (so the above screen may not be the one shown).

Instrumentation **Tuscan** 



#### Screen 2

To cycle through the screens use the up and down LCD function switches (page 9).



#### Screen 3

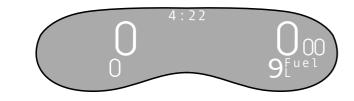
From this screen the trip can be reset by pressing both function switches simultaneously.





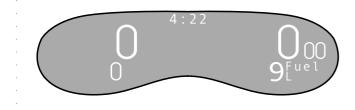


#### 2.4 LCD Display Information



#### Screen 4

Changes the right side of the screen to show a selected parameter magnified.



#### Screen 4 continued

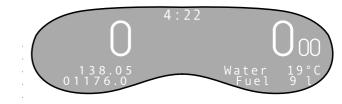
To change the parameter shown on the right side of the screen press both function switches simultaneously, to enter the select mode. **Select>** will appear on the display.

Whilst **Select**> is shown in the display, use the up and down function switches to cycle through the various parameters.

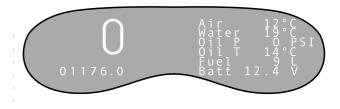
KMH -> Oil Temperature -> Water Temperature -> Outside Air Temperature -> Fuel Level -> Oil Pressure -> Volts -> RPM.

To accept the required parameter (and leave the select mode), again press both function switches simultaneously

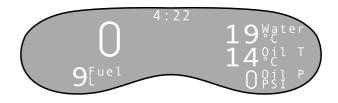
2.4 LCD Display Information



Screen 5 Shows MPH, Mileage and Temperatures



Screen 6 Shows MPH and Temperatures



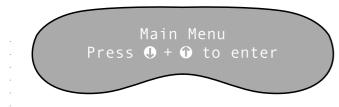
<u>Screen 7</u> Shows MPH, Fuel and Temperatures



#### 2.4 LCD Display Information



<u>Screen 8</u> Shows MPH, Fuel and Temperatures



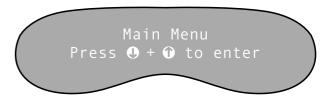
Screen 1 Main Menu Enter screen. Press both function switches simultaneously to enter the Main Menu. 2.4 LCD Display Information



#### Main Menu Continued

2. 3. 4. 5. 6.	Normal Setup Recall Sports Heater Service	The 5 driving screens. To adjust display settings & set the clock. Optional track pack, not yet available. Optional track pack, not yet available. Temperature adjustment in percentage Not used. Dealer functions.
7.	Service Factory	Dealer functions. Factory use.

Use the up and down function switches to scroll the arrow (>) to the desired position, then press both switches simultaneously to select.

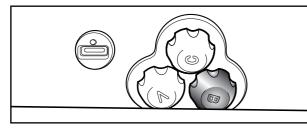


To return to the Main Menu press both function switches simultaneously.

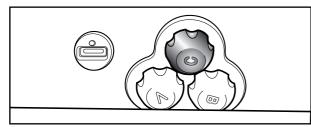


2.5 LCD Adjustment

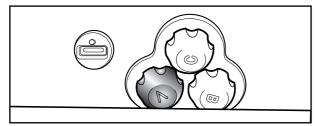
**Contrast, Volume and Brightness Controls** 



The 3 switches are for secondary adjustment of the dashboard contrast and brightness and the warning bleeper. They work with and depending on the settings in the electronic dash eg if the bleeper volume is set to 100% in the digital dash then the 'V' switch will adjust the volume from 0% to 100%. It is therefore recommended to have the digital dash set to 100%.



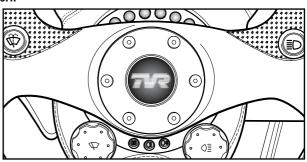
**Contrast Switch** 



Volume Switch

#### 2.6 LCD Warning Screens

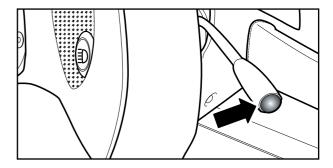
Critical warning screens have been programmed to automatically override normal information screens. These will show warnings such as, Low Fuel, EFI Faults, Oil Pressure, Oil Temperature, Water Temperature, etc. As well as the warning screen, the dash buzzer will sound. 2.7 Horn



Press the centre of the steering wheel to sound the horn. The horn works independently of the ignition being switched on.

Instrumentation *Inscan* 

#### 2.8 Hazard Warning Lights

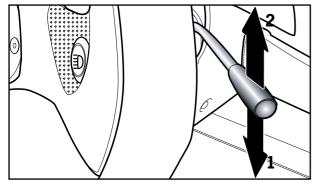


Should the vehicle become immobile or present a hazard to other road users, indicators may be operated in unison as a hazard warning. Depress button on the end of the indicator stalk to activate the hazard warning lights. Depress the button once again to deactivate the hazard warning lights.





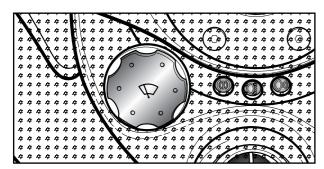
#### 2.9 Turn indicator Stalk



**Position 1.** Right hand turn indicator. **Position 2.** Left hand turn indicator.

If the indicator warning light flashes more frequently than normally a bulb has blown.

#### 2.10 Windscreen Wipers



To activate the windscreen wipers - rotate the switch clockwise

Position 1.	intermittent wipe ( the wiper delay can be adjusted with the
wiper	speed switch)
Position 2.	normal wipe
D	

Position 3. fast wipe

To switch the wipers off - rotate the switch anticlockwise.

#### 2.11 Windscreen washers / flick wipe

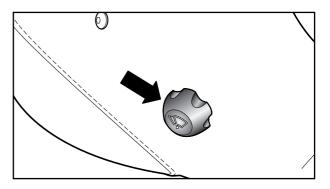
This button is located on the steering wheel For a single wipe - press and release the button.

To activate the windscreen washers - press and hold the steering wheel button, this will activate the windscreen wipers and washers, the washers will remain on as long as the button is pressed.

Instrumentation *Tuscan* 

Once the button is released the washers will stop. The wipers will finish the cycle they are on and will continue for a further cycle.

#### 2.12 Intermittent Wipe Speed



Your Tuscan has been fitted with a intermittent wipe speed controller. This switch allows you to alter the speed of the intermittent wipe. The switch is located on the left hand side of the steering column and will alter the wipe delay from approx. 3 sec to approx. 9 seconds.

#### 2.13 Dashboard Buzzer

A buzzer has been fitted to your Tuscan, which will sound when any of the following warnings occur:-

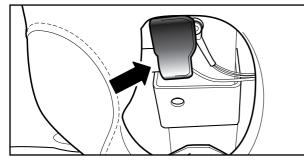
Indicator Warning Lights
Low brake fluid
EFI fault
Oil Pressure
Water/Oil Temperature
Gear Shift

Please Note: The volume can be increased or decreased via the LCD Display Controls (page 15).



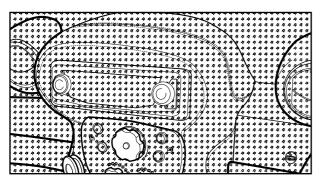


#### 2.14 Steering Column Adjustment Lever



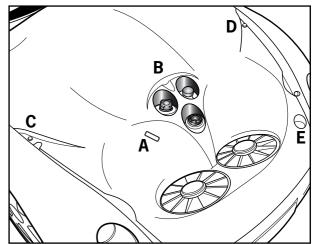
Located on the left hand side of the steering column a lever is available to adjust the height of the steering wheel. Pull the lever towards you to release the column and adjust to the required position. Release the lever to secure the column. **WARNING: Do not adjust the steering column whilst driving.** 

#### 2.15 Stereo Radio CD



For detailed operating instructions please see the enclosed manufacturers instruction manual.

2.16 Bonnet Release



The Tuscan bonnet panel has been designed in two sections. To make general maintenance easier for you, the lower section is the only part you will need access to. This lower bonnet will give access to all the necessary filler caps needed for general maintenance. To open the minor bonnet the following should be followed:

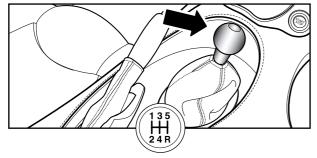
- (A) To locate the release handle reach behind the o/s minor bonnet. The handle is located next to the cooling system reservoir cap.(A)
- (B) Unlock, and pull lever to release the centre bonnet latch.(B)
- (C) Next unclip the o/s ball socket (C)
- (D) Then unclip the n/s ball socket (D)
- (E) Remove the bonnet stay from its clip and locate the socket on to its retaining ball joint.

WARNING: To avoid damage to your vehicles paint work please ensure the above procedure is followed and reversed to close the bonnet.



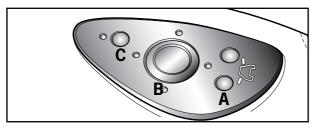
## Instrumentation *Tuscan*

#### 2.17 Gear Lever



Always select neutral before starting the engine. To engage reverse gear smoothly, we recommend that you select fifth gear and then pull back into reverse. **WARNING: Only engage reverse whilst the car is stationary.** 

#### 2.18 Door Mirror Adjustment/Demist



The Door Mirror Adjustment/Demist control panel is located on the drivers door. This panel controls both the movement of the door mirror as well as the demist function.

To adjust the position, first select the mirror to be adjusted by pushing either of the two small buttons (A). Switch to the left button to adjust the left hand side door mirror or to the right button to adjust the right hand side door mirror. Swivel the central button (B) to move the mirror until the required position is achieved. To activate the demist function simply depress the button(C) once. A red LED will illuminate to indicate this function is active.

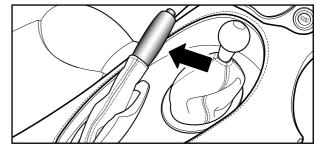
#### Please Note: The demist function will activate for 3 minutes.

To lock - press both left & right mirror select buttons.

To unlock - Press & hold the desired mirror button.

Please note: When the ignition is activated the mirrors lock.

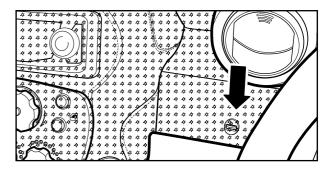
#### 2.19 Handbrake



To apply the handbrake pull the handle upwards while depressing the button at the end of the lever. Release the button at the end of the lever's travel. When the lever is in this position the rear brakes are on. To release, press the button and lower the lever to its lowest position. A warning light on the dashpod will illuminate when the handbrake is on.

Please note that it is inadvisable to use the handbrake after severe track use until the brakes have cooled down. Please also note that we recommend leaving the car in gear, turning the wheels towards the kerb and pulling the handbrake on fully after fast road use as the handbrake can slacken slightly as the brakes cool.

#### 2.20 Immobiliser Disarm Socket



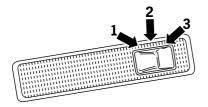
On entering the vehicle, the contact key should be inserted into the override key socket mounted to the left of the dash pod. The small LED will be flashing to show the vehicle is immobilised. On insertion and removal of the contact key, the LED will be extinguished. The vehicle can now be started.

**Note:** The above is only for use when there is a fault with the key fob (if immobilised switch ignition on, and press the button on the key fob).





#### 2.21 Interior light

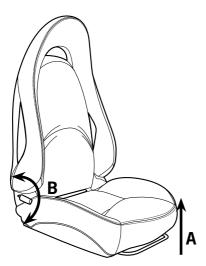


The interior light is located in the centre of the rear header rail.

- Position 1. Light will remain permanently off.
- **Position 2.** Light will come on when drivers or passenger door is open. After closing the doors the light will remain lit for approx. 15 seconds or until the windows have closed.
- **Position 3.** Light will remain permanently on.

Please note: Activating the ignition will cancel the interior light. On disarming the alarm (with your key fob) the interior light will illuminate for 20 seconds. Switching on the ignition will cancel the light. The interior lights work independently from the ignition.

#### 2.22 Seat Adjustments



#### Seat Adjustments cont.

#### Seat Slide

To adjust the fore/aft position of the seat, pull the lever located beneath the front of the seat (A) upwards, thus releasing the slider. Slide the seat to the required position. Release the lever and rock the seat to ensure the locking mechanism has engaged.

#### Seat Reclining

To adjust the angle of the backrest, lift the lever located on the outer edge of the seat by the pivot point (B). Tilt the backrest to the required angle. Release the lever and ensure that the locking mechanism has engaged.

#### Lumbar Support

To adjust the lumbar support in the backrest use the pump located on the inner side of the seat to inflate the support. To reduce the lumber support given, press the button on the end of the pump to deflate the support.

#### 2.23 Seat Belts

When fastening your seat belt please ensure that it isn't obstructed in any way before clicking in the catch. Please ensure that the catch clicks in correctly. When releasing the belt press the red button on the catch, the belt may need to be guided back to assist the reel, make sure the belt is fully retracted before leaving the vehicle. Clean the seat belt webbing using soapy water.

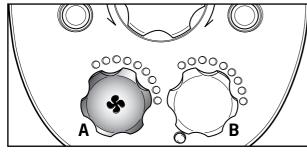
WARNING: Use only soapy water and not solvents or abrasives to clean the webbing.

TVR seat belts are intentionally set to lock easier than those of conventional road cars in order to mime the action of racing harnesses. However, this can mean that it can be difficult to pull the belt out when the car is parked nose down or on a lateral slope.



### Instrumentation **Tuscan**

#### 2.24 Demist & Temp Controls



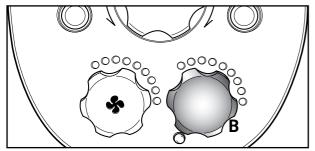
The demist and temperature switches are located on a small aluminium control panel, in the centre of the dashboard

#### Fan Control (A)

To turn the fan "on" press switch (A) once. To turn "off" press once again. At least one of the LED's above the fan control switch will then illuminate to indicate the system has been activated. To increase the fan speed/air flow into the cabin, simply rotate the control switch clockwise, to reduce rotate anti-clockwise. The speed of the fan will be shown by the number of LED's lit.

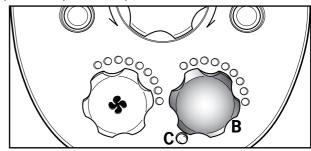
Please note: As a guide, each LED represents a change in the fan speed of approx. 10%

#### 2.25 A/C Temperature Adjustment Switch (B)



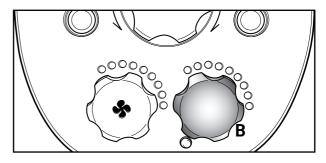
Switch B located on the aluminium panel controls the Air-Con and cabin temperature adjustment.

#### A/C Control (where fitted)



The first function of this second switch is to control the Air-Con System. To switch "on" depress switch (B) once. When the system has been activated the large blue LED (C) next to the switch will illuminate. To turn "off" depress switch again.

#### Air Temperature Blend



To adjust the air temperature into the cabin turn the switch (B), anti-clockwise for colder air and clockwise for warmer air.

Fully anti-clockwise (a lit blue LED) indicates 100% cold air. As the switch is rotated clockwise the system will slowly mix in more warmer air until fully clockwise (a lit red LED) which represents full 100% hot air.

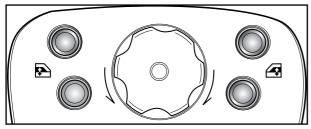
A visual feedback of coloured LED's represents the amount of hot/cold air blend occurring between the full hot and full cold positions on the dial.

Please note: The fan motor will pause whilst the air temperature flap moves to its new position.



### Instrumentation **Tusca**

#### 2.26 Window Position



The window position switches are located on the centre panel, either side of the door release control.

To adjust the window position press the bottom switch to drop the level and top switch to raise the window level.

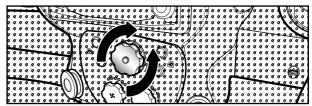
The window glass has been designed to drop a predetermined distance before the door opens. This movement is to ensure the window glass does not foul the 'A'post. The window will return to its original position on closing the door. On arming the alarm the windows will automatically close. To prevent your keys being locked in the vehicle, if the doors are open and the alarm is armed the windows will not raise and the door will not lock. The doors must be shut properly and the alarm disarmed and rearmed.

#### 2.27 Internal Door Lock Switch

The button in the centre of this switch is to operate the central locking while in the car. Pressing this button will arm the central locking system. Depressing the button again will disarm the central locking system.

Please note: Arming or disarming the alarm will clear any internal lock command to both doors.

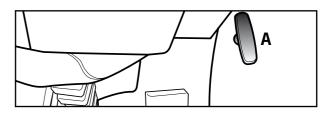
2.28 Door Release



To open the doors from inside the car - rotate the large round switch in the centre dash, clockwise for the drivers door and anti-clockwise for the passenger door. The button in the centre of this switch is to operate the central locking while in the car.

Please Note: For your safety these door switches become inoperable once the vehicle is in motion. When opening the door take care in high winds and when parked on a slope as the door will pop open slightly. If the doors have previously been locked internally pressing the inner door release will unlock them.

2.29 Emergency Door Release



Should the door release switches become inoperable, there is a manual override facility that can be used in an emergency. These manual override release handles are located under the dash panel on the outer sides of the footwells and forward of the door apertures.(A) To open the door, pull the handle backwards.

#### 2.30 Keys

There are no door keys with your Tuscan, see page 33 about the alarm.





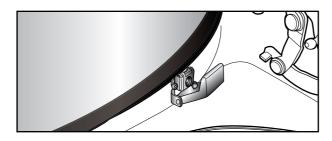
#### **Roof Panel & Rear Screen**

The roof and the rear screen have been uniquely designed to be removable and stow in your boot compartment.

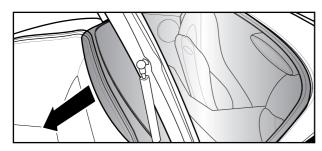
You have the option of either removing the roof and/or the rear screen.

IMPORTANT: When removing either of these panels the following instructions must be adhered to.

#### 2.31 Rear screen



(A) Open the boot compartment.



- (B) Unclip the rear screen securing clamps by turning the catch 1/4 turn anti-clockwise.
- (C) Holding the screen at its base slide the panel backwards towards the boot compartment until the tongue at the top of the screen has cleared its locating groove.
- (D) It will now be possible to lift the rear screen panel from the vehicle
- (E) Before stowing in the boot compartment,on top of the roof panel, place the screen in the vinyl pouch provided.
- (F) To replace the rear screen panel reverse the outlined procedure ensuring the securing clamps are fastened tightly.

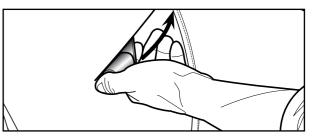
#### 2.32 Roof panel removal

(A) Before leaving the car, release the front centre catch.
Pull back the handle from the bottom and the clasp will release.
To replace

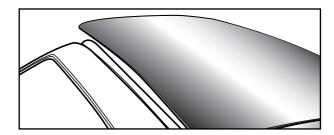
When the roof panel is back in position and the 2 boot handles are back in the locked position, get into the car and hook the clasp back on and push the handle home.



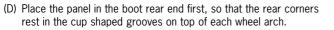
(B) Open the boot compartment. Pull the handle upwards to disengage the roof securing pins.

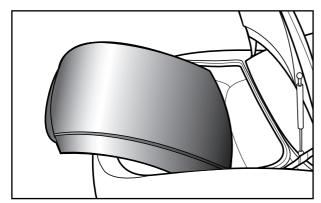


(C) Lift the roof panel, rear end first, from the vehicle.

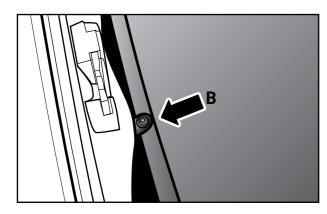




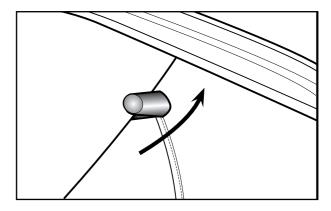




(E) Seat the notch in the middle of the roof flange onto the peg in front of the boot catch.(B)

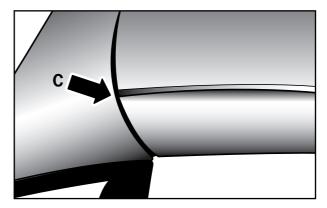


(F) When replacing the roof panel lift the handles to retract the locating pins **before** seating each rear corner.



Instrumentation *Tuscan* 

(G) Apply pressure to the rear of the roof panel as you re-engage the locking pins. Visually check that the pins are located fully.(C) If the roof is not refitted properly, water ingress can occur.



Warning:

After refitting the roof panel, ensure that the roof locking pins and the release handles are engaged and in the locked position.



#### **Alarm System**

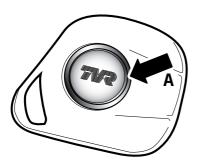
#### 2.33 Alarm & locking

The alarm System installed in your vehicle has been designed to provide optimum protection at all times. The system uses a contact key and a Rolling code radio key which never uses the same code twice and is therefore code grabber proof. The alarm and the immobiliser systems of the car are linked but run on different circuits to prevent total alarm/immobiliser failure.

#### Operation of the alarm system

On arming your alarm the immobiliser will instantly activate. 8 seconds after the ignition is switched off the immobiliser will always arm (even if you do not exit the vehicle) but the alarm will not arm. If you wish to drive the vehicle then simply press the button on the radiokey for less than two seconds or insert the contact key, to switch off the immobiliser.

#### 2.34 Locking & using your radiokey



Exit the vehicle, press the button on the radiokey (A) once for two seconds, and release. Your car will acknowledge the signal by flashing its hazards lights twice and activating the immobiliser. Your alarm is now armed but, an additional 30 seconds is required for the motion detector to stabilise and become active. A red warning light mounted in the door mirror adjustment panel will begin to flash to act as a visual deterrent.



#### **Unlocking & Disarming the alarm**

As you approach the vehicle, press the button on the radiokey. The vehicle will acknowledge the signal by flashing its hazard warning lights once and unlocking the doors. Once unlocked, to gain entry to the vehicle, press the exterior door release button located under the door mirror.

Please note: If you do not turn the ignition on within 8 seconds of disarming the alarm, the immobiliser will become active.

#### Electronic contact key operation

To show that the vehicle is immobilised a small LED on the immobiliser disarm socket will flash. Before turning the ignition insert the contact key into the socket, on removal the LED will be extinguished to show that the immobiliser has been turned off. The vehicle can then be started.

Please note: If the ignition is not switched on within 9 seconds the immobiliser will be reset.

#### System diagnostics

The alarm system is capable of indicating whether the alarm has been triggered in your absence. The LED mounted on the door mirror adjustment panel, will flash in one of the following sequences to indicate which circuit triggered the alarm:-

1. Internal sensor	1 flash every 6 seconds
2. Door trigger	2 flashes every 6 seconds
3. Bonnet/Boot trigger	4 flashes every 6 seconds
4. Ignition alarm	8 flashes every 6 seconds

When multiple alarms have been triggered for various reasons, the codes that identify them are indicated in sequence.

	o " o i	~ 7
3.1	Cooling System	37
3.2	Power Steering	38
3.3	Windscreen Washer Reservoir	38
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3.10	Sidelight Replacement	43
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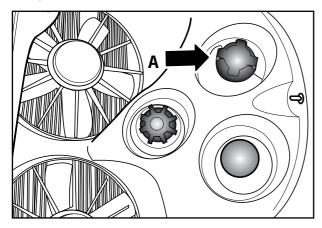


### **Tuscan** Routine Maintenance



All fluid specifications and capacities are listed in the basic data and specifications section.

#### 3.1 Cooling System

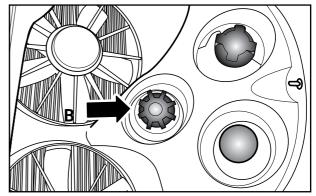


PLEASE NOTE: DO NOT REMOVE THE BLUE PRESSURE CAP ON THE EXPANSION TANK IF THE ENGINE IS HOT. ONLY CHECK THE COOLANT LEVEL WHEN THE ENGINE IS COLD.

To check the coolant level on your Tuscan, remove the blue reservoir cap (A) and check whether the coolant fluid is visible in the filler neck. When the engine is cold, **there should be approx. 10mm of fluid visible within the filler neck.** If there is less then 10mm, top up with a coolant mix of 50% coolant to 50% water.

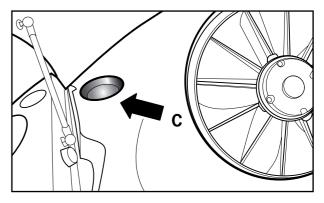
IMPORTANT: Check the coolant level every week.

3.2 Power Steering Fluid



Remove the reservoir cap/dipstick. Check the fluid level is between the top mark on the dipstick and the bottom of the dipstick. Only top up with TVR recommended fluid (see page 59).

#### 3.3 Windscreen Washer Reservoir

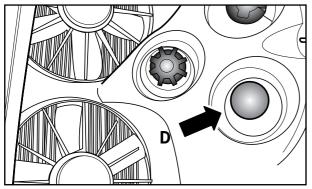


Located at the n/s front of the lower bonnet panel. (C) Refill with a mixture of clean water and windscreen washer fluid.



### Routine Maintenance **Tuscan**

3.4 Engine Oil Dipstick

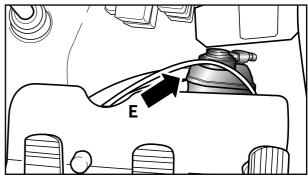


The dipstick on your TVR Tuscan is attached to the cap of the oil tank. (D). Due to the nature of the Speed Six's design, the engine will normally use a small amount of oil. We therefore recommend that the oil level is checked on a daily basis. The oil should always be checked on level ground with the engine switched off. To remove, unscrew the cap (D) in an anti clockwise direction. Pull the dipstick out and wipe clean to ensure a true reading. Re-insert the dipstick and remove once again. The level of oil should read between the min and max marks on the dipstick. Top up with TVR recommended oil (see page 59) if required.

Please note: The oil level should only be checked at operating temperature, immediately after stopping the vehicle. Over filling may cause oil wastage. Running the car with an oil level below the minimum mark could result in considerable damage to the engine. It is important that, once the oil has been checked, the dipstick is securely replaced to avoid oil leakage.

For track Days the oil level should be topped up to the Max mark on the dipstick and an eye should be kept on your oil pressure which should not fall below 35 psi @ 2000rpm.

3.5 Brake/Clutch Fluid Reservoir



A universal Clutch/Brake fluid reservoir has been fitted to your Tuscan. This combined reservoir feeds both the Brake and Clutch systems with fluid. The reservoir is situated in the drivers footwell behind the pedals.(E) The brake system warning light should illuminate if the fluid level falls below the minimum level but the reservoir can also be checked visually if desired. A loss of fluid will only occur due to a leak from either the clutch or brake system.

Please note: If the brake system warning light illuminates at any time other than when the handbrake is applied please consult your dealer. Check that the fluid level is up to the MAX line on the reservoir. Only top up with TVR recommended fluid (see page 59).

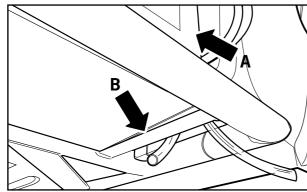
A fluid leak from the clutch system will be indicated by :-

- (A) A reduction of effort required to depress the clutch pedal.
- (B) Impossible gear selection- unable to disengage the clutch when the pedal is depressed.

Due to the reservoir design a clutch fluid leak will not result in brake system failure. TVR recommend that any work carried out on the brake system is completed by an authorised TVR dealer.

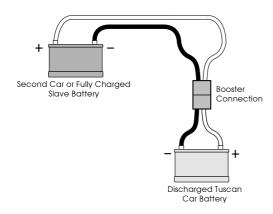


#### 3.6 Battery



The position of the battery in your Tuscan is located directly behind the passenger front wheel.(A) Your Tuscan has been fitted with a jump start/booster port which is located under the forward edge of the passenger side sill (approx. 200mm back from the front wheel arch).(B) This port can be connected to a slave booster battery via a booster lead which is available from your local dealer. Simply connect the lead to the vehicle and the slave battery.

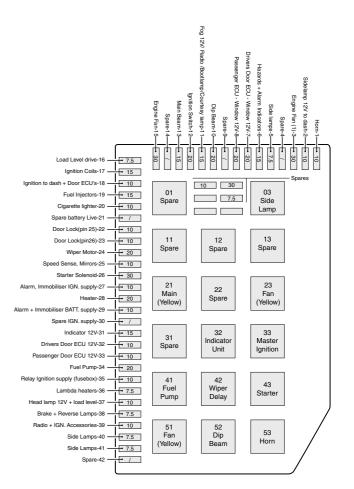
Please note: If charging the battery whilst it is still connected to the car, it is advisable to use a trickle charger giving out no more than 7 amps as a larger amp charger will cause damage to other components.



Routine Maintenance **Tuscan** 

#### 3.7 Fuse and Relay Panel

The fuse and relay panel are located under the steering column on the driver's side footwell.



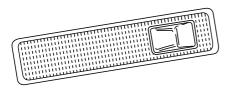




3.8 Bulb Replacement

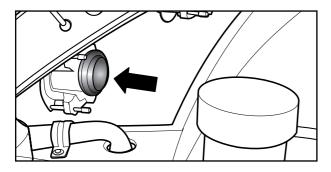
Please Note:. Before attempting to replace any faulty bulbs on the vehicle, the ignition should be switched off.

3.9 Interior Light Bulb Replacement



Insert a screwdriver behind the lens of the interior light and position a rag behind the screwdriver to safeguard against marking the trim surround. Lever the unit out to reveal the bulb. Replace the bulb (for the correct bulb see page 46). Place the assembly back into the aperture and push back into position.

#### 3.10 Sidelight Bulb Replacement



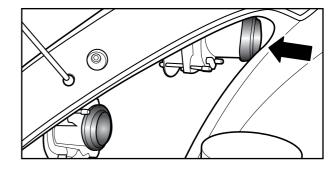
Access to all the front light clusters is gained by firstly removing the upper engine panel. There are  $4 \times 13$ mm nuts and two ball joints which secure the panel to the vehicle. Remove the 13mm nuts first. Then unclip the 2 ball joints which are located at the rear outer edges of the panel. Once all fastenings have been released the bonnet panel can be removed.

Please Note: Two people will be needed to remove the bonnet panel, one on each side of the vehicle.

#### Sidelight Bulb Replacement cont.

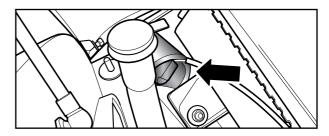
Next remove the inner wing access panel which is secured by 2 Self Tapping screws. Then unclip the bulb from its mounting, disconnect and replace bulb (for the correct bulb see page 46) Refit the bulb and replace access panel and bonnet panel.

#### 3.11 Headlamp/Main Beam Bulb Replacement



Access to the Headlamp bulb can be gained in the same way as with the sidelight bulbs. Once this has been done, locate the bulb, remove the rubber boot, disconnect the wires, unhook the spring retaining clip and remove the bulb. Replace the bulb, refit the spring clip and the access panel. (for the correct bulb see page 46)

#### 3.12 Indicator Bulb Replacement

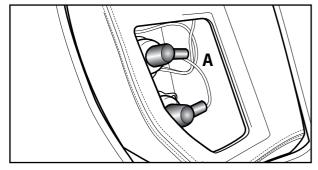


Access to the Indicator bulb can be gained by opening the minor bonnet. The indicator is located in the front grill of the Tuscan. To change the bulb, push and rotate anti-clockwise and the bulb can be removed.



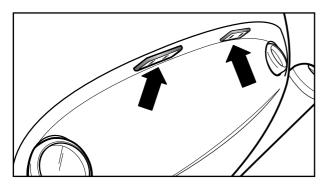
### Routine Maintenance **Tuscan**

#### 3.13 Rear Light Cluster



Access to the rear light cluster is gained by removing the cluster housing cover located on the rear of the boot compartment. The covers are secured by 3 Self Tapping screws. To replace one of the rear bulbs unscrew the light unit housing (A) by turning in a anti-clockwise direction. Replace the faulty bulb and replace the housing unit. The rear fog light and reverse light can be accessed by raising the boot carpet.

#### 3.14 Rear Number Plate Light



There are 2 number plate lights located above the number plate. Undo the 2 screws and remove the lights. Replace the faulty bulb.

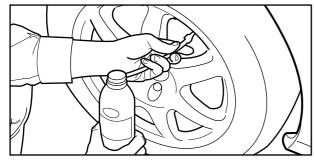
#### 3.15 Bulb Specification Table

Headlamps (dip & main beam) Sidelights (front)	5W
Indicators (Front)	21W
Side Repeaters	
Brake Light/Rear light (rear)	21/5W
Indicators (Rear)	. TVR Sealed LED unit
Number Plate Lights	
Fog Light	
Reversing Light	
Interior Light	5W
Warning Lights	TVR LED's
Gauge Lights - Speedometer/Rev-Cou	unter
Temp/fuel/oil	. TVR Sealed LED unit
Initial Headlamp Beam Setting	
Vehicle Unladen	
Boot Light	10W
5	



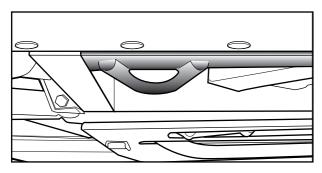


#### 3.16 Puncture Repairs



Due to the impracticality of carrying a full sized wheel and tyre, the Tuscan is provided with a can of puncture repair foam which is intended as a temporary measure only to allow you travel home to have the puncture professionally repaired. Please follow the instructions printed on the can. However, should the puncture be more serious, due to a blowout or impact with a substantial object, this method of repair will not be effective. In this event, the vehicle will need to be recovered.

#### 3.17 Towing the Vehicle

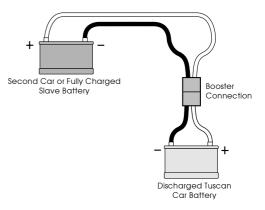


A towing eye is provided on the front of the vehicle for tow rope attachment. If the vehicle is being towed, the ignition switch should be switched on (ignition warning light illuminated). The indicators, horn and brake lights will now also be operational.

The vehicle should not be towed for long distances. The gearbox relies on rotation of the input shaft for lubrication. Towing the vehicle should be limited to mving it to a location for safe recovery only. Towing the Vehicle cont.

Please Note: Assistance from the brake servo will be lost after the first two or three applications of the foot brake. This will increase the force required to depress the brake pedal.

#### 3.18 Starting Using Jump Leads



Your Tuscan has been fitted with a Jump Start/booster Port which is located under the forward edge of the front sill (approx. 200mm in from the front wheel arch). This port can be connected to a slave booster battery via a booster lead which is available from your local dealer.

To jump start the vehicle:-

- 1. Switch off all unnecessary electrical loads.
- 2. Connect the booster lead to vehicle.
- 3. Connect the end of the lead, with the crocodile clip, to the positive (+) terminal on the booster battery.
- 4. Connect the other lead to the negative (-) terminal on the booster battery.
- 5. Start the engine in the vehicle which has the booster battery, allow it to run for a few minutes.
- Start the engine in the vehicle with the flat battery. If it starts and runs smoothly, carefully disconnect the jump leads in reverse order.

Please note: Ensure that one lead does not touch the clamp on the other lead when connecting to the terminals.



#### 3.19 Breakdown Cover

In certain markets the vehicle, when bought from new, receives a 12 month Full Breakdown Cover policy. The policy is applied for by the factory on behalf of the customer, after being notified by the vending dealer of the customers details. Notification of the policy will be forthcoming, with registration card and full details enclosed. Should you require any further details regarding the cover, please contact your dealer.

#### 3.20 Running In

During the first 2000miles, please follow the running in recommendations described on page 12/55 for the future reliability and economy of your new vehicle. Failure to follow these recommendations may result in vehicle damage or shortened engine life.

The benefit of this is a longer trouble free life for the mechanical components. The running-in procedure helps to hold down the lubricants' temperature and consequently the viscosity of the oil is maintained at a higher level than would be case if the component was put on full load and speed without running-in.

To gain maximum performance, service life and general reliability, the best policy to adopt during the running in period is to avoid high engine rpm, large throttle openings, and most importantly, not allowing the engine to labour in a high gear.

#### **Recommended RPM during Running-in Period**

Starting the engine from cold. 0-1000 miles, rpm should not exceed 2500 rpm until the engine is warm.

- 1. 0-250 miles, max rpm should not exceed 3500 rpm even when the engine is warm.
- 250-1000 miles, Although it is important to avoid full throttle or over 4,000 rpm during the first 1,000 miles, occasional bursts (c.5 seconds) of 75% throttle up to 4,000 rpm, will help to bed the piston rings in.
- 3. **Do not** use full throttle accelerations in low gear for at least 1000 miles and avoid full throttle use in any gear for the first 250 miles
- 4. Avoid driving at a constant speed within the first 300 miles.

Most importantly, drive fairly normally. Being too gentle with an engine when running in can be as bad as being too rough.



#### Mechanical sympathy from cold (after the running in period)

When starting, please be careful not to let it rev up straight away. Make sure that you do not give it anything more than a tiny bit of throttle while cranking it over and then lift off as soon as it catches.

Then try to avoid more than 3,000 rpm until the oil (not water) temperature has exceeded  $40^{\circ}$ C, 4,000 rpm until  $60^{\circ}$ C and 7,000 rpm until  $80^{\circ}$ C. If it climbs above  $110^{\circ}$ C, please keep the revs below 5,000 rpm until the oil temperature returns to normal.

#### Tyres

To obtain the maximum performance from the tyres it is advisable to avoid excessive braking and cornering whenever possible, during the 0-500 mile period.

#### Brakes

To bed the brake pads in correctly, avoid excessive braking during the first 500 miles, unless required to do so in an emergency.

#### Petrol Filling

The fuel filler cap is located in the boot, next to the left boot hinge. Press and twist the cap by turning anti-clockwise.

Please note: Any petrol spilt onto the paint work should be washed off immediately to prevent staining. The TVR Tuscan is designed to run exclusively on unleaded fuel and is fitted with a narrow fuel filler neck, making it compatible only for unleaded fuel pumps at petrol stations.

3.21 Cleaning the Vehicle

#### Exterior Cleaning By Hand

The body work can be washed using a mild detergent or specialist car shampoo. A low pressure hose pipe should be used to rinse the vehicle. Specialised cleaners should not be used when cleaning the road wheels.



#### Using a power wash

TVR does not recommend that you power wash any part of your Tuscan. However if you do decide to do so, do not spray the high pressure jet directly at the paintwork, the mirrors, the door release switches, the boot release switches, under the rear wheel arches, directly into the nose or directly at the door/window seals. Do not, under any circumstances, power wash the engine bay, as this will cause serious electrical problems. Please avoid using any wheel cleaner sprays or traffic film remover "solvents".

#### Automatic car wash

The use of automatic car washes is not recommended as the door/window seals are not designed to withstand the direct force of high pressure water jets. Also, the detergents used and the cleaning action of the brushes may damage the paintwork.

#### **Interior Cleaning**

#### Vinyl/Leather

Vinyl and leather should be cleaned with a damp cloth. However, a little mild detergent or proprietary upholstery cleaner may be required to remove ingrained marks. Leather upholstery will benefit from a periodical application of Hide Food.

#### Carpets

Carpets panels should be cleaned regularly with a vacuum cleaner to remove dust and dirt. Mild detergents and warm water may be required to remove any difficult marks or stains.

#### **Flocked panels**

Flocked panels should be cleaned regularly with a vacuum cleaner to remove dust and dirt. A soft brush can be used with mild detergents and warm water to remove any difficult marks or stains.

Please note: Ensure to clean the whole flocked panel not just the marked area. Under no circumstances must wire or stiff brushes be used.



#### 3.22 Checks and Servicing

Recommended Weekly Checks

- 1. All exterior lights
- 2. Coolant level
- 3. Brake fluid level
- 4. Clutch/Power steering fluid
- 5. Windscreen washer bottle
- 6. Tyre pressure
- 7. Visual check for any fluid leaks.

#### **Recommended Daily Checks**

- 1. Oil Level
- 2. Chassis

If for any reason the vehicle is grounded or an object strikes the chassis from below, it is advisable to visually inspect the chassis for signs of damage. If there is damage, the vehicle should be taken to your local dealer for a thorough inspection.

#### Service Intervals

The following are recommended service intervals for the vehicle.

1000 miles 6000 miles 12000 miles 18000 miles 24000 miles 30000 miles 36000 miles

and every 6000 miles thereafter or every twelve months, which ever is reached first.

Please Note: All service work should be carried out by a TVR factory approved service centre.



#### **Catalytic Exhaust Systems**

In conjunction with a highly efficient engine management system designed to work with exhaust catalysts and a fuel tank vapour recovery canister, the catalytic exhaust system is designed to reduce emissions of exhaust gas pollutants and fuel vapour to a level well below the strictest European and Scandinavian legal limits. To maintain the effectiveness of the emission control system the following points should be observed:

1) **NEVER USE LEADED PETROL,** even in an emergency. The emission system will only function correctly on unleaded fuel. Using 4 star or other grades of fuel containing lead will damage the vehicles catalytic converters and exhaust gas oxygen sensors. Replacement of these components is expensive. TVR recommend **95 (RON) octane unleaded**.

# Please note: For high performance driving i.e. Track days 98 (RON) octane (super green) fuel is recommended.

2) Do not allow the car to run out of fuel. An irregular fuel supply, caused by a near empty tank, can cause engine misfires which may damage the catalytic converters.

3) Ensure that the car is regularly serviced by a TVR Dealer or approved service centre. All TVR Dealers have special diagnostic equipment necessary to check for the correct operation of the emission system.

4) Avoid all situations whereby unburnt or partially burnt fuel is allowed to enter the exhaust system. For instance, avoid unnecessarily long engine cranking periods, never run the engine with a sparking plug cap disconnected and do not allow the car to coast in gear with the ignition switched off.

5) It is not advisable to push or tow start the vehicle, especially if the catalysts are hot. If the engine will not start because the battery is flat, use a pair of jump leads and a slave battery. If the engine misfires or seems to lack normal performance it is recommended that you drive, at low engine speeds, to the nearest TVR dealer.

6) Take care when parking the vehicle. The catalytic converters and exhaust system can radiate a considerable amount of heat.

Please Note: The vehicle should not be parked over combustible materials, such as dry grass, leaves or paper.

7) Sealant or other materials should not be applied to the catalysts.

Routine Maintenance **Tuscan** 

#### Seat Belts

Ensure that the seat belt is not obstructed in any way when fitting. The seat belts should be fully retracted before leaving the vehicle. Clean the seat belt webbing using soapy water. **Do not** use solvents or abrasives to clean the webbing.

#### **Brake and Clutch**

Certain brake and clutch components may contain asbestos based material. Precautions must be taken when servicing these components. Avoid any skin contact or inhalation of the dust. Servicing of these components should be carried out by qualified personnel only.

#### **Used Engine Oil**

Prolonged or repeated contact may cause serious skin disorders. Avoid excessive contact, and wash thoroughly after contact.

#### **Environment Protection**

It is illegal to pollute drains, water courses or soil. Use authorised waste disposal facilities to dispose of used engine oil. If in doubt, contact your local authority for advice.

#### Fuel Pump Shut-off Inertia Switch

In the event of an accident the power to the fuel pump is cut off, thereby stopping the supply of fuel to the engine. If the switch has been actuated the EFI warning screen will show on your LCD display.

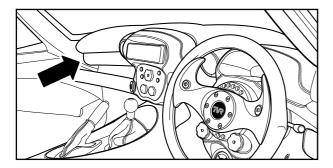




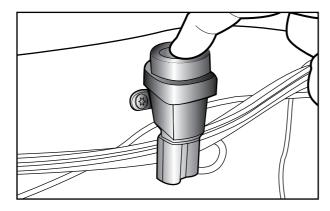
#### 3.23 Resetting the Inertia Switch

The inertia switch on your Tuscan is located on the passenger side of the vehicle.

Situated between the door and console



To reset the inertia please follow the procedure below:-



To reset simply push the rubber button on the top of the switch

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### **Tuscan** Technical Specification

#### 4.1 Oils and Lubricants

#### Engine

Engine	
Running in to 1000 miles	
Carlube Triple R 10W- 40 Semi-Synthetic	11 litres first fill
From 1000 miles - 6000 miles	
Carlube Triple R 10W- 40 Semi-Synthetic	8 litres max
6000 miles on	
Carlube Triple R 5W- 40 Fully Synthetic	8 litres max
Gearbox	
Carlube ATF-Q3	1.4 litres
Differential	
Mobil SHC 80W 140 ID	1.6 litres
Cooling System	
CarPlan Blue Star/ CarPlan Five Star Long-lif	e 12 litres
Brakes and Clutch	
Carlube DOT 4 Synthetic Brake Fluid	
C.V. Joints	
Carlube Molybdenum Grease No.2	
Power Steering	
Carlube ATF-Q3	
•	

**Please note:** TVR use and recommend Carlube products. Failure to use these products could effect vehicle performance and reliability and may also invalidate the warranty.

#### 4.2 Bodyshell

Two seat two door convertible manufactured in glass fibre reinforced polyester resin. Laminated sundym windscreen with frameless electrically operated door windows. One piece removable roof panel and removable rear screen.

#### 4.3 Interior

Half hide interior with individually reclining front seats trimmed in leather. Full Hide interior trim is available as an option, Features, column mounted multi function digital dash display, giving comprehensive vehicle information. Floor mounted pedal box, that is dealer adjustable to fit the individual driver.

#### 4.4 Chassis

Jig formed multi tubular steel frame chassis, phosphated and powder coated for corrosion resistance.

### Technical Specification *Tuscan*

#### 4.5 Suspension

- Front Independent. Comprising double wishbones and coil over gas dampers assisted by an anti-roll bar.
- **Rear** Independent. Comprising double wishbones and coil over gas dampers assisted by an anti-roll bar.

#### 4.6 Braking

Servo assisted with front/rear split dual circuits. Cable operated handbrake operating on the rear.

- **Front** 304 mm (322mm-Tuscan S)diameter ventilated front disc brakes with 4 piston alloy callipers.
- **Rear** 282 mm (298mm-Tuscan S)diameter ventilated rear discs with single piston sliding calliper.

#### 4.7 Steering

Power assisted rack and pinion steering with rake and reach adjustable steering column. 350 mm leather covered steering wheel.

#### 4.8 Wheels and Tyres

16 inch aluminium alloy wheels 225/50 ZR16 tyres front 225/55 ZR16 tyres rear

Tuscan (with optional 18 inch wheels) 235/40 ZR18 tyres front 245/40 ZR 18 tyres rear

Tuscan S 18 inch aluminium alloy wheels  $\,255/35$  ZR18 tyres front 255/35 ZR 18 tyres rear

Please note: Front and rear wheels have different offsets, so are not interchangeable

#### **Recommended Tyre Pressures**

#### Tuscan 16 inch (Optional 18 inch)

- Front 28 psi (1.93 bar) (Optional Tuscan 18 inch- 28 psi) (sustained high speed or fully laden - 31 psi (2.14 bar)
- Rear 28 psi (1.93 bar) (Optional Tuscan 18 inch- 28 psi) (sustained high speed or fully laden - 31 psi (2.14 bar)

#### Tuscan S 18 inch

- Front 28 psi (1.93 bar)
  - (sustained high speed or fully laden 31 psi (2.14 bar)
- Rear 28 psi (1.93 bar) (sustained high speed or fully laden - 31 psi (2.14 bar)

For track driving days, increase the tyre pressures to 31 psi (2.14 bar) all round on cold tyres.

Please note: Do not forget to return the tyres to their normal pressures at the end of the day. If the tyres are warm, simply drop them by the same amount that you raised them at the beginning of the day.

**Tuscan** Technical Specification

#### 4.9 Transmission

5 speed manual gearbox with hydraulically operated clutch. Gear ratios:-

1st	2.95:1
2nd	1.95:1
3rd	1.34:1
4th	1.00:1
5th	0.80:1

#### 4.10 Hydratrak<sup>™</sup> Limited Slip Differential

The Hydratrak<sup>™</sup> coupling unit which is a sealed for life, fluid filled cartridge, houses an inner rotating element which is also splined to the left hand shaft, thereby interconnecting both axle shafts via the coupling unit. Consequently, wherever there is any relative wheel speed difference between the left and right rear driving wheels, there will occur relative movement within the Hydratrak<sup>™</sup> unit, which in turn creates hydraulic resistance. Greater torque is then transferred to the slower rotating wheel in order to provide the vehicle with enhanced stability as well as tractive ability. This hydraulic resistance also increases as the relative wheel speed increases, thereby providing a speed sensitive rather than torque sensitive type of limited slip differential ensuring smooth and progressive operation.

Please Note. In the event of the rear wheels being under difficult tractive conditions, continued excessive wheel spinning should be avoided to ensure excessive heat is not generated within the unit which may cause premature failure.



#### 4.11 Engine

 $6\mbox{-cylinder}$  inline alloy engine with 4 valves per cylinder and dry sump lubrication

#### 4.12 Fuel & Ignition Systems

Fully mapped engine management with three way catalytic convertors and closed loop fuel control strategy.

WARNING: This vehicle must not run on leaded fuel - see section on Catalytic Exhaust Systems page 53.

#### 4.13 Dimensions

Length overall	4235 mm
Wheelbase	2361 mm
Width overall (inc. mirrors)	1810 mm
Height overall	1200 mm
Front track	1450 mm
Rear track	1474 mm
Ground clearance	102 mm
Weight	1170 kg

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This TVR has been built by TVR Engineering Limited, to the best of their ability within the present scope of the art known to specialist car manufacturers. This warranty is given in addition to and shall not affect the purchaser's statutory rights as a consumer.

TVR Engineering Limited (hereafter known as the Company) warrants each motor car and each replacement part to be free from defects in material and workmanship, under normal use and service, and subject to the terms and conditions stated in this limited warranty, for the applicable Warranty Period set forth in paragraph 5.1

#### 5.1 General Warranty Coverage

The Company warrants each new motor car to be free of defects in material and workmanship for a period of 36 months/36000 miles after delivery of the motor vehicle to the original owner. If any part or parts of a TVR car should prove defective within this prescribed period, and if such part of parts are submitted within 14 days to an authorised TVR distributor or dealer, the Company will cause such part or parts to be examined within a reasonable time and in the event of a fault due to defective workmanship or material being found the defective part or parts will be repaired or replaced without charge for the parts or labour involved in their replacement.

#### 5.2 Body Warranty Coverage. One (1) year

The Company warrants the body shell, paint, exterior and interior trim, seats and upholstery and battery of each new motor car to be free from defects in material and workmanship for a period of one (1) year after delivery of the motor car to the original owner.

#### 5.3 Replacement Parts Coverage

Parts, assemblies and components which are replaced under the warranty are warranted to be free from defects in materials and workmanship for 180 days from the date of replacement, or until the expiration of the period in which the general or body warranty remains in effect, whichever occurs last.

#### 5.4 Extent of Company Obligations

The obligations of the Company under this warranty are limited to the repair or, at its option, the replacement of a new or remanufactured unit, without charge for labour or parts, of any part of assembly or component determined to be defective in material or workmanship during the applicable warranty period. All defective replacement parts become the property of the Company upon removal. All service under this warranty must be performed by an authorised TVR dealer importer or distributor at his place of business, unless prior authorisation is obtained from the Company. Persons dealing in the Company's vehicles or spare parts are not authorised to bind the company in any way or to assume any obligation whether expressed or implied on behalf of the Company nor to give any warranty or guarantee nor make any representation on behalf of the Company.

#### 5.5 Exclusion from Warranty Cover

Proprietary Equipment. The only warranties given for radio receivers, tape players and tyres are written warranties which are issued by the suppliers of such equipment.

#### 5.6 Maintenance, Service, Wear & Tear

The obligation of the Company does not extend to maintenance services such as tune ups, cleaning of coolant, fuel and hydraulic systems, wheel balancing and alignment, and other service adjustment, nor to the repair or replacement of service items such as lubricants, fluids, spark plugs, wiper blades, filters, belts, coolant hoses, clutches, brake pads, engine mounts, suspension and differential bushes, nor to the deterioration of the paintwork, upholstery or any damage occasioned as a result of an accident or as a result of the negligent use of the vehicle howsoever occasioned or any part, assembly or component as a consequence of normal wear and tear or exposure to the elements.

#### 5.7 Motor Racing, Alteration & Hire

The obligation and warranties of the Company do not extend to vehicles used for motor racing or competition of any nature or to vehicles or parts which have been altered after leaving the Company's factory, or which have been let out on hire, or from which identification numbers or marks have been altered or removed.

#### 5.8 Consequential & Incidental Loss or Damage

This warranty neither covers nor extends to any consequential damage or expense including, but not limited to, inconvenience hotel or restaurant expenses, towing or parking fees, car rentals, nor the loss of time or use of the motor car.

#### 5.9 Limitations of Warranties

This warranty limits the duration of all implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, to the time periods set forth in sub paragraphs 5.1, 5.2 and 5.3. The warranty shall not be transferred to anyone unless the Company's consent in writing has first been obtained upon receipt of the change of ownership card located at the rear of this warranty.





#### 5.10 Obligations of the Owner as to proper Care and Usage

The Company has no obligations under this warranty in the following circumstances:-

(a) if the essential maintenance services identified in the service coupon booklet and the maintenance instructions described in the owners handbook are not performed and followed at the prescribed intervals.

(b) if failure or malfunction of the vehicle or any warranted part, component or assembly results from an accident.

(c) if failure or malfunction is caused by negligence in use of the vehicle.

(d) by performance of service, repair or modification other than in accordance with the recommended servicing and repair procedures of the Company

(e) if the vehicle is registered or used in the United States of America, Canada, Hawaii, Guam, and the United States Virgin Islands or Outside Continental Europe in countries where different legislation on vehicle safety and environmental emission standards apply so as to render the European specification illegal and invalid.

 $({\bf f})$  if the vehicle is modified or added to in any way not previously agreed by the Company in writing.

(g) if the limits for chassis load, axle load, pay load, permissible gross weight or axial pressure are exceeded.

(h) if the vehicle is left running but unattended and any damage occurs.

#### 5.11 Disputes

The Company's decision shall be final and binding in respect of any claim or dispute arising out of a defect or alleged defect in any vehicle or part. After the expiration of fourteen days from dispatch of notification of the Company's decision the part or parts may be scrapped by the Company or returned to the purchaser ,in which event transport charges are payable by the purchaser.

#### 5.12 Return of Warranty Acknowledgment Card

The obligations of the Company under this warranty shall not arise unless and until the Company shall receive the warranty Acknowledgment appearing at the end of this warranty, within 28 days from the date of purchase, duly executed by the original owner.

#### For TVR Cars Limited

Please keep this booklet in your vehicle as to avoid unnecessary delay it must be shown to the authorised TVR distributor or dealer at the time the repair is requested.

Details







This section should be completed by the vending dealer
Vehicle Registration No
Model
V. I. N
Engine No
Paint Colour
TVR Code
Trim Colour
TVR Code
Carpet Colour
TVR Code
Trim Material

The descriptions and codes listed above are relevant to all TVR dealers, and should be quoted in the event of paint or trim rectification.

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#### TVR Cars Limited,

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