LONDON TAXIS
international

TX1 *models*

Owner's Handbook

Right hand drive diesel models

At the time this publication went to print, the illustrations and information provided were representative of manufacture. While retaining the basic features of the models described in this publication, the manufacturer reserves the right to make alterations to units, parts and accessories considered convenient for improvement or any other reason, without necessarily updating it.

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FOREWORD

This handbook describes the instruments, switches, controls and equipment fitted to your new vehicle and the way in which they are designed to operate. Because this handbook covers all right hand drive diesel models, some items covered may not apply to your particular vehicle. Recognized London Taxis International Dealers have information about the latest specification of the various models available.

Please read through this booklet before operating your vehicle as it also includes information essential to maintain the vehicle's safety, reliability and economy. Take particular note of the General Precautions on page 4. Retain the booklet with the vehicle so that it is available for reference when required.

Care and regular maintenance will prolong the life of the vehicle. We strongly recommend that the maintenance operations and replacements scheduled at regular intervals and shown in detail in this book are never overlooked and are carried out by a recognized Dealer.

The back sections of this book contain details of the vehicle and parts warranties, and a section to record the maintenance services (pages i to xii).

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London Taxis International reserve the right to change their servicing recommendations in the light of operating experience. Having this work performed by a recognized Dealer will ensure that any work performed will be in line with the latest information issued by the manufacturer.

Certain notes in the text are highlighted as follows:

WARNING: ***This information or procedure should be carefully followed to avoid the possibility of personal injury or damage.***

CAUTION: *This information or procedure should be carefully noted to avoid damage to components.*

Note: *This information makes the job easier or provides added information.*

RADIO AND TELECOMMUNICATIONS EQUIPMENT

Direct wiring from the battery is provided to assist the fitting of radio telecommunication equipment. Two connectors, each with purple (feed) and black (earth) wires, emerge from the wiring loom inside the driver's compartment immediately in front of the facia glove locker. 12 volt, 10 Amp power outlets are provided in both front and rear compartments for use with portable equipment.

ALWAYS ENSURE RADIO TELEPHONE COMMUNICATIONS EQUIPMENT IS FITTED BY COMPETENT PERSONNEL AND DRAW THEIR ATTENTION TO THIS FACILITY BUILT INTO YOUR VEHICLE

TAXIMETER

The taximeter supplied with each new vehicle is designed to be fully compatible with the vehicle electrical and electronic systems. If you choose to install an alternative taximeter, you should be aware that defects which arise in the operation of the taximeter and the related vehicle electrical and electronic systems may not be covered by warranty.

VEHICLE ELECTRICAL SYSTEMS

The electrical systems fitted to your vehicle incorporate equipment and electronic devices which are adequately protected by fuses to minimise any risk of overheating or damage to components of the vehicle. To prevent the risk of fire or noxious fumes resulting from incorrect electrical modifications or the fitting of additional equipment, modifications or additions should only be made by a competent auto electrician, so that vehicle wiring is not overloaded and any additional equipment is positioned with adequate wiring and fuses.

Always fit fuses of the capacity indicated on the label fitted to the glove box lid. Noxious fumes from overheating electrical components can be dangerous when inhaled. Never continue to operate a vehicle which is suspected of having an electrical failure.

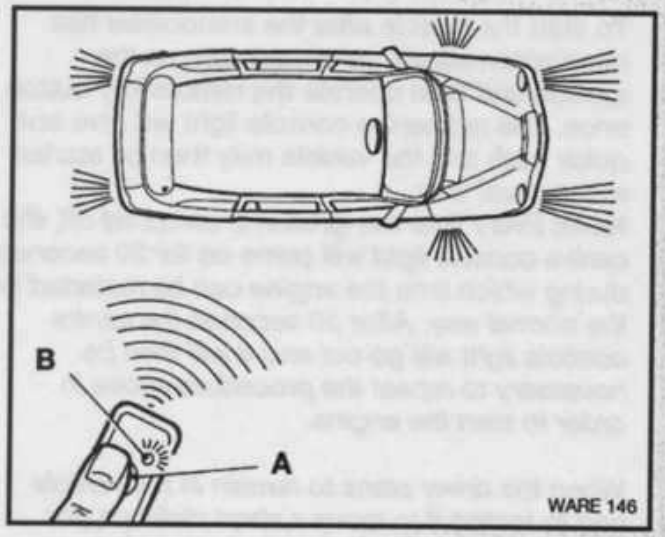
OILS, FLUIDS AND SOLVENTS

Prolonged and repeated contact with used engine oils may cause serious skin disorders including dermatitis and cancer. Excessive contact with used oils should be avoided - always use barrier cream and wash thoroughly after contact.
Many liquids and other substances used in motor vehicles are poisonous and should under no circumstances be consumed, or allowed to come into contact with open wounds. These substances, among others, include anti-freeze, brake fluid, fuel, windscreen washer additives, vehicle cleaning materials, all lubricants and adhesives. Keep all such substances out of the reach of children.

Always dispose of used oils and solvents etc. at an approved Public Waste Disposal facility. Never pour such material into the public drainage system or allow them to seep into the soil.

ASBESTOS

A small number of parts fitted to your vehicle (mainly transmission gaskets) may contain asbestos which can be dangerous to health when the parts are serviced unless they are handled following the correct safety precautions.
Breathing asbestos dust is dangerous and parts containing asbestos should be handled with care in a well ventilated place. Never blow off asbestos dust from components. Dampen asbestos dust and dispose of it safely in a closed receptacle or through an appropriate dust extractor system.



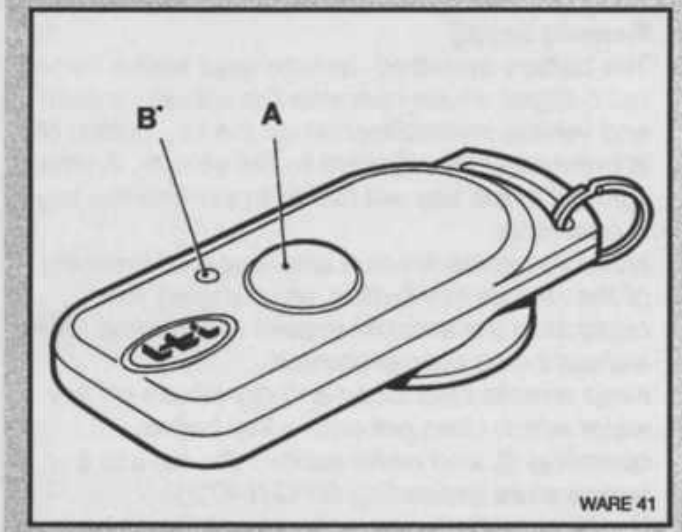
Security systems.
The security systems fitted to the vehicle are designed to minimise the risk of unauthorised operation without using a correctly coded remote key or entering a number on a key pad. On all models the remote key operates the central door locking system and engine immobiliser. The engine immobiliser re-arms itself 30 seconds after being dis-armed by the remote key or after the ignition key is switched off, preventing the vehicle from being started if the operator forgets to 'arm' the security system.
Should the remote key be inoperative, entry of the operator's personal identity number (PIN) onto the key pad will dis-arm the engine immobiliser and enable the vehicle to be driven.

An alarm upgrade system, fitted to some models, provides perimeter protection of the vehicle by switches covering the doors, bonnet and boot, and interior ultrasonic detection of movement in the driver's compartment. When this system is armed, if someone breaks into the vehicle, opens the bonnet, boot or a door, the hazard warning lights will flash and an alarm will sound at full power for 30 seconds and then stop, re-arming itself against any further intrusion. However, the engine immobiliser will continue to prevent the vehicle from being driven away until the system is disarmed with the correct remote key (or by entering the correct PIN on the key pad).
The remote key or key pad can always be used to switch off the alarm if it has been set off in error.

Note: *On vehicles fitted with the alarm upgrade system, the sliding glass panel in the centre division should be closed and secured before leaving the vehicle and arming the security system. If required, the ultrasonic sensors may be temporarily switched off by following the procedure shown on page 8.*

Remote key(s)
The battery operated, remote keys emit a coded radio signal which operates the security system and vehicle immobiliser when the key button **(A)** is pressed while adjacent to the vehicle. A small light **(B)** in the key will flicker to confirm the key is operating.
Note: *Avoid inadvertent and repeated pressing of the remote key button, as ultimately this could stop the security system responding without being reprogrammed.*
Keep remote keys clean and dry (shake off any water which does get onto a key before operating it), and never expose the keys to a temperature exceeding 60°C (140°F).
*Replace the batteries in the remote key (see page 9) if the key fails to operate unless it is very close to the vehicle, or the red light on the key fails to illuminate when button **(A)** is pressed.*

Remote key replacement
A maximum of four remote keys can be programmed to operate the vehicle security system. When a new or replacement remote key is required it will be necessary for your Dealer to reprogramme all the remote keys at the same time.



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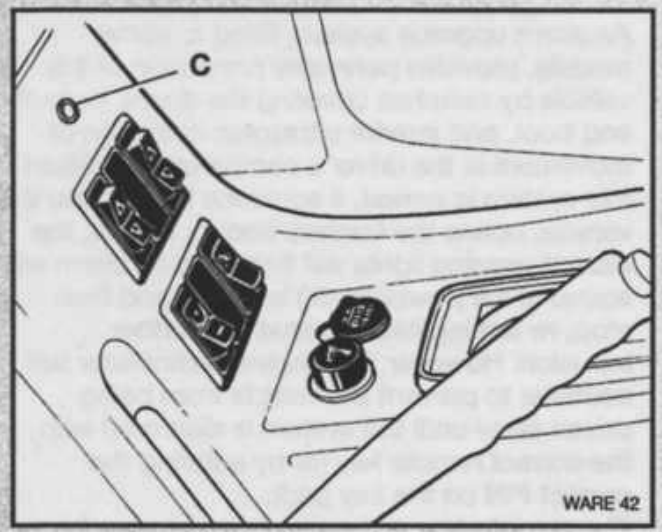

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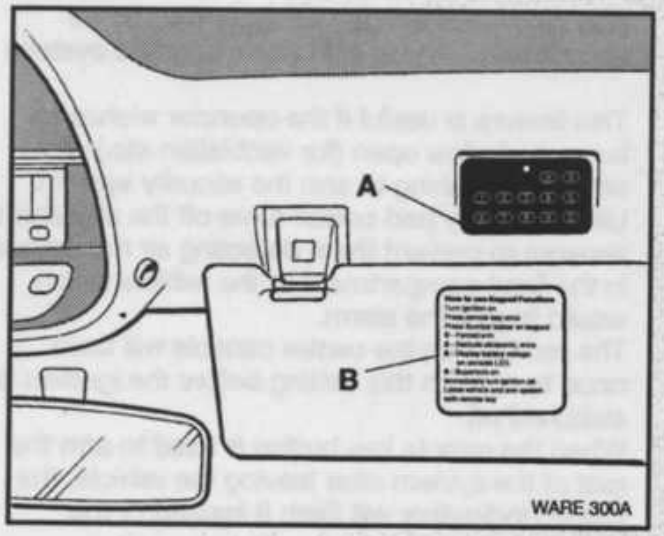
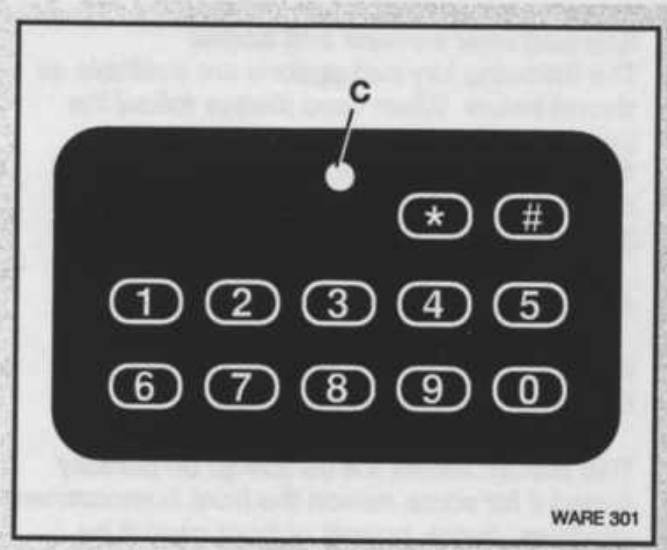
Arming and dis-arming the system
To lock the vehicle and arm the security system, close the windows and centre partition, vacate the vehicle and ensure the doors, bonnet and boot lid are fully closed before pressing the remote key button **(A)** while adjacent to the vehicle. The light **(B)** in the key will flicker to confirm the key is operating.
The hazard lights will flash 4 times. The red light on the centre console **(C)** will begin to flash and the doors will lock. After 30 seconds the vehicle will be fully protected, and the engine immobilised. The red light on the centre console will continue to flash to indicate the system is armed and to act as a visual deterrent.

To unlock the vehicle and dis-arm the security system, press the button **(A)** on the remote key once when adjacent to the vehicle. The hazard lights will flash once. The red centre console light will cease flashing but will remain on for 30 seconds during which time the engine may be started in the normal way.
Note: *If the engine is not started within 30 seconds the centre console light will go out, and the engine immobiliser will automatically re-arm to prevent the vehicle from being started. This arrangement prevents the vehicle from being started if it is inadvertently left dis-armed.*

To start the vehicle after the immobiliser has been automatically re-armed, turn on the ignition and then operate the remote key button once. The red centre console light will give one quick flash and the vehicle may then be started in the usual way.
Note: *Every time the ignition is switched off, the centre console light will come on for 30 seconds during which time the engine can be restarted in the normal way. After 30 seconds the centre console light will go out and it will then be necessary to repeat the procedure above in order to start the engine.*

When the driver plans to remain in the vehicle and to restart it to move a short distance (for example to move up a taxi rank) the engine should be stopped and the ignition key turned to the accessories position **('I')** *but not off* **('O').** *The engine may then be restarted with the ignition key in the normal way without the automatic immobilisation of the engine.*





Security system key pad
A key pad **(A)**, located in the header bar trim in front of the driver's sunvisor, allows the vehicle security system to be operated independently of the remote keys. The key pad can be used in an emergency if the security system fails to operate because the remote key batteries are exhausted, lost or damaged, and also provides the user with options, some of which are shown on the sunvisor label **(B)**.

Security system PIN number
At the time of manufacture the vehicle security system was given a unique four digit Personal Identity Number (PIN). This PIN number is printed on a label supplied at the time of delivery and should be memorised.

Store the label in a safe place (with other vehicle documents) away from the vehicle.
Note: *The system can be re-programmed to accept a different PIN number by following the procedure shown under the heading 'Changing the security system PIN number' shown on page 8.*

Using the key pad
Should the remote key fail to operate the vehicle security system, first try an alternative remote key. If an alternative remote key is not available, open the driver's door with the ignition key - the alarm (where fitted) will then sound if the security system was armed when leaving the vehicle.

Carefully enter your four digit PIN number on the key pad to disarm the system (the small LED **(C)** on the key pad will flash to confirm each key press, and after the fourth digit will flash for 1 second and the system will disarm).
Start the vehicle within 30 seconds. If the engine is not started within 30 seconds, turn on the ignition and input your PIN number again before starting the engine.
Note: *If an incorrect PIN number is entered, the light on the key pad will flash for 2 seconds. Wait for a few moments and enter the correct number. For security, this procedure allows only 3 PIN number entries after which the light flashes slowly and the key pad is inoperative for 30 minutes. The engine will remain immobilised until the correct PIN number is entered.*

The security system may be armed by entering the correct PIN number on the key pad, immediately before leaving the vehicle and locking the doors with the ignition key.

Changing the security system PIN number

Note: *always choose a number which may be easily remembered. The new number should have four digits which must not all be the same.*

When changing the PIN number the operator has to type a number of characters on the key pad. If a character is not entered within 10 seconds, the key pad LED will flash rapidly 10 times after which the entire procedure must be repeated.

Arm and then immediately dis-arm the system with a remote key. Carefully type on the key pad the following:

****AAAA *92 *BBBB *BBBB #**

Where **AAAA** is the existing PIN number and **BBBB** is the required new PIN number.

Check the new PIN number by entering it on the key pad to arm and then disarm the system.

Key pad user options and codes
The following key pad options are available as shown below. When used always follow the procedure shown on the key pad label i.e.

1. turn ignition on
2. press remote key once
3. enter the code number for the option on to the keypad (see below)
4. turn off ignition key immediately

Key pad code no: 0 - Forced arm (vehicles fitted with alarm upgrade system)

This feature allows the vehicle to be partially armed if for some reason the front compartment windows, doors, bonnet or boot cannot be closed due to a traffic accident or the perimeter switches are inoperative. The alarm will sound when the remote key is used with the vehicle in this condition.
The 'forced arm' option causes the security system to ignore a broken front compartment window, or an open door, bonnet or boot, and arms the rest of the vehicle.
CAUTION: *This procedure must be repeated each time you arm the security system until the fault is rectified - the vehicle is not fully protected.*

Key pad code no: 2 - Exclude ultrasonic detectors (vehicles with alarm upgrade system)

This feature is useful if the operator wishes to leave a window open (for ventilation etc.) while otherwise wishing to arm the security system. Using this key pad option turns off the ultrasonic sensors to prevent them detecting air movement in the front compartment of the vehicle which would trigger the alarm.
The red LED on the centre console will flash once to confirm this setting before the ignition is switched off.
When the remote key button is used to arm the rest of the system after leaving the vehicle, the hazard indicators will flash 8 instead of the normal 4 times.
Note: *The next time the system is armed, it will revert to the full protection mode.*

Key pad code no: 8 - Display vehicle battery voltage

Use of this option displays the approximate vehicle battery voltage by a series of flashes. on the centre console LED (i.e. 12 flashes = 12 volts).
Note: *a voltage below 9 volts could affect the operation of the security system and prevent the vehicle from being started. This enables the operator to check the vehicle battery voltage before calling for assistance due to a possible electrical failure.*

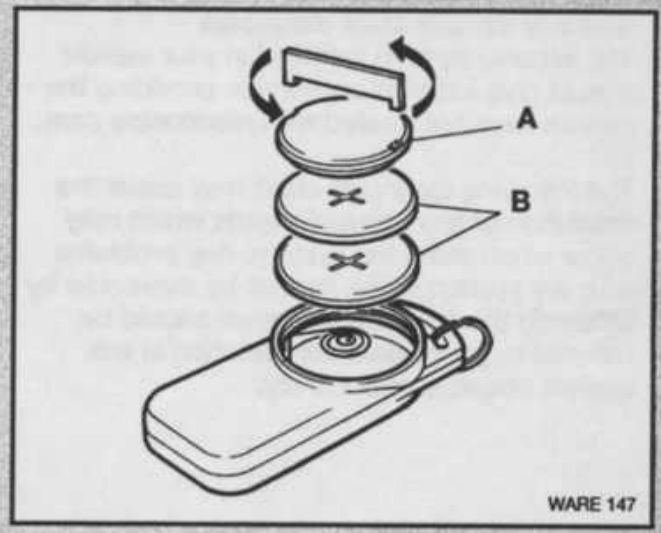
Key pad code no: 9 - Superlock on

This option allows the security system to be armed so that it ignores <u>all</u> the remote keys and can only be disarmed by entering the correct PIN number on the key pad. This feature means that the vehicle is protected even if a thief gains access to the vehicle and its remote keys.

System programme options:
If required, for a nominal fee your Dealer can programme the system with the following options, providing these are approved by the appropriate authorities:

1. Auto arm (vehicles with alarm upgrade system)
The system is armed automatically a pre-set period after the last door, bonnet or boot lid has been closed.
CAUTION: *The doors are not locked with this option, but the alarm will sound if any attempt is made to enter the vehicle without using the remote key.*

2. Auto re-arm
The doors lock and the system automatically re-arms itself if the doors, bonnet and boot lid are not opened within a pre-set period from being disarmed with the remote key, or the system is dis-armed in error.

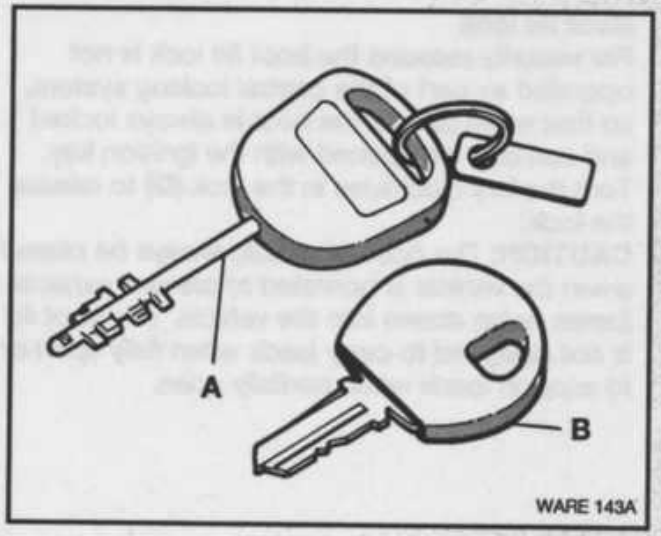


Remote key batteries
Replace the two lithium 3v CR2025 batteries by unscrewing the cover **(A)** on the back of the key with the small tool supplied with the LTI battery replacement pack.
Slide out the batteries **(B)** from under the **"+"** terminal. Slide the new batteries under the terminal and ensure the **"+"** positive markings are towards the cover. Screw the cover back on tightly using the tool. Always use only the LTI specified batteries; both batteries should be replaced at the same time.
CAUTION: *Carefully dispose of old batteries. Batteries may explode if recharged, incinerated or short circuited.*

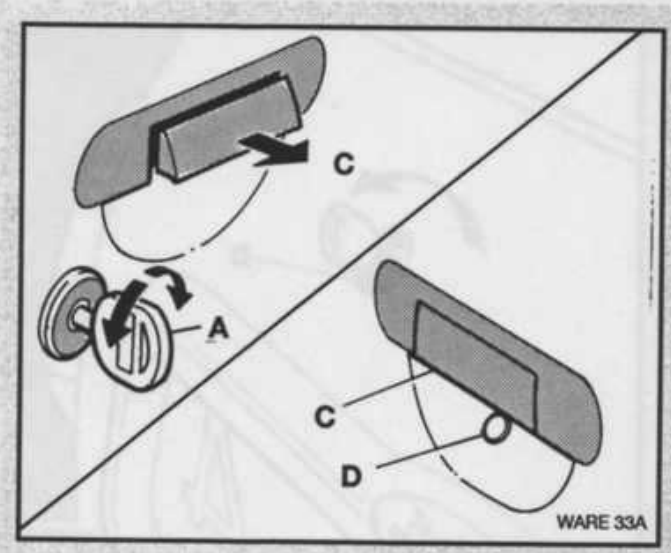
Security system fault diagnosis
The security system installed in your vehicle should give satisfactory service providing the remote keys are treated with reasonable care.

The following diagnosis chart may assist the resolution of any unusual events which may occur when using the system. Any problems with the system which cannot be overcome by following the procedures shown should be referred to your Dealer for attention at the earliest possible opportunity.

Symptom	Check	Remedy
Remote key fails to operate the security system and lock/unlock the vehicle doors	Remote key may be wet	Shake the remote key dry and re-try
	Possible interference from high powered local radio equipment	Press the remote key a few times until the system activates, or enter the PIN number on the key pad
	Check light on remote key	If inoperative, try another remote key or enter the PIN number on the key pad. Replace the batteries in the original remote key as soon as possible
	Use the key pad to check the vehicle battery is not below 9 volts	Charge/replace the vehicle battery
	Check vehicle ignition is switched off	Turn off the vehicle ignition
Vehicle will not start	Auto immobilisation may have re-armed	Turn on the ignition and press the remote key once or enter the PIN number on the key pad - try restart
	Use the key pad to check the vehicle battery is not below 9 volts	Charge/replace the vehicle battery
	Check above two items, if vehicle still fails to start	Consider seeking assistance from Dealer or recovery organisation
Alarm upgrade (where fitted) activates with no apparent cause	Check all doors, bonnet, boot, centre partition, windows (and sunroof) are fully closed	Close the opening and re-arm the system
	Check for moving objects in vehicle, air fresheners etc. hanging from mirror	Remove item and re-arm the system
	People, pets etc. in vehicle	Use the key pad option to turn off the ultrasonic detection system while vehicle is occupied
	Check for damage to vehicle doors, bonnet, boot or perimeter switches	Temporarily use the key pad 'Forced arm' option and have vehicle damage rectified



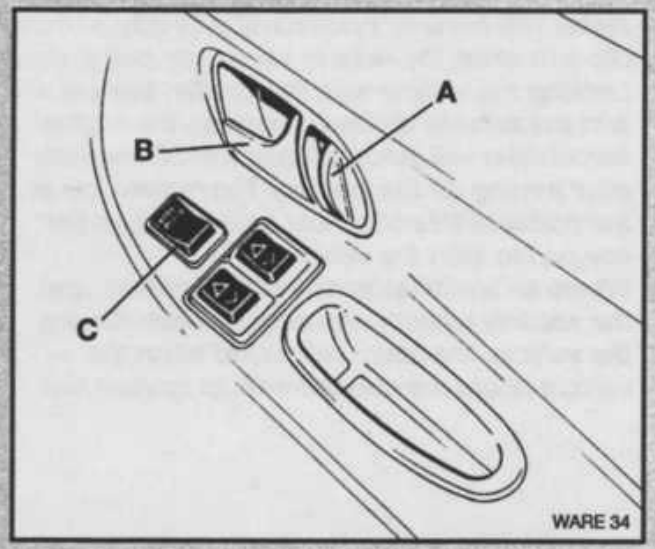
Vehicle keys
The vehicle is supplied with two sets of keys. One key **(A)** in each set operates the ignition/starter switch and steering lock, central door locking system and the boot lid lock. The second key **(B)** operates the fuel filler cap lock.
Note: *When taking delivery, make a record of the security number on the tab attached to the ignition/starter keys. This information is required should you need to replace this key if it becomes lost in service.*

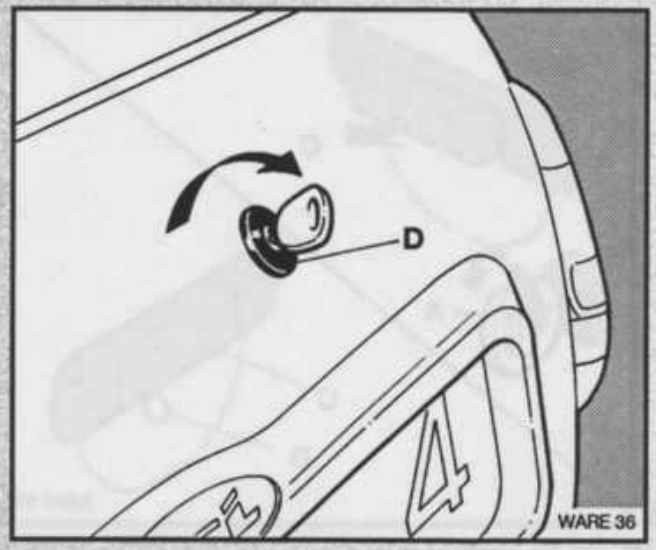


Central locking system
Normally the remote key will be used to operate the central locking system. However, if the remote key is inoperative or lost, the ignition key **(A)** may be used in the driver's door to unlock or lock all doors. The ignition key will also lock and unlock the left hand front door.

When the doors are unlocked by using either the remote key or ignition key, both front and rear doors may be opened by lifting the outer door handles **(C)**. Small indicator lights **(D)** behind the rear door handles illuminate when the taximeter is in the 'for hire' mode and the vehicle is travelling below walking pace or stationary.

Note: *The security system will only fully arm and dis-arm when the remote key or key pad is used. Locking the vehicle with the ignition key will not arm the security system, however, the engine immobiliser will automatically arm 30 seconds after turning off the ignition. The remote key or the correct PIN code must be entered on the key pad to start the vehicle.*
Where an alarm upgrade system is fitted, and the security system was armed before leaving the vehicle, the alarm will sound when the vehicle doors are opened with an ignition key.





Door locks
When the radio key is operated, or the door key is turned, the interior locking catch **(A)** on the front doors will move back to the unlocked (catch out and orange marker showing) or locked (catch in) position. When the door locking catch is the unlocked position, pulling out the interior door release **(B)** will open the door.
The interior locking catch **(A)** on the front doors will lock or unlock all four doors simultaneously when all four doors are closed.
The interior locking catch on the rear doors will unlock (but not lock) the door to which the catch is applied.

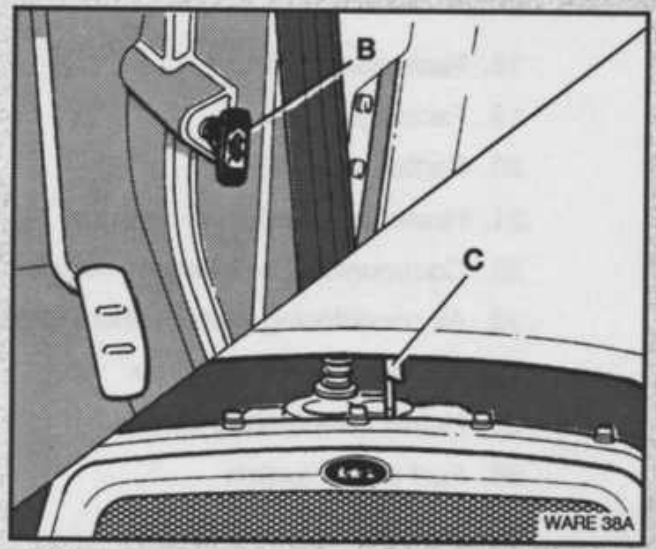
CAUTION: *Never leave children unattended in the driver's compartment as they could lock the vehicle, and if the ignition/starter key is not available it would then be difficult to release them from the vehicle.*

Driver's security locking switch
For added driver security, a switch **(C)** in the driver's armrest allows the driver to lock both front doors from within the vehicle, leaving the rear doors unlocked.
WARNING: ***Whenever the central door locking system is used, it will override the driver's security locking switch, which must then be reset as required.***

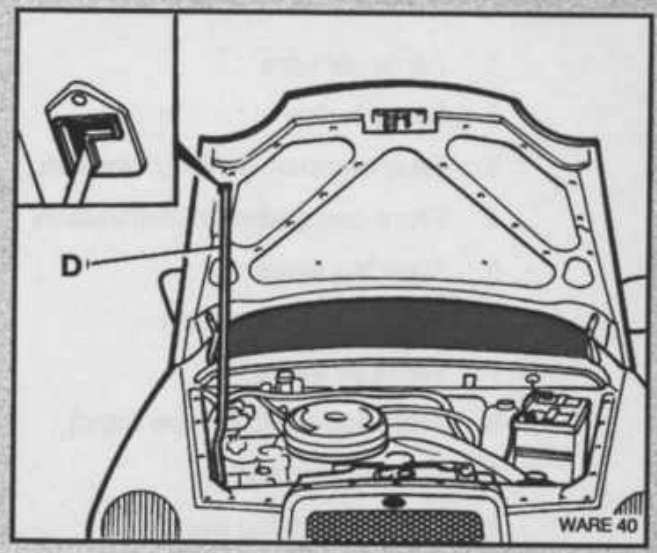
Boot lid lock
For security reasons the boot lid lock is not operated as part of the central locking system, so that when closed the boot is always locked and can only be opened with the ignition key. Turn the key clockwise in the lock **(D)** to release the lock.
CAUTION: *The boot lid should always be closed when the vehicle is operated to prevent exhaust fumes being drawn into the vehicle. The boot lid is not designed to carry loads when fully open or to support loads when partially open.*

Fuel tank filler cap
The fuel filler cap **(A)** is locked with a separate key. When locked the filler cap rotates.
Turn the key anticlockwise to release the filler cap. After filling the fuel tank, replace the cap and turn the key clockwise until it is fully engaged before removing the key. Always use the vented type of filler cap specified for your vehicle.

CAUTION: *Cold fuel from an underground storage tank will expand when in the vehicle. Do not attempt to fill the fuel tank to the brim of the filler neck, as this could lead to fuel loss as the fuel expands.*

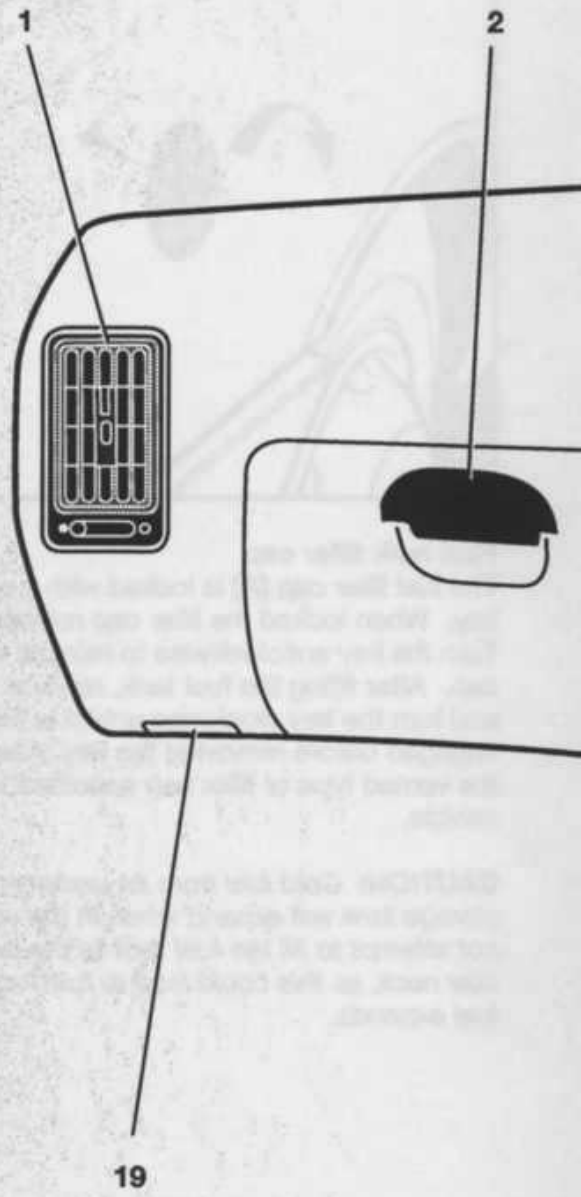


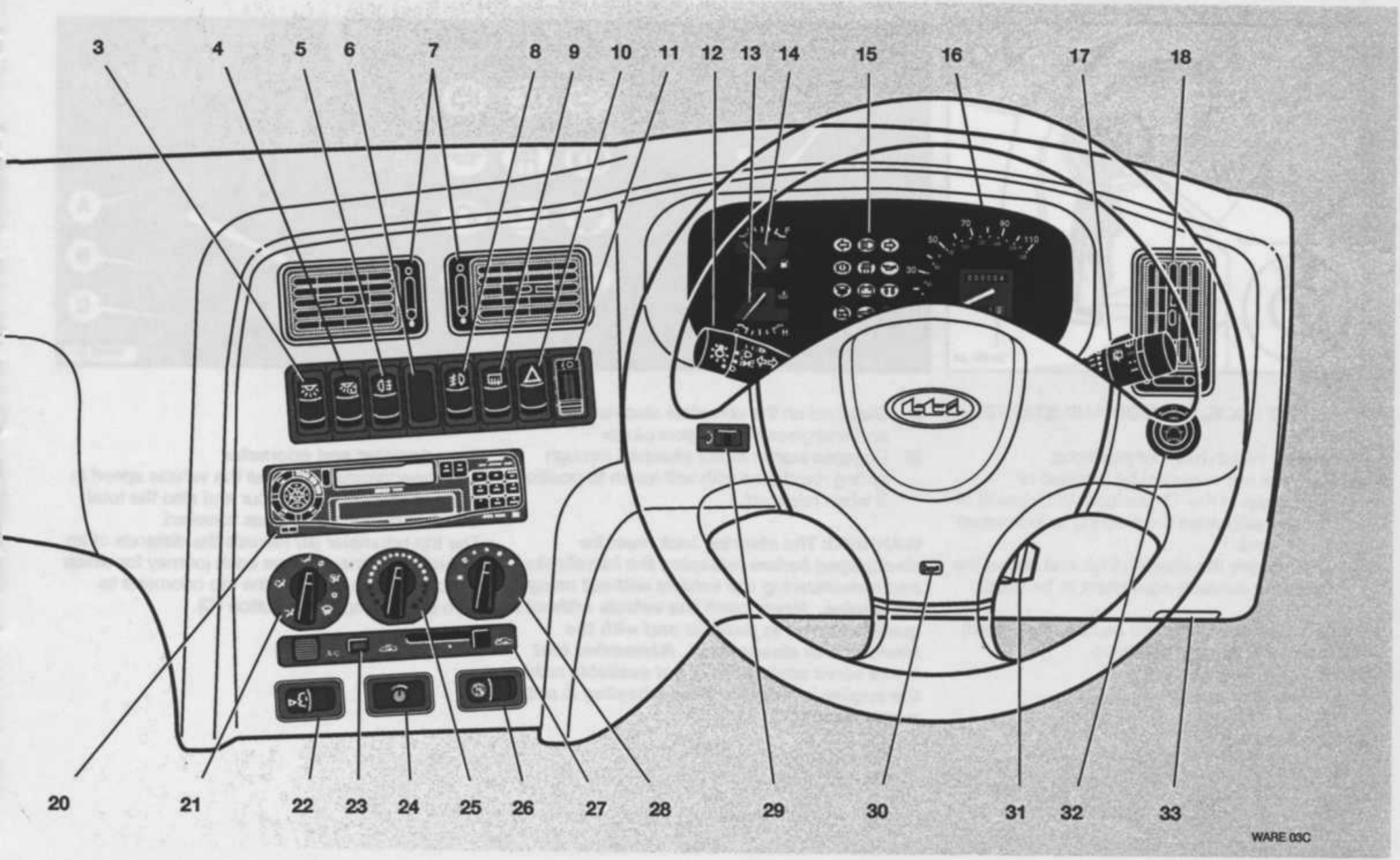
Bonnet
The bonnet lock release is located adjacent to the side trim of the driver's compartment. Pull the handle **(B)** to release the bonnet which will then spring up onto its safety catch.
Push in the safety catch lever **(C)** located below the centre of the front edge of the bonnet to release the catch and then raise the bonnet.
WARNING: ***Particular care must be taken to ensure no loose clothing (a tie, etc.) can get caught up in any rotating parts while the bonnet is open.***



Bonnet support
Secure the bonnet in its open position by unclipping the bonnet support stay **(D)** and inserting it in the receptacle on the underside of the bonnet.
When closing the bonnet, release the bonnet support and replace it in its securing clip, then close the bonnet by allowing it to slam lock in place. Check the bonnet is fully locked in position before driving the vehicle.

1. Facia air vent
2. Glove locker
3. Rear compartment illumination
4. Front compartment illumination
5. Rear fog lights
6. Spare switch position
7. Facia air vents
8. Front fog lights (where fitted)
9. Heated rear screen
10. Hazard warning switch
11. Headlamp beam level control
12. Lights and indicator column switch
13. Temperature gauge
14. Fuel gauge
15. Warning lights
16. Speedometer
17. Wipers and washer column switch
18. Facia vent
19. Facia light
20. Radio/cassette
21. Heater air distribution control
22. Communication (intercom) switch
23. Air conditioning switch (where fitted)
24. Intercom volume controls
25. Heater temperature control
26. Fuel cut off switch
27. Air recirculation lever
28. Heater blower speed control
29. Panel illumination rheostat
30. Horn push
31. Steering lock and starter switch
32. Exterior mirror control switch
33. Facia light

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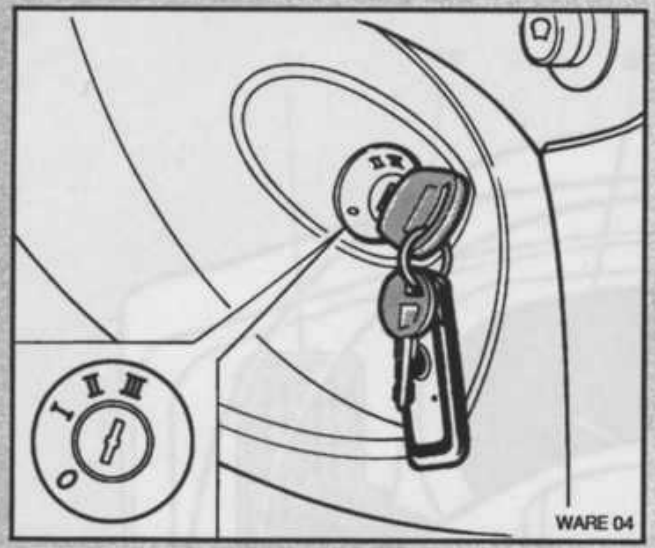
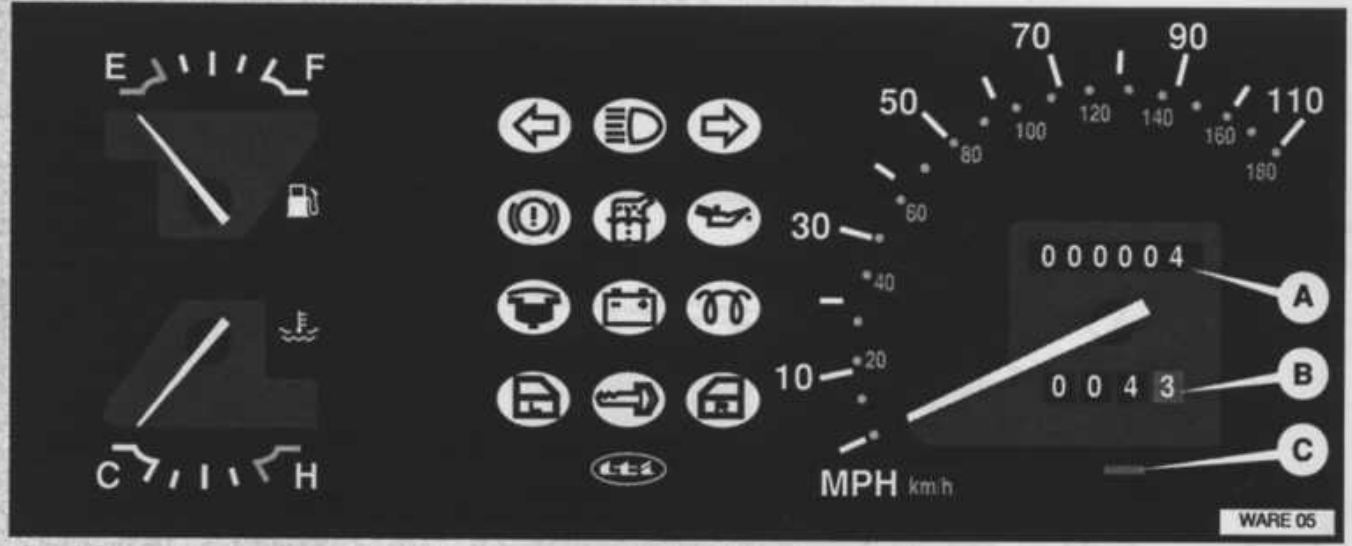




STEERING LOCK, IGNITION AND STARTER SWITCH

The starter switch has four positions:

O Off - the key may only be inserted or withdrawn in the 'O' position. Withdrawal of the key will cause the steering to lock when it is turned.

I Disengages the steering lock and allows the following auxiliary equipment to be used:

Radio/cassette and electric aerial (where fitted)
Front and rear electric windows
Front wipers and washers
Rear wiper and washer
Front heater blower
Intercom system

II Switches on the complete electrical system and energises engine glow plugs.

III Engages starter motor (reached through spring resistance with self return to position **II** when released).

WARNING: ***The steering lock must be disengaged before releasing the handbrake and manoeuvring the vehicle without using the engine. Never push the vehicle without a qualified driver in position and with the steering lock disengaged. Remember that brake servo assistance is not available unless the engine is running. Free wheeling is not recommended.***

INSTRUMENTS

Speedometer and odometer

The speedometer indicates the vehicle speed in miles or kilometres per hour and also the total distance **(A)** the vehicle has travelled.
The trip odometer **(B)** records the distance of an individual journey. Before each journey for which a record is required, set the trip odometer to zero by pushing in the button **(C)**.

Fuel Gauge
With the ignition switch on, the gauge indicates the approximate amount of fuel in the tank. **'E'** indicates empty, **'F'** indicates full.
CAUTION: *To avoid the need to 'bleed' air from the fuel system, always avoid any possibility of allowing the fuel tank to run dry. If the tank should run dry, the fuel system must be primed to exclude air (page 60) before attempting to restart the engine.*

Temperature gauge
With the ignition switch on, the gauge indicates the temperature of the coolant in the engine. **'C'** indicates cold, **'H'** indicates hot. In normal operating conditions, the temperature gauge needle will take up a position in the middle sector of the gauge.

WARNING: ***Should the indicator remain in the red 'H' sector when driving, stop the vehicle as soon as safely possible so that the cause may be investigated at once to prevent damage to the engine. See the section "In case of emergency" for the immediate action required.***

Never remove the cooling system reservoir filler or radiator caps while the engine is hot since there is a danger of being scalded by coolant which may spurt out from the filler.

INSTRUMENT PANEL WARNING LIGHTS

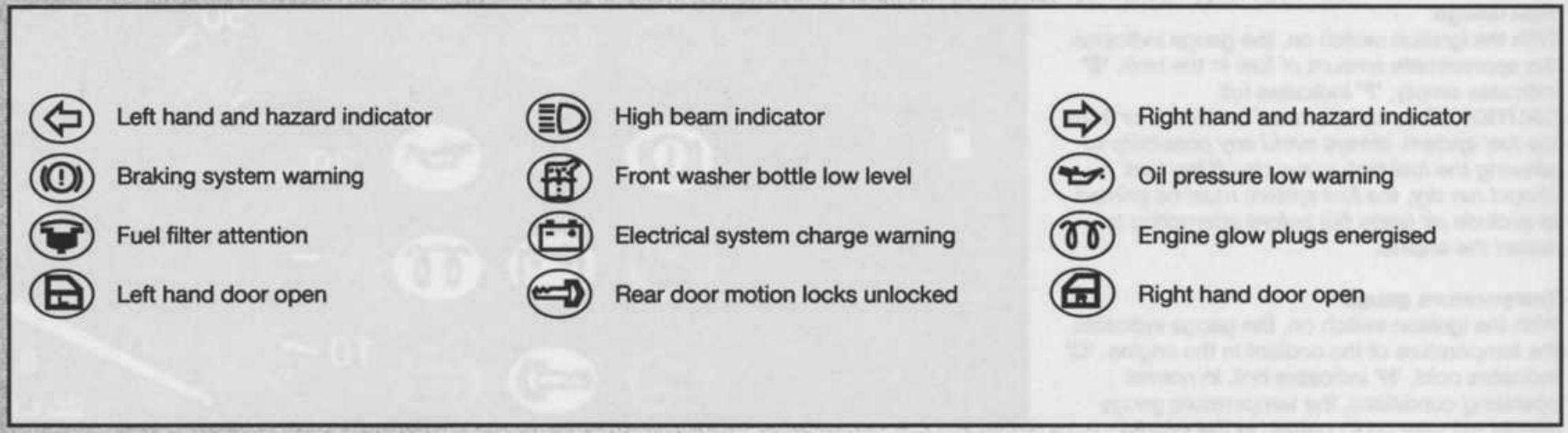
Bulb check
Some of the more important warning lights illuminate as a bulb check every time the ignition switch is turned to position **II** and before the engine is started. These warning lights include:

Electrical charge (red)
Brake system (red)
Glow plugs (orange)
Oil pressure (red)
Motion locks system (green)

The green motion locks system light will only come on with the footbrake off.

The glow plug warning light will extinguish within a few seconds when the system is operating correctly and the engine may be started.
The electrical charge and oil pressure lights will extinguish when the engine is started if these systems are operating satisfactorily.
When the engine is running, the brake warning light will extinguish when the handbrake is released provided the braking system is operating satisfactorily.

WARNING: ***If any indicator light fails to come on, it may indicate a burned out bulb or an open circuit in the electrical system. The condition should be investigated and rectified promptly.***



Direction indicators.

Either the left hand or right hand warning lamp will flash green in time with the indicator lamps in the direction determined by the direction indicator switch. Both lights will flash together when the hazard warning switch is on.

CAUTION: *If the warning light flashes incorrectly this indicates that a bulb in the indicator circuit (front, side repeater or rear) may have failed and should be replaced at the earliest opportunity.*

High beam indicator

This blue light comes on when the headlamp high beam is on, and goes out when low beam is selected.

Braking system indicator

This light glows red with the ignition on and the handbrake applied, and normally goes out when the handbrake is released. If the light glows at any other time with the handbrake released, it indicates a potential condition with the braking system which requires immediate investigation before driving, or after safely stopping the vehicle.

Firstly check the brake fluid level has not fallen appreciably, indicating a leak in the brake hydraulic system. If the level is incorrect, the source of the leak must be corrected immediately by a competent technician before the vehicle is operated further. If the fluid level is correct, check to ensure vacuum power assistance is available.

Low vacuum power assistance may be identified by heavy brake pedal pressure. This condition should be rectified by an authorised Dealer.

If the brake fluid level and pedal effort are correct, with the handbrake off, the light will come on when the brake pedal is pressed to indicate the front brake pads are worn and should be replaced as soon as possible.

CAUTION: *Brake servo assistance is provided by a vacuum pump driven from the rear of the alternator. Should an alternator belt fail, the brake warning light will illuminate in addition to the battery charge indicator light.*

Windscreen washer fluid level
Glows orange when the front fluid reservoir requires replenishment.

Oil pressure indicator
Glows red when the ignition is turned on and goes out when the engine has been started and the oil reaches working pressure. Should the indicator light not go out, or come on at any time while the engine is running, the engine should be stopped at the first available opportunity and the reason for the low oil pressure investigated.
CAUTION: *Running an engine with the warning light on could result in serious damage to the engine.*

Fuel filter sediment indicator
Glows red when the fuel filter requires attention (Page 60).

Electrical charge indicator
Glows red when the ignition is turned on and goes out when the engine has been started and the electrical system is being charged by the alternator. Should the indicator light fail to go out, or come on while the engine is running, the reason should be investigated as soon as possible.

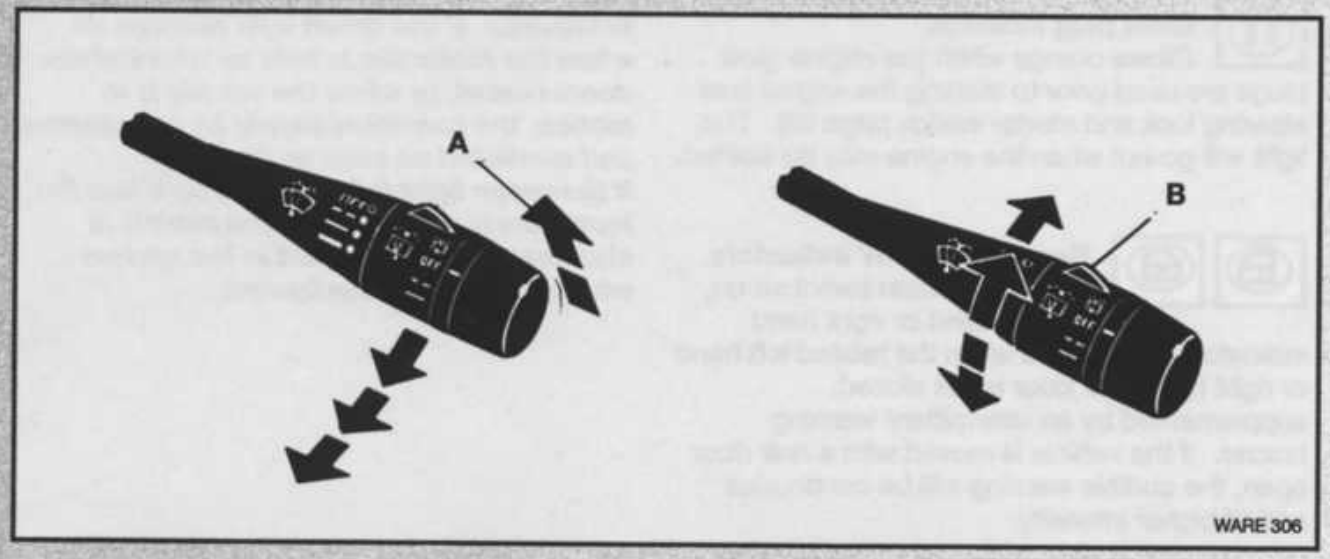
CAUTION: *The vehicle must not be driven with the alternator drive belt failed. This can lead to rapid loss of engine oil with subsequent serious damage to the engine.*

Glow plug indicator
Glows orange when the engine glow plugs are used prior to starting the engine (see steering lock and starter switch page 33). The light will go out when the engine may be started.

Rear door 'open' indicators
With the ignition switched on, the left hand or right hand indicator will flash red when the related left hand or right hand rear door is not closed, supplemented by an intermittent warning buzzer. If the vehicle is moved with a rear door open, the audible warning will be continuous and of higher intensity.

Motion locks system indicator
With the ignition on, and the vehicle stationary with the foot brake off, the indicator will glow green when it is possible for the rear door to be opened from the inside. As soon as the footbrake is applied, or the vehicle moves off, the green indicator light will go out. The doors will remain locked until the footbrake is released (see motion door locking system - page 37)

WARNING: ***If the green light remains on when the footbrake is held on with the rear doors closed, or when the vehicle is in motion, the condition should be investigated and corrected as soon as possible.***
If the green light fails to come on when the footbrake is released and the vehicle is stationary, there is a fault in the system which should be investigated.



CAUTION: *Do not operate the washers if the fluid reservoirs are empty. Always keep the windscreen washer reservoirs topped up with clean water and a proprietary washer fluid additive diluted in line with the manufacturer's instructions.*

WINDSCREEN WIPERS AND WASHERS

Push the switch arm down to operate the front wipers.

OFF o Off
— — ● Timed interval wipe
——— ● Wipers operate at slow speed.
——— ● Wipers operate at fast speed.

Pull the lever towards you **(A)** against spring pressure to operate the windscreen washers; the wipers will operate for a number sweeps and will park when the lever is returned to the 'off' position.

REAR WINDOW WIPER AND WASHER

The additional switch **(B)** operates the rear wiper.

OFF Off

— — Turn the switch clockwise to either of the two positions to operate the rear wiper intermittently at a single frequency.
———

Turn the switch anti-clockwise against spring pressure to operate the rear wiper and washer. On return to the 'off' position the rear wiper will operate for a number of sweeps and then park.

LIGHTS, BEAM SELECTOR AND TURN INDICATOR SWITCH

Lighting

Turn the switch anti-clockwise as follows:

- o **OFF** Off
- ● Front and rear side lights, rear number plate light and instrument lighting.
- ● Headlights on (when ignition switch is on).

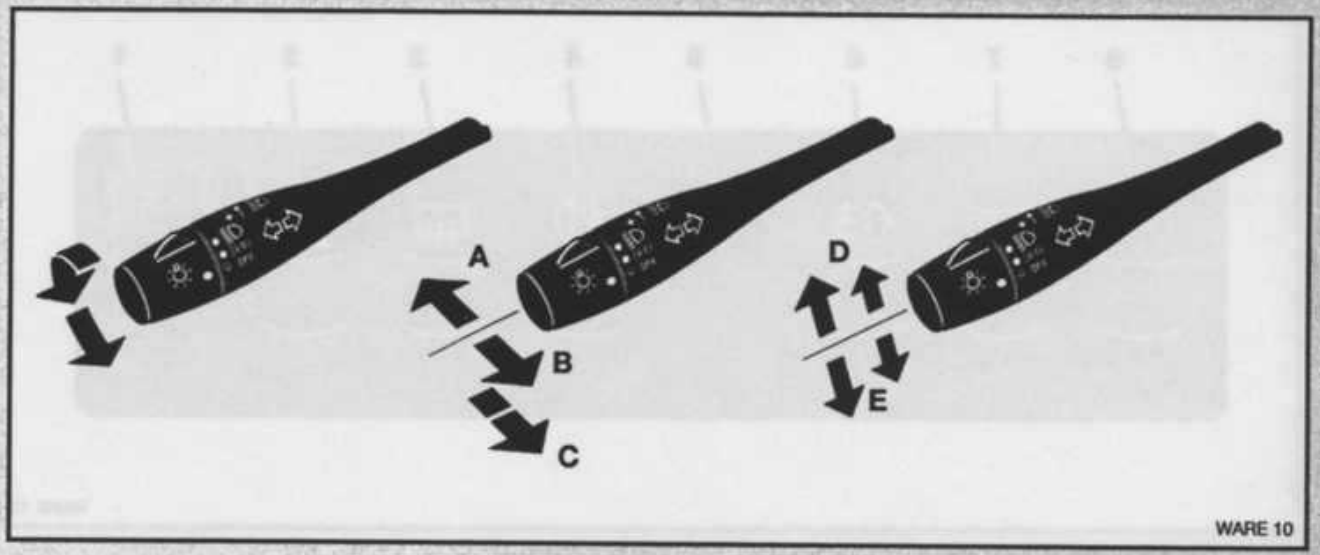
Light warning buzzer

A warning buzzer will sound if the light switch is turned on when the driver's side door is open with the ignition off.

To select high beam, push the lever away from you **(A)**. The warning light in the instrument cluster will glow 'blue' in the high beam position. Pull the lever towards you **(B)** for low beam.

Headlight flasher

When the ignition is switched on, pulling the lever toward you **(C)** against spring pressure will operate the headlight flasher. This switch also operates when the lighting switch is off.



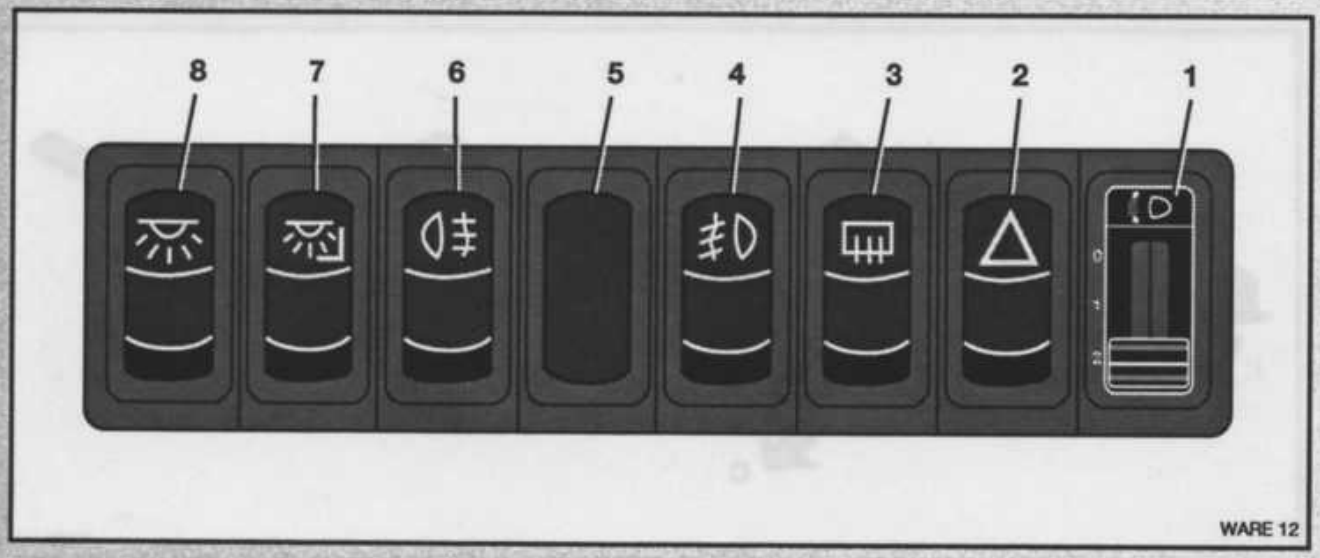
Indicator switch

Move the lever fully up or down to signal right **(D)** or left **(E)**. When the turn has been completed, the indicators will cancel automatically. The appropriate warning light in the instrument cluster will flash in time with the indicators.

CAUTION: *If the warning light flashes incorrectly this indicates that a bulb in the indicator circuit (front, side repeater or rear) may have failed and should be replaced at the earliest opportunity.*

Lane change signal

To indicate a lane change, move the indicator switch up or down to the point where the indicators begin to flash. The lever will return to its off position when released.



1. Head lamp beam level control
This sliding switch controls the level of the headlamp beams. Position **'0'** is highest setting with positions **'1'** and **'2'** progressively lowering the headlamp beam as required depending on how the vehicle is loaded.

The following settings should be followed as a general guide.

0 Driver and one or two passengers
1 Driver and up to five passengers
2 Fully laden with passengers, and luggage in the boot

2. Hazard warning lights switch
Use this switch when you have to stop or park under emergency conditions. All the direction indicators will flash. A red triangle symbol on the switch, and the direction indicator warning lights in the instrument cluster will flash in time with the direction indicators.
Press the switch again to turn off the hazard warning lights.

3. Heated rear screen and door mirrors
With the ignition switch on, operation of this switch against spring pressure will turn on the rear screen and door mirror heating elements. Further operation of the switch will turn the heating elements off. The switch will glow amber while the heating elements are on.
Note: *The heating elements will switch off automatically after approximately 12 minutes or when the ignition is switched off.*

4. Front fog lights (where fitted)
With the sidelights switched on, pushing this switch on or off will control the illumination of the front fog lamps. The switch will glow green while the fog lights are on.

5. Spare switch location

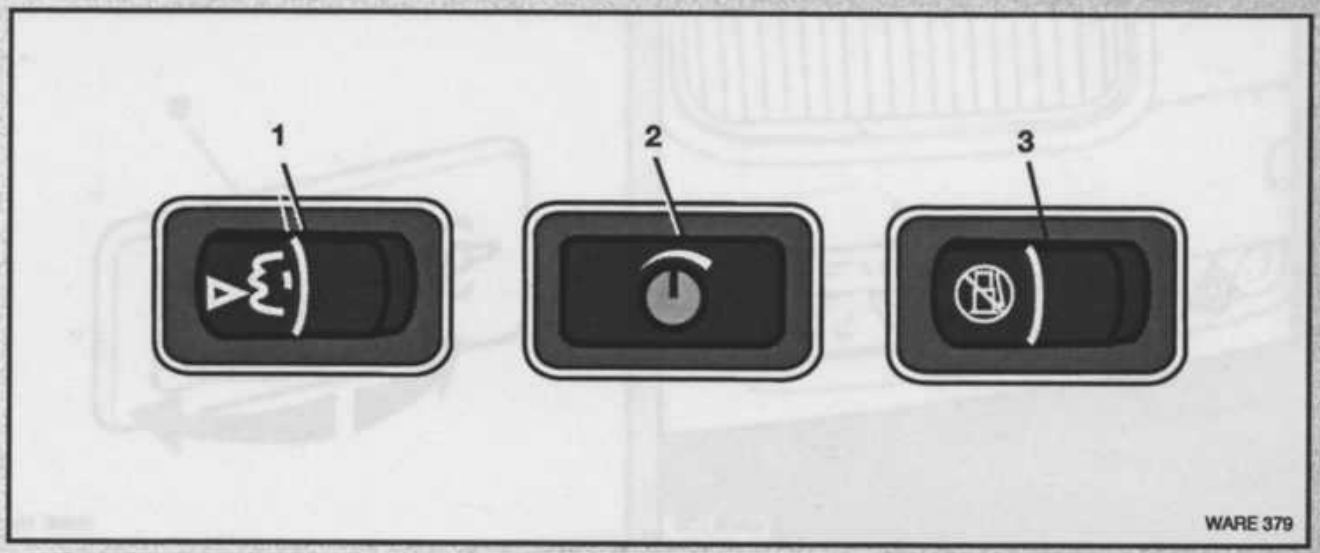
6. Rear fog lights
When the headlights or optional front fog lights are switched on, pushing the switch will illuminate the rear fog lights; a further push on the switch will extinguish the rear fog lights. The switch will glow amber while the rear fog lights are on. The rear fog lights will be extinguished when the headlights are turned off, unless the optional front fog lights are in use at the time.
Note: *Fog lamps should only be used when visibility is seriously reduced, and in accordance with local legislation.*

7. Driver's compartment illumination
Pushing this switch on or off will control the illumination of the driver's compartment lights in the overhead console and at each side of the facia. These lights also come on when either front door is opened. On some models these lights remain on for a short time after the doors are closed or until the ignition switch is turned on.

8. Passenger compartment illumination
When the rear doors are closed, pushing this switch on or off will control the illumination of the passenger's compartment overhead lights irrespective of the position of the light switch in the passenger compartment.

RADIO AND AUDIO EQUIPMENT
The radio and audio equipment operating instructions are provided in a separate publication supplied with the vehicle.

A telescopic radio aerial is mounted in the right hand rear wing and should be fully extended when the radio is to be used and pushed fully in when not required. Operation of the optional electric aerial is automatic when the radio equipment is turned on or off.
Note: *Both types of aerial should be cleaned every week to ensure they extend and retract correctly.*



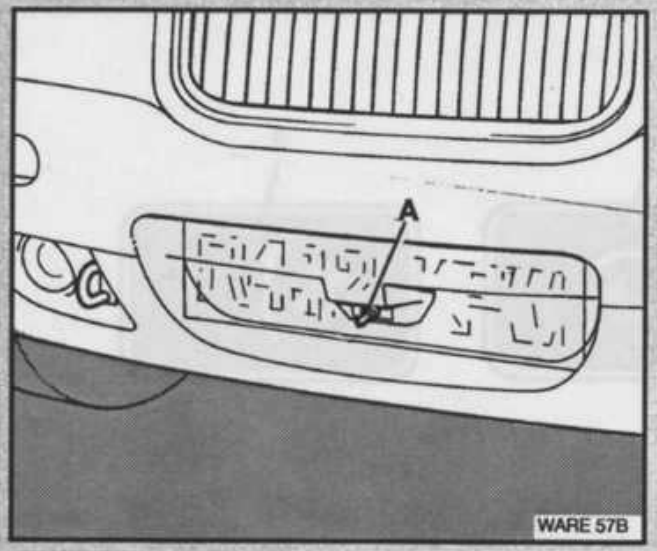
1. Intercom and induction loop systems
The vehicle is fitted with an intercom system to facilitate communication between the driver and passengers. With the ignition switched on, the intercom may be operated by pressing the facia switch, or the similar switches in the passenger compartment. Whenever the intercom is turned on, the radio/cassette sound output will be muted.
Pressing either switch again will turn the intercom system off, so that privacy is available as required. Lights in the switch and in the passenger compartment are illuminated when the intercom system is being used.
Note: *The intercom system performance will be affected by background noise and should be operated with windows and centre partition closed, and audio equipment 'off'.*

An induction loop system around the passenger compartment enables hearing aid wearers to hear conversations more easily by switching their hearing aids to the 'T' position.

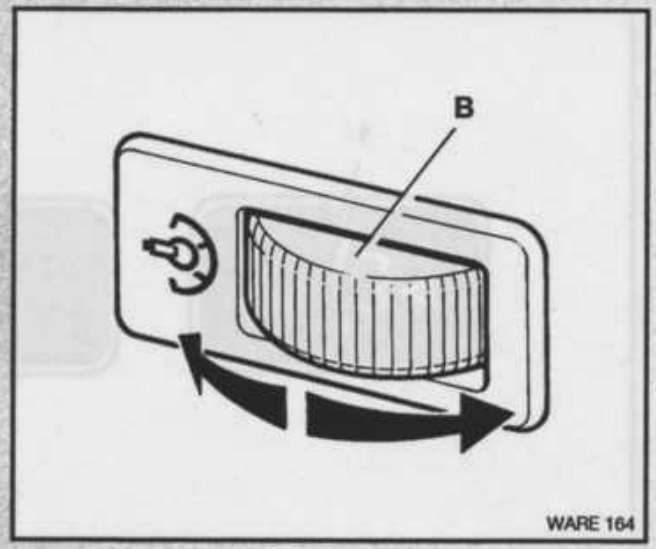
2. Intercom volume control
Rotate the control knob clockwise to increase the volume from the driver's compartment intercom speaker. The volume from the passenger's intercom speaker is pre-set, but, for a small charge, may be altered by your Dealer if required.
Note: *Under certain conditions, background noise may adversely affect the sound quality if the control knob is set to its maximum position.*

3. Fuel cut off switch
Two fuel cut off switches are fitted for safety reasons - one on the facia, and one behind the front number plate (described on the following page). These switches operate in conjunction with each other.

Fuel cut off switch - facia
Press the fuel switch to cut off the fuel supply and stop the engine. The light in the switch will glow red to show when the fuel supply has been cut off by either of the switches. When it is safe to do so, press the switch again to turn on the fuel supply so that the engine may be restarted.

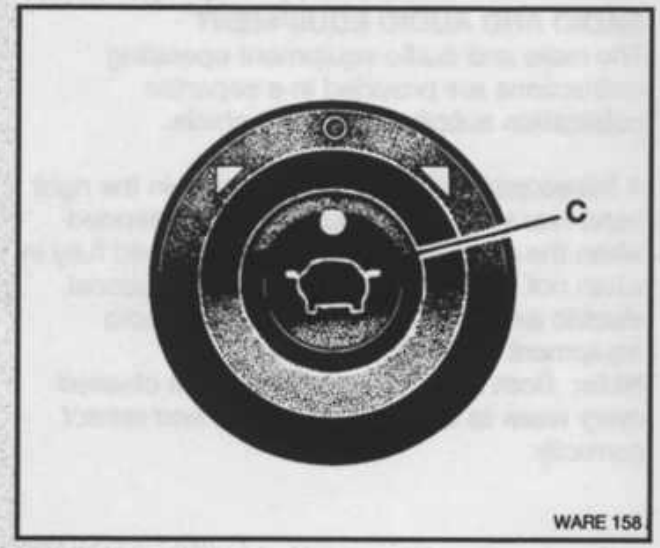


Fuel cut off switch - exterior
The exterior fuel cut off switch **(A)** is located at the front of the vehicle behind the number plate. Its position is shown by a decal located on the front bumper. When the switch has been operated, the light in the facia switch will glow until either of the fuel switches is turned on allowing the engine to be restarted in the usual manner.

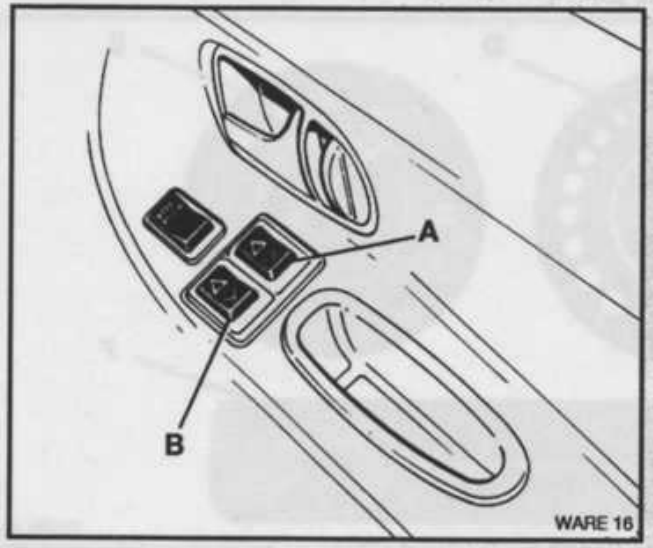


Instrument panel illumination
When the side lights are switched on, the instruments and a number of the switches are illuminated. The intensity of the instrument illumination may be controlled by rotating the knurled adjuster **(B)**.

Horn
The horn may be operated by pressing the lower part of the steering wheel centre pad.

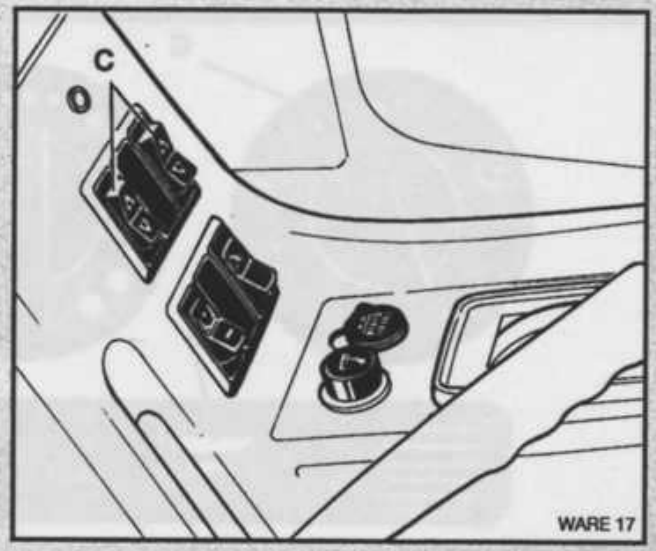


Door mirrors
Turn the knob **(C)** to select the mirror to be adjusted. Adjust the mirror by moving the knob in the direction adjustment is required. Return the control to its central position when the required adjustment has been achieved.
To clear mist and frost, the mirrors are heated when the rear screen heater is in operation.
Note: *To minimise accidental damage, door mirrors are designed to fold back if they are inadvertently knocked. They may be repositioned by pulling the mirror head back into its normal position.*



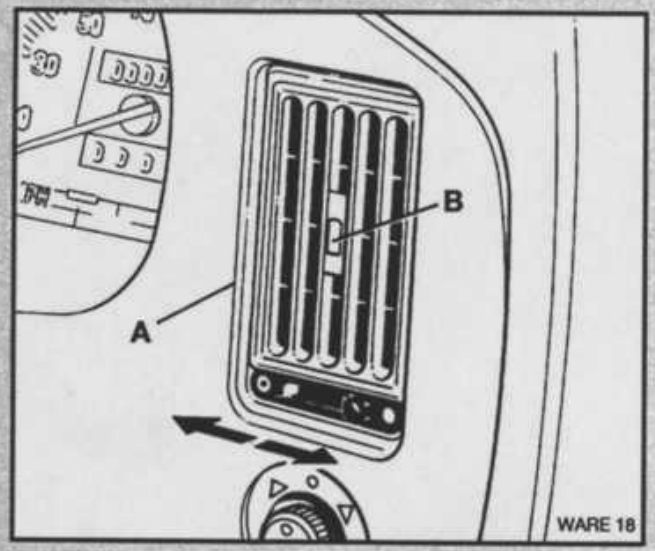
Driver's compartment door windows
The rocker switch **(A)** in the driver's door arm rest operates the driver's door window, switch **(B)** is for the window in the left hand door. These switches operate with the ignition key in position **I** and **II**. Push and hold the switch in the 'up' or 'down' position until the required position is achieved.

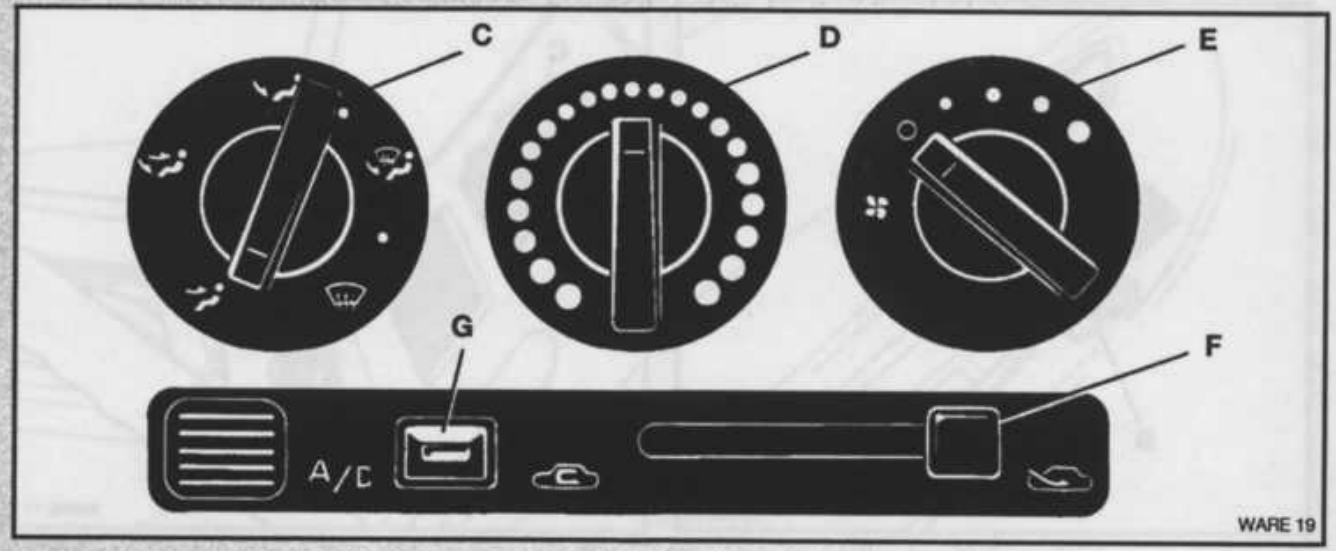
There is a similar switch for the window in the left hand front door.



Passenger compartment windows - driver's control switches
Operating the rocker switches **(C)** located in the centre console to the rear of the gear lever, will allow the driver to raise or lower the rear door windows as required. These switches operate with the ignition key in position **I** and **II**.

The switches must be held 'up' or 'down'' until the required window position is reached.





HEATER CONTROLS

Heater air vents

Air from the heater system flows through demister nozzles at the base of the windscreen, outlets in each footwell, and four adjustable facia mounted vents **(A)**. Open the adjustable vents by moving the lever to the **'O'** position, close the vent by moving the lever to **'●'**. Direct the air flow by moving the control **(B)**.

Note: *To ensure the heater operates effectively, always clear any accumulated ice and snow from the windscreen wipers and the air inlet in front of the windscreen before driving the vehicle.*

Air distribution control (C)

Temperature controlled air is directed from the four facia mounted vents. Where air conditioning is fitted, air from the centre vents is at outside air temperature or cooled.

Temperature controlled air is directed from the four facia vents and the footwell outlets.
Where air conditioning is fitted, air from the centre vents is at outside air temperature or cooled.

Temperature controlled air is directed from the footwell outlets and facia outer vents; unheated air is directed from the facia centre outlets. Further small movement of the control clockwise will progressively direct a small air flow from the de-mister nozzles.

Temperature controlled air is directed from the footwell outlets, de-mister nozzles and facia outer vents; unheated air is directed from the facia centre outlets.

Temperature controlled air is directed from the de-mister nozzles and facia outer vents; unheated air is directed from the facia centre outlets. Maximum defrost is achieved with the facia vents closed and the lever **(F)** to the left in the air recirculation position.

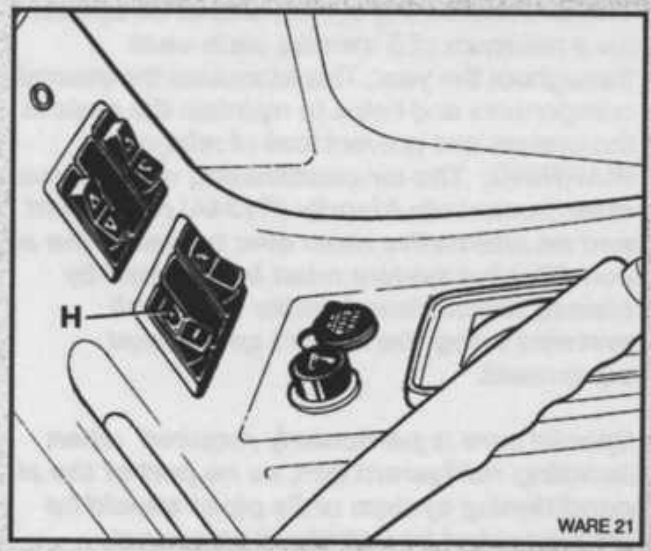
Temperature control dial (D)
Turn the control clockwise from its blue into its red sections to provide increasing air temperature. This control sets the temperature level from both front and rear heaters.
The heating function only operates after engine warm up.

Heater blower control dial (E)
Turn the control clockwise from the off 'O' position to provide increasing air flow (four speeds).

Air recirculation lever (F)

Outside air is drawn into the driver's compartment. Use this position for normal heating and ventilation.

Interior air is recirculated in the driver's compartment. Use this position for rapid warm up from cold (or for quick cooling when air-conditioning is fitted), when driving on a dusty road or to avoid excessive traffic fumes.



CAUTION: *Do not use the 'recirculated air ' position for extended periods as this may cause the interior air to become stale and the windows to mist up.*

Passenger compartment
Fresh air is directed through a separate rear heater into the passenger compartment . An override switch **(H)** in the centre console and behind the gear lever allows the driver to switch the passenger heater blower on or off. The temperature control dial on the facia also controls the temperature of the rear heater output.

DRIVER'S AIR CONDITIONING (where fitted)

Air conditioning switch (G)

Start the engine, move the blower motor control to the desired position and push the air conditioning switch **(G)** illustrated on previous page to turn the air conditioning system on; the air conditioning indicator light in the switch will then come on. Push the switch again to turn the air conditioning system off. The blower motor speed selected will control the amount of cool air available.

For maximum cooling the blower should be set to its maximum speed, the temperature control turned fully anti-clockwise and the air circulation lever **(F)** set to recirculate the air in the vehicle. The temperature of the incoming air may be raised by rotating the heater temperature control.

Note: *The air conditioning system will not operate with the heater blower motor control in the off 'O' position.*

Air conditioning - general information

Turn off the air conditioning when starting the vehicle to reduce the starter motor load.

The air conditioning system works only when the engine is running. Moisture is removed from the incoming air during the air conditioning process and this assists the de-misting of windows.
NOTE: *When operating the air conditioning system in conditions of high humidity, extracted water can cause a build up of ice in the system which will restrict air flow. In such conditions the air recirculation lever* ***(F)*** *shown on page 26 should be set and retained in its recirculation position.*

Both during and after use, it may be noted that water drains from the air-conditioning system below the vehicle and this is normal.

Air conditioning systems consume energy and increase fuel consumption. It is good practice to use the air conditioning system sparingly.

It is beneficial to ventilate a vehicle which has been standing in extremes of heat, by first opening the windows and then operating the heater blower at its maximum for a few minutes, with the temperature control set to cold, before closing the windows and turning on the air conditioning system.

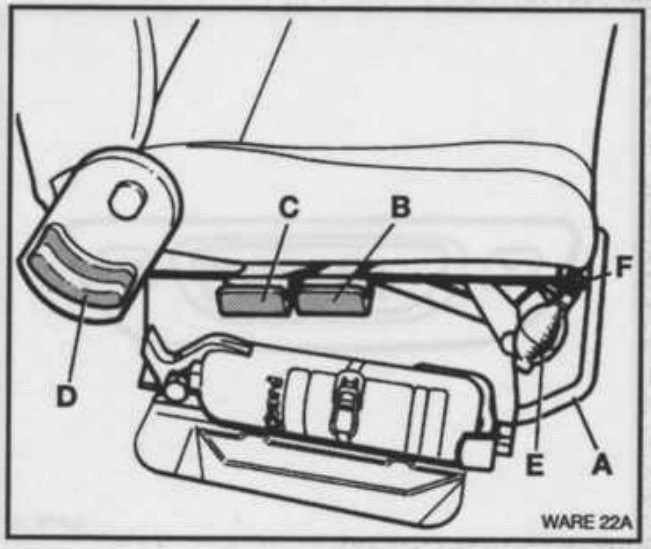
The air conditioning system should be operated for a minimum of 5 minutes each week throughout the year. This lubricates the internal components and helps to maintain the seals in the system and prevent loss of refrigerant.
WARNING: ***The air conditioning system uses environmentally friendly (R134A) refrigerant and no alternative must ever be used. The air conditioning system must be serviced by trained technicians familiar with such systems using the correct specialised equipment.***

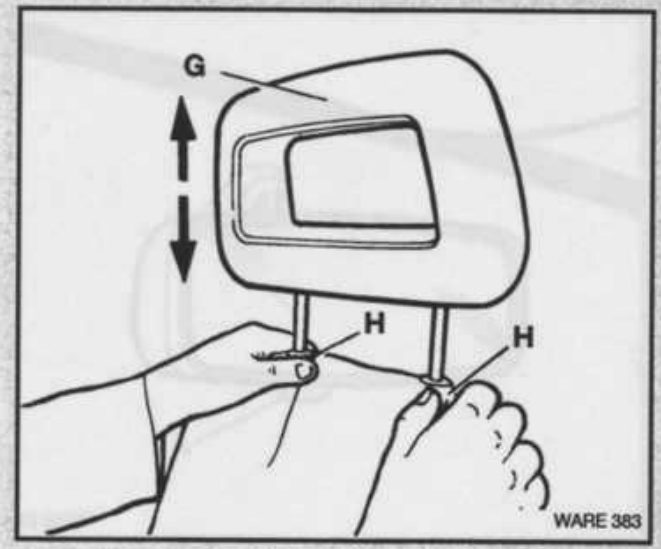
Special care is particularly required when handling refrigerant gas, so no part of the air conditioning system or its pipes should be disconnected by untrained personnel.

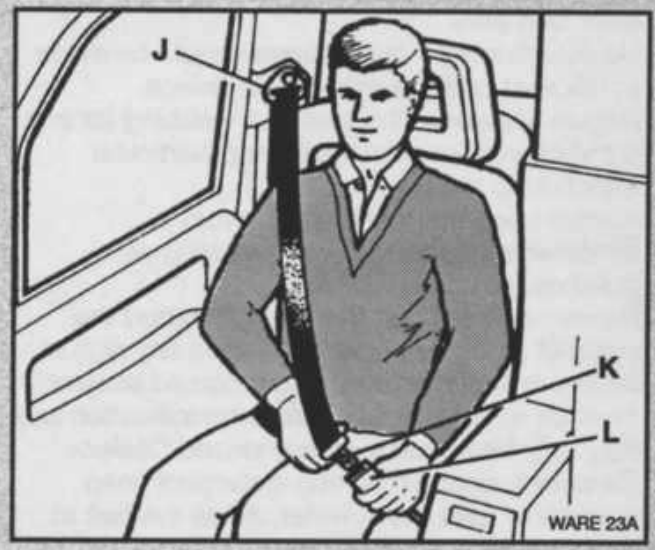
CAUTION: *In most countries is an offence to deliberately release refrigerant gas to the atmosphere.*

Moisture and foreign particles in the refrigerant will have an adverse affect upon the satisfactory operation of the air conditioning system. Always ensure the receiver dryer is replaced by a trained technician at the intervals specified in the maintenance section of this handbook.

The air conditioning compressor belt driven by the engine must always be maintained at the correct tension. If the system fails to function correctly and the compressor drive belt is in good condition and correctly tensioned, seek the help of a trained technician.







DRIVER'S SEAT AND HEADREST

Lift the release **(A)** at the front of the seat frame to adjust the seat forwards or backwards. Lift the lever **(B)** to raise or lower the front of the seat. Lift the lever **(C)** to raise or lower the rear of the seat. Lift the adjuster lever **(D)** to alter the seat back angle.

A pneumatic lumbar support is fitted which may be adjusted by pumping the rubber bulb **(E)** situated to the inside of the seat. Release the pressure to the support as required by depressing the valve **(F)** adjacent to the base of the rubber bulb.

The headrest should be adjusted up and down so that the top **(G)** is immediately behind the centre of driver's head. With assistance, and working from the front of the seat, the headrest can be lifted out of the seat after depressing the spring clips **(H)** in the top of the seat back, to the right of each headrest pillar hole.

SEAT BELT - DRIVER'S SEAT

Always wear your seat belt and ensure your passengers wear their seat belts whenever driving the vehicle. The chances of becoming injured in an accident and/or the severity of injury may be greatly reduced if seat belts are worn and are properly adjusted.

Adjust the driving seat to the required position. Slowly draw the seat belt out from its retraction guide **(J)** on the body pillar, passing it over the centre of the right shoulder before inserting the locking tongue **(K)** into the buckle **(L)** until a "click" confirms full engagement.

Ensure the belt is not twisted and position the lap belt portion low over the hips (never across the soft parts of the abdomen). Pull the shoulder portion of the belt back towards the guide on the body pillar to remove any slack.

Depress the red button on the buckle **(L)** to release the belt; the belt will retract automatically.

WARNING: ***The seat belt should rest on the middle of the shoulder - it must not rest against the neck.***

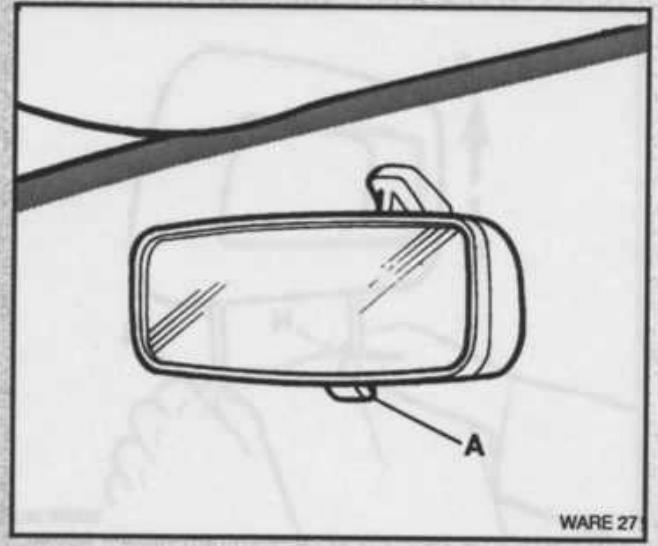
Seat belt care
No modifications or additions should be made to the seat belt assembly or its fixings.
Regularly inspect the seat belt webbing for any signs of wear or damage paying particular attention to the fixing points.
Always keep the belt dry and avoid contaminating the seat belt webbing with polishes, oils and chemicals.
Renew any seat belt that has withstood the strain of a severe impact or shows any sign of fraying or has been cut. The replaced assembly must be to the manufacturer's specification and may only be fitted by an authorized Dealer.
Clean only with a mild non-detergent soap solution or luke warm water. Allow the belt to dry naturally.

Checking seat belt operation
The seat belt retractors are designed to lock belt movement by two separate methods - when the seat belt is pulled quickly from its retractor, and when the vehicle slows down rapidly.

The seat belt operation may be tested as follows:

1. Grasp the shoulder belt and pull it forward quickly. The retractor should lock up immediately and prevent any further belt movement.

2. **The following test must be carried out under safe road conditions, i.e. a dry road with no following or oncoming vehicles.**



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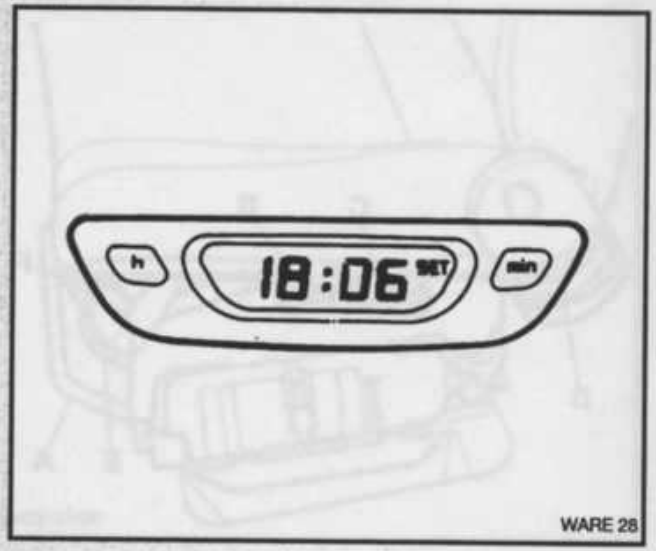
With the belts in use, drive the vehicle at a steady 5 mph. (8 kmh) and brake sharply. The automatic locking devise should operate and lock the belt. It is essential that the driver and passenger are sitting in a normal relaxed position when making this test - the retarding effect of braking must not be anticipated. If the retractor fails to lock during this check you should consult your authorized Dealer.



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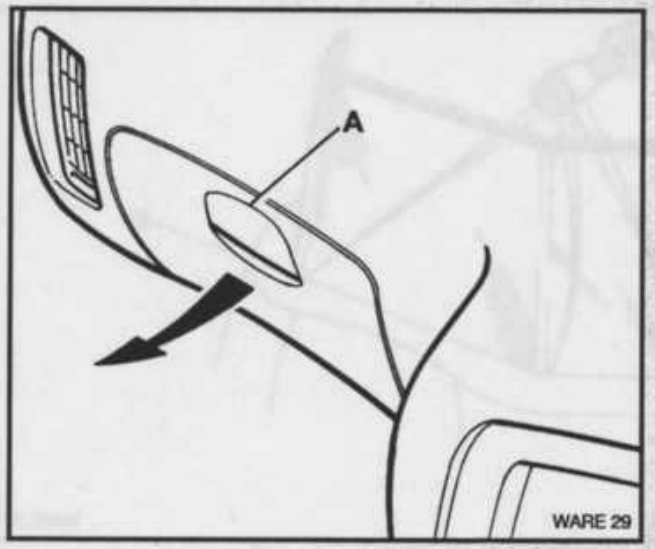
Interior Mirror
The mirror head may be adjusted as required. To reduce dazzle, press the lever **(A)** towards the windscreen; return the mirror to its original setting when required.

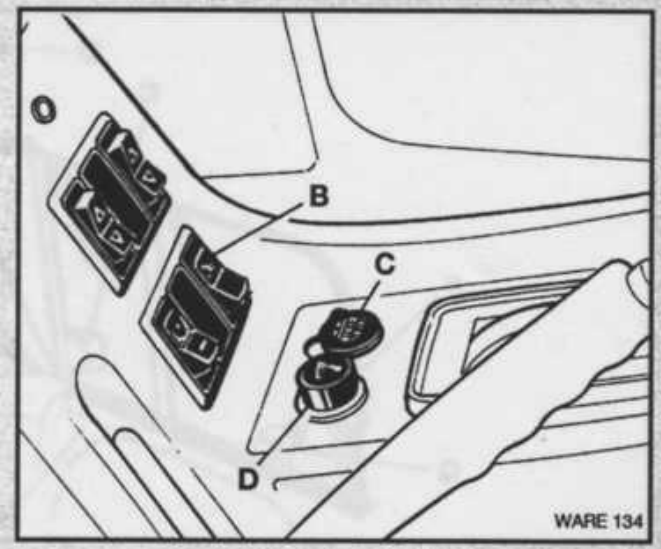
Clock
The 24 hour display clock is situated in the roof console. Adjust the hour displayed by pressing the button **(h)** until the required display is achieved. Similarly adjust the minutes displayed by pressing the button **(min).**



Glove compartment
The glove compartment may be opened by lifting the catch **(A)**. Always close the glove compartment lid before moving the vehicle.

Courtesy lights
Courtesy lights at each end of the lower edge of the facia operate together with the interior light when either of the front doors are open. On some models the lights will remain on for a short time after the doors are closed or until the ignition switch is turned on.

Reading light override switch
Located in the centre console to the rear of the gear lever, this switch **(B)** allows the driver to control the operation of the passenger compartment reading lights. When the switch is in the 'off' position, the passenger reading lights cannot be used.



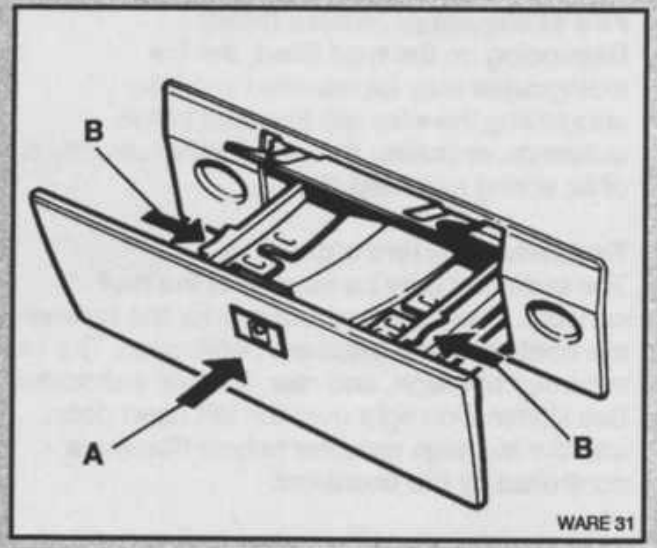
Power socket
A 12 volt, 10 Amp power socket **(C)** is situated in the centre console to provide an electrical supply for computer and communication equipment.
The pull back cover over the socket should be replaced when the socket is not in use.

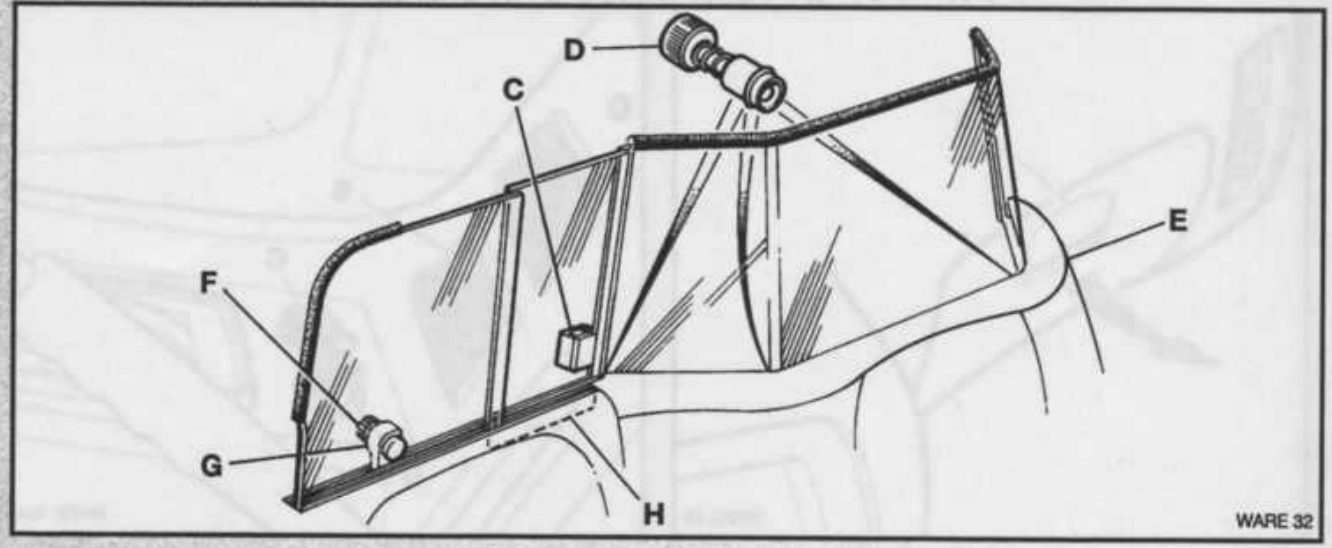
Cigar lighter (where fitted)
The cigar lighter **(D)** is located in the centre console to the rear of the gear lever. Press the knob to operate the lighter, which will partially eject when the lighter element has heated, and can then be withdrawn for use. Carefully replace the lighter after use to avoid any damage to the trim if the lighter element is still hot.

Fire extinguisher (Where fitted)
Depending on the type fitted, the fire extinguisher may be released either by unbuckling the wire clip from the inside outwards, or pulling the extinguisher directly out of its spring mounted clip.

Taximeter and hire sign(s)
The taximeter may be housed in the roof console. Operating instructions for the taximeter are contained in a separate publication. The roof mounted hire sign, and rear 'for hire' indicators, fare illumination light over the left hand door, and the hire sign repeater (where fitted) are controlled by the taximeter.

Fare illumination light
The fare illumination light over the left hand door comes on when the vehicle is stationary and 'fare total' is selected on the taximeter. It is extinguished when the taximeter 'for hire' position is selected. In this position, lights to each side of the high brake light come on to indicate to following taxis that the vehicle is plying for hire.





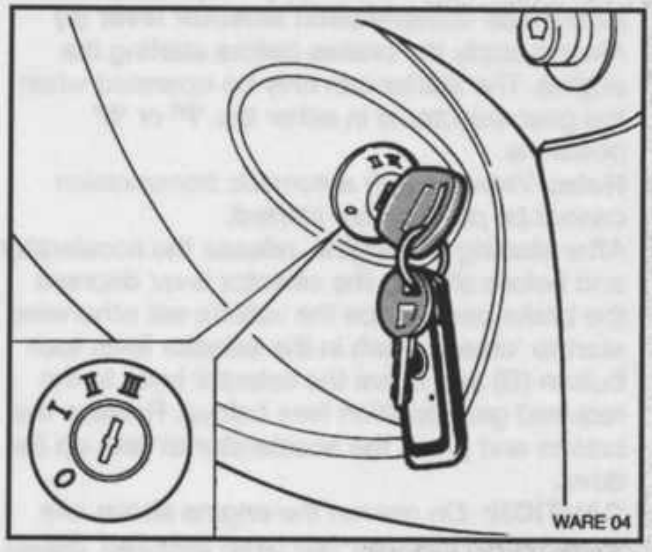
Driver's ash tray (where fitted)
Situated in the centre of the facia panel, the ashtray will open when the small pad **(A)** is pressed and released. Press the retainers each side of the inner tray **(B)** to withdraw the ashtray for cleaning.

Storage compartments
A pocket is provided in the driver's door, in addition to the compartment to the rear of the centre console.

Left hand front door pull
A flexible cable door pull is provided between the facia and the left hand door to facilitate door closure from the driver's seat.

Centre Division
The sliding glass panel in the centre division may be secured in its closed position with the catch **(C)**.
The acrylic screen and glasses in the centre division can be removed as detailed below.
Open the sliding glass. Undo the three 'pop out' screws **(D)** in the trim behind the driver's seat. Remove the finisher **(E)** to the back of the acrylic screen then carefully pull the screen and its rubber seal down and out of the trim. Undo the 'pop out' screw **(F)** from boss on the front of the glass slider. Hold the sliding glass while pushing the glass slider **(G)** towards the side of the vehicle - the sliding glass can then be lifted out. Use the point of a screw driver to ease out the fixed glass stop **(H)** from the rear groove of the glass bottom channel, the fixed glass and its seal may then be pulled out of the trim.

Replace the division glass by first re-positioning the left hand fixed glass and seal, before fitting the glass stop in the bottom channel. Working from the front of the division, push the glass slider **(G)** to the left hand side of the vehicle. Position the sliding glass (catch to the front and right) in the front groove of the glass bottom channel; then lift the glass into the front groove of the glass top channel while pushing the slider along under the glass until the 'pop out' screw **(F)** can be reinserted through the fixed glass. Replace the acrylic screen and seal in the trim and reposition the bottom finisher before tightening the 'pop out' retaining screws **(D)**.



STARTING THE ENGINE

Turn the ignition key to position **'I'** to unlock the steering. If the steering lock remains engaged, slight movement of the steering wheel will release it. Apply the footbrake and check the gear selector lever is in the 'P' position (automatic transmission) or 'Neutral' (manual gearbox).

Further movement of the key clockwise to position **'II'** will switch on the 'glow' plugs which assist engine starting. The orange warning light in the instrument panel will glow, indicating the 'glow' plugs are operating. **The starter motor should not be operated until the warning light goes out.**

Further clockwise movement of the key against spring pressure to the **'III'** position on the switch will then operate the starter motor. Release the key to position **'II'** immediately the engine fires and runs freely. Normally the starter motor should only be operated for 5 to 6 seconds at a time. If the engine fails to start the first time, release the key to position **'II'** until the engine and starter motor have ceased turning before again turning the key to engage the starter motor. This procedure may be repeated a few times, however, if the engine fails to start after repeated attempts, service attention is required.

Note: *The starter motor may have to be operated for more than five or six seconds in cold weather conditions.*

To stop the engine, turn the key fully anti-clockwise to position **'O'**.

WARNING: ***Never remove the key while driving. If the key is removed the steering will lock.***

The steering lock must be disengaged (key in and turned to position 'I') before releasing the handbrake and manoeuvring the vehicle without using the engine. Never push the vehicle without a qualified driver in position and with the steering lock disengaged. Remember that brake servo assistance is not available unless the engine is running. Free wheeling is not recommended.

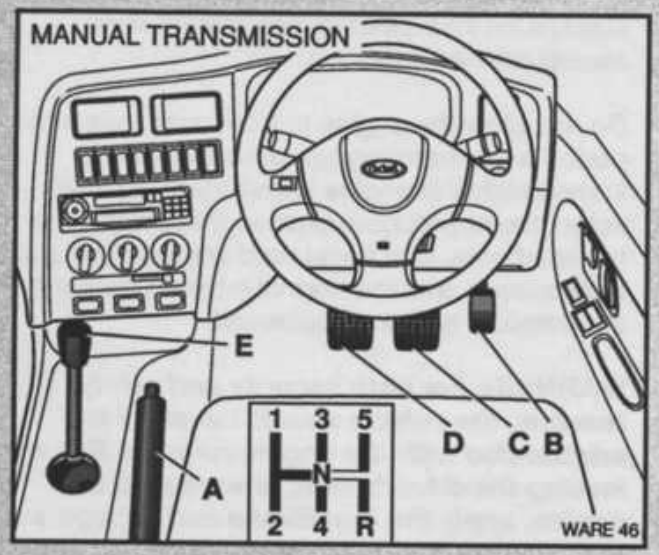
The steering lock/starter switch are designed to prevent the engine being started while the steering lock is engaged.

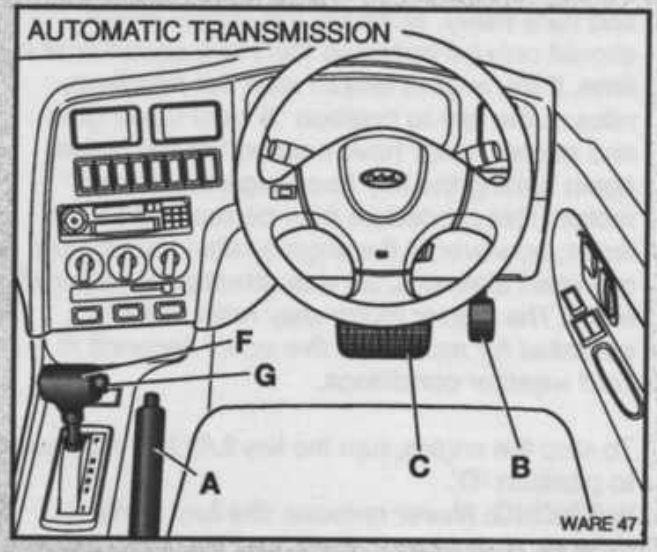
Serious consequences could result from alteration or substitution of the steering column lock/starter switch or its wiring. In no circumstances must the starter switch be separated from the anti-theft device.

CAUTION: *The steering lock/starter switch should not be lubricated.*

Do not allow the engine to idle for an extended period while warming-up; drive the vehicle immediately the engine has started. Always select the appropriate gear so that the engine never labours, and avoid hard acceleration and high speeds until the normal engine operating temperature has been achieved.

WARNING: ***For both security and safety reasons, the vehicle should never be left unattended with the engine running. Before leaving the driver's seat, always stop the engine, apply the handbrake and engage a low gear (manual transmission) or 'P' - park (automatic transmission).***





DRIVER'S CONTROLS

Hand brake lever (A)
Pull the lever upwards to apply the rear brakes. To release the brakes, pull the lever upwards slightly, depress the button on the end of the lever and push the lever fully downwards. The braking system indicator light on the instrument panel will glow red when the handbrake is applied with the ignition switch on.
Note: *Some free play (4-5 notches) must exist in the handbrake linkage in order to allow the automatic rear brake adjustment system to work correctly.*
Accelerator pedal (B)
Brake pedal (C)
Clutch pedal (D)

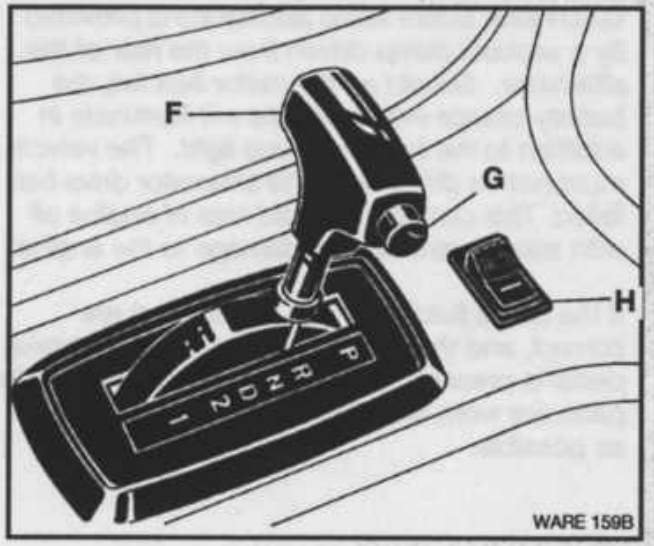
Manual gearbox - gear positions (E)
'N' - Neutral.
'1' - '5' First to 5th Gears.
'R' - Reverse.

Driving
If a gear is not easily engaged, operate the clutch and repeat the gear selection. To engage 5th gear or reverse, the gear lever must be moved against spring resistance. Select reverse gear only when the vehicle is stationary and pause for a few seconds after de-clutching before engaging gear.
Note: *It is good practice to leave the vehicle in a low gear, with the handbrake fully applied, whenever the vehicle is parked.*

Automatic transmission selector lever (F)
Always apply the brakes before starting the engine. The starter can only be operated when the gear selector is in either the **'P'** or **'N'** positions.
Note: *Vehicles with automatic transmission cannot be push or tow started.*
After starting the engine, release the accelerator and before shifting the selector lever depress the brake pedal since the vehicle will otherwise start to 'creep'. Push in the selector lever lock button **(G)** and move the selector lever to the required gear position (see below). Release the brakes and press the accelerator to take up the drive.
CAUTION: *Do not run the engine above idle speed when any gear has been selected. Select the lever positions **'N'** or **'R'** for prolonged periods of idling. When the vehicle is stationary always keep the brakes applied until gear selection has taken place.*

Selector positions
'P' - Park. Select this position only when the vehicle is stationary. Apply the handbrake and select **'P'** to lock the transmission mechanically before stopping the engine. The selector lever can only be moved to select the other gears after pushing in the selector lock button **(G)**.
Note: *select **'P'** to lock the transmission, and fully apply the handbrake whenever the vehicle is parked.*

'R' - Reverse. Select this position only when the vehicle is stationary. In this gear the reversing lights will operate.



'N' - Neutral. Apply the brakes and select **'N'** when the vehicle has come to rest.

'D' - Drive. Select this position for normal driving. Gears will change automatically both upward and downwards through the forward gears according to road speed and accelerator position. The change up to 4th gear is controlled by means of an overdrive lock (see below).

When the accelerator pedal is fully depressed, the transmission will change down to a lower gear if the road speed is sufficiently low to permit the gear change; the transmission will change up a gear when the accelerator is partly released.

'2' - Second gear. May be selected directly from 'D' Drive and will 'hold' the gear without allowing a change to a higher gear. Select when rapid acceleration is required without depressing the accelerator pedal, or when engine braking is required when descending steep hills.

'1' - Low gear. Engagement of this gear is only possible after pushing in the selector lock button **(G)**. This is to prevent accidental change from **'D'** directly into **'1'** (low gear). Use this gear when climbing steep hills slowly, driving slowly through deep snow, or for maximum engine braking on very steep downhill grades.
Note: *Engine braking is present in both '2' and '1' gears*

Overdrive lock
An overdrive lock switch **(H)** is located in front of the transmission selector lever **(F)**. The indicator light in the switch glows green when the overdrive gear is locked out.
Overdrive (4th gear) is not recommended for town driving and under these conditions the overdrive lock switch should be used to prevent the overdrive from being selected.

For open road cruising, operate the overdrive lock switch (warning light off) to allow the transmission to select all four forward gears according to road speed and accelerator position.
Note: *With the overdrive engaged you may notice a slight jolt as the vehicle comes to rest; this is a characteristic of the transmission and is in no way detrimental to the performance or durability of the vehicle.*

To provide extra engine braking when driving down a long descending slope, use the switch to prevent the overdrive from being selected (warning light on). The overdrive should also be prevented from operating when climbing a long gentle slope. This will prevent frequent changes up and down between 3rd and 4th gears.

FILLING WITH FUEL
Always use the specified fuel for your vehicle.
To allow for expansion, do not fill the tank to the top of the filler neck.
CAUTION: *To avoid the need to 'bleed' air from the fuel system, always avoid any possibility of allowing the fuel tank to run dry. If the tank should run dry, the fuel system must be primed to exclude air (page 60) before attempting to restart the engine.*

BRAKES

The brakes on your new vehicle will increase in efficiency as they are used during the first few days of driving. During this 'bedding-in' period, the pedal pressure required will diminish slightly. Never impede brake pedal travel by using loose additional and unsecured matting.

As a safety precaution, there are two brake hydraulic systems which operate independently. Should one circuit fail, the other circuit will operate though brake pedal travel will be significantly increased. Push the brake pedal down beyond the area of no resistance until the second hydraulic circuit operates the brakes. Do not 'pump' the brake pedal in an attempt to restore pressure.

If the vehicle has been washed, driven through water or over wet roads for long periods without using the brakes, full braking power may not be available until the brakes dry out. As soon as it is safe to do so, dry out the brakes by applying the footbrake lightly several times while the vehicle is in motion. Keep the handbrake applied when using washing equipment.

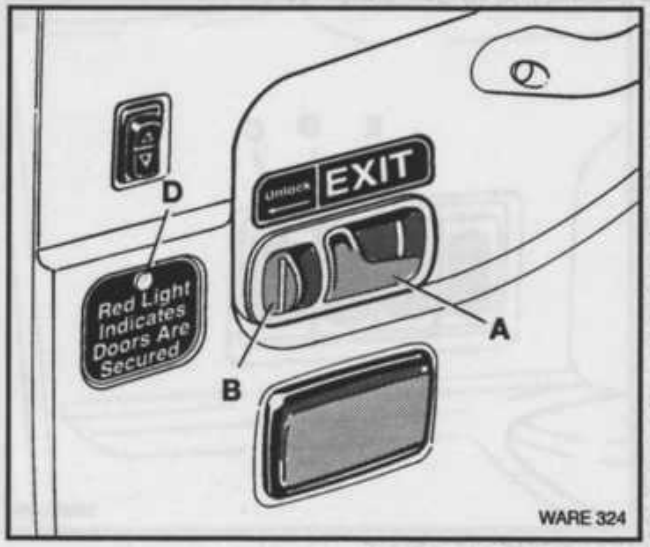
WARNING: *Never ignore the braking system warning light. If the light glows at any time with the handbrake released, it indicates a potential condition with the braking system which requires immediate investigation before the vehicle is driven or after safely stopping the vehicle.*

Check the brake fluid level has not fallen appreciably, indicating a leak in the brake hydraulic system. If the fluid level is incorrect, the source of the leak must be corrected immediately by a competent technician before the vehicle is operated further.

If the fluid level is correct, check to ensure vacuum power assistance is available . Low vacuum power assistance may be identified by heavy brake pedal pressure. This condition should be rectified by an authorised Dealer.

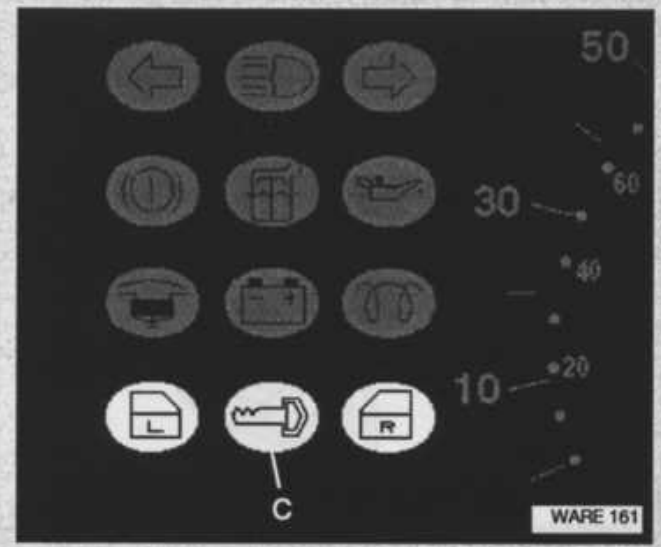
CAUTION: *Brake servo assistance is provided by a vacuum pump driven from the rear of the alternator. Should an alternator belt fail, the battery charge indicator light will illuminate in addition to the brake warning light. The vehicle must not be driven with the alternator drive belt failed. This can lead to rapid loss of engine oil with subsequent serious damage to the engine.*

If the brake fluid level and pedal effort are correct, and the light comes on when the brake pedal is pressed, it indicates that the front brake pads are worn and should be replaced as soon as possible.



Door locks
The exterior door handles operate by pulling directly outwards from the door and can only be locked by the driver controlled central locking system. A small light illuminates the outside door handles when the taximeter is in the 'for hire' mode and the cab is travelling at below walking pace or is stationary.

The interior door release **(A)** will open the rear door. When the vehicle is stationary, the spring loaded locking catch **(B)** may be used to unlock (but not lock) an individual door which has been locked by the central locking system.

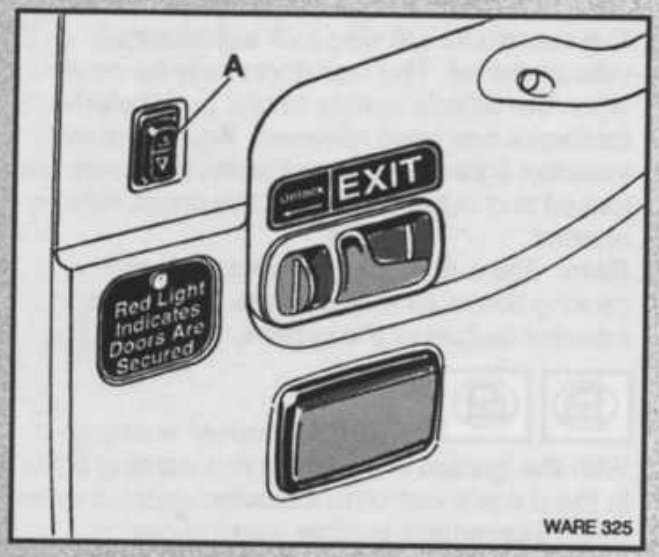


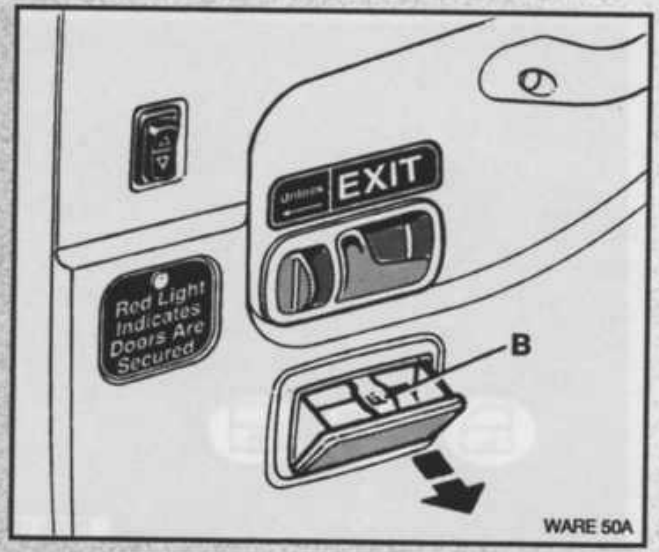
Motion door locks
An electronically controlled mechanism locks the rear doors automatically when the vehicle is in motion or when the driver applies the footbrake with the vehicle stationary.

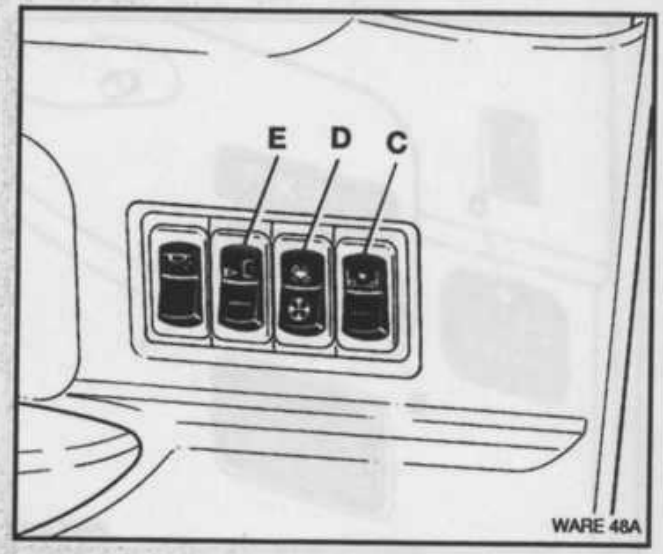
With the ignition on, the vehicle stationary and the foot brake off, the rear doors may be opened. A green warning light in the driver's instrument cluster indicates the rear doors may be opened.
As soon as the footbrake is applied, the rear doors will lock, the green warning light **(C)** in the instrument cluster will go out and the red warning light **(D)** in each rear door will come on. The doors will remain locked (red lights on) until the footbrake is released.

The rear doors will also lock automatically as the vehicle moves. The rear doors may be opened when the vehicle comes to rest and the driver's footbrake has been released. Again, the red indicator lights **(D)** indicate when the doors are locked and extinguish when the doors may be opened.
Note: *The automatic door locks will emit a clicking sound as they operate. This is an inherent feature of the system.*

Rear door 'open' warning
With the ignition on, flashing red warning lights in the driver's instrument cluster, supplemented by an intermittent audible warning device, indicate when a rear door is not closed. If the vehicle is moved with a rear door open the audible warning will be continuous and of higher intensity.
Note: *When the automatic motion door locks are applied, the rear doors may still be opened from outside. This allows occupants to be released from the vehicle either by someone outside the vehicle or by the occupants themselves lowering the window and operating the exterior door handle.*





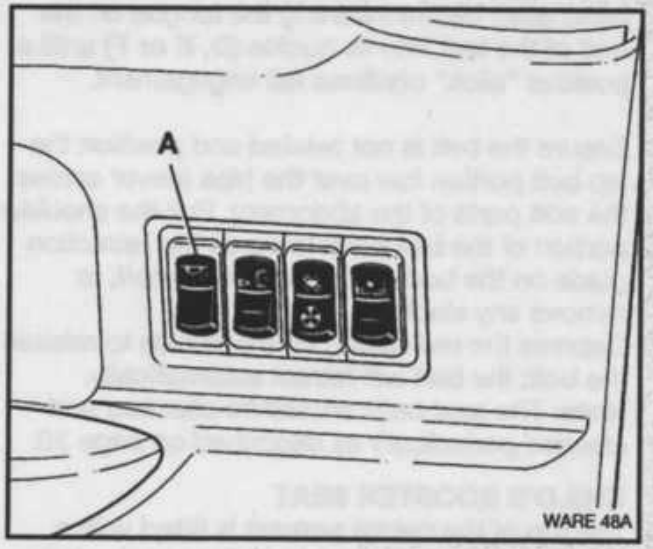


Rear door windows
Rear door window lift switches are set into the door trim **(A)**. These switches operate with the ignition key in positions **I** and **II**. Actuation of the switch will cause the appropriate window to open or close until the switch is released.

Ashtrays
Pull out ashtrays are incorporated into each rear door trim. They may be removed for ash disposal by pressing down the central stub plate **(B)** before pulling the ashtray out from the door trim. After cleaning, the bottom edge of the ashtray should be engaged in the door trim before rotating it upwards into position with the stub plate depressed.

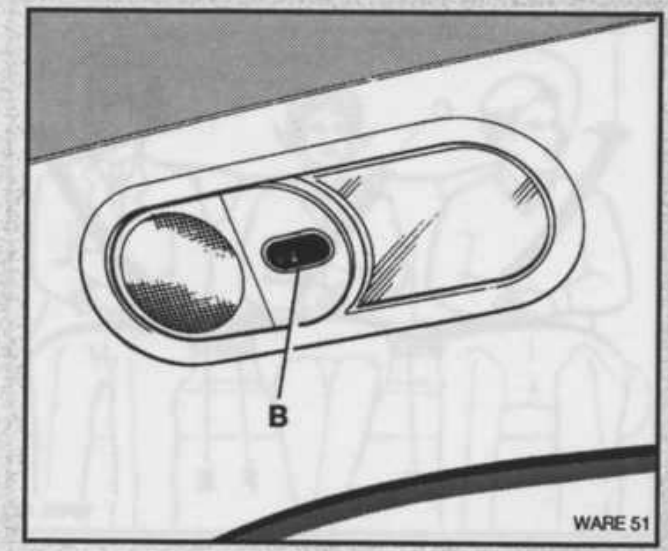
Heater controls
Rocker switches, in the rear quarter trim to the left side of the passenger compartment, control the rear heater. Switch **(C)** turns the heater blower motor on and off, while switch **(D)** controls the heater speed (slow or fast). The heater temperature is controlled by the driver's heater control.

Intercom equipment
The passenger's operation of the intercom is controlled from a switch **(E)** in each rear quarter panel. Pressing the switch will activate the intercom which will remain 'live' until the switch is pressed again. An orange light in the switch and red light on the top of the centre division indicate when the intercom system is 'live'. Microphones for the intercom system are positioned in each rear quarter window trim.



Door and courtesy lights
When a rear door is opened, the floor and roof mounted passenger compartment lights will be illuminated in addition to the puddle lights beneath each rear door. When the doors are closed, the puddle lights will go out. The remaining passenger compartment lights will be extinguished after a short delay.

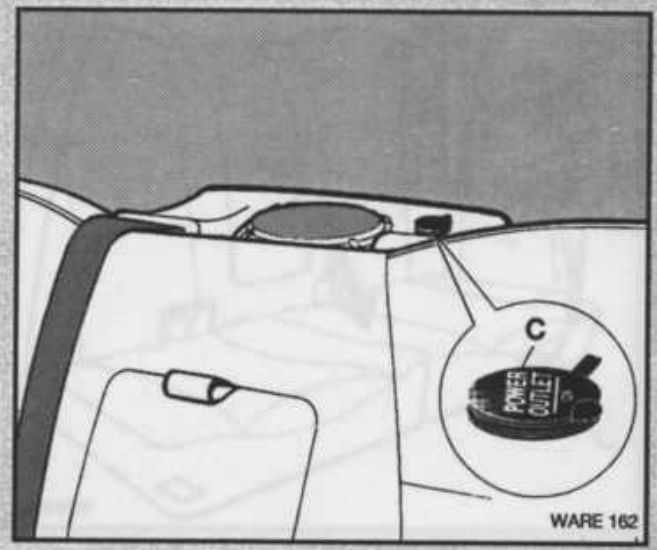
Passenger compartment illumination
Operation of the rear mounted switch **(A)** set into each rear quarter trim will turn the passenger compartment lighting on and off (overriding the operation of the courtesy lights). The driver is also provided with a similar override facility.



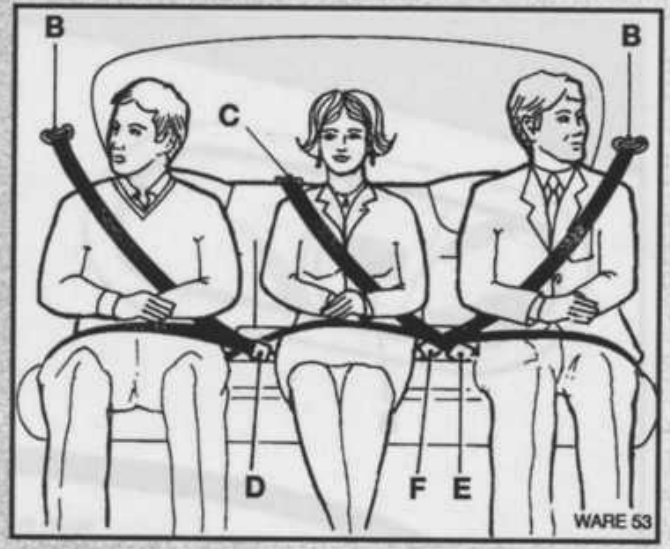
Reading lamps
When the override switch in the driver's compartment is on, moving the switch **(B)** to its central position will turn the reading lamp on.

Grab handles
To facilitate passenger entry and exit, grab handles are fitted to the rear doors, the door slam posts and above the door aperture.

Fare table and cab number
Provision for fare table and cab number details is provided in the door trims.



Power socket
A 12 volt, 10 Amp power socket **(C)** is located in the centre panel of the rear parcel shelf to provide an electrical supply for computer and communication equipment.
The pull back cover over the socket should be replaced when not in use.



The passenger compartment is designed to take a maximum of 5 passengers. This number must not be exceeded.

CAUTION: *Encourage passengers to wear the seat belts provided. The chances of passengers becoming injured in an accident and/or the severity of any injury may be greatly reduced if seat belts are worn and are properly adjusted. Young children's portable car seats should only be used in conjunction with rear seat belts and installed in accordance with the seat manufacturer's instructions.*
Carefully secure luggage or other objects liable to cause injuries in the event of an accident.

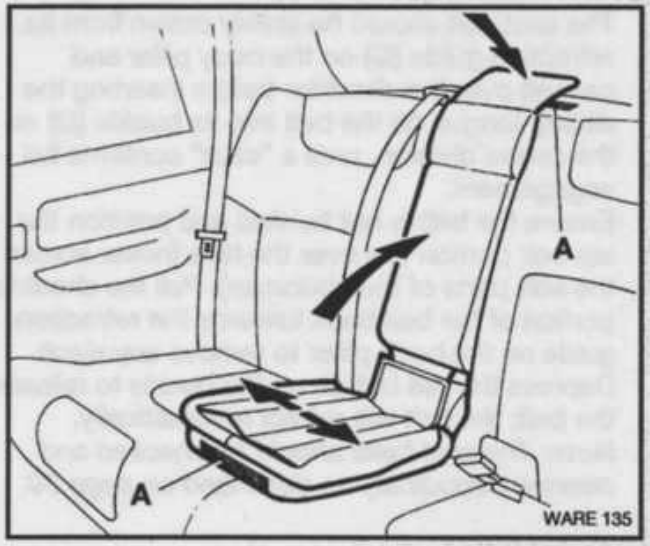
WARNING: ***Never leave immobile passengers, wheelchair passengers, or children in the vehicle unattended.***

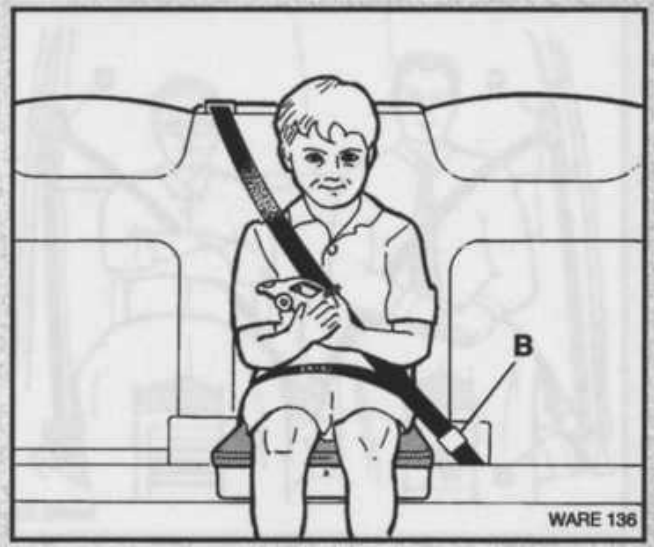
REAR SEAT
The rear seat is fitted with two cushions, each of which may be hinged up when required to provide extra manoeuvring space when loading passengers in wheelchairs. The cushions should normally be held down into position using the latches provided **(A)**.
The centre armrest, which incorporates a child's seat, may be pulled down as required.

REAR SEAT BELTS
Three inertia reel seat belts are provided for the rear seat.
The seat belt should be slowly drawn from its retraction guide **(B)** on the body pillar (or, in the case of the centre belt, from the fitment **(C)** on the rear parcel shelf), passing it over the centre of the right shoulder (left shoulder for the left hand seat) before inserting the tongue on the end of the belt into its buckle **(D, E or F)** until a positive "click" confirms full engagement.

Ensure the belt is not twisted and position the lap belt portion low over the hips (never across the soft parts of the abdomen). Pull the shoulder portion of the belt back towards the retraction guide on the body pillar, or parcel shelf, to remove any slack.
Depress the red button on the buckle to release the belt; the belt will retract automatically.
Note: *The seat belts should be checked and cleaned periodically as described on page 30.*

CHILD'S BOOSTER SEAT
The top of the centre armrest is fitted with a booster seat which when used in conjunction with the vehicle's centre seat belt is suitable for children with a weight between **22 - 36 kg (48 - 80 lbs)**
WARNING: ***Carefully follow the instructions overleaf when using the child's booster seat as failure to do so could be dangerous. Never make alterations or additions to the booster seat; if the seat mechanism is damaged or it has been subject to violent stress as in an accident, it must be replaced by an authorized Dealer with a new unit as specified by the manufacturer.***





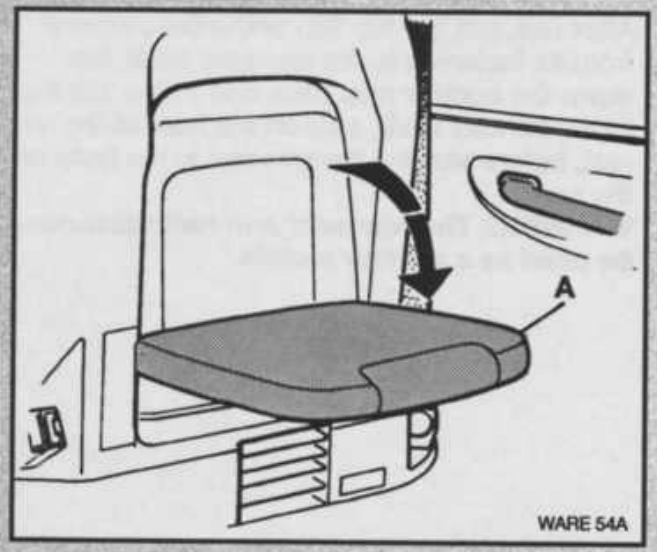
The child's booster seat is unsuitable for babies or children not within the weight limits specified. It must only be used in conjunction with the seat belt which must also be fitted correctly.
The child's seat should be stowed immediately after use to avoid parts in direct sunlight becoming too hot for a child's skin. Children must never be permitted to use the armrest top as a seat.

Lower the centre armrest, pull the top flap of the booster seat from the front of the armrest **(A)**, raise the back of the booster seat to a vertical position, and fix the contact fastening strip beneath the top flap to the similar strip at the top of the rear seat back.

The base of the seat will automatically expand outwards so that the child can be positioned. Slowly draw the centre seat belt from its fitment on the rear parcel shelf, passing it over the centre of the child's right shoulder before inserting the tongue on the end of the belt into the buckle **(B)** until a positive "click" confirms full engagement.

Ensure the belt is not twisted and position the lap belt portion low over the hips (never across the soft parts of the abdomen). Pull the shoulder portion of the belt back towards the guide on the rear parcel shelf to remove any slack.
To release the belt, depress the red button on the buckle **(B)**, holding on to the tongue as it retracts into its fitment to prevent it inadvertently contacting the child.

After use, pull the top flap of the booster seat from its fastening to the rear seat back, fold down the booster seat back and fix the top flap to the contact fixing strip on the front of the arm rest, before stowing the arm rest in the back of the seat.
WARNING: ***The rear seat arm rest must never be used as a seat for a child.***



OCCASIONAL SEATS
Rear facing occasional seats **(A)** are fitted to each side of the centre division. The cushion of these seats is normally held up by springs; the cushions may be pulled down for use when the seats are required.

Seat belts - occasional seats
Inertia reel seat belts are provided for each occasional seat.
Note: *The belt fitted to the left hand swivel seat has an additional fixed tongue and buckle* ***(B)*** *which is only used when the belt is being positioned for use by a wheelchair passenger (see page 46).*

WARNING: ***This additional tongue should only be removed from its buckle when a wheelchair passenger is being positioned in the vehicle. When the ignition is switched on an audible warning device behind the driving compartment centre console will sound whenever the fixed tongue and buckle are separated. The vehicle should never be driven in this condition.***

The seat belt should be slowly drawn from its retraction guide **(C)** on the body pillar and passed over the shoulder before inserting the sliding tongue on the belt into its buckle **(D)** on the centre division, until a "click" confirms full engagement.
Ensure the belt is not twisted and position the lap belt portion low over the hips (never across the soft parts of the abdomen). Pull the shoulder portion of the belt back towards the retraction guide on the body pillar to remove any slack.
Depress the red button on the buckle to release the belt; the belt will retract automatically.
Note: *The seat belts should be checked and cleaned periodically as described on page 30.*

The passenger compartment is fitted with equipment specially designed to assist passengers with special needs to travel in safety and comfort. The left hand occasional seat can be swivelled into the door aperture and used in conjunction with a simply installed additional step to assist the entry of passengers with restricted movement.

Provision has also been made to accommodate most type of hand operated and some power assisted four wheeled wheel chairs. The rear seat cushions are hinged to assist wheel chair entry, and to allow one side of the seat to be used by another passenger, while leaving additional space available for the wheel chair user when required.
To assist in loading a wheel chair, an integral ramp is provided in the passenger compartment floor. The additional step mentioned previously also acts as an extension for the integral ramp where the kerb loading height is low.

It is essential that the equipment is used with care and that the loading and unloading procedures are correctly followed. In all cases reassure the passenger about the equipment, by explaining how it is to be used, and protect your passenger by ensuring they do not contact the door aperture etc., as they manoeuvre into, and out of the vehicle.

GENERAL PRECAUTIONS

1. Wheelchairs must always be carried in the recess to the left hand side of the centre division with the passenger facing the rear of the vehicle. The wheelchair restraining belt, passenger seat belt, and extender belt provided must always be used.
WARNING: *Never carry a wheelchair passenger unrestrained, positioned sideways or facing forwards as the wheelchair and passenger cannot be adequately restrained in these positions.*

2. Wheelchair passengers must always be secured with the seat belt and extender belt provided, as the wheelchair restraint belt does not provide adequate security to the passenger. The seat belt should be threaded through the wheel chair as necessary so that it lies over the passenger's right shoulder before being clipped into the extender belt and routed across the passenger's pelvis to clip into the lower buckle. The belt should never be fitted across the top of the wheelchair arm rests.

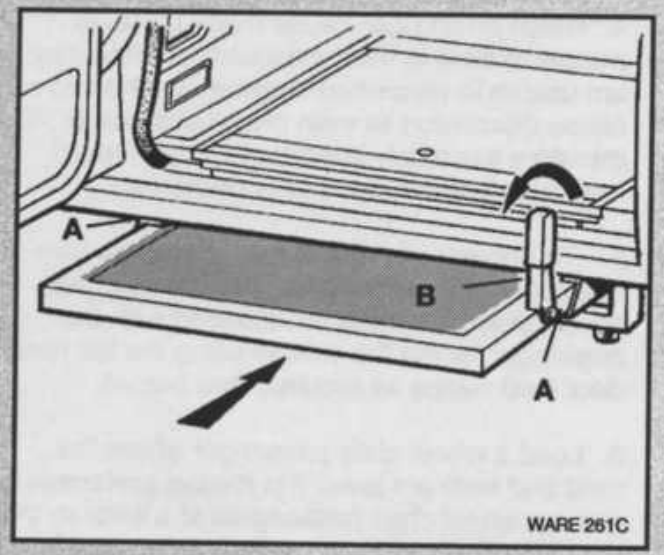
3. Even under light braking, acceleration and cornering, an unrestrained wheelchair occupant can fall out of the wheelchair. While wheelchair brakes should be applied when the chair has been correctly positioned in the vehicle, they are not an adequate restraining system.

4. Harsh driving can cause many disabled people to slide in their wheelchairs; often they are unable to reposition themselves and this can cause discomfort or even physical damage. It is therefore extremely important to try to avoid hard acceleration, braking or cornering.

5. To prevent any risk of the wheelchair user falling out of the wheelchair, the wheelchair should only be loaded or unloaded with the passenger facing the vehicle using the left hand door (and ramps as required-see below).

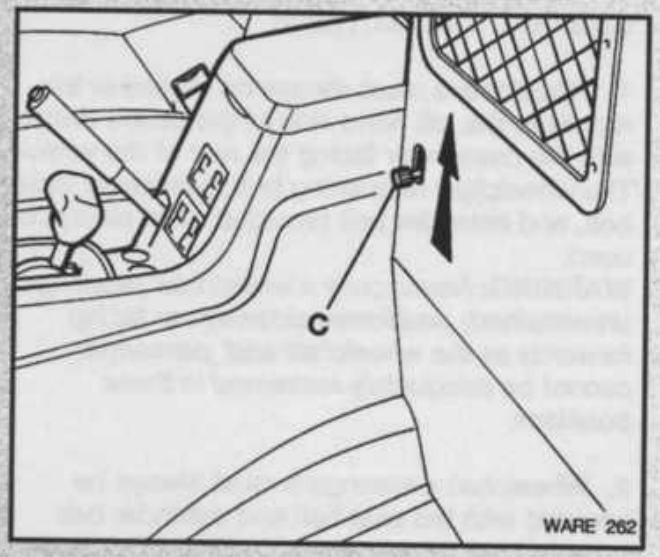
6. Load a wheel chair passenger where the road and kerb are level. It is always preferable to pick up wheel chair passengers at a kerb so that the integral wheel chair ramp may be used without its extension.
CAUTION: *Where there is no kerb, or the kerb height is below 125 mm (5 in.) the ramp extension must be used both to prevent damage to the integral ramp, and to reduce the effort required to load the wheel chair.*

To avoid the risk of the passenger coming into contact with the door aperture etc., never rush the loading process or allow a powered wheel chair to be driven into the vehicle unsupervised.



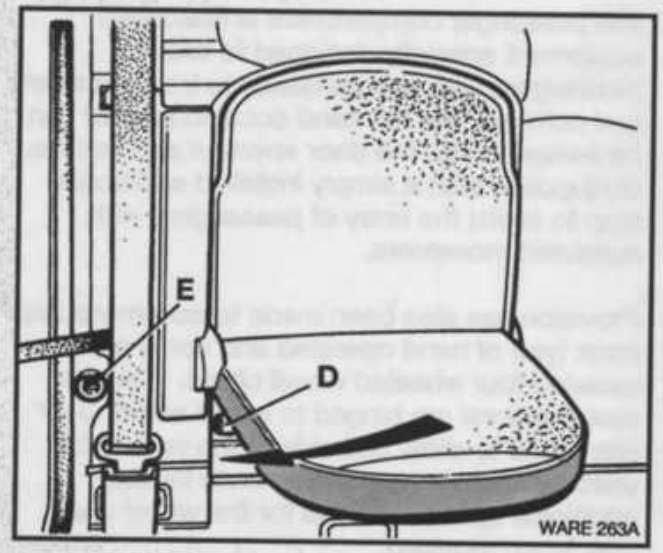
Additional Step
An additional step is provided and stored in the boot. When it is necessary to help the passenger enter the vehicle, position the vehicle slightly away from the kerb so that the step can be slid into the brackets **(A)** located on the vehicle chassis below the left hand rear door aperture. Position the door closing stop bracket **(B)** to the right and in its upright position, before pushing the step fully home into the brackets. When the passenger is seated correctly, pull out the step and store it in the luggage compartment adjacent to the driver, until it is required again at the end of the journey.

NOTE: *Periodically clean and grease the interior faces of the brackets (A) to ensure the step sides readily into position.*



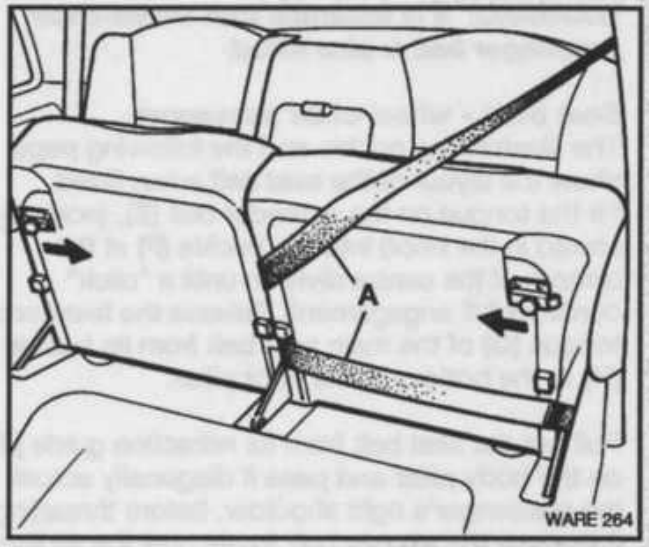
Swivel seat and additional step
The fold-down occasional seat fitted to the left hand side of the passenger compartment swivels round into the door aperture to provide improved access for passengers with limited movement . The seat and its passenger can then be swivelled into the vehicle and the seat locked into position.The additional step may also be used in conjunction with the swivel seat as required.

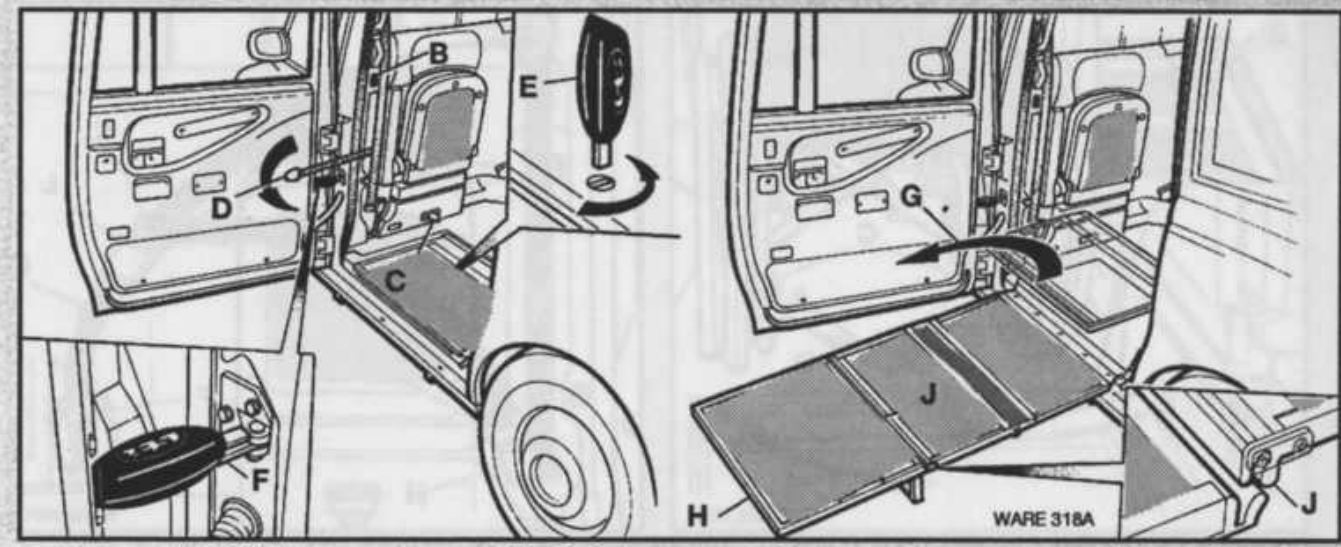
Release the seat by opening both left hand doors before raising the seat catch lever **(C)** situated to the front of the centre division. Pull the seat down and round into the door aperture, engaging the spigot **(D)** on the edge of the seat in the rubber socket **(E)** to hold the seat in the 'down' position.



Assist the passenger onto the seat and swivel both the seat and passenger into the vehicle until the latch **(C)** engages.

At the end of the journey, release the seat catch and swivel the seat and its passenger into the door aperture until the spigot on the side of the seat engages in its socket. Assist the passenger to leave the vehicle and return the seat to its normal position, ensuring the seat retaining latch is engaged.



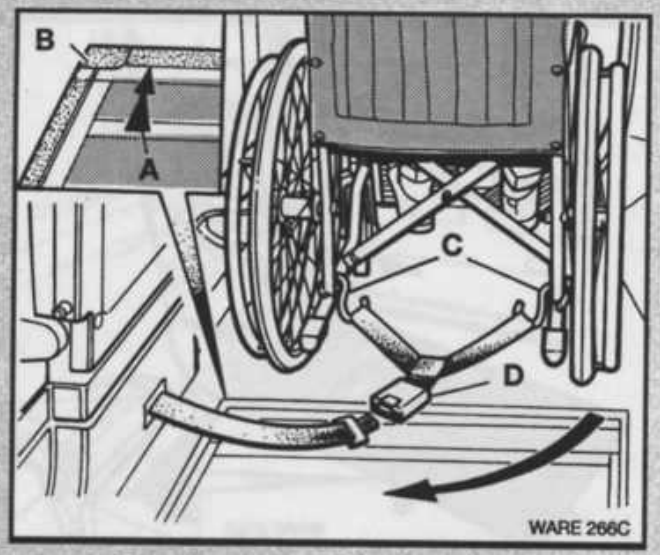


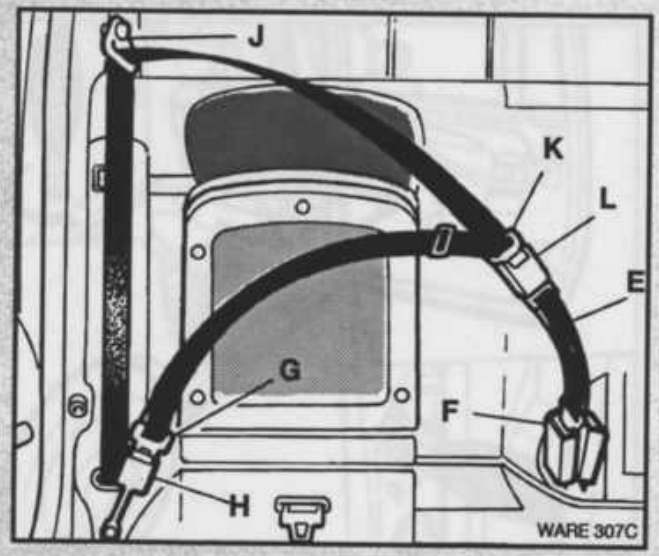
Wheelchair installation
Obtain the ramp tool, seat belt extender and "Y" shaped wheelchair harness from their storage position in the centre armrest. Where the kerb height is below 125 mm (5 in.) the ramp extension will also be required. Open the kerb side passenger door, release the catches below each rear seat, and fold both seats fully upright. Secure the kerb side seat in its upright position by fastening the seat belt round the seat base as shown **(A)**.
Note: *Always fasten the seat belt correctly and do not attempt to secure the seat by wrapping the seat belt round the seat catch.*

Press the wheel-chair anchorage belt switch **(B)** on the kerb side of the division (it will light up red to indicate it is unlocked) to release the belt **(C)** which protrudes from the back of the division at floor level.

Turn the door restraint strap end fitting **(D)** anti-clockwise 90° before pulling it out so that the door may be fully opened. Use the ramp tool provided to undo the flat headed screw **(E)** securing the integral ramp to the passenger compartment floor.
Position the ramp tool over the door check strap **(F)** to prevent the door from closing due to inadvertent external pressure on the door while loading the wheelchair.
Pull the edge of the ramp upwards and out from the vehicle **(G)** and lay the edge on the kerb, taking care not to raise the edge of the ramp too high to avoid damage to the door trim.

WARNING: The integral ramp must be used in conjunction with the ramp extension (H) when the kerb height is below 125 mm (5 in.). Position the extension as shown in the illustration, approximately 660 mm (26 in.) from and parallel with the door sill, before opening out the integral ramp.
Engage the locking edge (J) of the integral ramp into the ramp extension before checking the security of the assembly.





The wheel-chair passenger may now be loaded - take care to check the wheel-chair track is well within the edges of the ramp during the loading process.

WARNING: always carefully push the wheel-chair up into the vehicle, passenger first - never pull the wheel-chair up into position. Never allow a powered wheel-chair to be driven into the vehicle unsupervised.

Push the wheel-chair right across the vehicle. Disengage the locking edge of the ramp extension (where used). Slightly lift the hinge of the integral ramp before folding it into position in the passenger compartment floor. Stow the ramp extension in the boot or luggage compartment.

CAUTION: *To prevent damage to the ramp assembly and the door, always push the ramp fully into its storage tray **(A)** so that the rubber pads to the inner edge of the tray are covered by the ramp, and the ramp corners are inserted under the retaining plates **(B)** each side of the tray.*

Turn the wheel-chair so that the chair back is diagonally towards the recess in the division. Attach the two hooks **(C)** of the wheel-chair restraint harness to the wheel-chair stays. Pull out the belt from the division and engage the tongue on the end of the belt into the buckle **(D)** on the wheel-chair restraint harness. Position the wheel-chair with its back into the recess in the division so that the passenger is facing rearwards. Feed as much slack webbing as possible into division before pressing the anchorage belt release switch to lock the anchorage harness webbing in position (red light out). If the wheel-chair is fitted with a brake, apply it at this stage.

WARNING: ***It is essential that wheel-chair passenger belt is also fitted.***

Seat belts - wheel-chair passenger

The illustrations on this and the following page show the layout of the seat belt when fitted. Fit the tongue on the extender belt **(E)**, (normally stored in the boot) into the buckle **(F)** at the bottom of the centre division until a "click" confirms full engagement. Release the fixed end tongue **(G)** of the main seat belt from its buckle **(H)** at the bottom of the door pillar.

Pull out the seat belt from its retraction guide **(J)** on the body pillar and pass it diagonally across the passenger's right shoulder, before threading it through the wheel-chair frame until the sliding tongue **(K)** can be inserted into the buckle **(L)** on the extender belt. A "click" will confirm full engagement.

Pass the loose end of the belt across the passenger's hips, threading it through the wheel-chair frame, before inserting the fixed end tongue into its buckle **(H)**. Again, a "click" will confirm full engagement.

CAUTION: *Ensure the belt is not twisted and follows a natural path from the retraction guide on the door pillar, across the passenger's right shoulder and through to the extender belt buckle. The remaining part of the belt should pass low over the passenger's hips (never across the soft parts of the abdomen).*

Pull the shoulder portion of the belt back towards the retraction guide on the body pillar to remove any slack.
WARNING: ***Always re-check that both the wheel-chair anchorage belt and the wheel chair passenger belts are securely in position before driving the vehicle.***

The fixed end tongue (G) should only be removed from its buckle while the wheel-chair passenger is being positioned in the vehicle. When the ignition is switched on an audible warning device behind the driving compartment centre console will sound whenever the fixed tongue and buckle are separated. The vehicle should never be driven in this condition.

Remove the ramp tool from the metal door restraint and close the kerb side door.
With regard to passing traffic, open the passenger door on the driver's side so that the passenger's seat cushion may be lowered into its normal position, ensuring the seat catch is engaged correctly. An additional passenger may then use the seat if required.

Disembarking the wheel-chair passenger
Disembark any passenger on the driver's side of the vehicle so that the right hand rear seat may be raised to simplify moving the wheel-chair. Open the left hand passenger door and secure it fully open by positioning the ramp tool over the metal door check strap.

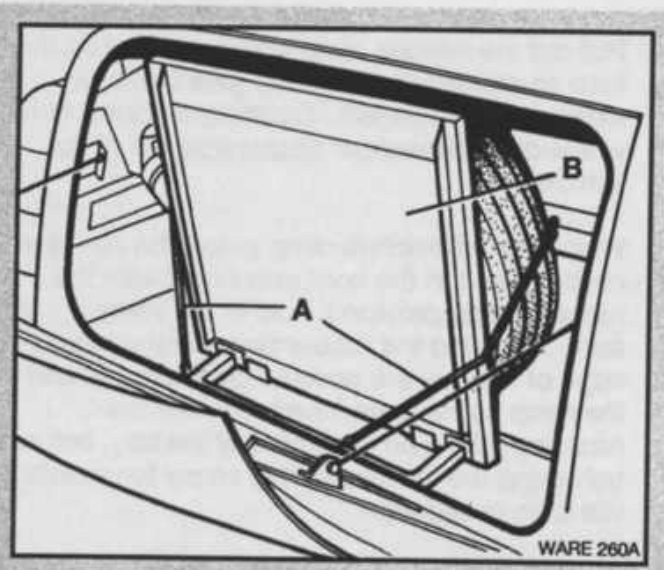
Depress the red button on the buckles to release both wheel-chair passenger seat belts. Hold onto the tongue on the main belt as it retracts to prevent it inadvertently contacting the passenger as it retracts.

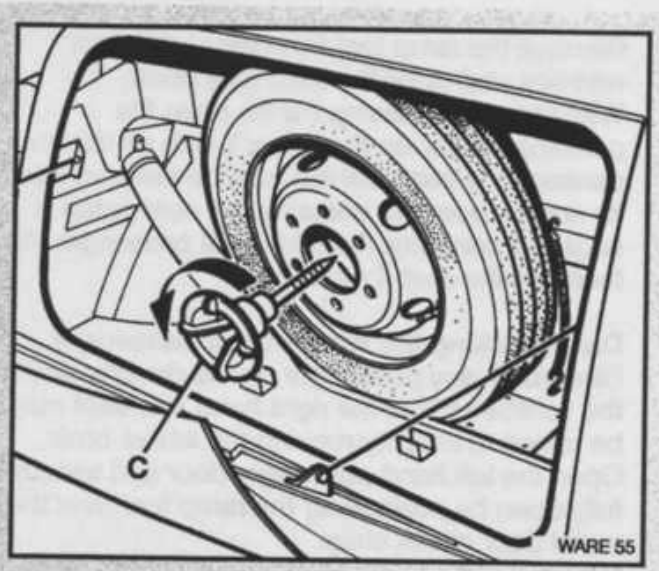
Press the switch on the division (red light on) to release the wheel-chair anchorage belt and then push the wheel-chair over to the driver's side of the vehicle so that the 'Y' shaped wheel-chair restraint belt can be removed. The wheel-chair anchorage belt should then be retracted back into the division before turning the switch off (red light out).

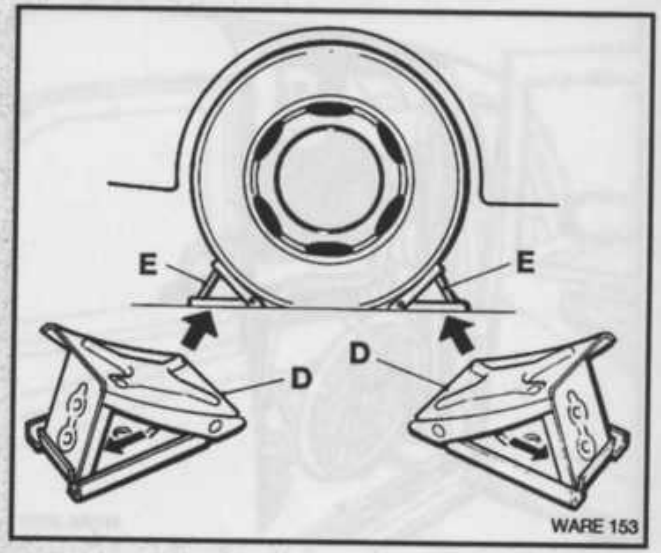
Pull out the integral ramp and position it on the kerb as described previously (use the ramp extension as required). Carefully manoeuvre the wheel-chair passenger backwards out of the vehicle.

Where the wheelchair ramp extension has been used, store it in the boot securing it with the rubber straps provided. Fold in the integral ramp, ensuring the rubber pads on the inner edge of the tray are covered by the ramp, and the ramp corners are inserted under the retaining plates on each side of the tray, before tightening the ramp securing screw to prevent vibration or damage.

Stow the ramp tool, seat belt extender and 'Y' shaped wheelchair harness in the centre armrest. Lower both seat cushions until each catch is engaged. Refit the door restraint strap into the door trim and close the door.







FLAT TYRES

Spare wheel and jack

The spare wheel changing equipment and wheel chocks are stored in the boot. Remove the rubber straps **(A)** securing the wheel-chair ramp extension/step. Pull the step **(B)** up out of its locating brackets, before unscrewing the spare wheel retaining bolt **(C)**.

Changing a wheel

WARNING: ***Do not place any part of your body under the vehicle when it is only supported on the jack supplied. It is dangerous to work under a vehicle supported by a vehicle jack. For repair work under the vehicle, use purpose designed vehicle supports - never use loose blocks of wood or bricks etc.***

Always use the wheel chocks provided, even on an apparently level surface.

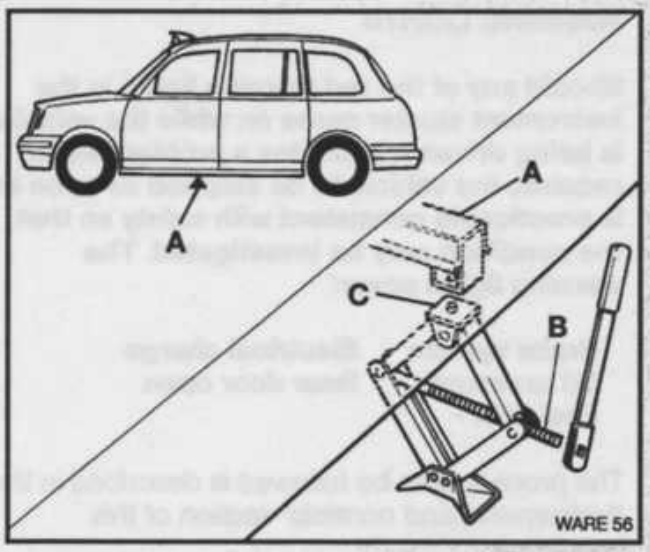
The vehicle jack is designed for use on hard level ground. Where the gradient exceeds 8% or the camber 5.5%, or there is any doubt about the gradient or quality of the ground, the vehicle must be moved to a satisfactory position before any attempt is made to use the jack.

The jack provided is designed specifically for your vehicle. Never use a jack from another vehicle of different specification as it is unlikely to be suitable.

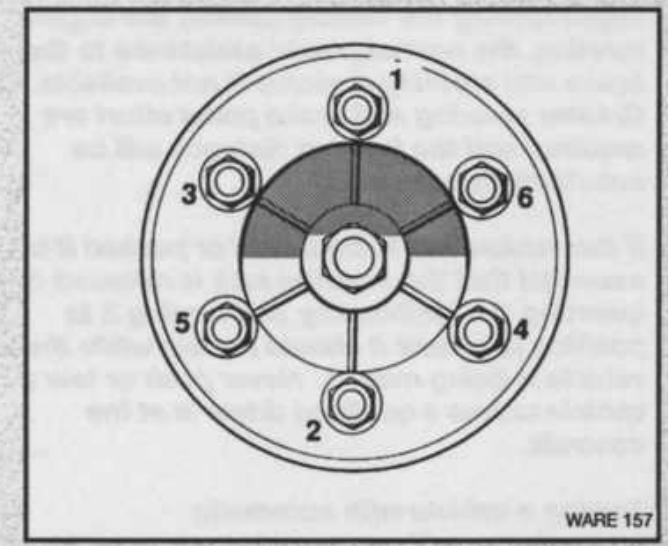
Neglecting the jack may lead to difficulty in a road side emergency. Examine the jack and its ratchet handle every few months and clean and lightly oil them as necessary.

When changing a wheel at the roadside follow the procedure detailed below:

1. Stop the engine, apply the handbrake and switch on the hazard warning lights.
2. Engage 1st or reverse gears (manual transmission) or 'P' - park (automatic transmission
3. **All occupants must leave the vehicle and all doors should be closed.**
4. Open out and lock the wheel chocks **(D)**. Place them each side of the front wheel **(E)** on the opposite side to the wheel to be changed.
5. Unscrew the retainer **(C)** securing the spare wheel in the boot. Take out the spare wheel and position it conveniently close to the wheel to be changed.



6. Pull off the wheel cover using the fingers of two hands in adjacent slots in the cover. Use the wheelbrace to slacken the wheel nuts half a turn (anticlockwise).
7. A jacking bracket **(A)** is located under each side of the vehicle below, and to the rear of the front door aperture. Locate the jack ratchet handle (it is reversible) on the square end of the jack screw **(B)** and raise the jack until it reaches the underside of the jacking bracket. Ensure the spigot **(C)** of the jack is located in the hole in the jacking bracket, before further raising the jack to raise the vehicle sufficiently to allow the fully inflated replacement wheel to be fitted later.
WARNING: ***Ensure the jack is positioned both vertically and at right angles to the side of the body before lifting the vehicle.***



8. Remove the wheel nuts and lift off the wheel.
9. Locate the replacement wheel on the wheel studs and screw on all the wheel nuts so that they correctly locate the wheel, then tighten each wheel as much as possible. Reverse the jack handle and partly lower the jack until it just stops the wheel turning, then tighten the wheel nuts with the wheel brace in the order illustrated. Lower the jack, and fully tighten the wheel nuts as much as possible, again in the order illustrated. Replace the wheel cover, ensuring it is positioned so that the tyre valve can be reached for inflation.

10. Stow the displaced wheel in the luggage compartment using the retaining bolt provided. Replace the jack and ratchet handle, wheelbrace and wheel chocks. Stand the step in its locating brackets before securing it in position with the rubber straps provided.
11. Turn off the hazard warning lights, disengage the gears (manual transmission) and resume your journey.

CAUTION: *As soon as practical after any wheel change, the wheel nuts should be tightened at a garage using a torque wrench set to 200 Nm (150 lb ft.)*

VEHICLE RECOVERY - PUSHING AND TOWING

Vehicle recovery should always be performed using a vehicle designed for the purpose.

An emergency towing eye **(A)** is fitted to the front of the vehicle to the right of the number plate. No other parts of the vehicle should be used for emergency towing.

WARNING: ***Extended towing of the vehicle with a tow rope, regardless of type, is not recommended. The towing eye is provided for emergency purposes only and should only be used to move the vehicle a few yards so that it is not an obstruction to other traffic.***

When moving the vehicle without the engine running, the normal power assistance to the brake and steering systems is not available. Greater steering and brake pedal effort are required and the braking distance will be substantially extended.

If the vehicle has to be towed or pushed it is essential that the steering lock is released by inserting the ignition key and turning it to position (I) where it should remain while the vehicle is being moved. Never push or tow a vehicle unless a qualified driver is at the controls.

Towing a vehicle with automatic transmission will cause serious damage to the transmission unless the rear wheels are suspended or the propshaft is removed to stop the transmission from rotating.

EMPTY FUEL TANK

If you allow the vehicle to run out of fuel, after replenishing the fuel tank, bleed the fuel system as described in the maintenance section of this book (see - Bleeding air from the fuel system) before attempting to start the engine.

WARNING LIGHTS

Should any of the red warning lights in the instrument cluster come on while the vehicle is being driven it indicates a problem which requires the vehicle to be stopped as soon as is practicable consistent with safety so that the condition may be investigated. The warning lights cover:

Brake system	**Electrical charge**
Oil pressure	**Rear door open**
Fuel filter	

The procedure to be followed is described in the 'Instruments and controls' section of this handbook.

BATTERY

Battery polarity

The electrical installation of the vehicle is NEGATIVE (-) earth return and the correct polarity must be maintained at all times. Reversed polarity will permanently damage the electrical and electronic equipment fitted. Always check any equipment fitted has the correct earth return polarity for installation in the vehicle.

Starting the engine with jump leads

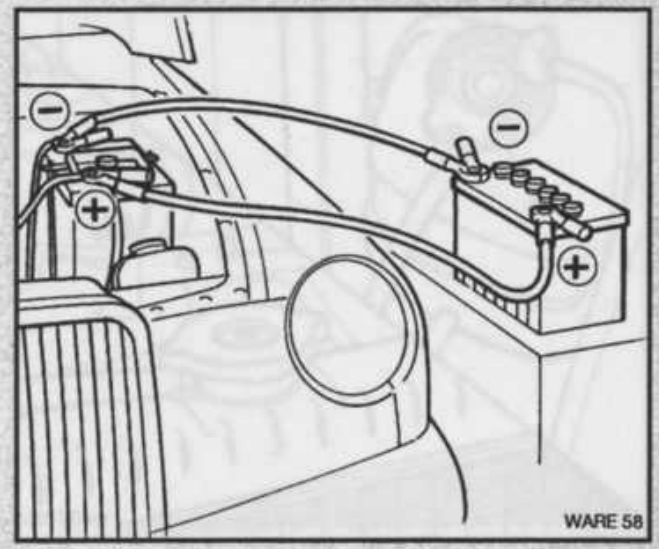
WARNING: ***Batteries produce combustible gases. Keep sparks, flames and cigarettes away from batteries at all times. Avoid contact with battery acid. In case of eye or skin contact, wash the affected area with clean water and seek medical attention immediately.***

Battery boosting
A high-speed battery charger must never be used as a starting aid.

CAUTION: *The following procedure must be observed to avoid the possibility of irreparable damage to the sophisticated electric and electronic equipment fitted to the vehicle. Do not allow the cable terminals to touch either of the vehicles or the other cable terminals. Do not lean over the batteries when jump starting.*

Before connecting an additional battery to boost a discharged battery in the vehicle, ensure that:

1. The booster battery is of the same nominal voltage (12 volt) and approximately the same capacity as the vehicle battery. The discharged battery should remain connected and all electrical circuits switched off.



2. The interconnecting cables are of sufficient capacity to carry a starting current (normal car starting jump leads are not adequate).

3. Where the booster battery is fitted to another vehicle, the two vehicles must not be in contact with each other and all electrical circuits on the both vehicles should be switched off.

4. The cables should then be connected one at a time and in the following sequence.

Donor battery + (positive) to discharged battery + (positive)

Donor battery - (negative) to discharged battery - (negative)

Note: *on connection, the vehicle security alarm (where fitted) will operate and should be disarmed using the radio key.*

5. Start the engine of the recipient vehicle in the normal manner. Allow the engine to run at just above idle speed (1000-1500 r.p.m.) for a few minutes before carefully disconnecting each lead from the recipient and booster batteries in the reverse sequence:

From discharged battery - (negative) then from donor battery - (negative)

From discharged battery + (positive) then from donor battery + (positive)

Have the discharged battery and the vehicle charging system checked by your Dealer at the first opportunity.

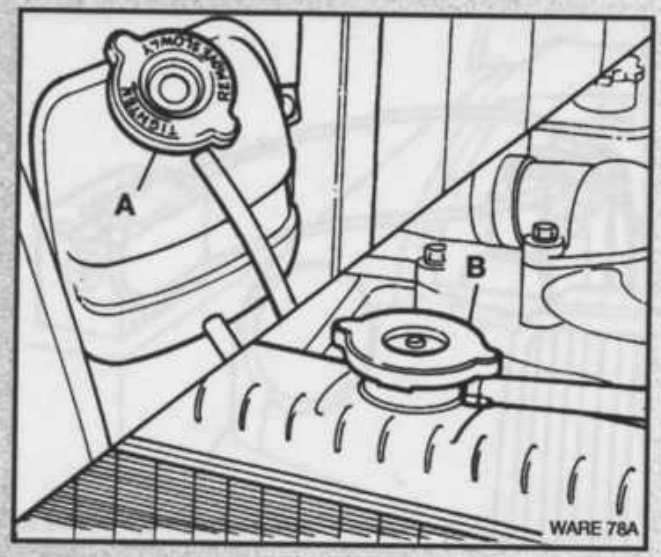
Battery charging
A high speed charger may only be used if the battery has been completely disconnected from the vehicle electrical system. Certain types of low maintenance batteries, for example the lead calcium type, can be damaged by high speed chargers. If in doubt, consult your Dealer.
When charging a battery in the vehicle from a trickle charger ensure that:

1. The charger output voltage is the same as the nominal voltage as the battery fitted to the vehicle (12V).

2. The charger + (positive) lead is connected to the + (positive) terminal of the battery, and the charger - (negative) lead is connected to the - (negative) terminal of the battery.

OVERHEATING

WARNING: ***To avoid injury from escaping steam and scalding coolant, the pressure relief cap (A) of the expansion tank and the radiator cap (B) must not be removed while the system is hot. Particular care must be taken to ensure no loose clothing (a tie, etc.) can get caught in any rotating parts while the bonnet is open.***



Move the vehicle off the road, apply the handbrake and hazard lights. Select neutral gear or 'P' park (automatic), apply the handbrake and keep the engine running for a few minutes while you follow the procedure below.

If the charging and brake warning indicator lights are on, the probable cause of the overheating condition will be a broken or loose drive belt causing both the cooling fan and alternator to stop rotating. The engine should be stopped immediately and you should seek assistance to recover the vehicle.
WARNING: ***The vehicle should not be driven in this condition as it could cause severe loss of oil from the engine with further damage.***

If the electrical system charge light remains off, keep the engine running and open the windows. Turn both heater blower motors to their maximum speed, with the heater temperature control to maximum heat and the air conditioning system (where fitted) off.

Carefully open the bonnet (to avoid injury from steam, boiling coolant and rotating parts) and check whether the cooling fan is operating or if there is an immediate sign of a coolant leak. (burst hose or connection etc.)

Where the cooling fan is operating and there is no apparent loss of coolant, allow the engine to idle for a few moments and then stop the engine.

Allow the engine to fully cool down with the bonnet open. If clean water is available, top up the coolant reservoir (see cooling system maintenance) before proceeding to the nearest garage so that the cause of the overheating can be investigated.

If the cooling fan is not operating or there is a serious loss of coolant due from a burst hose or connection, turn off the engine and seek assistance to recover the vehicle.

WARNING: ***Prolonged and repeated contact with used engine oils may cause serious skin disorders, including dermatitis and cancer. Excessive contact with used oils should be avoided - wash thoroughly after contact.***

Many liquids and other substances used in motor vehicles are poisonous and should under no circumstances be consumed, or allowed to come into contact with open wounds. These substances include, among others, antifreeze, brake fluid, fuel, windscreen washer additives, lubricants and adhesives. Keep all such substances out of the reach of children.

Always dispose of used oils and solvents etc. at a Public Waste Disposal facility. Never pour such materials into the public drainage system, or allow them to seep into the soil.

PREVENTATIVE MAINTENANCE

Regular maintenance, together with the use of genuine parts is essential to the continuing economy, safety and reliability of your vehicle. Care and regular maintenance will also prolong the useful life of the vehicle.

This handbook contains information on how to perform some of the more simple service operations required. However, it is strongly recommended that the maintenance operations and replacements scheduled at regular intervals and shown over leaf are carried out by a recognized Dealer. The maintenance items and replacements recommended by the manufacturer should be supplemented to comply with any mandatory requirements specified in the country where the vehicle is operated.

London Taxis International Limited reserves the right to change their servicing recommendations and maintenance schedules in the light of operating experience. By having you vehicle regularly serviced by recognised Dealers, you will ensure any work carried out is performed in line with the latest recommendations issued by the manufacturer.

Take the advice of your Dealer on the need for more frequent oil changes and additional brake maintenance or any special servicing which may be advisable if the vehicle is operated in dusty conditions or driven hard in dense traffic and subject to high levels of tyre and brake wear.

EVERY WEEK
(or before a long journey)

Check/top up engine oil.
Check/top up brake and clutch fluid reservoirs.
Check/top up cooling system.
Check/top up windscreen washer reservoirs.
Check function of exterior lamps, wipers and warning indicators, including rear door motion door lock system.
Check/adjust tyre pressure and condition.
Check tightness of wheel nuts.

STANDARD SERVICE
Every 9,000 miles (15,000 km)

ON THE VEHICLE LIFT
Replace the engine oil and filter.
Check/top up gearbox or auto transmission oil.
Check/top up rear axle oil.
Check front brake pads for wear. Remove rear brake drums, clean out brake dust and check brake linings for wear. Examine brake mechanism condition and cylinders for leakage.
Check/adjust handbrake cable.
Inspect brake hoses, pipes and connections for leaks and chafing.
Inspect exhaust system for leaks and condition, and exhaust mountings and clamps for security.
Check security and condition of "U" bolts, suspension and front crossmember bushes, steering and suspension ball joints and fixings.
Examine damper units for sign of leakage.
Lubricate prop shaft joints and check securing bolts.
Check/correct the tyre pressures (including spare) and check torque of wheel nuts.
Check condition of tyres; report any signs of abnormal wear.
Examine the underside of the vehicle for evidence of any fuel/oil/coolant leaks and wear/damage to hoses, connections and pipes or any other damage or deterioration of which the owner should be made aware.

IN THE ENGINE COMPARTMENT
Check/top up the brake and clutch fluid levels.
Check/top up windscreen and rear window washer reservoirs.
Check/top up coolant level, check condition of hoses and inspect for signs of coolant loss.
Check/top up power steering pump fluid reservoir.
Check the condition of the drive belts and adjust the tension or replace as necessary.
Lubricate throttle linkage and cable.
Examine the engine compartment for evidence of any fuel/oil/coolant leaks and wear damage to hoses, connections and pipes.

VEHICLE INTERIOR AND EXTERIOR
Check the condition and operation of all seats, seat belts and seat belt fixings.
Check the operation of the central locking system.
Check all driving/indicator/hazard/warning and interior lights are operating correctly.
Check windscreen wash/wipe and horn are operating correctly. Renew wiper blades if required.
Check operation of electric door mirrors.

ROAD TEST
Check the heater plug system light operates on start up.
Check operation of instruments and warning lights.
Check the correct operation of the motion door locking system and indicators.
Check the operation of the footbrake.
Check operation of manual gearbox and clutch.
Check operation of auto transmission, overdrive lock out switch, starter inhibitor and parking lock.
Check exhaust smoke level and engine emissions are within specification, and engine performance is within normal operating limits.
Check operation of steering system for possible signs of free play.
Check the operation of the handbrake. Stop engine and check brake vacuum non return valve operation.
After driving the vehicle, top up the fluid level of the automatic transmission while transmission is at operating temperature.

MAJOR SERVICE
Every 18,000 miles (30,000 km)
As Standard Service plus the following:

Replace gearbox or auto transmission oil.
Remove front brake pads and examine for condition and wear and replace as necessary.
Check calipers for signs of leakage.
Check torque of suspension ball joints.
Check/adjust front wheel bearing end float.
Lubricate exposed auto transmission gear shift mechanism.
Check/adjust the valve clearances.
Replace fuel filter and clean out filter bowl.
Replace air cleaner element.
Lubricate door, bonnet and boot hinges and locks.
Check/adjust headlight alignment.

ADDITIONAL SERVICE REQUIREMENTS
The following additional operations are required at the distance or time elapsed indicated:

Each 36,000 miles (60,000 km)
Examine condition of front wheel bearings, regrease or replace as necessary, set wheel bearing end float.
Check/top up battery electrolyte level.
Disconnect battery leads, clean and grease terminals.

Each 54,000 miles (90,000 km)
Replace brake and clutch systems fluid and bleed systems.

Each 72,000 miles (120,000 km) or 2 years (whichever occurs first)
Drain and flush cooling system, replace antifreeze.

RECOMMENDATIONS
In addition to the items specified in the routine service schedule, there are a number of other parts of the vehicle which should receive attention for reasons of safety or reliability and which depend on the operation of the particular vehicle. These are listed below, together with the distance and time in service at which attention is appropriate.

Every year
Replace air conditioning receiver/dryer and recharge system

Every 36,000 miles (60,000 km)
Replace front and rear dampers.

Every 36,000 miles (60,000 km) or 3 years (whichever occurs first)
Check/adjust wheel alignment

Every 72,000 miles (120,000 km) or 3 years (whichever occurs first)
Examine the master cylinder, calipers and wheel cylinders for wear and replace all fluid seals and flexible brake hoses.
Refill the braking system with new fluid of the specified type and bleed the braking system.
Replace the brake servo air filter

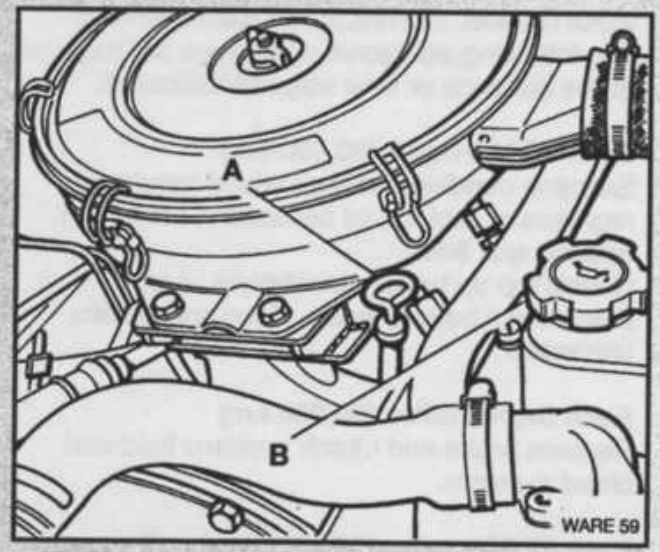
CAUTION: ***If engine power decreases, black exhaust smoke is emitted or engine noise increases, the engine and its fuel injection system equipment require service attention. Such work should be entrusted to an authorized Dealer.***

LUBRICATION

Always use high quality oils and greases of the correct specification shown in the table below. The use of incorrect or poor quality lubricants can lead to high oil and fuel consumption, and ultimately may cause damage to components. Engine oils of the correct specification contain additives which disperse the corrosive acids formed in combustion and prevent the formation of sludge which can block oil ways. Additional additives should not be used.

LUBRICANT SPECIFICATIONS

Component	Minimum performance level
Engine:	Viscosity: Temperate climates: 10W-30 Hot climates: 20W-40 or 20W-50 A.P.I. SE/CC, BLS 22 OL.02
Manual Gearbox	MIL-L-2105C-80A, 80. A.P.I. GL5 S.A.E. 75W/90 Grade
Automatic Gearbox & Power Steering	GM Dextron II Spec No. D20112
Rear Axle Propshaft	Shell Spirax Super 90 TS Multipurpose Lithium Grease N.L.G. 1 Consistency No. 2

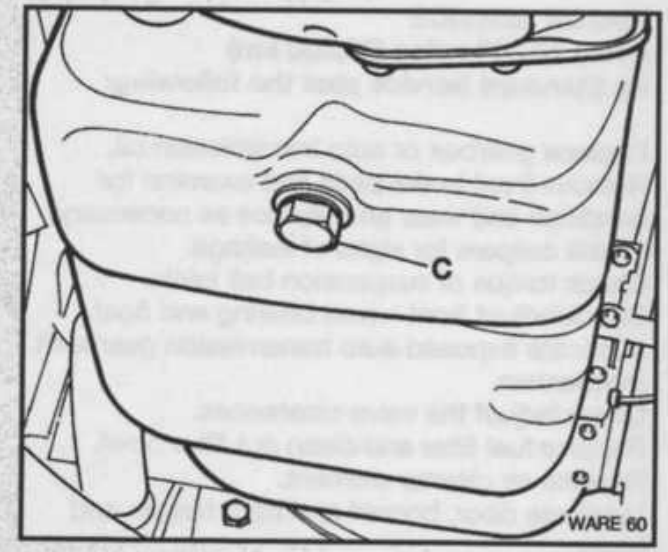


Engine oil level check

The oil should be at operating temperature. Turn off the engine, wait a few minutes to allow the oil to drain back into the sump.

Remove the dipstick **(A)** and wipe it clean. Clean and reinsert the dipstick, carefully manoeuvring it as required so that it goes fully into its guide tube.

Withdraw the dipstick. The oil level should be between the high and low marks. If the oil level is below the high mark, remove the oil filler cap **(B)** and pour in new oil of the recommended specification. Repeat the procedure until the level is correct. Replace the oil filler cap and dipstick and wipe any spillage from the engine valve top cover. **Do not overfill.**



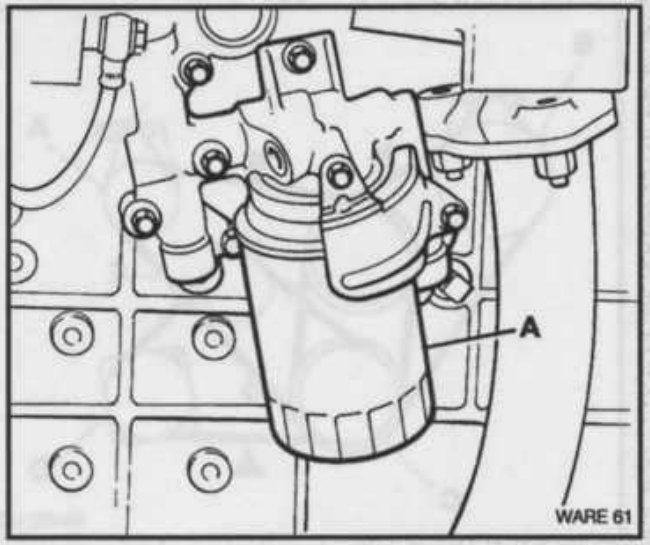
Engine oil and filter replacement

WARNING: ***Engine oil will be very hot so take great care when completing the following operations.***

Note: The engine oil filter should be replaced at the same time as the engine oil.

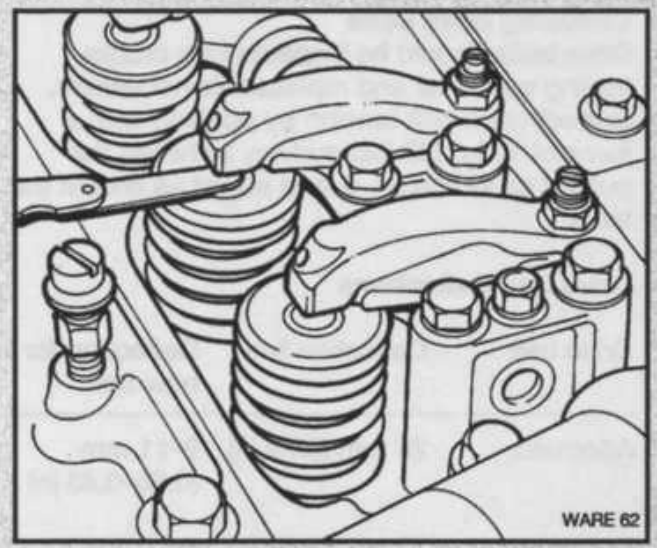
Drain the oil while the engine is hot and with the vehicle on a level surface. Remove the oil filler cap **(B)** and place a large drain pan (6.25 litres/11 pints) under the sump drain plug **(C)**.

Carefully remove the plug and allow the oil to completely drain. Clean the plug, fit a new plug gasket and replace the plug.



Clean the area around the filter head and unscrew the oil filter **(A)** anticlockwise with a suitable wrench. Before installing the new oil filter, smear a little engine oil on the rubber seal and the engine mounting surface. Screw the new filter element into position by hand only.

Refill the engine with oil of the correct specification and check the oil level on the dipstick. Start the engine and check for oil leaks round the oil filter. Turn off the engine, wait a few minutes and then recheck the engine oil level adding further oil if necessary.

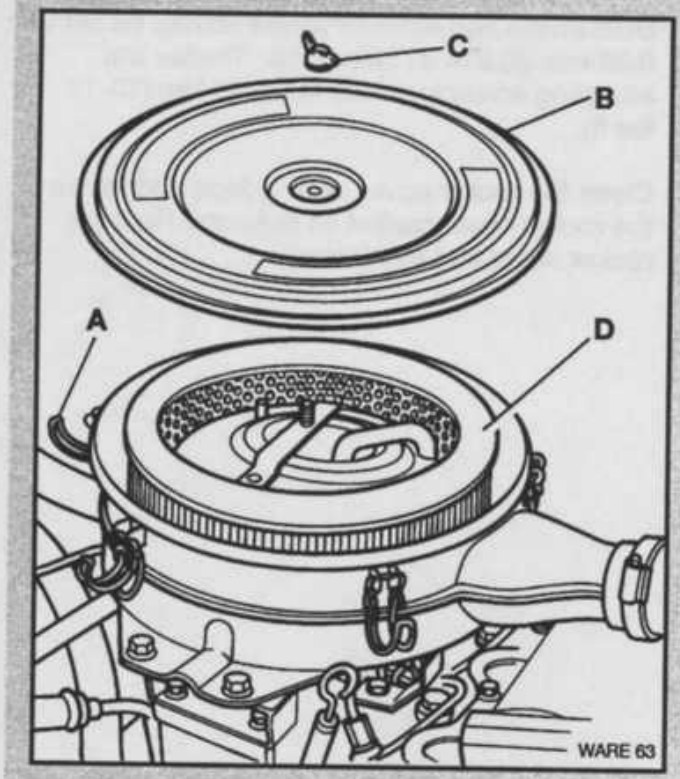


Valve rocker clearance
This operation should normally be performed by your Dealer. Where this is not possible follow the procedure detailed below.

Check and adjust valve rocker clearances when the engine is warm. First remove the air cleaner and engine valve rocker cover.
Set No.1 cylinder at top dead centre on its compression stroke. Check and adjust as required the clearances for valves 1,2,3, and 6.
Set No.4 cylinder at top dead centre on its compression stroke. Check and adjust as required the clearances for valves 4,5,7 and 8.

Both intake and exhaust valves should be set to 0.35 mm ((0.014 in) clearance. Torque the adjusting screw locknuts to 14-18 Nm (10-13 lbs ft).

Clean the rocker cover sealing face and renew the rocker cover gasket as required. Refit the rocker cover and air cleaner.

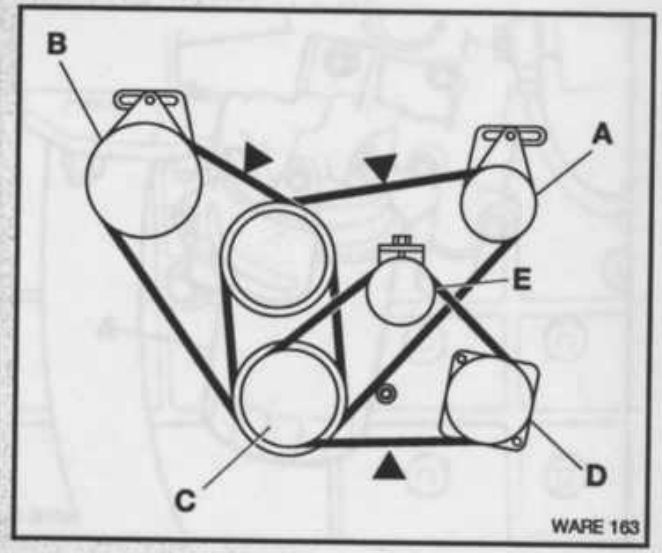


Air cleaner element
Release the six spring clips **(A)** securing the air cleaner cover **(B)** and unscrew the wing nut **(C)**. Lift out and replace the air cleaner element. **(D)**. Replace the air cleaner cover and secure it with the wingnut and spring clips.
Note: *The air cleaner element must be replaced as specified in the service schedule in order to control engine emissions.*

Checking drive belts
Drive belts should be inspected for cracks, fraying and wear and replaced as necessary. Inspect drive belt tension by pushing with a force of 10 kg (22 lbs) midway between the pulleys as indicated ♦ and adjust as shown the table.

Drive belt deflections

Drive belt	Deflection limit	Deflection for new belt
Alternator	20 mm (0.79 in)	9-11 mm (0.35-0.43 in)
Power steering	15 mm (0.59 in)	8-10 mm (0.31-0.39 in)
Air conditioning	15 mm (0.59 in)	8-10 mm (0.31-0.39 in)

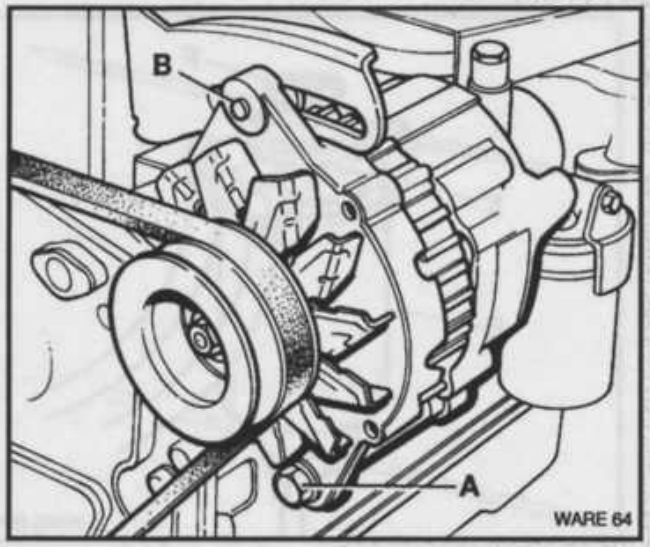


A. alternator
B. power steering pump
C. crankshaft pulley
D. air conditioning compressor
E. air conditioning belt idler pulley

Drive belt replacement

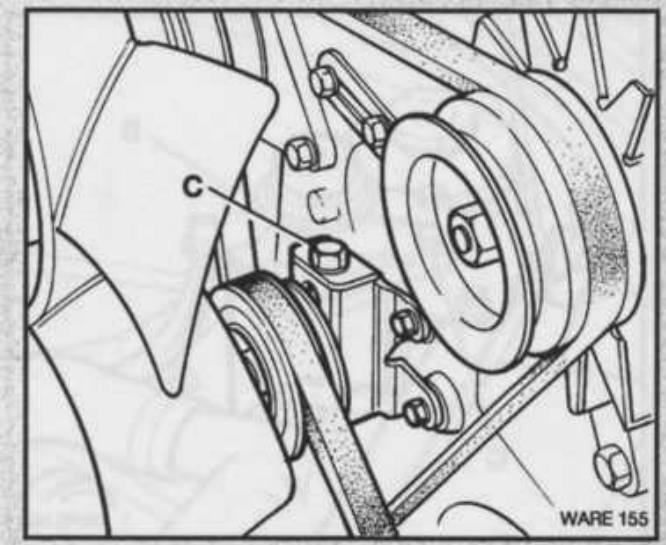
CAUTION: *Drive belts have low stretch characteristics and must never be forced onto their drive pulleys as this can damage both the belts and pulleys and will lead to premature failure.*

Drive belts should normally be replaced by an authorized Dealer. The driven assemblies to which they are fitted should always be fully released when fitting new belts so that they can be correctly positioned on the belt pulleys before attempting to set the belt tension.

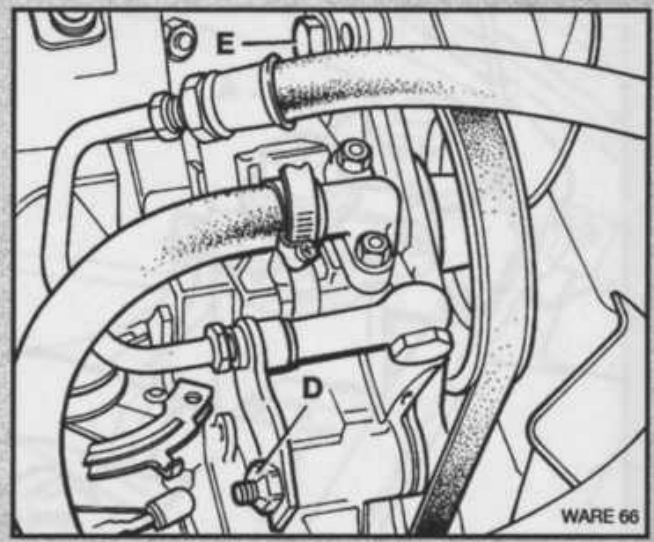


Alternator belt tension
Adjust the belt tension to the specification shown in the belt deflection table by slackening the pivot securing bolt **(A)** and the tension adjusting bracket bolt **(B)**. Pivot the alternator away from the engine to tension the belt. Tighten the bolt **(B)** first and then the pivot bolt **(A)**.

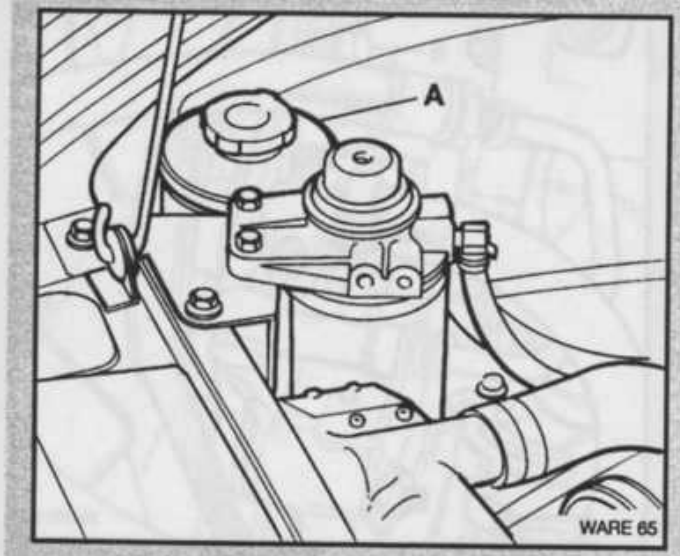
WARNING: ***The vehicle must not be driven with the alternator drive belt failed or excessively slack. This can lead to the loss of engine oil and brake servo assistance.***



Air conditioning compressor belt tension
Adjust the belt tension to the specification shown in the belt deflection table by means of the adjuster **(C)** on the top of the idler pulley bracket mounted on the front of the engine behind the fan.

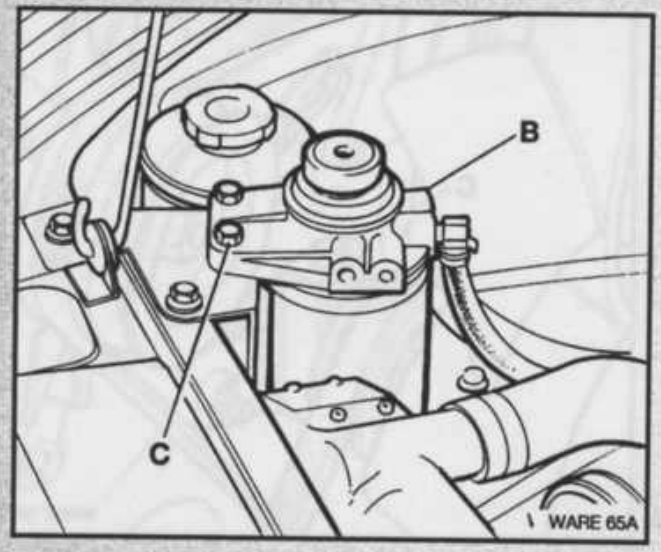


Power steering pump belt tension
Adjust the belt tension to the specification shown in the belt deflection table by slackening the power steering pump pivot bolt **(D)** and the tension adjusting bracket bolt **(E)**. Using hand pressure only, rotate the power steering pump away from the engine to tension the belt. Tighten the bolt **(E)** first and then tighten the pivot bolt **(D)**.
CAUTION: *Never apply a lever between the pump body and the mounting bracket to tension the belt as this could damage the pump assembly.*



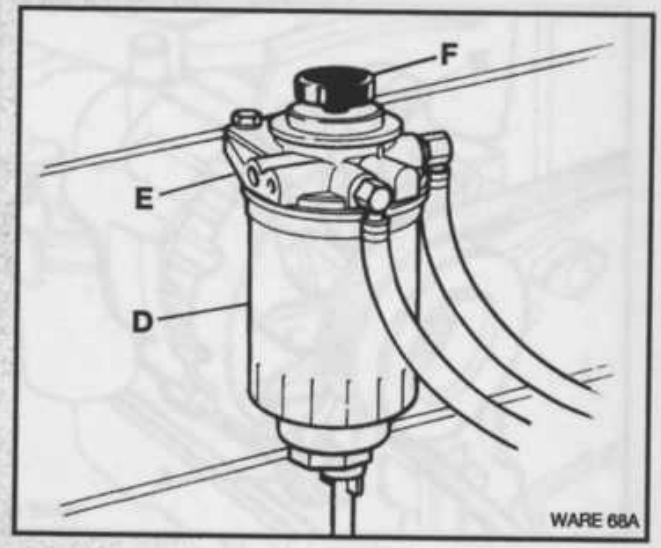
Power steering fluid level
The power steering fluid reservoir **(A)** is fitted to the front right hand side of the engine compartment. Clean off the filler cap and reservoir body before removing it. Check the fluid level in relation to the maximum and minimum marks on the outside of the reservoir. Adjust the fluid level as required using the specified fluid.

Ensure the breather valve in the filler cap is clean before replacing the cap. Clean off any spillage. **Do not overfill.**



Fuel filter replacement
The fuel filter and primer assembly **(B)** is situated on the right hand side and to the front of the engine compartment. Remove the complete filter and primer assembly by disconnecting the sedimentor warning light lead from the filter at the multi-connector (press and pull apart).

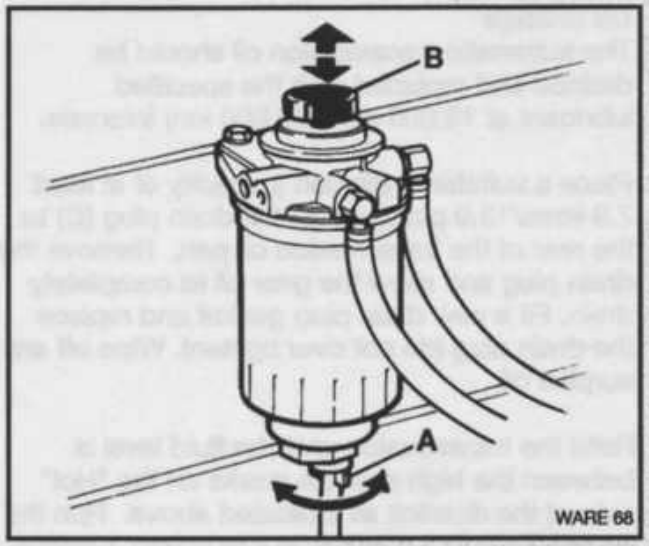
Remove the two bolts **(C)** securing the filter assembly and lift clear. Unscrew the base, sensor unit and drain tube assembly and retain. Unscrew the filter element **(D)** from the primer unit **(E)** and replace it with a new filter assembly.



Replace the base, sensor unit and drain tube and replace the complete assembly in the vehicle. Reconnect the warning light lead. After replacing the filter follow the procedure for bleeding air from the fuel system shown below.

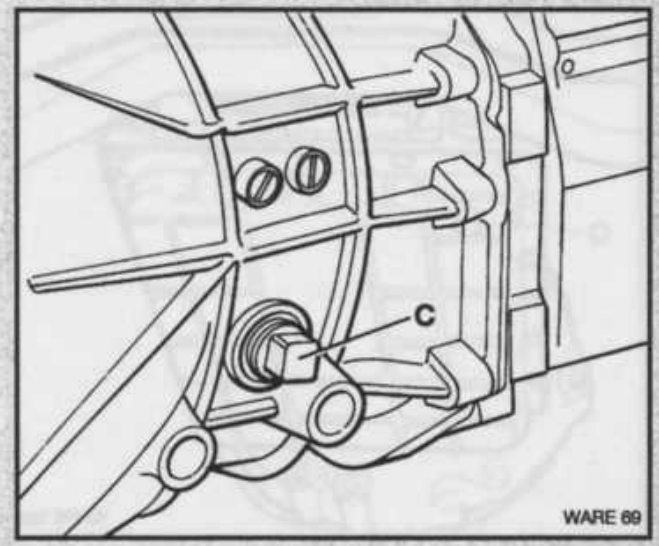
Bleeding air from the fuel system
After refilling an empty fuel tank, or replacing the fuel filter it is essential to bleed air out of the fuel system.

Move the priming pump **(F)** on top of the fuel filter and primer assembly up and down until there is a change in resistance to the movement of the plunger.



Bleeding water from the fuel system
If the red warning light on the facia (see page 19) comes on while the engine is running, the fuel sedimentor fitted to the fuel filter and primer assembly situated on the right hand side and to the front of the engine compartment must be drained to remove any water present in the fuel system.

Stop the engine and loosen the drain valve **(A)** at the base of the fuel filter assembly by 4 or 5 turns (not more to avoid dropping the connection). Allow the water to drain out and to ensure complete drainage, move the priming pump **(B)** up and down a few times. When all the water has been drained off, close the drain valve.

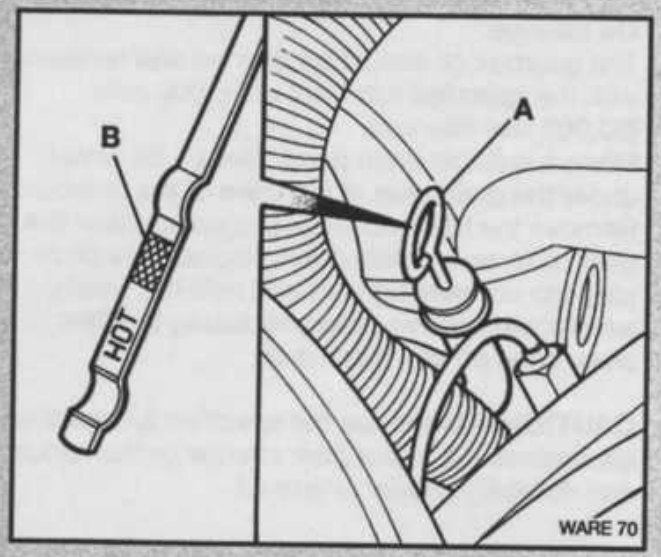


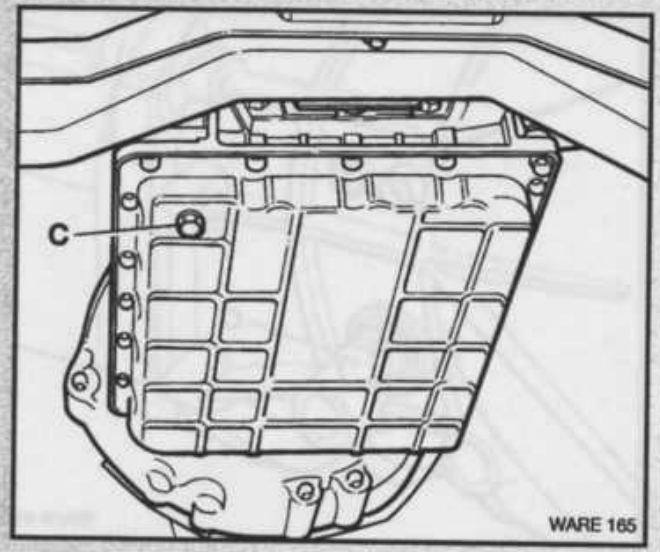
MANUAL GEARBOX
Oil level and replacement
With the vehicle standing level, remove the filler plug **(C)**.

Should the level need replenishing, top up with the specified lubricant using a suitable pump type of oil can with a flexible nozzle until the oil is level with the bottom of the filler plug threads. Allow any surplus oil to drain away before replacing the filler plug (do not over tighten) and wiping the gearbox clean.

Oil change
The gearbox oil should be drained and replaced with the specified lubricant at 18,000 mile (30,000 km) intervals. .
Place a suitable drain pan (2 litres/3.52 pints) under the drain plug at the base of the gearbox. Remove the filler and drain plugs and allow the gear oil to completely drain. Replace the drain plug (do not over tighten) and refill the gearbox as indicated above before replacing the filler plug. Wipe off any surplus oil.

CAUTION: *Always use the specified lubricant as alternatives will affect gear change performance and durability. Never re-use oil.*





AUTOMATIC TRANSMISSION

Fluid level

The transmission fluid should be at normal operating temperature with the vehicle standing level. Start the engine with the handbrake and footbrake applied. Run the engine for 2 to 3 minutes at idle speed, passing the selector lever through the complete range of positions two or three times, pausing for about 10 seconds in each position to ensure the transmission is fully primed.

Select **'P'** (Park) position and keep the handbrake applied. Leave the engine running at idle speed, remove the dipstick **(A)** which is situated to the right hand side of the engine adjacent to the engine compartment rear bulkhead, and wipe it clean with a clean paper wiper. Reinsert the dipstick all the way being careful to insert it in a position to allow it to manoeuvre the bend in the dipstick tube.

Remove the dipstick again and check the fluid level, which should be in the cross lined sector **(B)** marked on the 'HOT' side of the dipstick. If the level is near the low end of the sector, add small amounts of fluid of the correct specification through the dipstick tube until the level is to the high mark. Do not fill above the top of the cross hatched sector marked on the dipstick.

Oil change

The automatic transmission oil should be drained and replaced with the specified lubricant at 18,000 mile (30,000 km) intervals.

Place a suitable drain pan (capacity of at least 7.9 litres/13.9 pints) under the drain plug **(C)** to the rear of the transmission oil pan. Remove the drain plug and allow the gear oil to completely drain. Fit a new drain plug gasket and replace the drain plug (do not over tighten). Wipe off any surplus oil.

Refill the transmission until the fluid level is between the high and low marks on the "Hot" side of the dipstick as indicated above. Run the engine for 2 to 3 minutes at idle speed, passing the selector lever through the complete range of positions two or three times, pausing for about 10 seconds in each position to ensure the transmission is fully primed. Then follow the procedure described above to check the fluid level.

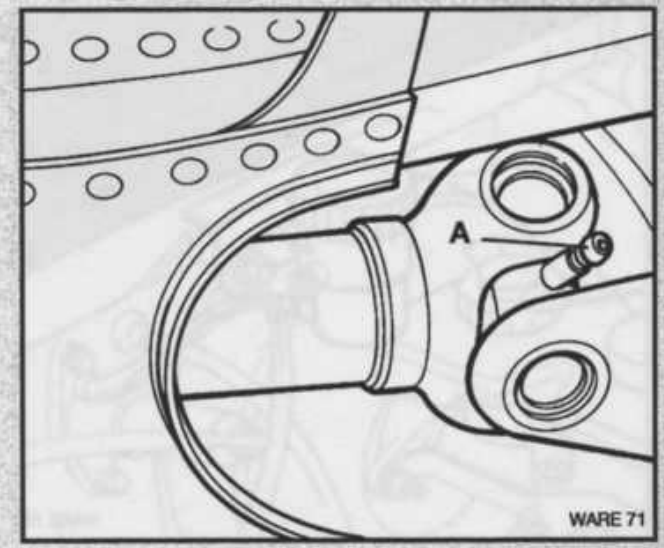
CAUTION: *Always use the specified lubricant as alternatives will affect gear change performance and durability. Never re-use oil.*

Parking pawl engagement check.
With the vehicle standing level, switch off the engine, release the handbrake and move the selector lever to **'P'** (park). Attempt to push the vehicle forwards and backwards; the vehicle should not move. Consult your LTI Dealer if the vehicle moves.

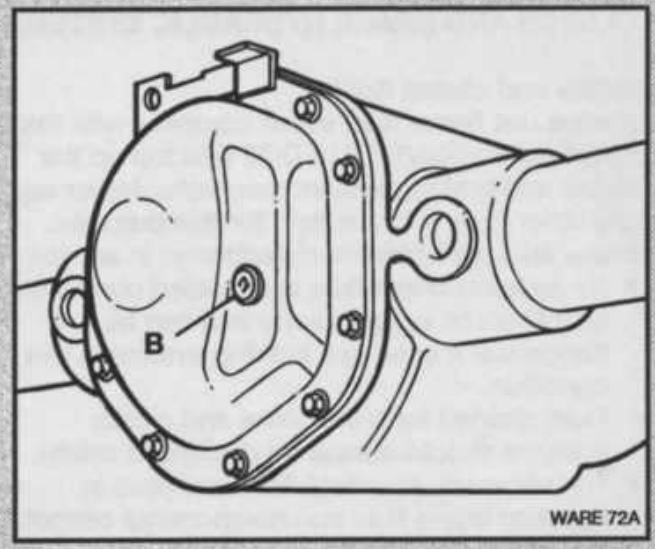
STEERING AND SUSPENSION
The steering linkage and suspension require no routine maintenance in service but should be examined at regular intervals to check the condition and security of the rear axle 'U' bolts, suspension and front crossmember fixings, and the steering and suspension ball joints and bushes.

Front wheel alignment should be checked at the regular specified distances or at any time if the front tyres show any signs of abnormal wear.

Front and rear dampers should be replaced at 36,000 mile (60,000 km) intervals. The front wheel bearings should also be examined, re-greased or replaced as necessary at the same mileage.



PROPELLER SHAFT
There are two grease nipples, one in each of the universal joints **(A)**. Wipe away all dirt from the nipples and inject grease until it oozes out around the bearings. Do not be tempted to over grease the joints when using garage pressure equipment.



REAR AXLE
Oil level and replacement
With the vehicle standing level, clean all dirt from around the filler plug **(B)** and remove the plug. Top up with the specified lubricant using a suitable pump type of oil can with a flexible nozzle until the oil is level with the bottom of the filler plug hole.
CAUTION: *Do not overfill the axle with oil, allow any surplus oil to drain away before replacing the filler plug and wiping the axle clean. Overfilling may damage the axle oil seals.*

CLUTCH AND BRAKE HYDRAULIC SYSTEMS

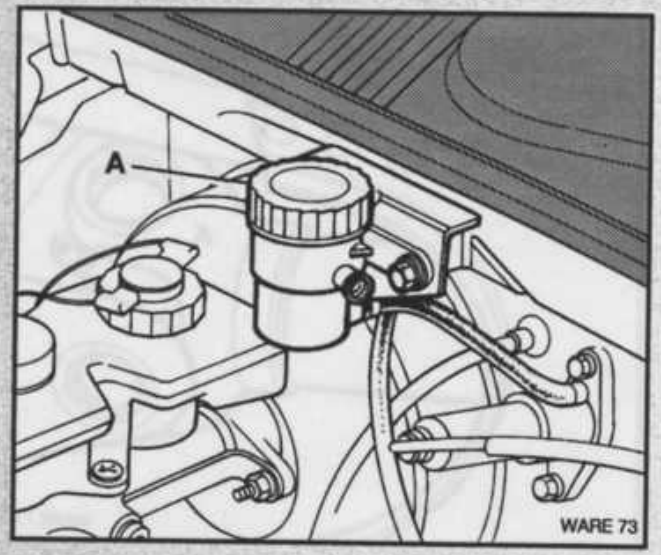
Brake and clutch fluids
Always use brake fluid which complies with the specification FMVSS 116 DOT 4 to top up the clutch and braking system reservoirs. Never use any other type of brake fluid for this purpose. Brake fluid performance deteriorates in service.

- Never leave brake fluid in unsealed containers as it absorbs water quickly and can be dangerous if used in a braking system in this condition.
- Fluid drained form the brake and clutch systems should always be discarded safely.
- The necessity for absolute cleanliness in handling brake fluid and components cannot be over-emphasised.

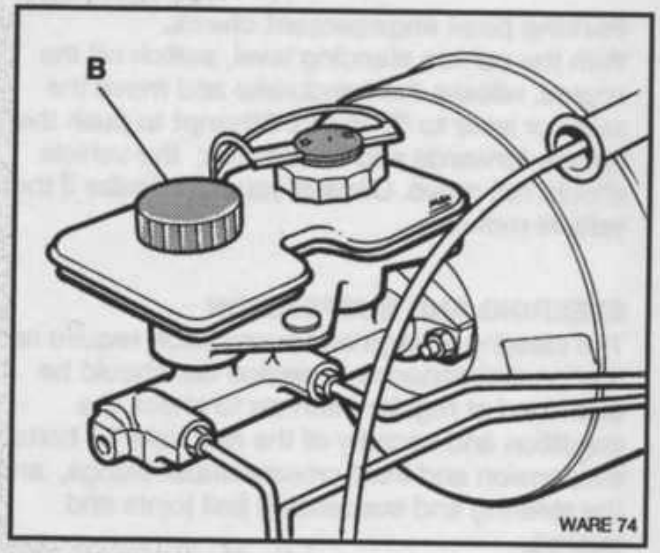
CAUTION: *Brake fluid will damage paint work.*

Clutch fluid reservoir
Wipe the reservoir body clean and check the clutch fluid is to the level marked on the side of the reservoir body.

If additional fluid is required, remove the cap **(A)**, remove the anti surge cup from inside the reservoir and top up to the fluid mark on the reservoir body. Replace the anti-surge cup and check the vent hole in the cap is clear before replacing the cap.



Brake fluid reservoir
Wipe the reservoir body clean and check the brake fluid level relative to the 'max' and 'min' marks on the side of the reservoir body. If the level is below the 'max' mark, remove the reservoir cap **(B)** and top up the reservoir with new brake fluid of the correct specification. The brake fluid level will drop in service as the brake pads and shoes wear. Any substantial loss of fluid should be investigated in case of a possible leak in the brake hydraulic system.



Brake and clutch system maintenance
Under normal conditions brake fluid should be changed completely every 54,000 miles (90,000 km). Where the vehicle is frequently subjected to severe hilly operating conditions, involving heavy braking over prolonged periods, the brake fluid should be replaced each year.

All fluid seals in the hydraulic system and all flexible brake hoses should be renewed at 72,000 miles (120,000 km) intervals, or 3 years, whichever occurs first.

At the same time the working surfaces of the pistons and bores of the master cylinder, front calipers and rear wheel cylinders should be examined and new parts fitted where necessary.

BRAKES

WARNING: ***Do not place any part of the body under the vehicle when the vehicle is supported by the jack alone. It is dangerous to work underneath a vehicle supported only by the vehicle jack. For repair work under the vehicle, use purpose designed vehicle supports - never use loose blocks or bricks etc.***

The inspections, adjustments and replacements specified in the service schedules are essential and should not be compromised.

When replacing brake pads and shoes, always use the components recommended by the manufacturer and which are essential to the safe operation of the vehicle.

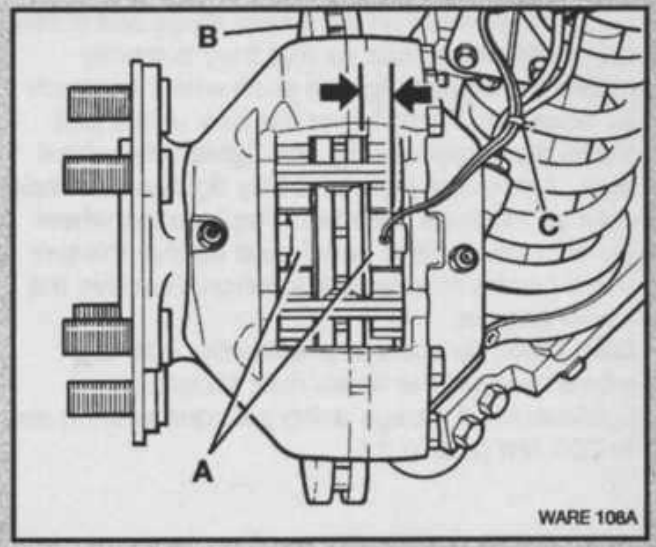
Pads and shoes must be replaced in complete axle sets, never individually or as a single wheel set. Serious consequences could result from out of balance braking due to a mix of brake friction materials.

Your vehicle is fitted with a high performance braking system which should require minimal maintenance in service. The brakes require no adjustment; a front brake pad on the left hand side of the vehicle incorporates electric wiring so that the brake system facia warning indicator light (Page 18) is illuminated when the front brake pads require replacement between the recommended service maintenance checks.

The handbrake is normally automatically adjusted with the operation of the rear brakes. 4 to 5 notches movement of the handbrake ratchet mechanism is required before the handbrake operates, to allow the adjuster mechanism to function correctly. Excessive handbrake free movement beyond that indicated should be referred to your Dealer for attention.

Front brake pads - wear

Apply the handbrake and place chocks against each side of the rear wheels to prevent the vehicle rolling. Remove the front wheel cover and ease the front wheel nuts. Jack up the vehicle until the front wheel is free to rotate and place additional supports under the chassis near the jacking point or under the front suspension crossmember. Remove the wheel nuts and front wheel.

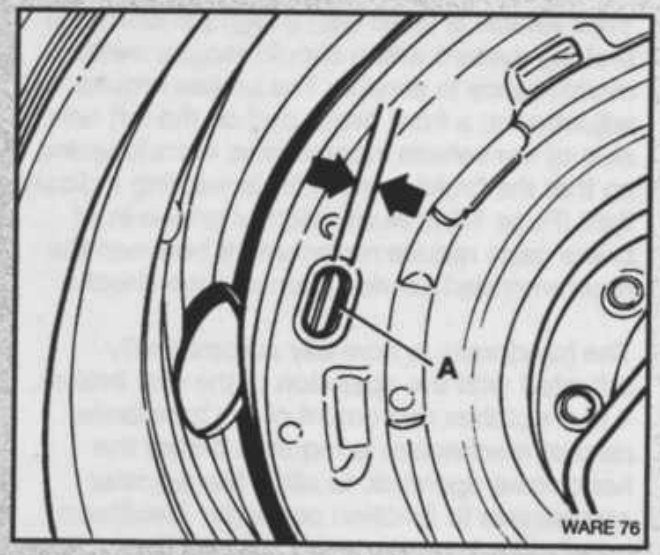


Examine the front brake pads for wear. The brake pads **(A)** must be replaced as an axle set if the pad friction material on either pad has worn down to 3 mm (0.125 in). The brake discs **(B)** must be replaced if the disc thickness has worn down to 22 mm (0.875 in) or a maximum of 1 mm (0.040 inches) wear on either side of the disc. This work should be entrusted to your Dealer.

NOTE: *When brake pads are replaced, the wiring from the inner brake pad on the left hand side should be secured to the hydraulic brake pipe with a suitable plastic tie, as shown in the illustration* ***(C)****.*

Locate the wheel on the wheel studs and screw on all the wheel nuts so that they correctly locate the wheel: tighten each wheel as much as possible. Partly lower the jack until it just stops the wheel turning and tighten the wheel nuts. Lower the jack, and fully tighten the wheel nuts as much as possible. Replace the wheel cover, ensuring it is positioned so that the tyre valve can be reached for inflation. Remove the wheel chocks.

CAUTION: *As soon as practicable after any wheel change, the wheel nuts should be tightened at a garage using a torque wrench set to 200 Nm (150 lb ft.)*



Rear brake shoe - wear

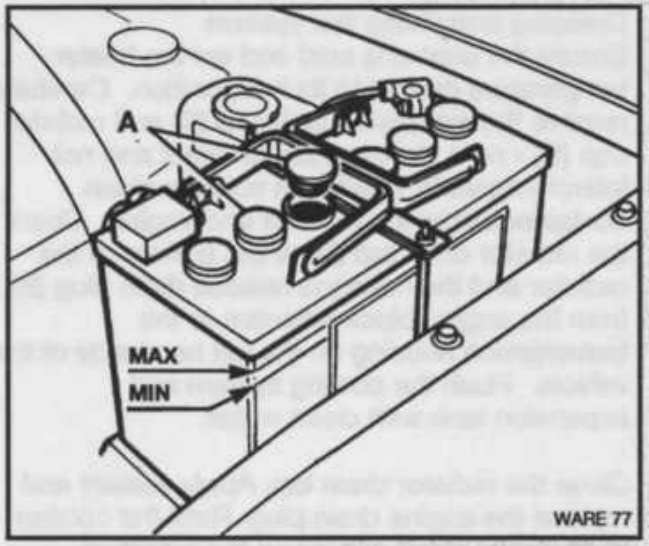
Place blocks or wheel chocks against each side of the front wheels to prevent the vehicle rolling. The rear brake lining wear may be determined without removing the rear wheels.

Jack up the vehicle to give access to the brake back plates and place suitable additional supports under the chassis near the jacking point or under the rear axle. Remove the two rubber plugs from the inspection holes **(A)** in the outer rim of each back plate.

Note: *a further plug is fitted to the back plate to give access to the self adjusting mechanism and this should not be removed.*

Examine the thickness of the friction material fitted to both brake shoes. The brake shoes must be replaced as an axle set if the friction material has worn down to 1.5 mm (0.62 inches). This work should be entrusted to your Dealer.

After examination, replace the inspection plugs, remove the vehicle supports, lower the jack and remove the chocks from each side of the front wheel.



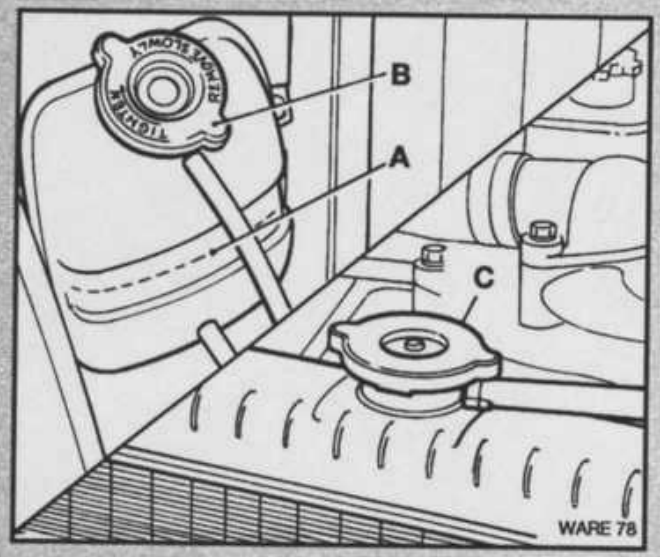
BATTERY
A low maintenance battery is fitted. Under normal operating conditions, where ambient temperatures rarely exceed 20 degrees centigrade for extended periods, the battery electrolyte level needs to be checked each 36,000 miles (60,000 km) or 12 months, whichever occurs first.

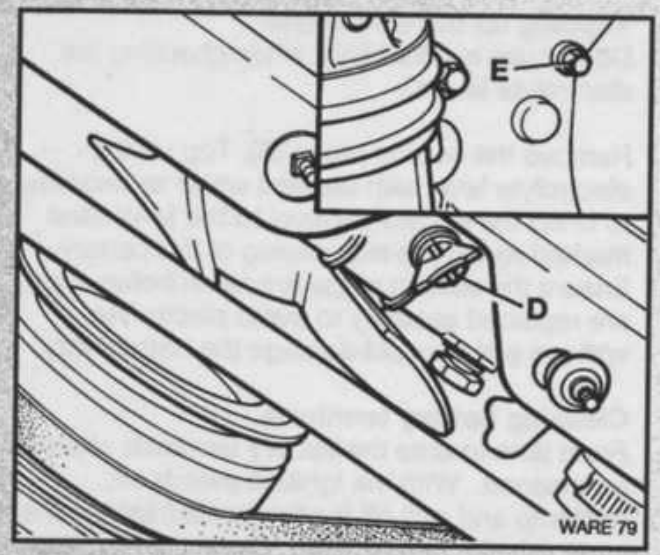
Where higher ambient temperatures are experienced, check the electrolyte level at more frequent intervals. Maximum and minimum electrolyte level indicators are moulded into the side of the battery.

Topping up the electrolyte
Do not use a naked light when checking the electrolyte levels.

Remove the sealing plugs **(A)**. Top up the electrolyte level with distilled water as necessary to bring the electrolyte level to the MAX level marked round the side casing of the battery. Ensure the sealing plugs are clean before they are replaced securely to avoid electrolyte spillage which could damage the battery tray.

Cleaning battery terminals.
From time to time the battery terminals should be cleaned. With the ignition switch off, unclamp and pull off the terminals (remove the earth (black) terminal first. Clean the terminals, apply petroleum grease, and replace and tighten the terminal clamps (earth terminal last). Reset the vehicle time clock.
CAUTION: *Never disconnect the battery from the vehicle if the engine is running as this could cause severe damage to the electrical system.*
Note: *on connection, the vehicle security system alarm (where fitted) will operate and should be disarmed using the remote key or key pad.*





COOLING SYSTEM

WARNING: ***To avoid injury from escaping steam and scalding water, the radiator cap and the pressure relief cap of the expansion tank must not be removed while the system is hot.***

Topping up

The coolant level should be checked when the engine is cold. The coolant level should then be at the mark half way down the side of the expansion tank **(A)**. If necessary slowly remove the pressure relief cap **(B)** from the expansion tank and add the specified coolant to bring the fluid level up to the mark.

Clean water may be used temporarily if coolant containing the specified antifreeze corrosion inhibitor (see below) is not available. Do not overfill the expansion tank as this will result in coolant loss through the overflow pipe as the coolant expands with increasing engine temperature.

CAUTION: *The pressure cap **(B)** fitted to the expansion tank is marked with a pressure rating. This cap must never be fitted to the radiator which has a cap of similar appearance without a pressure rating marked on the top.*

Draining and filling the system

Ensure the engine is cold and set the heater temperature control to its hot position. Carefully remove the expansion tank cap **(B)** and radiator cap **(C)** - note the caps are different and not interchangeable. Position a suitable clean container below the radiator and engine. Open the radiator drain tap **(D)** at the bottom of the radiator and the hexagon headed drain plug **(E)** from the engine block adjacent to the transmission housing on the left hand side of the vehicle. Flush the cooling system and expansion tank with clean water.

Close the radiator drain tap. Apply sealant and replace the engine drain plug. Refill the cooling system with clean water and the specified concentration of antifreeze and rust inhibitor which should be mixed before use.

Fill the radiator first and after filling replace the radiator cap **(C)**. Top up the expansion tank to the level indicated on the side of the reservoir and replace the cap **(B)**. Run the engine up to operating temperature, and when the engine has cooled down again, recheck the coolant level in the expansion tank and top up as necessary.

Frost and corrosion precautions
In production your vehicle was filled with an antifreeze solution to minimise internal corrosion in the engine cooling and heater systems, and to provide protection against frost damage.

Because of the different materials used in the engine and cooling system components, to prevent corrosion it is essential that only a long life ethylene glycol base antifreeze solution is used in service.

The cooling system should be drained, flushed through and refilled with new antifreeze solution every 72,000 miles (120,000 km) or 2 years, whichever occurs first.

Follow the instructions given on the antifreeze container to determine the mixing ratio of antifreeze to water to be used for the lowest anticipated temperature which may be anticipated (a minimum of 33% by volume is recommended).

Have your Dealer check the specific gravity of the antifreeze solution every year sometime before winter conditions are likely to be experienced. The overall concentration of antifreeze should not fall below 33% by volume. The approximate quantities of antifreeze required are shown in the table below.
CAUTION: *To protect the engine and cooling system components from corrosion, antifreeze solution should always be used in the cooling system even when ambient temperatures are such that freezing conditions are not normally experienced.*
Never use antifreeze solution in the windscreen washer systems

TYRES
Special 'taxi' tyres are fitted in production and should always be fitted as replacements. Cross ply and remoulded tyres should not be used. The tyre pressures should be checked each week (including the spare) when the tyres are cold. The recommended tyre pressures are:

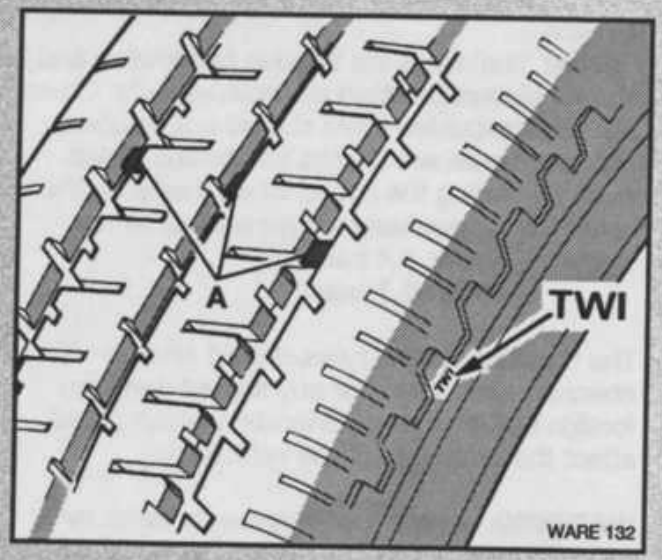
Front 2.4 bars
Rear 2.7 bars

The condition of the tyres should also be checked each week for any sign of damage, foreign material, or deterioration which could affect the operation of the vehicle.

WARNING: ***Driving with tyres incorrectly inflated can be hazardous and causes rapid tyre wear and possible permanent damage to the tyre casing.***

Valves and valve caps.
Valve caps should be fitted back after checking tyre pressures as they prevent the entry of dirt and water into the valves and form an additional air seal.

Solution	Amount of anti-freeze		Commences freezing		Frozen solid	
%	Litres	Pints	°C	°F	°C	°F
33	3.30	5.25	-19	-2	-36	-33
50	5.00	8.75	-36	-33	-48	-53



Tyre care and wear
The tyres should be checked frequently for damage or wear. The greater the depth of tread, the greater the water clearing properties of the tyre, resulting in increased levels of grip.

In many markets the maximum wear levels are subject to legal requirements. Where no such local regulations exist, it is recommended that tyre tread depth should never be allowed to fall below 1.6 mm.

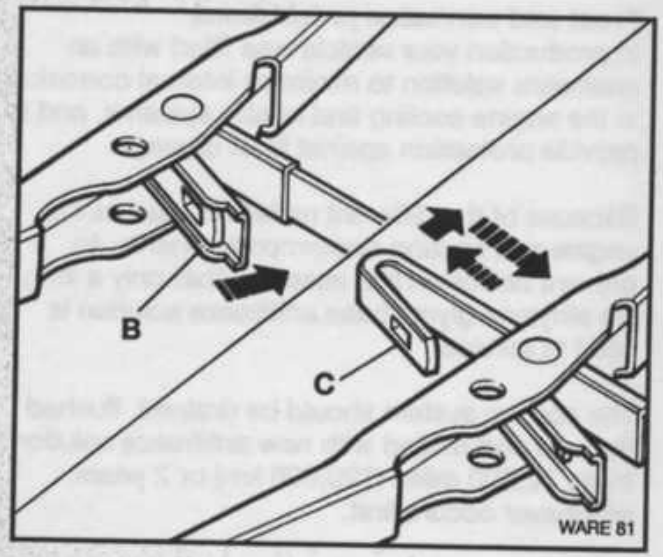
The tyres incorporate raised bars across the bottom of the treads to indicate tyre wear **(A)**, the positions of which are marked '**TWI**' round the shoulder of the tyre at regular intervals. These bars become flush with the tyre surface when there is approximately 1.6 mm of tread remaining and the tyres are at their wear limit.

Excessive local damage may result from striking a kerb, hitting an obstruction or deep pot hole, each of which can seriously affect the tyre casing. Such damage will normally be visible following careful examination of the tyre tread and wheels.

Incorrect wheel alignment resulting from kerbing or hitting an obstruction etc. may result in an uneven wear pattern across the tread pattern and around the whole tyre circumference. Where this is suspected, the wheel alignment should be checked by your Dealer.

Flints, sharp stones and other sharp objects should be carefully removed from the tyre tread using a penknife or similar tool. If neglected, they may work through the tyre.

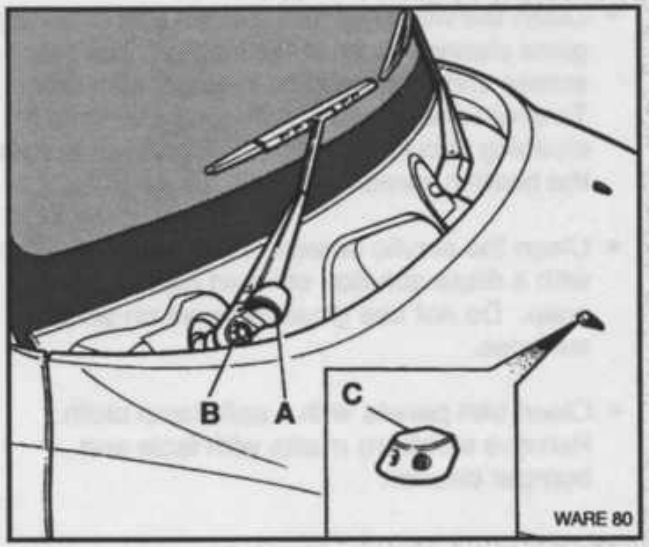
Any oil or grease which gets on to the tyres should be cleaned off using petrol sparingly (take care when disposing of the cloth used as it will be highly inflammable). Do not use paraffin (kerosene) which has a detrimental effect on rubber.



WINDSCREEN WIPERS AND WASHERS

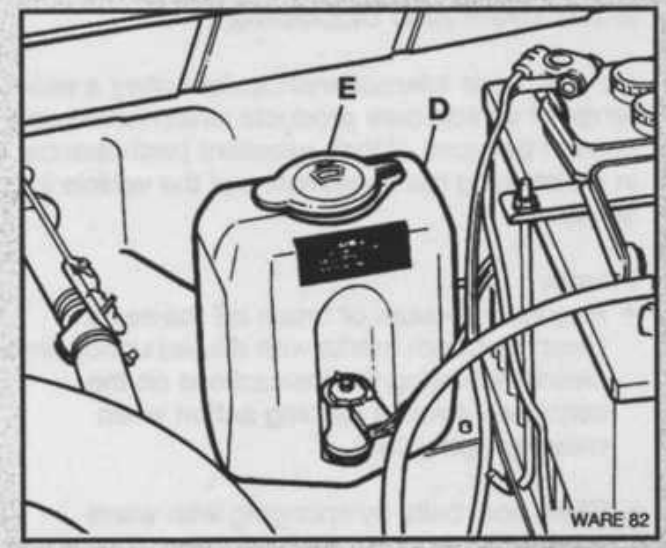
Wiper blades
Windscreen wiper blades should be replaced at regular intervals or if they become damaged by the action of road dirt and salt. Never use the wipers to clear frozen snow or ice from the windscreen as this will damage the lips of the blade and adversely affect the wiping performance.

To replace the blade, pull the wiper away from the windscreen, press the spring **(B)** inwards and push the wiper blade hook **(C)** from the arm. Withdraw the blade and fit a new blade following the reverse procedure.



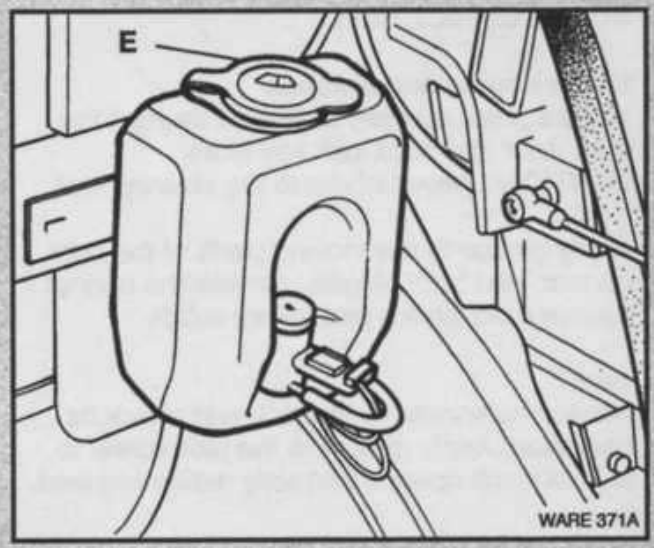
Front wipers arms
The front wiper arms should be positioned so that in the parked position the blades lie horizontal and parallel with the lower edge of the windscreen. If required, the arms may be repositioned or replaced by pulling back the spindle covers **(A)** and undoing the retaining nuts **(B)** after which the arms may be eased off their spindles.
Note: *The position of the wiper arms should only be altered when the wipers have first been 'parked' on a wet screen and the wiper motor and ignition have been switched off.*

When replacing the arms it is essential to position them on the splined spindles so that they lie in their correct position on the windscreen. Do not overtighten the retaining nuts and replace the spindle covers.



The washer jets **(C)** may be adjusted by inserting a thin needle into the washer orifice so that the jet may be swivelled into the required position. The windscreen washer jets should hit the windscreen at the highest point of the windscreen wiper blade arc.

Rear wiper arm
The arm may be replaced by following the same procedure as the front wipers. When parked on a wet screen, the wiper arm should be positioned horizontal and parallel with the lower edge of the rear window.



Windscreen washers
The reservoir for the front washers **(D)** is situated to the rear of the engine compartment. A similar reservoir for the rear washers is fitted inside and to the right of the boot.

Remove the caps **(E)** as required to replenish the washer fluid. To obtain the best results, always use screen washer additive mixed with clean tap water to the concentration recommended by the additive manufacturer.
CAUTION: *Never use antifreeze solution in the windscreen washer system.*

BODY LUBRICATION

Locks hinges and catches
Inject a small quantity of thin oil through the front door and boot lock key slots.
CAUTION: *Never lubricate the steering lock.*

Apply grease to the moving parts of the door, bonnet, and boot hinges. Grease the bonnet release mechanism and safety catch.

Jack
Occasionally remove the jack and check its operation. Apply grease to the jack screw to ensure it will operate correctly when required.

BODY CARE AND CLEANING

London Taxis International Dealers carry a wide range of vehicle care products which have been chosen because of their excellent performance in maintaining the appearance of the vehicle in service.

Interior

- Regularly vacuum or brush off the seats. Clean stubborn marks with diluted upholstery cleaner following the instructions on the container. Avoid a rubbing action when cleaning upholstery.

- Clean seat belts by sponging with warm water, using a non detergent soap. Never use cleaners incorporating bleaches, dye chemical cleaners or detergents on seat belts as this will affect their performance characteristics adversely. Allow seat belts to dry naturally.

- Clean carpets with a brush or vacuum cleaner. Occasionally clean carpets with diluted upholstery cleaner. Rubber mats should be cleaned with water.

- Clean the windows with a clean soft cloth and glass cleaner, or chamois leather. The rear screen should always be cleaned with care. To avoid damage to the heating elements, cleaning should be in line with and not across the heating wires.

- Clean the acrylic screen of the centre division with a dilute solution of liquid dish washing soap. Do not use glass cleaners on acrylic surfaces.

- Clean trim panels with a soft damp cloth. Remove stubborn marks with facia and bumper cleaner.

Exterior
Great care is taken in production to use processes and materials which minimise the effects of corrosion.

However, there are a wide range of possible causes of damage to the painted surfaces which are not the responsibility of the manufacturer. These include stone and gravel impact, natural and industrial fall out such as bird droppings and tree sap, road debris, oil, tar and salt used for de-icing roads etc. all of which can cause paint and body damage to your vehicle.

The detrimental effects of body damage can be reduced by simple care and attention as suggested below:

• Regularly wash the body work and wheel trims with a soft sponge and plenty of water using a good quality 'wax and wash' shampoo. Never use dish washing detergents or household cleaning fluids as they may damage the paint finish.
When the vehicle is particularly dirty, before starting detailed cleaning, carefully wash off any excess dirt and grit with a hose or watering can to prevent scratching the paint surface finish.
CAUTION: *High pressure washing equipment (particularly when the water jet is applied close to the vehicle) can damage parts of the vehicle and cause permanent leaks due to the distortion of seals.*
Care should be taken to avoid directing the water jet on the following areas of the vehicle:

Wheel hubs and all braking system components and handbrake cables
Fuel filler cap and seal
Exhaust system and outlet
Door and body seals, seams and grommets, including the lights and hire sign

Steam cleaning is not recommended as this can affect the underseal and other components. When necessary, hot pressure washing with a maximum temperature of 40°C and 80 p.s.i (55 bars), should be used to clean the underside of the vehicle.

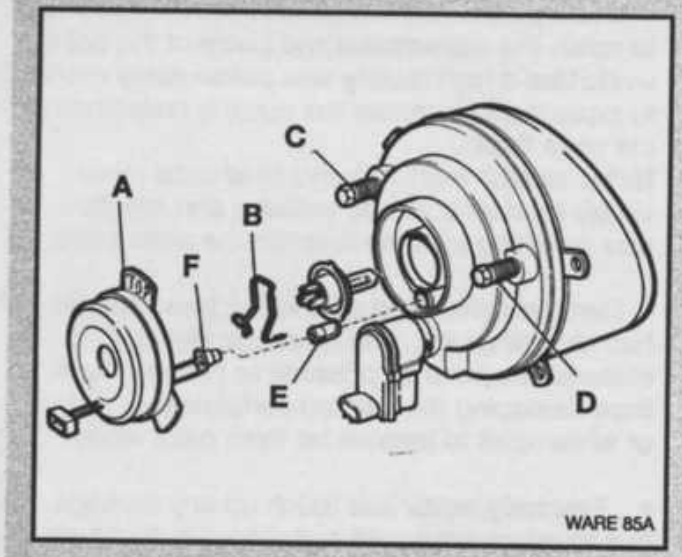
• Use a proprietary car polish from time to time to retain the appearance and lustre of the paint work. Use a high quality wax polish every month to protect and increase the scratch resistance of the paint finish.
Note: *scratch marks always tend to be more visible on dark coloured vehicles and regular wax polishing will help to retain the paint lustre.*

• Remove salts, road oil and tar, tree sap and bird droppings etc. and other damaging materials as soon as possible to prevent them from damaging the painted surfaces (use petrol or white spirit to remove tar from paint work).

• Promptly repair and touch up any damage due to minor scratches and stone chipping etc.

• Ensure any accident repair work is performed by (or arranged through) an LTI Dealer so that the manufacturer's recommended repair procedures, corrosion protection materials and genuine LTI parts are always used.

• Use LTI glass cleaner to remove windscreen smears. Clean the front and rear bumpers using LTI facia and bumper cleaner.



This section of the handbook covers the replacement of bulbs which are readily accessible to the operator. Other bulbs on the vehicle are best replaced by your Dealer. A full list of all bulbs used on the vehicle is shown at the end of this section.

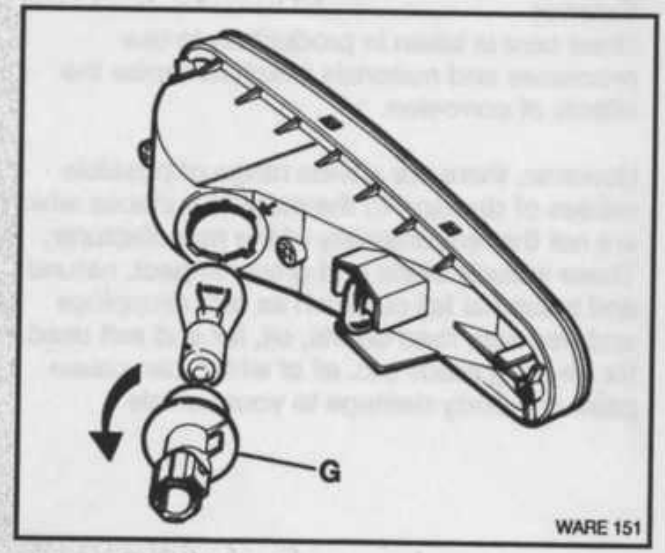
Headlight and side light bulbs
The headlamp bulbs are reached from within the engine compartment. Pull the headlamp bulb connector from the back of the headlight unit and carefully ease back the rubber seal **(A)** from the rear of the lamp and along the side lamp lead. Press in the 'legs' of the headlamp bulb retaining spring **(B)** to release the bulb.

Do not touch the glass of the new bulb (if touched it should be cleaned with metholated spirit before fitting).

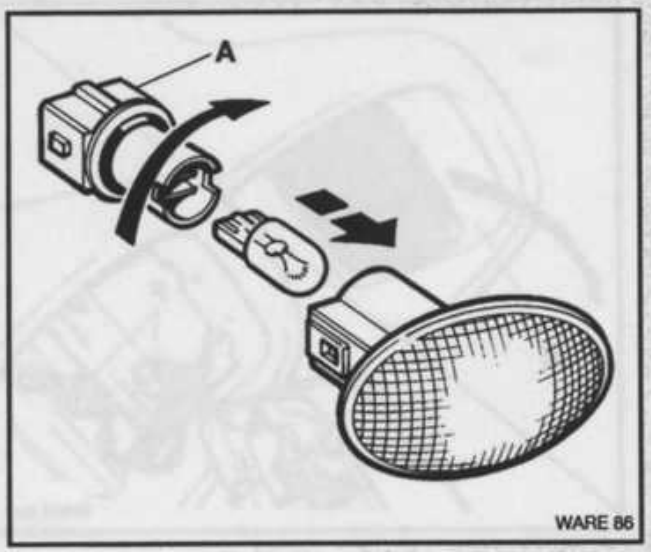
Replace the bulb (it will fit only one way round) and refit the retaining spring, positioning the 'legs' of the spring under the lugs of the headlight bulb recess. Carefully slide the rubber seal down the side light lead and replace it in position on the headlight body.

The headlights should normally be aligned and set 0.75^0 below horizontal by your Dealer with the headlamp height adjustment switch set at its highest position. Vertical and horizontal adjustment is achieved by means of the screws **(C)** and **(D)**.

The side light bulbs **(E)** are incorporated into the headlights and may be replaced by initially following the procedure for headlight bulb replacement. When the rear seal has been pulled back, pull the side lamp holder **(F)** from its socket in the rear of the light unit. The bulb is a bayonet fitting in the bulb holder.

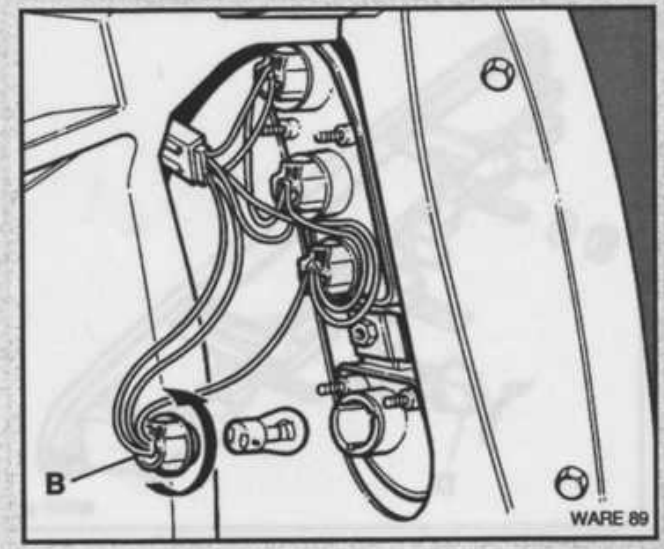


Front Indicators
The bulb holder is reached from the back of the light behind the front bumper. Turn the bulb holder **(G)** anti-clockwise to remove it from the back of the lamp. The bulb is a bayonet fitting in the holder.



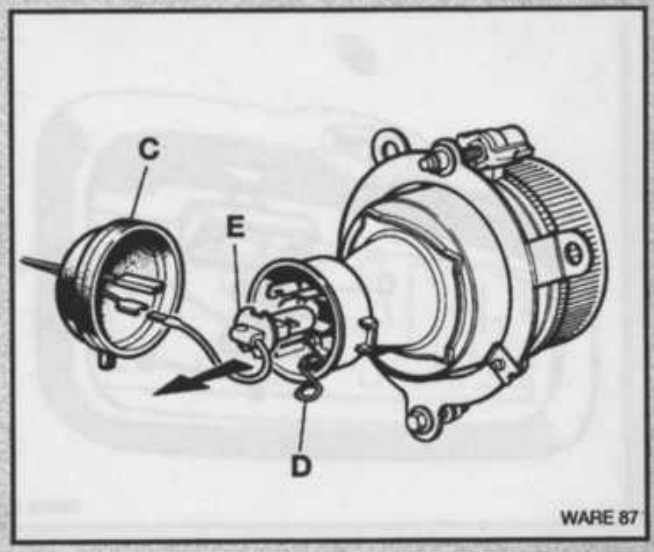
Side indicator repeaters
The bulb holder is a bayonet fitting in the side indicator and may be reached from the back of the front wing panel. Remove the bulb holder **(A)** before removing the bulb which is a push fit in the holder. Replace the bulb in its holder before re-inserting it in the light unit.

Rear light cluster- bulb replacement
The rear, brake, reversing and fog light bulbs may all be replaced from the front of the light which can be reached from within the boot. The required bulb holder **(B)** should be turned anti-clockwise to release it from the front of the rear light cluster and to give access to the bulb. Each bulb is a bayonet fixing in its bulb holder. Reverse the procedure to replace the bulb and bulb holder.



Note: *The bottom bulb (rear and fog) is a double filament bulb with offset pins. The wiring to each bulb should emerge from the bottom of its bulb holder when it is fully tightened.*

Front fog lights
The bulb is replaced from behind the front bumper. Carefully ease back the rubber boot **(C)** from the lamp housing and disconnect the bulb wiring. Disconnect the wire clips **(D)** to release the bulb, its holder and wiring **(E)**.
Note: *The bulb holder has a square recess on one edge so that it can only be re-fitted in one position.*

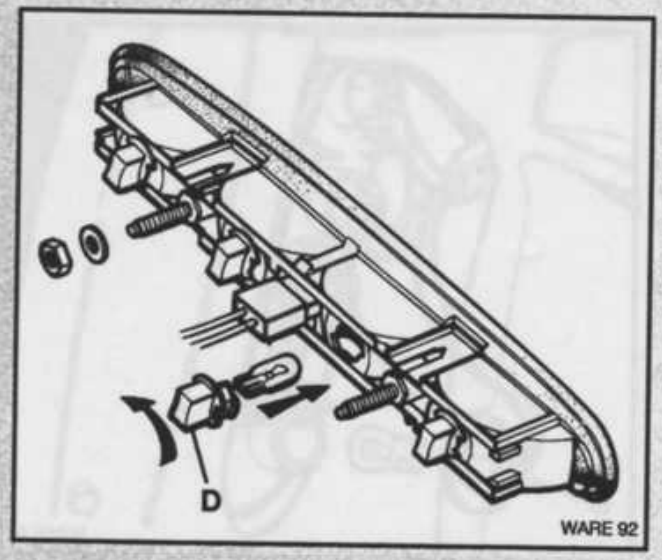


Do not touch the glass of the new bulb (if touched it should be cleaned with methylated spirit before fitting).

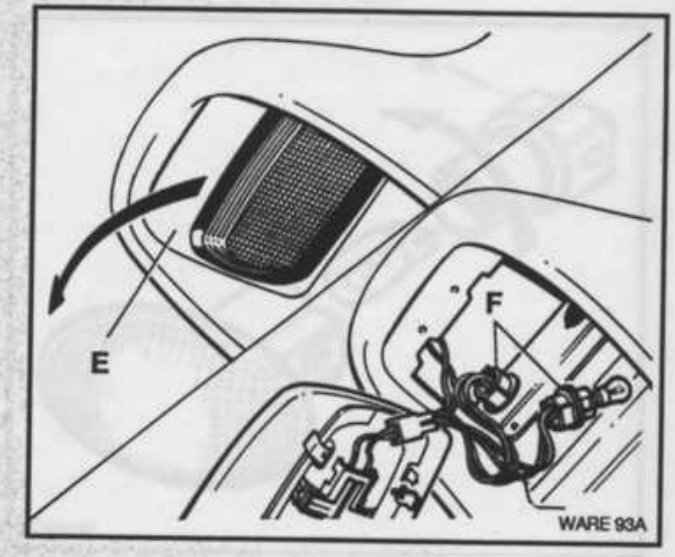
Replace the bulb and holder, secure it with the clips and re-connect the lead. Carefully refit the rubber boot to the back of the lamp housing ensuring its drain tube is to the bottom.

Fog lamp alignment should be carried out by your Dealer.

Number plate light - bulb replacement
Note the position of the light lens **(A)**. Unscrew the two screws **(B)** securing the lens. Pull the lamp base out from the number plate plinth to gain access to the festoon bulb **(C)** and pull out the bulb from its connector clips. Replace the bulb and then the lens, ensuring it is in its original position before securing the light unit back into in the number plate plinth.

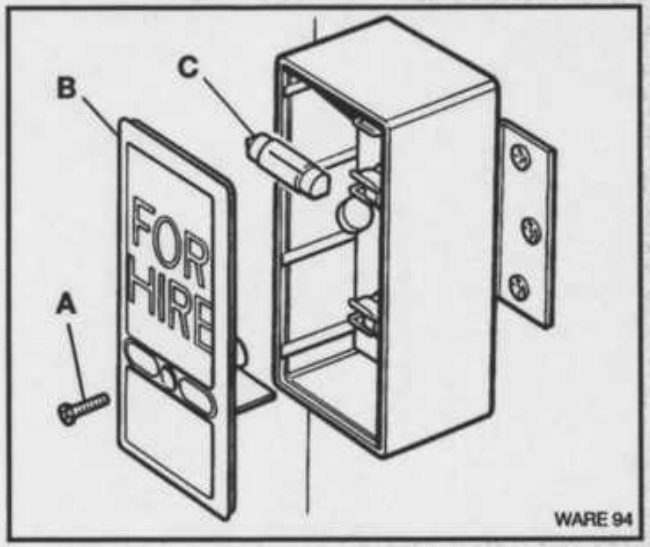


High stop light - bulb replacement
Note the location of the defective bulb. Remove the intercom speaker and grille to give access to the rear of the lamp unit.
Remove the holder **(D)** and defective bulb by twisting it anticlockwise. Pull the defective bulb from its holder. Replace by following the reverse of the above procedure.
Note: *The 'for hire' indicators each side of the stop light should be replaced by a Dealer.*

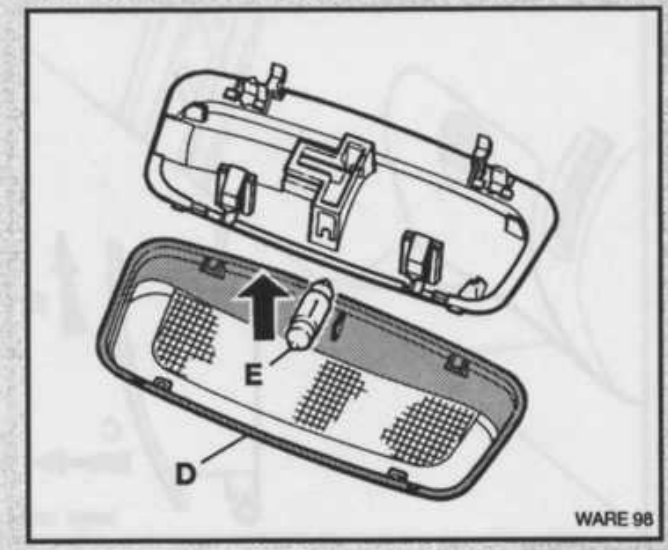


Hire sign light - bulb replacement
Pull down the back edge of the driver's interior light **(E)** from the roof console to gain access to the taxi sign bulbs. The required bulb holder **(F)** should be turned anti-clockwise to release it from the hire sign body. Each bulb is a bayonet fitting in its bulb holder.

Replace the defective bulb and install the bulb holder in the hire sign body. Position the lugs at the front of the interior light above the edge of the centre console trim before clipping the light unit into place.

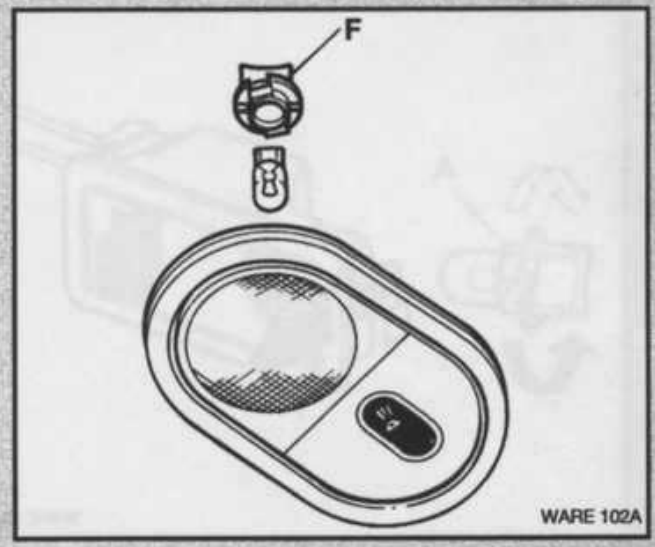


Hire sign repeater bulbs
The festoon type bulbs may be replaced by removing the screw **(A)** securing the light box lens unit **(B)** and pulling out the defective bulb **(C)** from its clips.



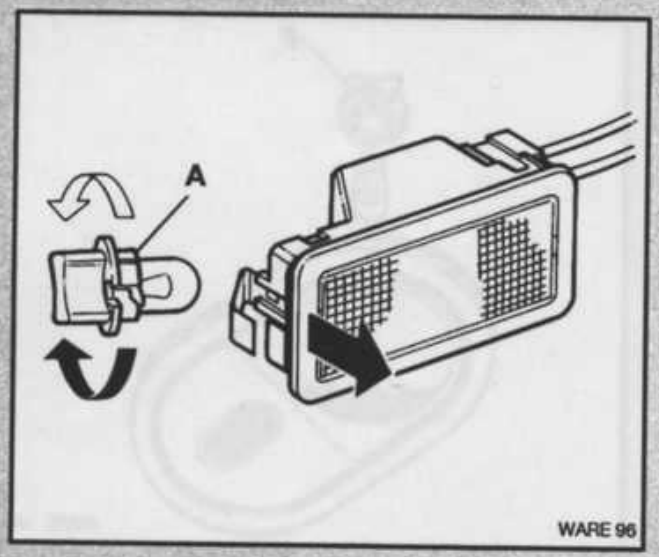
Interior lights
Carefully pull the wider edge of the lens surround **(D)** down from the light unit to give access to the festoon bulb **(E)**. Pull the festoon bulb down from its clips.

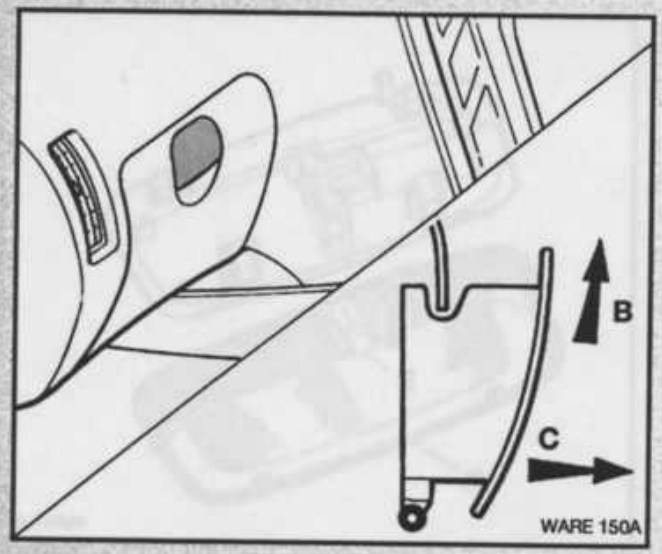
After fitting the new bulb, reposition the narrower edge of the lens surround into position in the lamp body before clipping the lens back into position.



Reading lights - bulb replacement
Use a flat blade to ease the edge of the reading light assembly away from the quarter trim to gain access to the rear of the unit.

Twist the bulb holder **(F)** anti-clockwise (bayonet fitting) to release the bulb and holder assembly. Fit a new bulb and holder assembly and carefully clip the light assembly back into position.





Courtesy, fare illumination, puddle, facia, and boot lights

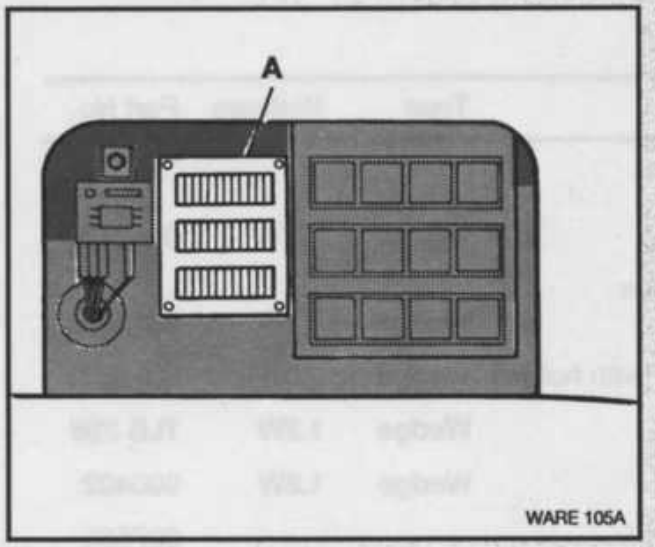
Carefully ease the unit from the trim with a flat blade - one end of the light unit is fitted with a spring clip which will allow the light unit to be pulled out from the trim without undue effort.

The bulb holder **(A)** is a bayonet fitting in the light unit and should be turned anti-clockwise to give access to the bulb. Pull out the bulb from its holder. Replace the bulb and its holder and refit the light unit, engaging the end opposite the spring clip in the panel before clipping it into position.

Fuse box access
If any electrical equipment fails to operate, check for a blown fuse.

The facia glove locker must be removed to gain access to the fuses which are situated in front of the glove locker aperture.

Open the left hand front door. Partially open the glove locker until it can be lifted **(B)** sufficiently to allow the bottom edge **(C)** to be eased away from its hinge clip in the facia. Replace the glove locker by reversing the above procedure.



Fuse Box and fuses
The fuse box, and the majority of relays and electronic control units are located in front of the glove locker aperture. The position, rating and circuits covered by each fuse are shown on a label located in the glove compartment and also as shown in the illustration.

Each fuse is marked with its fuse rating and should be pulled directly out of position for examination. If the fuse wire has broken, fit a replacement with the same rating. When replacing a fuse, turn off the switch controlling the equipment it protects.

If a newly fitted fuse 'blows' immediately it is fitted or when the equipment it protects is switched on, and the cause of the problem is not immediately apparent, the equipment should be examined by your Dealer.

Fuse ratings
The fuses used have the following ratings and colour codes:

5 A - orange	20 A - yellow
10 A - red	25 A - white
15 A - blue	

WARNING: ***Fuses are fitted to protect the vehicle wiring from overheating and the consequential risk of fire. A 'blown' fuse must only be replaced with a fuse of the correct rating as shown on the fuse box label. Never use a fuse of a higher rating as this could lead to damage to electrical equipment or cause the wiring to overheat. Do not attempt to repair a broken fuse.***

Fuse Box Layout and Ratings

	A	B	C
9	Air Con 20A	Mirror / Audio / Intercom 10A	Window Lift Rear 25A
8	Heated Rear Screen 20A	Heater Rear 10A	Window Lift Front 25A
7	Fuel Cut Off 10A	Heater Front 15A	Aux 2 20A
6	Motion Lock 5A	Wash / Wipe Rear 10A	Aux 1 20A
5	Reversing Light 10A	Wash / Wipe Front 15A	Cigar Power Point 20A
4	Indicator 10A	Stop Lamp 10A	Immobiliser 10A
3	Side Tail 10A	Fog Lamp 10A	Horn 10A
2	R/H Dip Main 15A	Interior Light 10A	Taxi Meter 10A
1	L/H Dip Main 15A	Hazards 10A	CDL 20A

WARE 104B

REPLACEMENT BULBS, LIGHT EMITTING DIODES & FUSES

Location	Type	Wattage	Part No.
Headlight	Halogen	60/55W	TLB 472
Parking light	Bayonet	4W	TLB 233
Direction indicators (front & rear)	Bayonet	21W	TLB 382
Indicator side repeater	Wedge	5W	TLB 501
Rear and fog lamp	Bayonet	21/4W	TLB 566
Stop lamp	Bayonet	21W	TLB 382
Reversing lamp	Bayonet	21W	TLB 382
Parcel shelf stop lamp	Wedge	4 x 5W	TLB 501
Number plate lamps	Festoon	2 x 5W	TLB 239
Front fog lamps	Halogen	55W	TLB 453
Taxi hire sign lamps	Bayonet	2 x 21W	TLB 382
Taxi hire sign repeater	Festoon	3 x 10W	TLB 272
Interior lights (roof)	Festoon	7W	900022
Reading lights	Wedge	5W	TLB 501
Courtesy and fare illumination lamps	Wedge	5W	TLB 501
Transmission selector lever	Bayonet	4W	TLB 233
Cigar lighter	Wedge	1.2W	TLB 286

Location	Type	Wattage	Part No.
INSTRUMENT PANEL			
Illumination-amber	Wedge	1.2W	900010
Warning/illumination-white (with holder)	Wedge	1.2W	801186
Warning-battery charge (with holder)	Wedge	2.0W	801187
Rocker switches	Wedge	1.2W	TLB 286
Clock (with holder)	Wedge	1.2W	900402
Door handle marker			607555
LEDs			
Intercom warning			606541
Door lock warning			606541
Vehicle for hire (parcel shelf)			606541
Security system			608030
FUSES	5A		610892
	10A		900109
	15A		900110
	20A		900111
	25A		900112

WARNING: *Only fit bulbs of the wattage indicated. Higher wattage bulbs can damage the light unit to which they are fitted.*

Engine Type	Diesel
Number of cylinders	4
Bore	96 mm (3.781 in)
Stroke	92 mm (3.662 in)
Capacity	2664 cc
Valve rocker clearance	0.35 mm (0.014 in)
Compression ratio	21.8:1
Firing order	1, 3, 4, 2
Coolant	LTI long life (or ethylene glycol equivalent)
Fuel system	Gear driven fuel injection Glow plug, assisted start ignition
Fuel tank capacity (approx):	52.6/11.5 (litres/gallons)

Transmissions
Manual - 5 speed synchromesh
Automatic - 4 speed with overdrive lock

Rear axle
Hypoid semi-floating

Steering	
Turning circle-wall to wall (excluding mirrors)	8.53 m (28ft)
Front wheel toe-in	1.5 -2.5 mm (1/16 to 3/32 in)
Front hub bearing end float	0.025 - 0.152 mm (0.001 - 0.005 in)

Tyres
Size and type: 175 R 16 'C' 6 PR radial ply
Recommended pressures:
Front 35 p.s.i. (2.4 bars)
Rear 40 p.s.i. (2.7 bars)

Principal dimensions and weight

	mm	in.
Length	4575	180.00
Width (mirrors out)	2036	80.22
Height	1834	72.26
Front track	1422	56.03
Rear track	1482	58.39
Front end overhang	765	30.14
Rear end overhang	930	36.64

Max permitted gross vehicle weight (kg/lbs.)	2400/5292
Approximate kerb weight - varies according to equipment (kg/lbs.)	1800/3969

Capacities (approximate)

	Litres	Pints
Engine oil (including filter)	6.25	11.0
Coolant (radiator only)	3.6	6.3
Coolant (radiator and engine)	10.0	17.6
Manual transmission	2.0	3.5
Automatic transmission	7.9	13.9
Rear axle	1.96	3.44

Fuel consumption

	litres per 100 km	MPG
Manual transmission		
Urban cycle	10.7	26.5
Extra urban cycle	7.1	39.7
Combined	8.4	33.5
CO g/km	223	
Automatic transmission		
Urban cycle	10.9	26.0
Extra urban cycle	8.2	34.3
Combined	9.2	30.7
CO g/km	244	

The above fuel consumption figures were obtained on a representative vehicle under the precise test conditions which are specified for comparative purposes by legislation. These tests do not equate to normal road conditions. The test results shown above are not therefore those which may be achieved on a particular vehicle in normal road use, where the operation and service condition of the vehicle will have a significant effect on the fuel consumption achieved.

INDEX

VEHICLE AND PARTS WARRANTIES
The remaining pages starting from the back of this handbook give details of the vehicle and parts warranties, and also the free service check to which you are entitled at between 1,000 and 1,500 miles (1,500 and 2,500 km) after the vehicle is first put into service..

SERVICE RECORDS
We strongly recommend you use the pages at the back of this handbook to record the maintenance services necessary to the continuing safe operation and reliability of your vehicle. This will provide evidence of the regular maintenance your vehicle has received, and enhance the value of your vehicle when you wish to replace it.

LONDON TAXIS international

TX1 *models*

Warranties and Service Records

CONTENTS

VEHICLE AND PARTS WARRANTIES

SHOULD ANY PART OF THE VEHICLE REQUIRE REPAIR OR REPLACEMENT AS A RESULT OF A MANUFACTURING OR MATERIAL DEFECT THE FOLLOWING TERMS WILL APPLY FROM THE DATE ON WHICH THE VEHICLE WAS HANDED OVER TO THE FIRST OWNER:

ON DRIVE LINE COMPONENTS I.E. THE INTERNAL COMPONENTS OF THE ENGINE, TRANSMISSION AND REAR AXLE ASSEMBLIES	WITHIN 100,000 MILES (160,000 KM) OR 24 MONTHS, WHICHEVER IS SOONER
ON ALL OTHER MECHANICAL AND ELECTRICAL COMPONENTS	WITHIN 40,000 MILES (65,000 KM) OR 12 MONTHS, WHICHEVER IS SOONER
ON BODY ITEMS	WITHIN 12 MONTHS

THE PART WILL BE REPAIRED OR REPLACED FREE OF CHARGE BY AN AUTHORISED DEALER, REGARDLESS OF ANY CHANGE IN OWNERSHIP DURING THE PERIOD COVERED. ANY PART SO REPAIRED OR REPLACED WILL BENEFIT FROM THESE ARRANGEMENTS FOR THE BALANCE OF THE PERIOD APPLICABLE TO THE VEHICLE.

GENUINE PARTS ARE WARRANTED FOR 6 MONTHS FROM THE DATE OF PURCHASE WHEN FITTED TO A LONDON TAXIS INTERNATIONAL VEHICLE IN AN APPROVED LOCATION. WHERE SUCH PARTS ARE FITTED BY AN AUTHORISED DEALER THE WARRANTY WILL ALSO COVER THE FITTING CHARGE INCURRED.

THESE WARRANTIES ARE IN ADDITION TO AND DO NOT AFFECT YOUR STATUTORY RIGHTS.

VEHICLE AND PARTS WARRANTIES

The vehicle and parts warranty will not apply:

- Where the vehicle has not been maintained in accordance with the manufacturer's recommendations using the specified lubricants and parts.
- Where the vehicle has been damaged by neglect, accident or improper use or used for competitive purposes.
- Where the vehicle has been altered from the manufacturer's specification, or to any part or assembly where the serial number identification or label applied in production has been defaced or removed.
- To taximeter equipment or tyres which are warranted directly by the manufacturer concerned.
- To parts or accessories not supplied by the manufacturer.

The vehicle warranty does not cover the following:

- The routine replacement of items which are subject to wear, and which are affected by the operating conditions of an individual vehicle, examples of which include (but are not confined to) the following:

Lubricants	Steering and suspension bushes and joints
Filters	Clutch and brake linings and pads
Drive belts	Brake discs and drums
Fuel injectors	Shock absorbers and dampers
Wiper blades	Air conditioning receiver/dryer and refrigerant

  These items will only be replaced under the warranty arrangements if there is a manufacturing defect in workmanship or materials in the component concerned.

- Adjustments which may be necessary from time to time and which depend on the way in which the vehicle is operated, for example, clutch and brake adjustment, wheel alignment and balancing, headlight alignment and engine tuning.
- Loss of profit, business contracts, revenues, savings, or any increased costs or expenses incurred by the operator of the vehicle.

VEHICLE WARRANTY
If your vehicle requires attention under the terms of the warranty:

- Take your vehicle to the authorized Dealer from whom you purchased the vehicle. If this is impractical, you may contact any other authorized Dealer.
- Provide the Dealer with full information about the nature of any difficulty as quickly as possible.
- Always provide the Dealer with this Owner's handbook to provide the vehicle details required and to verify that the correct maintenance services specified by the manufacturer have been carried out.

PARTS WARRANTY
After the vehicle warranty has expired, any genuine part purchased by the operator either when fitted as part of a maintenance operation or repair, or as an over the counter sale, is warranted by the manufacturer as indicated on page ii.

In the case of a manufacturing or material defect occurring to a genuine part:

- Return the part (or the vehicle to which the part is fitted) to the Dealer who sold the part.
- Explain the nature of the defect; show the Dealer the invoice you received when the part was sold, and also any Major Unit Certificate which may have been issued at the time of sale.

Where the defect cannot be readily determined, your Dealer may charge for the replacement part while it is returned to the manufacturer for examination: you will be re-imbursed when the examination confirms that the part failed due to a manufacturing or material defect.

Note: *It is in your best interest to use the manufacturer's genuine parts which are warranted for use on your vehicle.*

VEHICLE AND PARTS IDENTIFICATION
The Vehicle Identification Number (VIN) shown on the inside cover of this booklet, is stamped on a plate attached to the bonnet locking platform, and also on the body beneath the floor covering to the rear of the right hand front seat.
The engine number is stamped on the left hand side of the engine block adjacent to the alternator.
A number of components are identified with bar coded labels, or identified using a micro dot process, to indicate they were fitted to the vehicle at the time of manufacture.
Always fit replacements parts which are appropriate to the identification numbers shown on your vehicle.
Note: *removal of the bar coded labels or identification marks will invalidate any warranty which may be applicable to the component concerned.*

VEHICLE MAINTENANCE

Regular maintenance by recognized Dealers, together with the use of genuine parts and accessories, is essential to the safe operation and continuing reliability of your vehicle.
The maintenance requirements are set out on pages 54/55 of this handbook. In addition, some of the more simple service operations which can be performed by any competent garage, are covered in detail.

DAILY CHECKS

We recommend you check the following each day:

- Lights
- Horn
- Warning lights
- Motion door lock operation
- Windscreen washer reservoir
- Rear window washer reservoir
- Mirrors

WEEKLY CHECKS

In addition to the items checked each day, we recommend you check the following every week or before any long journey:

- Engine oil level
- Check/top up brake and clutch fluid levels
- Check/top up cooling system
- Check/correct tyre pressures
- Check tightness of wheel nuts

REGULAR MAINTENANCE

The more complex requirements at each 9,000 miles (15,000 km) should be performed by recognized Dealers, which are kept up to date with the latest information issued by the manufacturer.
This book contains (pages vii to xii) a series of boxes which your Dealer will stamp to indicate that the appropriate services have been performed, in accordance with the manufacturer's latest schedules.
Note: *the manufacturer's recommended maintenance items must always be supplemented where necessary to comply with any mandatory requirements in the country where the vehicle is operated.*

ADDITIONAL SERVICE REQUIREMENTS

Some service operations are required on a periodic basis and should be requested when they become due. Additional boxes are included to record brake fluid changes, replacements of coolant, and service to the air conditioning system (where fitted).

SERVICE RECORDS

You should keep all your maintenance records (including original invoices etc.) since, in some instances it may be necessary for you to show that the vehicle has been correctly maintained at the appropriate intervals.
When you dispose of the vehicle, these records should be left in the vehicle and passed on to the new owner.
Note: *maintenance services should be carried out within 500 miles (750 km) of the distance specified. Latitudes of service intervals may not be carried forward.*