

Vehicles

## **Owner's Handbook**

Manual del Propietario Manuel du Proprietaire Betriebsanleitung



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## Vehicles

## **Owner's Handbook**

Right hand drive diesel models

# TX4

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.

This handbook is not an infallible guide to the actual specification of your vehicle.

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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. Recognised LTI Vehicles 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 an Authorised LTI 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). LTI Vehicles reserve the right to change their servicing recommendations in the light of operating experience. Having this work performed by an Authorised 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 additional information.

## RADIO AND TELECOMMUNICATIONS EQUIPMENT

Auxiliary electrical power connections are provided to assist the fitting of radio telecommunication equipment. These are three two-pin connectors inside the driver's compartment on the fuse board immediately behind the fascia fuse box cover. One is controlled by the ignition switch and two are fed from the battery and controlled by a battery protection relay (see later text for information concerning the battery protection and warning system). Note: whilst positions are provided for these auxiliary power connections in the underbonnet fuse box, fuses are not installed. Whoever fits auxiliary equipment will need to supply and fit the relevant fuses to the fuse box. A 12 volt, 10 Amp power outlet is provided in the front compartment 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

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

WARNING: The electrical systems fitted to your vehicle incorporates equipment and electronic devices which are adequately protected by fuses and other forms of electrical protection 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 and suitably qualified auto electrician, so that vehicle wiring is not overloaded and any additional equipment is positioned with adequate wiring and fuses. LTI Vehicles accepts no responsibility for any damage caused by incorrectly installed additional equipment.

LTI Vehicles recognises that taxis often stand with the engine off, but with exterior and interior lights and auxiliaries switched on and this can guickly discharge the battery. In order to assist the operator in routine taxi operation your vehicle is fitted with a protection and warning system that will turn off the auxiliary electrical power connections 30 minutes after the vehicle is vacated. This will prevent any auxiliaries that might be left on from discharging the battery any further. You will also be notified with an audible signal one minute before the auxiliaries are switched off. See the information on automatic switching-off of the interior lights on page 20 which also limits the risk of battery discharge.

#### WARNING:

If additional equipment is installed on the vehicle and it is not connected via the auxiliary outputs provided, the vehicle battery may become discharged to the point where the vehicle will not start. Always fit fuses of the capacity indicated on the label fitted to the fascia fuse box and electrical relay access cover and the plan of underbonnet fuses and electrical relays shown later in this book.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.

#### SERVICE INTERVALS

Your vehicle is designed to operate on a 10,000 mile service interval. Information on vehicle servicing is included later in this book.



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.

#### How to turn off ultrasonic detection

If required, the ultrasonic sensors may be temporarily switched off - press lock button 4 times within 30 seconds, they will be re-enabled next time alarm is set.

#### Remote key fobs

The battery operated, remote key fob emits a coded radio signal which operates the security and locking system when the key buttons are pressed while adjacent to the vehicle. Whilst the key buttons are pressed a small light (A) in the key will illuminate to confirm the remote key is operating.

**Note:** Avoid inadvertent and repeated pressing of the remote key buttons, 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).

Do not suspend or swing about your key ring from the remote key fob. Take care not to trap, crush or squash the remote key fob. Keep it dry and do not immerse in liquid of any sort. Any damage caused in this way may not be covered by warranty.

If the battery in the remote key fob becomes discharged the small light **(A)** will flash when the key buttons are pressed. When this happens, replace the battery in the remote key (see page 7) before the battery becomes fully discharged.

#### 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.

#### Security systems.

The Anti Theft Systems fitted to the vehicle are designed to minimise the risk of unauthorised operation without using a correctly coded remote key or ignition key. On all models the remote key operates the central door locking system. Each ignition key contains a transponder which the security system recognises.

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



#### Arming and disarming the system

To lock the vehicle and arm the security system, close the windows, 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 illuminate to confirm the key is operating.

The hazard lights will flash once and any door operated interior lights will go out. If any door or the boot is open, hazard lights will flash 5 times and the central door locking will not operate.

To unlock the vehicle press the button **(C)** on the remote key. The hazard lights will flash twice, the doors will unlock and the interior lights will come on.



#### Remote key batteries

Replace 23A 12V battery by removing the screw in the back cover (A). Remove the battery (B) from the terminals. Insert the new battery ensuring the "+" positive marking is as shown. Screw the cover back on tightly. Always use an LTI specified battery.



CAUTION: Carefully dispose of the old battery. Battery may explode if recharged, incinerated or short circuited.

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#### Security system fault diagnosis

The security system installed in your vehicle should give satisfactory service providing the key fobs and ignition 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 may be wet	Shake the remote key dry and re-try					
Remote key fails to lock/unlock the vehicle doors	Possible interference from high powered local radio equipment	Press the remote key a few times until the system activates					
	Check function of remote key (see page 5)	If the battery is discharged replace the battery in the remote key. If still inoperative, try another remote key.					
	Use a multimeter 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					
5 Flashes on Direction Indicators	Check all doors/boot and bonnet open	Close the opening					
Vehicle will not start	Inertia switch has tripped	Press top of it					
		Check Security LED is not flashing rapidly					
	Check above two items, if vehicle still fails to start	Use another key					
		If still fails to start contact Dealer or recovery organisation					
Alarm upgrade (where fitted) activates with no	Check all doors, bonnet, boot, centre partition, windows (and sunroof) are fully closed	Close the opening and re-arm the system					
apparent cause	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 option to turn off the ultrasonic detection system while vehicle is occupied see page 5					







#### Vehicle keys

The vehicle is supplied with two keys. Each key operates the ignition/starter switch and steering lock, driver's door lock and luggage door lock, the boot lid lock and the fuel filler cap lock. Each key contains a transponder which the security system recognises. Your Main Dealer can provide and programme more keys to your vehicle as required.

**Note:** When taking delivery, make a record of the security number on the tab attached to the Keys. This information is required should you need to replace this key if it becomes lost or damaged in service.

**Important:** When starting the engine do not use the key with other transponder keys in close proximity, even the spare key or transponder keys from other vehicles.

Do not use the key with the key ring resting on the key grip.

#### Central locking system

The remote key is used to operate the central locking system. It will lock and unlock all four doors. However, if the remote key is inoperative or lost, the ignition key may be used in either front door to unlock that door.

Note: Unlocking the vehicle doors with the ignition key will not unlock the rest of the vehicle. Neither front door lock is electrically linked to the central locking system. When the vehicle has been entered the rear doors may be unlocked using the door mounted switch shown overleaf. Only the remote key carries out the central door locking function.

When the doors are unlocked by using the remote key, both front and rear doors are 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.

**Important Note:** Locking the vehicle doors with the ignition key will not arm the security system. However, the engine immobiliser will automatically arm when the vehicle key is removed from the ignition/starter switch and steering lock.

Where an LTI 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.

#### Security feature 1

If the vehicle has been locked by use of the remote key, using the ignition key in any front door will unlock that door only.

#### Security feature 2

When leaving the driver's compartment to assist a passenger with the swivel seat and additional step or wheelchair installation use the ignition key to lock the driver's door.





#### Door locks

When the remote 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 in the unlocked position, pulling out the interior door release (B) will open the door.

The interior looking catch **(A)** on each of the front doors will lock or unlock that door only. Use this facility to lock front doors individually to suit your own operating requirements. The interior locking catch on the rear doors will unlock (But not lock) the door on which the catch is operated.

#### Driver's security locking switch

For added driver security, a switch (C) in the driver's armrest allows the driver to lock or unlock doors from within the vehicle when operated in the following way:

- 1. A single short press and release of the switch (C) will lock the rear doors.
- 2. Pressing and holding the switch down will lock the rear doors immediately and within two seconds will lock the front doors so that all four are locked.

WARNING: Whenever the central door locking system is used it will override this security locking switch, which must then be reset as required following the instruction above.

#### 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.

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

#### ING C $\mathbf{O}$ C S CU



#### Fuel tank filler cap

The fuel filler cap (A) is locked with the ignition key. 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 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.

WARNING: For safety reasons the bonnet must always be completely closed when the vehicle is driving/operating. After closing it always check that it is completely secured. The bonnet must be flush with the adjacent panels.



Should you notice that the bonnet is not safely secured when the vehicle is moving, stop the vehicle immediately and close the bonnet properly.

#### 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. Fascia air vent
- 2. Fuse box cover
- 3. Rear compartment illumination
- 4. Front compartment illumination
- 5. Fascia air vents
- 6. Front fog lights (where fitted)
- 7. Rear fog lights
- 8. Hazard warning switch
- 9. Headlamp beam level control
- 10. Lights and indicator column switch
- 11. Temperature gauge
- 12. Fuel gauge
- 13. Warning lights
- 14. Speedometer
- 15. Wipers and washer column switch

- 16. Fascia vent
- 17. Radio/CD Player Audio System
- 18. Heater air distribution control
- 19. Heated rear screen switch
- 20. Air conditioning switch (where fitted)
- 21. Intercom volume control
- 22. Heater temperature control
- 23. Intercom switch (on/off)
- 24. Heater recirculation switch
- 25. Heater fan speed control
- 26. Panel illumination dimmer
- 27. Horn
- 28. Steering lock & ignition/starter switch
- 29. Exterior mirror adjustment control
- 30. Bonnet release
- 31. Fuel cut off inertia switch





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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/CD audio system 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 as required.
- 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 permitted.

#### INSTRUMENTS

Speedometer, odometer and trip meter

The speedometer indicates the vehicle speed in miles or kilometres per hour. The odometer indicates the total distance the vehicle has travelled.

The trip meter records the distance of an individual journey. Before each journey for which a record is required, push and hold button **(A)** until the trip has zeroed.

Should the odometer or trip meter display any information other than mileage, an instrument pack fault is indicated. Take your vehicle to an authorised LTI dealer so that the fault can be diagnosed.

#### 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 56) 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 band 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 Warning light 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) Oil pressure (red)



Motion locks system (green) Anti-lock braking system (yellow) Engine Electronics Function (yellow) Engine Management System (red)

WARNING: If either the Engine Electronics Function (yellow) or Engine Management System (red) lamp illuminates or flashes when driving. immediately reduce the vehicle speed. If one continues to flash, avoid heavy acceleration or deceleration. The engine will continue to operate but at reduced power. Have the vehicle checked out by an LTI Dealer immediately.

WARNING: If the Anti-lock braking system (yellow) lamp illuminates have the vehicle checked out by an LTI Dealer immediately.

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 an inoperative warning light or an open circuit in the electrical system. The condition should be investigated and rectified promptly.

\$	Left hand direction indicator	渁	Brake light bulb failure indicator	ť.	Oil pressure indicator	Ð	Left hand rear door 'open' indicator
□	Right hand and hazard indicator	Ŧ	Water in fuel indicator	(ABS)	Anti Lock Braking System Indicator (ABS)	R	Right hand rear door 'open' indicator
∎D	High beam indicator	Å	Seat belt indicator	(!)	Braking system indicator	~~ <b>`</b>	Motion locks system indicator
l C.	Engine electronics function	f	Security LED	<u>.</u>	Electrical charge indicator		Low fuel level warning light
¢,	Engine management system	Ħ	Windscreen washer fluid level	π	Glow plug indicator		EIV 0009

#### 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.



௺ If this illuminates, an engine management system malfunction is indicated. This may be the failure of an engine sensor that will not stop the engine but will

result in a loss of power, increased emissions

and fuel consumption. Have the vehicle checked out by an LTI Dealer immediately.



#### Engine management system If this illuminates, engine management

control module malfunction is indicated. In addition to a loss of power, increased emissions and fuel consumption, the engine may begin to lose power and may eventually fail to restart. You are advised to stop driving the vehicle and have it checked out by an LTI Dealer immediately.



#### Brake light bulb failure indicator This will illuminate if either right or left

hand brake light bulbs has failed. You should attend to this immediately. Note: this does not indicate any failure in the high-level rear brake light mounted in the heated rear window or of any other bulb on the vehicle.

Note: This feature will always illuminate as a self-test each time the ignition is turned on and will cancel the first time the brakes are applied.



#### Water in fuel indicator

This will illuminate if a significant presence of water is detected in the

bottom of the fuel filter cartridge. This should be attended to immediately by the draining of the fuel filter (see page x). if this does not rectify the condition you should have it checked out by an LTI Dealer immediately.



#### Seat belt indicator

Not used in this variant

#### Security LED



This indicates the status of the engine security system. It will flash regularly

when the ignition key is removed to indicate that the engine immobilizer is active. See security system diagnosis on page 8 for further detail. Lights continuously when the ignition key is turned to position II. Extinguishes when the key has been recognised. Flashes rapidly if fault is present.



Windscreen washer fluid level

Glows orange when the fluid reservoir requires replenishment. (Approximately 1.4l. remaining from 3.8l.)



#### 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.



#### Anti Lock Braking System Indicator (ABS)

The ABS control module monitors the operation of the system from ignition ON to ignition OFF. If the lamp illuminates this will indicate a fault in the anti lock braking system. The braking system will continue to operate conventionally and with the same standard as vehicles not equipped with ABS.



CAUTION: If the warning light comes on whilst driving, consult your LTI Dealer immediately who will arrange to have it checked out.



#### 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 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.

#### 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.

CAUTION: If the warning light fails to go or comes on whilst driving, you must stop the vehicle and consult your LTI Dealer immediately who will arrange to have it checked out.

#### Glow plug indicator



Glows orange when the engine glow plugs are used prior to starting the engine (see steering lock and starter switch

page 31). 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 35)



#### Low fuel level warning light

If the fuel gauge indicates low fuel or the low fuel warning light illuminates, please refuel immediately.Some time after the low fuel level warning light has illuminated, when the fuel reaches a very low level, the engine will start to run unevenly as an additional warning. Proceed to the next filling station and refuel with at least 8 litres of fuel. Failure to refuel will result in the engine running dry. This will lead to a difficult restarting procedure which requires roadside assistance. Also, serious engine damage may occur.

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.



#### WINDSCREEN WIPERS AND WASHERS

Push the switch arm down to operate the front wipers.

- o Off 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 of sweeps and will park when the lever is returned to the 'off' position.

Certain models have an optional feature that switches the windscreen wipers to timed interval wipe when slow speed wiper operation is selected and the vehicle speed falls below 5 mph. This feature can be overridden by

turning the wipers off then immediately turning them on again. After being overridden the feature will be reset to operate again after the vehicle speed next exceeds 5 mph/8 kmh.

#### REAR WINDOW WIPER AND WASHER

The additional switch (B) operates the rear wiper.

#### OFF Off

Turn the switch clockwise to first position to operate the rear wiper intermittently at a single frequency, 2nd position for continuous operation. 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.



#### Auto-rear wipe

The rear wiper will operate for two wipes when reverse gear selected and front wipers on.



CAUTION: Do not operate the washers if the fluid reservoir is 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. If the low wash level warning light is on, the rear washer is disabled.

## LIGHTS, BEAM SELECTOR AND TURN INDICATOR SWITCH

#### Lighting

Turn the switch anti-clockwise as follows:

- OFF Off
  - Front and rear side lights, rear number plate light and instrument
- **JOC** 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. 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.* 

#### 4. Front fog lights (where fitted)

With the side lights 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. Driver's compartment illumination

Pushing this switch on or off will control the illumination of the overhead driver's compartment lights and under the right hand side of the fascia (where fitted). 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.

Electronic control to reduce electrical system demand gives the following feature: Should a door be left open any interior lights illuminated will be extinguished after 5 minutes. If any Driver's compartment illumination is switched on, after 30 minutes the relevant lights will be automatically extinguished. The lights can be turned on again by operating the switch off then on again.

#### 6. 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.

To prolong bulb life, interior lights automatically extinguish if left on for more than five minutes with a door open, the driver's switch will overide this feature.

#### RADIO AND AUDIO EQUIPMENT

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

A roof mounted aerial is fitted. The antenna unscrews from the base by hand. If parking in a garage or other confined space ensure that there is sufficient clearance. Remove the antenna in the event that there is any doubt over clearance.

#### 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 fascia switch (A), 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 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 (B) clockwise to adjust the volume from the driver's compartment intercom speaker.

Volume from the rear compartment speaker is pre-set in manufacture but can be altered by an LTI Main Dealer on request

**Note:** Under certain conditions, background noise may adversely affect the sound quality if the control knob is set to its maximum position.







#### Fuel cut off switch

In the event of an accident the inertia switch will disable the fuel system. To re-activate, locate the switch (A) mounted up and behind the driver side fascia. Once operated the engine can be re-started 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. A short push will activate the one touch down facility on either front window, pushing the switch again in either direction will cancel the operation.

There is a similar switch for the window in the left hand front door. This is available as an optional extra.



## 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. The centre switch will disable power to the rear windows only.

Centre switch **(D)** will disable power to the switches in the rear compartment only. As a "Driver Command Feature" the windows will always remain under the control of the switches in the drivers compartment.

#### WARNING

Electrically operated windows may be dangerous to the operator or others, particularly children, if used improperly, with the risk of entrapment. It is the responsibility of the driver or passengers using the electric windows to exercise caution in use, and to avoid putting any part of the body or other object through the open window aperture that may be injured or trapped.

If any type of remote closure system is fitted to the vehicle, whether as part of a security system or as an accessory, it is the responsibility of the operator to ensure a clear view of all the windows when operating the system, to ensure that there is no person or object nearby that may be injured or trapped.

## Driver's and passenger compartment windows

Should a window stop moving during operation, release and retry the switch. If there is a fault or overload detected the window will move 2cm in the required direction then stop. Continue to retry the switch until the window is closed.

## **DRIVER'S COMPARTMENT** - HEATER AND AIR CONDITIONING

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#### HEATER AND AIR CONDITIONING CONTROLS

#### Fascia air vents

Air from the heater system flows through demister nozzles at the base of the windscreen, outlets in each footwell, and four adjustable fascia mounted vents (A) and (C). Open the adjustable vents (A) by moving the knurled wheel to the 'O' position, close the vent by moving the knurled wheel to ' $^{\bullet}$ '. Direct the air flow by moving the control (B).

Open the adjustable vent (C) by moving the vent blades (D) upwards, close the vent by moving the vent blades downwards. Direct the air flow by moving the vent blades (D).

**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.

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#### Air distribution control (E)

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Temperature controlled or chilled air (where air conditioning is fitted) is directed from the fascia mounted vents.

Temperature controlled or chilled air (where air conditioning is fitted) is directed from the fascia mounted and footwell vents.

Temperature controlled or chilled air (where air conditioning is fitted) is directed from the footwell outlets fascia vents and de-mister nozzles.



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Temperature controlled or chilled air (where air conditioning is fitted) is directed from the footwell outlets, de-mister nozzles and fascia vents.

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Temperature controlled or chilled air (where air conditioning is fitted) is directed from the de-mister nozzles. Maximum defrost is achieved with the fascia vents closed and the air recirculation control button (J) switched on.

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## DRIVER'S COMPARTMENT - HEATER AND AIR CONDITIONING

#### Temperature control dial (F)

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 (G)

Turn the control clockwise from the off position to provide increasing air flow (four speeds).

#### Heated rear screen and door mirrors (H)

With the ignition switch on, operation of this button against spring pressure will turn on the rear screen and door mirror heating elements. Further operation of the button will turn the heating elements off. The button will illuminate while the heating elements are on. Note: The heating elements will switch off automatically after approximately 7 minutes or when the ignition is switched off or the engine is stopped and restarted.

#### DRIVER'S AIR CONDITIONING (where fitted)

#### Air conditioning switch (J)

Start the engine, move the blower motor control to the desired position and push the air conditioning switch

(J) 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 button (K) 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.

#### COMBINED DRIVER'S AND PASSENGER COMPARTMENT AIR CONDITIONING (where fitted)

This is operated by the same switch as the driver's air conditioning and no separate controls are fitted. The rear air conditioning output is through the passenger compartment heater vents (see page 36).

#### Air recirculation button (K)

When this button is pressed interior air is recirculated within the driver's

compartment and the button will illuminate. 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

Pressing the button again will cause outside air to be drawn into to the driver's compartment. Use this position for normal heating and ventilation

The recirculation function will self cancel at next ignition on.

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

Air is directed through a separate rear heater into the passenger compartment . An override switch (L) 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 fascia also controls the temperature of the rear heater output.

Passenger compartment heater controls are detailed on page 37.

## **DRIVER'S COMPARTMENT** - HEATER AND AIR CONDITIONING

#### 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 24 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 HEAD RESTRAINT

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 mechanical lumbar support is fitted which may be adjusted to suit the individual by rotating the knob (E). Rotating the knob to the right moves the lumbar support outwards to support the back, rotating the knob to the left retracts the lumbar support. The head restraint should be adjusted up and down so that the top (F) is immediately behind the centre of driver's head. With assistance, and working from the front of the seat, the head restraint can be lifted out of the seat after depressing the spring clips (G) in the top of the seat back, to the right of each head restraint 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 (H) on the body pillar, passing it over the centre of the right shoulder before inserting the locking tongue (J) into the buckle (K) 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 (K) 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.

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.

#### DRIVER'S SEAT ARMREST (where fitted)

The driver's seat armrest is an option on some models. To adjust the height to suit the individual, turn the adjuster drum under the front of the armrest until the desired position is achieved.

The armrest can be moved to the upright position without disturbing the height adjustment

#### 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).

#### **Courtesy lights**

A courtesy light at the right hand end of the lower edge of the fascia operates together with the interior lights 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.

#### Cigar lighter (where fitted)

The cigar lighter (A) is located in the centre console. 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.

#### Power socket

A 12 volt, 10 Amp power socket **(B)** 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.

#### 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, fare payment illumination, and the hire sign repeater (where fitted) are controlled by the taximeter.

#### Fare illumination light

With certain makes and models of taximeter, when the vehicle is stationary and 'fare total' is selected on the taximeter, several of the interior lights are illuminated to assist the passenger and driver in making and collecting payment. When payment is collected and the taximeter 'for hire' position is selected, the lights are extinguished.

**Note:** This feature may not function with certain makes and models of taximeter.

#### 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 fascia and the left hand door to facilitate door closure from the driver's seat.

## Luggage hold-down strap (where fitted)

A luggage hold-down strap is available as an optional item and is fitted in the front luggage compartment.

Insert the free end of the hold-down strap through the brackets mounted on the centre partition. Then feed the end of the strap through the spring loaded buckle. Insert an item of luggage into the open loop of the assembled strap and pull the free end of the strap through the buckle until tight. To release press the lever on the buckle and pull the strap through until the luggage is released.

CAUTION When the luggage hold-down strap is not in use it must be safely stowed away and not left in place. It may cause a trip hazard for users of the optional front compartment occasional seat or be trapped in the door as it is closed.



#### DRIVING THE VEHICLE



#### 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 to assist engine starting if required. The orange warning light in the instrument panel may glow depending on ambient temperature, 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'.

Note: If engine stalls for any reason you must turn the key to position '0' and then back through to position 'III' to start the engine.

The engine will not crank over or restart if you try to restart from position 'll'



WARNING: Never remove the key while driving. If the key is removed the

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.



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).

## DRIVING THE VEHICLE



#### 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.

CAUTION: For reasons of safety and security you must 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 '**P**' 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.

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## DRIVING THE VEHICLE



 $^{\prime}N^{\prime}$  - Neutral. Apply the brakes and select  $^{\prime}N^{\prime}$  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.

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

#### 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: LOW FUEL CAN CAUSE DAMAGE TO YOUR FUEL PUMP. 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 55) before attempting to restart the engine.

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CAUTION: The use of diesel/water emulsion 'Purinox/Aspira' is prohibited.

CAUTION: The use of diesel fuels with high vegetable oil content of over 5% is prohibited. This includes products commonly described as Bio-Diesel. You must use fuel that the retailer confirms is manufactured to ISO/BSI/EN590 which is the European standard for Mineral Diesel, for Road Use.

## DRIVING THE VEHICLE



#### 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 three brake hydraulic circuits which operate independently. Should one circuit fail, the other circuits 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 an authorized LTI Vehicles Dealer 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 LTI Vehicles Dealer.

If the brake fluid level and pedal effort are correct, and the braking system warning 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.

#### Anti-Lock Braking System

This system helps to prevent the road wheels from locking and skidding during emergency braking, assisting the driver to maintain full steering and directional stability. The factor controlling ultimate stopping distance and cornering ability is tyre/road adhesion. ABS optimises tyre/road adhesion under maximum braking conditions though it cannot provide increased cornering ability. There is no need for special braking techniques, such as pumping the brakes, to achieve optimum braking distances and control on poor or slippery road surfaces. Tyres must always be in good condition to achieve maximum adhesion. During normal braking the ABS will not be activated. However, if the braking force applied begins to exceed tyre/road adhesion, the ABS will automatically activate preventing the road wheels from locking. In these circumstances a pulsating effect will be felt from the brake pedal indicating that the system is functioning. The pulsating effect is due to small fluctuations in brake pressure supplied to the brakes by the system to maintain full tyre/road adhesion. Under severe braking on some road surfaces tyre noise may be apparent even though the wheels will at no time be locked.

#### ABS Monitoring

The ABS control module monitors the operation of the system from ignition ON to ignition OFF. If the lamp illuminates this will indicate a fault in the anti lock braking system. The braking system will continue to operate conventionally and with the same standard as vehicles not equipped with ABS.
### DRIVING THE VEHI CLF

CAUTION: If the warning light comes on whilst driving, consult your LTI Dealer immediately who will arrange to have it checked out.



WARNING

· Whilst ABS optimises tyre/road adhesion under maximum braking conditions it does not shorten braking distances but assists in maintain full steering and directional stability.

• It remains the driver's responsibility to drive safely according to prevailing conditions.

 The fact that a vehicle is fitted with ABS must never allow the driver to be tempted into taking risks which could affect his/her safety or that of other road users.

 The addition of ABS cannot overcome the consequences of trying to stop in too short a distance, cornering at high speed, or the risk of aquaplaning.

 The driver should always take road conditions into account. A slippery road surface always requires more braking distance for a given speed, even with ABS. A possible increase in stopping distance compared even to locked wheels may occur during ABS operation on slushy snow, gravel, sand, heavy road markings, some heavily corrugated or ridged road surfaces or specially constructed noise generating warning road surfaces.

# **PASSENGER COMPARTMENT** - MOTION DOOR LOCKS



# 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.

# **PASSENGER COMPARTMENT - EQUIPMENT**





### 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. The rear windows will not operate when the centre switch in the drivers console is in the off position. However, as a "Driver Command Feature" the windows will always remain under the control of the switches in the drivers compartment.

Should a window stop moving during operation, release and retry the switch. If there is a fault or overload detected the window will move 2cm in the required direction then stop. Continue to retry the switch until the window is closed.

# Ashtrays

A pull out ashtray is incorporated into one rear door trim. It 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, set into the left hand door trim, 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.

## PASSENGER COMPARTMENT AIR CONDITIONING (where fitted)

The rocker switches control cooled air output in the same way as heated air. The cooled temperature is controlled by the driver's use of the air conditioning and heater controls (see page 25).

## 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.

# **PASSENGER COMPARTMENT** - EQUIPMENT



# 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 (F) set into the left hand door 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. Electronic control to reduce electrical system demand gives the following feature: Should a door be left open any interior lights illuminated will be extinguished after 5 minutes. If any passenger compartment illumination is switched on, after 30 minutes the relevant lights will be automatically extinguished. The lights can be turned on again by operating the switch off then on again.

### 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.

# **PASSENGER COMPARTMENT** - SEATS AND SEAT BELTS





### 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 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.

All models are fitted with a 'Generation Belt' in the centre position. This can be used by an adult or child. The diagonal strap may be adjusted to the shoulder height of the occupant by sliding the webbing guide (C) up or down the understrap. For a large occupant the webbing guide (C) should be on top of the seat back cushion, whilst for a small occupant the webbing guide (C) should be positioned about 50mm above the level of the shoulder. 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 28.* 

WARNING: 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 passenders 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.



WARNING: The rear seat arm rest must never be used as a seat for a child.



WARNING: The 'Generation Belt' may not be used for a child under the weight of 18Kg.

# **PASSENGER COMPARTMENT - SEATS & SEAT BELTS**



# 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 45).

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 a continuous audible warning 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 27.

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 <u>must be used</u> 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 pulling the seat catch knob (C) situated to the front of the centre division. Pull the seat down and round into the door aperture until the cushion locks in the down position and the lock strut stops further rotation. Return the seat a few degrees until a lock stop is felt. The seat is now safe for operation. Assist the passenger onto the seat. To unlock, swivel both seat and passenger outwards until the strut stop is reached again. The seat and passenger can then be swivelled into the vehicle until the latch engages.

At the end of the journey, release the seat catch and swivel the seat and its passenger into the door aperture until the lock strut stops further rotation. Return the seat a few degrees until a lock stop is felt. The seat is now safe for operation. Assist the passenger to leave the vehicle and return the seat to its normal position, ensuring the seat retaining latch is engaged.

**NOTE**: The cushion will remain in the down position until the seat is latched back to the division in the travelling position.







### Wheelchair installation

Obtain the ramp tool, seat belt extender and 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 from the boot. Open the kerb side passenger door, release the catches below each rear seat, Secure the kerbside seat squab in the upright position using the locking lever incorporated into the outboard seat hinges (Fig 1) adjacent to the wheel arches. Then secure using the seat belt around the seat base as illustrated (Fig 2).

**Note:** Always fasten the seat belt correctly and do not attempt to secure the seat by wrapping the seat belt round the seat catch.

Now secure drivers side rear seat squab upright using the locking lever as before. Disengage the door restraint strap end fitting (A) by turning anti-clockwise  $90^{\circ}$  before pulling it out so that the door may be fully opened.





Locate the wheel chair retention strap onto the two eyebolts in the rear division trim. These are positioned either side of the wheel chair position at floor level (A). Ensure tensioning device is nearest the door.

Use the ramp tool provided to undo the flat headed screw **(B)** securing the integral ramp to the passenger compartment floor.

Locate the ramp tool over the door check strap (C) 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 **(D)** 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 (E) 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 (F) 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 wheelchair up into position. Never allow a powered wheel-chair to be driven into the vehicle unsupervised.

Push the wheel-chair right across the vehicle and apply wheelchair brake. 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.

Reverse the wheelchair into its final position indicated in the diagram. Attach the two hooks (C) of the wheel-chair restraint harness to the wheelchair front upright.

Attaching the offside snaplink is easier to achieve from the driver's side passenger door. To tension the wheelchair retention straps, open the 'over-centre' catch mechanism and pull down firmly on the loose end of the strap until the wheelchair is held against the centre division. Lock the 'over-centre' catch into its closed position and ensure that there is minimal movement from the wheelchair. If not, then



repeat the procedure. If the wheelchair is fitted with a brake, apply it at this stage.

WARNING: It is essential that wheelchair 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 centre console stowage box) 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.

If additional belt length around the passenger is required insert the extender belt (M) between the tongue (K) and the buckle (L).

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.

 $\triangle$ 

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 wheelchair passenger is being positioned in the vehicle. When the ignition is switched on an audible warning device behind the glove box 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.

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 <u>backwards</u> 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 wheelchair retention 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.

# EMERGENCY PROCEDURES



# 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.

### EMERGENCY ROCEDURES P





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 iack 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.)

# EMERGENCY PROCEDURES



# VEHICLE RECOVERY - PUSHING AND TOWING

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

An emergency towing eye which is stowed with the jack and wheel changing tools is to be fitted to the front of the vehicle to one side of the number plate when required as shown in the illustration. 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.



WARNING: You must never attempt to tow start or push start an LTI product under any circumstances.

The engine electronics will not permit this and you may also cause permanent damage to the drive train (engine, transmission and axles). In addition you may put yourself and others at risk.

# 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

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.

Your vehicle is equipped with a lead/calcium battery. When replacing the battery use only a lead/calcium battery of the type listed by LTI parts. Contact your LTI Dealer or local authority for battery and disposal replacement.

### EMERGENCY OCEDURES P R

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 eve or skin contact, wash the affected area with clean water and seek medical attention immediately. When handling batteries do not tilt as acid might come out of the ventilation openings. Wear hand and eve protection.

# 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)

Connect the second lead-to the front lifting eye of your vehicle. On the other vehicle connect it as far away as possible from the battery of the other vehicle (to the engine block or a lifting eye) unless connecting to a stand alone battery.

Do not connect to the negative terminal of the flat battery.

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)

Vehicle must be run for 15 minutes before turning engine off

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

If the battery has been disconnected the vehicle may exhibit some unusual driving characteristics for approximately 5 miles (8km) after battery reconnection. This is due to the automatic relearning of the engine management system and may be disregarded.



Used batteries contain sulphuric acid and lead. On no account must they be disposed of in the household waste. Use your local authorities dedicated waste disposal facilities.

# EMERGENCY PROCEDURES

# 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 of the expansion tank 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 the 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 coolant 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 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.

Preventative maintenance		
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SERVICE OPERATIONS Priming the fuel system Fuel tank empty Lubrication Lubricant specifications Engine oil level check Engine oil filler cap Bleeding water from the fuel system Clutch and brake hydraulic systems Battery	55 56 56 55 55 56 60 61	

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Windscreen wiper blades and	
washers	63/64
Locks, hinges and catches	65
Cleaning the vehicle	65
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Fuse box and fuses	71/73

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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.

LTI Vehicles recommend the services of their dealers for all maintenance requirements and do not support self repair or

Do-it-yourself work. A very limited number of simple service operations are described on later pages but customers are encouraged to visit their authorised dealer for all their needs.

It is strongly recommended that the maintenance operations and replacements scheduled at regular intervals and shown overleaf are carried out by a Recognised 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.

The basis of LTI Vehicles service schedule for TX4, is a 10,000 mile interval. The standard service takes place at the first 10,000 mile interval and the major service at the first 20,000 mile interval. The cycle is repeated at each subsequent 10,000 and 20,000 mile interval. There are also some additional requirements that are required at other less frequent intervals and these are described on a later page.

LTI Vehicles 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 reservoir. 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.

If not used daily; check operation of all parts of the wheelchair access and restraint system including all parts of the wheelchair ramp.

# SERVICE OPERATIONS CHECKLIST 10,000 miles

# BRING VEHICLE INTO WORKSHOP

Check operation: central & remote door locking, horn, electric door mirrors & windows, front/rear wash/wipe, heated rear window, instruments/gauges, driving/indicator/reverse/ hazard/warning/interior/hire sign lights. (Report condition of wiper blades)

# **VEHICLE INTERIOR & EXTERIOR**

Check condition & operation of all seats, seat belts, fixings & wheelchair occupant access and restraint system. Lubricate door, bonnet & boot hinges, clutch & brake pedal pin. Check headlamp alignment.

# ON THE VEHICLE LIFT

Replace the engine oil & filter. Check/top-up manual gearbox/auto trans oil except when replacing oil. Replace manual gearbox oil at first 10.000 miles then every 60,000 miles after (i.e. 60.000/120.000/180.000/240.000 etc). Check/top-up rear axle oil. Check front brake pads and discs for wear. Front wheels off. Check front brake pads & discs for wear. Check calipers & other related components for leakage, wear, corrosion. Clean out rear brake drums check brake linings for wear, examine brake mechanism condition & cylinders for leakage (except at first 10.000 miles) Check/adjust handbrake cable. Lubricate exposed parts of linkage.

Inspect brake hoses/pipes/connectors for security/chafes/leakage.

Check for security/condition/leaks; entire exhaust system.

Check security/condition/torque; propshaft securing bolts, suspension & front cross member bushes, steering & suspension ball joints & fixings.

Examine damper units, inc steering damper. Check/adjust front wheel bearing end float. Check/correct tyre pressures (inc. spare) & check torque of wheel nuts. Check condition of tyres, including for uneven wear and report. Inspect underside of vehicle for evidence of fuel/oil/coolant leaks, wear/damage to PVC underbody coating, hoses, connections and pipes for any other wear, damage or deterioration.

# IN THE ENGINE COMPARTMENT

Check condition of auxiliary drive belt(s). Examine the engine compartment for evidence of fuel/oil/coolant leaks & security/wear/damage to hoses connections & pipes.

Check/top-up fluid levels: Coolant, power steering, brake & clutch, screenwash reservoir (using specified fluids or additive). Check coolant concentration.

Replace fuel filter

# ROAD TEST

Check engine heater plug system & light operates on start-up.

Check operation of brake fluid level warning light. Check operation of motion door locking system, lights & LED's.

Check operation of footbrake.

Check operation of manual gearbox & clutch. Check operation of auto transmission, overdrive lockout switch, starter inhibitor & park lock. Check exhaust smoke level & engine emissions are within specification & performance is within

normal operating limits.

Check operation of steering for possible signs of free play.

Check operation of handbrake. Stop engine & check brake vacuum non return valve.

Check operation of taximeter and associated lights if required.

After driving the vehicle, check/top-up fluid level of automatic transmission while transmission is at operating temperature.

# 20,000 MILES

Additional service requirements VEHICLE INTERIOR & EXTERIOR Check/adjust headlamp alignment.

# ON THE VEHICLE LIFT

Lubricate exposed auto transmission gear shift mechanism

# IN THE ENGINE COMPARTMENT.

Inspect battery terminal condition. Clean and grease as necessary. Replace air cleaner element

# 30,000 MILES OR TWO YEARS

Additional service requirements Examine master cyl, calipers & wheel cyls, replace all seals & flex brake hoses. Refill the

system with new fluid & bleed the system & replace the brake servo air filter.

# 40,000 MILES

Additional service requirements Replace auto transmission oil

## 50,000 MILES

Additional service requirements ON THE VEHICLE LIFT

Examine condition of front wheel bearings, regrease or replace as necessary, set wheel bearing end float(50,000 miles & each 50,000 mile interval thereafter).

## 60,000 MILES

Additional service requirements Replace manual gearbox oil

# 70,000 MILES

Additional service requirements

Replace timing belt and tensioner (every 70,000 miles or 5 years) Replace auxiliary drive belt (every 70,000 miles or 5 years) (and PAS pump belt where fitted aircon vehicles)

# 100,000 MILES Additional service requirements IN THE ENGINE COMPARTMENT.

Drain, flush & refill cooling system (every 100,000 miles or 2 years)

Every year

Replace air conditioning receiver dryer and recharge system (where fitted) and

change remote key battery (every year). Inspect cooling fan cowl and radiator ducting for debris. Clean out as necessary.

# ADDITIONAL ITEMS

In addition to the items specified in the routine service schedule, there are other parts of the vehicle which require attention for reasons of safety and reliability that depend on the operation of the particular vehicle. These are listed below. Your Dealer will advise you of the need for this additional work and perform the service for you at your request. Every 40,000 miles Replace front and rear and steering dampers.

Every 50,000 miles Check/adjust wheel alignment.

LTI Vehicles reserves the right to alter service and maintenance requirements specified for vehicles of their manufacture in the light of operating experience at any time. Authorised LTI Vehicles Dealers are kept up to date with any changes in servicing and repair requirements which may be found necessary or desirable.

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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.

# DIESEL FUEL

On no account must diesel fuel be disposed of in the household refuse or public sewage system. Use your local authorised waste disposal facilities.





# PRIMING THE FUEL SYSTEM

If for any reason the fuel system has been vented or air has entered the fuel system, this procedure may be followed. If the engine has been allowed to run dry, this procedure may not be sufficient to restart the engine. See warning on following page.

- Open the manual bleed valve on the fuel filter (A) approximately one full turn using a 10mm wrench.
- Attach a suitable hose to the bleed valve and direct it into a suitable container.
- Pump the hand primer **(B)** on top of the fuel filter until a solid stream of diesel fuel appears for a few strokes.
- Remove the hose and close the manual bleed valve.
- · Start the engine.

### BLEEDING WATER FROM THE FUEL SYSTEM

The water in fuel indicator will illuminate if a significant presence of water is detected in the bottom of the fuel filter cartridge. This should be attended to immediately by the draining of the fuel filter. if this does not rectify the condition you should have it checked out by an LTI Dealer immediately.

- · Stop the engine.
- Attach a suitable hose to the bleed valve and direct it into a suitable container.
- Loosen the drain valve (C) at the base of the filter by two turns (not more to avoid dropping the connection).
- Allow any water to drain out and to ensure complete drainage, move the priming pump (B in previous illustration) up and down a few times.
- When all the water has been drained off, close the drain valve.

# FUEL TANK EMPTY

Your vehicle is equipped with a system that helps prevent the complete emptying of the fuel tank



If the fuel gauge indicates low fuel or the low fuel warning light illuminates, please refuel immediately.

Some time after the low fuel level warning light has illuminated, when the fuel reaches a very low level, the engine will start to run unevenly as an additional warning. Proceed to the next filling station and refuel with at least 8 litres of fuel.



Failure to refuel will result in the engine running dry. This will lead to a difficult restarting procedure which requires roadside assistance. Also, serious engine damage may occur.

# I UBRICATION

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 & Specification
Engine:	Specification to meet or exceed any of the following: API: CG-4, CH-4, CI-4 or ACEA: B3, B4, B5 to Grade/Viscosity 10W 40 Fully Synthetic oils, to grade 5W40 and 0W40 may be used to improve the

intervals)

Automatic. Transmission Manual Gearbox and Power Steering

Rear Axle

Daimler Chrysler (DCX) specification MS 9602 (Chrvsler ATF +4)

overall engine behaviour

(cold start-ability, fuel economy, oil change

Shell Spirax Super 90TS



ENGINE OIL LEVEL CHECK

The oil consumption of your engine is influenced by many factors. New engines reach the normal value only after approximately 3,000 miles (5,000 km). Diesel turbocharged and high performance engines consume slightly more than engines of lesser performance. Under high loads, high vehicle speeds and extended idling your engine will also consume more oil.

Check the engine oil every week and when refuelling or prior to long journeys. Make sure the vehicle is standing on level ground. Switch the ignition off and walt some minutes for the engine oil to flow back into the sump (in cold outside temperatures or when the engine has not reached operating temperature this might take longer). A cold engine should not be started before checking the engine oil. Pull the dipstick out, wipe it with a clean, non-fluffy cloth, re-insert it completely and pull it out once more. If the level lies between the marks, there is no need to refill. Hot oil may exceed the MAX mark by some millimetres due to thermal expansion. If the level is at the MIN mark, refill using only engine oil meeting the correct specification. Approximately 1 litre of engine oil will raise the level of the oil film on the dipstick from the MIN to the MAX mark. Top up to only the upper mark (MAX). For further details, refer to the chapter General Information.

# ENGINE OIL FILLER CAP

To open, turn in the direction of the arrow and pull. Do not open the cap while the engine is running.

CAUTION: Do not use oil additives or other engine treatments. They are unnecessary and could, under certain conditions, lead to engine damage which is not covered by the LTI Vehicles warranty.

To close, turn the cap clockwise until it clicks. (Empty and used oil containers must not be disposed of in the household refuse waste. Use your local authorised waste disposal facilities when disposing of these).

# 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 from 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 30,000 miles or 2 years (whichever occurs first). 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 30,000 miles or 2 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.



# EIV 0039

# BATTERY

A maintenance free battery is fitted. For all matters concerning battery operation consult your authorised LTI Vehicles Dealer.

Your vehicle is equipped with a lead/calcium battery. When replacing the battery use only a lead/calcium battery of the type listed by LTI Parts. No other battery is to be used. Contact your LTI Dealer or local authority for battery and disposal replacement.

## 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 cap fitted to the radiator is not a pressure cap. It must never be replaced with a pressure cap

of any type.

# 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 Super Plus 2000 antifreeze solution is used in service.

This is a long life coolant and the cooling system should be drained, flushed through and refilled with new antifreeze solution every 5 years.

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 50% 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 50% 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

Coolant Specification to meet or exceed the requirements of BS 6580/MS 9769WSS-M97B 44D

# 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 35 psi (2.4 bar) Rear 40 psi (2.7 bar)

See tyre size, type and rating on general information page.

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.

50 5.25 9.25 -36 -33 -48 -53	Solution	Amount of	anti-freeze	Commen	ces freezing	Frozer	n solid
	%	Litres	Pints	°C	°F	°C	°F
	50	5.25	9.25	-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.



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 and rear washers is situated inside the right hand front wing.

Remove the cap **(D)** 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.

Bottle capacity 3.8l (indicated by 'max' line on bottle neck). The low level warning light will illuminate when a level of 1.4l remains.

# 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.

# 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 light oil 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

LTI Vehicles 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 and head lining 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 fascia 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 underbody protection 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. The headlight lenses are made of acrylic material. Use a good quality 'wax and wash' shampoo to clean the headlights. Do not use glass cleaners on acrylic surfaces, particularly the interior partition glazing.

• 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 fascia 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.

The high level stop light is an assembly containing a number of light emitting diodes (LEDs). It is also best repaired by your Dealer.



### Headlight and side light bulbs

To replace the offside headlight and side light bulbs it is necessary to first remove the air cleaner filter housing.

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 methylated 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<sup>0</sup> 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 by removing the lamp from the front bumper by removing the two securing screws. Turn the bulb holder 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 anticlockwise 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 (where fitted)

The bulb is replaced from behind the front bumper. Remove the two screws and pull back the plastic wheel arch liner close to the joint line between the front wing and front bumper. Carefully ease back the rubber boot from the lamp housing and disconnect the bulb wiring. Disconnect the wire clips to release the bulb from its holder.

**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, secure it with the clips and re-connect the lead. Carefully refit the rubber boot to the back of the lamp housing.

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 lens 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 lens back into in the number plate plinth.

### Hire sign light - bulb replacement

Pull down the back edge of the driver's interior light (E) from the roof lining 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 edge of the lens surround down from the head lining to give access to the rear of the lamp. Lift the circuit board away from the retaining clips on the lens. Pull the festoon bulb from its clips.

After fitting the new bulb, push the circuit board back into the lens until retained by the clips. Push the lamp back into position.







Courtesy, fare illumination, puddle, fascia, 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. However, the vehicle also contains other forms of electrical protection for components and circuitry. In cases where the system detects a fault the relevant circuit may be momentarily shut down while the circuit protection recovers. Until the fault is rectified the components in that circuit may continue to operate intermittently.

The fuse box and electrical relay access cover must be removed to gain access to the fuses which are situated behind the cover.

Open the left hand front door. Place fingers in grip at bottom of access cover and pull rearward to remove access cover. Replace the access cover by aligning the three locating pegs and firmly push into place. Do not use excessive force.

# Cabin Fuse Box and fuses

The fuse box, and the majority of relays and electronic control units are located behind the fuse box and electrical relay access cover. The position, rating and circuits covered by each fuse are shown on a label located on the reverse of the cover and also as shown in the illustration overleaf.

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CAUTION: Never continue to operate the vehicle if it is suspected of having an electrical failure.
### REPLACEMENT OF BULBS AND FUSES





#### **Underbonnet Fuses and Relays**

There is an underbonnet fuse box located under the bonnet near the battery. It is opened by depressing the clips moulded into each end of the cover which should be lifted away. The fuses located there protect heavy current circuits including the entire cabin fuse box, engine control circuits and electronic control modules. If any of these fuses 'blows' this may indicate a serious concern and we advise you to take your vehicle to an authorised LTI Vehicles Dealer immediately.

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.

#### Cabin fusebox

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	
Underbonnet Fuses	
40A - Orange 60 A - Blue	50A - Red

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.

### **REPLACEMENT OF BULBS AND FUSES**

#### **REPLACEMENT BULBS, FUSES**

Location	Туре	Wattage	Part No.	Location	Туре	Wattage	Part No.
Headlight	Halogen	60/55W	TLB 472	FUSES	5A		610892
Parking light	Bayonet	4W	TLB 233	10323	10A		900109
Direction indicators Bronze (front & rear)	Bayonet (straight pin)	21W clear	TLB 382		10A 15A		900109 900110
Direction indicators Silver front	Bayonet (offset pin)	21W orange	980347		20A		900111
Direction indicators Silver rear, Gold front & rear	Bayonet (offset pin)	21W Silvervision™	980348		25A 40A		900112 900890
Indicator side repeater	Wedge	5W	TLB 501		50A		900351
Indicator side repeater Gold only	Wedge	5W orange	980352		60A		900891
Rear and fog lamp	Bayonet	21/4W	TLB 566				
Stop lamp	Bayonet	21W	TLB 382				
Reversing lamp	Bayonet	21W	TLB 382				
Number plate lamps	Festoon	2 x 5W	TLB 239				
Front fog lamps	Halogen	55W type H7	980349				
Taxi hire sign lamps	Bayonet	2 x 21W	TLB 382				
Taxi hire sign repeater	Festoon	3 x 10W	TLB 272				
Interior lights (roof)	Festoon	6W Xenon	980350				
Courtesy	Wedge	5W	TLB 501				

**WARE 104** 

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

### GENERAL INFORMATION

Engine Type Diesel

Number of cylinders 4

Bore 92.0 mm

Stroke 94.0 mm

Capacity 2499.5 cc

Compression ratio 17.5:1

Firing order 1-3-4-2

#### Coolant

To meet or exceed the requirements of BS 6580/MS 9769

#### Fuel system

Electronically controlled common rail diesel fuel injection system

#### Fuel tank

capacity (approx): 52.6/11.5 (litres/gallons)

Manual - 5 speed synchror			mm	in
Automatic - 5 speed electr	onically controlled	Length	4575	180
Rear axle		Width (mirrors out)	2036	80
Hypoid semi-floating		Width (without mirrors)	1780	70
51 5		Height	1834	72
Steering		Front track	1422	56
Turning circle-wall to wall	8.53 m (28ft)	Rear track	1482	58
(excluding mirrors)		Front end overhang	765	30
Front wheel toe-in	1.5 -2.5 mm (1/16 to 3/32 in)	Rear end overhang	930	36
Front hub bearing	0.025 - 0.152 mm	Max permitted gross		
end float	(0.001 - 0.005 in)	vehicle weight (kg/lbs.)	2	520/55
		Front axle weight	1	150/25
Tyres	100/060 ( ply rating	Rear axle weight	1	370/30
Size and type: 175 R 16 'C Recommended pressures: Front 35 p.s.i. (2 Rear 40 p.s.i. (2	.4 bar)	Approximate kerb weight - (kg/lbs.) varies according to equipment/model type		5 to 19 12 to 43
		Capacities (all are appro	wimata)	

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### WARRANTIES AND SERVICE RECORD

#### VEHICLE AND PARTS WARRANTIES

The remaining pages starting from the back of this handbook give details of the vehicle and parts warranties.

#### 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.





# Vehicles Warranties and Service Records

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FROM THE DATE ON WHICH THE VEHICLE WAS REGISTERED WITH THE AUTHORITIES IN THE NAME OF THE FIRST OWNER LTI VEHICLES WILL REPAIR OR REPLACE ANY ITEM WHICH FAILS AS THE RESULT OF A MANUFACTURING OR MATERIAL DEFECT, FOR A PERIOD OF 100,000 MILES OR 36 MONTHS, WHICHEVER OCCURS SOONER. THIS INCLUDES MECHANICAL AND ELECTRICAL COMPONENTS AND BODY AND PAINT ITEMS. **EXCEPTIONS ARE DESCRIBED BELOW.** 

THE PART WILL BE REPAIRED OR REPLACED FREE OF CHARGE BY AN AUTHORISED LTI VEHICLES DEALER, REGARDLESS OF ANY CHANGE IN VEHICLE OWNERSHIP DURING THE PERIOD COVERED. ANY PART REPAIRED OR REPLACED IN THIS WAY BENEFITS FROM THESE ARRANGEMENTS FOR THE BALANCE OF THE WARRANTY PERIOD. NO PART OF A LTI VEHICLE HAS A WARRANTY WHICH EXTENDS BEYOND THE PERIOD DESCRIBED.

THE WARRANTIES AND SERVICE CARE BOOK MUST BE PRESENTED TO THE REPAIRING DEALER AT THE TIME OF MAKING A WARRANTY CLAIM, WHICH PROVIDES INFORMATION HE REQUIRES BEFORE STARTING A REPAIR, AND SO THAT THE SERVICE HISTORY MAY BE INSPECTED. YOU SHOULD ALSO KEEP COPIES OF INVOICES FOR ROUTINE SERVICING, AS THE REPAIRING DEALER MAY ASK TO SEE THESE TO VERIFY THE SERVICE HISTORY. LTI VEHICLES AND THEIR DEALERS MAY USE OTHER MEANS TO VERIFY THE SERVICE HISTORY OF A VEHICLE OR TO VERIFY THE MILEAGE COVERED BY A PARTICULAR VEHICLE.

GENUINE LTI VEHICLES PARTS ARE WARRANTED FOR SIX MONTHS FROM THE DATE OF PURCHASE WHEN FITTED TO AN LTI 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.

#### EXCEPTIONS TO THE ABOVE

THE VEHICLE BATTERY CARRIES A WARRANTY WITH THE SAME TERMS AS ABOVE, EXCEPT THE PERIOD OF COVER IS 100,000 MILES OR 24 MONTHS, WHICHEVER OCCURS SOONER.

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 taxi meter equipment or tyres which are warranted directly by the manufacturer concerned.
- To parts and accessories not supplied by the manufacturer.

For the avoidance of doubt and following questions received from various parties, LTI Vehicles confirms that all LTI Dealers are free to obtain original replacement parts for LTI vehicles produced by other motor vehicle manufacturers or by component manufacturers for other motor vehicles, from the relevant distributors for such parts, or replacement parts of matching quality from a third undertaking of their choice. LTI Dealers are free to use the aforesaid parts for the repair or maintenance of LTI vehicles, without prejudice to LTI Vehicles requiring the use of LTI-approved replacement parts for repairs carried out under warranty, free servicing and vehicle recall work. LTI Vehicles also confirms that the use of non LTI-approved replacement parts or parts of matching quality will not normally invalidate a warranty claim unless those parts are seen to have been the cause of the defect.

#### SERVICE HISTORY

To ensure that LTI Vehicles and the repairing LTI Dealer have sufficient information to support any warranty claim (see also facing page), your service history for each routine maintenance service must consist of the following:

- An itemised invoice from a legitimate VAT registered repairer with the customers name, address and the vehicle identity (Registration number or VIN number); the date and mileage at which each service has been performed; part numbers of genuine LTI parts used; quantities and specifications of oils and fluids used; labour time & cost; the serial numbers of any parts used that carry such numbers.
- A fully marked checklist of the tasks carried out as described in the Maintenance Requirements section of this handbook, with the customers name, address and the vehicle identity (Registration number or VIN number) and signed off by the repairing technician.

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:

Clutch mechanical

Brake discs and

Shock absorbers

components

and dampers

Air conditioning

drums

Lubricants
Filters
Drive belts
Fuel injectors
Wiper blades
Light bulbs
Steering and
suspension bushes
and joints
Clutch and broke

linings and pads

Steering and receiver/dryer and suspension bushes and joints Clutch and brake

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 and 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 the full vehicle service history as described on page iii to verify that the correct routine 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 sill of the Driver's door, 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 immediately above the engine mounting bracket. It is also repeated on a paper label at the top of the timing belt cover. 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.

#### LTI VEHICLES AND DGB STERLING LIMITED DINITROL® 6-YEAR ANTI-CORROSION PROGRAMME

During the manufacture of your vehicle it was protected against inside-to-outside corrosion using DINITROL® anti-corrosion materials provided by DGB Sterling Limited.

Following the initial registration of your vehicle, information was passed to DGB Sterling Limited for them to register your details for the 6-year Anti-Corrosion programme for your vehicle. Full compliance with this programme enables DGB Sterling Limited to guarantee your vehicle against inside-to-outside corrosion for a period of six years from the date of first registration.

Within approximately six weeks from the date of first registration of your vehicle you should receive from DGB Sterling Limited a guarantee booklet which will explain in more detail the full terms and conditions of this 6 year anti-corrosion programme. If you do not receive this information, please contact your supplying Dealer without delay so that this can be corrected.

For the 6-year Anti-Corrosion programme to remain valid, body service retreatments must be carried out at 1, 3 and 5 years from the date of registration of the vehicle. These have to take place at an LTI Vehicles and DGB Sterling Limited approved retreatment centre who will then affix the DINITROL® guarantee treatment validation stamp to the guarantee booklet. As part of the DGB Sterling Limited service package, before the first body service is due, they will send you a reminder to have the anti- corrosion retreatment carried out.

In line with all other routine servicing, the body service retreatment will be charged for, but we are certain that you appreciate that this will add to the value of the warranty package that accompanies all LTI Vehicles.

May we also remind you that if any parts of the bodywork covered by the guarantee are replaced or repaired following accident damage, these parts must be treated at the time of repair using DINITROL® anti-corrosion materials for the guarantee to remain valid.

This guarantee is in addition to and does not in any way affect or limit the statutory rights of the owner of the vehicle.

### VEHICLE MAINTENANCE

#### 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 53-65 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
- 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
- If not used daily; check operation of all parts of the wheelchair access and restraint system including all parts of the wheelchair ramp

#### **REGULAR MAINTENANCE**

The more complex requirements at each 10,000 miles (16,000 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).

#### REWORKS

From time to time LTI Vehicles issues instructions to Dealers to carry out a rework of customers' vehicles already operating in the marketplace. Where carried out this will be done to ensure future durability, reliability and safety. Additional boxes are provided on later pages for dealers to enter details of such reworks.

#### SERVICE RECORDS

You should keep all your maintenance records (including original invoices etc.) as described under Service History on page iii, since, in most instances it will 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. Warranty is transferable to a new owner for the remainder of the original period providing that the conditions stated in this handbook have been fully complied with. **Note:** *Routine maintenance services should be carried out within 500 miles (750 km) of the distance specified. Latitudes of service intervals may not be carried forward.* 

STANDARD SERVICE 10,000 miles (16,000 km)	MAJOR SERVICE 20,000 miles (32,000 km)	STANDARD SERVICE 30,000 miles (48,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
MAJOR SERVICE 40,000 miles (64,000 km)	STANDARD SERVICE 50,000 miles (80,000 km)	MAJOR SERVICE 60,000 miles (96,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP

STANDARD SERVICE 70,000 miles (112,000 km)	MAJOR SERVICE 80,000 miles (128,000 km)	STANDARD SERVICE 90,000 miles (144,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
MAJOR SERVICE 100,000 miles (160,000 km)	STANDARD SERVICE 110,000 miles (176,000 km)	MAJOR SERVICE 120,000 miles (192,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP

STANDARD SERVICE 130,000 miles (208,000 km	MAJOR SERVICE 140,000 miles (224,000 km)	STANDARD SERVICE 150,000 miles (240,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
MAJOR SERVICE 160,000 miles (256,000 km)	STANDARD SERVICE 170,000 miles (272,000 km)	MAJOR SERVICE 180,000 miles (288,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP

STANDARD SERVICE 190,000 miles (304,000 km)	MAJOR SERVICE 200,000 miles (320,000 km)	STANDARD SERVICE 210,000 miles (336,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
MAJOR SERVICE 220,000 miles (352,000 km)	STANDARD SERVICE 230,000 miles (368,000 km)	MAJOR SERVICE 240,000 miles (384,000 km)
MAJOR SERVICE 220,000 miles (352,000 km) Date:	STANDARD SERVICE 230,000 miles (368,000 km) Date:	MAJOR SERVICE 240,000 miles (384,000 km) Date:
Date:	Date:	Date:
Date: Miles/km:	Date: Miles/km:	Date: Miles/km:
Date: Miles/km:	Date: Miles/km:	Date: Miles/km:

STANDARD SERVICE 250,000 miles (400,000 km)	MAJOR SERVICE 260,000 miles (416,000 km)	STANDARD SERVICE 270,000 miles (432,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
MAJOR SERVICE 280,000 miles (448,000 km)	STANDARD SERVICE 290,000 miles (464,000 km)	MAJOR SERVICE 300,000 miles (480,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP

STANDARD SERVICE 310,000 miles (496,000 km)	MAJOR SERVICE 320,000 miles (512,000 km)	STANDARD SERVICE 330,000 miles (528,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
MAJOR SERVICE 340,000 miles (544,000 km)	STANDARD SERVICE 350,000 miles (560,000 km)	MAJOR SERVICE 360,000 miles (576,000 km)
MAJOR SERVICE 340,000 miles (544,000 km) Date:	STANDARD SERVICE 350,000 miles (560,000 km) Date:	MAJOR SERVICE 360,000 miles (576,000 km) Date:
Date:	Date:	Date:
Date: Miles/km:	Date: Miles/km:	Date: Miles/km:
Date: Miles/km:	Date: Miles/km:	Date: Miles/km:

STANDARD SERVICE 370,000 miles (592,000 km)	MAJOR SERVICE 380,000 miles (608,000 km)	STANDARD SERVICE 390,000 miles (624,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
MAJOR SERVICE 400,000 miles (640,000 km)	STANDARD SERVICE 410,000 miles (656,000 km)	MAJOR SERVICE 420,000 miles (672,000 km)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP

### SERVICE RECORD - ADDITIONAL REQUIREMENTS

By stamping the boxes below your Dealer certifies that the work specified has been completed. Please provide this handbook record to any subsequent owner.

COOLING SYSTEM (replace antifreeze)	COOLING SYSTEM (replace antifreeze)	COOLING SYSTEM (replace antifreeze)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
BRAKING SYSTEM (replace brake fluid)	BRAKING SYSTEM (replace brake fluid)	BRAKING SYSTEM (replace brake fluid)
BRAKING SYSTEM (replace brake fluid) Date:	BRAKING SYSTEM (replace brake fluid) Date:	BRAKING SYSTEM (replace brake fluid) Date:
Date:	Date:	Date:
Date: Miles/km:	Date: Miles/km:	Date: Miles/km:
Date: Miles/km:	Date: Miles/km:	Date: Miles/km:

### SERVICE RECORD - ADDITIONAL REQUIREMENTS

By stamping the boxes below your Dealer certifies that the work specified has been completed. Please provide this handbook record to any subsequent owner.

BRAKING SYSTEM (replace brake fluid)	BRAKING SYSTEM (replace brake fluid)	BRAKING SYSTEM (replace brake fluid)
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
REWORK	REWORK	REWORK
Title and reference:	Title and reference:	Title and reference:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP

### SERVICE RECORD - ADDITIONAL REQUIREMENTS

By stamping the boxes below your Dealer certifies that the work specified has been completed. Please provide this handbook record to any subsequent owner.

AIR CONDITIONING SERVICE	AIR CONDITIONING SERVICE	AIR CONDITIONING SERVICE
Date:	Date:	Date:
Miles/km:	Miles/km:	Miles/km:
DEALER'S STAMP	DEALER'S STAMP	DEALER'S STAMP
AIR CONDITIONING SERVICE	AIR CONDITIONING SERVICE	AIR CONDITIONING SERVICE
Date:	Date:	Date:
Date: Miles/km:	Date: Miles/km:	Date: Miles/km:
Miles/km:	Miles/km:	Miles/km:
Miles/km:	Miles/km:	Miles/km:



# Warranties and Service Care

Instructions de garantie et d'Entretien Garantias y Mantenimiento Garantien und Kundendienst

